Implementation of HIV/AIDS Screening Services for Pregnant Women at the Sentani Health Center

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ARMADA
JURNAL PENELITIAN MULTIDISIPLIN

e-ISSN: 2964-2981

ARMADA : Jurnal Penelitian Multidisiplin

https://ejournal.45mataram.ac.id/index.php/armada

Vol. 03, No. 12 Desember, 2025

Page: 492-501

DOI:
https://doi.org/10.55681/armada.v3i12.1942

Article History:
Received: November 25, 2025
Revised: Desember 10, 2025
Accepted: Desember 18, 2025

Abstract *: HIV screening in pregnant women is an important step to prevent mother-to-child transmission of HIV and ensure proper treatment for infected mothers. This study aims to evaluate the implementation of HIV/AIDS screening services for pregnant women at the Sentani Health Center, Jayapura Regency, in 2024. This study used qualitative methods with a phenomenological approach. The number of participants in this study was 6 participants consisting of pregnant women, midwives and P2P officers who involved in-depth interviews. The results of the study showed that although the HIV screening program for pregnant women had been implemented according to the guidelines, there were several obstacles that affected the effectiveness of the implementation, such as limited officers, lack of knowledge of pregnant women about the importance of screening, and the stigma associated with HIV/AIDS. In addition, inadequate facilities and test kits are also challenges in providing optimal services. This study suggests the need for increased training for health workers, further socialization to the community, and improved facilities and equipment to support the implementation of more effective and efficient HIV/AIDS screening.*

Keywords*: HIV/AIDS screening, Pregnant women, Health services*

INTRODUCTION

Health is one of the important elements that supports community welfare and is part of human rights that must be upheld and protected. In the context of maternal and child health, pregnancy checks are a crucial step to ensure the health of the mother and the fetus she is carrying (WHO, 2024). One of the important examinations carried out is HIV/AIDS screening, considering that this infection is one of the main health problems in the world, including in Indonesia (Ulfah et al, 2023).

By the end of 2023, it is estimated that there will be around 39.9 million people living with HIV worldwide, including 1.4 million children aged 0–14 years and 38.6 million adults. HIV transmission in 2023 was recorded at 1.3 million new cases, a decrease of 39% compared to 2010, with 120,000 children and 1.2 million adults infected. The infection rate per 1,000 population will fall from 0.32 in 2010 to 0.17 in 2023. Since the start of the epidemic, around 88.4 million people

have been infected with HIV worldwide (Amutah et al, 2022), (United Nations Children's Fund (UNICEF), 2024).

The HIV-related mortality rate is also falling. In 2023, around 630,000 people will die from HIV, a 51% reduction compared to 2010. Of these, 76,000 will be children and 560,000 will be adults. The highest death rate occurred in 2004, but has since fallen by 69% by 2023. In the WHO Africa Region, 46.6% of HIV/AIDS cases are recorded in women, with a median age of 17 years, and around 50.4% of cases are in children aged 1. (Huynh et al, 2024).

The Indonesian Ministry of Health recorded 515,455 HIV/AIDS cases in the period January–September 2023, a figure that is almost equivalent to the total cases in the same period in 2022. As many as 71% of new HIV/AIDS cases were reported in men, with a dominant productive age between 20 and 49 years. Adolescents under the age of 20 contributed around 6% of the total HIV/AIDS cases in Indonesia (Kemenkes, 2024). Papua Province is one of the regions that contributed to the number of HIV/AIDS cases. As of September 30, 2023, the number of cases of People Living with HIV/AIDS (PLWHA) in Papua Province was recorded at 18,471. In Jayapura Regency, the Health Office reported 4,682 people were infected with HIV/AIDS in 2023, while the Sentani Health Center recorded 14 HIV/AIDS cases in the period January to June 2023 (Dinkes Jayapura, 2023).

HIV/AIDS infection has a significant impact on maternal and child health. This disease can be transmitted from mother to child during pregnancy, childbirth, or breastfeeding. Based on national data, the number of pregnant women infected with HIV in Indonesia has increased, as has the number of babies infected with HIV from HIV-positive mothers. This situation requires effective prevention efforts to break the chain of HIV transmission from mother to child (PMTCT). Therefore, screening of pregnant women is an important effort (World Health Organization, 2022).

HIV screening services for pregnant women allow early identification, to provide antiretroviral (ARV) treatment that can reduce the risk of vertical transmission (from mother to child) by almost 100% if implemented correctly8. Research also shows that effective screening services can increase pregnant women's awareness of their HIV status, which in turn helps in decision-making regarding the management of pregnancy, childbirth, and infant health (Mwanza, 2022), (Lumbantoruan, 2018).

The results of studies in several health facilities show that although HIV screening among pregnant women is important, its implementation still faces various challenges, such as lack of resources, ignorance about the importance of screening, and stigma that can prevent pregnant women from undergoing testing (Mwanza, 2022). This can lead to delays in treatment and prevention of HIV transmission to infants. Therefore, further research is needed to evaluate the effectiveness and improvement of the HIV/AIDS screening service system for pregnant women, including training for health workers and increasing access to appropriate treatment (Ulfah et al, 2023).

Jayapura Regency, especially the Sentani Health Center, is one of the first-level health care facilities that has implemented HIV/AIDS screening as part of integrated antenatal care. Integrated antenatal services at the Sentani Health Center not only include HIV/AIDS screening, but also focus on promotive, preventive, curative, and rehabilitative aspects that aim to ensure that pregnant women can have a healthy pregnancy, give birth safely, and give birth to healthy babies. However, the implementation of this service requires evaluation to assess its effectiveness and compliance with applicable obstetric service standards (Dinkes Jayapura, 2023).

Research on the implementation of HIV/AIDS screening services for pregnant women at the Sentani Health Center in 2024 is important to determine the extent to which this service is running, including obstacles that may be faced and efforts that have been made to improve the quality of service. The results of the study are expected to be the basis for improving and strengthening maternal and child health services, especially in preventing mother-to-child transmission of HIV in this area.

RESEARCH METHOD

This study employed a qualitative approach with a phenomenological design, aiming to deeply understand the experiences, perceptions, and meanings felt by informants regarding the

implementation of HIV/AIDS screening services for pregnant women at the Sentani Community Health Center in Jayapura Regency. The phenomenological approach was chosen because it allowed for the exploration of the subjective realities of the participants, both from the perspective of health workers and pregnant women as service recipients. The study was conducted in 2024, involving six participants: pregnant women, midwives, and Disease Prevention and Control (P2P) officers. Participants were selected using a purposive sampling technique, based on specific criteria relevant to the research objectives, such as direct involvement in HIV/AIDS screening services and willingness to provide in-depth information.

Data were collected through in-depth interviews using a semi-structured interview guide to allow for more flexible and comprehensive data exploration. The data obtained were then analyzed using thematic analysis techniques, which include data reduction, data presentation, and conclusion drawing to identify key themes related to the implementation of HIV/AIDS screening. To ensure data validity, researchers implemented a credibility test through source triangulation, comparing information from various informants and conducting member checking with participants. Furthermore, this study also considered ethical aspects of research, such as obtaining informed consent from participants, maintaining the confidentiality of informants' identities, and ensuring that the entire research process was conducted in accordance with ethical principles of health research.

RESULTS AND DISCUSSION

HIV/AIDS Screening Implementation Procedure

Every pregnant woman who undergoes an examination at the Sentani Health Center is required to undergo HIV/AIDS screening in accordance with the Minimum Service Standards which stipulate that all pregnant women must receive this service.

"... every mother who comes into contact with us must undergo HIV screening, that is the procedure and there are already rules, yes, that's why we have to examine all pregnant women..."

HIV/AIDS screening is an important part of integrated antenatal care (ANC Terpadu), where pregnant women undergo complete laboratory examinations. This procedure begins by asking for approval from the patient through informed consent. If the patient agrees, he/she will sign the consent form. Next, screening is carried out using the HIV/AIDS test form, and the patient undergoes an examination in the laboratory.

"... HIV testing is included in the 14 T, so after we examine the pregnancy, we immediately do initial counseling, there we also explain about the HIV test, how the procedure is, well if they agree we give informed consent, after that we will carry out the examination in the laboratory."

“... yes, this is my second child, I was tested for HIV before, but now that I am pregnant, I am tested again, the midwife said that it is mandatory to have a check-up every time you are pregnant, so I just followed the midwife's instructions...”

Counseling

During the pre-test counseling process, the midwife explained the high number of HIV/AIDS cases and the potential risks that can endanger the health of the mother and fetus. If the patient refuses to undergo the examination, the midwife will repeat the counseling session to provide further understanding. If the patient still refuses, the patient will be referred to a counselor in the Disease Prevention and Control (P2P) section for further treatment. In this pre-test counseling, a form is used as an instrument to record patient identity information, consent to the implementation of HIV/AIDS screening, and explain the importance of maintaining the confidentiality of test results.

The material presented in the HIV/AIDS pre-test counseling for pregnant women covers various important aspects. This includes an explanation of the benefits of the HIV test, the purpose of its implementation, the limitations of information that can or cannot be conveyed from the test results, the benefits and risks that may arise from the test, how to understand the test results, and steps to prevent HIV transmission.

After the HIV/AIDS examination is completed, the test results are taken directly by the midwife at the KIA Clinic. At this stage, the evaluation is carried out by giving the patient the opportunity to ask questions related to the examination that has been carried out. If the test result

is negative, the midwife will provide counseling to maintain the result. Conversely, if the test result is positive, the midwife will refer the patient to the P2P counselor for post-test counseling.

Implementation HIV Test

Pre-test counseling is conducted by midwives at the KIA Clinic, while in the laboratory, their job is only to identify and confirm patient data such as name, age, and address and examination procedures.

"... after we conduct initial counseling and the patient is willing, we immediately direct them to the laboratory for an HIV/AIDS test..."

The average waiting time for an HIV/AIDS test can vary depending on the number of officers and the type of laboratory test performed. An independent HIV/AIDS test takes around 15-30 minutes. However, if the test is performed together with other tests, such as hemoglobin, syphilis, hepatitis, or malaria, the time required is around 30-60 minutes.

"... yes, for the HIV test itself, it doesn't actually take long, but for pregnant women, the laboratory test is combined with other tests, such as blood type, Hb, hepatitis, syphilis and malaria. Well, malaria usually takes a long time..."

"...for the examination, it's short, yes... just take blood, but wait for the results for about 1 hour..."

Follow-up and Referral

Follow-up and referral of patients with HIV/AIDS are carried out with a comprehensive approach covering medical, psychological, social, and educational aspects. Follow-up aims to ensure optimal care through regular check-ups, monitoring the side effects of antiretroviral (ARV) therapy, and early detection of opportunistic infections, accompanied by counseling to improve therapy compliance and psychosocial support to overcome stigma and emotional impacts.

"...yes, we still have follow-up for positive patients, we monitor their compliance in taking medication, we also visit their homes and check the drug collection section, whether they have taken their medication or not..."

Referrals are made according to need, including medical services to referral hospitals or specialists, further laboratory tests, social support, and legal advocacy in the event of discrimination. Long-term assistance involves active communication to maintain patient motivation and ensure participation in community health programs, while prioritizing confidentiality, empathy, and non-discrimination.

"...if the patient has no news and is not compliant in taking medication, we usually refer them directly to the P2P section for follow-up..."

"...yes, from us in the P2P section, when there is a report, officers usually go directly with the midwife in charge of the area..."

Obstacles to the Implementation of HIV/AIDS Screening

The implementation of HIV/AIDS screening in pregnant women often faces various obstacles, both from the patient's side and health facilities. The main obstacles include the lack of awareness and knowledge of pregnant women about the importance of HIV screening, so that some are reluctant or refuse the examination because they feel they are not at risk or are afraid of receiving a positive result.

"...why do we have to be checked again, when we were pregnant for the first time, we had a blood test! Why do we have to do it again..."

Stigma and discrimination related to HIV/AIDS are also significant obstacles, where pregnant women are worried about being labeled negatively by the community or even health workers.

"... public awareness is still lacking, there are some whose results are clearly positive and the mother wants us not to tell her husband and family..."

In terms of facilities, limited resources, such as the lack of test kits, trained medical personnel, or adequate laboratory facilities, often hinder the implementation of optimal screening.

"... sometimes the section in the lab is queued, we midwives are also given the authority to help and conduct lab tests..."

HIV/AIDS Screening Implementation Procedure

The procedure for implementing HIV/AIDS screening at the Community Health Center is designed to detect early HIV infection in pregnant women to prevent vertical transmission to the

baby (Camara et al, 2024). In the early stages of the antenatal visit, health workers provide counseling to pregnant women about the importance of HIV/AIDS screening. This education includes an explanation of the benefits of screening for maternal and fetal health, as well as the potential risks posed by HIV infection to pregnancy (Kumwenda et al, 2024).

In addition, pregnant women are also given information about preventive measures that can be taken to reduce the risk of HIV transmission, both to themselves and to the baby to be born (Nwanja et al, 2023).

After receiving a clear and adequate explanation of the procedure and benefits of HIV/AIDS screening, pregnant women are asked to provide written consent through informed consent. This process ensures that the test is carried out voluntarily and that pregnant women fully understand the implications of the test results that will be obtained (Mushamiri et al, 2021).

This consent is part of the principle of medical ethics to respect the patient's right to make decisions regarding their health. The process of taking blood for testing is carried out in the Community Health Center laboratory, but sometimes due to limited personnel and the high number of visitors, blood is taken by midwives at the KIA polyclinic. HIV/AIDS screening is carried out using a rapid test-based diagnostic tool, which allows results to be obtained in a short time (Lockman et al, 2020). This process is carried out with hygienic procedures and complies with safety standards to avoid cross-infection. After the test results are obtained, health workers will communicate the results directly to the patient while maintaining confidentiality (Khatoon et al, 2021).

If the test results are negative, the patient will be given further education on HIV/AIDS prevention. However, if the test results are positive, the patient will be immediately referred for further examination at a more complete health facility to obtain further diagnosis and treatment.

In the post-test implementation, the delivery of results is carried out in a closed room to maintain confidentiality and is carried out by a counselor (Kumwenda et al, 2024). If the test results are negative, the midwife continues to provide counseling to help the patient maintain negative status during pregnancy, breastfeeding, and so on. Conversely, if the test results are positive, the midwife as a counselor provides advice to follow up on further counseling, undergo treatment, and prepare for the delivery process. This implementation is in accordance with standard guidelines for HIV testing and counseling.

The final step in the HIV/AIDS screening procedure is follow-up and referral for patients who test positive. Patients will be referred to more comprehensive HIV/AIDS services, where they will receive comprehensive care and treatment (Hampanda et al, 2022), (Technau et al, 2024). Continuous monitoring is carried out to ensure that pregnant women are undergoing ARV therapy as recommended, with the aim of preventing vertical transmission (from mother to child) and ensuring maternal health is maintained during pregnancy. These procedures may vary depending on the facility, resource availability, and local policies (Kazeroni et al, 2021). However, patient confidentiality and inclusive services are key principles that must be maintained during screening.

Counseling

Based on the results of research on the implementation of HIV/AIDS screening in Community Health Centers, the counseling stages implemented include several important steps to ensure patient understanding of the screening procedure and the test results obtained. These stages include pre-test counseling, informed consent, post-test counseling, and referral and follow-up (Kumwenda et al, 2024).

In pre-test counseling, health workers provide education about HIV/AIDS, including how it is transmitted, the importance of screening, and the benefits of testing for pregnant women and fetuses (Camara et al, 2024). During this session, patients are given the opportunity to ask questions and express their concerns, so that they feel more comfortable and ready to continue the test. In addition, patients are also informed about the screening procedure and the possible results that can be obtained, both positive and negative, along with the steps that must be taken afterwards.

After the test is performed, post-test counseling becomes an important stage. If the test result is negative, counseling focuses on preventive measures so that patients can maintain their health and avoid risk factors in the future. On the other hand, if the test result is positive, counseling includes emotional support for the patient, information about antiretroviral (ARV) treatment, and

how to prevent HIV transmission to the partner or the baby to be born. In addition, the patient is also referred to a health facility to receive more comprehensive treatment. The counseling process aims to not only provide medical information, but also provide psychological support to the patient, reduce stigma related to HIV, and encourage the patient to continue the necessary treatment (Technau et al, 2024). Research shows that effective counseling can increase pregnant women's participation in screening and prepare them to deal with test results, both negative and positive.

Implementation HIV Test

The results of the study on the implementation of HIV/AIDS testing at the Community Health Center are in line with the findings of previous studies which showed that the implementation of HIV diagnostic testing had been running well and according to standards.

The study revealed that health laboratory services for HIV testing were available, supported by adequate equipment and trained health workers according to their profession. At the Sentani Community Health Center, the examiners had undergone training conducted by the Health Office, which ensured that the test implementation procedures were carried out properly. This supports the quality of services provided to pregnant women, both in terms of diagnostic tests and counseling required for positive or negative test results.

Table 1. Summary of HIV/AIDS Screening Implementation for Pregnant Women at Sentani Health Center

No	Aspect	Findings
1	Screening Procedure	Conducted routinely for all pregnant women according to service standards
2	Counseling	Includes pre-test and post-test counseling, but not always optimal
3	HIV Testing Implementation	Rapid test available, waiting time 30–60 minutes
4	Follow-up and Referral	Conducted for positive cases with monitoring and counseling
5	Human Resources	Limited number of trained health workers
6	Facilities and Infrastructure	Limited test kits and laboratory support
7	Knowledge of Pregnant Women	Still low regarding importance of HIV screening
8	Stigma and Discrimination	Still present and affects willingness to be tested

The table shows that the HIV/AIDS screening program for pregnant women has generally been implemented in accordance with established standards, especially in terms of procedures and follow-up services. However, several challenges remain, particularly related to limited human resources, inadequate facilities, and low awareness among pregnant women. In addition, social stigma continues to be a significant barrier that affects the effectiveness of screening implementation.

The limited number of laboratory personnel is one of the obstacles in the implementation of HIV testing, so that blood sampling is often carried out by midwives. Although midwives have been given the authority to carry out this task, the procedures carried out are sometimes not in accordance with the standards that should be applied in the laboratory, so that it can affect the quality of service and test results.

The results of the study showed that the limited number of HIV laboratory personnel has a significant impact on various aspects of health services. The shortage of personnel causes a high workload, so that time and attention for HIV testing are limited (Nwanja et al, 2023). This situation results in the transfer of sampling or screening tasks to other health workers, such as midwives, who, although authorized, often do not have specific training related to laboratory procedures. As a result, the quality of services can decline, including the potential for errors in sample collection or handling that affect the accuracy of test results. In addition, these limitations cause longer waiting times for test results, which has an impact on delays in diagnosis and treatment for patients14. Research also shows that the lack of laboratory personnel can reduce the effectiveness of HIV prevention programs, reduce patient satisfaction, and exacerbate stigma towards HIV services due to the perception that services are not available or inadequate (Cherie et al, 2022). This emphasizes the importance of increasing human resources and special training for laboratory personnel to improve the quality of HIV/AIDS services.

Follow-up and Referral

Follow-up and referral in the implementation of HIV screening in pregnant women is an important component in the process of early detection and prevention of HIV transmission from mother to child. Based on the research results, the first very important step is monitoring patients with positive HIV test results. Pregnant women who test positive must be immediately referred to a more complete health facility for further examination and management of HIV care. Antiretroviral (ARV) treatment is given to reduce the viral load, which serves to reduce the risk of HIV transmission to the baby. In addition, regular monitoring is needed to ensure that pregnant women continue to follow the recommended therapy, so that HIV management can be more optimal (Hampanda et al, 2022)

In addition to monitoring, post-test counseling is an important part of follow-up. If the HIV test result is positive, counseling serves to provide emotional support and information about ARV treatment and prevention of further transmission. Health workers need to provide an understanding to patients about the importance of continuing ARV therapy during pregnancy and after delivery, in order to reduce the possibility of HIV transmission to the baby to be born. This can improve the quality of life of pregnant women and help reduce the emotional impact of an HIV diagnosis.

Follow-up also involves preventing vertical transmission, namely transmission of HIV from mother to baby. In this case, optimal follow-up includes providing ARVs to pregnant women and newborns. In addition, safe delivery planning needs to be done by considering methods that can reduce the risk of transmission, such as birth by caesarean section if necessary. These steps aim to ensure that the baby is not infected with HIV during the delivery process (Mushamiri et al, 2021).

Follow-up also includes counseling for the pregnant woman's family. Families play an important role in supporting pregnant women to follow ARV treatment and maintain their health. This counseling helps families to better understand HIV prevention measures and ensures that pregnant women receive the support they need during the treatment process. A structured and comprehensive follow-up system is essential to ensure that pregnant women with HIV receive optimal care, so that the risk of transmission to the baby or partner can be minimized. With an integrated approach, vertical transmission of HIV can be prevented, and the quality of life of pregnant women can be significantly improved.

Obstacles to Implementing HIV/AIDS Screening

Obstacles to implementing HIV/AIDS screening for pregnant women at the Sentani Health Center have several challenges similar to those found in other areas, but are also influenced by specific local conditions. Based on the results of the study, several main factors that influence the effectiveness of screening include a lack of understanding and social stigma related to HIV/AIDS.

Many pregnant women feel anxious or afraid to take the test because they are worried about social stigma or discrimination, which hinders participation in screening programs. This stigma is often accompanied by a lack of community knowledge about HIV/AIDS, which makes counseling and education about the importance of screening less effective (Khatoon et al, 2021).

In addition to the problem of stigma, infrastructure constraints also greatly affect the implementation of screening. At the Sentani Health Center, there are limited health facilities such as a lack of adequate HIV test kits and a lack of trained medical personnel to handle HIV tests for pregnant women. Limited training for health workers is also a significant obstacle. Although some officers at the Sentani Health Center have received training, there are still gaps in skills and knowledge related to handling HIV/AIDS screening for pregnant women.

Limited time and resources also contribute to the obstacles. The busy schedule and limited time given to each patient affect the provision of adequate counseling on the importance of HIV/AIDS screening (Lockman et al, 2020). In addition, the lack of health workers to handle the increasing number of pregnant women is also a problem at the Sentani Health Center. Research shows that rushed services can reduce pregnant women's understanding of the procedure and benefits of HIV testing.

In addition, social and economic factors, such as distance to health facilities, transportation costs, and limited funds, also affect pregnant women's participation in screening. Pregnant women who live in remote areas or with low incomes often find it difficult to take HIV tests due to access

issues and high costs (Technau et al, 2024). To overcome these obstacles, a comprehensive approach is needed that includes increasing socialization about HIV/AIDS, ongoing training for health workers, and improving health infrastructure at the Sentani Health Center. With these steps, it is hoped that the implementation of HIV/AIDS screening can be more effective, and prevention of HIV transmission to infants can be more optimal.

CONCLUSION

The implementation of HIV/AIDS screening services for pregnant women at the Sentani Health Center, Jayapura Regency, has met the minimum standards set. This shows that the early detection program for HIV in pregnant women has been running according to applicable guidelines. However, there are opportunities to improve the coverage and quality of services. Optimization is needed so that screening can reach more targets and provide more effective results in supporting the health of pregnant women and preventing HIV transmission from mother to baby. In addition, collaboration with local communities and related institutions needs to be strengthened to expand the reach of services, accompanied by periodic monitoring and evaluation to identify obstacles and develop effective improvements. With these efforts, it is hoped that screening services can be more optimal in supporting the prevention and control of HIV/AIDS in the community.

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