

## Research Article

# Implementation of Toddler Health Information Systems

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## Abstract

Health Information System is an integrated system that used to manage data and public information. Babahrot Health Center, has problems in the field of health information system and the health center of integrated recording and reporting system especially the system toddler health information. The purpose of this study was to determine the implementation of toddler health information system in Babahrot Health Center, Southwest Aceh District. The type of research with a qualitative approach. There are 7 informants in this study. The results showed that the human resources running about the health information system at Babahrot Public Health Center were still lacking. There is still lack of training on human resources about SIK and the budget to support implementers in running the health information system. Data management as an element of the health information process system at Babahrot Public Health Center is experiencing delays in submitting reports to SP2TP officers and to the Aceh Barat Daya District Health Office. Report Information as an Output System Element as a Basis for Decision Making at Babahrot Health Center is still incomplete, this is because there are often errors in addition or other deficiencies. Based on these results it can be concluded that the implementation of a toddler health information system at Babahrot Health Center in Southwest Aceh District has not been carried out optimally. It is suggested that the Head of Babahrot Health Center make more effort in the management function, to be more disciplined and timely in collecting data, therefore the data collected can be managed, as well as the information generated is accurate, timely, relevant and complete.

**Keywords:** Analysis, Health, Information, Systems, Toddler

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## Introduction

The information system plays important role to facilitate the management and storage of data, thus it will produce accurate and precise information. The existence of a precise and accurate information system can reduce the occurrence of unwanted errors so that it can increase the performance of a more efficient and operational speed of the agency [1]. The Health Information System is an integrated system capable of systematically managing public (government, public and private) data and information at all levels of government to support healthy development. The need for accurate data and information is increasing, but it turns out that the current information system is still unable to produce accurate, complete, and timely data [2].

The application of SIK at Public Health Center may has experienced obstacles such us the need for information that continues to grow so that it is expected that SIK must continue to be developed, in fact, the development of SIK cannot be done all the time. The problems that occur include the aspects of performance, information, and efficiency [3]. The use of data from the management information system has not been maximized because it is rarely needed in decision-making at the management level, the adequacy of information required by MCH program holders is often taken from SIP data (Puskesmas Information System) rather than data from SIM KIA [4].

Babahrot Puskesmas is one of the Puskesmas in Southwest Aceh which has problems in implementing SIK or SP2TP. Based on the results of interviews of researchers at the health center Babhrot, mentioned that the Health Information System in Puskesmas Babahrot includes admin system (management user), Counters, Poly BP / general, Poli Dental Laboratory / Radiology, Pharmacy, Poly KIA, Activities Outside Building / SME Corner Nutrition, services planning, management assets, and Personnel. In SIK Poli MCH and nutrition, especially toddler data, there is data redundancy (the same data) between the Babahrot Health Center data and data from Posyandu which results in ineffective and inefficient data processing. Difficulty in monitoring the nutritional status of children under five, there is a delay in submitting monthly activity reports for weighing children under five which are held every three months

## Research Methods

Research methodology used in this study is qualitative method. There were 7 (seven) key informants including: (1) Head of Public Health Centre (2) SP2TP Officer, (3) Nutrition Implementing Officer (TPG), (4) KIA Officer, and (5) Village Midwife. The data collected using questionnaire. Primary data from in-depth interviews and observations. Interviews were conducted against the informant to come to the place of residence. Observations made on the subject of the study were associated with behavior and any action or treatment that it receives.

The data was analyzed by collecting the data, the reduction of data, presentation of data as well as verification, or withdrawal of a conclusion.

## Results

### **HR analysis (SP2TP officers, KIA officers, and village midwives), as an element of an input or input system**

The analysis of human resources (SP2TP officers, KIA officers, and village midwives) as an element of the input system is the main task and function that carries out the health information system at Babahrot Health Center are SP2TP officers, namely Integrated Management of Sick Toddlers (MTBS), nutrition workers and KIA. The budget intended for the implementation of the health information system at Babahrot Health Center is in the form of transport money originating from Health Operational Costs (BOK) which is transferred directly to the health workers' accounts. Meanwhile, the facilities and infrastructure needed to support the implementation of the health information system at Babahrot Community Health Center are computers, laptops, internet networks, measuring instruments, weighing instruments, medicines, immunization drugs, and injections.

### **Analysis of data management as an element of a health information process system**

Analysis management the data as an element of the system of health information in health centers Babahrot are required to be reported through the health information system in Puskesmas Babahrot are all results recap from part of nutrition, IMCI, KIA such as the number of pregnant women, maternal neonates, Total Neonates, data- toddler data, results of weighing and immunization. Babahrot Community Health Center has certain forms or forms that are used as a reference in filling out data to be reported through the health information system. The data collection mechanism for the health information system at the Babahrot Health Center is that the Babahrot Health Center collaborates with the village midwife and village officials to collect the necessary data.

### **Analysis of report information as elements of the output system as a basis for decision making at the Babahrot community health center, Aceh Barat Daya District**

Analysis report information as an element of system output as a basis for decision making in health centers Babahrot Southwest Aceh District is system Babahrot health information in the health center is stored in a file or hard copy and the form of a flash disk (Soft copy). Data entry using a computer, according to the order name, KK number, no. BPJS. However, in the information in this report, there are still incomplete data, this is because there are still frequent errors in the addition or other deficiencies. Reports are collected every 25th at the Puskesmas while every 5th is collected at the Health Office.

### **Health information system analysis**

Analysis of the health information system at the Babahrot Community Health Center, Aceh Barat Daya District is a form of reports on the performance of under-five health guidance which is reported through the health information system at the Babahrot Health Center in the form of manuals, reports, and forms. The reporting includes growth and development monitoring, measurement of body weight, height, body circumference, KTSP questionnaire, monitoring of hearing power, vision, mental and emotional, all monitored. The targets of this information are data on pregnant women, post-partum mothers, babies and toddlers, and all other health information.

## Discussion

Most of the systems in Puskesmas Babahrot that are currently running are still manually formalized. Data on the Integrated Management of Children with Illness (IMCI), nutrition workers, and MCH are still stored in a folder and are still stored in the cupboard. Some data has been stored on a public health center computer that uses Microsoft Excel and Microsoft Office Word, including data on toddlers, pregnant women, postpartum mothers, immunization, and community Health centers drug data [5].

The implementation of SIK at Babahrot Health Center, Aceh Barat Daya District is still manual, that is, it still uses records in register books and special forms and is entered into the Health Office in hardcopy/ photocopy form. In its implementation, everything is submitted to each major program in the community health centers.

The flow of SIK at the community Health centers is referring to the statement by SIK manager of the Aceh Barat Daya District Health Officer and the Head of the Puskesmas as well as SIK officers and data collectors at the Puskesmas, namely, first, the data is collected by the village midwife, then the data is recapitulated then taken directly to the Puskesmas and recapitulated by the officer SIK at the Puskesmas and given to the Head of the Puskesmas for disposition. After the disposition, the data is taken directly by the Puskesmas officer to the Health Office. The implementation of SIK has produced up to date information because the reports are conducted monthly. However, in practice, there are no governing guidelines.

### **HR analysis (SP2TP officer, KIA officials, and village midwives), as elements of the system input or input**

Based on the results of the interview, it is known that the analysis of HR (SP2TP officers, KIA officers, and Village Midwives) as an element of the input or input system, namely the main tasks and functions that carry out the health information system at Babahrot Health Center are SP2TP officers, namely Integrated Management of Sick Toddlers (MTBS), nutrition staff and KIA. The budget intended for the implementation of the health information system at Babahrot Health Center is in the form of transport money originating from Health Operational Costs (BOK) which is transferred directly to the health workers' accounts. Meanwhile, the facilities and infrastructure needed to support the implementation of the health information system at Babahrot Community Health Center are computers, laptops, internet networks, measuring instruments, weighing instruments, medicines, immunization drugs, and injections.

So far, the monthly reports sent to the Aceh Barat Daya District Health Office have been done manually and have also been submitted in printout form. However, some health workers have not received training on the health information system (SIK) by the Aceh Barat Daya District Health Office.

### **Analysis of data management as an element of a health information process system**

Based on the results of the interview, it is known that the analysis of data management as an element of the health information process system at the Babahrot Health Center, which is what is needed to be reported through the health information system at the Babahrot Health Center is all the recap results from the nutrition, IMCI, KIA sections such as the number of pregnant women, women giving birth neonatals, number of neonates, data on toddlers, results of weighing, and immunization. Babahrot Community Health Center

has certain forms or forms that are used as a reference in filling out data to be reported through the health information system. The data collection mechanism for the health information system at Babahrot Health Center is the Babahrot Health Center in collaboration with village midwives and village officials to collect the necessary data. Furthermore, coordinating with cross-sectors and the Health Office.

There are some obstacles in data collection that will be reported through the health information system at Babahrot Health Center, namely the delay in submitting/ delivering reports to SP2TP officers. The way to overcome these obstacles is to hold cross-sector meetings, need training, need to bring in IT officers (supporting human resources), and conduct counseling and home visits.

This condition is in line with the results of research conducted by Iqbal et al. [6], which shows that the management/ implementation of SIK is not online, everything is still manual. There are no guidelines in its implementation. Data collection is carried out by each program holder and village supervisor/ village midwife.

### **Analysis of report information as elements of the output system as a basis for decision making at the Babahrot community health center, Aceh Barat Daya District**

Analysis report information as an element of system output as a basis for decision making in health centers Babahrot Southwest Aceh District is system Babahrot health information in the health center is stored in a file or hard copy and the form of a flash disk (Soft copy). Data entry using a computer, by the order of name, KK number, no. BPJS. However, in the information in this report, there are still incomplete data, this is because there are still frequent errors in the addition or other deficiencies. Reports are collected every 25th at the Puskesmas while every 5th is collected at the Health Office.

This information has benefits for the wearer. The relevance of the information for one person is different [7]. In fact, the information generated by SIK is used as one of the information in planning at the Babahrot Health Center, Babahrot District and Southwest Aceh Regency. This role is not yet visible, because the Puskesmas makes planning based more on the guidelines provided by the Health Office.

The SIK manager at the Babahrot Community Health Center, the Aceh Barat Daya District Health Office, said that the most frequent obstacle in implementing SIK was the delay in submitting reports to the Health Office. According to the Head of Puskesmas Babahrot, if monitoring is not carried out, village supervisors and program holders are usually late. Due to this delay, reports that should be examined and disposed of by the Head of the Puskesmas are often not checked, are immediately signed by the Head of the Puskesmas, and submitted to the Health Office.

### **Health information system analysis**

Analysis of the health information system at the Babahrot Community Health Center, Aceh Barat Daya District is a form of reports on the performance of under-five health coaching which is reported through the health information system at Babahrot Health Center in the form of manuals, reports and forms. The reporting includes growth and development monitoring, measurement of body weight, height, body circumference, KTSP questionnaire, monitoring of hearing power, vision, mental and emotional, all monitored. The targets of this information are data on pregnant women, post-partum mothers, babies and toddlers, and all other health information.

In processing data, the implementation of health records for pregnant women, post-partum mothers, and toddlers at the Babahrot Health Center was carried out by KIA officers at the health center [8]. The facilities needed are a register book, a recapitulation book from the MCH Handbook which is used for assessing the health status of mothers and children issued by the Ministry of Health, and a computer for data entry. This facility is appropriate because the MCH Handbook describes in detail the health of pregnant women, post-partum mothers, and toddlers. So that this facility makes it very easy for officers to determine the health status of pregnant women and is expected to be able to overcome problems or emerging risks for pregnant women and toddlers by providing early treatment [9].

The flow of data collection starts from the village to the Puskesmas on the 25th (every month), then it is collected to the community Health centers coordinator midwife before the 5th (every month). Data from all villages are recapitulated and collected at the health office before the 5th (every month). There is no written policy regarding the timing of report submission, only a collective agreement.

Data storage system / MCH reports at the health office and the Babahrot Community Health Center are stored non-electronically (archive) as well as electronically. The obstacle faced by the health office was the delay in collecting reports from several community Health centers and filling in the forms which were often not added up so that it became a burden.

### **Conclusion**

Implementation of toddler health information system in Babahrot community Health centers has not been carried out optimally because of the limitation of human resource, budgetary, facility infrastructure that supports the executive in the running health information system.

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