Conference Paper

Innovations to Improve the Quality of Maternal and Child Health Services in Bantaeng Regency

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Abstract.

In Indonesia, efforts to improve the health status of mothers and children are prioritized. This is because maternal and child health problems persist as significant challenges in the health sector. In the Bantaeng regency, since 2019, there has been a decrease in the number of high-risk pregnant women, an increase in the percentage of infants who receive complete basic immunization, and a decrease in the number of toddlers with malnutrition status. This study aimed to analyze the strategies taken by the Bantaeng regency government to improve the quality of health services for mothers and children. The results showed that Bendera Saskia innovation succeeded in reducing the number of high-risk pregnant women, increasing the percentage of infants receiving basic immunization, and reducing the number of toddlers with malnutrition status, as measured by the public service indicators proposed by Levine (2015), namely responsiveness, responsibility, and accountability. The qualitative research method used included conducting observations, in-depth interviews, and document reviews. This led to the conclusion that Bendera Saskia innovation has become a strategy of the Bantaeng regency in improving the quality of health services for mothers and children. In addition, Bendera Saskia innovation can also be categorized as sustaining innovation because it can bring change and has been replicated in several other community health centers in the Bantaeng regency area.

Keywords: public innovation, service quality, sustaining innovation

1. Introduction

Reproductive health has become a global issue and received special attention internationally. This began with the International Conference on Population and Development (ICPD) in Cairo, Egypt in 1994. At that time, the paradigm of population problem management and development oriented to population control and fertility reduction then changed to a broader approach that focused on reproductive health and efforts to fulfill reproductive rights. In Indonesia, efforts to improve the health status of mothers and children are prioritized. This is because maternal and child health problems are still among the main problems in the health sector. According to UNICEF, every three
minutes somewhere in Indonesia, a child under the age of five dies. In addition, every hour a woman dies from childbirth- or pregnancy-related causes [1].

Health is very important to support the development of a country, both from the social, economic, and cultural fields. Health plays an important role in the development of Human Resources [2]. Health is also a major concern for all countries, especially developing countries that face many challenges in building a strong and reliable healthcare system [3]. Related to this, great attention has been paid to health in the Sustainable Development Goals (SDGs). One of the goals of the SDGs is to ensure healthy lives for all people of all ages and promote the well-being of all people in a country [4]. To accelerate the reduction in maternal and child mortality rates, efforts have been made to improve the quality of services and maintain the continuity of maternal health services and referral services. To date, various programs related to overcoming maternal and child health problems have been pursued. These programs focus on efforts to reduce maternal and infant mortality rates [5].

Based on its development, the maternal mortality rate (MMR) in 2015, although it has not met the SDGs target, has decreased, and the number of deliveries assisted by health workers has increased (Ministry of Health Data 2015-2019). In Bantaeng Regency, based on data from the MCH Program in 2016, it is known that 18% (percent) or 40 out of 222 mothers who still give birth are still assisted by local traditional birth attendants. Meanwhile, 13.5 number of deliveries were conducted at health facilities (approximately 30 out of 222 cases of labor). Furthermore, 12.5% (percent) of infants were not fully immunized, and there were still high cases of high-risk pregnant women and toddlers with malnutrition status.

The Bantaeng Regency Government also responded to problems and challenges with an innovation called the Bendera Saskia Program through the Sinoa Community Health Center, which is also located in the Sinoa Regency, Bantaeng Regency in South Sulawesi Province. The innovation in this public service program is the installation of flags to facilitate service officers. In its implementation, officers provide codes with six colors:

The types of flags mentioned above were attached by Hamlet Midwives and integrated service post cadres to the fences of the target houses of pregnant women, infants, and toddlers. Additionally, this innovation involves various parties in the form of cooperation to provide support. This innovation has been running since 2019, resulting in a decrease in the number of high-risk pregnant women from 70 to 20. The percentage of infants who received complete basic immunization was 94.7% (percent). Furthermore, there was also a decrease in the number of under-fives with malnutrition status, from 22
TABLE 1: Color Coding in Bendera Saskia Innovation.

<table>
<thead>
<tr>
<th>No</th>
<th>Color Code</th>
<th>Description and Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Green</td>
<td>Pregnant women aged 0-14 weeks</td>
</tr>
<tr>
<td>2</td>
<td>Blue</td>
<td>Pregnant women aged 14-28 weeks</td>
</tr>
<tr>
<td>3</td>
<td>Pink</td>
<td>Pregnant women aged 28-40 weeks</td>
</tr>
<tr>
<td>4</td>
<td>Red Dark</td>
<td>Pregnant women with high risk</td>
</tr>
<tr>
<td>5</td>
<td>Yellow</td>
<td>Infants who are not brought to the Posyandu for immunization</td>
</tr>
<tr>
<td>6</td>
<td>Purple</td>
<td>Toddlers with low nutritional status</td>
</tr>
</tbody>
</table>

Source: Bendera Saskia Handbook

to 9. This aspect of success is inseparable from the concerns of the family, community, and government regarding the health status of the MCH target.

Based on the above achievements, the database conducted by the Public Service Innovation Network (JIPP) of South Sulawesi Province included the Bendera Saskia Innovation in the Top 45 Public Service Innovations (SINOVIK) in 2020 held by KemenpanRB. The Public Service Innovation Competition conducted by KemenpanRB is based on Permenpan Number 07 of 2021 concerning Public Service Innovation Competitions within Ministries or Institutions, Regional Governments, State-Owned Enterprises, and Regional-Owned Enterprises, and Permenpan Number 91 of 2021 concerning Public Service Innovation Development. There are five indicators in these two regulations, there are 5 indicators, namely: Novelty, effectiveness, usefulness, transferability or replication, and sustainability.

The following are previous studies related to the theme of Maternal and Child Health Services.

1. Tri Rini Puji Lestari [6]. Achievement of maternal and infant health status is one of the embodiments of the success of maternal and child health programs.

   This study aimed to provide information and analyze related achievements and several factors that influence the achievement of maternal and infant health status, and hopes for the future to be better. The findings showed that the achievement of maternal and infant health status has reached the national target, but there are still several provinces whose achievements are below the national level. Geographical factors, limited facilities and infrastructure, and low support from local governments have influenced the success of the MCH program in several provinces.

The purpose of this study was to determine the implementation of the Health Service Program Policy to reduce maternal and infant mortality. In this study, which used qualitative research methods, the results showed that the economic and political environment conditions supported the health service program to reduce MMR and IMR, but for the social conditions of the community, there were still many who had low education, which hindered the success of the program. For facility resources in the form of facilities and infrastructure that are good, but need to be improved. The characteristics of the Community Health Center Sukaraja and Sukabumi Regency as implementers of the Health Service Program in order to reduce MMR and IMR are in accordance with the policy, and even in accordance with the existing problems.

3. Arif Alauddin Umar, Lukman Samboteng, and Rusman Siddiki [7]. The role of local stakeholders (Srikandi and Bendera Saskia) empowered sustainable innovation.

The study of public service innovation aims to understand and analyze the role of local stakeholders in public service innovation and the sustainability of these innovations. For the Srikandi case study, researchers concluded that supporting stakeholders has little influence and importance, but their role and support helped drive the success of the innovation program. As for the Bendera Saskia case study, the transfer of knowledge in the form of ideas/ideas of this innovation best practice has been carried out, both at the local, national, and international levels, so there is enormous potential for this innovation to be replicated, both in its original form and at the practical level. As for the best practice of Bendera Saskia, this innovation has been replicated in its original form in all community health centers within the Bantaeng Regency.

Based on several explanations related to the Urgency of Health Services for Mothers and Children mentioned above, as well as the achievement points achieved by Bendera Saskia Innovation. It is important to conduct research that attempts to analyze the Service Quality Improvement Strategy carried out by the Bantaeng Regency Government with Bendera Saskia Innovation. This case study uses three dimensions to assess a public service product proposed by Levine [8]: Responsiveness, Responsibility, and Accountability.

2. Literature Review
2.1. Definition of Innovation

The most famous definition was given by Everett M. Rogers [9] that innovation is "an idea, practice, or object that is perceived as new by an individual or another unit of adoption." This definition provides a general understanding of an innovation. Something is considered an innovation if it is an idea, practice, or object that is perceived as new by an individual or another unit of adoption. Meanwhile, Osborne and Gaebler [10], in their book entitled Reinventing Government: How The Entrepreneurial Spirit is Transforming The Public Sector, translated into Indonesian with the title re-inventing bureaucracy. Osborne and Gaebler's work reinforces the essence of the new public management school, which uses business methods to solve problems in the public sector. Martinez-Costa, Jimenez-Jimenez, Castro-del-Rosario, and Valle-Mestre [11] explain that radical innovation should be understood as a change that is completely new and completely different from what had existed before, so that it requires knowledge and technology that is very different from what already exists.

2.2. Replication in Innovation

Knowledge Management began to discuss the preparation of innovation levels, with levels starting from imitation as the lowest level, innovation as a moderate level, and creation as the highest level. Linsu Kim in his famous book Imitation to Innovation: the dynamics of Korea's technological learning provides a new picture that efforts to achieve the ability to innovate in a country are not directly achieved by jumping forward and being able to innovate but first starting from learning to imitate.

The ability to imitate, or better known as replication, refers to the ability to imitate what has been achieved by other nations that have not been owned by the nation itself. Imitation is performed by copying excellence and good things owned by others. Imitation or replication has made changes even though it is at the lowest scale of innovation. Imitation or replication is still considered to bring about changes in competence. Imitation is the foundation of innovation, and after having the ability to innovate, the possibility of building the ability to create new knowledge becomes more open [12].

2.3. Dimensions of Public Services

As a form of effort to assess the quality of public services, there are several dimensions in seeing a quality public service. Levine [8] presents three dimensions for assessing
public service products. The three dimensions are responsiveness (responsiveness or responsiveness), responsibility (responsibility or responsibility), and accountability (accountability).

### 2.4. Dimensions of Responsiveness

Levine [8] suggested that responsiveness is the responsiveness of service providers to the expectations, desires, aspirations, and demands of service users. Providing services to a community must be of high quality. Moreover, obtaining an appropriate service is the essence of society. In this increasingly advanced era, many people have become smarter and have assessed the service delivery provided by the government.

### 2.5. Responsibility Dimension

Responsibility is a measure that shows how far the process of providing public services is carried out in accordance with the principles or provisions of administration and organization that are correct and have been determined.

### 2.6. Accountability dimension

Accountability is a measure of the extent to which the service delivery process is in accordance with the interests of stakeholders and norms that develop in society.

### 3. Methods
3.1. Research Approach

This study uses a qualitative approach with a case study model. Specifically, the case examined was a public service innovation that has been implemented.

3.2. Research Design

This research was conducted in Sinoa Sub-Regency, Bantaeng Regency, South Sulawesi Province. This location was chosen based on the considerations described in the Introduction section. In addition, Bantaeng Regency, one of the Regencies of South Sulawesi, is included in one of the pilot areas of the Public Service Innovation Network (JIPP) based on the Decree of the Minister of PANRB Number 94 of 2020 concerning the Pilot of Public Service Innovation Network Hubs in Regional Governments in 2020. Based on this provision, Regency is expected to create or replicate public service innovations that have a significant impact on achieving bureaucratic reform targets and Sustainable Development Goals (SDGs).

3.3. Data Source

The primary data of the research were sourced from purposively traced Key Informants, consisting of local stakeholders who are directly involved, such as community leaders, village governments, sub-Regency governments, regional apparatus organizations, and actors/political leaders, whose development is based on the snowball method. Secondary data are in the form of innovation-related documents that can be obtained from relevant stakeholders.

3.4. Data Collection Techniques and Instruments

Based on the chosen approach, the researcher functioned as a key instrument. Data were collected through in-depth interviews, limited observations, and limited documentation.

3.5. Data Processing and Analysis Techniques

The data collected were then analyzed using the Miles and Huberman (1992) model, which consists of data reduction, data display, conclusion, and verification.
4. Results and Discussion

4.1. Identification of the 9 Actors Involved

Bendera Saskia is an innovation of the Sinoa Health Center in Bantaeng Regency, South Sulawesi. SASKIA innovation stands for One Flag One Target for Maternal and Child Health. Bendera Saskia is a marker flag for maternal and child health. This innovation received the TOP 30 Public Service Innovation award in South Sulawesi and the TOP 45 Indonesian Public Service Innovation award in 2020. Based on the results of the research observations, the author identified nine stakeholder elements involved in this innovation: the Bantaeng Regency Health Office, Sinoa Sub-Regency Head, Sinoa Health Center Health Workers, Village Head, Village Midwife, PKK Members, Community Leaders, and integrated service post cadres.

Based on the results of the research conducted, at the beginning of this innovation, there were a number of obstacles faced, such as internal constraints, in an effort to harmonize perceptions due to additional work but a fixed budget. Another form of challenge was the presence of TBA practices that still existed because they were considered a livelihood, so they considered this innovation a threat. The solution was for the innovator and government to present all TBAs with the aim of signing an agreement to prohibit childbirth witnessed by the National Army (TNI).

The Bantaeng Regency Government through the Bantaeng Regent provided legal support for the Bendera Saskia innovation program by initiating the making of a Regent Regulation related to the implementation of the Bendera Saskia innovation program. The Regent Regulation makes it possible to be implemented at the Regency level and is not limited to the Sinoa Regency Health Center. This is also in line with the Vision of Bantaeng Regency, namely, the Realization of a Prosperous Bantaeng Community Born and Inner Oriented to Progress, Justice, Sustainability, and Excellence based on Religion and Local Culture. Specifically, in mission numbers 1 and 2, namely, realizing quality human resources and improving access, equity, and quality of health and other basic social services.

This innovation was initiated by the Health Office, which provides support and helps coordinate, monitor, evaluate, and report maternal and child health programs. Based on interviews conducted with the Bantaeng Regency Health Office who said there was collaboration between the community health center, village government, midwives, community leaders, and the health office. This collaboration starts from the planning stage, the implementation of innovations, to the evaluation stage known as the "Mini
Workshop” which is held once a month internally and once every 3 months as a whole with all cross-sectors.

The Sub-District Head’s role in this innovation is the head of the region that coordinates with the village government by appealing to support the Bendera Saskia innovation, especially in budgeting village funds. Meanwhile, the Head of Sinoa Health Center is also part of the innovator, activator, and communicates with stakeholders. Based on the results of interviews conducted with the Community Health Center, so far, they have marked pregnant women but still in the form of stickers. This method is considered ineffective because it is only known by homeowners and not seen by others. Therefore, the use of this flag was considered a solution that was then named Bendera Saskia: "One Flag One Target for Maternal and Child Health."

The involvement of the Village Head is a policymaker at the village level. An important role of this innovation is the allocation of the village fund budget for the procurement of a healthy car. This facility is an effort to increase mobilization targeting pregnant women, infants, and toddlers and to socialize to the community regarding Bendera Saskia as a marker. There is also a village midwife, whose role is to provide maternal and child health services, as well as to implement the Bendera Saskia innovation. Essentially, the PKK element as a stakeholder is to provide support in the implementation of innovations by providing motivation and attention in both material and non-material forms to the target of maternal and child health. As a representative of the Community Leaders element, Bendera Saskia provides support in the form of motivation and attention both to the target of maternal and child health. Making maximum efforts to harmonize perceptions by continuing to approach other community leaders, village governments, hamlets, TNI, POLRI, Babinsa, and Babinkamtibmas. The last stakeholder is the Posyandu cadre, who plays a role in installing flags to target pregnant women, infants, and toddlers, based on previous internal coordination.

Innovation Indicators based on Permenpan Number 07 of 2021 and Permenpan Number 91 of 2021.

1. Based on the results of field research and document review, Bendera Saskia Innovation from the policy aspect was supported by the stipulation of Regent Regulation (Perbup) No. 91 of 2019. With this policy in the form of regulations, it becomes the basis for all forms of support, such as budget certainty in maternal and child health programs.

2. Effectively, this innovation has been running since 2019, resulting in a decrease in the number of high-risk pregnant women (resti) from 70 to 20. The percentage
of infants who received complete basic immunization was 94.7% (percent). Furthermore, there was a decrease in the number of toddlers with malnutrition status from 22 to 9. This aspect of success is inseparable from the concerns of the family, community, and government regarding the health status of the MCH target.

3. Benefits, based on observation and document review, several benefits have been provided by Bendera Saskia as a public service innovation: There are no more deliveries assisted by traditional birth attendants; All deliveries are carried out in health facilities both at Pustu or auxiliary public health centers, Village health centers, Community health center and Hospitals; The percentage of malnutrition can be maintained below 7% of the national target in 2024; Community concern for pregnant women is increasing, by helping to mobilize pregnant women to health facilities using private vehicles; Village government concern by budgeting village funds in the health sector; Increased community trust in the village government in an effort to bring service village.

4. Transparency and community participation, centers, and the results of further investigation found that the Bantaeng Regency Government, through Perbup No. 34 community provided a legal umbrella (Bendera) for the replication of the Bendera Saskia innovation. Based on this regulation, all head and villagers in Bantaeng Regency are required to implement Bendera Saskia and increase in the scope of their working areas. Thus, it can be said that the Bendera Saskia innovation has been replicated in its original form in all community health centers within the Bantaeng Regency. However, further research is required to explore what the implementation/replication of the Bendera Saskia innovation is similar to other community health centers/Regencies, especially since replication in the form of real practice of this innovation has just been implemented.

5. Sustainable Bendera Saskia Innovation can be categorized as Sustaining Innovation because it is able to bring significant changes to efforts to improve maternal and child health. There have been many previous efforts with the same intention, such as installing stickers as markers in people’s homes to monitor the development of maternal and fetal conditions. The presence of the Bendera Saskia Innovation as a Best Practice innovation brings further changes, which is not only effective in reducing maternal and child mortality during childbirth, reducing stunting, and so on, cumulatively contributing to improving maternal and child health, but also in shaping the environment. Bendera Saskia innovation has been replicated in 11 other areas of the Bantaeng Regency.
4.2. Dimensions of Public Services

As a form of effort to assess the quality of public services, there are several dimensions in seeing a quality public service. Levine (2015) presents three dimensions for assessing public service products. The three dimensions are as follows.

4.3. Dimensions of Responsiveness

Levine [8] suggested that responsiveness is the responsiveness of service providers to the expectations, desires, aspirations, and demands of service users. Providing services to the community must be of high quality; moreover, getting the appropriate service is the essence of society. In this increasingly advanced era, many people have become smarter and assessed the provision of services provided by the government.

Based on this dimension, the Bendera Saskia Public Service Innovation Program in Bantaeng Regency can be said to have good responsiveness. This can be seen in the successes achieved, such as the ability to reduce the number of high-risk pregnant women (resti) from 70 to 20. The percentage of infants who received complete basic immunization was 94.7% (percent). Furthermore, there was also a decrease in the number of under-fives with malnutrition status, from 22 to 9.

In addition, responsiveness is also measured through the benefits provided such as: No more deliveries assisted by traditional birth attendants; All deliveries are conducted in health facilities both in Pustu or auxiliary public health centers, Village health center, Community health center and Hospitals; The percentage of malnutrition can be maintained below 7% of the national target by 2024; Community concern for pregnant women is increasing, by helping to mobilize pregnant women to health facilities using private vehicles; Village government concern by budgeting village funds in the health sector; Increased community trust in the village government in an effort to bring service certainty.

4.4. Responsibility Dimension

Responsibility is a measure that shows how far the process of providing public services is carried out in accordance with the correct and established principles or provisions of the administration and organization.

This study found that the level of responsibility for Bendera Saskia innovation was good. This is based on the results of the research observations carried out, the author
identifies that there are 9 stakeholder elements involved in this innovation, namely: Bantaeng Regent, Bantaeng Regency Health Office, Sinoa Sub-Regency Head, Sinoa Health Center Health Workers, Village Head, Village Midwife, PKK Members, Community Leaders, and integrated service post Cadres. Active involvement in this collaboration indicates that the public service delivery process has been carried out in accordance with the principles and needs of all parties involved.

Bendera Saskia is a marker of maternal and child health. This innovation received the TOP 30 Public Service Innovation award in South Sulawesi and the TOP 45 Public Service Innovation award in Indonesia in 2020.

4.5. Accountability Dimension

Accountability is a measure of the extent to which the service delivery process is in accordance with the interests of stakeholders and norms that develop in society.

The search results in this study found that the Bantaeng Regency Government through Regent Regulation Number 34 of 2021 has provided a legal umbrella for the replication of Bendera Saskia innovation. Based on this regulation, all health centers in Bantaeng Regency are required to implement Bendera Saskia innovation within the scope of their working areas. Thus, it can be said that the Bendera Saskia innovation has been replicated in its original form in all community health centers within the Bantaeng Regency. However, further research is required to explore what the implementation/replication of the Bendera Saskia innovation is similar to other community health centers/sub-Regencys, especially since replication in the form of real practice of this innovation has just been implemented.

Thus, the Accountability Dimension proposed by Levine (2015) has been fulfilled by the existence of this regulatory policy. The indication is that if it has a legal umbrella, it is expected to fulfill the element of accountability in the implementation of Public Sector Innovation.

Barriers and Solutions

1. At the beginning of this innovation, there were obstacles in the form of local people's beliefs that did not want to be given a flag at home. This is related to local beliefs that there are risks associated with supernatural creature/demons if given a sign of pregnant women or babies. This obstacle is certainly a challenge for innovations that use flag technology as the main instrument. As an innovator, the government tries to involve religious elements, in this case the Indonesian
Ulema Council (MUI) of Bantaeng Regency, community leaders, TNI, and POLRI, as security elements.

2. Unclear financial factors were a challenge at the beginning of this innovation’s implementation. At the beginning, it was still difficult because it had not received budget support; however, this challenge was answered with budget support for Bendera Saskia innovation coming from the utilization of local resources, which came from the operational funds of the Sinoa Community Health Center. In addition, village funds assistance from partnerships with local village governments and previous budget assistance from the National Health Insurance (JKN) program. Furthermore, after the issuance of the Regency Rules of Bantaeng policy in the form of regulations and budget support, this is also an indicator of leadership commitment to this innovation.

5. Conclusion

Based on the results of the research discussed in the previous section, it is concluded that the strategy carried out by the Bantaeng Regency Regional Government in improving maternal and child health services is the implementation of Bendera Saskia innovation. The impact of this innovation has been very clear, such as achievements in reducing the number of high-risk pregnant women, increasing the percentage of infants who received complete basic immunization, and reducing the number of toddlers with malnutrition status. Bendera Saskia innovation can also be categorized as Sustaining Innovation because it can bring significant changes to efforts to improve maternal and child health. There have been many previous efforts with the same intention, such as installing stickers as markers in people’s homes to monitor the development of maternal and fetal conditions. The presence of the Bendera Saskia Innovation as a Best Practice innovation brings further changes, which is not only effective in reducing maternal and child mortality during childbirth, reducing stunting, and so on, cumulatively contributing to improving maternal and child health, but also in shaping the environment. Bendera Saskia innovation is said to have been good based on the three dimensions of public service proposed by Levine [8].

5.1. Suggestion

Regarding this innovation, which already has a policy in the form of a regulation in the form of a regent regulation, there is still no clear division of labor between all
stakeholders involved. Therefore, we suggest adding points related to a clear division of labor. This aims to avoid overlapping performance in policy implementations.

References


