

Knowledge Sharing and Dissemination of Community Based Hospital System (RSBM) to Suppress the High Maternal Mortality Rate (MMR)

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ABSTRACT

The high maternal mortality rate in Indonesia is still a problem that needs serious attention from all parties. The government cannot run alone by relying on various networks of government-owned Public Health Centers and Hospitals, it needs the involvement of the private sector in suppressing this high number. In addition, it is also necessary to involve all parties who have attention to this problem, especially universities in creating various breakthroughs in various fields of science. The Community-Based Hospital System is a concept that involves all Community Health Centers, Hospitals and policy makers in viewing a map of the problems of pregnant women based on patient data that controls the Community Health Center. The results of processing patient data at the Community Health Center will be monitored by the Hospital in the cluster and if there is a problem at a particular Public Health Center, the Hospital will send a specialist doctor to come and provide consultation to the patient according to a predetermined schedule. The application of this method is expected to anticipate the reluctance of patients to come to the hospital for various reasons. The results of this research development have been tested in several Public Health Centers in Cirebon and it is hoped that the dissemination and sharing sessions at the Cimenyan Community Health Center can add insight and generate various ideas in tackling the high maternal mortality rate.

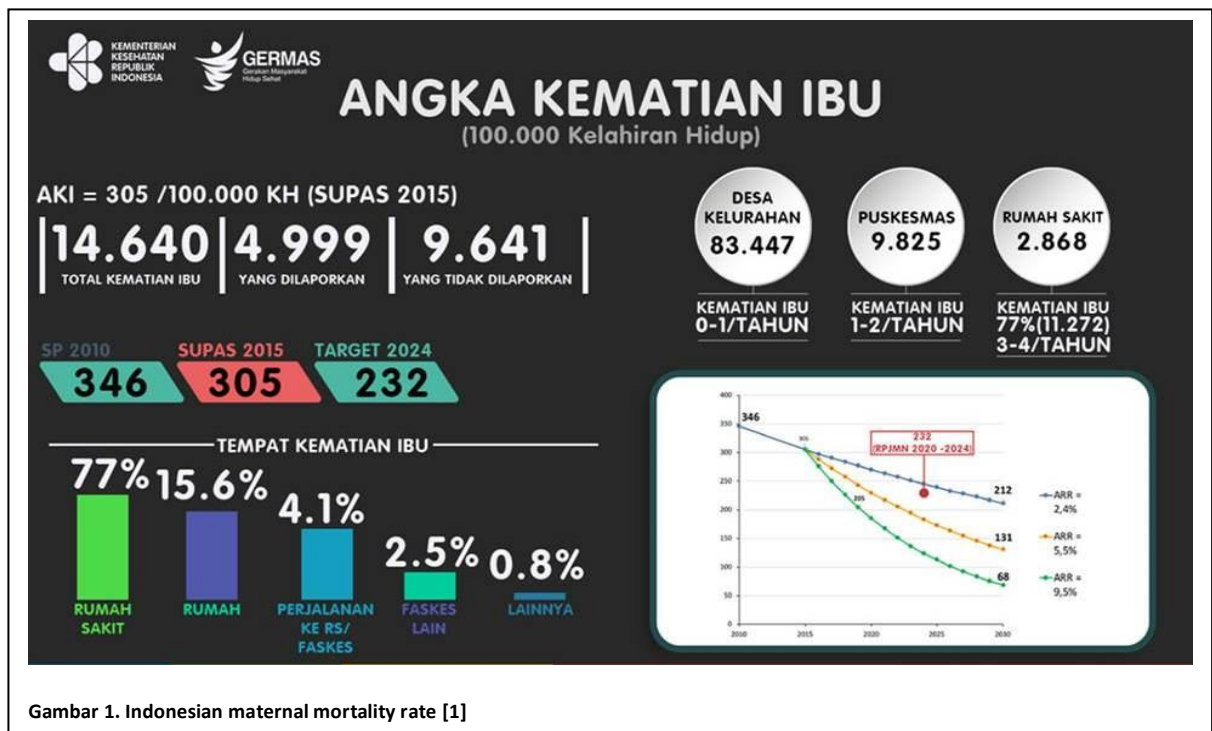
Keywords: *maternal mortality rate; Public Health Centers; Hospitals*

Introduction

Maternal mortality rate (MMR) is still a health problem in Indonesia. This problem is not only centered on certain islands, but is almost evenly distributed on every

island in Indonesia. The Intercensus Population Survey (Supas) in 2015 showed that the MMR was 305 per 100,000 population. This figure fluctuated when compared to 2007 as much as 228 while in 2012 MMR reached 359 [1].

The government is targeting a reduction in the MMR rate to 102 per 100,000 in



Gambar 1. Indonesian maternal mortality rate [1]

2015-2019. This is certainly not an easy matter, it requires cooperation with various related parties by applying various appropriate methodologies, so that these figures can become a reality. Based on the 2019 Indonesian Health Profile book [2] there are no specific figures that state the success of the Ministry of Health in achieving the MMR achievement target of 102 in the 2015-2019 period.

In Figure 1, we can see the projected MMR achievement target to be achieved by 2030. There are doubts from the government in setting the real target to be achieved, so that in the end it only sets projections based on ratios. This certainly arises because there is no innovation that can anticipate the high MMR in Indonesia.

This is certainly far from what the community expects. With a fairly high budget, the ministry of health does not have a firm enough target to achieve. The determination of this ambiguous target will result in the management process in order to suppress MMR, of course, there will be a feeling of encouragement for the Ministry of Health and its staff in the field.

This condition should require more serious attention from the government in anticipating this problem. The government needs to involve various parties from various disciplines who have attention to this problem. So that later various innovations can emerge in order to reduce AKI to a minimum.

The Community-Based Hospital System is a cloud service-based system, Software as a Service (SaaS). This concept allows Puskesmas, hospitals and policy makers in certain areas to use them directly without having to think about system development and maintenance. Each stakeholder in a certain area can have a separate account and manage their respective institutions.

Objectives

The objectives of holding community service activities at the Cimenyan Health Center are:

1. Disseminate research that has been done related to the Community-Based Hospital (RSBM) system
2. Knowledge sharing in order to anticipate the high number of MMR

Literature Review

1. Hospital

The hospital is an institution that has the duty to provide health services for the community [3]. The goals of the hospital are:

- a. Providing easy access for the community to get health services
- b. Provide protection for patient safety, community, hospital environment and human resources in hospitals.
- c. Always carry out quality improvement activities and maintain hospital service standards.
- d. In providing services to the community, always provide legal certainty to patients, the community and human resources of hospitals and hospitals.

In carrying out the various goals and tasks of the hospital, the hospital must always be guided by the main functions that must be owned by a hospital, including:

- a. The hospital provides medical treatment and recovery services in accordance with hospital service standards set by the government.
- b. Hospitals must always maintain and improve individual health through complete second and third level health services according to existing medical needs
- c. Hospitals are required to play an active role in providing education and training for human resources in order to increase their ability to provide health services.
- d. Hospitals are also required to constantly conduct research and development as well as screening technology in the health sector in order to improve health services by taking into account the ethics of science in the health sector.

2. Hospital Without Walls

Hospitals have been at the forefront of providing public health services around the world. The current traditional hospital model focuses mainly on providing on-site health services. The current diverse demands ranging from the diversity of conditions of patients who have various types of complex diseases that are often confusing make hospitals have to make various improvements to their service model[4].

The rapid development of technology today allows hospitals to carry out various integrations, collaborations, communication and sharing of information related to the patient's condition, so that it is expected to be able to take quick and appropriate action according to the patient's medical history. The development of the "Hospital Without Walls" system which is currently being carried out in various parties, must always be able to answer various aspects of the challenges that currently exist, including:

- a. a. The system is expected to support hospitals in providing care facilities for the community,
- b. The system is expected to provide services for acute diseases.
- c. The system can fulfill the aspect of community involvement in providing health services
- d. The system can provide care facilities that have a high social nature, so that costs are expected to be lower.
- e. The system can support hospitals in providing health services to the community.

f. The system is expected to provide social services, so that information on the system can be used for various needs concerning patient health services.

The application of this concept in Indonesia is carried out by conducting counseling and testing activities (KTS), medical care (PDP) and all activities in hospitals which can also provide guidance to community health centers and communities around hospitals[5] .

3. Society-Base Hospital

The concept of a Community-Based Hospital (RSBM) is a concept adopted from the Hospital Without Walls concept. The City/Regency of Cirebon is the one that stipulates this in the local regulations[6, 7].. The existence of this regional regulation encourages collaboration between hospitals and community health centers in providing health services. Especially to suppress the high maternal mortality rate in the Cirebon area.

Method

The implementation of community service activities with the title Sharing Knowledge and Dissemination of the Community-Based Hospital System (RSBM) to reduce the High Maternal Mortality Rate (MMR) is carried out with Science and Technology Simulation, with the following stages:

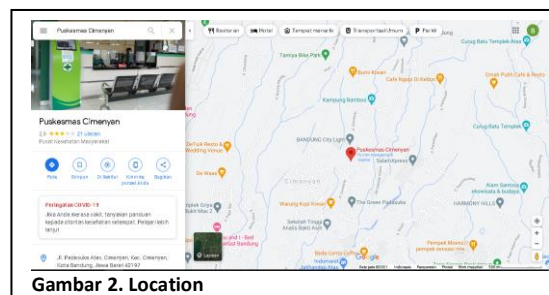
1. Listen to the presentation of the management of MMR reduction at the Cimencyan Health Center.
2. Disseminate related concepts and RSBM systems that have been developed.
3. Conducting discussions regarding various ideas that emerged in the previous discussion.

Result

The government has given a very heavy responsibility to the Puskesmas in the context of implementing various activities aimed at reducing the Maternal Mortality Rate. Puskesmas as the frontline in a certain area, are required to always carry out the procedures outlined by the service and ministry that oversees it.

1. Activity Location

The implementation of this knowledge sharing activity was carried out at the Cimencyan Health Center, Bandung Regency.



Gambar 2. Location

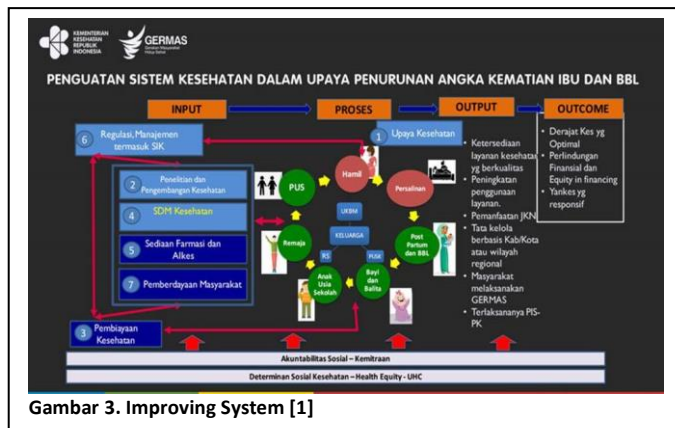
This Puskesmas is located in Bandung Regency, which does not have a policy for implementing the Community-Based Hospital concept, but has implemented various standard technologies provided by the Ministry of Health. However, for health services for pregnant women, they still use the Cohort book as well as other health centers.

1. Efforts to reduce maternal mortality at the Cimenyan Health Center

The head of the Cimenyan Community Health Center (Puskesmas) and all of his staff are committed to carrying out the programs launched by the government, including anticipating the death of pregnant women in their work area. In 2021 there was 1 death of pregnant women in their area. Related to this incident, there are steps they take, including:

a. Conduct maternal audits.

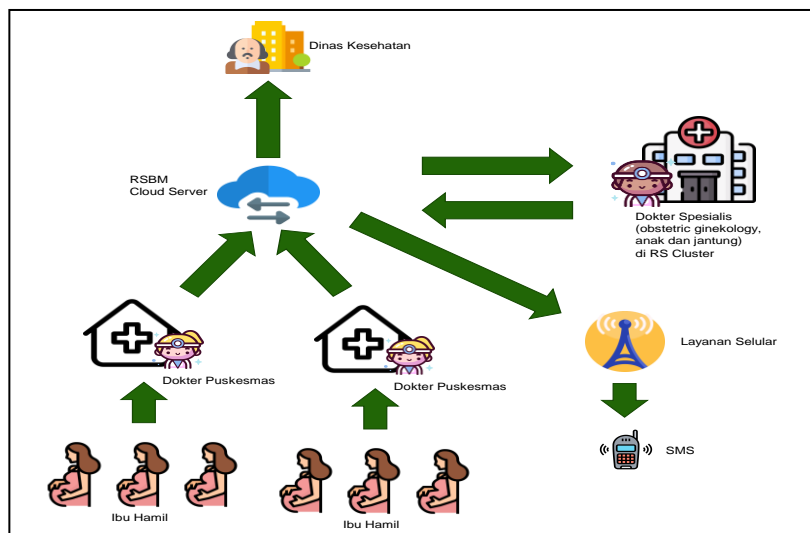
The midwife at the puskesmas conducts an audit of the midwife who handles the delivery of pregnant women. Starting from the preparations and actions that have been taken. This is to find out whether all procedures have been carried out correctly.



Gambar 3. Improving System [1]

b. Make a report to the Bandung District Health Office.

The results of the maternal audit conducted on those who handle the delivery of pregnant women will be reported to the Health Office to be used as material for study and review at the level of policy makers.



c. Make a follow-up plan to prevent the case from happening again.

The deaths of pregnant women that occurred in the Cimenyan Health Center area were caused by the following:

- I. Anemia
- II. Uterine atony (postpartum bleeding).

- III. Delay in referring patients to advanced health facilities.
- IV. Indiscipline of pregnant women in checking their pregnancy. Anemia
Pelaksanaan Kegiatan antenatal care (pemeriksaan ibu hamil)
1. Pendataan ibu hamil
Melakukan pencatatan data terkait ibu hamil yang ada di wilayah kerja.
 2. Mengadakan kelas ibu hamil di tingkat RW (sharing informasi untuk mengenal tanda2 kehamilan secara dini, mengenal tanda2 bahaya dalam kehamilan, berapa kali harus melakukan pemeriksaan di nakes)
 3. Melakukan pemeriksaan ibu hamil di posyandu ditingkat RW yang dilakukan oleh bidan desa

Terkendala zona merah covid-19

4. Petugas Prokes memberikan penyuluhan, Gizi (nutrisionist) terkait pemeriksaan anemia

2. istem Rumah Sakit Berbasis Masyarakat (RSBM)

The Community-Based Hospital System was developed through a study that refers to the relevant local regulations [6]. The research was conducted based on the desire to be able to contribute in dealing with the high maternal mortality rate in Indonesia.

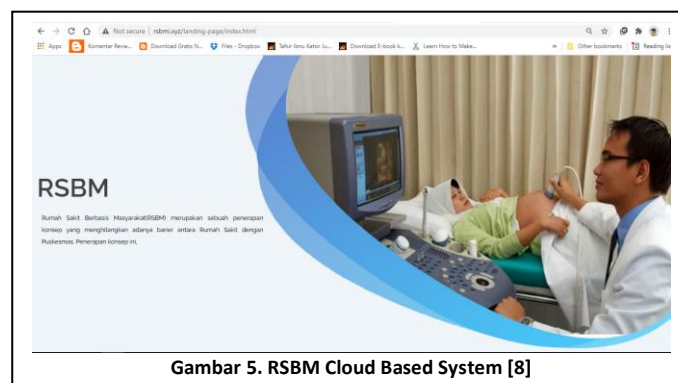
Information related to pregnant women in the coverage area of certain community health centers will be entered into the system, which is similar in concept to the information contained in the cohort book. The results of the examination of pregnant women, whether carried out at the puskesmas or affiliated midwives, will be monitored by a doctor at the puskesmas or hospital that is a referral or cluster from the puskesmas.

The results of the monitoring of the development of the health condition of pregnant women will be monitored and analyzed so that studies can be carried out. If there are patients who have a high level of risk, in certain areas, then specialist doctors (gynecology, pediatrics, and heart) will coordinate with the puskesmas to make a schedule a visit to the puskesmas, so that the puskesmas will invite patients who have a high risk to come.

Invitations can be made automatically from the system by utilizing the short message service technology or by utilizing the extension network from the posyandu at the Rukun Warga level.

The system developed is a system that uses cloud technology, so this system can be used by many health centers, hospitals and health offices throughout Indonesia. System resource requirements can be adjusted as the number of user increases, so that system performance can be maintained at the best possible condition.

Conclusion and Suggestion



Gambar 5. RSBM Cloud Based System [8]

Conclusion

After carrying out Knowledge Sharing and Dissemination activities on the Community-Based Hospital system at the Cimenyan Community Health Center (Puskesmas), Bandung Regency, and listening to the opinion of the Head of the Community Health Center, the following conclusions can be drawn:

1. Dissemination of research results on the Community-Based Hospital System (RSBM)

The research that has been done regarding the Community-Based Hospital (RSBM) system is expected to be continued and can be implemented as a form of applying appropriate technology, in participating in government programs in suppressing the high maternal mortality rate.

2. Knowledge sharing in order to anticipate the high number of MMR

The results of this sharing session have been able to provide various inputs to researchers in developing systems in the future, as a form of improving the existing system.

Suggestion

The community-based system aims to reduce the high maternal mortality rate is a system that can be a solution to be integrated into the existing system. Openness and speed of access to information are the keys to the success of this system in supporting government programs to reduce the high maternal mortality rate. This is due to the presence of accurate information related to the patient's illness, so the medical actions taken can be more targeted.

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