

Factors related to health services access for people living with HIV/AIDS in Indonesia

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Original Article

ABSTRACT

ARTICLE INFO

Keywords:

Access to health services
factors related
PLWHA

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DOI: 10.20885/JKKI.Vol13.Iss3.art7

History:

Received: April 3, 2022

Accepted: November 13, 2022

Online: December 5, 2022

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Background: HIV/AIDS is a global health problem, including in Indonesia. PLWHA's access to health services has not been evenly distributed. Only about 63% of PLWHA received initial antiretroviral therapy, 18% died, and 25.4% experienced drug withdrawal. Therefore, research is needed to determine the factors influencing the access of PLWHA to health services.

Objective: This study aims to determine the factors related to access to health facilities in Indonesia for people living with HIV/AIDS (PLWHA) in Indonesia.

Methods: This study uses secondary data from the 2017 IDHS. The case group was PLWHA, who had not visited a healthcare provider in the last six months. The control group was PLWHA patients who visited a healthcare provider during the last six months. The variables were the patient's and their partner's education level, types of residence, occupation, health insurance, type of health facility, and access to health facilities in the last six months. Multivariate analysis was performed by logistic regression.

Results: The PLWHA access to health services was not significantly related to education level, spouse's education level, type of residence, occupation, and type of health insurance (p-value >0.05). The access is significantly related to the health facility types (OR= 4.04; 95% CI 1.173-13.955).

Conclusion: The factor determining access to health services for PLWHA in Indonesia is the type of health facility. The government must make various efforts to improve the quality of facilities and services in all health facilities types to increase the number of PLWHA who undergo tests and therapy.

Latar Belakang: HIV/AIDS merupakan masalah kesehatan global, termasuk Indonesia. Jumlah kasus baru HIV/AIDS terus meningkat. Akses ODHA terhadap pelayanan kesehatan belum merata. Hanya sekitar 63 persen ODHA yang mendapat terapi antiretroviral awal, 18% di antaranya meninggal dan 25,4 persen mengalami putus obat. Oleh karena itu, diperlukan penelitian untuk mengetahui faktor-faktor yang mempengaruhi akses ODHA terhadap pelayanan kesehatan.

Tujuan: Penelitian ini bertujuan untuk mengkaji faktor-faktor yang berhubungan dengan akses fasilitas kesehatan di Indonesia bagi Orang dengan HIV/AIDS (ODHA) di Indonesia.

Metode: Penelitian ini merupakan studi kasus kontrol dengan menggunakan data sekunder SDKI 2017. Subyek dibagi menjadi 2 kelompok. Kelompok kasus adalah ODHA yang tidak pernah mengunjungi petugas kesehatan dalam 6 bulan terakhir. Kelompok kontrol adalah pasien ODHA yang berkunjung ke fasilitas kesehatan dalam 6 bulan terakhir. Variabel yang digunakan dalam penelitian ini adalah tingkat pendidikan pasien dan pasangannya, jenis tempat tinggal, pekerjaan, jenis asuransi yang digunakan, jenis fasilitas

kesehatan, dan akses fasilitas kesehatan dalam 6 bulan terakhir. Regresi logistik dilakukan untuk analisis multivariat.

Hasil: Analisis multivariabel menunjukkan bahwa akses pelayanan kesehatan bagi ODHA tidak berhubungan secara signifikan dengan tingkat pendidikan, tingkat pendidikan pasangan, jenis tempat tinggal, pekerjaan, jenis jaminan kesehatan (p -value $>0,05$). Akses pada layanan kesehatan berhubungan bermakna dengan jenis fasilitas kesehatan (OR= 4,04; 95% CI 1,173-13,955).

Kesimpulan: Faktor yang menentukan akses pelayanan kesehatan bagi ODHA di Indonesia adalah jenis fasilitas kesehatan. Pemerintah harus melakukan berbagai upaya peningkatan kualitas fasilitas dan pelayanan di semua jenis fasilitas kesehatan agar jumlah ODHA yang menjalani tes dan terapi meningkat

INTRODUCTION

Accessibility to health services in Indonesia is one of the leading health problems in Indonesia. This problem is caused by the geographical condition of Indonesia as an archipelagic country. Indonesia has various topographical conditions between regions. Inequality occurs not only in the availability of health service facilities and their support systems but also in the problem of the availability of health workers in each region.¹ The availability of primary health facilities at the public health centre (PHC), according to the results of the 2013 Riset Kesehatan Dasar (Riskesdas), showed a difference of about 20.9%, the most in Bali Province at 95.5%, while the lowest position was in Bengkulu Province (74.6%). The difference in the availability of advanced health facilities in various regions is significant. For example, the availability of Government Hospitals in Bali Province is 88.6%, while in East Nusa Tenggara Province is only 39.6%. The highest number of private hospitals is in the Province of the Special Region of Yogyakarta (82.4%), and the lowest is in West Sulawesi Province (15.1%).¹

HIV/AIDS is a contagious infectious disease caused by the Human Immunodeficiency Virus infection. Cases of HIV/AIDS continue to increase. The number of HIV cases worldwide in 2017 showed a large number, namely 36.9

million people.^{2,3} HIV cases in Indonesia in 2016 experienced a significant increase compared to 2015, with as many as 10.315 cases.⁴

There is inequality in access to HIV/AIDS screening and therapy services in Indonesia. Not everyone is at risk of doing the examination. Meanwhile, only about 63 percent of PLWHA received initial antiretroviral therapy, 18 percent of whom died, and 25.4 percent experienced drug withdrawal. In 2016, only about 10% of pregnant women received prevention of mother-to-child transmission (PMTCT) services.⁵ Therefore, research is needed to determine the factors influencing the access of PLWHA to health services. This study aims to determine the factors associated with the access of PLWHA to health services.

METHODS

This study uses secondary data from Indonesia's 2017 Demographic Health Survey (DHS). The survey was conducted in 34 provinces, with 59,100 female respondents aged 15-49 years and 14,179 married men from 49,250 households. DHS field data collection was carried out in July-September 2017.⁶ The study was exempt from review by the ethics committee because the data used was publicly available and no information was obtained from respondents directly.

The study used a case-control design. The researcher grouped the subjects into two, namely the case group and the control group. The case group was PLWHA, who had not visited a health facility in the last six months. The control group was PLWHA, who visited a health facility in the last six months. Data from DHS related to HIV/AIDS has standardized questionnaires and procedures that apply the same in every country, especially in Indonesia. The variable used in this study is the education level of PLWHA, spouse's education level, type of residence, occupation, type of insurance used, type of health facility and access to health facilities in the last six months. The education level of the subjects and their partners is grouped based on the formal education taken into primary school, junior

high school, high school, academy/diploma and bachelor's. Type of residence is categorized into rural and urban. Types of work are grouped according to DHS data, namely does not work, employee, religious leaders, traders, service workers, farmer and industrial workers. For further analysis, subjects were grouped into working and not working. Regarding financing to obtain health services, subjects are grouped into government insurance, non-government insurance and do not have insurance. The types of health facilities accessed by PLWHA are grouped into clinics, public health center

(PHC) and hospitals. The minimum sample size is determined using the Rule of Thumb with a minimum sample of 35-70. Subjects are members of the population who have complete data. Bivariate analysis was performed using Pearson's chi-square, and multivariate analysis using logistic regression.

RESULTS

The results of the univariate analysis showed that most of the subjects in the case or control group and their partners had a high school education level or higher (Table 1).

Table 1. Comparison of the frequency distribution of characteristic between the two study group

Variable	Groups				
	Case (N)	Percentage (%)	Control (N)	Percentage (%)	
Education Level	Primary school	1	1	1	1
	Junior high school	2	2	3	3
	Senior High School	31	31	39	39
	Academy/diploma	0	0	2	2
	Bachelor	16	16	5	5
Spouse's Education Level	Primary school	2	2	2	2
	Junior high school	4	4	6	6
	Senior High School	30	30	33	33
	Academy/diploma	4	4	3	3
Type of residence	Bachelor	10	10	6	6
	Rural	40	40	47	47
	Urban	10	10	3	3
	Does not work	33	33	31	31
Occupation	Employee	3	3	6	6
	Religious leaders	1	1	0	0
	Trader	4	4	5	5
	Service worker	2	2	2	2
	Farmer	5	5	2	2
	Industrial workers	2	2	4	4
	Government insurance	39	39	41	41
Type of Insurance	Non-government insurance	10	10	8	8
	Do not have insurance	1	1	1	1
Type of health facility	Clinic	0	0	4	4
	PHC	4	4	10	10
	Hospital	46	46	36	36

Univariate data also shows that most subjects live in rural areas and do not work. Most subjects had government insurance (BPJS) regarding health financing. Only about 1% of the subjects did not have insurance membership. In both groups, most PLWHA chose to use services at the hospital rather than the Public Health Center (PHC) or clinic.

Multivariable analysis was conducted to analyze the relationship of all independent variables with the access of PLWHA to utilize health facilities. Multivariable analysis showed that access to health services for PLWHA was not significantly related to their education level, spouse's education level, type of residence, occupation, and type of health insurance (p-value >0.05). However, the access is significantly related to the type of health facility (OR= 4.04; 95% CI 1.173-13.955).

DISCUSSION

The results showed no significant relationship between the education level of PLWHA (p-value 0.385) and their partner (p-value 0.884) and access to health facilities in the last six months. These results follow the results of research conducted by other researchers.⁷ However, other studies show that the level of education of PLWHA is related to the implementation of VCT (voluntary counseling and testing).⁸ PLWHA with secondary to tertiary education levels visit health facilities more often than those with low education.⁹ The higher the level of education, the higher a person's concern for his health status. Highly educated and aware people are at risk of

being more curious about their health conditions. They carry out examinations for early diagnosis or disease progression voluntarily. In female patients, especially in poor and developing countries, the partner's education level greatly influences access to health services. A person's level of education is in line with his level of health knowledge. Spouses are essential in making various decisions, including seeking health care. The quality of interpersonal communication with a partner is very influential in making this decision.¹⁰ Social support from the immediate environment, including family and partners, also affects the sustainability of therapy.

Most subjects in the case or control group lived in rural areas. The results of the multivariate analysis showed no difference in access to health facility utilization in the last six months between patients living in cities and villages. Another study stated that rural communities have more frequently visited health service providers than urban communities, although rural communities usually take longer or more than 15 minutes to come to health facilities.^{11, 12} Apparently, travel time and transportation costs determine the ease of reaching VCT from home. Limited access causes fewer PLWHA who visit health facilities for treatment. Access, affordability, and quality of health services, such as health service facilities at PHC and its network, are not yet optimal, primarily related to cost and distance. Although hospitals are available in almost all districts/cities, the referral system for individual health services is also poorly implemented.¹³

Most subjects were unemployed, as many as

Table 2. Multivariate analysis of factor related to access to health services for PLWHA

Variable	p value	OR	CI 95%
Education level	0.385	2.091	0.396-11.042
Spouse's education level	0.884	0.91	0.257-3.22
Type of residence	0.097	3.28	0.806-13.351
Occupation	0.668	1.214	0.5-2.949
Health insurance	0.49	0.679	0.227-2.036
Health facility	0.027*	4.046	1.173-13.955

*p< 0.05

33% in the case group and 31% in the control group. There was no significant relationship between the type of work variable and access to health services in the last six months. Handayani et al. stated that age, employment, distance to ARV services, payment methods, high risk groups and WHO stage are statistically and clinically significant at risk of loss to follow-up ARV therapy in HIV patients.¹⁴ The obtained results show that occupation is related to the use of VCT. Low incomes cause people to be unable to pay for health services. Precarious work causes irregular income received, making it difficult for people to get health care insurance such as BPJS.¹³ Indonesia faces challenges in universal health coverage due to geographic and population problems. The government continues to strive so that financing does not become an obstacle for PLWHA to obtain health services, especially for women of reproductive age. In 2018, women of reproductive age accounted for a sizable portion of the approximately 220,000 PLWHA in Indonesia.¹⁵

Another study has shown that urban and rural residents' demand for and utilization of health services differ statistically. Rural population's demand and utilizations for health services decline as incomes increase. However, their health expenditure is higher than that of urban residents. Income levels also significantly affect access to health services. Compared to middle- and high-income rural residents, middle- and low-income rural residents face higher hospitalization costs. Compared to urban residents, the distribution of demand for and utilization of health services in rural areas, and annual health and hospitalization expenditures, is worse. Equitable distribution of health care utilization and expenses for urban and rural residents with different incomes remains problematic, requiring better access and health policies so that all groups in society have access to adequate health.¹⁶

Another study showed the three main themes identified that could influence chronic disease patients' access to health facilities: geography, availability of healthcare professionals, and rural

culture. First, geographic distance can create barriers to access, exacerbated by transportation problems or weather conditions. Community support and the availability of services in rural areas can help overcome these challenges. Second, a limited number of health workers, a low level of education, or a lack of peer support will increase feelings of vulnerability. Finally, if treatment is available locally, patients will appreciate a long-term relationship with the doctor and more intimate personal care.¹⁷

Access to health services was not significantly related to the type of health insurance the patient had (p-value 0.617). Another study at the Sareal Health Center in Bogor City also showed no significant relationship between health insurance ownership and health services utilization by patients outside the area.¹³

Hospitals are the type of health facilities used the most compared to clinics or Puskesmas, namely 46% in the case group and 36% in the control group. The bivariate and multivariate (OR= 4.04; CI 95% 1.17-13.96) analysis showed a significant relationship between the variables of the type of health facility and access to health services in the last six months. Other studies have shown differences in health services for chronic diseases between urban and rural health centers. The findings showed significant variation concerning: education level, monthly income, health check-ups, receiving blood tests on time, additional opening hours, distance, hygiene, and health prevention. The main barriers to health outcomes improvement for rural patients are related to the distance traveled to reach PHCS, the hygiene of PHCS, and receiving health prevention and promotion services.^{18,19}

Penchansky and Thomas define five essential dimensions of access to care. These are (1) "the availability" or provision of services relative to patient needs, (2) "accessibility" or the location of the service relative to the patient's home, (3) "assistance" or support which consists of characteristics that help patients get the care they need (e.g., extended working hours) (4) "affordability" or the cost of care relative to the patient's financial resources such as insurance

coverage and income and (5) "acceptability" or the extent to which the available services meet the medical needs and preferences of patients.¹¹

Policymakers may want to explore ways to improve the accessibility and accommodation domain of access in rural areas. For example, incentives for providers to practice in rural, underserved areas and an expanded regulatory scope of practice may have reduced supply shortages in rural areas, thereby increasing accessibility. It is possible to introduce some incentives to increase accommodation access (e.g., offering hours of night and weekend work). Policymakers may also want to consider ways to accelerate the adoption of telemedicine, an emerging technology-based approach with the potential to improve accessibility and accommodation in rural areas.¹¹

PLWHA has several considerations in seeking healthcare access, including facilities and service quality. Puskesmas should be linked to district hospitals to provide primary and follow-up services for HIV/AIDS and other major infectious diseases. HIV Counseling and Testing (HCT), Anti Retroviral Therapy (ART), and prevention of mother-to-child transmission (PMTCT) services are available in hospitals and health centers. The assessment of service quality using at least five structural and eight process indicators. The five structural indicators include trained personnel, standard precautions (running water, hand soap, disinfectant), referral facilities, the presence of an HIV/AIDS unit, and quarterly surveillance. The eight process indicators are HIV counseling and testing using guidelines, PMTCT (counseling and testing in pregnant women, prophylaxis, ART), initial CD4/viral load, CD4 cell count or viral load monitoring, ART using guidelines, 50% availability of antiretroviral drugs, TB screening and opportunistic infection prophylaxis (cotrimoxazole).²⁰

Patient satisfaction with HIV care reflects the barriers to the success of HIV/AIDS services. Those barriers to health facility access include stigma towards health facilities, service efficiency, poor provider-patient interaction, and the quality of post-test counseling services.²¹

Various interventions have been introduced to improve the quality of HIV/AIDS services, including training for health workers, making facilities and health workers more friendly to adolescents, and educating the community through various mass media and social media.²² Efforts to eliminate stigma and improve the quality of services are expected to increase the number of people living with HIV who carry out examinations and therapy in health facilities.

This study has limitations that lead to bias and affect the accuracy of the information provided by respondents. One of the pitfalls is the long recall period of the IDHS survey, between 3 and 5 years.

CONCLUSION

The most influential factor in access to health services for PLWHA in Indonesia is the type of health facility. Therefore, the Indonesian government must continue to strive to equip equipment, improve the competence of health workers at primary or referral health facilities and eliminate the stigma of HIV/AIDS so that PLWHA receiving health services continues to increase.

CONFLICT OF INTEREST

All authors declare in this study there is no conflict of interest.

ACKNOWLEDGEMENT

No declare

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