

Characteristics of HIV Patients in Mimika Regency Papua in 2019

Gambaran Pasien HIV di Kabupaten Mimika Papua Tahun 2019

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Abstract

Human Immunodeficiency Virus (HIV) is an infection that attacks and damages our body's immune system, resulting in immune deficiency. According to UNAIDS report, in 2018 approximately around 640,000 people in Indonesia live with HIV, of whom there were 46,000 people newly infected by HIV and 38,000 died because of AIDS. This research aims to determine the characteristic of HIV patient in Mimika, Papua in 2019 according to age, sex, marital status, pregnancy status, education, occupation, risk category, visitation status, spouse's HIV status, mode of transmission, and comorbid. This is a descriptive observational and retrospective studies using medical records of HIV patient with whole sampling method. The result showed that the prevalence of HIV patient was 345 cases with 337 among them fulfilled the criteria. As conclusion, highest incidence acquired at age 25-49 (69.7%), the most sex was women (50.4%), most marital status was married (57%), most pregnancy status was not pregnant (84.7%), latest education was senior high school (45.7%) most occupation was private employee (24.9%) the most risky group was high risk couple (65%), most visit status was unaccompanied (98.8%), most spouse's HIV status was unknown (91.4%), most mode of transmission was sexually (97.3%), and the most patient's comorbid was none (26.1%).

Key Words: *HIV; risk group; prevalence*

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Abstrak

Human Immunodeficiency Virus (HIV) merupakan infeksi yang menyerang dan merusak sel-sel sistem kekebalan tubuh manusia, sehingga mengakibatkan defisiensi imun. UNAIDS pada tahun 2018 melaporkan di Indonesia sebanyak 640.000 orang hidup dengan HIV, dimana terdapat 46.000 orang baru terinfeksi HIV dan 38.000 orang meninggal karena AIDS. Penelitian ini bertujuan untuk mengetahui karakteristik pasien HIV di Kabupaten Mimika Papua tahun 2019 berdasarkan usia, jenis kelamin, status perkawinan, status kehamilan, pendidikan terakhir, pekerjaan, kelompok risiko, status kunjungan, status pasangan pasien, kajian faktor risiko, dan penyakit terkait. Penelitian ini bersifat observasional deskriptif dan retrospektif menggunakan rekam medik pasien HIV dengan metode pengumpulan data secara *whole sampling*. Hasil penelitian menunjukkan prevalensi HIV sebesar 345 kasus dengan 337 di antaranya memenuhi kriteria data. Simpulan, karakteristik pasien HIV di kabupaten Mimika, insidensi tertinggi didapatkan pada usia 25-49 tahun, jenis kelamin terbanyak pada perempuan, status perkawinan terbanyak menikah, status kehamilan terbanyak tidak hamil, pendidikan terakhir terbanyak SMA, pekerjaan terbanyak karyawan swasta, kelompok risiko terbanyak pasangan risti, status kunjungan terbanyak datang sendiri, status HIV pasangan pasien terbanyak tidak diketahui, transmisi terbanyak melalui jalur seksual, dan penyakit terkait pasien terbanyak tidak ada.

Kata kunci: HIV; kelompok risiko; prevalensi

Introduction

Human Immunodeficiency Virus (HIV) infection is an infection that attacks and damages the cells of the human immune system, causing immune deficiency.¹ HIV continues to be the biggest health problem globally, which has claimed approximately 32 million lives worldwide.² In 2018, as many as 37.9 million (32.7 million – 44.0 million) people were living with HIV, of which 36.2 million are adults and 1.7 million are children under 15 years of age. As many as 79% of people living with HIV know their HIV status, while 8.1 million people do not know they are living with HIV.³

Based on data from The Joint United Nations Program on HIV and AIDS (UNAIDS) in 2018, there were 640,000 people living with HIV in Indonesia, of whom there were 46,000 people newly infected with HIV and 38,000 people dying from AIDS.⁴ Based on data compiled from the Directorate General of Prevention and Disease Control (P2P) in 2017, East Java occupied the top position of HIV cases (8,204), followed by DKI Jakarta (6,626), West Java (5,819), Central Java (5,425), and Papua in fifth position (4,358). Whereas in AIDS cases, Central Java occupies the top position with the number of cases reported as many as 1,719. Second place is West Java Province, Papua in third position, East Java, and Bali in fifth position with 736 AIDS cases.⁵

Various programs and strategies have been implemented in an effort to prevent the transmission of HIV/AIDS which continues to be a global health crisis. Some of these include abstaining from sex, not having multiple partners, avoiding sharing needles, having safe sex using condoms, and using antiretroviral drugs (ARVs) as pre-exposure prophylaxis (PrEP) to suppress

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the activity of the virus.⁶ According to research conducted by Rachel Culberth, et al, it was found that the HIV-Sexually Transmitted Infection (STI) coinfection rate was high in adolescents aged 12-18 years living in the slum area of Kampula, Uganda.⁷

Papua Province is one of the provinces which is included in the top five highest incidence of HIV and AIDS cases in Indonesia. One of the regencies/cities in Papua province is Mimika Regency, whose capital is Timika. Mimika Regency has an area of 21,693 km² or 4.75% of the Papua province and consists of 18 districts. The population of Mimika Regency in 2015 was reported to be 201,677 people, with 113,126 men and 88,551 women. According to data from the Mimika District Health Office in 2015 there were 436 cases of HIV/AIDS and 372 cases of STIs, with the highest number coming from the Mimika Baru District, namely 339 cases of HIV/AIDS and 223 cases of STIs.⁸

This study aims to determine the characteristics of HIV patients in Mimika Regency, Papua in 2019 based on age, gender, marital status, pregnancy status, latest education, occupation, risk group, visitation status, spouse's HIV status, assessment of mode of transmission, and patients comorbid.

Methods

This research is a descriptive observational with retrospective data collection method. We collected all medical records of HIV patients who were diagnosed for the first time in 2019 and were registered with the Mimika District AIDS Commission.

This research was conducted at the Faculty of Medicine, Maranatha Christian University and the Mimika District AIDS Commission, Papua Province, from December 2019 to February 2021. This research received ethical approval from the Research Ethics Commission of the Medical Faculty, Maranatha Christian University (No. 123/KEP/IX/ 2020). The data obtained was then grouped based on age, sex, marital status, pregnancy status, latest education, occupation, risk group, visitation status, spouse's HIV status, mode of transmission assessment, and patients comorbid.

Results

The number of confirmed HIV cases in Mimika Regency, Papua in 2019 was 345 cases, however, in this study, 337 cases were included. Eight cases excluded were cases diagnosed in the previous year but reported in 2019. Based on table 1, the highest incidence of HIV patients was obtained in the age group 25-49 years with a total of 235 cases (69.7%). The fewest HIV patients based on age group were found in the age group <1 year with a total of 2 cases (0.59%),

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found in infants aged 7 months and 9 months. Based on table 2, the highest incidence of HIV patients was obtained in women with a total of 170 cases (50.4%) whereas in men there were 167 cases (49.6%). Table 3 shows the description of HIV incidence based on marital status, married group has higher incidence of HIV compared with unmarried group (57% vs 36.2%). HIV incidence was found higher in non-pregnant women (84.7%) as shown on table 4.

Senior high school was the most common latest education of HIV patients in Mimika Regency, Papua (Table 5). It can be assumed that the incidence of HIV does not only occur in individuals with low education but also individuals with higher education.

Table 1 Age-specific distribution of HIV Patients in Mimika Regency, Papua in 2019

Age	Total	Percentage (%)
< 1 year	2	0.6
1 - 5 years	5	1.5
6 - 14 years	4	1.2
15 - 19 years	27	8
20 - 24 years	54	16
25 - 49 years	235	69.7
≥ 50 years	10	3
Total	337	100

Table 2 Gender-specific distribution of HIV Patients in Mimika Regency, Papua in 2019

Gender	Total	Percentage (%)
Male	167	49.6
Female	170	50.4
Total	337	100

Table 3 Distribution of HIV Patients by Marital Status in Mimika Regency, Papua in 2019

Marital Status	Total	Percentage (%)
Unmarried	122	36.2
Married	192	57
Widow/widower	23	6.8
Total	337	100

Table 4 Distribution of HIV Positive Patients by Pregnancy Status in Mimika Regency, Papua in 2019

Pregnancy Status	Total	Percentage (%)
Non pregnant	144	84.7
Trimester I	18	10.6
Trimester II	4	2.4
Trimester III	4	2.4
Total	170	50

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The highest incidence of HIV patients based on occupation was obtained in the group that worked as private employees with a total of 24.9% (Table 6). Based on table 7, the highest incidence of HIV patient by risk group was obtained in the high-risk couple group with a total of 219 cases (65%). Table 8 shows us that a total of 333 patients (98.8%) were came alone to the healthcare facility whereas only 1.2% were referred by Lembaga Swadaya Masyarakat (LSM).

Table 5 Distribution of HIV Patients by Latest Education in Mimika Regency, Papua in 2019

Latest Education	Total	Percentage (%)
No school	67	19.9
Elementary school	39	11.6
Junior high school	55	16.3
Senior High School	154	45.7
College	22	6.5
Total	337	100

Table 6 Distribution of HIV Patients by Occupation in Mimika Regency, Papua in 2019

Occupation	Total	Percentage (%)
Not working	79	23.4
Housewives	81	24
Private employees	84	24.9
Sex workers	11	3.3
Student	6	1.8
Farmers	54	16
PNS	6	1.8
Police	2	0.6
Part time worker	14	4.2
Total	337	100

Table 7 Distribution of HIV Patients by Risk Group in Mimika Regency, Papua in 2019

Risk Group	Total	Percentage (%)
Don't know	66	19.6
Direct Sex Worker	17	5
Indirect Sex Worker	6	1.8
Sex Worker Client	2	0.6
High Risk Couple	219	65
Gay	17	5
Shemale	1	0.3
Other	9	2.7
Total	337	100

Table 8 Distribution of HIV Patients Based on Visit Status in Mimika Regency, Papua in 2019

Visit Status	Total	Percentage (%)
Come alone	333	9.8
Referenced	4	1.2
Total	337	100

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Most HIV patient's spouse in Mimika do not know their HIV status (91.4%) and 7.4% have a positive HIV spouse (Table 9). Table 10 shows sexual route either vaginal or anal was the highest transmission route noted in HIV patient (97.3%). Among all HIV patients, 26.1% have no comorbid illness, whereas pneumonia, diarrhea, oral candidiasis, tuberculosis was predominantly comorbid occurred in HIV patient in Mimika Regency, Papua (Table 11).

Table 9 Distribution of HIV Patients by Spouse's HIV status in Mimika Regency, Papua in 2019

Patient Spouse's HIV status	Total	Percentage (%)
HIV Negative	4	1.2
HIV Positive	25	7.4
Don't know	308	91.4
Total	337	100

Table 10 Distribution of HIV Patients by Mode of Transmission in Mimika Regency, Papua in 2019

Mode of Transmission	Total	Percentage (%)
Sexual	328	97.3
Mother to Son	8	2.4
Syringe Users	1	0.3
Total	337	100

Table 11 Distribution of HIV Patients by Comorbid in Mimika Regency, Papua in 2019

Patient's Comorbid	Total	Percentage (%)
Anemia	9	2.0
Candidiasis oral	70	15.2
Conjunctivitis	1	0.2
Dermatitis	5	1.1
Diarrhea	82	17.8
Kidney failure	1	0.2
Malnutrition	4	0.9
Sexually Transmitted Infections	19	4.1
Lymphadenitis	2	0.4
Meningitis	1	0.2
Otitis	1	0.2
Pneumonia	99	21.5
Prurigo	1	0.2
Pruritic Papular Eruptions	1	0.2
Sepsis	1	0.2
Hepatitis Cirrhosis	1	0.2
tuberculosis	35	7.6
Toxoplasma	6	1.3
Trichomoliasis	1	0.2
No Associated Diseases	120	26.1

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Discussion

The results of the research above are in accordance with the results of research at Dr. M. Djamil Padang in 2017 which showed the highest characteristics of HIV/AIDS patients in the age range of 26-45 years with a total of 71 patients (73%).⁹ The results of this study are in line with research conducted at Dr. Hasan Sadikin Bandung in 2015 which showed the most characteristics of HIV patients in the productive age group 18-64 years (99.5%).¹⁰ The results of this study are also in accordance with research conducted by Juhaefah et al which stated that the highest age of HIV/AIDS patients was in age group 20-29 years (47.7%).¹¹ This age group is a sexually active age group that has a high sexual desire and the main factor for HIV transmission is risky sexual intercourse without using a condom. This is in accordance with reports recorded in the HIV/AIDS and Sexual Transmitted Infection (STI) information system (HIV AIDS Information System/SIHA) which stated that the highest percentage of HIV infection from 2010-2017 was in the age group 25-49 years with a total of 33,448 cases.⁵

The results of this study are in accordance with research conducted by Adiningsih et al which stated that the sex characteristics of the most People Living With HIV/AIDS (PLWHA) are women in three districts in Papua Province, namely, Nabire Regency (65.6%), Jayapura Regency/City (59.5%), and Jayawijaya Regency (50.0%).¹² However, there is a difference with a study conducted at Sanglah Hospital in Bali which stated that most HIV/AIDS patients were found in men with a percentage of 68% compared to women with 32%.¹³ The research conducted by Widiyanti et al in 2018 also explained that the sex of most HIV positive patients is female.¹⁴ In Papua, the vulnerability of women to HIV infection is due to the fact that many tribes still maintain culture and customs regarding sex such as supporting young marriages for women, allowing premarital sex and polygamy.¹⁵

The results of this study are in accordance with the results of a study at the VCT Clinic at the Cilacap Regional General Hospital in 2013-2016 which stated that the most HIV/AIDS sufferers were in the married group with a total of 214 cases (67.1%).¹⁶ The results of this study are also in line with research conducted by Adiningsih et al in 2019 which explained that the characteristics of PLHIV based on marital status were highest in the married group in three districts in Papua Province, namely Nabire Regency (64.4%), Jayapura City Regency (65.5%), and Jayawijaya Regency (61.1%).¹² The results of this study are in accordance with research conducted by Setyawati in Pati Residency, Central Java which stated that the highest number of women living with HIV/AIDS was in the married group (48.12%).¹⁷

The results of the above study are in accordance with research conducted by Yulidar et al in 2017 which showed that most HIV patients were diagnosed before pregnancy or it could be

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said that they were not pregnant (39.1%).¹⁸ However, there were differences with the study conducted by Suherlim and Subawa in 2015 which explained that pregnant women with HIV were mostly found in the third trimester of pregnancy (42.8%).¹⁹ The results of the above study are also in line with research conducted by Nugraheni et al in 2019 which showed that the characteristics of HIV/AIDS patients Inpatient AIDS at X general hospital in Surakarta was mostly found in non-pregnant women (36.36%).²⁰

The results of this study are in accordance with research conducted by Syafirah et al in 2020 which stated that the majority of HIV/AIDS sufferers had a high school education level with a percentage of 57.7%.⁹ In a study conducted by Juhaefah et al in 2020 explained that HIV/AIDS patients Based on education level, AIDS was the most common in the high school group with 174 cases (52.3%).¹¹ The results of this study are also in line with a study conducted at Sanglah Hospital in Bali which showed that most HIV/AIDS patients were found in groups with higher education levels, the last high school numbered 42 people (40.78%).¹³

The results of this study are in accordance with research conducted by Ibrahim et al in 2018 which stated that the highest cases of HIV/AIDS based on employment status were found in the working group at 79.2%.²¹ The results of this study were also in line with research conducted by Claudia et al. in 2018 which explained that the characteristics of HIV/AIDS patients in Samarinda city were based on the highest employment among private workers (40%).²² The results of this study are in line with research conducted by Anwar et al. which stated that HIV/AIDS patients based on employment status were mostly found in the working group with a total of 81 (65.32%).²³

The results of this study are in accordance with research conducted at Abdul Wahab Sjahranie Hospital Samarinda which explained that the high risk of mothers with HIV/AIDS was most commonly found in the group of married couples or assumed to be obtained from husbands with HIV/AIDS with a total of 34 people (77.27%).²⁴ There is a slight difference with research conducted at the VCT Clinic at the Cilacap Regional General Hospital in 2013-2016 where the highest number of positive HIV cases was found in other groups (children, migrant workers, prospective brides) of 40.1%, followed by the married couple group of 33.2%, LSM was 12%, and the least in the injecting user group was 0.3%.¹⁶ The results of this study were also slightly different from a study conducted in Semarang City where the highest HIV risk group was found in the group of customers commercial sex workers (31%), followed by married couples (20%), others (18%), female sex workers/FSW (13%), waria (2%), and Injecting Drug User (IDU) (2%).²⁵

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The province of Papua is included in an area with a widespread HIV epidemic, so HIV tests are offered to patients who come to health facilities with no clear symptoms of disease due to decreased immunity. This is in accordance with Permenkes Number 21 of 2013 concerning HIV and AIDS Control which states that patients who come to health facilities who have symptoms related to HIV will be offered an HIV test. If the patient refuses the HIV test offered by the officer, the patient will be asked to sign a letter refusing the test in writing.²⁶ Based on the information above, it can be assumed that the patient's willingness and awareness to come alone to the HIV testing service should be good enough without feeling afraid or embarrassed.

The results of this study are in accordance with a study conducted in Cape Town, South Africa which showed that as many as 46.5% of HIV positive patients reported having a partner with unknown HIV status, 39.5% had an HIV positive partner, and 14% had a partner with HIV negative.²⁷ Meanwhile, research conducted by Rukmi and Darussalam explained that women living with HIV/AIDS tend to be open about their HIV status to their sexual partners (79.4%) who are also open about their positive HIV status. The reason women are not open about their HIV status is because they are afraid of being rejected by their partners (44.7%) and fear of social stigma (35.9%).²⁸ Based on research conducted by Alemayehu et al in 2014 it was also explained that almost 64% women who are HIV positive disclose their HIV status to partners who have previously disclosed their status.²⁹

The results of this study are in accordance with research conducted on HIV/AIDS patients at Dr. M. Djamil Padang in 2017 which stated that the highest risk factor for HIV transmission through sexual intercourse was 61.9%.⁹ The results of this study are also consistent with research conducted by Claudia et al in 2018 which explained that the characteristics of HIV/AIDS patients based on the mode of transmission were mostly through sexual intercourse, both anal and vaginal (66.67%).²² The results of this study are in line with research conducted by Daramatasia and Soelistyoningsih which stated that HIV/AIDS transmission was most commonly found through sexual intercourse with a total of 49 people (62%).³⁰

The sexual route, both vaginal and anal, is the main gate for the entry of the HIV virus into the human body. Generally, vaginal sex has a much lower risk of HIV transmission than anal sex. This is influenced by the thin membranes of the anus and rectum which are easily damaged during sexual intercourse.³¹ The results of this study are in accordance with a study conducted by Gilbert and Jhon which stated that receptive anal intercourse is a greater risk factor for HIV transmission compared to transmission through needles and syringes.³²

The results of this study are different from the research conducted by Nyoko et al. who stated that the most common disease associated with HIV/AIDS sufferers was tuberculosis with

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a total of 25 people (22.5%).³³ The results of this study are in accordance with research conducted by Yusra et al. who explained that the majority of HIV/AIDS sufferers in Dr. M. Djamil Padang had no history of co-infection with other diseases (81.4%).³⁴ The results of this study are also in line with a study conducted by Anwar et al. which stated that as many as 75 HIV/AIDS sufferers at RSPI Prof. Dr. Sulianti Saroso did not experience opportunistic infections (60.48%).²³

Conclusion

The results showed that the prevalence of HIV positive was 345 cases, of which 337 met the data criteria. The highest incidence was found at the age of 25-49 years, female was common than male (50.4%), the most marital status was married (57%), the most pregnancy status was not pregnant (84.7%), the most recent education was senior high school (45.7%), the most occupation was private employee (24.9%), the most risk group is married couples (65%), the most visiting status was come alone (98.8%), the most partner's HIV status was unknown (91.4%), the highest mode of transmission was the sexual route (97.3%), and the most patient's comorbid were none (26.1%).

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