

Technology and Development Facility Information System Integration in Improving the Integrated Recording and Reporting in the Department of Health District South Buru

Sudirman¹, Alwi Muhammad Arifin², Muh Yusri Abadi², Suci Rahmadani², Muhammad Al Fajrin²

¹Lecturer of Public Health Departemen, STIKES Baramuli Pinrang, Indonesia, ²Lecturer of Department of Health Administration and Policy, Public Health Faculty, Hasanuddin University, Makassar, Indonesia

Abstract

Development of technology facilities and health information systems integration in South Buru District Health Office has not been in kelolah and developed efficiently in because of lack of budget for the management and development of health information systems. This certainly affects the declining quality of the recording and reporting of existing integrated in the Department of Health. The purpose of this study to determine the development of technology and systems integration facility health information to improve the quality of recording and reporting of data. The research is a qualitative case study approach. The location of this research in the Department of Health South Buru. This research data collection techniques using in-depth interviews, review of documents and observation. Data were analyzed using content analysis.

Keywords: *Facilities Technology, Integration, SIK, Recording and Reporting Integrated Health Service.*

Introduction

Health Information System (HIS) in Indonesia is not running optimally and have not been up to provide the necessary information in the decision making process at various levels of the health system. Health Department and Community Health Center as medical practitioners have difficulties in reporting, where data from one report from one program to the other reports of other programs have a dataset that is almost the same, things are going in because of data communication has not run optimally in other words, has not progressed information systems integration between the health department and health centers^{1,2}.

The implementation of an integrated online data communications network between the 90% of district health offices/city, the provincial health department 100%, 100% hospital centers, 100% Technical Implementation Unit of the Ministry of Health Center; The implementation of an integrated online data communication network between all district health offices/city, provincial health departments, hospitals and UPT Center with the Ministry of Health. From some of these, the government seeks to develop a health

information system in accordance with its uniqueness and characteristics, namely the development of a regional health information system through software or a website.

Recording and Reporting System includes 3 things: (1) recording, reporting, and processing; (2) analysis; and (3) utilization. Recording the results of the activities by the executor is recorded in the books of the registers that apply to each program. The data is then direkapitulasikan into SP3 reporting format that has been recorded. The output of this danpelaporan recording of data and information is a valuable and valued when using the right method and right³.

Recording and Reporting of integrated health center sent to the District Health Office or the City every month. District Health Office or State reworks health centers report and send feedback to the Provincial Health Office and the Central Health Department. Feed back to the health center must be mailed report back regularly to the clinic to be used as the evaluation of the success of the program⁴.

Materials and Method

Informant Research: Informants in this study determined the suitability and adequacy principles. The technique of taking informants in this research is purposive sampling technique. The key informant was head of the Department of Health, regular informants in this study consisted of employees of Health Office of Program, Information and Public Relations, as well as the employee portion of health information systems/operator SIK field. Additional informants in this study the related fields, operator service providers, and the community. Total informants in this study of 10 people including three key informants and 7 ordinary informants criteria inclusion on informants that members of employees/staff are informed, policy and decision makers in the Department of Health, bersedian become informants voluntarily, Employees/staff have become ASN and served more than 1 year.

Method of Collecting Data: The data collection is done by extracting data from a variety of techniques and resources to clarify information in the field. The data obtained are of primary data. Primary data was obtained by in-depth interviews (depth interview), observation and study of the document.

Data Analysis: Data obtained from the results of interviews with informants were subsequently analyzed by content analysis method. Content analysis is a technique used to analyze and understand the contents of the information.

Results

In this study wanted to see the development of technological facilities and integration of health information systems to improve the recording and unified reporting in South Buru District Health Office. Integrated recording and reporting of health information systems in South Buru district, between the health department and health centers and public hospitals.

Health Information System Management: The information you want to know is how the management, recording and reporting of health information systems in South Buru District Health Office. Based on the results of these interviews will be undertaken to key informants and informant Ordinary obtained results that the management and implementation of health information systems at the District Health Office of South Buru, Table 1.

Table 1. Characteristics of informants by Sex, Age, and Occupation.

No.	Initials	Gender	Age/Yr	Office	Information
1	HNS	P	56	Secretary Office	Key informants
2	HML	P	42	Program Head, Information and Public Relations	Key informants
3	MLS	P	50	Program Secretary, Information and Public Relations	Key informants
4	MZ	L	35	Staff/Operator	Ordinary informants
5	AL	L	36	Staff/Operator	Ordinary informants
6	ICE	P	28	staff	Ordinary informants
7	DNH	P	26	staff	Ordinary informants
8	PD	L	36	staff	Ordinary informants
9	AK	L	40	staff	Ordinary informants
10	MS	P	32	staff	Ordinary informants

Source: Primary Data, 2019

Characteristically Data are obtained regularly from the performance data, the data is operational, monthly data, annual data and data managed by SPM (Minimum

Service Standards) and hereinafter in input in the Application PCARE and PUSDATIN.

Table 2. Characteristics of Key Informants (Depth Interview)

Initials	Gender	Age/Yr	Education	Office
HNS	P	56	S2	Secretary Office
HML	P	42	S2	Program Head, Information and Public Relations
MLS	P	50	S1	Secretary of Program, Information and Public Relations

Source: Primary Data, 2019

Openness integration of health information between the Department of Health, Community Health Centers and Hospitals: Information wants to be known by researchers from the aspect of information systems integration between the health offices and health centers and hospitals, namely whether the system of health in the Health Service Opera- suda integrated with health centers and public hospitals in South Buru district, as a whole or not. From the interviews that have

been done on all informants usual in this case the staff in the areas of Program, Information and Public Relations in get the same information about the integration of health information systems between the Department of Health, health centers and hospitals are still not maximal integration of information in because of lack of internet information network in most parts of South Buru district where a major impact in the delivery of data to the maximum.

Table 3. Characteristics of Ordinary Informants

Initials	Gender	Age/Yr	Education	Office
MZ	L	35	S1	Staff/Operator
AL	L	36	S2	Staff/Operator
ICE	P	28	S1	staff
DNH	P	26	S1	staff
PD	L	36	S1	staff
AK	L	40	S1	staff
MS	P	32	S1	staff

Source: Primary Data, 2019

Based on the results interview with key informants and informant usual in this case staaf/operators know that it is still not maximal pengintegrasian information system between the Department of Health, health centers and hospitals in because of lack of facilities Internet network so that the process pelaporanm data from health centers do through the data of line and not online.

Health Information Systems Development Facility: Based on the results interview with key informants and informant unusual obtained information that, there are a lot of shortcomings in district offices rush south in terms of meeting facilities for the development of health information system especially for rural areas, there are 10 of the 12 health centers that do not have Internet network, no control room information systems, lack of human resources in the IT field so that

the information management and data communication between the Health Service and health centers be run optimally.

Discussion

Processing Information System: Based on interviews depth, field observation and study documents obtained results that the management and implementation of health information systems at the District Health Office of South Buru Characteristically Data are obtained regularly from the performance data, the data is operational, monthly data, annual data and data governance with minimum service standards and hereinafter in input in the Application PCARE and PUSDATIN. As well as the Health Information System is managed in a transparent and open and involve a variety

of stakeholders in an effort to provide information about good health and quality to the people of South Buru, even more responsibility to the Ministry of Health as a form of accountability for performance as a Servant of the State, as well as providing health care for society in particular.

As for the management of health information systems in the district rushed the south have not been able to run properly, the lack of facilities management and supporting infrastructure such information, the lack of internet connection in public health centers inland, lack proposition supporting data communications such as computers and human resources in the IT field to be a problem that can degrade the quality Recording and reporting of data between health centers and district health offices South Buru.

Problem management health information system which is able to affect the integration and management of health information systems in the Health Service and also all the health centers in South Buru district. Based on research conducted by Eko Budi Susanto⁵ conducted at the health care center Pekalongan discussing the development of health care information systems is directed towards the establishment of an information system based on mobile are able to provide accurate information and research results melahiarkan prototype design information center The health service can meet user demand, because it has some features in the integration and communication of data such as a user can view schedule information doctors, hospitalization information, the amount of blood stocks in Pekalongan and national.^{6,7}

Results were also consistent with studies carried out by Erni Rahmawati⁸. In the District Health Office Boyolali, to create a system that is able to generate information that can support the planning of drug procurement by local governments that build Planning Information System for Drug Procurement method approach, combined counts between consumption method with method of epidemiology at the Health Office Boyolali has running as expected.

Based on research conducted by M. Taufik Rachman⁹ conducted in Puskesmas Bayan where management information system is very important especially dalam to input, data storage, and can occur kerangkapan patient files. Data processing so that information becomes ineffective and inefficient. Based on the study done by

Ellyza Sinaga¹⁰ conducted in the clinic MinggirSleman, regarding the evaluation of system infromasi health in community health centers, which as one of the organization's resources, information must also be managed well, especially the management of health information systems that exist The health care center

Integration of Health Information Openness between the Department of Health, Community Health Centers and Hospitals: Based on the results interview with key informants and informant usual, in this case staaf/operator, field observation and review of documents obtained information that was not maximal pengintegrasian information system between the Department of Health, health centers and hospitals in because of the lack of internet network facilities, the absence of the Control room and SIMPUS management facilities in the clinic so that the process of reporting data from health centers do through the data offline and not online. In improving the quality of the recording and reporting of health data between health centers and the Department of Health in Health Information Systems Integration needed areas and the need to support local governments rush south. From the results obtained that the integration of health information systems have not been running well.

The study was conducted by Mohammad Arif Rasyidi¹¹, which is implemented in the health center in Environmental Health Office Pasuruan and Malang, with the development of information systems integration program, developed information systems to assist the process of reporting to the health center partners. The study was conducted by Eko Budi Susanto⁵ in the implementation of the Information System of Health Services-Based Mobile That Integrates Institutions Health Service in Pekalongan.

Based Kepmenkes No. 511⁷, The analysis of the situation and policies that have been established, then one SIKNAS development strategy is the Health Information System Integration Existing, integrated definition do not intend to turn off/unify all the existing information systems. Information systems are more efficient when combined will be united. Other information systems, integration is more in the form of development: the division of duties, responsibilities and authorities as well as the mechanisms are interconnected. This integration is expected that all the existing information system will work in an integrated and synergistic formed SIKNAS.

Health Information Systems Development

Facility: The results showed there are still many shortcomings in South Buru District Health Department in terms of meeting facilities for the development of health information systems, especially for inland areas so that the information management and data communication between the Health Service and health centers be run optimally. Required the attention of South Buru District Government to give more attention to fulfillment of the Health Information System in South Buru district.

B. Research Hendro Manik P. King¹² carried out in health facilities in the city of Pontianak, concluded that support for health development efforts in order to reach all levels of society, we need a media to inform the public about the location of the nearest health care facility and show on the route to the HCF. The same thing also disclosed from research conducted ole Hutami Laksmi Kastanti¹³ explained that the District Health Office/City can fill, modify, view, and delete data health centers in the region, where it can be done efficiently with the information supporting facilities.

Results of research conducted by KhairinaIsnawati. Peat in Banjar district health center, which is about the implementation of regional health information system states that in implementing HMIS application and Advocacy with local government expected that the installation of Banjar Regency Internet network directly to the clinic, as well as drafting of local regulations regarding everything about the online reporting¹⁴.

Conclusions

Based on the results of research and data processing is done on the development of facilities and the integration of health information systems in improving the quality of the recording and reporting of data in South Buru District Health Office. The researchers concluded that, integration of health information systems have not been going well in because of lack of communication networks supporting facilities particularly in rural areas, lack of human resources in IT and the lack of local government support.

Ethical Clearance: Taken from Hasanuddin University committee

Source of Funding: Self

Conflict of Interest: Nil

References

1. Khairina Isnawati, Eko Nugroho, Lutfan Blue. Implementation and Application of Regional Health Information System (HMIS) Generic In UPT. Peat Puskesmas Banjar district. *Journal of Information Systems for Public Health*. 2016; Vol. 1 No. 1
2. Sandu Siyoto, Anwar Mallongi, Muh Irfan Ilham, Syamsiar Russeng, Mustafa. Target Cancer Risks of Exposure to Carbon Monoxide and Plumbum among Attendants of Parking Lots in Panakkukang Mall and Panakkukang Square Makassar City. *SRP*. 2019; 10(1): 151155. doi:10.5530/srp.2019.1.28
3. Putri Andini,. Recording and Reporting System Analysis Puskesmas (SP3) with Application of PHC Karangmalang SIMPUS Semarang Tahun 2013. *Scientific Articles*. FKM Dian Nuswantoro University. Semarang.
4. Hendro P. Manik B. King, Arif B. Putra N, M. Azhar Irwansyah. Design of Web-Based Geographic Information System Health Care Facilities in Pontianak. *Journal of Education and Research Information*. 2915; Vol.1 No. 2
5. Eko Budi Susanto, Paminto Supreme Christianto, M. Faizal Kurniawan. Based Health Services Information System That Integrates Mobile Kesehatan Service Agencies Pekalongan. *Research Journal Pekalongan*. 2016; Vol. 11
6. MoHRI.. Minister of Health Decree No. 511 of 2002 on Policies and Strategies for Development of National Health Information System (SIKNAS). Jakarta. Ministry of Health of the Republic of Indonesia. 2002
7. MoH RI. Minister of Health Decree No. 837 of 2007 on the Development of Online Computer Network National Health Information System. Jakarta. Ministry of Health of the Republic of Indonesia, 2007.
8. Erni Rahmawatie, Stephen Santosa.. Drug Procurement Information System Planning In Boyolali District Health Office. *Pseudocode Journal* 2015; Vol. 2 1
9. M. Taufik Rachman, Nidya Syahida daughter, Yana Isnaini. Implementation of Information Systems Administration Health Care Improvement In Health Center Bayan. *Journal of Public Administration*. 2018; Vol. 6 1
10. Ellyza Sinaga, Carlos. Evaluation of Application of Information Systems in Sleman district health

- center. *Journal of Information Systems for Public Health*. 2016; Vol. 1 2
11. M. Arif Rasyidi, Laylat Hidayah, Praise Andayani. For Information Systems Development Unit Environmental Health Department Community Health Center in Pasuruan and Malang. *Journal of Health Management Indonesia*. 2018; vol.2, 2
 12. Hendro P. Manik B. King, Arif B. Putra N, M. Azhar Irwansyah. Design of Web-Based Geographic Information System Health Care Facilities in Pontianak. *Journal of Education and Research Information*. 2015; Vol. 1 No. 2
 13. Laksmi Hutami Kastanti, Nature Faith Satoto, Didik Eko Widiyanto. Public Service Information System Evaluation Based Health Center Website At the Ministry of Administrative Reform and Bureaucratic Reform. *Journal of Technology and Computer* 2015; Systems. Vol. 3 No. 1
 14. Endah Sri Lestari, Sutopo Patria Jati, Aris Widodo Puji. Evaluation of the Health Information System in Central Java in the Context of National Health Information Systems Strengthening. *Journal of Health Management Indonesia*. 2016; Vol. 14.