



Analysis of Public Health Center Information System Implementation in Compulsory Health Efforts at Public Health Center in Jayapura Regency, Papua Province

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Abstract

Background: The Public Health Center Information System is an arrangement that provides information to assist the decision-making process, thus the Public Health Center is currently required to adjust it no later than 2 (two) years since it was established on August 22, 2019 in accordance with Permenkes 31 of 2019. **Objectives:** The aim of this research is to analyze the Implementation of the Public Health Center Information System in Compulsory Health Efforts in Jayapura Regency in 2022. **Methods:** This type of research is descriptive qualitative by conducting in-depth interviews in December-January 2023. The research informants consisted of 16 people including the head of the Public Health Center (6 people), Person in Charge of SIMPUS (1 person), Head of Administration (3 people), Insurer Responsible for Nutrition (1 person), Person in charge of Health promotion (3 person), Person in charge of MCH (1 person), Person in charge of TB (1 person) at 6 representative Public Health Centers in Jayapura Regency. **Result:** The results of the study showed that input elements, such as human resources/public health center information system staff as a whole, were lacking and did not have an educational background in IT or Epidemiology, or Statistics. There are no operational support funds for the implementation of the Public Health Center information system. Facilities and infrastructure are inadequate. The method used in implementing SIMPUS is divided into two, namely some are still manual, and some use an application. Process elements such as manual and application-based recording are recorded in a manual format and then inputted into a computer and entered into an application.

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Processing is manual and application-based specifically for compulsory manual health efforts such as health promotion and environmental health and application-based, namely TB, MCH and Nutrition. Public Health Center reporting is manual and application, but sometimes it experiences delays, namely the manual one. It is known that the output/results of reporting from Public Health Center are still late but can be accounted for by means of validation and a survey of health service staff to Public Health Center in Jayapura Regency.

Keywords: Evaluation; System; Information; Public Health Center; SIMPUS.

1. Introduction

The Public Health Center Information System is a system that not only regulates recording and reporting, but also manages all activities at the Public Health Center in order to obtain data and information along with its organization and funding. This Minister of Health Regulation on Health Center Information Systems is a form of the mandate of Government Regulation Number 46 of 2014 concerning Health Information Systems which states that health service facilities are required to organize health information systems. As for the issuance of Permenkes (Minister of Health regulations) Number 31 of 2019, the Decree of the Minister of Health Number 63/Menkes/SK/II/1981 concerning Determination of the Implementation of the Integrated Health Center Recording and Reporting System (SP2TP) was declared revoked [1].

According to the transitional requirements of this Permenkes, the management of the current Public Health Center information system is expected to change it no later than 2 (two) years after it was passed on August 22, 2019. To assist with this, the Data and Information Center accepts financing from deconcentration funds so that Health Service Provinces can reach out to District/City Health Offices in their respective territories [1].

Socialization of the Public Health Center Information System which was held for three days, from 9-11 October 2019 in Bogor, regarding Permenkes Number 31 of 2019. This Permenkes contains 36 articles in the body and 20 reporting forms as attachments. Reporting in the Public Health Center Information System consists of basic data reports and program reports, for program reports consists of monthly reports, extraordinary events, and annual program reports. With this meeting the Head of the Center for Data and Information stated that the implementation of the Public Health Center Information System was in support of the implementation of One Health Data. Then with the PERMENKES RI Number 31 of 2019 regarding the Public Health Center information system as referred to in Article 3 paragraph 3 it can be held electronically and/or non-electronically [2].

Research conducted by Gavinov and Lestari on the Implementation of the Public Health Center Management Information System (SIMPUS) in Public Services found that user needs, development and trials of prototypes of electronic-based Public Health Center management information systems.

Users stated that they received the prototype that had been made even though there were still some deficiencies that needed to be fixed [3].

Based on initial interviews conducted with the head of the referral section for quality improvement and health

facilities at the Jayapura Regency health office, it was found that in supporting the implementation of the Public Health Center information system, the government had allocated funds from BOK funds to run the Public Health Center information system. in the recording and reporting system is from HR or the officers themselves who lack discipline in work.

Then, based on initial data from the Jayapura Regency Health Office from monitoring data in 12 months of service, specifically for reporting health effort data, it is mandatory to have 3 reporting categories, namely Green (on time), red (late) and White (not collecting) and from 6 representative Health Centers Obtained for mandatory health service efforts at Public Health Center, namely: 1). with the red category for 1 month and the Unurumguay Health Center in the green category (good). 2).

with the red category A total of 9 months, Ravenirara Community Health Center with the category red for 7 months and the Unurumguay Health Center with a red category for 3 months. 3).

The KIA program is for the Sentani Health Center with the red category for 4 months, Harapan Health Center with the red category for 9 months, Sinay Health Center with the red category for 3 months, Kanda Health Center with the red category for 6 months, Ravenirara Health Center with the red category for 3 months and Unurumguay Health Center in the red category for 2 months [4].

The Public Health Center, in particular for each program, has its own application that is connected to the Jayapura Regency health office and there are also several Public Health Center that are far away, which are tolerated for reporting because access to the health office is very far away and is usually constrained by the network [4].

Based on the problems above, the researcher is interested in analyzing how the Implementation of the Public Health Center Information System in Compulsory Health Efforts at the Public Health Center in Jayapura Regency.

2. Methods

This research is descriptive qualitative in nature, referring to the approach utilized for research methods that provide descriptive data. Descriptive data is information written in depth using words. Purposive sampling was used in conjunction with a descriptive qualitative approach method.

This research was carried out in January 2023, carried out in 6 (six) Public Health Center in Jayapura Regency, including the Sentani Public Health Center, Harapan Public Health Center, Dosay Public Health Center, Kanda Public Health Center, Unurumguay Public Health Center and Ravenirara Public Health Center.

The informants included the head of the Public Health Center (6 people), the person in charge of SIMPUS (1 person), the head of Administration (3 people), the person in charge of Nutrition (1 person), the person in charge of Health promotions (3 people), the person in charge of MCH (1 person), and the person in charge of TB (1 person) that can be seen in Table 1.

Table 1: Characteristics of Informants Based on Gender, Last Education and Position.

No	Informan	Sex	Last Education	Position
1	Informan 1	Male	S1- general medicine	Head of Harapan Public Health Center
2	Informan 2	Female	S1- general medicine	Head of Sentani Public Health Center
3	Informan 3	Male	S1-Bachelor of Public Health	Head of Kanda Public Health Center
4	Informan 4	Female	S1-Bachelor of Public Health	Head of Dosay Public Health Center
5	Informan 5	Male	S1-Bachelor of Public Health	Head of Unurumguay Public Health Center
6	Informan 6	Male	S1-Bachelor of Public Health	Head of Ravenirara Public Health Center
7	Informan 7	Male	S1-Nursing	Person in charge of Dosay Public Health Center SIMPUS
8	Informan 8	Male	SMEA	Administration of the Sentani Public Health Center
9	Informan 9	Female	D3-Midwifery	Administration of the Kanda Public Health Center
10	Informan 10	Male	S1-Bachelor of Public Health	Administration of the Kanda Public Health Center
11	Informan 11	Female	D3-Nutrition	Person in charge of Nutrition at Unurumguay Public Health Center
12	Informan 12	Female	S1-Bachelor of Public Health	Person in charge of Promkes at Unurumguay Public Health Center
13	Informan 13	Female	D3-Nutrition	Person in charge of Promkes at Dosay Public Health Center
14	Informan 14	Female	D3-Midwifery	Person in charge of MCH at Sentani Public Health Center
15	Informan 15	Female	S1-Nursing	Person in charge of TB at Kanda Public Health Center
16	Informan 16	Female	S1-Bachelor of Public Health	Person in charge of Promkes at Harapan Public Health Center

A qualitative approach to data analysis employs Thematic Analysis, which is data analysis carried out by focusing on themes that can be concluded from information obtained during in-depth interviews. Data analysis activities include data reduction, data presentation, drawing conclusions and verification.

3. Results

3.1. Input

3.1.1. Human Resources

Humans are the primary means for any management to attain the goals that must be met initially. Planning, Organizing, Actuating, Controlling, and Evaluation are some of the actions that must be completed in order to reach the objective (Evaluation). To accomplish so, we require human resources or officers in charge of the Public Health Center Information System. There were 3 questions asked to informants related to human resources, namely:

1. In running the Public Health Center information system, does the officer responsible for handling the Public Health Center information system have an educational background in IT or epidemiology, statistics? (Permenkes 31 of 2019),

2. Have the IT staff operating the Public Health Center information system received training on the Public Health Center information system (SIMPUS)?,
3. What are the obstacles faced in implementing information systems from an HR perspective?

Based on the results of the interviews from the 16 informants, it can be said that the availability of HR/IT personnel who handle the Public Health Center Information System for the Integrated Health Center Recording and Reporting System (SP2TP) is still not suitable, meaning it is held by non-IT personnel or Epidemiology, statistics and is still being handled by health workers from each program, namely bachelor of public health staff, pharmacists, nurses and midwives who are known to have no educational background in Information Systems and/or Epidemiology/Statistics. Then there is no special team provided to manage the Public Health Center Information System. There is no training for SIMPUS yet, only specifically for information systems on the use of applications such as the HIV (SIHA), TB (SITB), NUTRITION (EPPGBM), MCH (EKOHORT). They are not specific about the comprehensive SIMPUS application-based Public Health Center Information System.

3.1.2. Funding

Funds are one of the important elements in supporting the implementation of an activity. The use of these funds or money is intended, for example, for the wages or salaries of officers who carry out recording, processing and reporting. Funds or money as a means of management must be used in such a way that if the goals to be achieved are assessed by the value of the funds or money used, then the benefits obtained are greater than the funds or money used to achieve these goals. There were 2 questions asked to informants related to funding, namely:

1. Is there a special budget budgeted for the implementation of the Public Health Center information system?, a. If so, where is the source?, b. How to obtain these funds?, c. How big is it in a year?, d. If not, is it hindering the implementation of the Public Health Center information system?
2. Are there any problems/obstacles related to the SIMPUS budgeting?

According to the findings of the 16 informants' interviews, the availability of funds for running the Public Health Center Information System in Jayapura Regency is currently not included in the payment of salaries for Public Health Center Information System staff, despite the technical instructions in the Minister of Health's Decree No. 31 of 2019, which should have been budgeted for Public Health Center Information System staff. Only transportation costs at the time of reporting to the District Health Office came from Public Health Center funds which were sourced from BOK and JKN funds which were then by the policy of the head of the Public Health Center with an estimated cost of 100 thousand to 200 thousand rupiahs given to officers or staff who run the Public Health Center Information System or the person in charge of SP2TP at the end of the year close the books.

3.1.3. Facilities and infrastructure

Facilities and infrastructure are supporting materials used to carry out an activity. Facilities and infrastructure in an information system can be in the form of good data. Among other things, starting from software and

hardware such as applications, computers, printers, paper, pens, rulers and others. Complete facilities and infrastructure support smooth running of a program and vice versa. If inadequate facilities and infrastructure are needed, it will hamper the sustainability of a program. There were 4 questions asked to informants related to facilities and infrastructure, namely:

1. What facilities do you currently have to support the implementation of the Public Health Center information system?, a. Hardware, Software?, b. Computer specifications?, c. Stationery, etc?
2. What is your opinion about the adequacy and suitability of these facilities?
3. What is the condition of the SIMPUS implementation facilities?, a. Good/damaged, modern/outdated?, b. If it is damaged, how to solve the problem?
4. Are there any obstacles that you feel related to supporting facilities in SIMPUS activities?

Based on the results of the interview from the 16 informants, it can be concluded that the completeness of facilities and infrastructure in running the Public Health Center Information System is currently still inadequate so that officers in recording must borrow from each other and the SIMPUS application as a whole has not been implemented because there is no special training and requires special specifications regarding the application of SIMPUS, but there are several applications that have been implemented for mandatory health programs such as HIV (SIHA), TB (SITB), NUTRITION (EPPGBM), KIA (ECOHORT) and apart from that they are still manual, such as LB1, LB4, Public Health Center basic data reports and program reports.

3.1.4. Method

The method is a work procedure that speeds up the organization's work. Implementation of a program: If there is no method as a reference, there is a significant risk of misperceptions arising during program implementation, hence the method in a program is highly crucial. Three questions about method were posed to informants:

1. Are there any guidelines or procedures regarding procedures for implementing SIMPUS?
2. What do you think about the HR that carries out the method/procedures for implementing SIMPUS? Is it easy to understand (self-explanatory)?
3. Are there any obstacles that you feel in understanding the existing methods or procedures for implementing SIMPUS?

Based on the results of interviews with 16 informants, it can be seen that the method for running the Public Health Center Information System in recording and reporting for mandatory health programs already exists, namely manual and application-based, including those based on applications such as HIV (SIHA), TB (SITB), NUTRITION (EPPGBM), and MCH (COHORT) and the manual in the Health Promotion Program and the Environmental Health Program.

3.2. Information System Process

3.2.1. Recording

Activities or the process of documenting an activity in the form of writing on paper, computer files, applications

with written illustrations, graphics, pictures, and sounds that are carried out at the Public Health Center to support the implementation of the program according to the plan. There were 4 questions asked to informants related to recording, namely:

1. Is the recording process application-based or still manual?
2. How is the recording process through the Public Health Center information system run by the Public Health Center?
3. Is the number of IT personnel involved in recording activities through the Jayapura District health center information system (SIMPUS) sufficient?
4. What are the obstacles faced by the Public Health Center and what are the solutions?

Based on the findings of the 16 informants' interviews, it was discovered that the Public Health Center's recording was divided into two categories: application-based and some that were still manual, such as basic data reports for the Public Health Center, LB1, LB4, and the person in charge of the program, which sometimes causes delays in submitting reports to SP2TP officers.

3.2.2. Processing

Processing is carried out by the Public Health Center in producing good data and reports, so that it can support the achievement of goals in the Public Health Center Information System. Processing of recorded data is both manual and application in nature for the availability of reports from each program which will then become the basis for decision making at the Public Health Center. There were 4 questions asked to informants related to processing, namely:

1. What is the process of data processing for mandatory health service efforts through the Public Health Center information system run by the Public Health Center (archiving)?
2. Is the processing of data on mandatory health service efforts at the Public Health Center already digital-based (application) or is it still manual?
3. What applications are used by each program in processing data on mandatory health service efforts at Public Health Center?
4. What obstacles are faced and what are the solutions?

Based on the results of the interview above the 16 informants, it can be seen that the processing is still carried out by each person in charge and is done manually and also applications such as reports on basic data for Public Health Center, LB1, LB4, health promotion and environmental health and also some are recorded manually and then input into the computer by each person in charge of the program, some are recorded directly reported by the Ministry through applications such as the HIV (SIHA), TB (SITB), NUTRITION (EPPGBM) and MCH (COHORT) programs.

3.2.3. Reporting

A process or way of reporting data on an integrated health center recording system. Integrated reporting of the

Public Health Center uses the calendar year, namely from January to December activities and reporting of general data, facilities, personnel, and health service efforts in the community from the Public Health Center to the district Health Office. There were 4 questions asked to informants related to reporting, namely:

1. What is the process for reporting data on health service efforts through the Public Health Center information system run by the Public Health Center?
2. Is the reporting to the health department timely?
3. Is the Public Health Center reporting digital based (application) or is it still manual?
4. What obstacles are faced and what are the solutions?

According to the findings of the interviews, the Public Health Center in reporting for health efforts must be submitted on time, namely the fifth of the following month, but there are several Public Health Center that are late, due to delays from the Program Manager submitting it to the SP2TP person in charge, and this reporting is application-based and manual, such as basic data reports. Public Health Center, yearly data, LB1, LB4, and reports on health promotion programs and environmental health for people who utilized the HIV (SIHA), TB (SITB), NUTRITION (EPPGBM), and MCH (COHORT) applications that were directly reported to the Ministry of Health.

3.2.4. Output/ Report Results

The output or final result of the report generated by the Public Health Center in this case is how the Public Health Center utilizes the Public Health Center Information System both application-based and manual to provide data and information which will then be used to support the management of the Public Health Center as seen from the quality, completeness and timeliness of the preparation of Public Health Center reports and reporting Health program data at the Public Health Center. There were 4 questions asked to informants related to output/report results, namely:

1. What is the quality of the data, especially for the mandatory health efforts produced?
2. What is the completeness of the data on mandatory health efforts at the Public Health Center that are reported?
3. Is the accuracy of the report to the health office from the Public Health Center according to the time specified?
4. Obstacles faced and how to solve them?

Based on the results of the interviews, it can be seen that the Public Health Center from the output/results element in producing reports is still late but can be accounted for according to real conditions or facts in the field and has been fully reported despite the delays, as evidenced by a health office survey to the Public Health Center and also during the Jayapura Regency Health Office Work Meeting.

4. Discussion

4.1. Information System Input/Input Stage

4.1.1. Human Resources

It is well known that human resources at the Public Health Center, particularly IT staff/Information System staff, do not yet have the necessary information system competence to run the SIMPUS application-based Public Health Center Information System, which is primarily held by nurses, health promotion staff, and midwives. This is due to a shortage of HR in the IT area, statistics, and epidemiology, therefore the Public Health Center was obliged to delegate duty to the Public Health Center officers.

Based on the rules as an officer who runs the Public Health Center information system, in addition to educational background, it must also be accompanied by work experience in the Public Health Center Information System field.

In article 24 of Law no. 36 of 2009 concerning health emphasizes that human resources, especially in the health sector, must comply with the provisions of the code of ethics, professional standards, the rights of users of health services, service standards and standard operating procedures. Furthermore, the health law emphasizes that in carrying out their duties they are obliged to develop and improve their knowledge and skills.

Based on the results of previous research at the Gatak Public Health Center, Sukoharjo Regency, it was found that there was a lack of competent human resources in the IT field, not all officers understood the use of SIMPUS [5].

Regulation of the Minister of Health of the Republic of Indonesia Number 31 of 2019 Concerning Health Center Information Systems Article 28 states that the Health Center Information System is managed by a Management Team chaired by the official in charge of the administration of the Health Center. The Management Team as referred to in paragraph (1) is formed by the Head of the Public Health Center. Members of the Management Team as referred to are at least 2 (two) people consisting of: a. non-health workers who have information system competence; and b. health workers who have epidemiological or statistical competence.

4.1.2. Funding

It is known that the funds used to operate the Public Health Center Information System do not exist, only for transportation and payment for SP2TP officers every month in delivering reports after closing the book comes from BOK and JKN funds, as an internal Public Health Center policy that must provide rewards. The funds that should have been used to support the implementation of the Public Health Center Information System starting from the process of recording, processing, reporting to the output/results of reports either electronically (applications, computers) or non-electronic for the availability of data and information at the Public Health Center did not exist.

Funding for the development of the Public Health Center Information System includes funding for building the system, procuring equipment, developing management staff, and other related activities. Operational funding for the implementation of the Public Health Center Information System includes funding for the provision of data and information on recording and reporting of Public Health Center activities and its network, recording and reporting of Public Health Center finances and its network, field surveys, related cross-sector reports, and reports on the Public Health Center network in its working areas and their utilization.

Based on the results of previous research regarding the evaluation of the Public Health Center Information System in Sleman regency, it was found that in the implementation of the Public Health Center Information System it was also necessary to pay attention to the supporting factors for the success of the information system, namely the availability of sufficient budget, thus the information system could run properly [6].

4.1.3. Facilities and infrastructure

In this scenario, the Public Health Center' facilities and infrastructure, including software and hardware, to enable the Public Health Center Information System's implementation are recognized to be inadequate.

It is known that the implementation of the Public Health Center Information System should be supported by other than human resources and funds, also supported by sufficient/adequate facilities and infrastructure so that in the process of recording and reporting the information system can be carried out properly electronically and non-electronically.

Previous research on the evaluation of the Public Health Center Information System in Sleman district discovered that it is also necessary to pay attention to the supporting factors for the success of the information system, namely the availability of adequate facilities and infrastructure, so that the information system can run properly [6].

Based on the Decree of the Minister of Health No. 31 of 2019 concerning the Public Health Center Information System in Article (30) Each Public Health Center must have the facilities and infrastructure for the Public Health Center Information System available. The facilities and infrastructure as referred to in paragraph (1) include recording and reporting instruments, computers and their supporting devices. For Public Health Center that implement an electronic Public Health Center Information System, they must have an application, an internet network, and a local network (LAN). The application as referred to in paragraph (3) at least conforms to the format standard for the Public Health Center Information System as stipulated in this Ministerial Regulation. Applications in the Public Health Center Information System must be interconnected between programs and integrated in the national health information system.

4.1.4. Method

Some of the methodologies used to run the Public Health Center Information System have been used to HIV (SIHA), TB (SITB), NUTRITION (EPPPGBM), and MCH (COHORT) programs. However, the Public Health Center has not yet deployed the SIMPUS application, thus all programs, beginning with basic data and progressing to program data, are still manual, both in the recording process and reporting to the Jayapura District Health Office.

Based on the decision of the Minister of Health No. 31 of 2019 concerning Public Health Center Information Systems Article 3 Each Public Health Center is required to organize a Public Health Center Information System. The Public Health Center Information System as referred to in paragraph (1) is part of the district/city health information system. The Public Health Center Information System as intended can be implemented

electronically and/or non-electronically. Applications in the Public Health Center Information System must be interconnected between programs and integrated in the national health information system.

Previous research at the Tamamaung Public Health Center in Makassar City on the study's findings revealed that SIMPUS implementation at the Tamamaung Public Health Center in Makassar City was still not ideal. The late collection of data by the program holder to the officer responsible for SIMPUS had an influence on data processing, notably the processed data was late, and the information provided was likewise late [7].

Because of the aforementioned issues, the public health center has not yet to fully integrate the SIMPUS application at the Jayapura District Health Office's regional health centers.

4.2. Information System Process Stage

4.2.1. Recording

There are people who have utilized the application and those who continue to use the manual. Based on Minister of Health Decision No. 31 of 2019 Concerning Public Health Center Information Systems 3rd Article Each Public Health Center must set up a Public Health Center Information System. Article 16 Each Public Health Center is expected to keep financial records and report on them. Financial recording and reporting, as defined in paragraph (1), is done in compliance with financial accounting standards and the rules of applicable laws and regulations. The Public Health Center Information System can be deployed electronically or non-electronically, as desired.

Recording is an activity or process of documenting an activity in the form of writing on paper, computer files with written illustrations, graphics, pictures, and sound. Based on the findings at the Public Health Center, the Public Health Center had already carried out the recording process both manually and also by application in several programs.

4.2.2. Processing

Processing of the Public Health Center Information System for mandatory health care in the Public Health Center Integrated Registration System (SP2TP) has been carried out by each program manager, but not all of them are application-based and some are still manual, causing delays in reporting times when compared to data processing for the application is easier than manual, that is, the recorded data is quickly known, the percentage of achievements is immediately known rather than the manual. Processing at the Public Health Center is required in order to offer comprehensive and accurate data and information for making future choices and planning.

Based on earlier study conducted at the Demak Regency Health Center, patient data processing is critical because it may give a variety of benefits and conveniences in patient care, such as faster service, more accurate information, faster data retrieval, faster reporting, and consistency of the Public Health Center Management Information System [8].

Based on the results of the interview above, it can be said that the processing of the Public Health Center Information System has been carried out, namely by application for several programs and there is also processing manually and using a computer to recap all data into one.

4.2.3. Reporting

The reporting process that has been carried out by the Public Health Center can be said to be good, although there are some obstacles such as network and electricity and some are still manual in nature, namely officers delivering printed reports to the District Health Office every month before the 5th of the following month. This has an impact on the timeliness of reporting, sometimes some are late but still reported and There are several programs that specifically use applications from ministries such as HIV (SIHA) and TB (SITB). Thus the Public Health Center has run a reporting system well to the Health Center non-electronic and electronic, even though there are delays in reporting. Then the constraints in using the application by each program are experienced by Public Health Centers that are far from urban areas such as the Ravenirara Public Health Center, Unurumguay, Kanda and Dosay experienced the same problem, namely in terms of difficult network access so that officers in inputting data had to go down to the city to be able to get a network and input reports.

Article (8) of the Minister of Health's directive No. 31 of 2019 about the Public Health Center Information System states that each Head of the Public Health Center shall make frequent reports on the Public Health Center' actions to the Head of the District/City Health Service.

The report in question is based on the documentation of activities and outcomes at the Public Health Center and the Public Health Center network. Reports are divided into two types: basic data reports and program data reports. Every year, basic data reports are generated, and program data reports are generated both often and infrequently.

In accordance with the problems above where the Public Health Center has properly reported using applications on certain programs and also manually to the District Health Office.

4.2.4. Output/Result report

Until now, the Public Health Center has not implemented the SIMPUS application as a whole for all programs so there are still reports that are recorded manually and will be inputted to a computer which will then be compiled as a Public Health Center report. It is difficult for officers to summarize the data into one and then constrained when evaluating, but in terms of quality and completeness of the data the Public Health Center can be held accountable for the results of reports during health service surveys and working meetings with the district health office Jayapura. Based on the decision of the Minister of Health No. 31 of 2019 concerning the Public Health Center Information System Article 21, Data and information from the implementation of the Public Health Center Information System must be utilized by the Public Health Center to: a. support the management of the Public Health Center, which includes planning, driving implementation, supervision, control, and evaluating the performance of the Public Health Center; b.

monitoring for outbreak detection; c. monitoring of health problems; d. compilation of health center profiles; and e. reporting of health program data organized through data communication.

Data and information from the implementation of the Public Health Center Information System must be utilized by the district/city Regional Health Office for: a. conduct technical guidance in an integrated manner between health programs implemented at the Public Health Center; b. formulate planning, supervision and control of health development at the district/city regional government level; and c. submit reports in stages in accordance with the provisions of the legislation. Based on the decision of the minister of health, it was also explained that Public Health Center must utilize the Public Health Center Information System, both electronic (application) and non-electronic (manual) based.

5. Conclusion

From the results of the research and discussion above the researcher can provide the following conclusions:

In general, the Public Health Center Information System is still not optimal, this can be seen from the following reasons:

- a. It is known that the human resources running the Public Health Center information system do not have competence in the field of IT / Public Health Center information systems or statistics or epidemiologies, and are nurses, health promotion, midwives resulting in double work.
- b. There are no funds devoted to financing the implementation of the Public Health Center Information System, both the facilities (software and hardware) are not adequate in their entirety and there is no budget for IT / SIMPUS staff.
- c. So far, the facilities and infrastructure have been fulfilled, but not completely at the Public Health Center, only a few Public Health Center in terms of hardware facilities but the software is not adequate and there are problems in the network for the use of application-based information systems.
- d. The Public Health Center Information System method already uses an application, but it is not comprehensive, so there is still a manual process for recording, processing and reporting to the health office.
- e. Recording is done manually and also by application by health workers in each program, some of which are still manual, namely daily records and then inputted into a computer or application.
- f. Processing is divided into two, namely still manual in nature such as environmental health programs and health promotion and also applications such as NUTRITION (EPPGBM), MCH (ECOHORT), HIV (SIHA), TB (SITB) programs.
- g. Reporting has not implemented the SIMPUS application, so it is not comprehensive and there are still reports that are reported manually to the District Health Office, this is an obstacle in the timeliness of reporting.
- h. The output/results of reports can be accounted for in terms of quality and completeness by means of data validation and surveys from the health office to the health centers.

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