

**THE EFFECTIVENESS OF THE SIDOARJO MATERNAL NEONATAL
EMERGENCY SMS APPLICATION GATEWAY (SIMANEIS)
IN IMPROVING HEALTH SERVICES**

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ABSTRACT

In improving public services, RSUD Sidoarjo creates an innovation in health services related to referrals to mothers and babies who are at high risk by sending SMS according to a predetermined format. With the innovation of health services based on Sidoarjo Maternal Neonatal Emergency Sms Gateway (SIMANEIS), pregnant women, patients can go to the midwife, clinic and or PUSKESMAS first to get an initial diagnosis, which is then referred from the clinic or health center to the hospital through SIMANEIS so that when in the hospital can be handled immediately. However, the reality in the field is that the implementation of Si Maneis' innovation is still not effective due to the unprofessional attitude of the officers, the internet connection network that often errors and is less stable and the criticism and suggestion boxes are still not available in the MNE room. Based on these problems, the purpose of this study was to determine and describe the effectiveness of the Sidoarjo Maternal Neonatal Emergency SMS Gateway (SIMANEIS) Application in Improving Health Services. The research method used is descriptive research with a qualitative approach. Data was collected by means of observation, interviews, and documentation. Researchers used source triangulation to check the validity of research data. The research location is the Regional General Hospital (RSUD) Sidoarjo. Methods of data collection is done by using interviews, focused groups and discussion. Data analysis was carried out using qualitative analysis by Miles and Huberman (2014) consisting of four components, namely: data collection, condensation data, display data and conclusion and verifying drawings. The result of the research is that the resources and infrastructure have been effective. The number and quality of services produced in the implementation of maternal and child referral administrative services based on Sidoarjo Maternal Neonatal Emergency SMS Gateway (SIMANEIS) at the Sidoarjo Regional General Hospital is running effectively. Meanwhile, the suitability of the service results has been effective, as evidenced by the officers giving real-time action in less than 5 minutes when a patient comes without lingering in accordance with the time standard that has been set. The service procedure that must be passed is quite easy and fast to be carried out according to the SOP.

Keywords: *Effectiveness, Health care, innovation, e-government*

A. INTRODUCTION

Implementation of bureaucratic reform as an effort to make changes and updates to the government administration system which is mainly related to organization, management, and human resources and influences the services provided to the wider community (Sunarno, 2020). Reform is a process of systematic, integrated and comprehensive efforts aimed at realizing good governance (Frisdiantara & Graha, 2013). Bureaucratic reform is the hope for the community in the realization of a good bureaucracy, in particular, that can affect the fulfillment of good, effective and consistent services that can provide satisfaction for the community (Farisy & Chalid, 2020). Bureaucracy is a system for managing large organizations in order to obtain efficient, rational and effective management and play an important role in the implementation of public services (Wienarni, 2019).

Public service is an effort carried out by a person or group of people or certain institutions to provide convenient assistance to the community in order to achieve certain goals (Wakhid, 2017). Based on Law Number 25 of 2009 concerning Public Services, it is emphasized in Article 1 point 1 that public services are activities or series of activities in the framework of fulfilling service needs in accordance with statutory regulations for every citizen and resident for goods, services and/or administrative services carried out by public service providers (Law No. 25 of 2009 concerning Public Services, 2009).

The implementation of public services has various fields or types of services, such as population services, trade industry services, health services. The government issued Law Number 36 of 2009 concerning health in article 1 paragraph I explaining that health is a healthy state, both physically, mentally, spiritually and socially, which enables everyone to live a productive life socially and economically.

Health services are a series of activities provided or carried out by the government or health agencies in order to meet public health needs, which aim to achieve a degree of public health that is in accordance with the expectations of the community and the government, through effective services by health service providers at health service institutions that efficiently organized. In line with the issuance of government regulations, these were then implemented concretely by hospitals under the auspices of the government. According to Law Number 44 of 2009 concerning Hospitals, hospitals are health service institutions for the community with their own characteristics which are influenced by the development of health science, technological advances, and the socio-economic life of the community, which must be able to improve services that are more quality and affordable by the community in order to realize the highest degree of health.

The Sidoarjo Regional General Hospital is a hospital under the auspices of the Sidoarjo Regency Government. The Sidoarjo Regional General Hospital is a supporting element of the Sidoarjo Regency Government Regional Apparatus organization in assisting local governments to provide health services that are fair, quality, safe, efficient, effective, affordable and equitable for all people to obtain the highest and best health status. In order to improve and maintain the health

status of the people of Sidoarjo.

The Sidoarjo Regional General Hospital, in improving the services provided to the community, created a health service innovation called SIMANEIS (Sidoarjo Maternal and Neonatal Sms Gateway). This service is a referral for mothers and babies who are at high risk by sending SMS according to a predetermined format. This innovation is based on the Regulation of the Minister of Administrative Reform and Bureaucratic Reform of the Republic of Indonesia Number 3 of 2018 concerning Public Service Innovation Competitions within Ministries/Institutions, Regional Governments, State-Owned Enterprises, and Regional-Owned Enterprises in 2018.

With this SIMANEIS service innovation, pregnant women patients can go directly to the midwife, clinic and or PUSKESMAS for initial diagnosis, then the patient will be referred by midwives, clinics or PUSKESMAS to the hospital via SIMANEIS so that when they arrive at the hospital they can immediately treated because the hospital is ready. Recapitulation of maternal and neonatal services at the Sidoarjo Regional General Hospital for emergency patients for mothers and children to make it easier for agencies to know the number of patients referred through SIMANEIS for emergency maternal and child services, as follows:

Table 1.1 Recapitulation of Referred Maternal Patient Data Using SIMANEIS

Month /Year	2018	2019	2020
January	187	185	133
February	176	158	123
March	183	179	239
April	189	215	237
May	115	223	225
June	172	218	218
July	199	127	110
August	148	148	162
September	187	157	243
October	155	169	252
November	138	187	164
December	167	217	216
Total	2016	2183	2322

Source: Sidoarjo Regional General Hospital in 2021

Based on the data recapitulation, patients who gave birth who were referred to the SIMANEIS application in 2017 were 2016 people, in 2018 there were 2183 people and in 2019 there were 2322 people. Patients were referred from various other hospitals, such as Pasuruan Hospital, Bangil Hospital, and Mojokerto Hospital.

The problems found in the Sidoarjo Regional General Hospital in carrying out public health services are that they are less effective and wait too long and there is an incompatibility with the registration queue number in the system (Tamimi, 2017). Based on research journals (Rosyidah, 2016) it was stated that there were obstacles in the implementation of the SIMANEIS program when used, namely the existence of an internet connection network that often had errors and was less stable and there was still no box of criticism and suggestions in the MNE room. Likewise, according to (Alkano, 2016) (Tamimi, 2017) there is a response delay of more than 5 minutes due to internet and network connection problems and ignorance of the use of application- based services by officers in the MNE room (Tamimi, 2017).

Based on the above background, this paper wants to describe the innovation of health service quality, namely to find out and describe the effectiveness of the Sidoarjo Maternal Neonatal Emergency SMS Gateway (SIMANEIS) application in improving health services.

B. LITERATURE REVIEW

Effectiveness Concept Effectiveness is the use of resources, funds, facilities and infrastructure in a certain amount, consciously determined beforehand to produce a number of goods or services of a certain quality on time (Rizky Fitriyansyah et al., 2020). Meanwhile (Wulandari et al., 2020) suggests that effectiveness is an assessment made with respect to individual, group, and organizational achievements. (Lopes, 2013) says that effectiveness is a condition of the occurrence of a desired effect or effect that occurs to the extent that the level of success that can be achieved within a certain period of time is based on the expected goals in the initial planning.

Effectiveness measures

Organizational effectiveness, namely production, efficiency, satisfaction, adaptability, and development (Gibson et al., 1985) as follows 1. Production: reflects the organization's ability to produce the quantity and quality of output required by the environment. 2. Efficiency: the effectiveness criterion refers to a measure of the use of scarce resources by the organization. 3. Efficiency: comparison between output and input. 4. Satisfaction: effectiveness criteria refers to the success of the organization in meeting the needs of employees or society. 5. Adaptability: effectiveness criteria that refers to the organization's response to internal and external changes. 6. Development: effectiveness criteria, development measures the responsibility of the organization in increasing its capacity and potential to develop.

According to (Strees, 1985) the general and prominent measurements of effectiveness are as follows: 1) program success; 2) target success; 3) satisfaction with the program; 4) input and output levels and 5) achievement of overall objectives. Meanwhile (Ningsih et al., 2015) Effectiveness is the use of resources, funds, facilities and infrastructure in a certain amount that is consciously determined beforehand to produce a number of goods or services of a certain quality on time. Effectiveness as a work orientation highlights four things, namely: 1) The resources, funds, facilities and infrastructure that can be used have

been determined and limited; 2) The quantity and quality of goods or services to be produced have been determined; 3) The time limit for producing the goods or services has been set. 4) The procedures that must be followed to complete the task have been formulated.

Public Service Concept

Kurniawan, (2017) said that public service is the provision of services by the government, the private sector, on behalf of the government or private parties to the community, with or without payment to meet the needs of the community. According to (Rizky Fitriyansyah et al., 2020) community service is an effort made by a person, group of people or certain institutions to provide convenience to the community in achieving its goals. Based on Law Number 25 of 2009 concerning Public Services in Article 1, point 1, it is stated that public services are a series of activities to fulfill service needs in accordance with laws and regulations for every citizen and resident of goods, services and/or administrative services provided by public service providers.

Principles of Public Service

In accordance with the Decree of the Minister for Empowerment of State Apparatus No. 63 of 2004, to be able to provide satisfactory services to the community, service delivery must meet the following service principles: a) Transparency: Open, easily accessible to all parties in need, easy to understand and adequately provided; b) Accountability: Can be accounted for in accordance with the applicable laws and regulations; c) Conditional: In accordance with the conditions and capabilities of the service provider or recipient adhering to the principles of efficiency and effectiveness; d) Participatory: Encouraging community participation in the implementation of public services based on the aspirations, needs and expectations of the community; e) Equality of Rights: Non-discriminatory in terms of ethnicity, race, religion, class, gender, and economic status and f) Balance of Rights and Obligations: Both providers and recipients of public services must fulfill the rights and obligations of each party.

The concept of E-Government

Mensah et al., (2020) argues that E-Government is about bringing government to the internet world, and working in the internet. (Twizeyimana & Andersson, 2019) E-Government is a government administration system utilizing information and communication technology related to Public Services (Kurniawan, 2017) providing services to the community.

Relationship Type E – Government to services

According to (Indrajit, 2016) explains the four types of E - Government relationships as follows: 1. Government To Citizens: the most common e-Government application, the government builds and implements various information technology portfolios with the main objective of improving interaction relations with the community. 2. Government To Business: forming a conducive business environment so that the wheels of a country's economy can run well. 3. Government To Governments: the need for government-to-government interaction every day to facilitate cooperation between countries and cooperation between state entities. 4. Government To Employees: to improve the performance and welfare of civil servants or government employees who work in

a number of institutions as community servants.

SIMANEIS Concept

Sidoarjo Maternal Neonatal Emergency SMS Gateway (SIMANEIS) is a referral for mothers and babies who are at high risk by using an SMS facility that has been registered according to the format to number 0811 3550 444. This referral is a breakthrough created by the Sidoarjo Regional General Hospital which aims to speed up the data exchange process and information and communication in maternal and neonatal emergency referrals between midwives, clinics, health centers, and hospitals.

C. METHODS

This type of research is descriptive using qualitative methods. The purpose of this study was to determine the effectiveness of the Sidoarjo Maternal Neonatal Emergency SMS Gateway (SIMANEIS) application in improving health services and what factors influence the effectiveness of these health services. The location of the research was carried out at the Sidoarjo Regional General Hospital, based on the award received by the Sidoarjo Regional General Hospital, namely the title of Top 99 Public Service Innovations in 2016, thanks to the Sidoarjo Maternal Neonatal SMS Gateway (SIMANEIS) innovation in the East Java province public service innovation competition.

This study uses 4 focuses to measure the effectiveness of the Sidoarjo Maternal Neonatal Emergency SMS Gateway (SIMANEIS) Application in Improving Health Services, namely: 1) Effectiveness of Market Resources and Facilities a) The target of resource focus is: the effectiveness of human resources in the form of readiness and speed of health care workers in handling patients who have been referred to using SIMANEIS based on established procedures, in addition to the ability that health care workers must have provide information quickly related to reference information. b) Facilities and infrastructure focus targets: to find out the operational need for Information Technology (IT) in supporting the performance of SIMANEIS referral services, public complaints facilities related to the fulfillment of these referral services, and adequate service places such as patient beds, patient waiting rooms, toilets, air conditioners. 2) The effectiveness of the number and quality of services produced. The target of this focus: to find out the number of maternal patients who were referred using SIMANEIS. For the quality of service produced, namely the speed of officers in providing services and handling patients, as well as patient satisfaction. 3) The effectiveness of the time limit for producing goods or services. The target of this focus is to find out the time limit related to SIMANEIS-based maternal and child referral administration services that have been determined based on standard operating procedures to serve the community or patients in serving mothers giving birth. 4) The effectiveness of the service procedures that must be taken. The target of this focus is to know the service procedures that must be followed in relation to the procedures for the SIMANEIS-based maternal and child referral administration services.

Service procedures consist of clear and easy service procedures and service requirements. This type of research data is Sugiyono (2018: 225), namely Primary

Data which is carried out directly through observations and interviews with patients and health workers at the Sidoarjo Regional General Hospital; Secondary data in the form of documents, reports and other archives that have relevance to the research. Data collection techniques were carried out by observation, interviews and documentation. The data analysis method used by (Miles, M.B, Huberman, A.M, and Saldana, 2014) is through data collection, data display, data condensation and conclusion.

D. EXPLANATION

Resources and Infrastructure

a. Resource

Based on the results of research through interviews that have been carried out with several informants, it can be said that the ability of human resources (officers) in providing referral administrative services to patients has responded quickly and well, so patients do not have to wait long to be handled by officers. Nurses are able to respond in real time through SIMANEIS and provide information about the patient's condition clearly and patiently. The officers are neat and don't overdo their duties in dealing with patients. This is in accordance with the opinion (Maulidyah et al., 2019) that human resources are a formal system designed in an organization to ensure the effective and efficient use of human talent to achieve the goals of an organization (Megantoro, 2019). Human resources play an active role in order to see how far the services provided can run in accordance with the objectives of the service.

b. Facilities and infrastructure

The results showed that the facilities and infrastructure were effective because, according to the specified standard operating procedures (computers, patient beds, air conditioners, patient waiting areas, patient toilets), all were in good and good condition and were in accordance with the standard facilities specified in the standard hospital service. However, there are still people who do not know about the existence of a complaint facility in the form of a number or through the website of the Sidoarjo Regional General Hospital. This is in line with what was conveyed (Candra et al., 2018) striving for hospital facilities and infrastructure to always be in good condition and usable to ensure the quality and continuity of health services.

Quantity and Quality of Goods or Services that must be produced

Based on the results of interviews, it was found that the number and quality of services produced in the implementation of maternal and child referral administration services based on Sidoarjo Maternal Neonatal Emergency SMS Gateway (SIMANEIS) at the Sidoarjo Regional General Hospital run effectively, because even though the number of patients referred through SIMANEIS did not affect the speed of delivery, and responsiveness in serving and handling patients so as not to cause queues for patients to be treated. The amount and quality of existing resources must be carried out based on service standards that have been set in a balanced and sustainable manner. So that it is expected to be able to improve the quality of services provided to the community optimally. (BASHIROH, 2017).

Defined Time Limit

Based on the results of the interview, it can be explained that the appropriate time for service results has been effectively proven by the officers giving real-time action in less than 5 minutes when there are patients who come without lingering in accordance with the time standard that has been set. The implementation of services can be said to be effective if the services provided to the community are in accordance with the predetermined time standards (Enitasari & Hertati, 2019).

Procedures to be taken

The results of the interview revealed that the service procedures that must be passed are quite easy and fast to carry out. Based on the patients referred to through SIMANEIS, it has been effective. The patient only prepares the requirements and will be taken care of entirely by the midwife or clinic officer through SIMANEIS via SMS to be referred to the Sidoarjo Hospital and immediately received and handled properly and maximally by Maternal Neonatal (MNE) officers. With regular and orderly procedures that are adapted to the Standard Operating Procedures (SOP), public services become optimal (Ripriyanti & Hidayati, 2021).

E. CONCLUSION

Based on the observations and research results as presented above, it can be concluded that the resources and infrastructure are effective because they comply with the specified standard operating procedures, but there are still people who do not know about the existence of a complaint facility in the form of a number or through the website of the Sidoarjo Regional General Hospital.

The number and quality of services produced in the implementation of maternal and child referral administrative services based on Sidoarjo Maternal Neonatal Emergency SMS Gateway (SIMANEIS) at the Sidoarjo Regional General Hospital is running effectively. Meanwhile, the suitability of the service results has been effective, as evidenced by the officer giving real-time action in less than 5 minutes when a patient comes without lingering in accordance with the time standard that has been set. The service procedure that must be passed is quite easy and fast to be carried out according to the SOP.

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