KNOWLEDGE OF HIV/AIDS AND DISCRIMINATORY ATTITUDE TOWARDS PEOPLE WITH HIV/AIDS

(Analysis of 2017 Indonesia Demographic and Health Survey)

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(Analysis of 2017 Indonesia Demographic and Health Survey)

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AIDS	: Acquired Immune Deficiency Syndrome
ANC	: Antenatal Care
ART	: Anti-Retroviral treatment
AUC	: Area Under Curve
AVERT	: AIDS Virus Education and Research Trust
COC	: Continuum of Care
CDC	: Centers for Disease Control
HIV	: Human Immunodeficiency Virus
IBBS	: Integrated Biological and Behavioral Survey
IDU	: Inject Drug User
IDHS	: Indonesia Demographic and Health Survey
KAP	: Knowledge Attitude Practice
MDGs	: Millennium Development Goals
MOH	: Ministry of Health
MSM	: Man Sex with Man
PHAs	: People with HIV/AIDS
ROC	: Receiver Operating Characteristic
SPSS	: Statistical Package for Social Sciences
STI	: Sexually transmitted infection
TB	: Tuberculosis
UN	: United Nation
UNAIDS	: Joint United Nations Programme on HIV/AIDS
USAID	: The United States Agency for International Development
WHO	: World Health Organization

ABSTRACT

HIV continues to be a major global public health issue. While the treatment of people with HIV is still being the challenge, social issues related to them gradually growing. HIV stigma is prevalent worldwide being the barrier of HIV prevention and treatment including Indonesia. Indonesia presents a complex and dynamic country with considerable heterogeneity in the epidemic context as well as in the levels of HIV prevalence. However, little evidence is available about the attitudes of general population towards PHAs. This study is likely to fill the gap to provide deeper information about the discriminatory attitudes towards PHAs in general population. The purpose of this study is to explore the association of social demographic and level knowledge about HIV/AIDS prevention and transmission with the discriminatory attitudes towards PHAs.

The type of the study is non-reactive research based on secondary data analysis of 2017 Indonesia Demographic and Health Survey. The sampling design was designed to be able to present estimates of national and provincial levels using two-stage stratified sampling. Variable measuring social-demographic and composite knowledge about HIV prevention and transmission and discriminatory attitude towards people with HIV/AIDS. This study involved total of 47,470 respondents with 8,097 males and 39.393 females from 15 to 54 years old. Chi-square analysis and logistic regression statistic were performed to test the association of social-demographic and knowledge with discriminatory attitudes toward PHAs.

The result found that socio-demographic aspect of the respondent is statistically had significant association with discriminatory attitude towards PHAs. Male (p-value < 0.001; OR 0.993 [CI 95% 0.990 – 0.995]) tend to have inclusive attitude towards adult PHAs. People with no education level (p-value<0.001; OR 1.625 [CI 95% 1.143 – 2.310]) and people with poorest wealth status (p-value <0.001; OR 1.471 [CI 95% 1.361 – 1.590]) are likely to have non-inclusive attitude towards adult PHAs. People with low incomplete knowledge about HIV/AIDS prevention and transmission proven are likely to have four times higher non-inclusive attitude toward adult PHAs than people with complete knowledge (p-value<0.001; OR 4.083 [CI 95% 3.752 – 4.444]).

The result of this study suggested that complete knowledge about HIV/AIDS prevention and transmission is one of the significant method in reducing discriminatory attitude towards PHAs.

Keyword: HIV, AIDS, PHAs, discriminatory, attitude

CHAPTER I

INTRODUCTION

1.1 Background

Scientists believe that *Human Immunodeficiency Virus* (HIV) originally came from a pathogen specific to chimpanzees in geographic region throughout the Thirties and originally transmitted to humans through the transfer of blood through searching. Over the decades, the virus unfold through Africa, and to alternative components of the globe (AVERT, 2016). According to Mann (1989) while sporadic cases of *Acquired Immune Deficiency Syndrome* (AIDS) were documented before 1970, obtainable information indicated that HIV epidemic began from the middle to the late Nineteen Seventies. HIV might already reach five continents globally by 1980 except Asia. It was predicted that during the period between hundred thousand to three hundred thousand individuals may already infected with HIV (AVERT, 2018).

In 1999, WHO declared that AIDS was number four of major explanation for global death and the highest killer in Africa. It had been calculable that cardinal millions of person were living with HIV and fourteen million already died because of AIDS from the beginning of the epidemic (WHO, 1999). HIV continuously being significant international public health problems, claimed 32 million lives. In 2018, seven hundred seventy thousand folks died because of HIV globally. By the end of 2018 it was estimated that there have been roughly forty millions of individuals have infected with HIV. In 2017 it self, it was predicted that people recently infected by HIV around 1.7 million individuals. In line with the information, sixty two percent of adults and fifty four percent of children with HIV status were receiving antiretroviral treatment (ART) in 2018 (WHO, 2019).

HIV continues become world health major concern as United Nations (UN) adopted the Millennium Development Goals (MDGs) including a selected goal to reverse the HIV, Malaria, and tuberculosis (TB) dissemination. In 2001, the World Health Organization General Assembly demanded to form *"global fund"* as supporting efforts by countries and organizations to combat the transmission of HIV by preventing, treating, and caring, as well as procurement of the medication (HIV Policy, 2001). The effort to produce treatment for PHAs continuing with World Health Organization (WHO) initiative. WHO strategy aimed to line go in clear detail how life-long Antiretroviral Treatment (ART) will be provided to three million PHAs in low income countries by the tip of 2005. Core principles embody urgency, equity, and sustainability, HIV/AIDS has blasted the populations and health services in many developing countries (WHO, 2003).

While the treatment of PHAs is still being the challenge, social issues related to PHAs gradually growing. HIV stigma is prevailing worldwide, irrational fears of HIV infection and negative attitudes and judgments towards PHAs persist even after long period of HIV/AIDS campaigns and implementation of different awareness-raising efforts. Populations with higher risk of HIV infection encounter high degree of stigma because of their gender identity, sexuality preference, personal identity, drug use and/or commercial sex employee. Stigma towards individuals living with or in danger of HIV drives acts of discriminatory altogether sectors of society, from public officers, cops, and health service employees to the workplace, schools, and society (UNAIDS, 2017).

In the first discovery, AIDS was always linked with the inappropriate sexual behavior. It is because the first case of AIDS was found in the ‘Gay’ people. Then, In 1983, AIDS was declared among the female spouse of male who had the symptom suggesting that it might be transmitted by heterosexual sex (CDC, 1983). The stigma of HIV/AIDS continuing that HIV

was solely transmitted through sex, that was taboo subject in some cultures. The situation was worsened by the fact that AIDS were reported in the people who are injected drugs too. The report about HIV/AIDS in Gay and drug user enforce public to believe that HIV/AIDS was consequences of personal irresponsibleness or fault that cannot be accepted ethically, so that the people deserved penalization (AVERT, 2018). The situation resulting most of the people try to avoid to be in contact as far as possible with PHAs because they are labeled as sinner, and AIDS is punishment for them.

The concern encompassing the increase of HIV epidemic in the Nineteen Eighties for the most part persist even till todays. At the time, a bit was glorious concerning about how HIV can be transmitted, that make people frightened with PHAs because of the irrational fears concerning of the contagion (Sidibe, 2012). The fear of contagion coupled with many other reasons, numerous individuals falsely believe that HIV/AIDS are perpetually relating to the early death, associated with bad behavior that is taboo in the society such as homo sexual, drug use, sex worker that unfaithfulness ensuing stigma and discriminatory towards PHAs or World Health Organization or perceived to have an HIV infection (AVERT, 2018).

Impact of stigma has proven to have significant harmful effect to physical and mental well-being of PHAs. Stigma and direct discrimination received by PHAs are linked to poor adherence of treatment and outcomes (C. H. & Temane, 2014). HIV prevention is additionally dramatically hindered by the stigma. Studies have connected stigmas to multiplied risk, non-disclosure and shunning of health services, as well as those which can avert HIV transmission from mother to baby (Mahajan, et al., 2008). Stigma is additionally connected to fear and avoidance of HIV testing program. Given the advantages of HIV treatment, the part that stigma plays as the barricade to testing access and care has a crucial role of the epidemic. Confronting a stigma is

significant to improving the quality of live people with HIV/AIDS (PHAs) and as an integral effort to confronting HIV (National AIDS Trust, 2016). In the beginning of HIV/AIDS disease epidemic, transmission of HIV has worsened by the stigma and discrimination, resulting terrible effect to the epidemic. Every country in the world have the same issues related to the stigma and discrimination since they make crucial barricade in averting further transmission, alleviating effect, and provide care, support, and cure (UNAIDS, 2005).

UNAIDS (2013) asserted that social determinants of health, including gender inequalities, differential access to health facilities, social violence, and social economics status have contributed to disparities in HIV transmission rates. Individuals, families, and communities are negatively affected by this pandemic (Kaiser Family Foundation, 2006). Stigma are had significant effect to PHAs or who are anticipated to be infected with HIV (Earnshaw & Chaudoir, 2009), including children and adolescent (Boyes, et al., 2013). According to the obtainable information of 19 countries, because of the stigma and discrimination 1 from 5 PHAs avoid clinic and hospital because of fear about their HIV status revelation. Among them, one in every four PHAs have experienced discrimination in health-care settings and one in every three female PHAs have experienced at least one type of discrimination in health-care settings associated with their sexual and reproductive health (UNAIDS, 2017). Stigma and discrimination reported to be commonly experienced by pregnant female, it is reported to be one of crucial factor preventing them accept HIV testing in antenatal care (Turan, et al., 2011).

In 2010, a study amongst adolescents living with HIV in Harare found that psychosocial health among adolescent who has positive HIV status was poor. The result showed that sixty three percent of adolescents were in danger of depression with twenty third reportage self-destructive thinking inside every week (Willis, n.d). Qualitative findings advised that

challenges faced by HIV positive children embody verbal abuse, stigma and discriminatory in their homes and communities. Children and adolescent who have infected with HIV are facing a big challenge because they often denied to get access for formal education and finding job such as what happen in Brazil (Abadia-Barrero & Castro, 2006). An AIDS related discrimination study conducted in India, Indonesia, Thailand, and Philippines reported findings indicated that the discrimination to them mainly occurs in health sectors, over half of the respondents stated that they faced some kind of discrimination from the health workers. Individuals who coerced HIV testing were possibly faced discrimination more than other respondents (Paxton, et al., 2005).

There is a phenomenon of people who have been diagnosed with HIV and plenty among them experienced delayed treatment. Among families and communities, female was more frequent to expertise discrimination than male, such as ridicule and persecution, violence, and enforce to leave their residential because of their HIV/AIDS positive status (Paxton, et al., 2005). Stigma and discrimination make individuals are afraid to urge tested for HIV, participate in HIV prevention and treatment, reveal their HIV status, and involve in national HIV responses (UNAIDS, 2012). PHAs tend to hide their status by avoiding to take antiretroviral treatment because if their status revealed, they afraid that they will be disowned by family and discriminated by community.

The 2016 UN Political Declaration on Ending AIDS recognized the HIV epidemic as a human rights challenge. Restrictive legal and policy frameworks that continue to discouraging and preventing individuals from accessing HIV services because fears of stigma and discrimination are a deep concern. (United Nations, 2016). In these efforts, some countries have initiated and adopted regulation and educational programs to transfer comprehensive knowledge about HIV/AIDS

therefore the sigma and discrimination among PHAs that existed in society can be reduced. A study conducted in Nigeria reported that health education of comprehensive knowledge on HIV/AIDS is one of control measure in reducing HIV stigma and discrimination in community (Dahlui, et al., 2015).

Dissemination of HIV/AIDS Knowledge is one of the mains key factor to reduce HIV stigma and discrimination. Interventions to enhance HIV/AIDS knowledge don't seem to be solely vital for the health of people, however it is crucial to the success in achieving the goals of ending AIDS. Information around HIV/AIDS is connected to extend information around risk perception and behavior modification. In addition as reducing HIV/AIDS related stigma, many studies have recommended that increasing knowledge concerning HIV/AIDS to community is beneficial to reduce HIV/AIDS stigma and discrimination (Pulerwitz, et al., 2010) (Platten, et al., 2014) (Khan, et al., 2017).

UNAIDS reported that Indonesia had 48 thousand new people infected with HIV in 2016 and about 38 thousand deaths with HIV/AIDS related cause. About 620 thousand PHAs living in Indonesia in 2016, among them only 13% have access to ART. In pregnant female who have HIV infection, 14% were have access to prophylaxis in order to prevent the HIV transmission to their fetus. More than three thousand children have been infected with HIV from mother transmission (UNAIDS, 2019). Only 10 to 20% of Indonesians PHAs were accessing ART at the end of 2016 (Chairns, 2018). Serious problems of stigma and discriminatory remain for PHAs in Indonesia resulting discourages of people to know their HIV status (Mboi & Smith, 2006) the situation resulted in the slow progress of HIV prevention and control program.

Several studies concerning the discriminatory attitude towards HIV/AIDS high risk group have been done, however only little evidence available about the general population attitude towards PHAs in Indonesia. Previous available studies only cover specific population or area that cannot be used to generalize the entire population. The Indonesia Demographic and Health Survey (IDHS) result are likely to fill the gap providing better and bigger data related to the discriminatory attitudes towards PHAs in general population because of its sample size. The result can be generalized to cover provincial and national generalization because of the representatives and sufficient sample size. The main purpose of this study was to explore the association of social-demographic aspect of respondent and level knowledge about HIV prevention and transmission with the discriminatory attitudes towards PHAs based on the 2017 Indonesia Demographic and Health Survey. Therefore, the result can be used to conclude the discriminatory attitude towards PHAs in general population of Indonesia.

1.2 Study Objectives

The objectives of this study is to:

a. Understand the situation of discriminative attitudes towards PHAs/AIDS in Indonesia from general population.
b. Explore the association between social demographic aspect with the discriminatory attitudes towards PHAs in Indonesia.
c. Explore the association between knowledge of HIV/AIDS transmission and discriminatory attitudes towards PHAs in Indonesia.

CHAPTER II

LITERATURE REVIEW

2.1 HIV/AIDS

Since its discovery within the early Nineteen Eighties, the *human immunodeficiency virus* (HIV) and the *ensuing acquired immunological disorder syndrome* (AIDS) has become a worldwide emergency, threatening and ending lives globally. As a result, the United Nations in September 2000 adopted the *Millennium Development Goals* (MDGs) included a particular goal to reverse the unfold of HIV/AIDS, Malaria, and Tuberculosis (TB). One amongst the key goals of MDG was to deal with the tremendous international impact of HIV and AIDS and it stipulated a target of halting and reversing the transmission of the disease by 2015. Despite these daring steps and progress created, enhanced access to *Antiretroviral Treatment* (ART), governmental, and non-governmental organization operating to fight the unfold of the HIV, World Health Organization (WHO) estimated that there were roughly 36.9 million individuals have positive HIV status globally. Of these, 2.6 million were children and adolescent (<15 years old). About two million individuals became infected with HIV globally in 2014. The overwhelming facts was that majority of PHAs are living in developing countries, notably within the sub-Saharan Africa (UNAIDS, WHO, & UNICEF, 2015).

HIV will continue to multiply when the virus inside human body and causing AIDS (*Acquired Immunodeficiency Syndrome)* if the infected person did not receive any treatment and medication to prevent further disease complication. In contrast to other virus, HIV virus cannot completely remove from human body even the individual takes the medicine and treatment. When individual infected with the virus, they will live with the virus for keeps. HIV fight the body's immunity, specifically the CD4 cells (T-cells), that facilitate the system immune

of infections. In untreated condition, HIV reduces the quantity of CD4 cells (T-cells) within the body, create the person additional likely to urge alternative infections. Over time, HIV will destruct numerous of cells that the body cannot defend infections and disease any longer. These opportunistic infections or cancers benefit of weak immune system and signal that the person has AIDS, the last stage of HIV infection (CDC, 2019).

Chimpanzee was believed to be the main source of immunodeficiency virus, according to the scientist, typical chimpanzee immunodeficiency virus called *Simian Immunodeficiency Virus* (SIV) was infecting human and then mutated into *Human Immunodeficiency Virus* (HIV). It was believed that the virus infecting human during direct contact when human hunted chimpanzee as meals, it was predicted to happen around late of 1800s. Over decades, HIV slowly spread across continent and into many countries of the globe. Finally, it was known that HIV reached the United States from the middle to late Nineteen Seventies (CDC, 2019).

The HIV transmission occurs via exchange of body fluid from the infected person by the blood, breast milk, seminal fluid, and vaginal secretion. However, kiss, hug, hand shake, or sharing personal equipment and foods cannot transmit HIV to other people (WHO, 2019). HIV symptoms is varied according to the stage of infection. However, it is noted that HIV is the most infectious within the initial early few months of infection, but most of people did not aware about their status until reach higher stage of infection. In the early initial infection, individual might not expertise any symptoms or if there is sign, it is like influenza symptoms with fever, headache, rash, and sore throat. HIV gradually weakens the immunity system, individual who infected will develop different sign and symptoms such as swollen lymph nodes, severe weight loss, fever, diarrhea, and cough. People with HIV can develop other severe disease such as TB, cryptoccal meningitis, severe microorganism infections, and cancers if they did not receive proper treatment and medication (WHO, 2019).

2.2 HIV/AIDS Situation

2.2.1 HIV/AIDS Global Situation

The past few decades of the HIV response are pioneering and had a worldwide impact, it showed that the goal of ending the AIDS epidemic is bold yet feasible. Despite of the progress, major challenges should be overcome to create the global impact sustainable and to end the AIDS epidemic because HIV remains one among the leading causes of death worldwide (WHO, 2019). According to UNAIDS, in 2017 it was estimated that about 1.8 million people became newly infected with HIV, indicating five thousand new infections occurs per day, including children (<15 years old). Most of them were living in Sub-Saharan Africa, children infection mostly occurs because of mother-child transmission (HIV.GOV, 2018).

Globally, in 2017 around three-quarter of PHAs already know about their status. The remaining amount of PHAs still needs help to access HIV testing facilities. HIV testing status is essential gateway in prevention, care, and support program for PHAs (UNAIDS, 2018). However, there are huge number of PHAs still have difficulties accessing healthcare facilities to test their HIV status. Data presented by UNAIDS (2018) showed that only 23.3 million (62%) PHAs have access to ART. Even so, compare to 2010 ART coverage showed great improvement from only 7.7 million people have access to the ART. The report also indicated that 40% newly infection of HIV infections has been reduced since the peak in 1997 and have declined by an estimated 16% from 2010. Children HIV infections incidents also have declined by 41% since 2010. Deaths caused by AIDS also have been decreased over 55% from the peak in 2004 (UNAIDS, 2019).

According to Tharakan (2019), global HIV annually reduced by 32% from 2003 to 2018. The reduction was due to the increasing access of medical intervention such as ART. Even so, the evidence of the phenomenon suggest that it was because of behavior modification

ways, that counseling considered to be the main approach, it is crucial to attain further declines. The strategies embody counselling to improve knowledge of the disease, multiplied risk awareness, and communications (Tharakan, 2019).

In 2018, HIV/AIDS pandemic is concentrated in Sub-Saharan Africa, two of three PHAs were residing in the region. The primary mode of transmission is heterosexual sex, but it was noticed that low HIV testing coverage within the population is the barrier to further reduction of HIV transmission rates. The lowest coverage noticeably low among African male aged 25-34 years old. In Central Asia and Eastern Europe, specialists are involved concerned the rising in HIV/AIDS infections. The infection rates rise by 57% since 2010 to 2015, primarily because of the increasing the number of injection drug user (IDU). Low ART coverage was main concern in the Middle East and North Africa. There was solely 32% of adult PHAs receiving ART in the end of 2018. The main barrier to improve ART coverage was cultural practice, inadequate HIV/AIDS policies, and stigma (Tharakan, 2019).

2.2.2 HIV/AIDS Situation in Indonesia

Indonesia presents a complex and dynamic in a country that is very large, not only in terms of land and number of islands, but also in population size. The country dynamic demography has becoming urbanized, Indonesia considerable heterogeneity in the epidemic context as well as in the levels of HIV prevalence among key populations. The first case of AIDS was found in Indonesia in 1987, in a foreign male tourist. After a decade, the epidemic showed slow increase, infecting primarily among male and exclusively by the sexual transmission. In the mid-1990s, injecting drug use which historically was very low in Indonesia, started to increase sharply. Community workers who were aware of the circumstance showed concern about the threat of HIV in the increasing

number of *Injecting Drug Users* (IDU). This change transmission route from almost completely sexual route to IDU based transmission was only one among changes in Indonesian HIV/AIDS epidemic in recent years (Mboi & Smith, 2006).

In 2015, estimation showed that around 630.000 PHAs living in Indonesia, remains concentrated in sub population that are exposed to an elevated risk of HIV transmission because of their behaviors and compounded by the persisting stigma and discriminatory exerted towards them. These people commonly referred as *"Key Population",* including sex workers, IDU, homosexual, and transgender (WHO, 2017). The national prevalence rate among adult (over 15 years old) was estimated at 0.3% in 2015. Provincial estimates of HIV prevalence range from 0.1% to over 2.0%. Papua province was an exception to the regional norm, with an estimated 2.3% HIV prevalence in the general population in 2013 (WHO, 2017).

Total number of PHAs in Indonesia in 2018 is estimated to be 641,675 people with total newly infected as many as 46,372 people and 38,734 deaths based on the Spectrum Modeling Results in 2019. The number of HIV positive cases reported from year to year tends to increase and in 2018 there was 46,659 cases reported. Until 2018, the number of reported HIV cases was 327,282 cases. The number of AIDS cases shows a tendency to increase the discovery of new cases until 2013 which then started to decrease in subsequent years. In 2018 AIDS cases were reported decreasing compared to 2017 which was 10,190. Cumulatively, AIDS cases in Indonesia until 2018 were 114,065 cases. Since 2011, the central government has developed numerous laws and regulations, establishing a framework that serves as an important policy and legal foundation for the HIV response. Some of the regulations contain provisions that are important advances in creating a more enabling environment for evidence and rights based on HIV. Some districts and local

government even put some efforts into creating enabling environment for PHAs in order to reduce the stigma and discriminatory from everyone, including healthcare worker (WHO, 2017).

2.2.3 HIV/AIDS Situation in Indonesia Based on Determinant of Health

Ministry of Health in 2018 reported that the percentage of HIV and AIDS in male is greater than in female. For the HIV positive, the proportion case between male and female was 63.8% and 36.2%. As for the AIDS case, 67.2% confirmed in male and 32.8% in female (MOH Indonesia, 2019). The highest proportion of HIV positive in Indonesia is in the 25-49 age group by 70,4% while the least is in the 5-14 age group with only 1%.

HIV and AIDS largest proportion cases occurs in the productive age population from 15 to 49 years old, where the likelihood of infection occurs in adolescence age group. AIDS proportion showed almost the same distribution with HIV positive distribution. However, it cannot be compared since it used difference age range group. The highest proportion of AIDS in the 30 to 39 age group with 34% while for the least case was in the less than 1 years old by 0,4%. Based on the Ministry of Health report, mother to child HIV transmission is exist in Indonesia, indicated by the discovery of cases of HIV and AIDS in the age group under 4 years. Almost half of all the HIV risk factors are unknown (51.0%). The highest identified risk factors of HIV infection were in homosexual (20.4%), followed by heterosexual (19.6%) and IDU (0.9%). As for the AIDS case, the highest risk factor was heterosexuals (73.4%) and the lowest was because of transfusions (0.3%). In 2018, the number of HIV positive that was found in tuberculosis patients was 6,716 (4.5%) out of 148,542 tuberculosis patients who have been examined, while the number of HIV positive found in Sexually Transmitted Infections (STI) patients was 330 (1.9%) patients out of 16,879 STI patients who have been examined (MOH Indonesia, 2019).

The national HIV prevalence rate among adult (over 15 years old) was estimated to be 0.33% in 2015. Provincial estimates of HIV prevalence range from 0.1% to over 2.0%. The highest absolute numbers of PHAs were in East Java, Jakarta and in the high population provinces in Java island, as well as in Papua even the population size is relative low. Although driven in earlier years by sharing needle among people who inject drugs, the main mode of HIV transmission in Indonesia currently is by the sexual transmission. New infections are estimated to be about 49,000 per year (Indonesia's Ministry of Health, 2017).

High populated provinces in Java became the highest new infection of HIV is not surprising evidence since most of the population are concentrated on all of the Java big province. Moreover, there was the biggest East Asia localization for prostitution in East Java Province before forcefully closed down in 2014 by the local government. However, people believe that the prostitution still continue to be exist but more likely hiding from the public. The HIV estimation and projection that have been done by Ministry of Health back in 2012 showed that HIV case were located in the same provinces.

A report about the difference epidemic of HIV in Papua province and other provinces of Indonesia presented by WHO showed that Papua presents unique and significant challenges to its topography, complex social-cultural environment, security issues, and fragile governance. Papua province became one of the highest HIV new case while the HIV testing in Papua province was low, the phenomenon showed a really shocking epidemic HIV in the area. The explanation of the event is still under observation, however most of study refer to the Papuan sexual culture to be the risk factor of the situation. Many Papuan cultural group actively promote marriage at early age for girls. Many Papuans maintain longstanding customs around sex and marriage, such as allowing premarital

sex in some circumstances and maintaining polygamous household in others. In addition, the region is a frontier culture where sexual openness is perceived more prevalent than elsewhere in Indonesia. Many indigenous Papuans and migrants take advantage of what they see as free sex culture in the province. The sex industry is the thrives in Papua's frontier economy (WHO, 2017).

Report from the Ministry of Health showed that case fatality rate from AIDS in Indonesia was successfully decreased from 6.12% to 1.03% in a decade. Increase of HIV prevention, control, and treatment are the main reason in driving the decrease of the AIDS fatality rate. Moreover, the availability of the ART and HIV testing center that is close to community took a major event in the improvement of PHAs condition (MOH Indonesia, 2019).

2.2.4 HIV/ AIDS Risk Group Situation in Indonesia

Indonesia has conducted an *Integrated Biological and Behavioral Survey* (IBBS) in key populations in two different regional groups. One group was conducted in 2007 and 2011, while the other group was carried out in 2009 and 2013. According to the result of the survey, HIV prevalence among IDUs has decreased from 53% in 2007 to 41% in 2011. In the different sample groups of cities (Tangerang, Yogyakarta, and Pontianak), the average HIV prevalence has increased from 27% in 2009 to 39.5% in in 2013. In the same time period, the proportion of IDUs who shared syringes during the last injection experienced an increase in these 3 districts/cities, namely 18% to 26% in Yogyakarta, 36% to 47% in Tangerang, and 23% to 45% in Pontianak (MOH Indonesia, 2017).

The same data shows a significant increase in HIV prevalence in *Male who have Sex with Male* (MSM). In 2007 and 2011 IBBS, HIV prevalence in MSM rose from 5.3% to 12%, and 2009 and 2013 IBBS rose from 7% to 12.8%. The 2013 IBBS results showed that the highest HIV

prevalence in MSM was found in the survey locations of Tangerang, Yogyakarta and Makassar between 19% -20%. The prevalence of *Gonorrhea* also increased in the 3 districts/cities from 17% to 21% and *Chlamydia* increased from 17% to 23%. This situation is very likely related to the low consistency of condom use during the last anal intercourse as shown in Surabaya, from 75.9% at the 2011 IBBS to 53% in the 2013 (Indonesia's Ministry of Health, 2017).

The results of the 2007 IBBS and 2013 showed that HIV prevalence in transgender (who change the sexuality from male became female) had decreased significantly, from 23.8% to 19% in 22 districts/cities where Malang city recorded the most significant decline from 16.8% to 9, 2%. HIV prevalence in prostitute experienced a significant decrease in Jakarta and Bandung from 2009 to 2013, from 10.5% to 3.8% and from 20.7% to 9.4%, while Malang city experienced a significant increase from 36.4% to 59.1%. Based on 2013 IBBS results in the general population aged 15-49 years in Papua, 2.3% of the population is infected with HIV where 2.3% are in male and 2.2% in female. The survey results also show a significant relationship between circumcision in male with HIV infection, where HIV infection occurs in 2.4% of uncircumcised male and 0.1% in circumcised male. In female, a significant association of HIV infection was in people who had sexual intercourse in return in the past year by 3.5%, while 2.2% of female infected with HIV did not have sex. It was non-significant difference between HIV prevalence at IBBS in 2006 (2.4%) and 2013 (2.3%) in Papua (MOH Indonesia, 2015).

2.2.5 HIV/AIDS Prevention and Control in Indonesia

The first HIV case was discovered in Bali, 1987. Since then HIV and AIDS control efforts began locally in several cities, in collaboration with international and state partner institutions. Ministry of health launched several government regulations in collaboration with the other ministry in order to support prevention, control, and elimination of HIV/AIDS in Indonesia. The first pillar on prevention of HIV is the access to HIV testing and the number of people that have been diagnosed know their status. In *Indonesia Demographic and Health Survey* (IDHS), there is no information regarding this indicator for the general population. Regarding key populations at higher risk, the *Integrated Biological and Behavioral Surveillance* (IBBS) provides some information on the access to HIV that provides overall trends of key populations at higher risk ever been tested for HIV, even though there is no information available if all of the people had received their results (Indonesia's Ministry of Health, 2017).

Elimination transmission from mother to child by 2030 is one of the international goals agreed by countries. This goal although in theory is easier in countries with concentrated epidemics, it has the challenges that the female infected are mostly sex partners or key populations at higher risk and often they do not consider themselves at risk. In addition, in large countries and with heterogeneous epidemics, these female are scattered so it is more difficult to give the intervention. Indonesia has increase dramatically the number of female tested last five years, from over 20,000 in 2011 to almost 300,000 in 2014. Among those more than 15,000 females were identified as needing ART. The policy in Indonesia is “opt out” so pregnant female can test HIV along with the other routine testing. In a recent paper published by Naoko Ishikawa, et al (2016), conclusion provided by the modeling analysis showed that when HIV testing facilities were solely targeted in high-burden

areas within country, the transmission from mother-to-child remained high from 18% to 23%, leading to a 25% to 69% patient HIV increase in pediatrics that increasing future treatment costs for children. Universal HIV testing strategy compared to the centered approach was found to be dominant in the Namibia, Kenya and Haiti eventualities (Indonesia's Ministry of Health, 2017).

Following up on one of the recommendations of an external review of the health sector's efforts in controlling HIV and AIDS in 2011, Indonesia adopted a comprehensive model of HIV and *Sexually Transmitted Infection* (STI) sustainable service. In the 2010-2014 national strategy, comprehensive HIV-STI services are the basis for HIV control efforts, which aim to:

a. Increasing access and coverage of HIV and STI promotion, prevention and treatment efforts and quality rehabilitation by expanding service networks to the primary health center level, including services for key populations.
b. Increase knowledge and sense of responsibility in controlling the HIV and STI epidemic in Indonesia by increasing coordination between HIV services through increased community participation and community organizations as a way of increasing the scope and quality of services
c. Improving the impact of HIV treatment in the integrated and decentralized service model at the district / city level.

Minister of Health Regulation no. 21 of 2013 marks the rearrangement of the principles and strategies for overcoming HIV and AIDS in accordance with developments over the past 5 years. In that year, the Comprehensive HIV and STI Sustainable Services Comprehensive Guidelines book was arranged, which is based on six main pillars, namely:

a. Coordination and partnership with all stakeholders in each line to get the support and active involvement of all stakeholder.
b. The active role of the community including PHAs and families to build service acceptability, increase coverage, retention, and reduce the stigma and discriminatory
c. Integrated and decentralized services according to local conditions
d. A comprehensive package of HIV services that is sustainable, quality according to individual needs.
e. Referral systems and networks to ensure continuity and attachment between the community and health services
f. Access to Guaranteed Services in terms of geographical, financial and social aspects.

2.2.6 Strategy HIV/AIDS Prevention of Indonesia

The government of Indonesia establish several strategies and action plan to prevent and overcome HIV/AIDS issues in Indonesia. The strategies and action plan are documented as National Strategy and Action Plan 2015-2019, HIV and AIDS prevention in Indonesia. The strategies that are implemented including:

a. Comprehensive Prevention

   The definition of comprehensive prevention is so that someone does not get infected by HIV virus, if people becomes infected with HIV, so that can be prevented immediately. Therefore, it will not develop to AIDS stage and not become a new source of transmission, and then social economic impacts among PHAs can be mitigated.

b. Continuum of Care (COC)

The definition of *Continuum of Care* (COC) is refer to the target population get AIDS prevention program on an ongoing basis, ranging from various efforts community based prevention such as HIV prevention through sexual transmission until getting services health such as STI and HIV testing and comprehensive referral services, such as continuous comprehensive services efforts to maintain treatment. COC can be matched as integration of HIV prevention through sexual transmission with continuous comprehensive services.

c. Key Population

The definition of the key population to be the primary target of HIV and AIDS prevention and control. The population must be able to access programs that are run efficiently and effectively to reduce HIV epidemic. Key population in HIV/AIDS consist of female sex worker and the service users, injectable drug users, man who have sex with man (MSM), transgender, and their partners.

d. Priority Area

Priority areas in HIV/AIDS prevention and control program need to focus on the geographical area as well, especially in area with higher risk of the transmission and higher disease burden. Therefore, the prevention and control program that have been implemented can be run efficient and effectively in order to support reducing HIV/AIDS epidemic.

2.3 Stigma and Discrimination

2.3.1 Definition of Stigma

Goffmale (1963) among the first scholar to explain about stigma in his world renowned book *"Stigma, Notes on the Management of Spoiled Identity"* as the title. Goffmale (1963) defined stigma as an attribute or mark that is deeply disgraced and used to humiliate or dishonor individual or group of people in any given society or social setting. It was mentioned that stigma is constructed in society and used to either disgrace or devalue those who fall the short of some kind of social expectations. According to Goffmale (1963), society set the means of grouping individual and the complement of attributes felt to be ordinary and natural for the member of each of the group. Individual will likely to be categorized by the social setting (Goffman, 1963).

Stigma term was taken from the Greek language referring the mark in the individual body of criminals, slaves, or traitors that was engraved to their skin as identity to differentiate them from the society. Herek (1990) discovered that the mark left on the skin sense disgrace, shame, social discrimination and condemnation. Public though that these people were impure or criminal that need to be avoided by the society (Herek, 1990). Goffmale (1963) did not appear to emphasize or focus on the stigmatized individual but rather stigma as a process in social life to construct social identity. Goffman's definition of stigma includes society's fear for social judgment thereby causing people to behave in a specific way to be accepted in the community in which they find themselves. This definition also including about the risk of social exclusion that might be faced as community member, especially because of an unwelcome influence or physical effect.

Emphasizing and building on Goffman's term about stigma as an attribute and social construct, Kurzban & Leary (2001) argue that the stigmatization occurs around the discrimination

to involve in specific social interactions of particular or specific person from specific social background or label. Kurzban & Leary (2001) explicitly ignores the psychological condition of the people being stigmatized however rather enforce stigma evolutionary analysis, a process to link stigma to evolution and social stratification. They provide a new vision related to the stigmatization process and issues related to the acceptance and rejection of individuals in society setting from the society members. Stigma is used as an effective tool of social stratification, community level stigma and discriminatory is used to create differences and structure social hierarchy. Societies achieve conformity by contrasting who is normal, deviant, or different by their sexuality, gender, race and ethnicity, or class (Parker & Aggleton, 2003).

Social psychologists, Jones et al. (1984) and Crocker et al. (1998) both describe stigma as a situational threat and argue that stigma is an attribute that marks or defines individual or group of people as different and leads to social depreciation and is socially constructed and gradually progresses from an individual's focus towards the larger social setting that they find themselves hence, what may constitute or seem as normal in one society may be abnormal in another (Kamau, 2012).

According to the Cambride dictionary, stigma is feeling of disapproval that almost all of the society member concerning a particular thing, especially if the feeling related to the unfair treatment or lacking respect to an individual or a group of people. Stigma also including the nasty opinion directed to the individual or group as the result of what they have done is not meet the normative society norm. While discrimination is referring to the different treatment to an individual or group of people, the treatment usually is negative or the opposite of the general population usually treated or prejudice against individual and a refusal to give them their human rights (Cambride, 2019).

HIV/AIDS stigma according to the definition of stigma and discrimination in the conceptualization proposed by Parker and Aggleton (2003) can be defined as an individualistic process that is a part of complex social issues accustomed in order to uphold social imbalance through the understanding and functioning the social process therefore the issues of HIV/AIDS stigma can be solved (Parker & Aggleton, 2003).

There are several factors that underpinning the stigmatization related to the HIV/AIDS, among them are the lack of understanding related to the disease, the misconception about route of transmission, minimum access to the health care, overwhelm media report related to the disease incurability, prejudice, and fears associate with the gender, disease, death, and drug use issue. Stigma lead to discrimination and more violations of human rights that causing effect to the well-being of PHAs. All over part of the world, well-documented cases of PHAs being declined to access health-care, work, education, and freedom of movement, among others are available (UNAIDS, 2005).

2.3.2 Definition of Discrimination

Discrimination is well known as the result of stigma that being practiced. It consists of the activity that is directed to the particular individuals or groups as the impact of the stigma. Discrimination that mentioned in the UNAIDS (2000*)* refer to *Protocol for Identification of Discrimination Against People Living with HIV* stated that discrimination is form of arbitrary distinction, exclusion, or restriction to specific person , usually but not only by visual of individual characteristic or perceived that belong to specific group, in the case of HIV/AIDS, the person is confirmed or suspected to be infected with HIV, irrespective to the justification for these measures are confirmed or not (UNAIDS, 2005).

According to Cambride Dictionary, discrimination is the different treatment that is directed to individual or particular group of people, the treatment usually worse than the ordinary people are usually treated or prejudice against individual and a refusal to give them their human rights (Cambride, 2019). Social rejection usually based on the social values and or social perspective, despite an individual's best efforts to be accepted in a community, rejections result from the characteristics of the social life of the community to which they want to belong. An individual's personal characteristics must match a set of shared values such as religious, cultural, tradition, and norms in a community for them to be deemed as 'normal' or ordinary (Kurzban & Leary, 2001).

Discrimination related to the HIV/ AIDS referring to the mistreatment of the people based on their real HIV status even before the positive confirmation about the infection. Discrimination not only directed to the individuals but might also affect the families, friends, and people who have association with PHAs such as care giver. The discrimination towards PHAs commonly caused by the prejudice and bias against particular group, among them related to the distinct sexual behavior, drug user, and irrational fears concerning the disease and death. Moreover, the discrimination appears to be institutionalized by the laws, policies, and practices (CDC, 2019). United Nations General Assembly Special Session on HIV/AIDS in June 2001 highlighted the importance of addressing HIV/AIDS related stigma and discrimination as global agreement. It was mentioned that the tackling program of HIV/AIDS stigma and discrimination is the essential step to make sure the effectiveness of prevention and care program for PHAs, reaffirms that stigma and discrimination towards PHAs is a violation of human rights.

2.3.3 Global Stigma and Discrimination among PHAs

USAID (2006) stated that stigma is not unique to HIV/AIDS since throughout history stigma has been experienced in relation to other diseases, including tuberculosis, syphilis, and leprosy, which are associated with the transgressions of social norms. The social stigma concept has been explored in various fields, for example, stigma has been associated with mental disorders and physical conditions such as physical disability, visual blindness, deafness and obesity (Yanos et al., 2001).

Agency for Cooperation and Research Development (2004) stated that stigma and discriminatory in PHAs as the real negative response to an individual by the people, communities, and society. The treatment initially by refusal, dismissal and discrediting, disregarding, underrating and society distancing, that most of the time leads to discrimination and infraction of human rights. The stigma of PHAs is reflected in cynical attitudes, irrational fear, and negative experiences with PHAs. Public think that people infected with HIV/AIDS is consequences for their own actions. They also assume that PHAs are liable for transmitting HIV/AIDS (Maman, et al., 2009). This is what causes PHAs to receive unfair treatment, discrimination, and stigma due to their illness. Community isolation, dissemination of HIV status and rejection in various of social activities such as education, the world of work, and health services are the most common forms of stigma (Duffy, 2005) (Maman, et al., 2009). The high level of community and environmental rejection from the society causes some PHAs have to live by hiding their status.

The stigma and discrimination relate to HIV and AIDS also mean that PHAs are facing difficulty to receive treatment and care. Even for the one without infection infected but associated with the PHAs, such as families and caregivers, also suffering stigma and discrimination from the society. Stigma and discrimination increase PHAs complication related with the disease. The shame

because of the HIV/AIDS status, as manifestation of stigma that has been conceptualized as 'internalized' stigma, may create a barrier for PHAs to go to healthcare and support for other human rights, such as working right for job and educational. The feeling of being stigmatized can have a powerful psychological influence in the term of what PHAs thinking about themselves and adjusting to their HIV/AIDS status in society, causing PHAs to feel vulnerable, depressed and isolated (UNAIDS, 2005).

Stigma and discrimination has terrible impact to the PHAs who are meant to be protected, supported and treated, PHAs usually discriminate against the those who have to be compelled to be in their care, denying access to essential care, results in additional HIV infections and tons of deaths. It is the responsibility of the state to protect individuals. Human rights are universal, everyone should be included without exception, among them are the commercial sex workers, homosexual, male who had sex with male (MSM), inject drug user (IDU), transgender, prisoners or migrants. Unhealthy laws that discriminating people related who have high risk of HIV transmission from seeking treatment should be revised (UNAIDS, 2018).

Stigma related HIV/AIDS ii complex, tend to create upon and reinforce negative connotations through the association of HIV/AIDS with marginalized behaviors marked by the society, such as commercial sex worker, drug user, homosexual, and transgender. It put together reinforces fears of outsiders and otherwise vulnerable groups, like prisoners and migrants. PHAs are typically believed to merit the HIV infection the got are the results of what have they done.

According to UNAIDS (2005) institutional discrimination towards PHAs is common phenomenon that usually occurs in the workplaces, health center, school, prison, and social welfare setting. The discrimination that exists enacted stigma in institutional policies and practices that discriminate against PHAs, or indeed in the lack of anti-discriminatory policies or procedures of

redress. HIV/AIDS-related discriminatory could occur at variety levels (UNAIDS, 2000). Discrimination also can occur in family and society setting, that has been introduced by some writers as 'enacted stigma'. This is what mostly people do either deliberately or by omission so as to damage others and deny their right to receive medical treatment. Sort of discrimination against PHAs as well as *ostracization*, is the practice of forcing female to leave upon being confirmed that infected with HIV, following the primary symptoms, or once the spouse died because of AIDS, avoidance, verbal harassment, physical assault, mocking, blaming, gossip, and denial of ancient ceremonial rites (UNAIDS, 2005).

2.3.4 Stigma and Discrimination among PHAs in Indonesia

Result of IBBS in 2015 showed that key population in Indonesia face stigma, discrimination, and violence that increase vulnerability to HIV. Data showed that key population experienced high level of forced sex in the last 12 months ranging from 12.6% to 86.5%. the situation indicating extreme vulnerability to violence and HIV. In the same survey, key population mention that HIV testing is done involuntary (3.8% to 22.2%) indicating lack of respect of key population in the context of HIV program. Fear of discrimination were widely cited by the key population as the reason for not disclosing HIV test result to family, friends, and partner. Lack of respect related to HIV program not only face by the key population but also pregnant female, multiple reports stated that pregnant female required to do HIV test and are not fully informed their right to refuse the test (WHO, 2017). Such a practice indicating that human right obligation is not yet presented in HIV program in Indonesia.

According to the report, number of female and male aged 15 to 49 years which report discriminatory attitudes towards PHAs is increased from 57,1% in 2007 became 62,8% in 2012 (UNAIDS, 2018). However, the report only focusing on adolescent and adult but there was really

limited data related to sigma and discrimination toward children with HIV in Indonesia. UNAIDS report in 2018 mentioned that there are around 14.000 children (0 to 14 years old) in Indonesia who live with HIV. Yet, there is no available report related stigmatism and discrimination among them.

There are several example given of stigma and discrimination by communities against PLWA including, the residence of PHAs being set on fire, children being banished to the forest by the village when the parents die of AIDS, an adolescent being locked in his room by parents and fed through the door, a female beaten by her husband after disclosing her HIV result after *Antenatal Care* (ANC) testing, community rejection and refusal bury PHAs locally. Reports of such discriminatory remain largely unverified due to the absence of coordinated system for documentation and reporting for discriminatory (WHO, 2017).

A study done in 2013 concerning people access to healthcare service in Indonesia, showed that about 18% of PHAs respondents experienced unpleasant treatment, stigma, and discrimination because of their HIV status. Additionally, female who diagnosed with HIV is have possibility twice higher to expertise stigma and discrimination. Perpetrators of stigma and discrimination vary and could even be the medicals. The most surprising result was 10% of perpetrators of stigma and discriminatory were health workers who denied providing health service to PHAs (Suharni, et al., 2016). Another study related stigma conducted in Grobogan, Indonesia in 2015 showed that stigma against PHAs is still prevalent in the society. This is evident from the results of the study which showed almost half of the respondents (49.7%) had a non-inclusive attitude towards PHAs. The forms of stigmatization include not being willing to eat food provided or sold by PHAS, not allowing their children to play together with children with HIV, does not want to use the toilet together with people living with HIV, even refusing to live close to people who show symptoms of HIV/AIDS. If there are PHAs in the family, they feel afraid to sleep together with PHAs and are not willing to treat

such as preparing food and cleaning eating utensils, and sitting close to people infected with HIV who do not show symptoms of illness (Shaluhiyah, et al., 2015).

In 2019, One of children with HIV in Indonesia facing discrimination by the parents of other students. Parents and guardians of other students allegedly told the school's management they would transfer their children to another school if the school's management allowed the students with HIV keep attending the school. The school's principal said he was of the view that every child had the right to education. However, he said he did not have a choice and was forced to transfer the students, who were studying in the first through to fourth grades (Pamungkas, 2019). Almost the same case occurred in Samosir regency in 2018, three orphans with HIV status were declined to register in the public school by locals because of fear that they might get infected by the virus. They were also threatened with exile from the regency. However, after mediation involving school management, the local community and the regency administration, it was suggested that the children be homeschooled (Pamungkas, 2019).

A study specifically done in PHAs from IDUs reported that they are facing stigma from family, friends, neighbor, and public service. The form of stigma received from the family is discrimination and neglect. Discrimination occurs because families feel afraid of contracting HIV infection. Forms of discrimination such as goods that are separated from their use, goods that are touched by PHAs are immediately cleaned up, and ostracized by not allowing children to play with PHAs. Stigma from friends or neighbors including discrimination and intimidation (bullying). Discrimination occurs not only when PHAs are alive, but also when they have died. PHAs also receive intimidation in the form of condescending words. From public service and health worker, stigma received in the form of words and actions condescending, abusive treatment, equated with mental patients, and opinions that are not trusted. As a result of this treatment, several informants claimed they did not want to continue treatment (Ardani & Handayani, 2017).

In social life, stigma also prevents PHAs from carrying out social activities. PHAs close themselves and tend not to be willing to interact with family, friends and neighbors. This is because some people think that HIV positive people are people who behave badly such as female sex workers, drug users, and homosexuals. This group is considered by some people to influence the HIV/AIDS epidemic and make people reject and hate the group (Darmoris, 2011; Lestari, 2013).

2.3.5 HIV/AIDS Stigma and Discrimination Reduction Strategy Indonesia

Human Rights, stigma and discrimination continue to be challenges in effective HIV control efforts. There is a need for the development of a policy environment that empowers and supports HIV prevention efforts and gives more attention to human rights for PHAs and people affected by HIV and AIDS. HIV and AIDS prevention in Indonesia aims to ensure universal access to services for prevention, treatment and mitigation of the impact of HIV and AIDS, focus on key populations in the most risky geographical areas, strengthen and maintain integrated services that are cost effective and of high quality, a conducive environment that is free of stigma and discriminatory , is gender sensitive and is oriented towards human rights, and applying the principles of good governance, transparency and accountability (MOH Indonesia, 2015).

Creating a conducive environment that supporting HIV/AIDS prevention and fulfillment of human rights at all levels, empowers civil society to fulfill the role in reducing stigma and discrimination in key populations and PHAs as well as those affected by HIV and AIDS. The effort includes developing policies, coordination, management, monitoring and evaluation of epidemics and their mitigation and implementation and operational research.

The most influential barrier of the effective national response of HIV is stigma, discrimination and violations of human rights. PHAs are still often rejected and driven out of families and communities. The right to education and the right to work for PHAs are still often denied. The rise of human rights violations has caused HIV prevention and health services to be less effective. When PHAs and key populations fear discrimination, they will be reluctant to take HIV tests, including accessing HIV health services. Gender inequality and gender-based violence, female tend to be difficult to avoid coercive relations and violence, all of which make them vulnerable to HIV.

Reducing stigma among PHAs is still challenge. Therefore, Indonesian government emphasis the strategy to reach zero stigma by taking efforts that are oriented towards eliminating stigma from health care workers to PHAs and key populations through education, sensitization, and policy enforcement. Developing interventions that can reduce stigma in services, workplaces, educational facilities, and the wider community. And, encourage the involvement of community and religious leaders as part of the anti-stigma and discriminatory campaign (MOH Indonesia, 2015). Intervention cannot be measure without monitoring and evaluation, conduct a stigma index study to develop basic documentation for the stigma and discriminatory experienced by PHAS and key populations is essential to know the output of intervention reducing stigma in community (MOH Indonesia, 2015).

CHAPTER III

CONCEPTUAL FRAMEWORK

3.1 Conceptual Framework

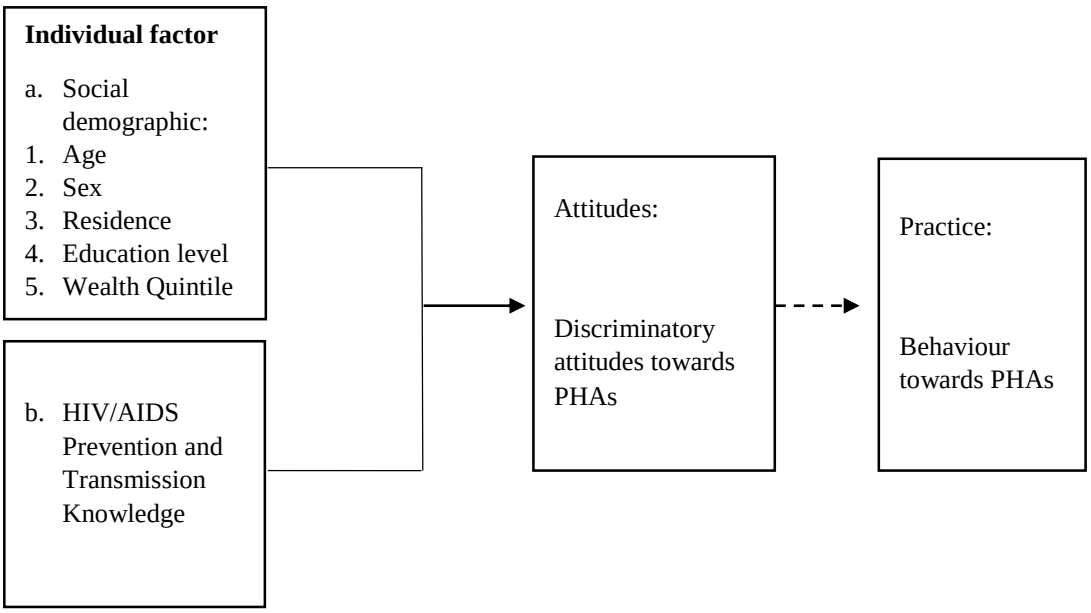

Figure 3.1 Conceptual Framework

Behavior was outlined as something a person does in response to an action either internal or external. The response might be obvious (motor or verbal) and directly can be measured or indirectly measurable. Behaviors are physical actions that actually that happen in the body and that controlled by the brain (Davis, et al., 2015). According to Kelman (1969) there are three processes in the individual health behavior change, internalization, identification, and compliance. The "identification" process that have been introduced by Kelman (1969) of behavioral change has been recast in social learning theory to include modeling, reinforcement, and the normative or social

influence. Value congruence, self-actualization, information process, and inform consent are terminology that have close association with 'Internalization' process. All of these process should be present in order to perfectly describe and explain the process of behavioral change in health area, that have known to be the essential theory supporting the planning process of intervention (Green, 1984).

The knowledge, attitude and practice model, known as the KAP model providing the explanation of the relationship between knowledge, attitudes, and practice in order to understand the process of behavioral change in social setting (Singhal, et al., 2006). The essential concept of the traditional KAP model explain that the behavioral change occurs step by step. At first, individuals gain the knowledge based on the information they get. Second, attitudes towards the event develop in the inner mind of the individual. Lastly, the individual engages in a practice as behavioral change (Valente, et al., 1998). The definition of knowledge is the information and understanding concerning specific topics or general information that acquired from learning and/or experience (Vandenbos, 2007). Knowledge of people can be easily measured (Mandal, et al., 2008). According to Jovchelovitch (2007) knowledge will solely be understood if it's not involved by the perceptions, misunderstandings, and bias of the cultures, political interest and emotion (Jovchelovitch, 2007).

Knowledge and attitudes are two ideas that influence for each other and not mutually exclusive. A high level of knowledge is usually thought to be the base to determine excellent attitudes. On the opposite aspect, unhealthy attitudes and prejudice towards PHAs and potentialities of participation in several arenas could force people to be hesitate or even stop to dig deeper information concerning HIV (Mandal, et al., 2008). The association that differentiate between knowledge and attitude is that attitude involve to take an energetic stand towards particular topics. Knowledge is known to be easily measured however the concept of attitude itself is still unclear. One of the main explanation of the incomprehensibility is that attitude commonly the result

of mixture between individual knowledge and experience that makes it fancy. It also mostly influenced by the opinions, norms, assessment, rules, and prejudice that somehow mutually exclusive from person to the others.

In psychology, an attitude refers to collection of emotions, beliefs, and behaviors toward certain thing. Attitudes are often the result of expertise or upbringing, and have a powerful influence to the behavior. Individual attitudes can be form by several factors such as experience, social factors, learning, and observing people around the individual (Cherry, 2019). Social and demographical factors contribute on the individual attitude forming that cannot be separated as it attached and influence the way people think that expressed through attitude.

The importance of understanding both the level of knowledge and attitudes is to provide the deeper explanation of existing coherences between the concepts of knowledge and attitude that can be defined as relatively enduring and general evaluation of an object, person, or other specific topics on a scale that ranging from bad to good. Attitudes provide summary evaluations of particular emotion to an objects that often get from specific beliefs, emotions, and past experience that have association with those objects (Vandenbos, 2007). Attitudes can be called as the level of emotion. An attitude usually seen as a way to give the world meaning by knowledge or understanding (Kunnskapssenteret., 2014). If a person's attitude is known, behavior can be predicted to some degree. Attitudes will predict behavior to better level if the attitudes are specific. When the attitudes directed to particular events are strong, they also seem to predict behavior better than the weak attitude. An explanation of behavior is individual's action including unconscious processes, action that introspectively observable and objectively visual action (Vandenbos, 2007).

3.2 Hypothesis

From the theoretical concept that has been built to form an attitude, this research was aimed to observe the association between social-demographic aspect and knowledge level of individual about HIV/AIDS prevention and transmission with discriminatory attitude towards PHAs. Therefore, the hypothesis that was set for this study:

a. Hypothesis 1: Social demographic of respondent had association with discriminatory attitudes towards PHAs in Indonesia
b. Hypothesis 2: Knowledge of HIV/AIDS Prevention and Transmission had association with discriminatory attitudes towards PHAs in Indonesia
c. Hypothesis 3: Social demographic and Knowledge about HIV Prevention and Transmission can be used to predict discriminatory attitude toward PHAs in Indonesia.

CHAPTER IV

METHODOLOGY

4.1 Research Type

The type of study that was used in this research is non-reactive research or commonly called as unobtrusive research. In this type of study research subjects are not aware if they are part of a study. Measurements in non-reactive research is that the research subjects were unconsciously involved in the study because the measurements did not interfere with the research subjects and the research subjects did not feel disturbed (Kuntoro, 2009). Unobtrusive analysis methods embody non-reactive behavioural observation, the historical examination of pre-existing archives like statistics or records, the study of physical traces. The technique might be not as valuable as traditional techniques but extraordinarily valuable tools that not change the information, thus effectively capturing ideologies that flow into a specific area and time (Brabazon, 2010).

In the context of metaphysics concerns, unobtrusive methods include in the theory whereby social events and their significant are frequently accomplished and can be changed by social actors (Bryman, 2004). The strongest influence of unobtrusive research is the report of originality rather than self-reporting behavior. Other important part including repeatable results, relative easy to access to data and consent from the research subject sometimes is not necessity. It is relatively cheap and fit for retrospective studies that tracking activities periodically. In contrast with the experimental research, non-reactive research will not cause any disturbance to the subject of the research and far from the disclose or sensitive and potential disclose of the information. From a feminist perspective, comparing to the other research method, unobtrusive research in considered safer because of its level of distance with the subject of the research and anonymity of the author (Kellehear, 1993).

Unobtrusive methods maintain the appropriate distance from a subject and the author objectivity (O'Brien, 2011).

Main weakness of the non-reactive analysis is the risk of intervening variables distort the original records. The distortion issue of the data gradually prevalent when the subject of the research conscious that they are part of the research therefore the information that have been collected could be skewed, conscious or unconsciously (Kellehear, 1993). Unobtrusive methods have potential for unconscious certain recording of empirical information because of the identity and the author social position (Grafton & Jones, 2004). The solution to balance the weakness of the unobtrusive research embrace through analysis of each sources and the credibility, quality, and representativeness of findings (MacDonald, 2006). The method offers associate array of benefits and distinctive opportunities through method as well as analysis of observation activity, archive of previous study, pre-existing information, content analysis of cultural sources and physical trace studies. However, there are many drawbacks of the method that require to be payed attention. This study will analyze data from 2017 *Indonesia Demographic and Heath Survey* (IDHS) that was done by Statistics Indonesia in cooperation with the National Population and Family Planning Board, the Ministry of Health of Indonesia, and *United States Agency for International Development* (USAID).

4.2 Research Variable

The research variables used are variables used in previous survey that have been collected for the 2017 *Indonesia Demographic and Health Survey* (IDHS) in cooperation of National Population and Family Planning Board, Central Bureau of Statistic, Indonesia's Ministry of Health, and USAID. The details of variables that is used for this study are:

Table 4.1 Variables and Operational Definition

No	Category	Variable	Operational Definition
1	Independent Variable	Knowledge of HIV Transmission	Level of knowledge related to HIV prevention and transmission. The level of knowledge was measure based on several question that is used in IDHS 2017. The response was recorded as Yes/No/Don't know, Respondent answer was recorded and final score is categorized as: Complete Knowledge (1) Incomplete Middle Knowledge (2) Incomplete Low Knowledge (3)
2	Independent Variable	Age	Age of the respondent when they complete to answer the questioner. The age variable was recorded in continuous scale.
3	Independent Variable	Gender	Gender of the respondent was recorded as what is written in their personal identification. They were categorized as: Female (0) Male (1)
4	Independent Variable	Residence	Type residence of the respondent is the location of respondent live for past five years. It was categorized as: Urban area (0) Rural area (1)

Table 4.1 Variables and Operational Definition

No	Category	Variable	Operational Definition
5	Independent Variable	Level of Education	Level of education is the highest level of education that already completed by the respondent. It was categorized as: No education (0) Secondary (2) Primary (1) Higher (3)
6	Independent Variable	Wealth Quintile	Wealth quintile is category of respondent's wealth. It was categorized in five level: Poorest (0) Middle (2) Richest (4) Poor (1) Rich (3)
7	Dependent Variable	Discriminatory attitudes towards adult with HIV	Discriminatory attitudes towards adult with HIV refer to negative judgement toward adult with HIV. It was measured by question: *"Would buy vegetables from vendor with HIV"* The response is recorded as **Yes**/ **No**/ **Don't know** **Yes** response was categorized as inclusive attitude. **No** and **Don't Know** responses were categorized as non-inclusive attitude.
8	Dependent Variable	Discriminatory attitudes towards children with HIV	Discriminatory attitudes towards adult with HIV refer to negative judgement toward adult with HIV. It was measured by question: *"Would buy vegetables from vendor with HIV"* The response is recorded as **Yes**/ **No**/ **Don't know** **Yes** response was categorized as inclusive attitude. **No** and **Don't Know** responses were categorized as non-inclusive attitude.

4.3 Data Collection Technique and Procedure

Data collection was done by requesting data to USAID's *Demographic and Health Survey* (DHS) program, demographics and health surveys that is provided in DHS website. The data was previously collected for Indonesia Demographic and Health Survey in 2017.

4.4 Population and Sample

The population and sample techniques used in this study refer to the population and sampling method used in *Indonesia Demographic and Health Survey* (IDHS). The sampling design of the IDHS 2017 was designed to be able to present estimates of national and provincial levels. Sample covers 1,970 census blocks covering 34 provinces of urban and rural area. The 2017 IDHS sample frame used the Master Census Block Sample from the 2010 Census Population. While the sample selection framework uses a list of houses ordinary ladder results of household upgrades from selected census blocks. The list of ordinary households was not including special households such as orphanages, police / military barracks, prisons, and boarding houses where they are located inside there are at least 10 peoples. Two-stage stratified sampling was used in the 2017 Indonesia Demographic and Health Survey.

The 2017 IDHS was designed to provide reliable estimation at national and provincial levels. The sample was expected to get a complete of 49,250 households consist of 25,300 households in town and 23,950 households in village. The sampled households were expected to get about 59,100 female age 15-49 years old. From equivalent households, 24,625 never-married male age 15-24 were expected to be eligible for individual interview. Eight households were chosen in every designated census block to yield 14,193 married male age 15-54 to be interviewed with the married men's questionnaires.

4.5 Ethical Procedure

The 2017 Indonesia DHS follows the Standard DHS survey protocol under The Demographic and Health Surveys (DHS) Program (DHS-7) that was approved by The Institutional Review Board (IRB) of ICF International, except for the addition of the Young Adult Questionnaire, which was previously reviewed and approved by the ORC Macro IRB in 2002.

The Institutional Review Board of ICF International follow with the United States Department of Health and Human Services requirements for the "Protection of Human Subjects." The IRB in Indonesia is housed within the Ministry of Health (MoH) and the MoH determined that the surveys did not require IRB review so there was no IRB review in Indonesia. Before conducting the research, author had obtained approval exemption from e-IRB of Severance Hospital (Yonsei University Health System) in South Korea to conduct this research

4.6 Data Analysis

First, a preliminary analysis of the data was carried out to make sure that there was no missing data and coding data was performed to facilitate data analysis. Second, demographical statistics were presented. Furthermore, the hypotheses set forth were tested and analyzed. Association between variables was analyzed by performing Chi-square test between independent variable with dependent variable, if there was significant association between two variables, the analysis was continued with logistic regression analysis. SPSS (*Statistical Package for the Social Science*) version 20.0 was used to do all the analysis process within this research.

CHAPTER V

RESEARCH RESULT

5.1 Respondent Social- Demographic

According to the respondent data provided by IDHS 2017, there were 49,627 females and 10,009 males involved in the survey. However, author noticed that there many missing data in the observation. After *Listwise deletion*, the total data that will be analysed in this study is 47.490.

Table 5.1 Respondent Social-Demographic Data

Variable	**n**	**%**
Total number of Respondent	47,490	100.0
Gender of Respondents		
Male	8,097	17.0
Female	39,393	83.0
Residence of the Respondents		
Urban	27,878	58.7
Rural	19,612	41.3
Complete Education of the Respondents		
No Education	210	0.4
Primary	8,317	17.5
Secondary	28,611	60.3
Higher	10,352	21.8
Wealth quintile		
Poorest	7,469	15.7
Poor	8,715	18.4
Middle	9,575	20.2
Rich	10,498	22.1
Richest	11,266	23.7
Age of Respondents		
Male (Mean)	39,03	
Female (Mean)	30.80	

Table 5.1 showed about data related to the social demographic data of the respondent in this study. In general, the majority of respondent were female by 83%. As for the distribution of respondent's residence, more respondents observed living in urban area by 58.6% and the rest were living in rural area. The majority of highest education completed by respondents were in secondary school by 60.3%, followed by higher education with 21.8%, primary education by 17.5%, and 0.4% of respondents without educational background. Wealth was categorized to five class, the distribution of each class almost the same, the lowest number of respondent was in poorest class with 15.7% while the highest in the richest class with 23.7%. The average age for the female involved in the survey was less than the average age of male. Female average age was 30.80 years old, while for male 39.03 years old.

5.2 Knowledge Level of HIV/AIDS Prevention and Transmission

The respondent's knowledge level of HIV/AIDS prevention and transmission was measured by nine statement. The instrument provided three choices. Respondent can choose "YES" if agree with statement or think that the statement is right, "NO" if disagree with the statement or think that the statement is wrong, and choose "DON'T KNOW" if never heard about the statement or really do not know about it. The right response for each question is "YES", except for the reverse questions which have "NO" as the appropriate answer for the available statements.

Table 5. 2 Instrument Statement to Measure Level of Knowledge

No	Statement	Correct Answer	Yes (%)	No (%)	Don't Know (%)
1	Reduce risk of getting HIV by always use condoms during sex	Yes	31,012 (65.3)	8,014 (16,9)	8,464 (17.8)
2	Reduce risk of getting HIV by have 1 sex partner only, who has no other partners	Yes	39.162 (82.4)	4.053 (8,5)	4,275 (9.0)
3	*Can get HIV from mosquito bites	No	17,926 (37.7)	21,517 (45.3)	8,047 (16.9)
4	*Can get HIV by sharing food with person who has HIV	No	20,078 (42.3)	21,836 (46.0)	5,576 (11.7)
5	HIV transmitted during pregnancy	Yes	40,014 (84.3)	2,941 (6.2)	4,535 (9.5)
6	HIV transmitted during delivery	Yes	35,369 (74.5)	5,229 (11.0)	6,892 (14.5)
7	HIV transmitted during breastfeeding	Yes	38,722 (81.5)	3,507 (7.4)	5,261 (11.1)
8	*Can get HIV by witchcraft or supernatural means	No	2,285 (4.8)	41,098 (86.5)	4,107 (8.7)
9	People get the AIDS virus by sharing unsterilized needle or syringe	Yes	44,405 (93.5)	987 (2.1)	2,098 (4.4)

*Question number 3,4, and 8 are reverse questions.

According to the survey result about the respondent understanding about statement "*Reduce risk of getting HIV by always use condoms during sex*", it was known that majority (65.3%) of the respondent understood that safe sex which is always use condom during sex reducing HIV infection risk. While 16.9% respondent have misunderstood about the statement and 17.8% respondent stated that they do not know about the statement. The statement of "*Reduce risk of getting HIV by have one sex partner only, who has no other partners*" showed a result that majority of the respondents (82.4%) fully understood that faithful with one sex partner is reducing the risk of HIV transmission. While 8.5% respondents stated that faithful to one sex partner does not reduce the risk of HIV transmission.

The statement number three asking about HIV transmission method, it was stated that "*Can get HIV from mosquito bites*". Even majority respondents (45.3%) answer "NO" but there were 37.7% respondents who still have misunderstood that mosquito bites can be the media of HIV transmission and 16.9% respondents stated they do not know about the statement. Statement number four "*Can get HIV by sharing food with person who has HIV*", the respondent response showed that 46% of respondents already understood that sharing food is not the transmission media. However, there is still huge amount of respondents have been misunderstanding about the statement while 42.3% people still believe that sharing food can transmit HIV.

Continuing the statement about HIV transmission, statement number five to seven asking about respondent's awareness related mother to child HIV transmission. Statement number five asked if *"HIV transmitted during pregnancy",* majority of the respondents (84.2%) aware that fetus can get infected by HIV during the pregnancy period while 6.2% respondents have misunderstanding that it cannot transmit HIV. Followed by statement about "*HIV transmitted during delivery*", showed that 74.5% respondents know if delivery can transmit HIV from mother to child, 11% said delivery cannot transmit HIV, and 14.5% stated do not know. The last statement about mother to child transmission asking if "*HIV transmitted during breastfeeding*", 81.5% of respondent fully understood that mother can pass the HIV to the child during breastfeeding, 7.4% said that it cannot transmit the HIV, and the rest stated do not know.

Statement number eight asked if "*Can get HIV by witchcraft or supernatural means*", the result showed that 86.5% respondents already aware that HIV cannot be passed by the witchcraft or supernatural means while 4.8% still believe that HIV can use witchcraft or supernatural as the media transmission. The last statement asking people about "*People get the AIDS virus by sharing*

unsterilized needle or syringe", 93.5% respondents aware that unsterile syringe can transmit HIV, 4.4% do not know about the statement, and the rest have been misunderstood about the statement.

After analysed all of the statement result from the survey, the answer given by the respondents then used to categorize level of respondent's knowledge related to the HIV prevention and transmission. The level of knowledge categorized as **Complete Knowledge** (answer all of the question right, score 9), **Incomplete Middle Knowledge** (answer more than half question right, score 5-8), and **Incomplete Low Knowledge** (answer most of the question wrong, score 0-4). The result showed that 14.0% (6,667) of respondents have complete knowledge, 72.8% (34,585) have incomplete middle knowledge, and 13.1% (6.238) respondents have incomplete low knowledge related to the HIV prevention and transmission.

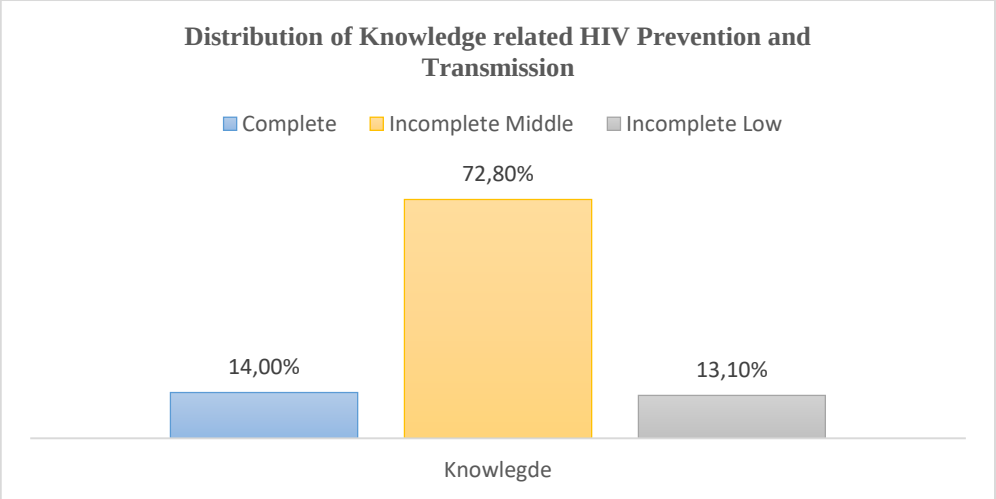

Figure 5.1 Distribution of Level Knowledge

Table 5.3 Cross Tabulation between Social-Demographic and Knowledge Variable

Variable	Complete (n) (%)	Incomplete Middle (n) (%)	Incomplete Low (n) (%)	Total (n) (%)
Gender				
Female	5,623	28,683	5,087	39,393
	(14.3)	(72.8)	(12.9)	(100)
Male	1,044	5,902	1,151	8,097
	(12.9)	(72.9)	(14.2)	(100)
Residence				
Urban	4,624	20,512	2,740	27,878
	(10.4)	(73.6)	(9.8)	(100)
Rural	2,043	14,071	3,498	19,612
	(10.4)	(71.7)	(17.8)	(100)
Education				
Higher	2,440	7,449	463	10,352
	(23.6)	(72.0)	(4.5)	(100)
Secondary	3,604	21,309	3,698	28,611
	(12.6)	(74.5)	(12.9)	(100)
Primary	613	5,706	1,998	8,317
	(7.4)	(68.6)	(24.0)	(100)
No Education	10	121	79	210
	(4.8)	(57.6)	(37.6)	(100)
Wealth Quintile				
Poorest	551	5,249	1,636	7,436
	(7.4)	(70.6)	(22.0)	(100)
Poor	878	6,283	1,554	8,715
	(10.1)	(72.1)	(17.8)	(100)
Middle	1,151	7,077	1,347	9,575
	(12.0)	(73.9)	(14.1)	(100)
Rich	1,623	7,828	1,047	10,498
	(15.5)	(74.6)	(14.1)	(100)
Richest	2,464	8,148	654	11,266
	(21.9)	(72.3)	(5.8)	(100)

According to the cross tabulation between social-demographic with level knowledge of respondent, it was known that both of male (72.9%) and female (72.8%) majority have incomplete middle knowledge about HIV/AIDS prevention and transmission. The distribution knowledge of people who lived in urban area almost the same as people who lived in rural area. However, the number of people with incomplete low knowledge is greater in rural area (17.8%). In education variable, even if all level education majority have incomplete middle education, it is noticed that biggest percentage of people with complete knowledge focused on higher education group (23.6%), while the biggest percentage of people with incomplete low knowledge on the without educational background group (37.6%). As for the wealth quintile variable, the biggest percentage of people with complete knowledge is in richest Group (21.9%) and the biggest percentage for incomplete low knowledge is in the poorest group (22.0%)

5.3 Discriminatory Attitudes Towards PHAs

Discriminatory attitude towards PHAs in IDHS of 2017 assessed by two statements related to situation of the respondents about adult with HIV and children with HIV. Respondents is given three choices which are “YES” if they are agree with the statement, “NO” if they are disagree, and “Don’t Know” if they are not sure about their answer related to the statement. The “YES” response mean that the respondent have inclusive attitude toward PHAs, while “NO” and “DON’T KNOW” will be categorized as non-inclusive attitude. The result is provided in the table 5.4

Table 5.4 Assessment Result of Discriminatory Attitude Toward PHAs

No	Statement	Inclusive	Non- inclusive	
		Yes (n) (%)	No (n) (%)	Don't Know (n) (%)
1	Would buy vegetables from vendor with HIV	14,349 (30.2)	30,489 (64.2)	2,652 (5.6)
2	Children with HIV should be allowed to attend school with children without HIV	37,869 (79.7)	7,551 (15.9)	2,070 (4.4)

Statement number one aims to assess the discriminatory attitudes of respondent towards adult with HIV. The statement is "*Would buy vegetables from vendor with HIV*", 64.2% responded that they will not buy vegetables from vendor with HIV, 30.2% responded that they willing to buy the vegetables from PHAs, and 5.6% of them do not know how to response about the situation. The response of the respondents towards adult with HIV showed that most of the respondents have non-inclusive attitude toward adult with HIV.

The second statement aims to assess discriminatory attitudes towards children by providing statement "*Children with HIV should be allowed to attend school with children without HIV*", 79.7% responded that they allowed children with HIV to attend the same school with children without HIV, 15.9% responded that children with HIV cannot register the same school with children without HIV, and the rest do not know what to respond about the situation. The response of the question for children with HIV showed inversely situation with adult, most of the respondents answer "YES", indicating that they have inclusive attitude toward children with HIV comparing to the adult with HIV.

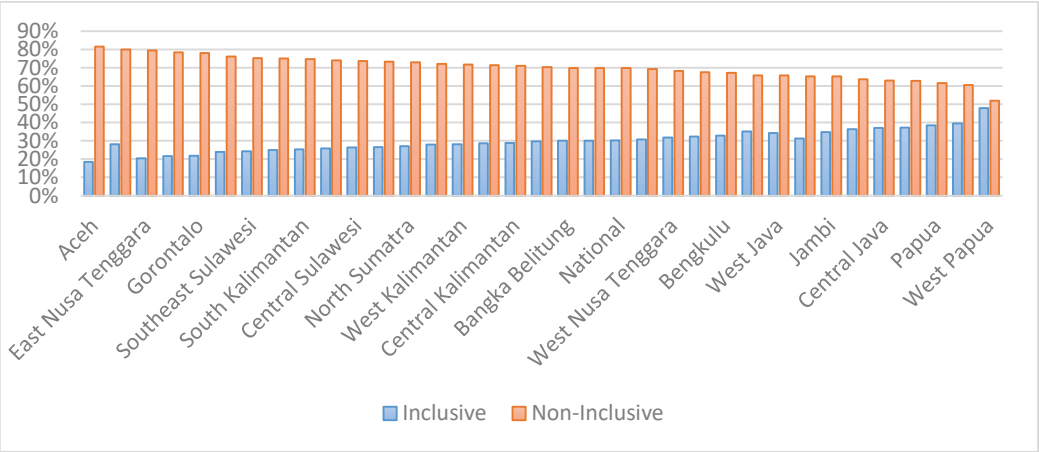

Figure 5.2 Discriminatory attitude towards adult with HIV based on province

According to the result of discriminatory attitude toward adult with HIV based on the province, it is known that Aceh is the province with the highest non-inclusive attitude toward adult with HIV by 82%, followed by North Kalimantan (79.90%), and East Nusa Tenggara (79.50%). The highest province with inclusive attitude toward adult with HIV is West Papua by 48%, followed by Banten (39.50%), and Papua (38.40%).

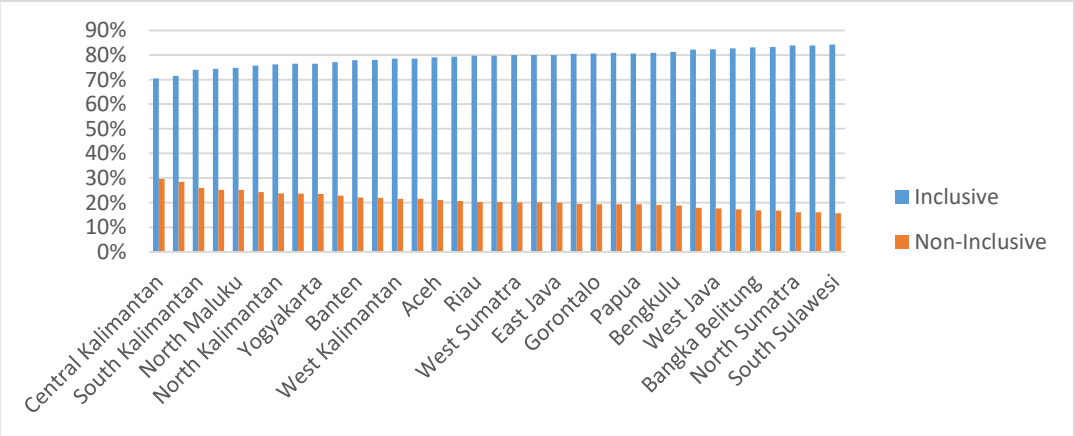

Figure 5.3 Discriminatory attitude toward children with HIV based on province

Result of discriminatory attitude toward children with HIV showed that Central Kalimantan is the province with the highest non-inclusive attitude toward children with HIV by 29.60%, followed by West Papua (28.50%), and South Kalimantan (26%). While the province with the highest inclusive attitude is South Sulawesi (84.30%), followed by Southeast Sulawesi (83.90%), and North Sumatra (83.90%).

Table 5.5 Difference of Discriminatory Attitude towards PHAs

Variable	Adult with HIV			Children with HIV		
	p - value	df	Z-Score/ X^2	*p* - value	df	Z-Score/ X^2
Gender	<0.001***	-	-11.015	<0.001***	-	-56.637
Residence	<0.001***	-	-13.207	<0.001***	-	-0.607
Education Level	<0.001***	3	440.254	<0.001***	3	120.455
Wealth Quintile	<0.001***	4	564.534	<0.001***	4	22.557
Knowledge Level	<0.001***	2	1,782.671	<0.001***	2	469.798

According to the result, it is known that between male and female, there is difference in the discriminatory attitude both for adult and children with HIV, indicated by *p*-value is less than 0.001. And so do all other variables, *p*-value are less than 0.05 indicating that differences between the independent variables are statistically significant.

5.4 Result of Association

5.4.1 Association of Social-Demographic and Knowledge with Attitudes towards Adult with HIV

Chi-square Pearson's test was performed to know the association of social-demographic and knowledge variable with attitudes towards adult with HIV. The result of the test presented in the table 5.6. The association present if the result of the test showed that *p*-value less than 0.05. The table showed that all of the independent variables which are gender, residence, education, wealth quintile and knowledge have association with the attitude towards adult with HIV.

Table 5.6 Association of social-demographic & knowledge with discriminatory attitudes towards adult with HIV

Variable	Would buy vegetables from vendor with HIV			**X^2**	***p-value***
	Yes	**No**	**Don't Know**		
Gender					
Female	11,488 (29.2)	25,929 (65.8)	1,976 (5.0)	312.748	<0.001***
Male	2,861 (35.3)	4,560 (56.3)	676 (8.4)		
Residence					
Urban	9,074 (32.5)	17,321 (62.2)	1,483 (5.3)	175.231	<0.001***
Rural	5,275 (26.9)	13,168 (67.1)	1,169 (6.0)		
Education					
Higher	3,881 (37.5)	5,951 (57.5)	520 (5.0)	449.043	<0.001***
Secondary	8,448 (29.5)	18,640 (65.1)	1,523 (5.3)		
Primary	1,979 (23.8)	5,764 (69.3)	574 (6.9)		
No Education	41 (19.5)	134 (63.8)	35 (16.7)		

Table 5.6 Association of social-demographic & knowledge with discriminatory attitudes towards adult with HIV (Continued)

Variable	Would buy vegetables from vendor with HIV			**X^2**	***p-value***
	Yes	**No**	**Don't Know**		
Wealth Quintile					
Poorest	1,602	5,358	476	566.248	<0.001***
	(21.5)	(72.1)	(6.4)		
Poor	2,324	5,876	515		
	(26.7)	(67.4)	(5.9)		
Middle	2,848	6,204	523		
	(26.7)	(64.8)	(5.5)		
Rich	3,472	6,479	591		
	(33.1)	(58.3)	(5.2)		
Richest	4,103	6,572	591		
	(36.4)	(58.3)	(5.2)		
Knowledge					
Complete	3,325	3,084	258	2,347.269	<0.001***
	(49.9)	(46.2)	(3.9)		
Incomplete	9,974	23,025	1,586		
Middle	(28.8)	(66.6)	(5.9)		
Incomplete Low	1,050	4,380	808		
	(16.8)	(70.2)	(13.0)		

5.4.2 Association of Social-Demographic and Knowledge with Attitudes towards Children with HIV

Chi-square Pearson's test was performed to know the association of social-demographic and knowledge variable and attitudes towards children with HIV variable. The result of the test presented in the table 5.7. The association is presented if the result of the test showed that *p-value* less than 0.05. The table showed that all of the independent variables which are gender, residence, education, wealth quintile and knowledge have association with the attitude towards children with HIV variable.

Table 5.7 Association of social-demographic & knowledge with discriminatory attitudes towards children with HIV

Variable	Children with HIV should be allowed to attend school with children without HIV			X^2	*p*-value
	Yes	**No**	**Don't Know**		
Gender					
Female	33,278	4,591	1,148	3,330.423	<0.001***
	(84.5)	(12.6)	(8.4)		
Male	4,591	2,584	922		
	(56.7)	(31.9)	(11.4)		
Residence					
Urban	22,204	4,626	1,048	76.171	<0.001***
	(79.6)	(16.6)	(3.8)		
Rural	15,665	2,925	1,022		
	(79.9)	(14.9)	(5.2)		
Education					
Higher	8,015	2,059	278	449.382	<0.001***
	(77.4)	(19.9)	(2.7)		
Secondary	23,251	4,201	1,159		
	(81.3)	(14.7)	(4.1)		
Primary	6,464	1,253	600		
	(77.7)	(15.1)	(7.2)		
No Education	139	38	33		
	(62.2)	(18.1)	(15.7)		
Wealth Quintile					
Poorest	5,818	1,133	485	186.500	<0.001***
	(78.2)	(15.2)	(6.5)		
Poor	6,984	1,306	425		
	(80.1)	(15.0)	(4.9)		
Middle	7,742	1,415	418		
	(80.9)	(14.8)	(4.4)		
Rich	8,414	1,680	404		
	(80.1)	(16.0)	(3.8)		
Richest	8,911	2.017	338		
	(79.1)	(17.9)	(3.0)		

Table 5.7 Association of social-demographic & knowledge with discriminatory attitudes towards children with HIV

Variable	Children with HIV should be allowed to attend school with children without HIV			X^2	*p*-value
	Yes	**No**	**Don't Know**		
Knowledge					
Complete	4,795	1,725	147	1,857.075	<0.001***
	(71.9)	(25.9)	(2.2)		
Incomplete	28,408	5,068	1,109		
Middle	(82.1)	(14.7)	(3.2)		
Incomplete Low	4,666	758	814		
	(74.8)	(12.2)	(13.0)		

5.5 Result of Regression

5.5.1 Predicting Discriminatory Attitudes Towards Adult with HIV

Discriminatory attitude towards adult with HIV in IDHS of 2017 assessed by statements "Would buy vegetables from vendor with HIV". Respondents is provided three choices which are "YES" indicating that they have inclusive attitude towards adult with HIV, answer "NO" indicating that respondents tend to have non-inclusive attitude so as "DON'T KNOW" response. The dividing of the response become two categories is done because "DON'T KNOW" response did not have clear direction. Therefore, the attitude category is divided became inclusive and non-inclusive attitude to accommodate analysis process. Logistic regression is performed to compare tendency of people to have non-inclusive attitude toward adult with HIV based on several independent variables, result is provided on table 5.8.

Table 5.8 Logistic Regression of Discriminatory Attitudes Towards adult with HIV

Variable	OR (CI 95%)	*p*-value	SE
Age	0.752 (0.712 – 0.794)	<0.001***	0.001
Gender			
Female	1.000		
Male	0.993 (0.990 – 0.995)	<0.001***	0.028
Residence			
Urban	1.000		
Rural	1.039 (0.992 – 1.087)	0.104	0.023
Education			
Higher	1.000		
Secondary	1.200 (1.141 – 1.262)	<0.001***	0.026
Primary	1.465 (1.363 – 1.575)	<0.001***	0.037
No Education	1.625 (1.143 – 2.310)	0.007**	0.180
Wealth Quintile			
Richest	1.000		
Rich	1.009 (0.951 – 1.070)	0.772	0.030
Middle	1.086 (1.019 – 1.156)	<0.001***	0.032
Poor	1.192 (1.114 – 1.276)	<0.001***	0.035
Poorest	1.471 (1.361 – 1.590)	<0.001***	0.040
Knowledge			
Complete	1.000		
Incomplete Middle	2.287 (2.166 – 2.415)	<0.001***	0.028
Incomplete Low	4.083 (3.752 – 4.444)	<0.001***	0.043

Result of the regression analysis showed that as the age increase, the respondent more likely to have inclusive attitude. Comparing to the female, male have less tendencies to have non-inclusive attitude towards adult with HIV while other variables are on held. Comparing to the higher education, secondary education group have the odds 1.200 times to have non-inclusive attitude towards adult with HIV. The lower education level of the respondent, the odds of people to have non-inclusive attitude towards adult with HIV increase gradually. Regression result of wealth quintile showed that as economy class decrease, the odds of people to have non-inclusive attitude toward adult with HIV increase gradually.

The odds of people with incomplete middle knowledge to have non-inclusive attitude towards adult with HIV is 2.287 higher than people with complete knowledge, while the odds for people with incomplete low knowledge to have non-inclusive attitude towards adult with HIV is 4.083 times comparing to people with complete knowledge while other variables are on held.

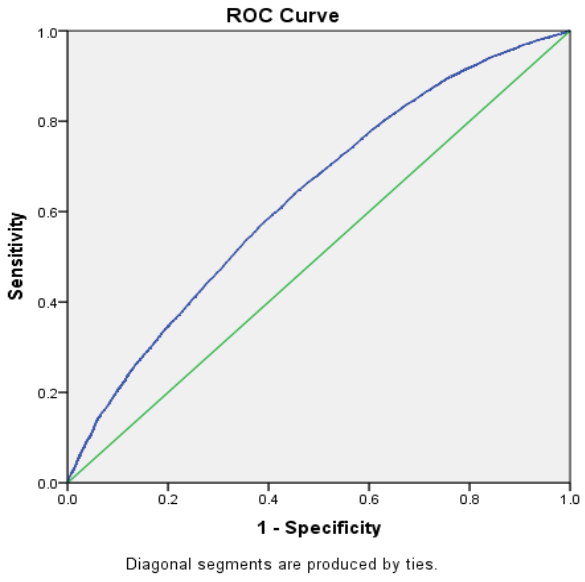

Figure 5.4 ROC Curve of discriminatory attitude towards Adult with HIV

The Receiver Operating Characteristic (ROC) curve from the model of discriminatory attitude toward adult with HIV showed that the line is a bit far from the diagonal line with Area Under Curve (AUC) 0.632, indicating that the model is good enough in predicting discriminatory attitude towards adult with HIV.

5.5.2 Predicting Discriminatory Attitudes Towards Children with HIV

Discriminatory attitude towards children with HIV in IDHS of 2017 assessed by statements "*Children with HIV should be allowed to attend school with children without HIV*". Respondents is provided three choices which are "YES" indicating that they have inclusive attitude towards children with HIV, answer "NO" indicating that respondents tend to have non-inclusive attitude towards children with HIV, so as "DON'T KNOW response. The dividing of the response become two categories is done because "DON'T KNOW" response did not have clear direction. Therefore, the attitude category is divided became inclusive and non-inclusive attitude to accommodate analysis process. Logistic regression is performed to compare tendency of people to have non-inclusive attitude toward adult with HIV based on several independent variables.

Table 5.9 Logistic regression of discriminatory attitudes towards children with HIV

Variable	OR (CI 95%)	*p-value*	SE
Age	1.002 (0.999 – 1.005)	0.127	0.001
Gender			
Female	1.000		
Male	4.235 (4.003 – 4.480)	<0.001***	0.029
Residence			
Urban	1.000		
Rural	0.930 (0.882 – 0.981)	0.007**	0.027
Education			
Higher	1.000		
Secondary	0.752 (0.708 – 0.798)	<0.001***	0.031
Primary	0.819 (0.755 – 0.889)	<0.001***	0.042
No Education	1.379 (1.012 – 1.879)	0.042*	0.158
Wealth Quintile			
Richest	1.000		
Rich	1.019 (0.950 – 1.094)	0.598	0.036
Middle	0.982 (0.910 – 1.059)	0.632	0.039
Poor	1.039 (0.959 – 1.125)	0.348	0.041
Poorest	1.174 (1.076 – 1.281)	<0.001***	0.044
Knowledge			
Complete	1.000		
Incomplete Middle	0.849 (0.779 – 0.925)	<0.001**	0.044
Incomplete Low	0.535 (0.502 – 0.570)	<0.001**	0.032

Result of the regression analysis showed that age is not significant factor to predict attitude towards children with HIV as the *p-value* was 0.127. Comparing to the female, male have odds tendency to have non- inclusive attitude towards adult with HIV by 4.235 while other variables are on held. People who lived in rural area are likely to have inclusive attitude towards children with HIV because the odds of them to have non-inclusive attitude is less than 1.000. Comparing to the higher education, primary and secondary education group more likely to have inclusive attitude, while for the no education group, the odds of them to have non-inclusive attitude is 1.379 while other variables are on held. As for the wealth quintile, the only significant result is in the poorest people. The odds of poorest people to have non-inclusive attitude towards children with HIV is 1.174 higher than the richest people while other variables are on held.

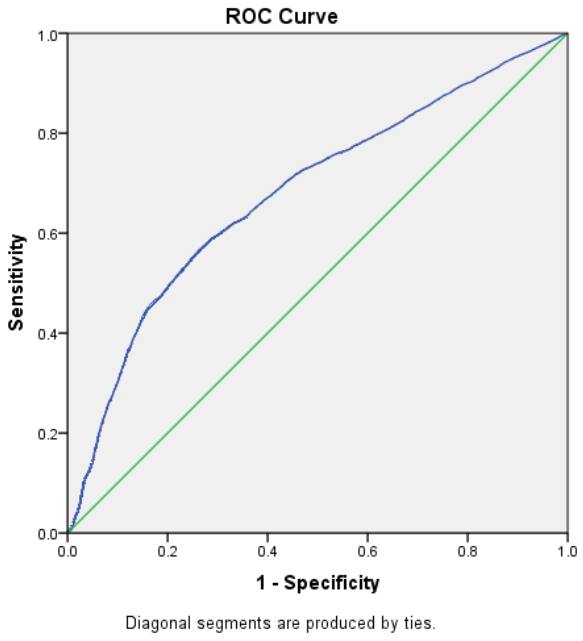

Figure 5.5 ROC Curve for model of discriminatory attitude towards Children with HIV

The Receiver Operating Characteristic (ROC) curve from the model of discriminatory attitude toward children with HIV showed that the line is a bit far from the diagonal line with Area Under Curve (AUC) 0.681, indicating that the model is good enough in predicting discriminatory attitude towards children with HIV.

CHAPTER VI

DISCUSSION

6.1 Summary of Main Findings

The outcome of the study report that the social demographic factor such as age, gender, residence, education, and wealth quintile of the respondent have association with the attitude towards PHAs both in adult and children with HIV. The level of discriminatory attitude towards PHAs in general population in Indonesia is really high. Knowledge related to the prevention and transmission of HIV/AIDS is proven to have association with respondent attitude towards PHAs. The result of the study also found the relationship between the component of KAP (Knowledge, Attitude, Practice) model, level knowledge of HIV/AIDS prevention and transmission have significant association with discriminatory attitude towards PHAs. According to the result, social-demographic factors and knowledge can be used to predict the discriminatory attitude of the respondent towards PHAs.

6.2 Discussion

6.2.1 Knowledge of HIV Prevention and Transmission

Result of the study showed that majority of the respondent have incomplete middle knowledge level (72.8%) related to the HIV transmission and prevention it is showed that majority of the respondent already aware about HIV, but they still have some misconception about HIV prevention and transmission. The highest percentage of misconception (42.3%) is from the result is in the statement of "*Can get HIV by sharing food with person who has HIV*". The result, indicating that the respondent afraid to be infected by HIV if they share food with PHAs. The result indicating

that there is better improvement knowledge about this issues since the 2012 IDHS showed that more than 66% respondent have misconception about the issue (BPS, et al., 2013) and now decreased to only 42.3%. The second highest misconception (37.7%) is in the statement of "*Can get HIV from mosquito bites*", indicating that the respondent afraid to live close from PHAs because they afraid that mosquito which bite PHAs can transmit HIV to them. The result of the survey showed that the knowledge of people in Indonesia related to the issue is increasing from the 2012 DHS survey. The past survey showed that more than 67% had misconception about the issues (BPS, et al., 2013). Misconception about HIV/AIDS transmission related to these issues might be occurred because most of the media HIV awareness campaign rarely addressing that sharing food and mosquito bite are not the media transmission of HIV/AIDS. Most of the campaign done is addressing about safe sex and safe needle use. Therefore, there is high demand to present the importance of addressing misconception about the prevention and transmission of HIV/AIDS in order to reduce the discriminatory attitude toward PHAs.

Result of the survey showed that most of the respondent already aware that unsterilized needle sharing practice can be the media of HIV/AIDS transmission (93.5%), the result already increased from the previous IDHS. In 2012 only 71% of respondent aware that unsterilized needle can be the media of HIV/AIDS transmission. They also aware that supernatural means cannot transmit HIV (86.5%) while the result of 2012 IDHS showed that only 61.6% of respondent aware that supernatural means cannot transmit HIV/AIDS (BPS, et al., 2013), and Most of the respondents also aware that child infection can be transmitted by mother during the pregnancy (84.3%) while the 2012 IDHS showed that only 64.4% respondents aware about the issue (BPS, et al., 2013). The finding showed that the HIV/AIDS awareness campaign that done in several media in Indonesia effective at delivering the message related to HIV/AIDS prevention and transmission. It is indicated

from the increment of the respondent knowledge from 2012 IDHS. The result of 2017 IDHS showed better result of respondent related to the HIV/AIDS prevention and transmission. However, several misconceptions about HIV/AIDS transmission such as sharing food and mosquito bites can transmit HIV/AIDS. The content of the HIV/AIDS awareness campaign should be improved especially addressing the misconception about HIV/AIDS prevention and transmission that occurred in the community because it is one of the method to remove the irrational fears among general population towards PHAs. Therefore, the discriminatory attitude towards PHAs could be reduced.

6.2.2 Discriminatory Attitude toward PHAs

Negative perceptions towards PHAs are common manifestations of HIV/AIDS stigma which leads to discriminatory and prejudice attitudes (Valdiserri, 2002; Holzemer, et al., 2009; Beaulieu, et al., 2014). This study only accommodates two statements from 2017 IDHS in measuring discriminatory attitude, towards adult with HIV assessed by statements "*Would buy vegetables from vendor with HIV*" while towards children with HIV assessed by statement "*Children with HIV should be allowed to attend school with children without HIV*". Respondents is provided three choices which are "YES" indicating that they have inclusive attitude towards adult with HIV, answer "NO" indicating that respondents tend to have discriminatory attitude towards adult with HIV, and "DON'T KNOW" indicating that they are not sure about how to respond with the situation. Author then categorized the "YES" response to inclusive attitude and "NO" and "DON'T KNOW" answer to non-inclusive attitude. The finding of the study provides information that there is high level of non-inclusive attitude towards PHAs in Indonesia especially toward adult (69.8%) in National level. Based on the province, the highest non-inclusive attitude is from Aceh Province (81.5%), followed by North Kalimantan (79.9%), and East Nusa Tenggara (79.5%).

The highest non-inclusive attitude towards PHAs occurred in Aceh Province can be linked with Aceh Province culture's and regulation's. Aceh Province implements law and regulation based on Muslim/Islam religion. According to Muslim religion, all of the "*key population*" people is sinners because they break God's rules. Doing sex before marriage, have more than one sex partner, IDU, sex worker, homosexual, and transgender are people that break the God's rules and they are marked as sinner by the local community. Based on the situation, non-inclusive of people in Aceh Province can only be reduced if government engaged Muslim/Islam religious leader in their HIV/AIDS campaign and other awareness program since the community mostly trust religious leader more than the government.

The finding also showed that there is no improvement of non-inclusive attitude toward adult with HIV since 2012. Result of 2012 IDHS showed almost the same result (69.7%) with 2017 IDHS (69.8%) of the respondent who have non-inclusive towards adult with HIV (BPS, et al., 2013). The result suggest that government need to improve or change the strategy respective to the population culture's and religion's rather than creating national action plan that might be not suitable for several cultures since Indonesia consist of more than three hundred difference race and five different religions.

As for the children with HIV, prevalence of the non-inclusive attitude is relative low, in national level (20.3%) compared to the adult. The highest province with non-inclusive attitude toward children with HIV is Central Kalimantan (29.6%), followed by West Papua (28.5%), and South Kalimantan (26%). The question about discriminatory attitude towards children with HIV is just started to be asked in 2017 IDHS therefore, the prevalence of people who have non-inclusive attitude toward children with HIV cannot be compared to the previous years. Moreover, journals and reports rarely addressing issues about discriminatory attitude towards children with HIV.

However, it is should be noticed by stakeholder that the prevalence of discriminatory of PHAs in Indonesia is still high that can lead to the barrier of HIV/AIDS prevention and control program if the issue is not addressing properly.

6.2.3 Social-Demographic and Discriminatory Attitude towards PHAs

According to the finding of social-demographic factors tested, age, gender, residence, education level, and wealth index were significantly associated with discriminatory attitude towards PHAs in Indonesia. These findings are similar to that of several other studies (Dahlui, et al., 2015; Khan, et al., 2017). The finding suggests that as the age increase, the odds to have non-inclusive attitude towards adult with HIV is decreasing. The finding is similar with previous finding (Okonkwo, et al., 2017; Letamo, 2003). Okonkwo, et al (2017) reported that among Nigerian people, age above 57 is less likely to show stigmatism attitude toward PHAs compare to the people age 18 to 27 years old. However, there were studies that report the inverse result (Li, et al., 2017). According Li, et al (2017) people in China with age of 21 to 50 years old associated with decrease of stigma attitude towards PHAs by 26%. The difference of the finding might be because of the cultural difference from country to country. In Indonesia case, it might be occurred because of the older people have more knowledge about HIV prevention and transmission because of exposed several times to the HIV/AIDS awareness campaign that done by the government in the previous years. Therefore, older people likely have less non-inclusive attitude towards PHAs than young people.

Gender was one of the predictor of discriminatory attitude toward PHAs. It is interesting to note that from the finding, male is likely to have inclusive attitude towards adult with HIV than female but towards children with HIV, male likely to have strong tendency to have non-inclusive attitude towards them. Some studies shown that female are more likely to have proponent of

reducing discriminatory attitude towards PHAs than male (Ouzouni, 2012; Li, et al., 2017). However, other studies also report contrast result, they showed that female had more negative and discriminatory attitudes toward PHAs when they are compared with male (Tofighi Niaki, 2012; Masoudnia, 2015). The possible explanation of female is more likely have inclusive attitude towards children with HIV is because of the nature of female and their social position as mother. Therefore, female more likely feeling sympathy towards children with HIV.

The finding showed that people who living in rural area have tendency to have more non-inclusive towards adult with HIV but towards children with HIV, they more likely to have inclusive attitude. The finding is similar with several previous research that shown that people who living in rural area is likely to have discriminating attitude towards PHAs than people who living in urban area (Amuri, 2011; Calderón, et al., 2015; Hazarika, 2010; Iqbal, et al., 2019). Amuri (2011) reported that people who live in rural area more likely to have discriminatory attitude is because the prevalence of HIV/AIDS in rural area is less than urban area. Therefore, people not really familiar with the HIV/AIDS. Living in rural area also more likely to have less access to the information especially in rural area of Indonesia where internet is still difficult to be accessed. Therefore, the main source of information of them is television or radio. The limit of source information also being barrier of the HIV/AIDS awareness campaign.

According to the result, people with less education background is likely to have non-inclusive attitude towards people living with HIV. The finding indicates that one of the main predictors of discriminatory attitudes towards PHAs is the level education of the respondent. The results of this study consistent with the findings of previous researches in which shown the positive impact of education on attitudes toward PHAs (Khan, et al., 2017; Mandal, et al., 2008; Calderón, et al., 2015; Iqbal, et al., 2019; Li, et al., 2017). Other studies confirmed the same result among health care

worker (Amuri, 2011; Messer, 2010; Farotimi, et al., 2015; Memish, et al., 2015). Higher education less likely to have non-inclusive attitude towards PHAs is because the respondents have long period attending school. Most of the health campaign in Indonesia is done in the school including HIV. Therefore, if the respondent has higher education, they more likely to have more information about HIV/AIDS than people with lower education level. With better information, the awareness of the respondent related HIV/AIDS is increasing. Therefore, higher education more likely to have less non-inclusive attitude towards people with lower education level.

However, there was study that report contrast result with this finding. Masoudnia (2015) reported that higher levels of education, especially academic education has more discriminatory attitudes toward PHAs compared with those with lower levels of education (Masoudnia, 2015). The phenomenon might be occurred because of irrational fears from the people even though they have high education. If not, they never exposed to HIV/AIDS campaign and awareness program. Therefore, even if they have high education, they have non-inclusive attitude towards PHAs.

Wealth quintile is one of the predictor for discriminatory toward PHAs. According to the result of this study, people who have better wealth are more likely to have inclusive attitude toward PHAS. The finding indicates that people with poor status more likely to have non-inclusive attitude toward PHAS, it is similar with the previous studies (Amuri, 2011; Calderón, et al., 2015; Iqbal, et al., 2019). Calderon, et al (2015) reported that among Bolivian family who have income less than 1000 USD more likely to have double discriminatory attitude toward PHAs than family who has income greater than 1000 USD. Iqbal, et al (2019) reported that female who have less education and poor wealth index is more likely to show less positive attitude toward PHAs. This finding is important to be considered when designing program of reduction discriminatory attitude towards PHAs.

6.2.4 Knowledge and Discriminatory Attitude towards PHAS

The result of the regression analysis suggests that people with incomplete low knowledge about HIV transmission and prevention tend to have four times higher odd of non-inclusive attitude toward adult living with HIV and incomplete middle knowledge tend to have two times higher odd than people who have complete knowledge. The finding is similar with several previous studies (Khan, et al., 2017; Masoudnia, 2015; Messer, 2010; Memish, et al., 2015; Yang, et al., 2015; Bhagavathula, et al., 2015; Ekstrand, et al., 2012; Vorasane, et al., 2017; Okpala1, et al., 2017). Masoudnia (2015) did research in Iran, he found that respondent awareness about HIV/AIDS and discriminatory attitude toward PHAs is statistically significant, the more knowledge of respondent about HIV, the lower discriminatory attitudes they showed. Ekstrand, et al (2012) reported study in India that discriminatory attitude toward PHAs was reduced with more correct knowledge about transmission of HIV. Stigma attitude and discriminatory toward PHAs are driven primarily by HIV transmission misconception, blame, and negative feeling towards PHAs. The same result also reported by Bhagavatula et al (2015), poor knowledge has correlation with negative attitude towards PHAS. Okpala, et al (2017) reported the same result that nurse with high level of knowledge related to HIV/AIDS more likely to have positive attitude toward PHAs.

Study in Saudi Arabia done by Memish, et al (2015) reported that among the doctors who have poor knowledge of HIV had significant higher mean stigma scores than doctors who have better knowledge about HIV. Poor knowledge of doctor related to HIV may lead to be an obstacle to the control of HIV in country because it can affect doctor attitude towards PHAs thereby discouraging patient with HIV to access HIV prevention, care, and treatment service. The same result reported by Vorasane (2017), doctor and nurse in Lao PDR who have higher level of HIV/ AIDS knowledge were less likely to show stigmatizing attitude towards PHAs.

Even poor knowledge found statistically significant with discriminatory attitude toward PHAs, there are several studies that report contrast result (Li, et al., 2017; Lau & Tsui, 2005; Letamo, 2003; Chen, et al., 2005). Li, et al (2017) reported that increased stigma attitudes are associated with better knowledge of HIV transmission. The possible explanation related to the result due to overestimate the risk of HIV contagion in China, therefore the respondent more likely to avoid contact with PHAs as far as possible when they have better knowledge about it.

The finding related to knowledge with discriminatory attitude indicate that improving knowledge of people is one of the effective reduction strategy related to discriminatory attitude towards PHAS. Stakeholder should provide more awareness campaign to improve community knowledge related to HIV prevention and transmission to support discriminatory attitude reduction strategy towards PHAS. Since its already noted that discriminatory attitude that received by PHAs can prevent them from accessing health service and treatment that can lead to the fail of HIV/AIDS prevention and control program.

6.3 Strength and Limitation

The strength of this study is the amount of the sample that was well designed by the two stratified random sampling technique which can provide adequate number of sample that is representative enough to cover provincial and national generalization level. The study also covering topics about the discrimination attitude towards children with HIV which is still being a sensitive topic and there is only limited amount of study which addressing the same issues.

Major strength of this research is that, the research compare between people with complete level knowledge that showed the better impact of people having complete knowledge related to the HIV/AIDS prevention and transmission affecting the discriminatory attitude towards PHAs. The

outcomes of the studies also showed consistency with the previous studies even from different countries, indicates that the outcome of the study represent the association of social-demographic and knowledge related to the HIV/AIDS prevention and transmission with the discriminatory attitude towards PHAs.

However, the study also has some limitation that should be considered. The study was limited by the bounded location and time of Indonesian citizen who was resided in Indonesia at the time of data collection. Data analysis was done based on the secondary data that was collected for 2017 IDHS by the questionnaire which cannot provide deeper information as if the study done by interview, limiting the author to collect additional information to support the explanatory of study findings. Most of the result showed significant result determining the association between the independent and dependent variables, but that should be noted if *Chi-square* analysis was performed to analyse the association which chi-square analysis is highly sensitive with the sample size. If the sample size increase, the difference gradually decreases that lead to the strong association. Therefore, even if the result statistically significant but there is possibility of substantively not significant.

Design of the study was cross sectional analysis which the independent and dependent variables was measured at the same time. Therefore, the study findings cannot perfectly determine the direction of the relationship among variables. The direction of the association conducted based on the theoretical framework. Discriminatory attitude towards PHAs was only addressed by two questions which divided for adult with HIV and children with HIV. If the question that measuring discriminatory attitude towards PHAs was multiple, the reliability of the discriminatory attitude might increase and discriminatory attitude was based on the assumption not the real practice of discrimination that was done by the respondent.

CHAPTER VII

CONCLUSION

7.1 Conclusion

The outcomes of this research showed that majority (72.8%) of general population in Indonesia have incomplete middle knowledge level about HIV/AIDS prevention and transmission, the highest misconception about HIV/AIDS transmission is about the possibility infection by food sharing (42.3%) and mosquito bites (37.7%). However, majority general population aware that unsterile needle use (93.5%) can be transmission media of HIV/AIDS.

The result about HIV/AIDS discriminatory attitude towards adult with HIV/AIDS in Indonesia showed that non-inclusive attitude toward them is relative high about 69.8% in National level, the highest percentage of province is Aceh with 81.5% while the least is West Papua Province with 52%. The result of non-inclusive attitude towards children with HIV/AIDS showed contrast result, in National level, non-inclusive attitude towards children with HIV/AIDS relative low with 20.3%. The highest percentage of non-inclusive attitude towards children is in the Central Kalimantan with 29.6% and the lowest is South Sulawesi with 15.7%. The outcomes are encouraging that general people in Indonesia are holding relative high level of non-inclusive attitude towards adult PHAs.

The result of association analysis indicated that social-demographic of the respondent such as age, gender, residence, and wealth quintile have statistically significant association with discriminatory attitude toward PHAs. Males are likely to have inclusive attitude towards adult with HIV but holding four times odds to have non-inclusive towards children with HIV. People with low education level are more likely to have non-inclusive attitude towards PHAs compare to the people

with higher education who at least graduating from high school. People with low economic condition is more likely to hold non-inclusive attitude towards PHAs compare to the people with high economic status. And the incomplete knowledge about HIV/AIDS prevention and transmission increase the odds of people to hold discriminatory attitude towards PHAs twice higher than people with complete knowledge of HIV/AIDS prevention and transmission. The findings indicated that high education and complete knowledge related to the HIV/AIDS prevention and transmission are key factor that can be modified to reduce the odds of people to hold discriminatory attitude towards PHAs in Indonesia.

7.2 Recommendation

The study only covering measurement of discriminatory attitude towards PHAs based on two specific question that based on assumption that it will enough to represent the discriminatory attitude towards PHAs. Future study should be conducted to explore better and deeper information about discriminatory attitude toward PHAs. The social-demographic variable that was chosen for the study was limited because only using the available secondary data, other variables need to be included in future study such as culture aspect, environmental, political, and psychological aspect to provide better understanding about the discriminatory attitude mechanism towards PHAs.

Further research also is needed to identify ways in which research and behavioral intervention programs can address the discriminatory attitude towards PHAs because the design of the current study was cross sectional analysis which the independent and dependent variables was measured at the same time. Future study with longitudinal design need to be conducted to provide better direction of association between knowledge, attitude, and practice.

APPENDICES

Appendix 1. ICF Approval Letter for Using 2017 Indonesia Demographic and Health Survey Data

Sep 25, 2019

Danik Iga Prasiska
Community Health Center
Indonesia
Phone: 01074 231992
Email: digaprasiska@gmail.com
Request Date: 09/25/2019

Dear Danik Iga Prasiska:

This is to confirm that you are approved to use the following Survey Datasets for your registered research paper titled: "KNOWLEDGE OF HIV/AIDS AND DISCRIMINATORY ATTITUDES TOWARDS PEOPLE LIVING WITH HIV/AIDS ":

Indonesia

To access the datasets, please login at: https://www.dhsprogram.com/data/dataset_admin/login_main.cfm. The user name is the registered email address, and the password is the one selected during registration.

The IRB-approved procedures for DHS public-use datasets do not in any way allow respondents, households, or sample communities to be identified. There are no names of individuals or household addresses in the data files. The geographic identifiers only go down to the regional level (where regions are typically very large geographical areas encompassing several states/provinces). Each enumeration area (Primary Sampling Unit) has a PSU number in the data file, but the PSU numbers do not have any labels to indicate their names or locations. In surveys that collect GIS coordinates in the field, the coordinates are only for the enumeration area (EA) as a whole, and not for individual households, and the measured coordinates are randomly displaced within a large geographic area so that specific enumeration areas cannot be identified.

The DHS Data may be used only for the purpose of statistical reporting and analysis, and only for your registered research. To use the data for another purpose, a new research project must be registered. All DHS data should be treated as confidential, and no effort should be made to identify any household or individual respondent interviewed in the survey. Please reference the complete terms of use at: https://dhsprogram.com/Data/terms-of-use.cfm.

The data must not be passed on to other researchers without the written consent of DHS. However, if you have coresearchers registered in your account for this research paper, you are authorized to share the data with them. All data users are required to submit an electronic copy (pdf) of any reports/publications resulting from using the DHS data files to: references@dhsprogram.com.

Sincerely,

Bridgette Wellington

Bridgette Wellington
Data Archivist
The Demographic and Health Surveys (DHS) Program

Appendix 2. IRB Approval for conducting 2017 Indonesia Demographic and Health Survey

Institutional Review Board Findings Form
ICF IRB FWA00000845 (exp. 04/13/2019)

Project Director(s): Sunita Kishor

Project Title: The Demographic and Health Survey (DHS) Program (DHS-7)

ICF Project Number: 132989.0.000

Type of Review:

☒ New ☐ Modification ☐ Annual review

Findings of the Board:

☒ Project complies with all of the requirements of 45 CFR 46, "Protection of Human Subjects"

☐ Project is exempt from IRB review (See IRB Exemption Form)

☐ Project does not comply with all of the requirements of 45 CFR 46

Project Approved Until: September 8, 2018

Next Annual Review Date: March 11, 2016

Chair, Institutional Review Board

March 11, 2015
Date

(Revised 07/18/2014)

Appendix 3. IRB Exemption from Yonsei University Health System (Page 1)

연세의료원 연구심의위원회
Yonsei University Health System, Institutional Review Board
서울특별시 서대문구 연세로 50-1 (우) 03722
Tel. 02 2228 0454, Fax. 02 2227 7888 Email. irb@yuhs.ac

심 의 일 자	2019년 11 월 19 일
과제승인번호	Y-2019-0158

연세의료원 연구심의위원회의 심의 결과를 다음과 같이 알려 드립니다.

Protocol No.	
연 구 제 목	HIV/AIDS에 관한 지식과 HIV감염인/AIDS환자에 대한 차별적 태도 (2017 인도네시아 인구 통계 및 건강 조사 분석)
연구책임자	윤상철 / 세브란스병원 보건대학원
의 뢰 자	(학)연세대학교
연구예정기간	2019.11.19 ~ 2020.02.18
지속심의 빈도	면제
과 제 승 인 일	2019.11.19
위 험 수 준	Level I 최소위험
심 의 유 형	신규과제
심 의 내 용	-임상 연구계획서(국문) -증례기록서 -대상자 설명문 및 동의서(국문) -Authority Letter - Danik Iga Prasiska -MAN - INFORM CONSENT & QUESTIONNAIRE -WOMAN -INFORM CONCENT & QUESTIONNAIRE -연구책임자 이력 및 경력에 관한 사항
I R B 회 의	연세의료원 IRB
참 석 위 원	연세의료원 IRB 신속심의자
심 의 결 과	승인, 대상자 동의 면제
심 의 의 견	- 통계분석방법 중 다음 사항이 카이검정이 적절할지 확인이 필요하겠음. "Third, we perform a Chi-square test between the independent and dependent variables to analyze the association between the variables, and if there is a significant association between the two variables, continue the analysis with regression analysis."

Appendix 3. IRB Exemption from Yonsei University Health System (Page 2)

※ 연세의료원 연구심의위원회는 생명윤리 및 안전에 관한 법률을 준수합니다.
연구책임자 및 연구담당자가 IRB 위원인 경우, 해당 위원은 위 연구의 심의과정에 참여하지 않았습니다.

연세의료원
연구심의위원회
위원장

* 유의사항 *

1. 연세의료원 연구심의위원회 규정을 준수하여 주십시오.

연구책임자께서는 모든 연구 관련자들이 규정을 이행할 수 있도록 협조하여 주시기 바랍니다.

2. 질의답변

승인 통보 받지 않은 과제는 연구 진행할 수 없으며, 관련 질의에 대한 답변서와 질의 사항에 따른 변경 및 수정된 자료가 있다면 첨부하여 심의일로 부터 6개월 이내 제출하여야 합니다.

3. 연구의 승인 유효 기간

관련법령에 따라 승인된 연구의 유효기간은 최대 1년을 넘을 수 없습니다.
연구자께서는 승인 만료일 최소 한 달전에 중간보고를 제출하여 승인 유효기간을 갱신하셔야 합니다.
유효기간이 만료된 연구는 새로운 대상자를 등록하실 수 없습니다.

4. 계획 변경

연구 절차, 대상자 수 IRB로부터 승인 받은 내용에 변경 또는 추가 사항이 있을 경우에는
반드시 IRB의 승인을 득한 후에 적용하실 수 있습니다.

5. 연구자는 심의결과에 이의가 있을 경우 이의신청을 통해 심의관련 의견제시가 가능합니다. 관련 질의에 대한 의견제시와 충분한 근거를 첨부자료로 제출해야 합니다. 자료 미흡 또는 근거가 불충분할 경우 연구자에게 추가자료를 요청할 수 있습니다.

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국문요약

HIV 는 지속해서 관심 가지는 중요한 공중 보건 문제이다. HIV 의 완벽한 치료는 중요한 도전 과제였으나, 관련된 사회적 문제 또한 점차 커지는 추세이다. HIV 낙인은 전 세계적으로 문제 되고 있으며 인도네시아를 포함한 국가들의 HIV 예방 및 치료의 장벽으로 작용한다. 인도네시아는 토지와 섬으로 이루어진 지형뿐만 아니라 인종과 인구 규모 측면에서 복잡하고 역동성을 가진 국가이다. 인도네시아의 지역별 HIV 유병률은 유의한 차이를 가지고 있다. 그러나 PHA 에 대한 사회적 인식에 관한 연구는 거의 진행되지 않았다. 따라서 국가적 부족한 PHAs 의 차별 및 태도에 관한 연구를 진행하였다. 이 연구의 목적은기반으로 PHAs 에 대한 차별적 태도와 HIV 예방 및 전파 경로에 대한 사회 인구 통계 및 연관성을 확인하는 것이다.

이 연구는 2017 년 인도네시아 인구 통계 및 건강 설문 조사의 2 차 데이터 분석을 기반으로 하는 비반응성 연구이다. 2 단계 샘플링을 사용하여 국가 및 지방 수준의 추정치를 확인하도록 설계하였다. HIV 예방 및 전염에 관한 사회 인구 통계 및 PHAs 의 차별적 태도에 관한 다중 분석을 하였다. 15~54 세의 남성 8,097 명과 여성 39,393 명, 총 47,470 명의 응답 규모를 가진다. 카이-제곱 분석 및 로지스틱 회귀분석을 통해 PHAs 에 대한 차별적 태도와 인구 사회학적 분포 간 통계적 연관성을 확인하기 위해 수행되었습니다.

통계분석 결과 인구 사회학적 분포와 PHAs 에 대한 차별적 태도의 통계학적 유의성을 확인하였다. 남성 (p-value < 0.001; OR 0.993 [CI 95% 0.990 – 0.995])은 성인 PHAs 에 대하여 포용적인 태도를 취하는 경향을 확인하였다. 교육 없음 사람들 (p-value<0.001; OR 1.625 [CI 95% 1.143 – 2.310]) 과 고소득자 미만 (p-value <0.001; OR 1.471 [CI 95% 1.361 – 1.590])은 성인 PHAs 에 대한 포용 적이지 않은 경향이 있다. HIV 예방 및 전염에 대한 지식이 불완전한 사람들은 완전한 지식을 가진 사람들보다 성인 PHAs 에 대한 포용적 태도가 4 배 더 높습니다 (p-value <0.001; OR 4.083 [CI 95% 3.752 – 4.444]).

연구의 결과는 HIV / AIDS 예방 및 전파에 대한 완전한 지식이 PHA 에 대한 차별적 태도를 줄이는 중요한 방법의 하나임을 시사했다.

핵심어 : HIV, AIDS, PHAs, 차별적, 태도