



## SOCIO-ECOLOGICAL APPROACH TO INCREASE PARTICIPATION IN PREVENTING HIV TRANSMISSION FROM MOTHER TO CHILD IN KARO REGENCY, NORTH SUMATRA

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### Abstract

Transmission of the HIV virus from mother to child poses a heavy burden on public health due to the high mortality rate in children, especially those who do not receive therapy in the first age of life, so efforts to end the transmission of the HIV virus from pregnant women to children are an important milestone in ending the global epidemic by the elimination target set by WHO is the incidence of new infections <50/100,000 live births. The social-ecological framework takes a broad view of efforts to prevent mother-to-child transmission of HIV with a focus on various factors related to the program. This research aims to explore the participation of pregnant women, stakeholder participation and stakeholder barriers in efforts to prevent HIV transmission from mother to child. This research is qualitative research with a phenomenological study approach. In-depth interviews and FGDs were conducted with 32 informants consisting of Policy Makers at the Karo District Health Service, Health Workers, Health Cadres, Peer Support Cadres, Pregnant Women, Husbands of Pregnant Women, Community Figures and HIV Observer Organizations. Data were analyzed using Colaizzi's Method. The social-ecological approach contextualizes individual behavior using intrapersonal (e.g. knowledge, attitudes, behavior), interpersonal dimensions (social networks, social support), community (e.g. relationships between organizations/institutions), and public policy (e.g. implementation of Minister of Health regulations regarding mother-to-child HIV prevention programs) to provide a framework that describes interactions between layers so that solutions to individual problems not only found in the individual but solutions may be found in other layers where the individual lives and interacts.



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Creating sustainable health improvements will be most effective when all of these factors are targeted simultaneously.

**Keywords:** *Social Ecology, Prevention Mother To Child Transmission (PMTCT), Community leader participation,*

## **Introduction**

The prevalence of adults experiencing HIV in the Asian region is 0.3 percent or 3.7 million and more than 99 percent of these sufferers are in five countries, namely India 2,349,000 people (63%), Indonesia 640,443 people (17%), Thailand 467,587 people (12%), Myanmar 241,361 people (6%) and Nepal 29,944 people (1%)<sup>1</sup>. The high population of people infected with HIV in Southeast Asia requires us to be aware of the spread of this viral infection.

Currently, Indonesia ranks second in the number of HIV sufferers in Asia. As of March 2021, the number of HIV and AIDS sufferers reported in Indonesia consisted of 427,201 HIV sufferers and 131,147 AIDS sufferers<sup>2</sup>. The proportion of HIV sufferers based on majority age is in the productive age, namely 25-49 years, as much as 70.7 percent.

HIV tests were carried out on 8,459,449 pregnant women from 2017 to March 2021, there were 23,070 pregnant women who were HIV positive or an HIV positivity rate of 0.27%. ARV treatment for pregnant women with HIV only covers 32.59 percent<sup>2</sup>. Transmission of the HIV virus from mother to child poses a heavy burden on public health due to the high mortality rate in children especially who did not receive therapy in the first age of life, so that efforts to end the transmission of the HIV virus from pregnant women to children are an important milestone in ending the epidemic globally with the elimination target set by WHO being the incidence of new infections <50/100,000 live births<sup>3</sup>. In Indonesia there are 18,000 children aged 0-14 years living with HIV<sup>4</sup>. Of every three children infected with HIV acquired through human transmission, two will develop AIDS in the first 12 to 15 months of life.

North Sumatra Province is currently ranked 5th in the first quarter of 2021 with a cumulative 26,524 cases consisting of 22,025 HIV cases and 4,499 people<sup>2</sup>. HIV tests carried out on 48,168 pregnant women in 2019, 231 people were diagnosed positive and in the 2020 report, of the 53,595 pregnant women who were tested for HIV, 282 people tested positive.

The HIV AIDS Information System (SIHA) report for Karo Regency, one of the districts in North Sumatra, in 2019, of 773 pregnant women who were tested for HIV, found that 6 pregnant women were infected with HIV and 20 pregnant women knew their partner's HIV status. In addition, in the last 3 years, every year 1 child <4 years old was found to be HIV positive and 16 children required counseling for further examination.

Even though various HIV outreach and prevention efforts have been carried out by the health sector and the community, cases continue to increase. The age of HIV sufferers, most of

whom are in the sexually active age group, which increases the possibility of risk of transmission, especially in women of childbearing age, will increase the risk of vertical transmission from mother to child during pregnancy, childbirth and postpartum, which if optimal treatment is not carried out will increase. HIV and AIDS cases are increasingly difficult to control.

Apart from strengthening the health system, collaboration with community organizations and related support groups is also needed. Kartono, identifies *stakeholder* Those who play a role in handling HIV are family, neighbors, religious leaders, faith-based organizations, local leaders and public and private sector institutions<sup>5</sup>. The role of each component involved in preventing HIV in pregnant women needs to be optimized, so barriers and factors that can increase service utilization in each component need to be identified and health promotion activities must involve all of these components. Health promotion needs to be done to increase participation in HIV prevention, including addressing the low utilization of HIV testing among pregnant women.

Likewise, research by Onono et al<sup>6</sup>, which found that barriers to HIV transmission prevention program services start from individual, family, community and structural determinants. The social ecological framework takes a broad view of health, focusing on the various factors that influence health. WHO, in line with developments in community and social epidemiology, has developed a social determinants of health approach which recognizes that the interaction of individuals, groups/society, physical, social and political environments influences health as recommended by Stokol.<sup>7</sup>



Figure 1. Social-ecological framework (adapted from Busza et al, 2012)

A socioecological framework can help analyze complex interactions and thereby help inform the choice of community-based interventions that are relevant to local situations.<sup>8</sup>

This research aims to Exploring the participation of pregnant women, stakeholder participation and stakeholder barriers in efforts to prevent HIV transmission from mother to child.

## Research methodology

This study uses a qualitative research method with a phenomenological approach. Selection of informants using purposive techniques takes into account that the informants are key figures involved in the program in the field, informants who know and understand the problem being studied. Characteristics that limit research participants are determined by researchers using eligibility criteria, also known as inclusive criteria<sup>9</sup> So 34 informants were obtained consisting of 6 pregnant women, 6 husbands of pregnant women, 8 health workers and 7 health cadres, 4 peer support cadres, 2 people from HIV care organizations and 1 community figure. Data collection was carried out using in-depth interviews and focus group discussions (FGD). The results of in-depth interviews and FGDs were analyzed using the Colaizzi's Method.<sup>10</sup>

## Results and Discussion

### Participation of Pregnant Women in HIV testing.

Participation of pregnant women in efforts to prevent HIV transmission from mother to child is low because education and invitations about prevention efforts are not conveyed to pregnant women.

*"I've been to the midwife twice and once to the doctor...never had a blood test ma'am..."H<sub>1</sub>*

Even for pregnant women who have been tested for HIV, the HIV test carried out on pregnant women is disguised as a regular blood test without a specific explanation of what the test will show.

*"Oh, I've had my blood checked here, I don't know what to check...."H<sub>3</sub>*

*" This month, I had a blood test... I don't know what it was for. Just a blood test last night... mmmm, he said, to detect whether we were sick or not, he said, just last night, all the results were good for pregnant women..." H<sub>4</sub>*

HIV testing is very crucial, as research findings by Hensen et al<sup>11</sup> and Pottie et al<sup>12</sup> states that HIV testing and education is the main gateway or the key to opening HIV treatment programs. Leon et al<sup>13</sup> also stated that HIV testing is the most important step in HIV prevention and treatment programs. With not many pregnant women's HIV status known, the Prevention of Mother-to-Child Transmission of HIV (PPIA) program will not be able to run well.

Examination without providing sufficient information is not in accordance with WHO recommendations<sup>14</sup> which states that pre-test and post-test counseling is considered important in the examination process because of the seriousness of the news of HIV infection for people who receive positive results. In addition, the pre-test counseling process is designed to ensure that test takers are sufficiently informed about the screening process and the possible consequences: counseling allows for informed consent and ensures that people are not tested in a coercive manner.

Even though pregnant women are not aware of what tests they are getting, pregnant women understand that HIV is an infectious disease, whether transmitted through blood or sexual contact.

*"HIV is an infectious disease. Transmission is through blood. Sexual relations and touching wounds....."H<sub>1</sub>*

*What kind of disease is HIV... the check is if we often have relationships with other people of the opposite sex, you say, change partners..."H<sub>4</sub>*

The Health Belief Model has highlighted the role of knowledge as an important factor influencing service use. With increased knowledge about HIV, individuals can assess their risk of contracting HIV, access HIV testing and initiate ARV treatment.<sup>15</sup> In addition, better knowledge about HIV can help reduce stigmatizing behavior which is the main obstacle in HIV prevention, especially in carrying out HIV testing.<sup>16</sup> Ajay et al<sup>15</sup> recommends that expanding access to HIV testing alone, without increasing knowledge about HIV and addressing the embedded stigma associated with HIV, is not enough to increase HIV testing uptake. In other words, focusing on increasing knowledge about HIV in pregnant women is as important as expanding access to HIV testing.

The low participation of pregnant women in HIV testing found in this study indicates that this intervention must focus on increasing pregnant women's knowledge, reducing negative stigma through media campaigns and increasing access to HIV testing, whether through testing in the community or optimizing outbound strategies. namely HIV testing part of routine ANC services and must be performed unless the woman refuses

### **Stakeholder participation in efforts to prevent mother-to-child transmission of HIV**

**Husband's support in pregnancy checks.** Husbands are less involved in prevention efforts due to lack of involvement in pregnancy checks so they do not receive information and invitations to participate in the program. Providing support in pregnancy checks is not considered a priority so they only accompany their wives when they have free time and just deliver them, not being involved in face-to-face meetings. with a pregnancy screening service provider

*"Yes, sometimes I come along, sometimes not most of the time, but recently I came along because I wasn't too busy with work, so I came along like it was just yesterday I was dropping him off... specs.... just deliver it, ma'am... he'll come in, I'll just stay outside. Later, if there is one, whether it's necessary to be called, I'll just come in..." SH<sub>5</sub>*

HIV testing for pregnant women requires support from the people around them, including their husbands. To be able to provide support, one thing that is needed is that the husband needs to be given information about the examination. In this case, the participants' husbands of pregnant women did not receive information regarding HIV testing for pregnant women.

*"There is, ma'am, just a notification, just a precaution, that's all, there's no inspection information, just whatever it's called. Stay away from drugs, don't have sex with someone other than your partner. I see..."SH<sub>6</sub>*

Gizaw Research<sup>17</sup> found that the majority of pregnant women's partners knew about the availability of HIV counseling and testing services at the time of ANC visits, three quarters of pregnant women's couples would participate in HIV counseling and testing services. Offering counseling and screening services to couples in antenatal clinics with couples and individual counseling is an important and acceptable strategy to increase the involvement of couples in preventing mother-to-child transmission and promoting HIV programs among partners/husbands of pregnant women. WHO recommends offering HIV testing and counseling to couples wherever HIV testing and counseling is available, including in antenatal clinics to prevent mother-to-child transmission of the HIV virus. Success in integrating HIV testing into antenatal care and other sexual and reproductive health services has increased the number of women undergoing HIV testing.<sup>18</sup> One way to ensure that husbands have the opportunity to undergo HIV testing is through PPIA services at antenatal clinics. Programs should offer couples jointly participating in educational activities so that they have the opportunity to undergo examinations, receive the results and express their status to each other in an environment where support is provided by counselors or health workers. Various prevention, treatment and support options can then be discussed and decided together depending on the status of each partner.<sup>19</sup>

### **Participation of Health Workers.**

**Providing education, counseling and HIV testing.** Pregnant women who undergo pregnancy checks at health facilities and community health centers are given education on the importance of HIV prevention. At the community health center level, education is provided on preventing mother-to-child transmission of HIV, followed by HIV testing

*"If there is a patient, we educate after we have carried out the examination, we recommend that the patient undergo a triple examination. Apart from being at MCH, I am also at the Polyclinic, so if there is a patient from MCH, I will be called apart from education... we will carry out screening and laboratory examination. like triple elimination because it includes syphilis, HIV and hepatitis...". P<sub>1</sub>*

Good and quality antenatal care is a service that can provide health protection while the mother is carrying out her pregnancy. The aims of quality antenatal care include preventing and early detecting problems or illnesses suffered by pregnant women and their fetuses. Conditions that can have a negative impact include, among others, HIV infection in pregnant women. In an effort to prevent HIV transmission from mother to child, PPIA services are integrated with maternal and child health services (KIA) including during the antenatal period so that PPIA also becomes the

main task of all health workers involved in antenatal services at both first level and referral facilities. Every pregnant woman who accesses antenatal services is given information about PPIA.<sup>20</sup>

Education about the importance of HIV testing is continued by making internal referrals to the health center laboratory for HIV testing in pregnant women.

*"...every ANC is required to carry out tests for hepatitis, HIV and syphilis. That's what we usually do, we educate, we make an internal referral to the lab for examination..."P<sub>5</sub>*

Community Health Centers have a central role in providing basic health services to people in Indonesia. One important aspect of the services provided by the Community Health Center is HIV testing for pregnant women which is part of the integrated Antenatal service. Integrated Antenatal Care is a comprehensive and quality antenatal service provided to all pregnant women to fulfill the right of every pregnant woman to receive quality antenatal care. Integrated antenatal care includes promotive, preventive, as well as curative and rehabilitative services, one of which is HIV AIDS testing.

However, in contrast to ANC services provided at Community Health Centers, at hospitals HIV testing is only carried out before delivery, whether normal delivery or operative delivery. Education about HIV prevention and testing for pregnant women should have been completed at the Community Health Center.

*"...so if we are at the Amanda Brastagi Hospital, every patient who will undergo the same procedure as a patient who will undergo either a normal birth or a surgical birth, the HIV test is a mandatory test and must be done, I see..."*

*..... standard pregnancy checks here are not routinely carried out because most of the patients who do antenatal care don't necessarily give birth here, like that so and so too eee we need to give informed consent to carry out these checks, do we? the patient wants to do the examination, because that's what happens... it's also a dilemma for hospitals..."*

*.....The name of counseling is already a program from the community health center..."P<sub>3</sub>*

This shows that early awareness of HIV transmission from mother to fetus during pregnancy in hospital services is not yet a priority. HIV testing is only carried out before delivery as part of routine procedures for safe delivery at the hospital. The role of hospitals in preventing HIV transmission from pregnant women to fetuses is passive, the role is passively carried out by people who come to health service facilities to obtain health services because of the assumption

that active case finding is carried out by outreach, early detection or screening as well as partner notification and children carried out by Health Workers and/or non-Health workers have been carried out at first level health facilities at the Puskesmas level as intended in article 23 of Minister of Health Regulation No. 23 of 2022.<sup>21</sup> However, considering the results of the 2018 Integrated Biological and Behavioral Survey (STBP) of key populations<sup>22</sup> which shows that the prevalence of HIV in key populations is generally still high, above 10 percent, where there has been a shift in HIV transmission patterns, where in the early 2000s HIV transmission was more frequent due to the use of shared syringes among IDUs, currently sexual transmission is the main way of HIV transmission so that It is very relevant if hospitals also prioritize preventing HIV transmission from mother to child by finding cases in pregnancy services.

**Other duties and responsibilities.** Health workers who are involved in HIV transmission prevention programs, whether they work at community health centers or in villages, are usually also burdened with other tasks so they don't focus on working on the PPIA program alone.

*"...because we are directly in contact with the community, there is a TB program, TB for pregnant women, TB tracking for the community, then there is also for schools, there is also counseling for children, then there are also toddler classes. There are also ones for the elderly. Many programs are posbindu. Yes, it really is posbindu. "Basically, if all the programs that are approved for stunting, all the programs that are in the Department are handed over to the community health center and will definitely fall to the village midwife..."P<sub>6</sub>*

Based on triangulation of information sources, both doctors, midwives at community health centers and midwives in villages apparently have multiple jobs so the staff's workload is quite large. The excessive workload of health workers due to the large variety of tasks assigned results in health workers not focusing on one service program which in turn has a negative impact on the quality of health services provided, Excessive workloads can cause providers to compromise patient care<sup>23</sup>, high workloads likely reduce service providers' motivation and ability to provide appropriate services, which may explain the gap between what service providers know and what they do in practice.<sup>24</sup>

### **Participation of Community Figures.**

**Educational Activities.** Religious figure participants in their organizations have carried out HIV and drug education activities in their communities which are carried out in the pre-wedding program, limited to providing advice so that the prospective bride and groom get themselves checked but there has been no facilitation of the examination.

*"... Before getting married, the priest suggested checking your blood for the presence of the HIV virus or drugs. That's all the priest said so that the*



*preparations for marriage are truly healthy and the child you conceive will be healthy..."*

The involvement of religious organizations in educating the public is very necessary, especially when the stigma related to HIV AIDS as one of the obstacles in preventing and treating HIV is produced for reasons of morality. Stigma originates from the mind of a person or society who believes that AIDS is the result of immoral behavior that is unacceptable to society. Many people believe that people infected with HIV deserve punishment due to their own actions. Views like this usually come from religious groups who tend to carry a moral perspective, so encouraging the involvement of religious organizations in HIV education is a relevant strategy.<sup>25</sup>

Community figure informants revealed that occasionally there was counseling from the Community Health Center to the Posyandu for pregnant women and at other times it was also carried out for groups of teenagers.

*"... once in a while we also had outreach, outreach from the community health center came to the Posyandu and gathered at each posyandu there were pregnant women and toddlers. "So the pregnant women were told to gather first and be given an explanation of the HIV AIDS problem."*

*"... then for teenagers there is also education about the dangers of AIDS..."*

From the quote above it is known that community-based organizations have advantages that make them in a strategic position in providing response and participation to the problem of preventing and treating HIV and AIDS to understand the needs of the community they serve because they are part of the community itself so they can bridge the needs of the community. by providing services available at the health service, in this case the Community Health Center.

**Peer support activities.** Prevention of HIV transmission requires a support system that will be useful as support when people are found to be infected as a result of examination. Apart from that, related to stigma, in all places there are still many cases where sufferers are discriminated against, therefore peer support is needed.

*"...Tanah Karo itself, we already have two companions or peer supporters for HIV people, so how can they still maintain their health and don't let them not take their medication and the peer support friends will be assisted by members of the Tanah Caro KDS members "Care is like that because we are building a support system like that. If we talk about stigma and discrimination in all places, it's the same, why does stigma and discrimination arise because the information is not accurate, maybe it's conveyed, maybe people will become paranoid first."*

**Mobile VCT.** Participants revealed that so far, through the Health Operational Assistance (BOK) program in their organization, they have been proactive in providing education to the community as well as being involved in screening activities *mobile VCT*, even involved in comprehensive assistance so that participants said that if there was a field program from the Community Health Center, they would be happy to be involved.

*"... .....we are down for mobile VCT so we have participated in mobile VCT, through the BOK program.*

*.....So, that's where we are, in other words, we chase the ball because we at GBKP also provide psychosocial assistance, so if there is a patient, when a new case is found, we immediately assist in a comprehensive manner. My hope is for midwives, pustu mothers and community health centers, if there is a mobile VCT field program, join us, ma'am. We are willing to come, so before the mobile VCT is carried out, we can socialize first and then we will screen later, if there are any new positive cases or what, then we will be the ones to accompany you directly, for example taking you to the RSU or for further diagnosis like that ma'am..."*

### **Participation of Karo District Health Service policy makers**

**Service availability.** Regarding the availability of services, the health service ensures that services to prevent HIV transmission are available to pregnant women. The services provided include four components, namely VCT (*Voluntary Counseling and Testing*) or Voluntary Counseling and Testing (VCT), *Provider Initiated Testing and Counseling* (PITC) in key populations, Socialization and Advocacy, Treatment Services.

*"... in Karo district to bring services closer or facilitate access to HIV services to the community or to the target population. All 19 Community Health Centers have eee VCT.*

*....included in the key population which is the term in Minister of Health number 21 which is called an officer-initiative test, namely TB cases and cases of pregnant women, this is an officer-initiated test, so officers take the initiative to offer tests to eee cases or potential cases.*

*.... socialization and advocacy both to the general public and to stakeholders, both stakeholders from the religious sector, government administrators and the private sector.*

*.....carrying out treatment or treatment services is a health person from the Health Service, so from 2007 until now there has been a change in policy*

*direction for Health development in the field of HIV prevention and control towards Health services..." K<sub>1</sub>*

HIV Counseling and Testing (KTHIV) is the main entry point for prevention, care, support and treatment services. Of the 19 Community Health Centers in Karo Regency, all provide this service and can be accessed by the public. This service is intended to determine the presence of HIV infection in a person's body. KTHIV is preceded by a dialogue between clients/patients and counselors/health workers with the aim of providing information about HIV-AIDS and improving decision-making abilities related to HIV testing.<sup>26</sup> KTHIV has been implemented in Indonesia since 2004, namely with an HIV counseling and testing approach at the client's initiative or what is known as voluntary HIV counseling and testing (VCT). Until now, this approach is still being used for clients who want to know their HIV status. Since 2010, HIV counseling and testing has begun to be developed using the HIV counseling and testing approach at the initiative of health service providers. Both approaches to HIV counseling and testing aim to achieve universal access, by eliminating stigma and discrimination and reducing *missed opportunities* prevention of HIV transmission. Outreach is carried out to the community to increase awareness and understanding about HIV AIDS and its prevention and to introduce prevention and examination programs that can be accessed by the community. Controlling HIV requires integrated and systematic efforts to encourage support from various aspects, both through public policy advocacy, thereby influencing the policy change process to contribute to HIV prevention and treatment programs as well as mobilizing the strength of social elements of society.

**Policy changes.** There has been a change in HIV-AIDS management policies from previously focusing on socialization to focusing on health services.

*"... at the beginning, most of the socialization and advocacy activities went along with the passage of time and what is the name of the change in the program so that the Health Department has started to reduce the socialization activities because there were already many people involved in carrying out the socialization but increased or concentrated on services, to case services, OK..."K<sub>1</sub>*

Related to policy changes so that now services are concentrated on case services, in this case the health service hopes that outreach activities about HIV AIDS, prevention and treatment will be carried out by the community, NGOs and village governments, even across sectors.

*"... so it is hoped that the socialization will not stop, but it is not the Health Service or the government health department that is carrying it out, but all parties have carried out the socialization... the private sector and the general public, for example, GBKP. then the village government also implements that too, then there are several NGOs or community activities that carry out socialization and advocacy regarding HIV."<sub>1</sub>*

Community involvement in HIV prevention efforts is an important issue. Community participation is a potential aspect in overcoming HIV AIDS, so it is very important to inspire and involve the community to participate. Dissemination of information, involving the community in programs related to HIV prevention, increasing the capacity of community organizations so that the community is also actively involved in conveying information and even outreach to key groups. This is important in preventing the emergence of new infections in the wider community and reducing the stigma associated with HIV. Partnerships in preventing HIV AIDS are carried out together with cross-sector government institutions, stakeholders, service providers, community organizations, communities, professional organizations, mass media academics based on interests, clarity of goals, equality and openness. The partnership aims to encourage partners to actively promote health (Ministry of Health, 2022).

This policy change is relevant because even though HIV case findings are already quite high, in order to achieve the 95-95-95 target by 2025, efforts are needed to be able to detect 21 percent or around 105,000 PLHIV of the PLHIV who are estimated to be living in Indonesia for the next 1 to 6 years. front. Efforts to find new cases need to be prioritized and expanded to include populations known to be at risk of HIV transmission, such as drug users, TB sufferers, hepatitis sufferers and pregnant women.<sup>27</sup>

**Budget problems.** Policy changes that occur automatically also occur in changes in the budget used in HIV-AIDS control services, namely from socialization and advocacy to treatment and screening activities, so that the budget does not only focus on HIV prevention and control programs, but also HIV and TB activities. Hepatitis, MCH TB, Drug TB.

*"... the HIV budget has also shifted from a lot of socialization and advocacy activities to shift towards treatment, medication and screening activities to bring access to services closer to the community so this funding is also currently still mostly located in the Health sector in the Health Service but it is no longer tok he is in The P2HIV program in pulmonary TB also has activities, perhaps implicitly, not indirectly, eee, it's called HIV prevention activities, but TB HIV collaboration, for example. So, implicitly, HIV disease is also being tackled because all TB cases must also be tested for HIV and vice versa, the same goes for pregnant women, yes, for pregnant women or couples of childbearing age, HIV testing activities are also carried out through HI screening for pregnant women, right? ... "K<sub>1</sub>*

**Logistics.** Often program activities are hampered by logistical problems, but the Karo District Health Service ensures the availability of logistics so that logistical problems are not an obstacle in the framework of the HIV screening program.

*"..... availability of tools and consumables or consumable medical materials so eee for reagents. Until now, everything has been dropped from the Ministry of Health through the North Sumatra Provincial Health Service, the reagents and supporters, including the BHP, have all been dropped, yes, we ask for it from the province, both for HIV tests and STI tests. If the STI test is usually syphilis, besides that, what is the name? If the BHP is for example, cotton or alcohol, the swap may be provided by the district, although it is from the province, if there is a shortage, it is provided by the district, that is, for the availability of reagents..."K<sub>1</sub>*

### **Barriers to implementing HIV prevention programs for pregnant women.**

**Visit of Pregnant Women at the Lower Village Health Post.** Even though the Poskesdes provides education about preventing HIV transmission from mother to child, not all pregnant women use the Poskesdes as a pregnancy check service so they cannot receive adequate education.

*"..of all pregnant women, maybe only half can attend.."*

*"... for now, mother is still 34 I this year, yes, even though the target is 63..."*

*"...Actually, the standard for ANC visits is 6 times, but what happens in the field is sometimes. The standards are not met because they visit sometimes 2...3.. to 4 times and have not yet reached the standards. Haven't reached the standard of 6 visits, sometimes I've given birth and 2 visits have already..."*

**HIV testing for pregnant women has not been integrated into MCH services at hospitals.** The lack of integration of HIV testing services in hospitals is probably due to the stigma associated with HIV and this is an important obstacle because talking about HIV testing is considered a fairly taboo process. Stigma is one of the obstacles in overcoming HIV and AIDS, and usually arises due to wrong perceptions about HIV and AIDS as a result of society not yet having a comprehensive understanding of HIV and AIDS.

*"..... . Why do people come to Amanda to be tested for HIV, they say, they don't want people to come anymore, so we still tell mothers whether they want to be tested or not, but most of them don't..."P<sub>3</sub>*

Apart from the issue of stigma related to HIV, hospitals also need to maintain services so that they do not come into contact with sensitive service issues. This is because stigma and prejudice are carried out not only by ordinary people but also by health professionals. Health workers, whether doctors or nurses, who frequently encounter PLHIV face discrimination and stigma from society. For example, people avoid seeking treatment or refuse to be treated by doctors and health workers who usually care for people living with HIV-AIDS

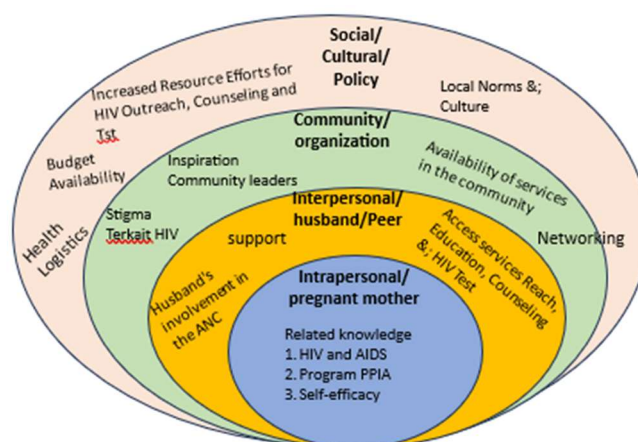
"... We, besides the service side, have the business side too, that's what we need to think about..."P<sub>3</sub>

**A forum for coordinating collaboration.** The absence of a network to coordinate activities is the main obstacle to community participation, meanwhile the health service needs personnel to raise awareness among pregnant women so they are willing to undergo examinations, requires personnel outside of health personnel for case outreach, requires the participation of religious leaders and community leaders to reach their communities who have not yet given special abilities.

"The forum doesn't exist, so eee this information is all Health people, right? So if all sectors can take part, we don't think it's that difficult to do it, so eeee, to raise awareness among pregnant women to be willing to be tested, it's not just the Health sector that's involved." what role is there in what percentage are we able to ensure that....."K<sub>1</sub>

**Advocacy to community leaders.** Advocacy for community figures as a system is still an obstacle, even though the involvement of figures in being listened to by the community is one of the keys to success if the program target is behavior change. Until now, what is still being done by the Community Health Center is limited to reaching out to the general public, while it has not yet reached out to religious leaders and community leaders.

Thus, by adapting the social-ecological framework, participation and barriers in efforts to prevent mother-to-child transmission of HIV in this study can be described as follows:



**Figure 2.** Participation and Barriers to Efforts to Prevent HIV Transmission from Mother to Child in the Social Ecological Frame

## Discussion

The field of health promotion not only focuses on lifestyle changes but also pays attention to contextual forces that influence health. The social ecological model recognizes individuals as part of a larger social system and describes the interactive characteristics of the individual and the environment that underlie health outcomes, meaning that this approach assumes that not only are there various influences in the social system but they are also interactive and mutually reinforcing. Stokol (1996) argues that the social, physical and cultural aspects of an environment have a cumulative effect on health. Stokol further argues that the environment itself has many layers, as institutions and environments are part of larger social and economic structures, and that the environmental context can affect each person's health differently.

## Recommendation

Creating sustainable health improvements will be effective if all components in the social and ecological layers are targeted simultaneously. This approach contextualizes individual behavior using intrapersonal (e.g. knowledge, attitudes, behavior), interpersonal dimensions (social networks, social support), community (e.g. relationships between organizations/institutions), and public policy (e.g. implementation of Minister of Health Regulations regarding mother-to-child HIV prevention programs) to provide a framework that describes the interactions between these layers so that solutions to problems the individual is not only found in the individual but the solution may be found in other layers where the individual lives and interacts.

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