

# **Awareness of HIV/AIDS Among Pregnant Women**

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## **ABSTRACT**

The Human Immunodeficiency Virus (HIV) is considered a potentially life-threatening virus that damages the immune system. HIV infection can lead to AIDS (or Acquired Immunodeficiency Syndrome), which is a complex illness with a wide range of complications and symptoms. AIDS is the final stage of HIV. When individuals reach this stage, they are at high risk for opportunistic infections due to their severely damaged immune system, which could lead to death. It affects everyone, including pregnant women.

The primary objective of this study is to determine the level of awareness of HIV/AIDS among pregnant women in Manga District, Tagbilaran City. This study used descriptive normative survey method with 19-item awareness questions to 36 expectant mothers. The findings revealed that the respondents were strongly aware of HIV/AIDS. There was a significant relationship between the age and the educational attainment to the level of HIV/AIDS awareness among pregnant mothers in Manga District. An HIV/AIDS Advocacy program should be implemented and cascaded to all women regardless of age, sex, and educational level to help prevent the spread of the disease.

**Keywords:** HIV, AIDS, virus, disease, infection, pregnancy, expectant mothers, awareness, advocacy, Philippines

## INTRODUCTION

Human Immunodeficiency Virus (HIV) is a retrovirus that passes to the cells of the human immune system, thereby, damaging its normal function (World Health Organization, Health Topics on HIV/AIDS Publication, 2018). As it advances, the body's immune system will become weaker, and the person is more susceptible to many different kinds of infections. It will take 10-15 years for a person living with HIV to develop the most advanced stage of the illness, which is the Acquired Immunodeficiency syndrome AIDS. Taking antiretroviral drugs can lower the spread of HIV infection.

HIV can be contracted through unprotected sexual intercourse (anal or vaginal), blood transfusion, and from a mother and her infant during pregnancy, childbirth, breastfeeding, sharing of contaminated needles. As of June 2016, there were a reported 841 cases of new HIV antibody seropositive individuals according to the HIV/AIDS & Anti-Retroviral Therapy (ART) Registry of the Philippines (HARP). Such a figure was 9% or 69 cases higher as compared to the same period in 2015. Such a number was the highest among cases ever reported since 1984. Asymptomatic cases for this particular period were at 88 percent of the said individuals.

The Province of Bohol has reported HIV/AIDS cases. However, no literature can be found in studies that have been conducted on this concern about the possibility of pregnant women to acquire the HIV virus. Further, in some settings, re-testing late in pregnancy or at labor and delivery may be warranted to detect acute HIV infection and immediately

begin antiretroviral therapy to decrease maternal to child transmission risk. No local studies were addressing this issue.

Hence, the researchers conducted this particular research in the hope to prevent such occurrences. This study would serve as the baseline for an advocacy program. This advocacy program could at least help prevent expectant mothers from acquiring HIV/AIDS.

A combination of several theories which complements other theories applies to this study. The triangular model is fitted for studies on infectious disease. The spread of contagious disease requires a susceptible host and an infective agent, in an environment that brings them together:

**Agent, Host Environment Model.** This study is anchored on this theory in the sense that HIV refers to the agent if transmitted, pregnant mothers refer to the host and their knowledge of HIV/AIDS refers to how they interact with their environment (Leavell and Clark, 1965).

Determining the level of HIV/AIDS awareness could at least help pregnant women from contracting HIV/AIDS. Proper information on HIV/AIDS is crucial to the effectiveness of the response. Educating pregnant women on this kind of disease will lessen stigma and discrimination that impedes efforts to halt its spread. A robust communication process helps empower people to pursue behavior change.

**Social cognitive theory (SCT).** Social cognitive theory (SCT) posits that learning occurs in a social context with a dynamic and reciprocal interaction of the person, environment, and behavior. The theory is the anchor that human behavior is being determined by knowledge, communication, or interacting with other people and their practices. Pregnant mothers can be prevented from acquiring the virus when they are educated about the nature of the disease, transmission, and prevention of HIV/AIDS and their behavior could be at least modified once they are knowledgeable about the condition (Bandura, 2002).

The United Nations Agenda for 2030 Sustainable Development Goals focus on the 5 Ps, namely People: the wellbeing of all people, Planet: protection of the earth's ecosystems, Prosperity: continued economic and technological growth, Peace: securing peace, Partnership: improving international cooperation.

The No. 3 agenda is to ensure healthy lives and promote wellbeing for all at all ages. It further states that by 2030 there will be an end of occurrences of epidemics, including AIDS.

Knowing the level of awareness of HIV/AIDS among women, especially pregnant women, is very important to achieving sustainable development goals.

A study entitled “HIV knowledge among pregnant Latinas in rural South Carolina” by Torres, Murray, Meetze, Gaul, and Sutton (2017) revealed that these expectant women had high HIV knowledge which is in agreement with the result of this study. Though, other studies suggest suboptimal HIV knowledge scores among pregnant (mostly African-American) women in the US. In the same study, some pregnant Latinas with low educational attainment, high poverty level, and limited English–Spanish language proficiency in health care settings where social and structural factors contributed to subsequent increasing perinatal HIV risk. Some other studies found sub-optimal HIV knowledge, and screening practices by prenatal providers in the US contributed to low HIV knowledge among pregnant women.

A study conducted on “HIV/AIDS Awareness and Knowledge among Ghanaian Women of Reproductive Age” (Nketiah-Amponsah, Codjoe, Ampaw, 2018) revealed that older Ghanaian women were significantly different from their younger counterparts in terms of socio-economic, and demographic characteristics. Such finding influenced their awareness of HIV/AIDS. The respondents’ age, place of residence, wealth status, education, marital status, and religious affiliation were significantly associated with awareness of HIV/AIDS among women.

The results of a study about the knowledge among the physiotherapist on the mode of transmission by Gurung & Kamalanathan (2017) showed that majority of the participants agreed that HIV was transmitted by sharing needles with HIV infected person (98.3%), transfusion of HIV-infected blood or receiving HIV-infected organ (97.9%), from an HIV-positive mother to her fetus (89.7%), through breastfeeding from an HIV-infected mother (64.3%), by sharing personal items such as shaving blades (79.4%) and having tattoos or body piercings (77%). Most of the participants disagreed on the transmission of HIV by sharing a meal with an HIV-infected person (84.5%), using a public swimming pool or public toilet (81.4%) and casual contacts such as hugging or touching an HIV- infected person (93.8%).

A study on “Awareness and Knowledge of Mother-to-Child Transmission of HIV among Pregnant Women” intended to assess the awareness and knowledge of mother-to-child transmission of HIV and its corresponding prevention among expectant mothers attending the antenatal clinic of a

Federal Medical Center in Nigeria. Questionnaires were administered to the respondents at antenatal booking, before being counseled on HIV/AIDS. Findings showed that all respondents were aware of HIV/AIDS. Their primary sources of information included posters/billboards (37%), radio (36%), television (28%) and health workers (34%). The majority (90%) of them were aware that HIV/AIDS could be acquired with pregnancy, but only 68% were aware of mother-to-child transmission. The transplacental route, vaginal delivery, and breastfeeding were identified as routes of transmission from mother to child by 65 percent, 38 percent, and 52 percent of respondents, respectively. Cesarean section was believed to be a route of transmission by 43% of respondents, but the 3% identified cesarean section as a method of prevention of mother-to-child transmission (Abiodun, Munir'deen, & Aboyeji, 2007).

A study entitled "HIV/AIDS Knowledge and Risk Behavior in Hong Kong Chinese Pregnant Women" determined the knowledge of HIV/AIDS, risk behavior, management, and attitudes towards HIV screening. Findings revealed that expectant mothers in Hong Kong had a reasonably good understanding of HIV/AIDS, but were less knowledgeable on specific mother-to-child HIV transmission (Ho & Loke, 2003).

A study on Awareness of HIV/AIDS and the household environment of pregnant women in Pune, India. The International Journal of STD & AIDS showed that 75% of women were knowledgeable on transmission routes, 70% were knowledgeable of maternal to child transmission, and 8% were aware of other preventive measures. Access to information mostly came from television and written materials, rather than radio and other individuals. Thirty percent were physically and mentally abused women, or alcohol and drug abusers. Women who were abused had high knowledge of HIV/AIDS in comparison to women who were not harmed. There was no significant relationship between abuse and educational level of a woman, husband, occupation of either partner, language or religion and no relationship between the knowledge of HIV and risk of abuse in the household (Shrotri, Shankar, Sutar, Joshi, Suryawanshi, Pisal, & Sastry, 2003).

Another study conducted on "Knowledge and Attitude toward HIV Voluntary Counseling and Testing Services among Pregnant Women Attending an Antenatal Clinic in Sudan" revealed that out of 1,005 women interviewed, 79% were knowledgeable on HIV/AIDS. Those who belonged to ages 26 years and above and had secondary level education

were found to be more knowledgeable. The majority were aware of mother to child transmission and willing to undergo testing. But there was still a need to expand voluntary counseling and testing in all prenatal clinics. (Mahmoud, Nasr, Gasmelseed, Abdalhafiz, Elsheikh, & Adam, 2007)

A research study entitled “Knowledge and perceptions of HIV/AIDS and mother to child transmission among antenatal mothers at Nnamdi Azikiwe University Teaching Hospital, Nnewi” was aimed to examine the knowledge and perceptions on HIV/AIDS and mother to child transmission among pregnant women. Majority of the 312 respondents (94.2%) were aware that HIV infection could coexist with pregnancy, and 76.9% were aware of mother to child transmission (Igwegbe and Ilika, 2005).

## **RESEARCH METHODOLOGY**

The study employed a quantitative approach with the aid of questionnaires to answer the stated problems. The 36 respondents that comprised 31% of the 114 pregnant women in Manga District, Tagbilaran City, Philippines were randomly selected from July to December 2017. A modified questionnaire was used based on the Assessment tool for HIV/AIDS Awareness by the Health Action Information Network (HAIN) and DOH-Center for Disease Control and Prevention. It was composed of two parts. Part 1 was the socio-demographic profile, and the second part was the questions on the level of awareness. The respondents were chosen regardless of age and social status in the community.

The researchers obtained approval from the University of Bohol - Research Ethics Committee (UB-REC) to proceed with the study. The researchers invited, explained the purpose of the study, and sought the permission of the pregnant women in the study site to participate in the survey. An assurance was given to the participants that complete anonymity and utmost confidentiality would be observed in the handling, processing, managing and archiving of the data.

The data were managed, analyzed and interpreted using the following, frequencies, percentages, weighted mean, and Chi-Square.

## RESULTS AND DISCUSSION

The majority of the respondents were between ages 26-35 years old. Almost two-thirds (61.1%) of the respondents were married. Eighty-eight percent of the respondents were Roman Catholics, and most of the respondents (41.6%) were high school graduates, while college graduates were at 25%. Housekeepers made up the highest number of respondents, followed by government employees. Third were vendors, and the fourth were office workers and Barangay Health Workers (BHW). Most of the employees had only one child.

**Table 1. Level of awareness on Human Immunodeficiency Virus (HIV/AIDS) among pregnant women**

N-36

Nature of HIV /AIDS	Highly Aware (HA)	Moderately Aware (MA)	Slightly Aware (SLA)	Unaware (U)	Weighted Mean	Interpretation	RANK
1. HIV stands for Human Immunodeficiency Virus.	27	5	2	2	3.58	HA	2
2. HIV weakens your immune system by destroying cells that fight disease and infection.	24	8	4	0	3.56	HA	3
3. HIV infection can lead to AIDS.	24	6	4	2	3.44	HA	4
4. AIDS is the final stage of HIV.	21	11	2	2	3.42	HA	5
5. AIDS is a complex illness with a wide range of complications and symptoms.	27	7	2	0	3.69	HA	1
6. HIV is found in blood, semen, breast milk and vaginal fluids.	16	16	2	2	3.28	HA	6
COMPOSITE MEAN					3.50	HA	
HIV can be transmitted through:							
7. Sexual intercourse with an infected person.	27	6	2	1	3.64	HA	1
8. Using/ Sharing contaminated needles and syringes.	17	14	2	3	3.25	HA	3

Nature of HIV /AIDS	Highly Aware ( HA )	Moderately Aware ( MA )	Slightly Aware ( SLA )	Unaware ( U )	Weighted Mean	Interpre-Tation	RANK
9. Blood transfusion with infected blood or an organ transplant from an infected donor.	16	15	2	3	3.22	MA	4
10. During pregnancy, childbirth, or breastfeeding.	13	19	0	4	3.14	MA	5
11. Injection of illegal drugs.	18	14	2	2	3.33	HA	2
12. Occupational exposure through needle sticks or cuts.	15	14	3	4	3.11	MA	6
13. Infected individuals can have the virus for up to 10 years-sometimes longer-without showing signs or symptoms.	8	19	5	4	2.86	MA	7
COMPOSITE MEAN					3.22	HA	
HIV/ AIDS Prevention							
14. Practicing abstinence and using of a condom.	23	10	0	3	3.19	MA	6
15. Being faithful to one's partner.	23	8	3	2	3.44	HA	5
16. Avoid using illegal drugs	27	6	0	3	3.58	HA	1
17. HIV testing and screening	26	7	0	3	3.56	HA	25
18. Avoid transfusion of unscreened blood	28	3	1	4	3.53	HA	4
19. Educate oneself about HIV/ AIDS	28	4	0	4	3.56	HA	25
COMPOSITE MEAN					3.48	HA	
<b>OVER ALL COMPOSITE MEAN</b>					<b>3.4</b>	<b>Highly Aware</b>	

**Legend:**

<i>Symbol</i>	<i>Description</i>	<i>Meaning</i>	<i>Weighted Mean</i>
HA	Highly Aware	Fully aware of the idea	3.25 – 4.00
MA	Moderately Aware	Aware of the idea but needs proof	2.50 – 3.24
SLA	Slightly Aware	Slightly aware of the idea	1.75 – 2.49
U	Unaware	Not aware of the idea	1. 0 – 1.74



Table 1 depicts a high level of awareness of pregnant women on the nature, transmission, and prevention of HIV/AIDS. This result means that pregnant women were knowledgeable of HIV/AIDS.

Data revealed that nine respondents aged 31-45 years old, four respondents aged 41-45 and two respondents aged 21-25 were strongly aware of HIV/AIDS. Only one respondent aged between 26-30 was moderately aware, and two 20-year-old respondents were slightly aware, and only one respondent aged between 21-25 was unaware of HIV/AIDS.

One respondent between ages 26-30 was moderately aware, two respondents who were 20 years old were slightly aware of HIV/AIDS and one respondent between 21-25 years of age was unaware of HIV/AIDS.

When testing the degree of relationship between the profile and the levels of HIV AIDS Awareness, the findings revealed that the age of the respondents and their educational attainment affected their level of awareness in HIV/AIDS while civil status, religion, occupation, number of children were insignificant.

**Table 2. Testing the Significant Relationship between the Level of Awareness on HIV/AIDS and Age of pregnant women**

Awareness Level of HIV/AIDS	20 years Below	Age					TOTAL
		21-25	26-30	31-35	36-40	41-45	
<b>Strongly Aware (SA)</b>	1.67 0 1.667	4.17 2 1.127	7.50 8 0.033	7.50 9 0.300	5.83 7 0.233	3.33 4 0.133	30
<b>Moderately Aware (MA)</b>	0.06 0 0.056	0.14 0 0.139	0.25 1 2.250	0.25 0 0.250	0.19 0 0.194	0.11 0 0.111	1
<b>Slightly Aware (SLA)</b>	0.22 2 14.222	0.56 2 3.756	1.00 0 1.000	1.00 0 1.000	0.78 0 0.778	0.44 0 0.444	4
<b>Unaware (U)</b>	0.06 0 0.056	0.14 1 5.339	0.25 0 0.250	0.25 0 0.250	0.19 0 0.194	0.11 0 0.111	1
<b>TOTAL</b>	2	5	9	9	7	4	36

X<sup>2</sup> = 33.893  
Critical value of x<sup>2</sup> at 15df  
.05 = 24.996  
Result: **SIGNIFICANT**  
Ho: REJECTED

Twelve secondary graduates, seven postgraduate degree holders, and one elementary graduate were Highly Aware of HIV/AIDS. One graduate of vocational course was moderately knowledgeable, three secondary graduates were slightly aware of HIV/AIDS, and one postgraduate student was unaware of HIV/AIDS.

**Table 3. Testing the Significant Relationship between the Level of Awareness on HIV/AIDS and the Educational attainment of pregnant women**

Level of awareness on HIV/AIDS	Educational Attainment					TOTAL
	Elementary Graduate	Secondary Graduate	Tertiary Graduate	Vocational	Post Graduate	
<b>Strongly Aware (SA)</b>	1.67 1 0.267	12.50 12 0.020	7.50 9 0.300	1.67 1 0.267	6.67 7 0.017	30
<b>Moderately Aware (MA)</b>	0.06 0 0.056	0.42 0 0.417	0.25 0 0.250	0.06 1 16.056	0.22 0 0.222	1
<b>Slightly Aware (SLA)</b>	0.22 1 2.722	1.67 3 1.067	1.00 0 1.000	0.22 0 0.222	0.89 0 0.889	4
<b>Unaware (U)</b>	0.06 0 0.056	0.42 0 0.417	0.25 0 0.250	0.06 0 0.056	0.22 1 2.722	1
<b>TOTAL</b>	2	15	9	2	8	36

$\chi^2 = 27.270$   
 Critical Value of  $\chi^2$  at 12 df  
 $0.05 = 21.026$   
 Result: **SIGNIFICANT**  
 Ho: REJECTED

Significant relationships between the respondents' levels of awareness on HIV/AIDS as to age (See Table 2) and educational attainment (See Table 3) were observed. However, no significant relationship was found as to the levels of awareness of the respondents on HIV/AIDS as to their occupation, civil status, religion, and number of children

## **CONCLUSIONS**

Based on the findings, the following conclusions are drawn:

1. Expectant mothers in Manga District were Highly Aware of HIV and AIDS.
2. There was a significant degree of relationship between the age and educational attainment, to their level of awareness on HIV AIDS.

## **RECOMMENDATIONS**

Based on the conclusions, the following recommendations are proposed:

1. A need to present the results of the study to the City Health Office, the Local Government Unit, Primary Health Care Unit personnel of Manga and to the Barangay Health Workers (BHW) to inform their programs and policies pertaining the results of this study. In turn, they will be guided on the crafting of their programmatic measures to address the spread of HIV-AIDS.
2. A comprehensive health education program on HIV AIDS must be vigorously implemented in every healthcare facility; especially to those of younger ages and having low educational attainment. Regular promotional activities on HIV/AIDS Awareness should be done.
3. Conduct massive information campaign about HIV/AIDS to the community targeting the younger age group and those with low educational level.
4. Conduct capability building among BHWs as HIV/AIDS educators.
5. Distribution of IEC (information, education, and communication) materials such as brochures and others related educational materials on STI/HIV/AIDS.

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