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Determinants of HIV-Related Stigma Among Women in Indonesia: Analysis of the 2017 Indonesia Demographic and Health Survey

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ABSTRACT

Background: HIV-related stigma remains a major public health challenge because it hinders HIV prevention, testing, treatment, and care services. In Indonesia, evidence regarding determinants of HIV-related stigma specifically among women remains limited, despite their important role in family and community health decision-making. **Objective:** This study aimed to identify factors associated with HIV-related stigma among Indonesian women using nationally representative data from the 2017 Indonesia Demographic and Health Survey (IDHS). **Methods:** A cross-sectional study was conducted using secondary data from the 2017 IDHS women's dataset (IDIR71FL). A total of 24,213 women were included in the analysis. Sampling weights were applied prior to analysis to account for the complex survey design. Independent variables included socio-demographic and informational characteristics. Data were analyzed using descriptive statistics, Chi-square tests, and binary logistic regression with IBM SPSS Statistics. **Results:** HIV-related stigma was reported by 86.7% of respondents. Multivariable analysis showed that older age, higher educational attainment, higher wealth status, rural residence, and media exposure were associated with lower odds of HIV-related stigma. Conversely, married women and those living in Sumatra and other provinces outside Java-Bali had higher odds of stigma. HIV knowledge was not significantly associated with stigma after adjustment. **Conclusion:** HIV-related stigma among Indonesian women remains highly prevalent and is influenced by socio-demographic and informational factors. Strengthening culturally sensitive HIV education and media-based awareness programs is essential to reduce stigma and discrimination toward people living with HIV/AIDS in Indonesia.

Keywords: hiv-related stigma; women; demographic and health survey; hiv knowledge; indonesia

Background

Human Immunodeficiency Virus (HIV) remains a major global public health challenge despite advances in prevention, diagnosis, and treatment. According to the Joint United Nations Programme on HIV/AIDS, millions of people worldwide continue to live with HIV, particularly in low- and middle-income countries. In addition to its clinical burden, HIV/AIDS is closely associated with stigma and discrimination, which negatively affect psychological well-being, healthcare utilization, and the quality of life of people living with HIV/AIDS (PLWHA). Furthermore, HIV-related stigma remains highly prevalent across 64 low- and middle-income countries and has been associated with lower uptake of HIV testing services (1). Likewise, discriminatory attitudes toward PLWHA continue to hinder HIV prevention and treatment programs in many developing countries (2). Consequently, HIV-related stigma may lead to delayed HIV testing, poor adherence to antiretroviral therapy, social isolation, and reduced willingness to access healthcare services.

In Indonesia, HIV-related stigma remains an important social and public health concern. Previous studies have demonstrated that discriminatory attitudes toward people living with HIV/AIDS (PLWHA) are still widespread among the Indonesian population. In particular, HIV-related stigma has been strongly associated with several socio-demographic factors, including younger age, low educational attainment, poor economic status, and limited HIV-related knowledge (3). Furthermore, approximately two-thirds of Indonesians were reported to still exhibit discriminatory attitudes toward PLWHA (4). In addition, limited HIV-related knowledge and inadequate access to information were found to contribute to stigmatizing

attitudes among young women in Indonesia (5). Consequently, persistent stigma within society may discourage individuals from disclosing their HIV status, seeking counseling, and utilizing HIV healthcare services, thereby complicating national HIV control efforts.

Several studies have investigated determinants of HIV-related stigma using Demographic and Health Survey (DHS) data across different countries. Previous findings indicated that age, educational level, residence, and HIV testing experience were important predictors of HIV-related stigma among sexually active Ethiopians (6). Furthermore, education level, wealth status, employment, and media exposure were found to significantly influence discriminatory attitudes among women in East African countries (7)(8). Although previous studies in Indonesia have explored stigma among the general population, adolescents, and mixed-gender groups, evidence specifically focusing on Indonesian women remains limited. Women represent an important population because they play central roles in family health decision-making, child caregiving, and community socialization. In addition, sociocultural norms and gender-related expectations may shape women's perceptions and attitudes toward people living with HIV/AIDS (PLWHA) differently from men. Nevertheless, nationally representative evidence examining factors associated with HIV-related stigma specifically among Indonesian women is still insufficient.

To date, limited studies have comprehensively examined HIV-related stigma among Indonesian women using nationally representative data from the 2017 Indonesia Demographic and Health Survey (IDHS). Most previous studies analyzed combined male and female respondents or focused only on adolescents and regional populations, resulting in limited understanding of stigma determinants among adult women at the national level. Therefore, this study addresses an important research gap by specifically analyzing socio-demographic characteristics, HIV knowledge, and media exposure associated with HIV-related stigma among Indonesian women using weighted IDHS data. The novelty of this study lies in its focus on women-only analysis using a nationally representative dataset and multivariable logistic regression approach to identify determinants of stigma among Indonesian women. The findings of this study are expected to provide evidence-based recommendations for developing targeted interventions and culturally sensitive public health strategies aimed at reducing HIV-related stigma and discrimination in Indonesia.

Methods

This study employed a cross-sectional design using secondary data obtained from the 2017 Indonesia Demographic and Health Survey (IDHS). The IDHS is a nationally representative survey conducted as part of the Demographic and Health Surveys Program program, designed to collect comprehensive information on population health, demographic characteristics, and health-related behaviors among Indonesian households. The present study specifically analyzed women's data derived from the Individual Recode dataset (IDIR71FL). The study population consisted of women of reproductive age included in the 2017 IDHS dataset. The IDHS applied a stratified two-stage cluster sampling design to ensure national representativeness across urban and rural areas in Indonesia. In the first stage, census blocks were selected proportionally based on the number of households. In the second stage, households within each selected cluster were systematically sampled(9). This study included respondents with complete data on all variables analyzed in the study. After data cleaning and eligibility assessment, a total of 24,213 women were included in the final analysis

The dependent variable in this study was HIV-related stigma. The stigma variable was constructed from IDHS questions related to discriminatory attitudes toward people living with HIV/AIDS (PLWHA). Responses were categorized into two groups: "No Stigma" and "Stigma." Independent variables included socio-demographic and informational characteristics, namely age, education level, marital status, occupational status, wealth index, residence, province, HIV knowledge, and media exposure. Age was categorized into 17–25, 26–35, and 36–45 years. Education level was classified as primary, secondary, and higher education. Marital status was grouped into unmarried and married, while occupational status was categorized as employed and unemployed. The wealth index variable was adopted directly from the IDHS classification and categorized into poorest, poorer, middle, richer, and richest. Residence was classified as urban or rural. Province was grouped into Java-Bali, Sumatra, and other provinces. HIV knowledge was categorized into low and high knowledge based on respondents' answers to HIV-related questions provided in the IDHS questionnaire. Media exposure was categorized as "Yes" or "No"

according to respondents' exposure to information through mass media channels. All variables analyzed in this study were obtained from standardized IDHS questionnaires developed by the DHS Program and adapted for the Indonesian context.

The data used in this study were obtained from the official DHS Program database after receiving authorization to access the dataset. The women's dataset (IDIR71FL) was downloaded from the DHS Program website, and relevant variables were selected based on the study objectives. Prior to analysis, several data management procedures were conducted, including coding, recategorization, verification of missing data, and application of sampling weights to account for the complex survey design and unequal probabilities of selection. Statistical analysis was performed using IBM SPSS Statistics. Descriptive statistics were used to summarize respondents' characteristics and were presented as frequencies and percentages. Furthermore, the Chi-square test was applied to examine associations between independent variables and HIV-related stigma. Variables with p-values less than 0.05 in the bivariate analysis were subsequently included in the multivariable model. Binary logistic regression analysis was then performed to identify factors associated with HIV-related stigma among Indonesian women, with results reported as crude odds ratios (COR), adjusted odds ratios (AOR), and 95% confidence intervals (CI). Statistical significance was determined at $p < 0.05$.

Results

Table 1. Socio-Demographic Characteristics, HIV-Related Knowledge, Media Exposure, and HIV-Related Stigma Among Indonesian Women

Variable	Frequency (n)	Percent (%)
Age (Years)		
17–25	7,472	30.9
26–35	8,283	34.2
36–45	8,458	34.9
Education Level		
Primary	4,906	20.3
Secondary	14,874	61.4
Higher	4,433	18.3
Marital Status		
Unmarried	5,366	22.2
Married	18,847	77.8
Occupational		
No	9,844	40.7
Yes	14,369	59.3
Wealth Index		
Poorest	4,468	18.5
Poorer	5,003	20.7
Middle	5,233	21.6
Richer	5,150	21.3
Richest	4,359	18.0
Residence		
Urban	13,224	54.6
Rural	10,989	45.4
Province		
Jawa-Bali	8,683	35.9
Sumatra	6,325	26.1

Other	9,205	38.0
HIV Knowledge		
Low Knowledge	4,369	18.0
High Knowledge	19,844	82.0
Media Exposure		
No	7,116	29.4
Yes	17,097	70.6
Stigma		
No Stigma	3,209	13.3
Stigma	21,004	86.7

Table 1 describes the socio-demographic characteristics, HIV-related knowledge, media exposure, and stigma among 24,213 Indonesian women included in the analysis. The proportion of respondents was relatively balanced across age groups, with women aged 36–45 years representing the largest group (34.9%), followed by those aged 26–35 years (34.2%) and 17–25 years (30.9%). Most respondents had completed secondary education (61.4%), while 20.3% had primary education and 18.3% had higher education. The majority were married (77.8%) and employed (59.3%). Based on economic status, the distribution across wealth index categories was relatively even, ranging from 18.0% in the richest group to 21.6% in the middle-income group. More than half of the respondents lived in urban areas (54.6%), whereas 45.4% resided in rural settings. Geographically, respondents from provinces outside Java-Bali and Sumatra constituted the largest proportion (38.0%), followed by Java-Bali (35.9%) and Sumatra (26.1%).

Regarding HIV-related variables, most respondents demonstrated high HIV knowledge (82.0%) and reported exposure to media information (70.6%). Nevertheless, HIV-related stigma remained highly prevalent, with 86.7% of respondents categorized as having stigma, compared with only 13.3% who reported no stigma.

Table 2. Bivariate Analysis of Factors Associated with HIV-Related Stigma Among Indonesian Women

Variable	HIV Related Stigma		p-value
	No Stigma	Stigma	
	N (%)		
Age (Years)			<0.001
17–25	779(3.2)	6,693(27.6)	
26–35	1,070(4.4)	7,213(29.8)	
36–45	1,360(5.6)	7,098(29.3)	
Education Level			<0.001
Primary	575(2.4)	4,331(17.9)	
Secondary	1,934(8.0)	12,940(53.4)	
Higher	700(2.9)	3,733(15.4)	
Marital Status			<0.003
Unmarried	646(2.7)	4,720(19.5)	
Married	2,563(10.6)	16,284(67.3)	
Occupational			<0.001
No	1,194(4.9)	8,650(35.7)	
Yes	2,015(8.3)	12,354(51.0)	
Wealth Index			<0.001
Poorest	444(1.8)	4,024(16.6)	
Poorer	628(2.6)	4,375(18.1)	

Middle	712(2.9)	4,521(18.7)	
Richer	804(3.3)	4,346(17.9)	
Richest	621(2.6)	3,738(15.4)	
Residence			0.394
Urban	1,775(7.3)	11,449(47.3)	
Rural	1,434(5.9)	9,555(39.5)	
Province			<0.001
Jawa-Bali	1,282(5.3)	7,401(30.6)	
Sumatra	782(3.2)	5,543(22.9)	
Other	1,145(4.7)	8,060(33.3)	
HIV Knowledge			0.010
Low Knowledge	527(2.2)	3,842(15.9)	
High Knowledge	2,682(11.1)	17,162(70.9)	
Media Exposure			<0.001
No	792(3.3)	6,324(26.1)	
Yes	2,417(10.0)	14,680(60.6)	

Note: Data are presented as frequency (n) and percentage (%). P-values were obtained using the Chi-square test. Statistical significance was set at $p < 0.05$.

Table 2 shows the association between socio-demographic characteristics, HIV-related factors, and HIV-related stigma among Indonesian women. The chi-square analysis demonstrated that age, education level, marital status, occupational status, wealth index, province, HIV knowledge, and media exposure were significantly associated with HIV-related stigma ($p < 0.05$). However, residence was not significantly associated with stigma ($p = 0.394$). A significant relationship was observed between age and HIV-related stigma ($p < 0.001$). Women aged 26–35 years constituted the largest proportion of respondents experiencing stigma (29.8%), followed by those aged 36–45 years (29.3%) and 17–25 years (27.6%). Meanwhile, the proportion of respondents without stigma was highest among women aged 36–45 years (5.6%). Education level was also significantly associated with stigma status ($p < 0.001$). Respondents with secondary education represented the largest proportion in both the stigma (53.4%) and no stigma groups (8.0%). Women with primary education accounted for a smaller proportion of respondents without stigma (2.4%) compared with those with secondary and higher education. Marital status demonstrated a statistically significant association with HIV-related stigma ($p = 0.003$). Married women constituted the majority of respondents with stigma (67.3%), whereas unmarried women accounted for 19.5%. Similarly, occupational status was significantly related to stigma ($p < 0.001$), with employed respondents comprising a larger proportion of the stigma group (51.0%) than unemployed respondents (35.7%). Significant differences were also found across wealth index categories ($p < 0.001$). Respondents in the middle wealth group showed the highest proportion of stigma (18.7%), while those in the poorest category had the lowest proportion of respondents without stigma (1.8%). In terms of regional distribution, respondents from provinces outside Java-Bali and Sumatra contributed the largest proportion of stigma cases (33.3%), followed by Java-Bali (30.6%) and Sumatra (22.9%), with province showing a significant association with stigma ($p < 0.001$).

Regarding HIV-related characteristics, women with high HIV knowledge accounted for the majority of respondents with stigma (70.9%) and without stigma (11.1%), and the association between HIV knowledge and stigma was statistically significant ($p = 0.010$). Media exposure was likewise significantly associated with stigma ($p < 0.001$). Respondents exposed to media represented a substantially greater proportion of stigma cases (60.6%) compared with those without media exposure (26.1%).

Table 3. Multivariable Logistic Regression Analysis of Factors Associated with HIV-Related Stigma Among Indonesian Women

Variables	Model 1	Model 2
	COR (95% CI)	AOR(95% CI)
Age (Years)		
17–25	Reference	Reference
26–35	0.78(0.71-0.86)***	0.71(0.62-0.80)***
36–45	0.60(0.55-0.66)***	0.53(0.46-0.60)***
Education Level		
Primary	Reference	Reference
Secondary	0.88(0.80-0.98)*	0.78(0.70-0.87)***
Higher	0.70(0.62-0.79)***	0.59(0.51-0.68)***
Marital Status		
Unmarried	Reference	Reference
Married	0.87(0.79-0.95)**	1.18(1.03-1.34)*
Occupational		
No	Reference	Reference
Yes	0.84(0.78-0.91)***	0.93(0.86-1.01)
Wealth Index		
Poorest	Reference	Reference
Poorer	0.76(0.67-0.87)***	0.81(0.71-0.93)**
Middle	0.70(0.61-0.79)***	0.77(0.67-0.88)***
Richer	0.59(0.52-0.67)***	0.69(0.60-0.79)***
Richest	0.66(0.58-0.75)***	0.82(0.71-0.96)*
Residence		
Urban	Reference	Reference
Rural	1.03(0.95-1.11)	0.86(0.79-0.94)***
Province		
Jawa-Bali	Reference	Reference
Sumatra	1.22(1.11-1.35)***	1.27(1.15-1.40)***
Other	1.21(1.11-1.32)***	1.19(1.08-1.30)***
HIV Knowledge		
Low Knowledge	Reference	Reference
High Knowledge	0.87(0.79-0.97)*	0.98(0.89-1.09)
Media Exposure		
No	Reference	Reference
Yes	0.76(0.69-0.82)***	0.86(0.78-0.94)**

Note: COR = Crude Odds Ratio; AOR = Adjusted Odds Ratio; CI = Confidence Interval. Model 1 presents crude associations, whereas Model 2 presents adjusted associations after controlling for covariates. Reference category = Ref. Statistical significance: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 3 presents the results of binary logistic regression analysis examining factors associated with HIV-related stigma among Indonesian women. In the adjusted model (Model 2), age, education level, marital status, wealth index, residence, province, and media exposure remained significantly associated with HIV-related stigma, whereas occupational status and HIV knowledge were no longer statistically significant after controlling for confounding variables. Age demonstrated a strong inverse association with HIV-related stigma. Compared with women aged 17–25 years, those aged 26–35 years were less likely to report stigma (AOR=0.71; 95% CI: 0.62–0.80; $p < 0.001$), while women aged 36–45 years had an even

lower likelihood of stigma (AOR=0.53; 95% CI: 0.46–0.60; $p<0.001$). Educational attainment was consistently associated with reduced stigma. Respondents with secondary education had 22% lower odds of experiencing HIV-related stigma compared with those with primary education (AOR=0.78; 95% CI: 0.70–0.87; $p<0.001$). Likewise, women with higher education were significantly less likely to exhibit stigma (AOR=0.59; 95% CI: 0.51–0.68; $p<0.001$). Marital status showed a different pattern after adjustment. Although married women initially appeared less likely to report stigma in the crude model, the adjusted analysis indicated that married respondents had higher odds of HIV-related stigma compared with unmarried women (AOR=1.18; 95% CI: 1.03–1.34; $p=0.015$). Socioeconomic status was also significantly related to stigma. Compared with women in the poorest category, respondents in the poorer, middle, richer, and richest wealth groups demonstrated lower odds of HIV-related stigma, with the strongest protective effect observed among women in the richer category (AOR=0.69; 95% CI: 0.60–0.79; $p<0.001$). Residence remained significantly associated with stigma after adjustment. Women living in rural areas were less likely to experience HIV-related stigma than those residing in urban areas (AOR=0.86; 95% CI: 0.79–0.94; $p<0.001$). Regional variation was also evident, as respondents living in Sumatra (AOR=1.27; 95% CI: 1.15–1.40; $p<0.001$) and other provinces outside Java-Bali (AOR=1.19; 95% CI: 1.08–1.30; $p<0.001$) had significantly higher odds of stigma compared with women from Java-Bali.

Although HIV knowledge was associated with stigma in the crude analysis, the relationship became non-significant in the adjusted model (AOR=0.98; 95% CI: 0.89–1.09). In contrast, media exposure remained a significant protective factor. Women exposed to media information had lower odds of HIV-related stigma than those without media exposure (AOR=0.86; 95% CI: 0.78–0.94; $p=0.002$).

Discussion

The present study revealed that HIV-related stigma among Indonesian women remains considerably high, indicating that stigma continues to be a major barrier to HIV prevention, testing, treatment, and care services in Indonesia. This finding is consistent with previous studies showing that discriminatory attitudes toward people living with HIV/AIDS (PLWHA) remain prevalent among the Indonesian population (3)(4). Furthermore, persistent stigma may discourage individuals from accessing HIV testing and treatment services because of fear of social rejection and discrimination. In line with these findings, stigmatizing attitudes have also been associated with lower uptake of HIV testing services in low- and middle-income countries (1). Consequently, HIV-related stigma may continue to hinder efforts aimed at improving HIV prevention and healthcare utilization.

Age was significantly associated with HIV-related stigma in this study, with older women demonstrating lower odds of stigmatizing attitudes compared with younger women. In particular, women aged 36–45 years were less likely to report HIV-related stigma than those aged 17–25 years. This finding is consistent with previous studies indicating that younger individuals are more likely to exhibit discriminatory attitudes toward people living with HIV/AIDS (PLWHA) (6)(10). Furthermore, younger women may have more limited life experience, lower emotional maturity, and greater exposure to negative social stereotypes related to HIV/AIDS, which may contribute to stronger stigmatizing perceptions. Similarly, younger age has also been identified as an important determinant of discriminatory attitudes toward PLWHA in sub-Saharan African countries (2)(11).

Educational attainment was identified as a protective factor against HIV-related stigma in this study. Women with secondary and higher education were less likely to exhibit stigmatizing attitudes compared with those who had only primary education. This finding is consistent with previous studies reporting that higher educational attainment is associated with lower discriminatory attitudes toward people living with HIV/AIDS (PLWHA) (7)(12). Furthermore, education may improve individuals' understanding of HIV transmission and reduce misconceptions that contribute to fear, prejudice, and stigma. In contrast, lower educational attainment has been strongly associated with misconceptions regarding HIV transmission and discriminatory attitudes toward PLWHA in Indonesia (13). Therefore, education may play an important role in improving public awareness and reducing HIV-related stigma.

This study also found that married women had higher odds of HIV-related stigma after controlling for potential confounding variables. This finding is consistent with previous studies indicating that marital status significantly influences discriminatory attitudes toward people living with HIV/AIDS (PLWHA)

(6)(7). Furthermore, married women may associate HIV infection with marital infidelity or socially unacceptable sexual behavior, thereby reinforcing negative perceptions toward individuals living with HIV/AIDS. In addition, sociocultural values and moral norms related to sexuality may contribute to the persistence of stigma among married populations. Therefore, marital status may play an important role in shaping attitudes toward PLWHA(14).

Socioeconomic status was identified as another important determinant of HIV-related stigma in this study. Women from wealthier households demonstrated lower odds of exhibiting HIV-related stigma compared with those from the poorest households. This finding is consistent with previous evidence showing that individuals with better economic conditions are generally less likely to demonstrate discriminatory attitudes toward people living with HIV/AIDS (PLWHA) (1)(15). Furthermore, individuals with higher socioeconomic status often have greater access to education, healthcare information, and HIV-related services, which may improve understanding of HIV transmission and reduce misconceptions and negative stereotypes related to HIV/AIDS. Consequently, better economic conditions may contribute to lower levels of HIV-related stigma and discrimination (16).

Interestingly, women residing in rural areas were less likely to report HIV-related stigma compared with those living in urban settings. This finding is consistent with previous studies conducted in Indonesia, which also demonstrated lower discriminatory attitudes among rural populations (4)(10). Furthermore, urban communities may experience higher levels of social individualism, greater fear of HIV exposure, and more negative media portrayals related to HIV/AIDS, which may contribute to increased stigmatizing attitudes. In contrast, stronger social cohesion and closer interpersonal relationships within rural communities may encourage more accepting attitudes toward people living with HIV/AIDS (PLWHA). Therefore, differences in social environments and community interactions may influence variations in HIV-related stigma between rural and urban populations.

Regional disparities in HIV-related stigma were also identified in this study. Women residing in Sumatra and provinces outside Java-Bali were more likely to demonstrate stigmatizing attitudes compared with those living in Java-Bali. This finding is consistent with previous studies reporting disparities in HIV-related knowledge and stigmatization attitudes across different regions in Indonesia (5). Furthermore, variations in healthcare accessibility, educational opportunities, cultural beliefs, and exposure to HIV-related information and public health campaigns may contribute to the observed regional differences in stigma. Consequently, unequal distribution of health resources and information across regions may influence the persistence of HIV-related stigma among Indonesian women (17)(18).

Although HIV-related knowledge was associated with stigma in the bivariate analysis, the relationship became non-significant after adjustment for other variables. This finding suggests that knowledge alone may not be sufficient to completely eliminate discriminatory attitudes toward people living with HIV/AIDS (PLWHA). Furthermore, accurate HIV-related knowledge does not always directly translate into reduced stigma because discriminatory attitudes may also be influenced by cultural values, fear, religious beliefs, and moral perceptions related to HIV/AIDS (19). In addition, individuals with adequate HIV-related knowledge may still demonstrate discriminatory behaviors toward PLWHA (4). Therefore, reducing HIV-related stigma requires not only educational interventions but also broader sociocultural approaches that address community beliefs and social norms.

Media exposure remained significantly associated with lower HIV-related stigma in the adjusted model. Women who were exposed to HIV-related information through mass media demonstrated lower odds of exhibiting stigmatizing attitudes compared with those without media exposure. This finding is consistent with previous studies showing that exposure to mass media contributes to reducing discriminatory attitudes toward people living with HIV/AIDS (PLWHA) (5)(12). Furthermore, media-based educational campaigns and public awareness programs may improve public understanding of HIV transmission, correct misinformation, and promote empathy toward PLWHA (20). Consequently, broader access to accurate HIV-related information through various media platforms may play an important role in reducing HIV-related stigma within the community.

Nevertheless, this study has several limitations that should be considered. First, the cross-sectional design of the study limits the ability to establish causal relationships between independent variables and HIV-related stigma. Second, the use of secondary data from the 2017 Indonesia Demographic and Health Survey (IDHS) restricted the analysis to variables available in the dataset, thereby limiting exploration of other potentially important factors such as cultural beliefs, religious values, social norms, and personal

experiences related to HIV/AIDS. Third, self-reported responses may be subject to recall bias and social desirability bias, which could affect the accuracy of the reported attitudes toward PLWHA. Despite these limitations, this study provides nationally representative evidence regarding factors associated with HIV-related stigma among Indonesian women.

Conclusions and Recommendations

HIV-related stigma among Indonesian women remains highly prevalent and is significantly associated with several socio-demographic and informational factors. Older age, higher educational attainment, better socioeconomic status, rural residence, and media exposure were associated with lower likelihood of HIV-related stigma, whereas being married and living outside Java-Bali increased the likelihood of stigmatizing attitudes. Although HIV knowledge showed an association in the bivariate analysis, it was not significant after adjustment for confounding variables. These findings indicate that HIV-related stigma among women is influenced not only by knowledge but also by broader social and demographic factors.

Efforts to reduce HIV-related stigma in Indonesia should prioritize younger women, individuals with lower education and socioeconomic status, and populations living outside Java-Bali. Strengthening culturally sensitive HIV education programs, expanding media-based awareness campaigns, and improving access to accurate HIV-related information are essential to reduce discriminatory attitudes toward people living with HIV/AIDS. Future studies are recommended to explore psychosocial and cultural factors influencing stigma using longitudinal or qualitative approaches.

Ethical Consideration and Competing Interest

The Institutional Review Board (IRB) approved the initial IDHS survey through the ICF IRB Review Board (FWA00000845). The dataset used in this study is publicly available and was accessed with permission from the Demographic and Health Surveys Program program. All respondent information in the dataset was anonymized to maintain confidentiality and privacy.

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