

# Communication Strategy in Reducing Maternal and Infant Mortality Rate in East Sumba Indonesia

Jenny Ratna Suminar, Purwanti Hadisiwi, Nindi Aristi,  
Preciosa Alnashava Janitra and Moch. Armien Syifaa Sutarjo

**Abstract---** *Maternal and child health (MCH) revolution in East Sumba Regency, East Nusa Tenggara is a health program specifically focused on both maternal and child health which is initiated to decrease the level of infant and toddler mortality rates. The program does not only focus on reducing the Maternal Mortality Rate and Infant Mortality Rate but also on the dissemination of healthy lifestyle for pregnant women, infants, toddlers and the people of East Sumba Regency in general. This research explores how the MCH Revolution program is implemented and how socialization is carried out to the community, especially where there are pregnant women and children under five years old. The data was collected by conducting interviews with the MCH Revolution program stakeholders such as pregnant women, families of pregnant women and toddlers as well as medical personnel in several health centers in East Sumba Regency. In addition, observations were also conducted in the community on several pregnant women and mothers with newborns regarding their daily lifestyle and the application of the MCH Revolution program. The results of the study state that the MCH revolution program has been carried out with various facilities provided, however, the program's socialization needs to be optimized with more appropriate communication media and better distribution of health personnel and continuous assistance.*

**Keywords---** *MCH Revolution, East Sumba, Socialization, Communication Strategy.*

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## I. INTRODUCTION

East Sumba Regency in East Nusa Tenggara Province was one of the areas noted by the National Development Planning Agency (Bappenas) in the period of 2010-2014, which showed a significant maternal and child mortality rate. The data mentioned that there were 42 mortality cases (including infant mortality and under-five mortality) in 2013 and 218 cases in 2014 [1]. This data shows a drastic increase from 2013 to 2014 which certainly worried various parties. According to the data mentioned before, it is necessary to find out what things actually contribute to the increasing of the mortality rate. Most people in East Sumba work in fields with low income level where mostly the women more often go to the fields while their husbands work as an employee or usually do odd jobs. In another side, getting married in young age (under 17 years) is usually found outside the capital of the district. This description can show the background of the health conditions of pregnant women, infants and toddlers in East Sumba.

The East Sumba Regency Government is under the coordination of the East Nusa Tenggara Provincial

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*Jenny Ratna Suminar, Department of Communication and Information, Universitas Padjadjaran, Bandung, West Java, Indonesia.  
E-mail: jenny.suminar@unpad.ac.id*

*Purwanti Hadisiwi, Department of Communication and Information, Universitas Padjadjaran, Sumedang, Indonesia.*

*Nindi Aristi, Department of Communication and Information, Universitas Padjadjaran, Sumedang, Indonesia.*

*Preciosa Alnashava Janitra, Department of Communication and Information, Universitas Padjadjaran, Sumedang, Indonesia.*

*Moch. Armien Syifaa Sutarjo, Department of Communication and Information, Universitas Padjadjaran, Sumedang, Indonesia.*

Government to launch the Maternal and Child Health (MCH) Revolution program. It is a Health Communication strategy where efforts are made to improve health services and improve access to services, strengthen the integrated quality of infant and toddler disease. In its implementation, MCH revolution faced a quite serious challenge, namely, how to reduce child mortality as stated in the Bappenas report 2015. The National Development Planning Agency announced that to deal with problems regarding the high maternal and child mortality rates was initiated to change the habits of the community, including families, especially clean and healthy living habit.

Through this MCH revolution, the government is determined to save both mothers and babies with the motto, *“Must come home healthy with their babies, without a case where any of them facing death”* The motto means that a pregnant woman, who gives a birth in a health facility, has to get good health care so then she will come home by bringing one or more babies (twins) without a case where the mother or her child or both of them do not go home (died). So, it is expected that the mother and the baby can get good treatment and health care so then both of them can be saved.

So far, the MCH revolution program has been echoed by the local government accompanied by improvements to various health support facilities such as hospitals, health centers, village birth center, and integrated health post. Not only is the improvement and quality improvement of its facilities, the government seeks to improve the human resources sector or its health personnel such as midwives, nurses and obstetricians.

As previously stated, improvements in the health supporting facilities sector have been going well but the maternal and child mortality rates in East Sumba Regency are still relatively high comparing to other regions in Indonesia. The echo of the MCH revolution program has been quite widely heard among health workers and residents, but so far the still relatively less visible and maximum is the implementation of the MCH revolution program.

## **II. LITERATURE REVIEW**

### ***Health Communication***

We cannot not communicate, an old and fundamental expression in the study of communication. The expression also applies in the health field. Communication in the health sector is gaining more attention. There are various definitions of health communication, as suggested by Rogers, health communication is all forms of communication carried out by humans where the information conveyed is related to the health sector and various factors that influence it [1]. Another definition of health communication according to The Department of Health and Human Services, health communication is communication strategies that are used to convey a message and influence a person or a group regarding health-related decision making [2].

The same thing is said in the Healthy People 2010 guidelines, health communication is the use of communication strategies to deliver messages, knowledge, behavior, and habits of a person and group related to their health [3], where health communication has a significant contribution in many aspects to prevent disease and also promote health. Health communication can be used to improve health outcomes by sharing health related information [4]. As previously stated, health communication can be a tool in efforts to prevent illness and promote a

healthy lifestyle [3]. In addition to playing a role in preventing illness and promoting healthy lifestyles, according to the National Cancer Institute, health communication plays other important roles such as Increase knowledge and awareness of a health issue, problem, or solution [5].

In the context of this research, the focus of the research is about health communication where gaining health levels for mothers and children in East Sumba Regency have not been optimal. Some experts from the health communication sector need to give some interventions to help to find a solution.

### **III. RESEARCH METHOD**

This study uses qualitative methods with a case study approach [6]. The focus of this research is to find out how the communication strategies were carried out by the East Sumba Regency government as a concrete form of government efforts to reduce maternal and child mortality rates which become very alarming in the East Sumbawa region,

Data is obtained through interviews, observation and documentation studies. In the process, the researcher uses a semi-structured interview method, where the researcher is guided by a number of questions which cover the outline of the problem where the next few questions are the result of the development of the answers given by the speakers so that the interview process runs naturally. The type of observation carried out by researchers is nonparticipant observation, where researchers only observe the behavior of a group of people or communities in scientific circumstances, and researchers are not involved in activities in the observed environment.

### **IV. RESULT AND DISCUSSION**

Health has become one of the main focuses of developing the government in the social and community welfare fields. The government has carried out various strategies to increase public participation in the health sector to achieve good health. The health status of an area can be seen from several factors such as the Maternal Mortality Rate (MMR), Infant Mortality Rate (IMR) and Under-five Mortality Rate (U5MR). According to the Ministry of Finance of the Province of East Nusa Tenggara (NTT) (2016), nationally in 2002-2003 the MMR was 307 per 100,000 live births, then decreased to 228 per 100,000 live births in 2007 [7]. Furthermore in 2010, MMR fell to 259 per 100,000 live births. Nationally, MMR shows a downward trend (positive), but at the provincial level in this case NTT province, MMR still shows quite alarming figures. In the 2004 period, NTT MMR was 554 per 100,000 live births and decreased to 306 per 100,000 live births in 2007 [4]. However, based on the results of the 2010 Population Census (SP), MMR increased to 536 per 100,000 live births.

In addition to MMR which tends to show an increase, according to data obtained from various sources such as Regional Health Research (Riskesda), Indonesian Demographic and Health Survey (IDHS) and Population Census, IMR also shows an increase (negative) (Ministry of Health, East Nusa Tenggara Province (NTT), 2016). Although nationally the IMR showed a decrease of 34 per 1,000 KH in 2007 [1], 32 per 1,000 KH in 2012, for NTT province itself there was a fluctuation in the IMR in 2007 at 57 per 1,000 live births [1], in 2010 decreased to 39 per 1,000 KH, but then increased dramatically to 45 per 1,000 live births (IDHS, 2012).

Furthermore, besides MMR and IMR, the Under-five Mortality Rate (U5MR), became one of the highlights

where nationally according to estimates (SUPAS, 1995, in the RI Health Office, 2016) in the 1993 U5MR an estimated 81 per 1,000 live births then decreased to 44.7 in 2001 (Surkesnas, 2001). Then in 2007 it fell back to 44 per 1,000 live births (IDHS, 2007), and 40 per 1,000 live births in 2012 (IDHS, 2012). Overall, in the national scope, U5MR has declined which was quite encouraging. However, this did not occur at the NTT provincial level. In 2013 there were 121 cases (1.3 per 1,000 KH), then in 2014 there were 128 cases (1 per 1000 KH), and in 2015 it increased to 178 cases (1.3 per 1000 KH), while in 2016 increased again to 189 cases (1.4 per 1000 KH).

Although nationally various data indicate that MMR, IMR and U5MR show a downward trend (positive), it turns out that at the provincial level, especially the provinces of NTT, IMR, MMR and U5MR still tend to show an increase (negative) where the most alarming area is East Sumba Regency where East Sumba Regency statistics showed total child mortality (including infant mortality and under-five mortality) in 2013 of 42 cases, while in 2014 it was 218 cases. There was a significant increase between 2013 and 2014.

### ***MCH Revolution in East Sumba***

In order to suppress IMR, MMR, and U5MR which is still quite alarming in NTT province, especially in East Sumbawa Regency, various methods have been carried out by the local government, one of them through MCH revolution. According to the NTT Governor Regulation No. 42 of 2009, MCH revolution covers all efforts that are extraordinary in order to accelerate the decline in the mortality rate of maternal and newborn. While operationally, MCH revolution means that all mothers must give birth in adequate health facilities. The adequate health facilities in question are those consisting of: 1) human resources, which include number health professional, competence and distribution 2) equipment/medical tools 3) medicines/medical supplies 4) building 5) system 6) budgeting and financing [4].

Based on data and results of research in the field, since the MCH revolution program was rolled out by the NTT provincial government, especially in East Sumba Regency, the available health facilities are sufficient. In East Sumba District, integrated health posts experienced a significant increase from 2008-2016. In 2008 there were 468 integrated health posts and in 2016 there were 550 integrated health posts [8].

The number of health facilities in the form of hospitals to integrated health posts is quite large and it supports the MCH revolution program in East Sumba Regency. Particularly, the number of integrated health posts in each sub-district shows an increase in the total number of 555 integrated health posts units in the entire East Sumba

Improvements and developments in terms of health facilities were unfortunately not followed by qualified human resources or health workers. Based on data in the field, there is a distribution of health workers consisting of doctors, midwives and other uneven distribution of the health workers especially for the number of doctors available in East Sumba Regency. The focus of the distribution is only on the capital city of the regency, namely Waingapu sub-district, with 28 doctors [8].

With the improvement in the health facilities sector, the government hopes to reduce the maternal and child mortality rate in the East Sumba Regency in accordance with the MCH revolution motto which states that every pregnant mother who comes to an available health facility is handled properly so that she can deliver safely. A

pregnant woman, who gives a birth in the health facility, has to get good health care so then she will come home by bringing one or more babies (twins) without a case where the mother or her child or both of them do not go home (died). However, to get the target, the right strategies and steps are needed.

### ***MCH Revolution Implementation Strategy***

The researcher found that information about the MCH revolution program launched by the NTT Provincial Government seemed to have been well known by the parties involved, especially medical personnel, especially in the East Sumba Regency area. However, the information they receive is only implicit and has not reached the level of effective implementation. One proof is that the existence of adequate health facilities was not followed by a decrease in the number of maternal and child deaths in the area.

Based on data, the mortality of mothers and babies in the womb, almost two-thirds of deaths were caused by direct causes, specifically bleeding (25%), infection / sepsis (15%), eclampsia (12%), unsafe abortion (13%), congestion (8%), and other direct causes such as ectopic pregnancy, embolism, and things related to anesthesia problems (8%). While the other third is caused by indirect causes, namely conditions caused by illness or other complications that existed before pregnancy or childbirth and burdens with the presence of pregnancy or childbirth, such as the presence of heart disease, hypertension, diabetes, hepatitis, anemia, malaria or AIDS (19 %). The main factor for under-five mortality in East Sumba Regency relates on malnutrition. According to BPS data in 2015 the number of malnutrition in infants and malnutrition in children under five shows a figure of 578 under-fives from the number of toddlers weighing 14980 or equal to 5.20% [8].

According to data obtained from the Directorate General of Public Health, Ministry of Health, 2017, NTT Province occupies the three lowest ranks of all provinces in Indonesia in terms of coverage of fourth antenatal visit (K4) with only reaching 51.46%. The province of NTT is also ranked in the bottom 10 in the coverage of childbirth in the health service facility with only reaching 60, 24%. One of the factors that causes a high maternal and child mortality rate and the low of health services for pregnant women and children in East Sumba Regency is a lack of knowledge of the community, especially pregnant women regarding all information relating to the period of pregnancy, labor and post-partum. Based on the results of research in the field, researchers found that the health workers in East Sumba District had several ways to convey this information to pregnant women in the area, but it seems that the implementation is still not maximal. The health workers use some tools to disseminate the information about the importance of health care for mothers and infants, such as:

### ***Class Activities of Pregnant Women***

Based on the results of research and narrative from several speakers, it is known that pregnant women get information about health and pregnancy through meetings with health workers called the class of pregnant women. This class of pregnant women lasts approximately one hour. The information provided in the class of pregnant women varies, ranging from various health information during pregnancy and postpartum including information about family planning (KB). This activity seems to be a fairly well-functioning effort, because according to the observation and interview, it was found that pregnant women trusted midwives as a source of reference for primary health information. Although it was considered quite helpful, but statistically according to the Directorate General of

Public Health, Ministry of Health of Republic of Indonesia, 2016, the Province of East Nusa Tenggara was in the lowest rank as the organizer of classes for 60 percent, 65 percent. The distance between the residential area and the class of pregnancy that is quite far may contribute to the level of interest and enthusiasm of the women to come to the place since they have to go to a heavy terrain because most of them are from hilly areas.

### ***The Maternal and Child Health (MCH) Handbook***

This research found that several speakers received information about the health of pregnant women through the MCH handbook. The MCH Handbook contains various information such as maternal health consisting of pregnant women, mothers of childbirth, postpartum mothers, family planning, maternal health records, maternal health records, postpartum mothers, and newborns, hand washing using soap, and birth information. The rest of the book contains children's health which includes newborns/ neonates, immunization records for children, children aged 29 days-6 years, fulfillment of nutritional needs and child development, health cards (KMS) and protection for children. However, the use of this MCH book is not very effective because there are still many people in the East Nusa Tenggara region, especially in East Sumba Regency who have limited reading skills and minimal educational background. According to Indonesian Education and Culture Ministry, East Nusa Tenggara is included into 11 provinces in Indonesia with the highest number of illiteracy which is 5,15 % after Papua (28,75 %), and West Nusa Tenggara (7,91%) [9]

### ***Leaflets and Brochures***

Other media used to promote the MCH revolution program are leaflets and brochures. Media leaflets and brochures also did not produce satisfactory results. Beside the common ways to disseminate the MCH revolution ideas, this research also found alternative efforts as part of communication strategy in promoting MCH revolution:

### ***Be Proactive***

As health workers, midwives, doctors or other health workers, have to be more active in visiting the homes of pregnant women regularly. Midwives and other health workers should actively record the pregnant women and their respective conditions and then provide some special markers in the homes of pregnant women in them. The sign that is used can be a flag with several different colors, each color represents how the last condition of the pregnant woman, for example, a red flag can be a sign for a woman with high risk pregnancy, while an orange indicates a pregnant woman with a relatively normal condition but needs more attention, and green for pregnant women with normal pregnancy conditions. In addition to giving signs on houses with pregnant women, every pregnant woman or her family is given a contact number of the midwife in charge who must be ready 24 hours in case of an emergency. This may be a way to have the midwives and other health workers on guard every time the 'alarm' is sounded by pregnant women.

### ***The Utilization of Audiovisual Media***

As previously stated, the use of media leaflets or brochures were not effective because the writing contents in leaflets and brochures, are poorly understood by the community, especially pregnant women. This is related to the level of literacy and the educational background of the population which is still relatively low. Based on the results

of research in the field, pregnant women tend to understand the information through form of images or visuals better. With a low educational background and literacy skills, residents or pregnant women are more interested in messages delivered through audio-visual forms that are easier to be understood.

## V. CONCLUSION

The conclusions that can be drawn from this research are:

1. Nationally MMR, IMR and U5MR show a quite encouraging decline but for East Nusa Tenggara (NTT) province, especially East Sumba Regency, the MMR, IMR and U5MR still show alarming numbers.
2. MCH revolution in NTT, especially East Sumba Regency, was already acknowledged by both health workers and pregnant women but its implementation is still far from effective.
3. Health support facilities such as hospitals, Community Health Center, Village Birth Center and Integrated Health Posts are available both in quantity and quality. However regarding health workers, the distribution is uneven and concentrated in the capital city of the regency, Waingapu.
4. The socialization of the MCH Revolution that has been carried out has not run optimally, so alternative strategies are needed to reduce maternal and child mortality, such as a proactive system where health workers regularly visit homes and record pregnant women and provide information through film media or video (audio visual).

## VI. LIMITATION AND STUDY FORWARD

MCH Revolution is a national health program which promoted by Indonesia government. However, this research only covers East Sumba area. Further research can be developed to identify the implementation of communication strategy in broader area of Indonesia. Apart from the scope of research area, the method used for this research can't identify the effectiveness of communication strategy, especially regarding the alternative media utilization to promote the ideas of MCH Revolution. Thus, further research can be conducted with quantitative method to objectively measure the effectiveness of the communication strategy implementation in promoting MCH Revolution.

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