

**PROCEEDING OF
THE JOINT CONFERENCE 9TH INTERNATIONAL SYMPOSIUM OF PUBLIC
HEALTH 2025 & 1ST INTERNATIONAL CONFERENCE OF EPIDEMIOLOGY
AND PUBLIC HEALTH**

**BARRIERS TO THE PREVENTION OF HIV AND AIDS
TRANSMISSION AMONG HIV-POSITIVE PREGNANT
WOMEN IN COASTAL AREAS: A
PHENOMENOLOGICAL STUDY**

Ita Roossinta^{1*}, Dewi Rokhmah², Ristya Widi Endah Yani³, Hadi Prayitno⁴

¹*Doctoral Program of Public Health, The University of Jember, Jl. Kalimantan No. 37, Jember, Indonesia*

²*Department of Public Health, Faculty of Public Health, The University of Jember, Jl. Kalimantan No. 37, Jember, Indonesia*

³*Department of Social Welfare Science, Faculty of Social and Political Science, The University of Jember, Jl. Kalimantan No. 37, Jember, Indonesia*

⁴*Department of Dentistry, Faculty of Dentistry, The University of Jember, Jl. Kalimantan No. 37, Jember, Indonesia*

*Corresponding author: roossinta700@gmail.com

ABSTRACT

Background: Pregnant women in coastal areas represent a vulnerable group at risk of HIV/AIDS infection, particularly concerning mother-to-child transmission. Limited knowledge of infectious disease prevention and the tendency to conceal HIV status highlight the need for further exploration of prevention barriers. This study aims to explore in greater depth the barriers to HIV/AIDS prevention among pregnant women with HIV in coastal areas. **Method:** This qualitative study was conducted in Jember Regency, East Java, an area with one of the highest HIV/AIDS case burdens in the province. A phenomenological approach was employed, with in-depth interviews conducted among six HIV-positive pregnant women aged over 18 years who reside in coastal communities. Three supporting informants were also included: two HIV program officers at the primary health center and one midwife in the area. Subjects were selected purposively. Data analysis was performed using interpretative phenomenological analysis. Source triangulation was used to obtain the validity of the information. **Result:** There are seven major barriers to preventing HIV/AIDS transmission in HIV-positive pregnant women, including: insufficient knowledge about HIV/AIDS prevention; HIV-positive pregnant women tend to be secretive; high community mobility; limited access to health services; mining, industrial, and port activities; the practice of *siri* marriage; and limited access to health education and information. **Conclusion:** Barriers to HIV/AIDS prevention among HIV-positive pregnant women in coastal areas remain significant, making it difficult to control the spread of HIV/AIDS. Intensive dissemination of accurate information on HIV/AIDS prevention by both the government and the private sector is needed.

Keywords: Barrier, Pregnant Women, HIV, AIDS

INTRODUCTION

As a group vulnerable to Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) infection, pregnant women need to receive greater attention. Various methods of HIV/AIDS control have been implemented by the government and the private sector, but HIV/AIDS transmission remains difficult to control. The Indonesian Ministry of Health's report on the development of HIV and AIDS in pregnant women from January to June 2024 exhibits a positivity rate of 33% out of 1,611,872 pregnant women who underwent HIV testing. Furthermore, 60% of those found to be positive received antiretroviral (ARV), while 40% did not. Based on risk factors, pregnant women ranked sixth with 4.9% of cases, following men who have sex with men (MSM), the general population, tuberculosis patients, sex workers, and high-risk partners. The five regions with the highest number of new HIV cases were East Java, West Java, Central Java, Jakarta Special Region (DKI), and North Sumatra.

The HIV situation in East Java Province is obtained from the 2024 East Java Provincial Health Office Report, which states that there are 101,290 people living with HIV, only 35.6% of whom receive ARV. Based on risk factors, pregnant women are ranked sixth with a positivity rate of 5%. Furthermore, data from the Jember District Health Office in 2024 shows a cumulative total of 8,101 people living with HIV, with only 27% receiving ARV. Based on risk factors, pregnant women are ranked fifth with a positivity rate of 8%. The highest number of HIV cases in Jember District is found in coastal areas. Approximately 90% of new HIV cases in infants are caused by vertical transmission from HIV-positive pregnant women (Flynn et al., 2022). Coastal communities often face different health challenges, including limited access to health services, inadequate sanitation, high mobility, and an increase in infectious diseases (Syahri, 2023).

Coastal communities often face different health challenges, including limited access to health services, inadequate sanitation, high mobility, and an increase in infectious diseases (Syahri, 2023). Preliminary findings indicate that high community mobility—particularly among pregnant women or their partners with a history of working outside the island (e.g., Bali, Kalimantan, and Jakarta) before or during pregnancy—combined with the presence of ports, fish markets, limestone mining sites, cement factories, and former prostitution areas, may contribute to an increased risk of HIV transmission among pregnant women in coastal areas. This community mobility creates a substantial probability of engaging in commercial sex transactions, making new HIV infections among pregnant women difficult to control.

The phenomenon of *siri* marriages, a marriage conducted according to Islamic rites but not officially registered with the state, persists within coastal communities. These marriages are often conducted in secrecy and have been closely linked to the increase in HIV and AIDS transmission. This is largely due to potential of *siri* marriages to create complex sexual networks. In addition, the absence of regulations mandating premarital health screenings further exacerbates the risk. There is a high level of social stigma attached to *siri* marriages, which limits women's access to health services, including HIV testing and treatment as a preventive measure. As a result, it is difficult to control HIV transmission among pregnant women in coastal areas. Other obstacles include incomplete administrative documents, coupled with the reliance on traditional healers and dependence on formal occupations such as fishing, which makes it difficult for

individuals to leave their work in order to access health services. Therefore, this study aims to explore in greater depth the barriers to preventing HIV/AIDS transmission among HIV-positive pregnant women in coastal areas.

METHOD

Study context

This study was conducted in Jember Regency, East Java. Jember Regency was chosen as the study site for several reasons: it has the second highest number of HIV/AIDS cases in East Java; its population is geographically distributed in coastal areas, plantations, and agricultural areas; and it has a high number of religious-based educational institutions (611 Islamic boarding schools). Based on preliminary studies, it was found that the number of HIV-positive pregnant women was high in Jember Regency, with a positivity rate of 8%.

Study design

This study employed a qualitative study using a phenomenological approach, as adopted in previous research (Rokhmah, 2016). The phenomenological approach focuses on the subjective meaning of objective reality as experienced in the daily lives of individuals (Langdrige, 2007). Data collection for this study was conducted through in-depth interviews. The interviews were open-ended and guided by a semi-structured interview guideline developed by the researchers (see Appendix X). All interviews were audio-recorded using digital recording devices with participants' consent. The main subjects were six pregnant women who had been diagnosed as HIV-positive by a doctor through laboratory tests. Meanwhile, two people in charge of the HIV program at the primary health center and one regional midwife acted as supporting subjects. The subjects in this study were selected using purposive sampling, with the number of participants determined by data saturation.

The criteria for research subjects included: a) residing in Jember Regency, b) being diagnosed as HIV positive by a doctor through laboratory tests, c) being over 18 years of age, d) willing to sign an informed consent form and able to recount their experiences as HIV positive individuals.

Analysis data

The data obtained was transcribed and analyzed. Data analysis in this qualitative study used interpretative phenomenological analysis (IPA). The concept of IPA is that researchers seek to understand and interpret the lived experiences or the meaning derived from the participants' personal realities. Data analysis in this study was assisted by Microsoft Excel to organize interview transcripts, coding processes, category development, and theme generation. An analytical matrix was developed to map the relationships between codes, categories, themes, and illustrative quotations, thereby ensuring analytical transparency and rigor. The coding process in data analysis was carried out by two people, namely the researcher and the research assistant. The findings from this analysis were used to identify the main barriers in preventing HIV/AIDS transmission in HIV-positive pregnant women.

The credibility of the data obtained in this qualitative study was a concern for the researchers. The triangulation method was used for the internal validity of the data obtained. The triangulation process involved collecting information through in-depth

interviews with supporting subjects, which was then checked through observation using observation sheets.

Ethical clearance

This research has been approved by the Research Ethics Committee of the Faculty of Dentistry, University of Jember, on September 1, 2025, with registration number: No.3347/UN25.8/KEPK/DL/2025.

RESULT

Using purposive sampling, this study obtained six main subjects, from whom sufficient data was obtained to reach saturation. The characteristics of the research subjects are shown in the Table 1.

Table 1. Characteristics of the Main Subject

Subject	Age (YO) ⁺	Education	Residence Status	Duration of Infection (Month)	ARV Status	Pregnancy Status	Ethnicity
IM	19	Junior High School	Owned	5	On ARV	First Pregnancy	Madurese
BL	30	Senior High School	Owned	3	On ARV	Second Pregnancy	Javanese
KH	25	Senior High School	Rented	2	On ARV	First Pregnancy	Javanese
KS	30	Senior High School	Owned	4	On ARV	First Pregnancy	Madurese
NK	24	Junior High School	Owned	3	On ARV	First Pregnancy	Javanese
NM	32	Junior High School	Owned	5	On ARV	Second Pregnancy	Madurese

⁺YO: Years Old

Table 1 shows that most of the subjects were aged between 25 and 30 years old, with one subject aged less than 25 years old and one subject aged 19 years old. In terms of education and ethnicity, most subjects had completed senior high school and were of Javanese ethnicity. Table 1 shows that all subjects are actively using ARVs. With regard to pregnancy status, the majority were in their first pregnancy (4 participants), while in terms of residential status, most lived in their own homes.

This study explores seven major barriers related to the prevention of HIV transmission in HIV-positive pregnant women in coastal areas. These barriers originate from the perspectives of both pregnant women and health workers. Based on in-depth interviews with the subjects, seven key themes emerged in this study, and the explanations for each of the themes found are as follows.

Knowledge of HIV/AIDS Transmission Prevention in HIV-Positive Pregnant Women

Based on the results of in-depth interviews conducted by researchers with the main subjects, it was found that most pregnant women who were the subjects of this study did not fully understand HIV prevention, including how HIV is transmitted, the dangers and

effects of HIV infection, the symptoms and characteristics of HIV to be aware of, and the preventive measures that must be taken. The research subjects only knew that HIV could be transmitted due to having multiple partners. This was revealed by subject 2 as follows.

“What is it, ma'am... I don't know, ma'am... a disease that has no cure... as far as I know, it's changing partners” (Subject 2, 30 years old).

Subject 3 revealed that the symptoms and characteristics caused by HIV infection are weight loss and frequent illness due to decreased immunity, which is one of the characteristic signs of HIV infection. The findings of the study revealed by Subject 5 stated that HIV infection can be transmitted to infants through childbirth or during birth. Babies born with HIV usually experience growth disorders, including low body weight or poor health. The research subjects did not understand the transmission route of HIV from mother to child, especially during pregnancy, childbirth, and breastfeeding. This lack of knowledge has an impact on the prevention of HIV transmission in pregnant women, which is difficult to control. This was revealed by Subject 5 as follows.

“I thought that if I didn't breastfeed my child, it would be safe. But I didn't know that it could also be transmitted during childbirth.” (Subject 5, 24 years old).

In contrast, subject 6 revealed that they were not aware of the prevention of mother-to-child transmission of HIV (PMTCT) program provided at health facilities, including primary health centers (Puskesmas). The reason was that they had never received information about the program through counseling or classes for pregnant women, and the information provided by health workers was still limited, brief, and not explained in easy-to-understand language.

“I just heard from the midwife that there is medicine that can be taken to prevent children from getting infected, but it is not clear what medicine it is and how to take it.” (Subject 6, 32 years old)

The findings of the study were reinforced by supporting subjects who stated that many pregnant women did not understand the importance of testing and even withdrew or were afraid to undergo HIV testing. This poses a problem in ensuring that subjects receive adequate education and understand the health risks they face, including HIV transmission.

“The challenge we face here is sometimes the patient's knowledge, well, it's not much, but it still exists. For example, patients who are already aware of their risks and have been given information, education, and communication (IEC) by health workers, some of them do not get tested, withdraw, or are afraid...” (Subject 3, 45 years old).

The results of the study also show that pregnant women are less concerned about health issues, such as not undergoing regular check-ups, being difficult to persuade to undergo health examinations, including triple elimination tests (HIV, syphilis, and hepatitis). Pregnant women who are HIV-positive are difficult to persuade to comply with ARV treatment because they do not understand the benefits and importance of ARV compliance as a preventive measure. The research results also show that subjects often

underestimate their health condition, even though they have been given information about the risks they may face.

The Phenomenon of Siri Marriages in Preventing HIV Transmission in HIV-Positive Pregnant Women

Research findings indicate that there are many cases of secret “*siri*” marriages in coastal communities, which are closely linked to an increase in HIV and AIDS transmission among pregnant women. The cause is that *siri* marriages have the potential to create complex sexual networks. There are no regulations requiring health checks before marriage. In addition, there is a high level of social stigma attached to *siri* marriages, which limits women's access to health services, including HIV testing and treatment as a preventive measure. As a result, it is difficult to control HIV transmission among pregnant women in coastal areas. Other obstacles include incomplete administrative documents, trust in traditional healers, and dependence on formal employment such as fishing, which makes it difficult for them to leave their jobs to access health services. This was revealed by subject 1 as follows.

"Many are not legally married because they still have other wives...so they cannot get officially married. So they have unregistered marriages (siri)... to make it easy and not complicated." (Subject 1, 19 years old).

This contrasts with the statement made by subject 4, who said that the stigma of discrimination related to HIV in the community is still very high, and there is a sense of worry and fear that their HIV status will be known by health center and religious affairs office officials, so they choose to have unregistered marriages. As a result, the transmission of new HIV infections among pregnant women continues to increase. The research findings are also reinforced by supporting subject 3, who stated that there are many cases of unregistered marriages in coastal communities, usually related to social, economic, cultural, and public service access conditions.

"Many people also have unregistered marriages (siri)... usually for economic reasons..." (Subject 3, 45 years old).

Based on the above explanation, it can be concluded that *siri* marriages in coastal communities are conducted in a hidden manner and are closely related to the increase in HIV and AIDS transmission among pregnant women. This finding is due to the fact that *siri* marriages have the potential to create complex sexual networks. In addition, there are no regulations requiring health checks before marriage, and there is a high level of social stigma attached to *siri* marriages, which limits women's access to health services, including HIV testing and treatment as a preventive measure. As a result, new HIV infections among pregnant women in coastal areas continue to increase.

Self-Disclosure in Preventing HIV Transmission in HIV-Positive Pregnant Women

The results of the study show that the research subjects were very cautious and open with people they considered trustworthy. This is in line with what subject 2 said, as follows.

"...only my husband knows, ma'am... I didn't tell anyone else because I was afraid there would be unpleasant gossip in my family and neighborhood... I don't know..." (Subject 2, 30 years old).

In contrast, Subject 3 stated that they chose to disclose their HIV status to their family because they believed and were confident that their family would provide support and accept the subject's HIV condition/status.

"...My parents know my HIV status. But my younger siblings don't know... Their reaction was sad at first. But as time went on, they just accepted it... Yes, they supported me..." (Subject 3, 25 years old).

The results of this study show that most of the research subjects chose to be secretive and only disclosed their HIV status to certain people whom they considered trustworthy. This is related to the stigma and discrimination that still exist against people living with HIV in their social environment.

Industrial Practices, Mining, Ports, and Community Mobility in Preventing HIV Transmission in HIV-Positive Pregnant Women

The findings revealed that most subjects disclosed their husbands' mobility, such as working out of town or as fisherman, as major factor in HIV transmission. Subject 4 revealed that many mine workers, fish traders at port, and industrial workers from outside the city, engaged in high-risk sexual behavior such as purchasing sexual services.

"Fishermen sometimes don't come home for a week... many miners too... They come home sick, only then it is discovered that they have HIV..." (Subject 4, 30 years old)

In contrast, Subject 6 stated that the presence of former prostitution areas in coastal region may contribute to higher HIV transmission to increase, as many miners, factory workers, and fish traders at the port are involved in commercial sex.

"There is a prostitution area here, ma'am... many people also buy sex, mostly factory workers, and during the fishing season, there are also many bosses from outside the city... and many drivers..." (Subject 6, 32 years old).

This finding is reinforced by supporting subjects who stated that there are prostitution area that are still operating and most of their customers are factory and mine workers, including during the fishing season at the port.

"...Usually there are many drivers and factory workers who buy sex there...there are former prostitution area" (Subject 2, 38 years old).

As outlined above, it can be concluded that the high mobility, particularly among pregnant women or their partners with a history of working outside the island (e.g., in Bali, Kalimantan, or Jakarta) prior to or during pregnancy, along with the presence of ports or fish auctions, limestone mines, and cement factories, and former prostitution area, may contribute to increased HIV transmission among pregnant women in coastal regions. This

high community mobility creates a substantial likelihood of engaging in commercial sex, making new HIV infections among pregnant women difficult to control.

The phenomenon of coastal community mobility, particularly among men working as fishermen and factory or mine workers, represents a significant risk factor for HIV transmission to pregnant women. Moreover, high mobility level of husband, low bargaining power of women in sexual relationships, and strong social stigma exacerbate the vulnerability of pregnant women, making it difficult to control the risk of HIV transmission among pregnant women.

Access to Health Services in Preventing HIV Transmission in HIV-Positive Pregnant Women

Based on in-depth interviews, it was found that some pregnant women had not yet prioritize prenatal care, with several perceiving it as unnecessary when they felt healthy. Some pregnant women admitted that they only sought care when experiencing complaints or discomfort, as illustrated by the following subject:

“I don't have regular check-ups, ma'am. If there is information on the WhatsApp group, then I get check-up. But if I feel healthy, have a positive mindset, feel the baby moving, and still have vitamins, I don't go for a check-up.” (subject 2, 30 years old).

In contrast, subject 4 stated that the obstacles to undergoing routine check-ups were a lack of support from family, including her husband, to take her to health services, because her husband worked and did not get permission from his workplace, as well as transportation obstacles such as not having a private vehicle and difficult access to public transportation.

“...my husband works, so there's no one to take me...my husband uses the motorcycle, and it's hard to find a pedicab because I don't have a regular driver” (Subject 4, 30 years old).

This finding is reinforced by supporting subject 2, who stated that one of the main challenges was that some pregnant women were reluctant to undergo routine check-ups, particularly those with many children or those facing barriers such as limited access and lack of support with transportation. As revealed by subject 2:

“But there are also those who, because they have many children, are lazy to go for check-ups, saying that it's too much trouble and there's no one to take them” (Subject 2, 38 years old).

Access to Education and Information on HIV Prevention for HIV-Positive Pregnant Women

Based on the results of in-depth interviews conducted by researchers with the main subjects, it was found that most of the subjects who were working experienced obstacles in accessing health education and information due to limited time to attend classes for pregnant women and routine health checkups. As revealed by subject 2 below:

“I have never attended a maternity class, because when the maternity classes are scheduled, I am at work and cannot get permission from the factory...” (Subject 2, 20 years old).

Subject 2 stated that she had not been able to attend maternity classes due to work reasons and not getting permission from her workplace. This exhibits that there are obstacles for pregnant women in obtaining education and information about preeclampsia. The research findings were reinforced by supporting subjects who stated that some pregnant women faced obstacles in attending antenatal classes due to time constraints, especially pregnant women who worked. As revealed by subject 3 below:

“The only problem is when a pregnant woman with high risk works, for example in a factory, she may not be able to attend antenatal classes” (Subject 3, 45 years old).

DISCUSSION

Knowledge of HIV/AIDS Transmission Prevention in HIV-Positive Pregnant Women

Knowledge among HIV-positive pregnant women about preventing mother-to-child transmission of HIV is still quite low, especially regarding transmission routes during pregnancy, childbirth, and breastfeeding. Research findings in Ethiopia indicate that only about 72.2% of pregnant women have adequate knowledge about the prevention of mother-to-child transmission of HIV (PMTCT), while the rest lack sufficient understanding (Yeshaneh et al., 2023). These results are in line with interviews that found many pregnant women only knew that HIV could be transmitted through changing partners, but did not fully understand the mechanism of vertical transmission. The lack of comprehensive information and counseling is also a major barrier. The World Health Organization (WHO) explains that intensive education and counseling should be a priority in antenatal care services to increase the understanding of HIV-positive pregnant women regarding the importance of antiretroviral therapy (ART) to reduce the risk of transmission to infants (WHO, 2022). Health workers also need to provide complete information and use language that is easy to understand so that mothers can derive maximum benefit from the prevention of mother-to-child transmission (PMTCT) program.

Fear and stigma are significant psychosocial barriers, causing some pregnant women to withdraw from testing and treatment. A study in Morocco noted that the majority of pregnant women showed negative attitudes and a lack of knowledge about vertical HIV transmission prevention (Nacer et al., 2023). In addition, adherence to ARV treatment is crucial to suppressing the mother's viral load and reducing the risk of transmission. A study in South Africa confirmed that adherence to ARV treatment during pregnancy significantly reduced the rate of HIV transmission to infants (Bissek et al., 2011). Therefore, continuous support and intensive education for HIV-positive pregnant women must be integrated into maternal and child health services. A recent study from Ghana shows that around 30% of pregnant women are unaware of the risk of HIV transmission during pregnancy, which has the potential to increase vertical transmission of HIV without proper intervention. The study also confirms that mothers who have undergone HIV testing tend to have better knowledge about preventing transmission, emphasizing the importance of counseling accompanying HIV testing for pregnant women (Mohammed et al., 2024). In addition, a lack of understanding of HIV symptoms and their consequences also serves as an obstacle to early detection and treatment. One of the main barriers is the lack of information and socialization regarding the prevention of mother-to-child transmission (PMTCT) programs available at health facilities.

Fear and stigma surrounding HIV testing also represent significant barriers, leading many pregnant women to opt out of testing or treatment. The importance of adherence to ART treatment has been emphasized in various studies, as ART can lower maternal viral load, thereby drastically reducing the risk of transmission to the infant. Globally, the WHO notes that with appropriate interventions, mother-to-child HIV transmission can be reduced to less than 5%, ensuring that infants are born HIV-free. However, this requires the integration of prevention programs into maternal and child health services and widespread access to ART therapy (WHO, 2022).

The Phenomenon of Siri Marriage in Preventing HIV Transmission in HIV-Positive Pregnant Women

The phenomenon of *siri* marriage, or unregistered marriage, which is common among coastal communities, is closely linked to an increased risk of HIV transmission in pregnant women. In this context, *siri* marriage creates a complex and irregular network of sexual relationships, without mandatory health testing regulations prior to marriage. A study in Palembang City reported that 90% of HIV/AIDS transmission was attributable to extramarital sexual relations, which are socially and religiously prohibited, including within the practice of unregistered *siri* marriage. In this context, HIV transmission among women is difficult to control, as unregistered marriages are not addressed within health regulations, resulting in suboptimal HIV prevention interventions (Rosnita et al., 2024). In addition, incomplete civil administrative data and dependence on formal livelihoods such as fishing make it difficult for women to leave their work to access health services. These barriers are further exacerbated by their inability to obtain friendly and non-discriminatory services at health facilities. Fear and stigma associated with HIV status being disclosed to health workers or official institutions lead many women and their partners to choose *siri* or unregistered marriages in order to remain undetected by formal systems (Afanin & Syarafuddin, 2023).

Self-Disclosure in Preventing HIV Transmission in HIV-Positive Pregnant Women

The results of the study present that HIV-positive pregnant women tend to be highly cautious in disclosing their HIV status. The majority of subjects only disclose their status to individuals they consider deeply trustworthy, such as their husbands or close family members. This is due to concerns about the stigma and social discrimination that still strongly affect people living with HIV in the community. This phenomenon is consistent with various studies showing that self-disclosure of HIV status in pregnant women is greatly influenced by the factor of social stigma, which remains strong. A study by Pujilestari et al., (2021) states that negative stigma against people living with HIV/AIDS (PLHIV) is a major factor that causes many PLHIV to choose not to be open about their status. However, disclosure to trusted loved ones can increase social support and treatment adherence (Pujilestari et al., 2021). Other studies also emphasize the importance of a supportive social environment, especially family, in strengthening the mental health and motivation of HIV-positive pregnant women to control their disease and implement HIV prevention measures for their infants (Saraswati, 2020). With selective self-disclosure to trusted individuals, the risk of HIV transmission can be further reduced through adherence to ARV use.

Social support from family provides psychological strength, increasing mothers' motivation to undergo treatment and prevent HIV transmission to their infants. Research by Suriana dan Dewi (2024) reinforces these findings, stating that social stigma remains

a major barrier to open disclosure of HIV status. They found that self-disclosure is done selectively and deliberately as an important adaptation strategy so that PLHIV can avoid stigma while receiving the social support needed to remain compliant with treatment and maintain their health. Furthermore, in line with research by Ansori (2024) on interpersonal communication among PLHIV, it is emphasized that the family and partner environment is the most important space for disclosure, as individuals feel safer, accepted, and fully supported there. Open self-disclosure in this environment is closely related to the success of the prevention of mother-to-child transmission program (Ansori, 2024). Other studies also emphasize the importance of a supportive social environment, especially family, in strengthening the mental health and motivation of HIV-positive pregnant women to control their disease and implement HIV prevention measures for their infants (Saraswati, 2020). With selective self-disclosure to trusted individuals, the risk of HIV transmission can be further reduced through adherence to ARV use.

Industrial Practices, Mining, Ports, and Community Mobility in Preventing HIV Transmission in HIV-Positive Pregnant Women

The results of the study exhibit that the mobility of their partner who work as fishermen, miners, or factory workers with high mobility contributes significantly to HIV transmission in pregnant women. This mobility allows for risky sexual behavior, such as commercial sex, which is a major factor in the spread of HIV in coastal communities. The research subjects revealed that fishermen who did not return home for several days and mine workers who came from outside the city often returned in poor health condition and infected with HIV (Rabrageri et al., 2017).

The phenomenon of former prostitution area that remain active in coastal region serves as a hub for high-risk behavior, especially among factory workers, miners, and drivers during peak season such as the fishing period at the port. These areas are prone to HIV transmission due to interactions between local residents and migrants who engage in risky sexual practice (Yuliarini et al., 2024). The high mobility of workers and their intense work schedules make it difficult for them to regularly access health services, while strong social stigma further reduces women's ability to negotiate safe sexual practices. These conditions elevate the risk of HIV transmission among pregnant women, which is difficult to control without multisectoral interventions involving the industrial, health, and social sectors.

Access to Health Services in Preventing HIV Transmission in HIV-Positive Pregnant Women

The results of the study show that HIV-positive pregnant women's awareness of the importance of prioritizing antenatal care is still low. Several subjects stated that antenatal care were only carried out if they had complaints or received information from social groups, such as WhatsApp groups, and were not carried out routinely if they felt healthy. This can hinder the process of early HIV detection and interventions to prevent mother-to-child transmission (Prasilo, 2013). Barriers to accessing antenatal care are also caused by a lack of family support, particularly from husbands who are unable to accompany pregnant women to health facilities due to work demands or difficulties in obtaining permission. Transportation constraints, such as the absence of private vehicle and the limited availability of public transportation, are also significant barriers, as highlighted by the research subjects.

Previous research in Gelumbang District also showed that the availability of HIV testing facilities at primary health centers (Puskesmas) is adequate, and had been expanded through the distribution of rapid tests to village midwives to reach pregnant women living far from health facilities. However, the awareness and motivation of pregnant women to utilize these services still needed to be improved through continuous education and counseling (Amadea et al., 2025). Integrated antenatal care (ANC) services, including HIV testing, are an important step in preventing mother-to-child transmission of HIV, supported by WHO standards and Indonesia's national strategy.

Access to Education and Information on HIV Prevention for HIV-Positive Pregnant Women

In-depth interviews revealed that most HIV-positive pregnant women who work experience significant barriers in accessing health education and information. Work commitments and scheduling conflicts with prenatal classes are the main reasons for not having time to attend educational classes. Informants also mentioned time constraints as a major obstacle, especially for high-risk pregnant women who work in factories and find it difficult to attend educational classes at the scheduled times. This is in line with previous studies that emphasize the importance of providing HIV education that is easily accessible and tailored to the needs of pregnant women, including interactive methods based on video and social media, which have been proven to increase mothers' understanding and awareness of the importance of HIV screening and prevention of mother-to-child transmission (Rochmawati et al., 2017). Consistent implementation of education through various media and support from health workers is believed to be effective in increasing HIV testing coverage and encouraging positive behavioral changes in HIV-positive pregnant women (Rochmawati et al., 2021). Therefore, education programs need to address practical barriers and adapt services to be inclusive and accessible to working pregnant women.

Limitation

There are several limitations in this study, including this study is limited to using qualitative methods with a phenomenological approach. Study using quantitative methods are required to generalize the findings to various conditions. In addition, the study subjects are limited to only six HIV-positive pregnant women, in which the study subjects need to be expanded to obtain more in-depth research findings. Furthermore, this study is limited to one area in Jember Regency without analyzing cultural factors in Jember Regency (Javanese, Madurese, and Pandalungan). Adding cultural analysis (Javanese, Madurese, and Pandalungan) related to HIV and AIDS prevention behaviors among HIV-positive pregnant women would make this study more comprehensive.

CONCLUSION

The main barrier to preventing HIV/AIDS transmission in HIV-positive pregnant women include insufficient knowledge about HIV/AIDS prevention in HIV-positive pregnant women, HIV-positive pregnant women tending to be secretive, high community mobility, limited access to health services, mining and industrial activities and ports, the practice of *siri* marriage, and limited access to health education and information. These barriers make it difficult to control HIV/AIDS transmission among HIV-positive pregnant women. The recommendation in this study is that the dissemination of accurate

information related to HIV/AIDS prevention by both the government and the private sector is necessary and should be carried out intensively.

CONFLICT OF INTEREST

There is no conflict of interest in this study

ACKNOWLEDGMENT

The researchers would like to thank the subjects in this study, including the HIV program assistants at the community health center and the regional midwives. We would also like to express our deepest gratitude to the relevant parties who have given their permission and input in the implementation of this study.

REFERENCES

- Afanin, I., & Syarafuddin, M. (2023). Pernikahan Penderita Hiv Aids Dalam Tinjauan Maqashid Syariah. *Ar-Risalah Media Keislaman Pendidikan Dan Hukum Islam*, 21(2), 198. <https://doi.org/10.69552/ar-risalah.v21i2.2071>
- Amadea, W., Rahmawaty, A., Amin, M., Saci, A., & Munadi, M. C. (2025). Analisis Ketersediaan Sarana Pemeriksaan HIV pada Ibu Hamil di Kecamatan Gelumbang. *Jurnal Kesmas Dan Gizi*, 7(2), 213–222.
- Anne-Cécile Zoung-Kanyi Bissek, et al. (201 C.E.). Knowledge of Pregnant Women on Mother-to-Child Transmission of HIV in Yaoundé. *AIDS Journal*, 5, 25–28. <https://doi.org/10.1155/2015/960830>
- Ansori, A. (2024). *Self Disclosure Dalam Komunikasi Antarpribadi Pada Orang Dengan Hiv/Aids (Odha) Di Pekanbaru* [Universitas Islam Negeri Sultan Syarif Kasim Riau]. <http://repository.uin-suska.ac.id/85387/>.
- Langdridge, D. (2007). *Phenomenological Psychology: Theory, Research and Method*. Harlow: Pearson Education.
- Mohammed, H., Kebir, M. S., Obiribea, C., Essuman, M. A., & Ahinkorah, B. O. (2024). Knowledge of HIV transmission during pregnancy among women of reproductive age in Ghana. *BMC Infectious Diseases*, 24(1), 1–8. <https://doi.org/10.1186/s12879-024-09325-w>
- Nacer, N., Ouzennou, N., El Fatimi, N., & Rkha, S. (2023). Knowledge and Attitudes about Mother-to-Child Transmission of the Human Immunodeficiency Virus in a Context of Social Vulnerability: The Case of the Province of Essaouira, Morocco. *Ethiopian Journal of Health Sciences*, 33(3), 403–412. <https://doi.org/10.4314/ejhs.v33i3.3>
- Prasilo, D. (2013). *Analisis Faktor Perilaku Ibu Hamil Terhadap Motivasi Pemeriksaan Tes HIV/AIDS Di Puskesmas Medaeng Sidoarjo* [Universitas Airlangga Surabaya]. https://repository.unair.ac.id/121949/%0Ahttps://repository.unair.ac.id/121949/1/Dieny_Prasilo_131111179_SEC.pdf
- Pujilestari, N. I. (2021). Hubungan Keterbukaan Status Hiv Dengan Stigma Diri Pada Orang Dengan Hiv/Aids. *Media Husada Journal Of Nursing Science*, 1(1), 31–42. <https://doi.org/10.33475/mhjns.v1i1.8>
- Rabrageri, A. K. S., Siswosudarmo, R., & Soetrisno, S. (2017). Faktor Risiko Transmisi Virus Hiv Pada Ibu Hamil Di Papua. *Jurnal Kesehatan Reproduksi*, 4(1), 23. <https://doi.org/10.22146/jkr.35433>
- Rochmawati, Lusa; Kuswanti, Ina; Prabawati, S. (2017). *Pencegahan Penularan HIV Dari Ibu Ke Anak (PPIA)* (Y. S. Rosyad (ed.)). Zahir Publishing.

- Rochmawati, L., Kuswanti, I., & Prabawati, S. (2021). Efektifitas Media Promosi Kesehatan Video Dengan Leaflet Terhadap Pengetahuan Ibu Hamil Tentang Pencegahan Penularan Hiv Dari Ibu Ke Anak. *Jurnal Kebidanan Indonesia*, 12(2), 49–58. <https://doi.org/10.36419/jki.v12i2.495>.
- Rokhmah, D. (2016). *Fenomenologi: Sebuah Pendekatan dalam Penelitian Kualitatif*. Jember: Universitas Jember.
- Rosnita, R., Murni, N. S., & Wahyudi, A. (2024). Kejadian Human Immunodeficiency Virus (HIV) di Kota Palembang. *Jurnal Akademika Baiturrahim Jambi*, 13(2), 385–395. <https://doi.org/10.36565/jab.v13i2.863>
- Saraswati, N. L. A. (2020). *Hubungan Dukungan Keluarga Dengan Self Disclosure Pada ODHA Di Yayasan Kesehatan Bali* [Institut Teknologi Dan Kesehatan Bali Denpasar]. https://repository.itekes-bali.ac.id/medias/journal/2020_16C11806_Ni_Luh_Anik_Saraswati_Skripsi.pdf
- Suriana, A. D. S. E. D. (2024). Penelitian Tentang Self Disclosure Pasien ODHA RSUD Banyumas. *Jurnal Ilmiah Kesehatan*, 12(1), 1–10.
- Syahri, M. S. (2023). Program Pelayanan Persalinan. *Jurnal Kesehatan Tambusai*, 4(3), 2177–2184. <http://www.jamsostek.co.id/content/i.php?mid=3&id=175>.
- (WHO), W. H. O. (2022). *Mother-to-child transmission of HIV. Global HIV Programme*.
- Yeshaneh, A., Abebe, H., Tafese, F. E., & Workineh, A. (2023). Knowledge, attitude, and practice towards prevention of mother-to-child transmission of HIV among antenatal care attendees in Ethiopia, 2020. *PLoS ONE*, 18(2 February), 1–15. <https://doi.org/10.1371/journal.pone.0277178>
- Yuliarini, N. W., Astiti, N. K., & Tedjasulaksana, R. (2024). Overview Hasil Skrining Prevention Mother to Child Transmission (PMTCT) pada Ibu Hamil yang Mengalami HIV. *Jurnal Penelitian Perawat Profesional*, 6(6), 329–336.