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The HIV/AIDS Surveillance System in Gresik Health Office

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ABSTRACT

Introduction. Issues of HIV/AIDS cases, that tend to increase every year, require comprehensive prevention and controling efforts through promotion, early detection and treatment, and rehabilitation. These efforts need to be supported by precise and accurate data and information through a good surveillance system. Gresik was one of five districts in East Java with the highest AIDS cases reported. **Purpose.** The purpose of this study was to describe HIV and AIDS surveillance system in Gresik District Health Office based on system component analysis. **Method**. This study was an evaluation research. The subject of this study was the HIV and AIDS case surveillance system that was carried out in Gresik District Health Office in 2016. Respondents in this study were the Head of Communicable Disease Control and Prevention, the recording and reporting officer of Gresik District Health Office, and 16 officers in HIV AIDS program at selected Public Health Centers (PHC). Descriptive analysis described the components of ongoing HIV/AIDS surveillance system in Gresik District Health Office and the results obtained were compared with the theory and national guidebook for management of HIV and AIDS programs. **Results**. Based on the human resources (HR) input component that involved in the HIV/AIDS surveillance system, most health workers had a health diploma degree (D3) level education. In process component, for level B health facilities, data collection was difficult due to lack of trained laboratory personnels. Most of of respondents (84.8%) said data processing was easy because it was helped by HIV/AIDS and Sexually Transmitted Infections Information System (SIHA) application. However, reporting accuracy was 65% and not timely. The analysis process was only carried out at the Health Office level. In the output component, dissemination was carried out monthly. Feedback or request for data improvements to health facilities was done monthly on the second week of the following month. **Conclusion**. The ongoing HIV/AIDS surveillance system in Gresik still needs improvement in the implementation based on the national guidebook for management of HIV and AIDS programs.

Keywords: HIV/AIDS, Surveillance system, Evaluation

INTRODUCTION

Background

Indonesia is one of the countries in Asia that has experienced a rapid development of the HIV epidemic. Although the prevalence of HIV among adults is still low in general, except in Papua, the prevalence of HIV in certain population groups is still high, such as those who use narcotics, psychotropic substances, and addictive substances (drugs), commercial sex workers (CSWs) and men who like sex with men (MSM). In East Java, the cumulative number of HIV case up to March 2017 was the highest after DKI Jakarta and for the cumulative number of AIDS cases up to March 2017 was the highest in Indonesia[(1)].

Gresik Regency is one of the five districts in East Java that report the highest number of AIDS cases[(1)]. According to the 2016 health problem analysis in Gresik District, there were 115 people infected with HIV, and 75 of these 115 people (65.2%) were in AIDS. This condition was increase compared to 2015, with 89 cases infected with HIV and 56 case (62.9%) were in AIDS [(2)]. However, the AIDS case is still far less than the actual case considering that not all existing AIDS cases or only a small proportion were reported (under reported).

Issues of HIV/AIDS cases, that tend to increase every year, require comprehensive prevention and controling efforts through promotion, early detection and treatment, and rehabilitation. These efforts need to be supported by the provision of accurate data and information through a good surveillance system.

Purpose

The purpose of this study was to describe the HIV and AIDS surveillance system in the Gresik District Health Office. Therefore, if there were a discrepancy between the current system and the national guidebook for management of HIV and AIDS programs, we could provide appropriate recommendations.

METHODS

This research was an evaluation research with a system approach. The subject of this research was the HIV and AIDS case surveillance system that was carried out in the Gresik District Health Office in 2016. Respondents in this study were the Head of Communicable Disease Control and Prevention, the officer of recording and reporting at the Gresik District Health Office, and 16 officers in HIV AIDS program at selected Public Health Centers (PHC).

The location chosen as a research site was 16 community health centers consisting of 10 health service facilities that could diagnose HIV (health care facility A) and 6 health service facilities that could not diagnose HIV (health care facility B). The total of community health centers in Gresik District were 33, consist of 12 health care facility A and 21 health care facilities B. The reason for choosing 10 health care facilities A was because those facilities were the most referred health care facility for level B health care facilities. Whereas, 6 of health care facilities B were chosen because they represented health care facilities that referred based on difference in distance to the referral location. The community health centers that were selected as research locations are seen in the Table 1 below.

Table 1. Research location for evaluation of HIV AIDS surveillance systems in Gresik District

Community Health Centers	Laboratory	Laboratory Staff Trained in HIV/AIDS	Category
Driyorejo	+	+	Able to establish an HIV diagnosis
Menganti	+	+	Able to establish an HIV diagnosis
Kedamean	+	+	Able to establish an HIV diagnosis
Balongpanggang	+	+	Able to establish an HIV diagnosis
Cerme	+	+	Able to establish an HIV diagnosis
Alon alon	+	+	Able to establish an HIV diagnosis
Dukun	+	+	Able to establish an HIV diagnosis
Sedayu	+	+	Able to establish an HIV diagnosis
Pancen	+	+	Able to establish an HIV diagnosis
Bunga	+	+	Able to establish an HIV diagnosis
Sukomulyo	+	-	Not yet able to establish an HIV diagnosis
Industri	+	-	Not yet able to establish an HIV diagnosis
Gending	+	-	Not yet able to establish an HIV diagnosis
Kebomas	+	-	Not yet able to establish an HIV diagnosis
Nelayan	+	-	Not yet able to establish an HIV diagnosis
Sembayat	+	-	Not yet able to establish an HIV diagnosis

The data collected in this study were primary data and secondary data. Primary data obtained by interview using questionnaires from program-holder officer. Data were collected in the form of respondent's identity, ease of respondent in diagnosing HIV, ease of respondent in collecting data, ease of respondent in processing data and how to conduct data analysis. Secondary data were the Voluntary Counseling and Test (VCT) monthly reports, Provider Initiated Testing and Counseling (PITC) monthly reports, Gresik District Health Service profile in 2015 and 2016, monthly and quarterly report forms, HIV/AIDS and Sexually Transmitted Infections Information System (SIHA) application. This activity was carried out during June-July 2017.

The analysis was carried out descriptively by describing the ongoing surveillance system in the Gresik District Health Office and the results obtained were compared with the theory and national guidebook for management of HIV and AIDS program.

RESULTS

HIV and AIDS case surveillance activities involved the level of health care facilities/community health centers and the Gresik District Health Office. The purpose of HIV/AIDS case surveillance at Gresik District was to find out the trend of HIV infection and AIDS case based on time, people, and place.

Characteristics of Respondents

Respondents involved in this study were 19 people consisting of the Head of Infectious Disease Control and Prevention, 2 staffs of recording and reporting officers at the Gresik District Health Office level, and 16 of HIV/AIDS program-holders at the community health center level in the Gresik District in 2016. The characteristics of respondents in this study can be seen in Table 2.

Table 2. Characteristics of respondent in HIV/AIDS Programs in Gresik District

No	Characteristics of respondents	Frequency	Percentage
1	Gender		
	Man	8	42.2
	Woman	11	57.8
2	Level of Education		
	Vocational education school	2	10.6
	Diploma 1	1	5.2
	Diploma 3	13	68.4
	University	3	15.8
3	Age		
	≤ 30 year old	4	21.1
	31 – ≤ 40 year old	8	42.1
	41 – ≤ 50 year old	4	21.1
	≥ 51 year old	3	15.7
4	Training of HIV/AIDS Surveillance System		
	Yes	19	100.0
	No		
5	Training of SIHA application		
	Yes	19	100.0
	No		

The respondents were mostly female (57.8%). The respondent's age range was mostly 31-40 years (42.1%). The majority of respondents were Diploma 3 (68.4%). All of respondents said they never participated in HIV/AIDS surveillance training. Whereas all of respondents said they had participated in WEB based recording and reporting system (SIHA).

Overview of HIV/AIDS Case Surveillance Activities

Overview of the HIV AIDS surveillance system in Gresik District Health Office based on the system components (input, process, output) in 2016 as follows:

1. Input

Assessment of the input components of the AIDS HIV surveillance system based on the utilization of resources, facilities, and budget. The description of the HIV/AIDS surveillance system based on input components can be seen in Table 3.

Based on Table 3, the utilization of human resources in the HIV/AIDS surveillance activities at the Health Service level fulfilled the requirements. They had public health personnels who were competent in the field of epidemiology. At the level of health service facilities, human resources that were utilized such as nurses, midwives, laboratory personnels. However, no epidemiologist were involved. At the level of health service facilities B, the criteria for laboratory personnel supporting HIV diagnosis were not fulfilled because the laboratory staffs had not participated in training. Regarding funding at the Health Office level and at the health facility level, the budget was obtained from the Regional Budget and the State Budget. However, the health care facilities B budget for referral transportation to the laboratory were unavailable. Facilities and infrastructures both at the Health Service level and in health care facilities had been fulfilled well.

Table 3. Overview of the HIV/AIDS surveillance system based on the input component in the Gresik Health Service in 2016.

Components Assessed		Criteria	Level		
			District Health Office	Health care facilities A	Health care facilities B
Human Resources		Qualified Not Qualified	Qualified	No Qualified	Not Qualified
Money		Available Not Available	Available	Available	Not Available
Tool	Computer	Available Not Available	Available	Available	Available
	Communication tools	Available Not Available	Available	Available	Available
	Transportation	Available Not Available	Available	Available	Available
	Internet	Available Not Available	Available	Available	Available
	Literature	Available Not Available	Available	Available	Available
	Application	Available Not Available	Available	Available	Available
	Form	Available Not Available	Available	Available	Available

2. Process

In the process component there were three things that had been done in HIV/AIDS surveillance activities, namely data collection, data processing, and data analysis. In collecting data, the type of data collected was the variable from the VCT form and the PITC form. An overview of the HIV/AIDS surveillance system in the process components can be seen in Table 3 below.

Table 3. Overview of the HIV/AIDS surveillance system in the Gresik District Health Office in 2016.

Components Assessed	Criteria	Public health Office	Health care facilities A	Health care facilities B
Data collection	Simplicity	Yes	Yes	No (difficult)
	Punctuality	No	No	No
	Completeness of data	Yes	Yes	Yes
Data processing	Simplicity	Yes	Yes	Yes
Data analysis	Analyze	Yes	No	No

a. Data collection

From the in-depth interview with respondents, 84.2% of respondents said that the data collection process was very easy because of SIHA application, but 15.8% of respondents said that the data collection process was very difficult because the data that should be filled was too much and had to use computers and the internet. But 100% of respondents said that they were very supportive to the HIV-AIDS surveillance system.

Data collection at the Gresik District Health Office level was carried out passively. The data collected monthly from VCT and PITC tests via SIHA application. The VCT data included number of visits, number of old case visits, number of patients referred by Non-Governmental Organizations, number of given pre-counseling tests, number of HIV tests, number of counseled patients after the test and received the test result, number of pregnant women tested for HIV, number of pregnant women with HIV positive and received the test result, number of HIV positive referred to Care Support and Treatment (CST), number of HIV positive people referred to support staff (Non-Governmental Organizations, Case

Managers and cadre), number of HIV positive pregnant women referred to PDP and PPIA, number of HIV positive people assessed for TB symptoms, and number of condoms given to client. All VCT data are based on gender, age and risk group. The PITC data included the number of offered HIV tests, number of people tested for HIV, number of people received the test results, number of people with HIV positive, number of people referred to follow-up counseling, number of HIV positive people referred to PDP, number of pregnant women offered a HIV test, number of pregnant women with HIV positive and received the test results, the number of pregnant women knowing their partner's HIV status, number of HIV positive people assessed for TB symptoms, the number of TB pregnant women offered a HIV test, number of TB pregnant women with HIV positive and received the test results, number of pregnant women with syphilis tested for HIV, the number of pregnant women with shypilis who were HIV positive and received the test results, and number of condoms given to the client.

Data collection at the health care facilities A and B level were obtained from the general polyclinic, mother and child polyclinic (KIA), and tuberculosis polyclinic. Every pregnant women was found or suspected of being infected with HIV, the officer would filled the HIV counseling and testing form. The collected data included patient identity (age, sex, occupation, and family number), date of counseling, risk groups (sex workers, sex worker customers, transvestites, high risk couples, injection drug users (IDUs), MSM), risk level (risky vaginal sex, risky anal sex, window period, etc.), patient-related illnesses (diarrhea, candidiasis, herpes, etc.), and laboratory tests.

In the process of collecting data at health care facilities B, it was said to be difficult because they had to reffer for laboratory examination to referral health care facilities, this condition required a longer time to diagnose compared to health care facilities A. Inability of health care facilities that could not diagnose HIV/AIDS was because laboratory analysis officers had not participated in training specifically in HIV testing, this was in accordance with the regulation of the Minister of Health number 15 (2015) about the service of HIV and Opportunistic Infection Laboratories that for the purpose of HIV screening, surveillance and diagnosis examination is conducted by trained PTTD personnel, trained analysts, trained AAA. Not all laboartorium analysts were included in the training due to high training funding considerations.

In the process of collecting data, the timeliness of reporting from the health care facility to Gresik District Health Office with the deadline on 25th every month. However, if there were public health centers that cannot send on that date, they were still given an extra period until the 30th. According to the recording and reporting staffs of the HIV/AIDS program at Gresik District Health Office, the reports received by the Gresik District Health Office around 60% were not timely. Delays in data received by the Gresik Health Office would affect the reporting time to the provincial level.

The quality of data collected was based on data completeness. All of respondents answered that the data collected was complete, because the manual form was the basis for inputting data online to SIHA. Barriers that were often found in filling out manual forms were due to so many variables, so it took longer to produce valid data.

b. Data processing

Data processing at the facility level started from recaputilation of the Counseling and Testing HIV (HCT) forms that have been collected then counted in one month. Next, the data entered into the counseling and testing monthly report form (HA-UPK-1) and monthly AIDS case surveillance report form (HA-UPK-11). Furthermore, data validation was carried out first to ensure there were no errors and as the validity of the report was signed by the authorized supervisor and stamped by the agency.

Data processing was done after the data was declared valid. Data was processed by HIV/AIDS-programs-holder officer every month. Data processing method by calculating to obtain the cumulative numbers, and also recapitulating according to the available format (number of visits, number of old case visits, patients referred by non-governmental organizations, number of pre-counseling tests, number of HIV tested, number of counseled patient after the test and received the results, number of pregnant women tested HIV, number of pregnant women with HIV positive and received the test results, number of HIV positive referred to CST, number of HIV positive people referred to support staff (NGOs, case managers, and cadres), number HIV-positive pregnant women who were referred to PDP and PPIA, number of HIV positive people assassed for TB symptoms, number of condoms given to clients). The time needed for data processing was done every month. As many as 60% of respondents said that they often experienced delays in data collection. This condition was due to the burden of the dual tasks of HIV/AIDS officers. The results of data processing are monthly data recapitulation.

c. Data Analysis

The data analysis process was only carried out at the Health Office level in the form of a table presenting data that depicted the epidemiology of HIV-AIDS cases based on people, place, and time. While at the level of health service facilities, data analysis was not carried out. This was not in accordance with the national guidelines for HIV and AIDS program management which said that one of the functions and roles in controlling HIV/AIDS and sexual transmited infection (STIs) at the District Health Office level was data analysis

3. Output

The output activities of the HIV/AIDS case surveillance system were in the form of information dissemination by Gresik District Health Office or requests for data improvements from health care facilities. Dissemination was carried out on the 2nd week of the following month at the forum of regular meetings of the Head of the public health centers.

DISCUSSION

The HIV AIDS Case Surveillance Activities in Gresik District based on system components included inputs, processes, and outputs, starting from the level of health service facilities to the level of Gresik District Health Office. In the human resources input component at the District Health Office level involved one epidemiologist, this was in accordance with the Republic of Indonesia Minister of Health regulation number 45 year 2014 about the implementation of Health Surveillance must be supported and the availability of competent personnel in the field of epidemiology. The human resourcses at the level of health care facility were mostly Diploma 3 of nurses and midwives. Epidemiologist were excluded due to the limited personnel available at health care facilities. This condition can be minimized by being given training to non-epidemiological health personnel about the whole surveillance system. In accordance with the research conducted by Prasastin, stated that the participation of officers in repeated epidemiological surveillance training made the officers comprehend the knowledge given[(3)]. Similar research was also carried out by Khayati that the level of education would affect surveillance performance[(4)].

In the data processing, 84.2% of respondents said it was very easy because it was supported by the SIHA application which automatically generated monthly reports and had been sent as good reports at the district, the provincial, and the central levels. Whereas 15.8% of respondents said that it was difficult, because elderly officers had difficulty using a computer so this would affect the delay in reporting. According to the Ministry of Health clasification, the age of 31-40 years is in the category of early and late adulthood. In early adulthood a person would be more able to receive information and try to achieve it optimally[(5)].

In the data analysis process at the Gresik District Health Office level, it was carried out descriptively. Descriptive analysis in the form of epidemiological pictures of HIV/AIDS cases based on people, place, and time. Descriptive analysis was not carried out at the puskesmas level, due to lack of HIV/AIDS surveillance system training on Puskesmas staffs and had never received full training in surveillance. Most respondents were Diploma 3 in nursing and midwifery who did not get many theories about surveillance. For analysis at the District Health Service level, it had not been done because in addition to the busyness of the officers, the ability of officers was still lacking in analyzing the relationship between variables, especially in the use of statistical aids.

In the output component, the information produced was in accordance with the objectives of HIV/AIDS surveillance, wich was to find out the incidence of HIV/AIDS based on people, place, and time. Information dissemination carried out by the Gresik District Health Office which was delivered in a regular monthly meeting forum, in the form of presentation about the progress of HIV AIDS and evaluation as indicator of the Puskesmas performance every year. In addition, information dissemination was also made in the form of leafets which were used as promotional media.

CONCLUSION

The description of the HIV/AIDS surveillance system in Gresik District based on the input component obtained results that epidemiologist at the level of health care facilities was not involved and the budget for health service facilities B to conduct laboratory referrals was not available. The HIV/AIDS surveillance officers had not been comprehensively trainned about surveillance, still contributed to the data collection process in the form of SIHA-based recording and reporting.

The data collection process was easy (simplicity), all of the respondents supported the surveillance activities, the data was collected completely (the quality of the data was good). But, about 60% of respondents experienced delays in data management and delivery.

The data analysis process was only carried out at the Health Office level in the form of descriptive analysis, while at the level of health service facilities did not conduct analysis either descriptively or analytically. So it can be said that the ongoing HIV/AIDS surveillance system in Gresik District still needs improvement in the implementation of the HIV AIDS surveillance system based on the national guidebook for management of HIV and AIDS programs.

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