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Analysis of Factors Associated with HIV/AIDS Incidence at Kendari City Hospital in 2025

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Abstract

Background: Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) remain serious global public health threats due to social inequalities, stigma, and lack of education, which hinder early detection and equitable access to care. Therefore, the World Health Organization calls for comprehensive and sustainable approaches to reduce the incidence of new HIV infections. *Objective:* This study aimed to analyze factors associated with the incidence of HIV/AIDS at Kendari City Regional General Hospital in 2025. *Methods: This research is a quantitative study using a case-control design. The sample size for this study was 63 respondents. The sampling technique used in this study was total sampling. This study used a 1:1 ratio, so the ratio of case subjects to controls was 63:63. Therefore, the total number of subjects in this study was 126 respondents. Results:* The results of the study showed that the risk factors for HIV/AIDS incidence in Kendari City Hospital in 2025 based on the results of the final model logistic regression analysis contained significant variables ($p < 0.05$), namely population migration (OR = 0.429; $p = 0.020$). The knowledge variable ($p = 0.770$) and nutritional status ($p = 1.000$) did not show a significant relationship with the incidence of HIV/AIDS in Kendari City Hospital in 2025. Conclusion: population migration is a risk factor for HIV/AIDS incidence in Kendari City Hospital in 2025.

Keywords: HIV/AIDS; Knowledge; Population Migration and Nutritional Status**.**

1 Introduction

HIV/AIDS is a chronic infectious disease with a wide impact on health, social, and economic aspects. Although advances in antiretroviral (ARV) therapy have reduced mortality rates, HIV transmission continues, especially among productive age groups. In Indonesia, the dynamics of HIV cases show an increase in new case detections along with strengthening screening programs, but also reflect the high exposure to risk factors in the community. Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) remain global health challenges to this day. These diseases impact not only clinical aspects, but also social, economic, and psychological aspects. The World Health Organization (WHO) reports that by 2024 there will be approximately 40.8 million people living with HIV worldwide, with 1.3 million new infections and 630,000 HIV-related deaths.[1].

This situation is also reflected at the national level, particularly in Indonesia, which has experienced similar dynamics in the development of HIV cases over the past three years. In 2022, there were 52,000 HIV cases in Indonesia, with the majority of sufferers being men aged 25-49. In 2023, an estimated 515,455 people were living with HIV, and 16,410 new AIDS cases were reported in the same year. Between January and December 2024, 63,707 HIV cases were detected out of 6,986,402 people tested for HIV, and 50,441 of them received ARV treatment. By March 2025, there were 356,000 people living with HIV in Indonesia [2].

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A closer look at the provincial level, particularly in Southeast Sulawesi, shows that the increasing trend in HIV cases also appears consistent with the national picture. Based on the 2023 Southeast Sulawesi Provincial Health Profile, the number of HIV cases shows an increasing trend year over year. In 2022, 543 HIV cases were recorded, and this figure increased to 555 cases in 2023, of which 12 were new. This increase is due to various factors, including ongoing transmission, the influx of patients from outside the region, and increased effectiveness of case tracking by the Health Office and relevant partners [3].

One area in Southeast Sulawesi province, Kendari City, has also shown interesting dynamics in HIV/AIDS case trends over the past three years. Data from the Kendari City Health Office shows fluctuating dynamics in HIV/AIDS case trends over the past three years. In 2022, HIV/AIDS experienced a significant increase, with 160 HIV cases and 59 AIDS cases (a total of 219 cases). This trend continued to increase in 2023, with 321 HIV cases detected, representing a 100.6% increase compared to the previous year. From January to October 2024, 226 HIV cases were detected, equivalent to 70.4% of the total cases in 2023 [3].

HIV/AIDS is caused by several factors, including sexual relations, lack of knowledge or information about how to prevent HIV/AIDS, work, gender, direct contact with blood, non-sterile syringes, sharing syringes and injecting drug addicts, non-sterile blood transfusions, pregnant women with HIV to their babies, either during pregnancy or during childbirth, or after childbirth [4].

Based on preliminary data observations and interviews with HIV/AIDS counselors at Kendari City Hospital, there were 89 HIV/AIDS cases in 2020. In 2021, this number increased to 136 cases, in 2022 it increased again to 183 cases, and in 2023, there were 179 cases. Furthermore, in 2024, the number of cases decreased to 125. In 2025, from January to May, Kendari City Hospital had 63 new HIV/AIDS cases [5].

Seeing the phenomenon of the number of HIV/AIDS cases which is increasing every year and is increasingly worrying, especially at Kendari City Hospital, the researcher is interested in conducting research related to the Analysis of Factors Related to HIV/AIDS incidents at Kendari City Hospital in 2025.

2 Methods

This research is an analytical quantitative study with a case-control design. This research was conducted at Kendari City Hospital on December 19, 2025 – January 8, 2026. The sample in this study amounted to 63 respondents. The sampling technique used in this study was total sampling. This study used a 1:1 ratio, so the ratio of case subjects to controls was 63:63. So the total number of subjects in this study was 126 respondents. The independent variables included knowledge, population migration and nutritional status while the dependent variable was the incidence of HIV/AIDS. Data collection was carried out using a structured questionnaire and Body Mass Index (BMI) measurements. Data analysis was carried out univariately, bivariate using the odds ratio test, and multivariate using logistic regression with a significance level of 0.05.

3 Results

3.1 Respondent Characteristics

In this study, the frequency distribution of respondent characteristics consists of age, gender, education and occupation. Age

Tabel 1 **Distribution of Respondent Characteristics Based on Age in HIV/AIDS Incidents at Kendari City Hospital in 2025**

No	***Age***	***Frequency (n)***	***Precentasge (%)***
1	Teenagers	1	0.8
2	Adults	118	97.3
3	Elderly	7	5.6
Total		126	100

Source: Primary Data, 2025

Based on table 1, it shows that of the 126 respondents, the number of respondents who are teenagers is 1 respondent (0.8%), the number of respondents who are adults is 118 respondents (97.3%) and the number of respondents who are elderly is 7 respondents (5.6%).

3.1.1 Gender

Tabel 2 Distribution of Respondent Characteristics Based on Gender in HIV/AIDS Incidents at Kendari City Hospital in 2025

No	Gender	Frequency (n)	Precentage (%)
1	Male	110	87.3
2	Female	16	12.7
Total		126	100

Source: Primary Data, 2025.

Based on table 2, it shows that of the 126 respondents, 110 respondents (87.3%) were male and 16 respondents (12.7%) were female.

3.1.2 Education

Tabel 3 Distribution of Respondent Characteristics Based on Education in HIV/AIDS Incidents at Kendari City Hospital in 2025

No	Education	Frequency (n)	Precentage (%)
1	SD	2	1.6
2	SMP	8	6.3
3	SMA/SLTA Sederajat	75	9.5
4	D3	4	3.2
5	S1	37	29.4
Total		126	100

Source: Primary Data, 2025

Based on table 3, it shows that of the 126 respondents, 2 respondents (1.6%) had elementary school education, 8 respondents (6.3%) had junior high school education, 75 respondents (59.5%) had high school/equivalent education, 4 respondents (3.2%) had D3 education, and 37 respondents (29.4%) had undergraduate education.

3.1.3 Job

Tabel 4 Distribution of Respondent Characteristics Based on Occupation in HIV/AIDS Incidents at Kendari City Hospital in 2025

No	***Job***	Frequency (n)	Precentage (%)
1	Not Working	18	14.3
2	Housewife	9	7.1
3	Student	21	16.7
4	Honorary Employee	1	0.8
5	Private Employee	22	17.5
6	Civil Servant/Retired Civil Servant	9	7.1
7	Self-Employed	45	35.7
8	Singer	1	0.8
Total		126	100

Source: Primary Data, 2025

Based on table 4 it shows that of the 126 respondents, 18 respondents (14.3%) were unemployed, 9 respondents were housewives (7.1%), 21 respondents were students (16.7%), 1 respondent was honorary (0.8%), 22 respondents were private employees (17.5%), 9 respondents were civil servants/retired civil servants (7.1%), 45 respondents were self-employed (35.7%), and 1 respondent was a singer (0.8%).

3.2 Univariate Analisys

3.2.1 HIV/AIDS Incidents

Tabel 5 Frequency Distribution of Respondents Based on HIV/AIDS Incidence at Kendari City Hospital in 2025

No	HIV/AIDS Incidents	Frequency (n)	Precentage (%)
1	Case (Positif)	63	50
2	Control (Negativ)	63	50
Total		126	100

Source: Primary Data, 2025

Based on table 5, it shows that of the 126 respondents who were HIV/AIDS positive as a case group and HIV/AIDS negative control group, there were 63 respondents (50%).

3.2.2 Knowledge

Tabel 6 Frequency Distribution of Respondents Based on Knowledge at Kendari City Hospital in 2025

No	Knowledge	Frekuensi (n)	Presentase (%)
1	Good	113	89,7
2	Poor	13	10,3
Total		126	100

Source: Primary Data, 2025

Berdasarkan tabel 6 menunjukkan bahwa dari 126 responden yang memiliki pengetahuan baik sebanyak 113 responden (89,7%) dan yang memiliki pengetahuan kurang sebanyak 13 responden (10,3%).

3.2.3 Population Migration

Tabel 7 Frequency Distribution of Respondents Based on Population Migration at Kendari City Hospital in 2025

No	Population Migration	Frequency (n)	Precentage (%)
1	Migration Status	57	45.2
2	Not Migration	69	54.8
Total		126	100

Source: Primary Data, 2025

Based on table 7 it shows that of the 126 respondents, 57 respondents (45.2%) had migration status and 69 respondents (54.8%) did not have migration status.

3.2.4 Nutritional Status

Tabel 8 Distribusi Frekuensi Responden Berdasarkan Status Gizi di RSUD Kota Kendari Tahun 2025

No	Nutritional Status	Frequency (n)	Precentage (%)
1	Ideal	88	69.8
2	Not Ideal	38	30.2
Total		126	100

Source: Primary Data, 2025

Based on table 8 it shows that of the 126 respondents, 88 respondents (69.8%) had ideal nutritional status and 38 respondents (30.2%) had non-ideal nutritional status.

3.3 Bivariate Analisys

3.3.1 Risk Factors for Knowledge of HIV/AIDS Incidence at Kendari City Hospital in 2025

Table 9 Analysis of Risk Factors of Knowledge on HIV/AIDS Incidence at Kendari City Hospital in 2025

No	***Knowladge***	***HIV/AIDS Incident***				***Total***		***p - Value***
		Case (Positif)		Control (Negativ)				(0,770)
		n	%	n	%	n	%	*Odd Ratio*
1	Good	57	90.5	56	88.9	113	89.7	(1.188)
2	Poor	6	9.5	7	11.1	13	10.3	(95%) CI
Total		63	100	63	100	126	100	(0.376-3.754)

Source: Primary Data, 2025

Based on Table 9 it can be seen that of the total 126 respondents (100%), 57 respondents (90.5%) in the case group had good knowledge, while 56 respondents (88.9%) in the control group had poor knowledge. 6 respondents (9.5%) in the case group had poor knowledge, and 7 respondents (11.1%) in the control group had poor knowledge.

Based on the results of the Chi-Square statistical test, a p value of 0.770 was obtained, which means there is no significant relationship between knowledge and the incidence of HIV/AIDS at Kendari City Hospital in 2025. The results of the statistical analysis with the Odd Ratio test related to the risk factor of knowledge on the incidence of HIV/AIDS at the 95% Confidence Interval (CI) obtained an Odds Ratio (OR) value of 1.188 with a Lower Limit of 0.376 and an Upper Limit of 3.754, meaning that knowledge has a 1.188 times risk of the incidence of HIV/AIDS at Kendari City Hospital in 2025.

3.3.2 Risk Factors for Population Migration of HIV/AIDS Incidence at Kendari City Hospital in 2025

Tabel 10 Analysis of Population Migration Risk Factors on HIV/AIDS Incidence at Kendari City Regional Hospital in 2025

No	***Population Migration***	**HIV/AIDS Incident**				**Total**		***p - Value***
		Case (Positif)		Case (Positif)				(0.020)
		n	%	n	%	n	%	Odd Ratio
1	Status Migrasi	22	34.9	35	55.6	57	45.2	(0.429)
2	Bukan Migrasi	41	65.1	28	44.4	69	54.8	(95%) CI
Total		63	100	63	100	126	100	(0.209-0.880)

Source: Primary Data, 2025

Table 10 shows that of the 126 respondents (100%), 41 respondents (65.1%) in the case group had non-migration status, while 28 respondents (44.4%) in the control group had migration status. 22 respondents (34.9%) in the case group had migration status, and 35 respondents (55.6%) in the control group.

Based on the results of the Chi-Square statistical test, a p value of 0.020 was obtained, which means there is a significant relationship between population migration and the incidence of HIV/AIDS at Kendari City Hospital in 2025. The results of the statistical analysis with the Odd Ratio test related to the risk factors of population migration on the incidence of HIV/AIDS at the 95% Confidence Interval (CI) obtained an Odds Ratio (OR) value of 0.429 with a Lower Limit of 0.209 and an Upper Limit of 0.880, meaning that population migration has a risk of 0.429 times the incidence of HIV/AIDS at Kendari City Hospital in 2025.

3.3.3 Risk Factors for Nutritional Status of HIV/AIDS Incidence at Kendari City Hospital in 2025

Tabel 11 Analysis of Nutritional Status Risk Factors for HIV/AIDS Incidence at Kendari City Regional Hospital in 2025

No	Nutritional Status	HIV/AIDS Incident				Total		p - Value (1.000)
		Case (Positif)		Control (Negativ)				
		n	%	n	%	n	%	Odd Ratio (1.000)
1	Ideal	44	69.8	44	69.8	88	69.8	
2	Not Ideal	19	30.2	19	30.2	38	30.2	(95%) CI (0.467-2.140)
Total		63	100	63	100	126	100	

Source: Primary Data, 2025

Based on Table 11 it can be seen that of the total 126 respondents (100%), the largest percentage in the case group (HIV/AIDS positive) were respondents with ideal nutritional status (44 respondents (69.8%), and the largest percentage in the control group (HIV/AIDS negative) were respondents with ideal nutritional status (44 respondents (69.8%).

Based on the results of the Chi-Square statistical test, a p value of 1,000 was obtained, which means there is no significant relationship between nutritional status and the incidence of HIV/AIDS at Kendari City Hospital in 2025. The results of the statistical analysis with the Odd Ratio test related to the risk factors of population migration on the incidence of HIV/AIDS at the 95% Confidence Interval (CI) obtained an Odds Ratio (OR) value of 1,000 with a Lower Limit of 0.467 and an Upper Limit of 2.140, meaning that nutritional status has a 1,000 times risk of the incidence of HIV/AIDS at Kendari City Hospital in 2025.

3.4 Multivariate Analisys

Tabel 12 Probability Value (p-Value) of Candidate Selection Results for Multivariate Modeling

No	Variabel	B	S.E.	Wald	df	Sig.	OR	95% CI	
								Lower	Upper
1	Population Migration	-.958	.382	6.287	1	.012	.384	.181	.811
2	Constant	.039	.756	.003	1	.959	1.040		

Source: Primary Data, 2025

Based on table 12 it shows that from the results of multiple logistic regression analysis, all variables are significant ($p < 0.05$) on the incidence of HIV/AIDS at Kendari City Hospital in 2025. The dominant variable is seen based on the OR value, where the population migration variable has an OR value of 0.384.

4 Discussion

4.1 Risk Factors for Knowledge of HIV/AIDS Incidence at Kendari City Hospital in 2025

Low knowledge about HIV, including how it is transmitted, prevention, the incubation period, and myths surrounding HIV/AIDS, can lead to misjudgment of risk, neglect of preventive measures such as using condoms or undergoing HIV testing, and susceptible to stigma that hinders access to health services. A study, "The knowledge mapping of HIV/AIDS in Indonesians living on six major islands," shows that widespread ignorance about HIV among the Indonesian public can hamper HIV prevention and control efforts [6].

The research results revealed that in the case group (HIV/AIDS positive), the majority of respondents had a good level of knowledge, representing 57 respondents (90.5%), while 6 respondents (9.5%) had poor knowledge. In the control group (HIV/AIDS negative), respondents with good knowledge also dominated, representing 56 respondents (88.9%), while 7 respondents (11.1%) had poor knowledge.

This research aligns with research conducted by Efendi, Ratu Fawwaz, et al. (2023) entitled "The Relationship between Knowledge and Attitudes about HIV/AIDS and HIV Incidence among Men Who Have Sex with Men (MSM) in West Sumatra." The results showed that the majority of respondents had a high level of knowledge about HIV/AIDS, representing approximately 80% of both HIV-positive and HIV-negative respondents. Although the level of knowledge of respondents is considered high, the results of statistical analysis show that there is no significant relationship

between the level of knowledge and the incidence of HIV/AIDS (p-value > 0.05), so it can be concluded that high knowledge does not necessarily have a direct effect on the incidence of HIV/AIDS without being accompanied by changes in safe preventive behavior [7].

The results of the statistical analysis showed a p-value of 0.770 (p > 0.05), which means there is no significant relationship between knowledge and HIV/AIDS incidence. The Odds Ratio (OR) value of 1.188 with a 95% Confidence Interval (CI) of 0.376–3.754 indicates that respondents with good knowledge have a 1.188 times greater chance of experiencing HIV/AIDS compared to respondents with less knowledge, but the relationship is not statistically significant because the CI range includes the number 1.

This study is in line with the study conducted by Efendi, Ratu Fawwaz, et al. (2023) entitled The Relationship between Knowledge and Attitudes about HIV/AIDS and HIV Incidence in Men Who Have Sex with Men (MSM) in West Sumatra, which shows that there is no significant relationship between the level of knowledge about HIV/AIDS and HIV incidence. The results of the statistical analysis showed a p-value of 0.65 (p>0.05) with an Odds Ratio (OR) of 1.21 and a 95% Confidence Interval (CI) of 0.58–2.54, indicating that respondents with good knowledge have a slightly greater chance of experiencing HIV incidence than respondents with less knowledge. However, the relationship is not statistically significant because the CI range includes the number 1, so good knowledge cannot be considered a protective factor against HIV/AIDS incidence without being accompanied by changes in risky behavior [7].

In a health context, knowledge about HIV/AIDS encompasses understanding the definition of HIV/AIDS, its transmission methods, prevention, and its impacts. In theory, good knowledge is expected to encourage healthy behaviors and avoid risk factors for HIV/AIDS transmission. However, in reality, high levels of knowledge are not always accompanied by consistent preventive behavior. A person with good knowledge can still become infected with HIV/AIDS if they are unable to apply that knowledge in their daily lives, for example, by continuing to engage in risky sexual intercourse, inconsistently using condoms, or being exposed to other risk factors such as using unsterile needles. This demonstrates that knowledge alone is not enough to prevent HIV/AIDS without being supported by healthy attitudes and behaviors.

The high level of knowledge of respondents in this study is closely related to their educational characteristics, where the majority of respondents had secondary or higher education. Education plays a crucial role in improving an individual's ability to receive, understand, and process health information, including information about HIV/AIDS. Respondents with higher educational backgrounds tend to have better health literacy, broader access to information, and more mature critical thinking skills. However, the results of this study indicate that knowledge is not significantly related to HIV/AIDS incidence, indicating that high levels of knowledge are not necessarily followed by consistent preventive behavior. This may be due to the influence of other factors such as risky sexual behavior, social pressure, cultural norms, partner influence, economic conditions, and the social environment, which are more dominant in determining the occurrence of HIV/AIDS. Thus, HIV/AIDS incidence is not only influenced by the level of knowledge alone, but also by the complexity of behavioral and social factors. Therefore, prevention efforts need to be directed not only at increasing knowledge, but also at changing behavior and strengthening environmental support.

4.2 Population Migration Risk Factors for HIV/AIDS Incidence at Kendari City Regional Hospital in 2025

Migration or population mobility can increase the risk of HIV/AIDS because moving to a new area is often accompanied by economic pressures, limited employment, and separation from family and social control, leading to the formation of new social networks that influence behavior. These conditions push migrant workers, including plantation workers, informal workers, and motorcycle taxi drivers, into a densely social environment where group norms, peer pressure, and physical proximity facilitate risky behaviors such as unprotected sex, multiple relationships, involvement with sex workers, and needle sharing among injecting drug users [8].

Based on the research results, it was found that in the case group (HIV/AIDS positive), respondents with migration status numbered 22 respondents (34.9%), while respondents who did not migrate were 41 respondents (65.1%). Meanwhile, in the control group (HIV/AIDS negative), respondents with migration status were 35 respondents (55.6%) and respondents who did not migrate were 28 respondents (44.4%).

This study is in line with previous research conducted by Rosdiana, (2021) entitled Analysis of Factors Associated with HIV/AIDS Incidence at TC. Hillers Regional Hospital, Maumere, Sikka Regency, East Nusa Tenggara Province. The results of this study showed that in the case group (HIV positive), respondents with migration status numbered 30.8%, while non-migration respondents were 69.2%. Meanwhile, in the control group (HIV negative), respondents with migration status were higher at 52.4%, and non-migration respondents were 47.6%. This finding indicates that the proportion of respondents with migration status was greater in the control group than in the case group, thus in line with the results

of this study which showed that migration status is not always more dominant in the HIV/AIDS positive group and can be influenced by other factors such as sexual behavior and socioeconomic characteristics [9].

The results of the statistical analysis showed a p-value of 0.020, which means there is a significant relationship between population migration and HIV/AIDS incidence. The Odds Ratio (OR) value of 0.429 with a 95% Confidence Interval (CI) of 0.209–0.880 indicates that respondents with migration status have a lower chance of experiencing HIV/AIDS compared to respondents who do not migrate. An OR value of less than 1 indicates that migration status in this study is a protective factor against HIV/AIDS incidence, and a CI range that does not include the number 1 indicates that the relationship is statistically significant.

The results of this study align with research conducted by J. P. Bil *et al.*, "Disparities in access to and use of HIV- related health services in the Netherlands by migrant status and sexual orientation. with a p-value of 0.031 and an OR of 0.46. Another study by Hasan and Putri (2020) also reported that migration status was associated with HIV/AIDS incidence, with non-migrant respondents having a higher risk than migrants (p-value = 0.018; OR = 0.52). These similar results suggest that migration does not always increase the risk of HIV/AIDS but can act as a protective factor depending on the social context and respondent characteristics [10].

This study suggests that individuals with migration status may have better health awareness, broader access to information, and more frequent exposure to HIV/AIDS prevention programs in their destination areas. Furthermore, migrants may have clear work goals and specific social ties that limit their involvement in risky behaviors. Conversely, respondents who did not migrate may have been exposed to the same environment for longer periods with repeated patterns of risky behavior, increasing their chances of exposure to HIV/AIDS. Therefore, migration status in this study does not increase risk, but rather shows a protective relationship with HIV/AIDS incidence.

4.3 Risk Factors of Nutritional Status on HIV/AIDS Incidence at Kendari City Regional Hospital in 2025

Nutritional status can influence the incidence and course of HIV. Individuals with poor nutritional status or malnutrition generally have weakened immune systems, making them more susceptible to infections, including viral infections like HIV. Deficiencies in essential nutrients (e.g., protein, vitamins, minerals) can reduce immune cell function, making the body more susceptible to infection and accelerating disease progression once infected [11]**.**

Based on the research results, it was found that in the case group (HIV/AIDS positive), respondents with ideal nutritional status were 44 respondents (69.8%), while respondents with non-ideal nutritional status were 19 respondents (30.2%). In the control group (HIV/AIDS negative), the distribution of nutritional status showed the same results, namely respondents with ideal nutritional status were 44 respondents (69.8%) and non-ideal nutritional status were 19 respondents (30.2%).

This study is in line with previous research conducted by Dewi (2023), entitled "Factors Related to the Nutritional Status of HIV/AIDS Children at Wangaya Regional General Hospital". The results of the study showed that the distribution of nutritional status The proportion of children with undernutrition was 38.5% and severe nutritional status was 17.9%, so that the total number of children with nutritional problems (undernutrition and severe) reached 56.4% of all HIV/AIDS respondents [12].

The results of the statistical analysis showed a p-value of 1.000 ($p > 0.05$), which means there is no significant relationship between nutritional status and the incidence of HIV/AIDS. The Odds Ratio (OR) value of 1.000 with a 95% Confidence Interval (CI) of 0.467–2.140 indicates that respondents with non-ideal nutritional status have the same chance of experiencing HIV/AIDS compared to respondents with ideal nutritional status. The CI range that includes the number 1 further confirms that nutritional status is not a significant risk factor for HIV/AIDS incidence in this study.

The results of this study align with research conducted by Arumndari et al, (2024) by title The Relationship Between Nutritional Status and Immunological Response in Children with HIV/AIDS at Wangaya Regional General Hospital The results of the study showed that nutritional status was not significantly associated with HIV/AIDS conditions, with a p value of 0.660 ($p > 0.05$). The proportion of respondents with poor immunological responses was almost the same in the poor nutritional status group (76.9%) and good nutritional status (76.5%), so it can be concluded that nutritional status is not the main factor affecting HIV/AIDS conditions, but rather is more influenced by other factors such as therapy compliance and opportunistic infections [13].

The results of this study indicate that the nutritional status measured during the study does not necessarily reflect the nutritional status of respondents when they were first infected with HIV/AIDS. Furthermore, respondents who had

been diagnosed with HIV/AIDS may have received nutritional interventions or medical treatment that improved their nutritional status. Therefore, nutritional status in this study did not show a significant relationship with HIV/AIDS incidence, although in theory, nutritional status plays an important role in maintaining the immune system.

5 Conclusion

This study shows that the incidence of HIV/AIDS at Kendari City Hospital in 2025 is influenced by population migration. Bivariate analysis results indicate that population migration status has a significant relationship with HIV/AIDS incidence, while knowledge and nutritional status do not show a statistically significant relationship. Multivariate analysis strengthens these findings by showing that population migration status is the most dominant factor associated with HIV/AIDS incidence after controlling for other variables.

Migration status in this study acted as a protective factor, possibly related to differences in social characteristics, access to health information, and exposure to HIV/AIDS prevention programs. Migration status may be associated with HIV incidence because migration is often accompanied by changes in social, economic, and behavioral conditions that increase a person's vulnerability to HIV infection. Conceptually, migration is viewed as a social determinant of health that influences risk exposure and access to health services. The lack of a relationship between knowledge and nutritional status and HIV/AIDS incidence suggests that good knowledge and ideal nutritional conditions do not necessarily translate into consistent preventive behavior.

Based on the results of this study, it can be concluded that HIV/AIDS prevention efforts need to focus on specific and sustainable HIV/AIDS interventions through ongoing education, safe sex promotion, and strengthening HIV screening and counseling services. A comprehensive behavioral and social-based approach is expected to form the basis for developing more effective HIV/AIDS prevention strategies at Kendari City Hospital and the surrounding area.

Compliance with ethical standards

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Disclosure of conflict of interest

There is no conflict of interest in this research.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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