Implementation of National Movement for the Acceleration of Nutrition Improvement Policy for the First 1,000 Days of Life in Indonesia

Muhammad Ryman Napirah1, Vidyanto1, Nurdin Rahman2, Arum Sekar Ningrum1, Asmawati1, Meita Veruswati3*

1Department of Health Policy and Administration, Faculty of Public Health, Tadulako University, Palu, Indonesia, 2Department of Nutrition, Faculty of Public Health, Tadulako University, Palu, Indonesia, 3Department of Public Health, Faculty of Health Sciences, Universitas Muhammadiyah Prof. Dr. HAMKA, Jakarta, Indonesia

Abstract
The national movement for accelerating nutrition improvement in the first 1,000 days of life is an effort to strengthen the Indonesian Government’s commitment to the national strategic agenda and tackling stunting. This study aimed to determine communication, resources, disposition, and bureaucratic structure in implementing the movement at the Biromaru Primary Health Care (PHC) and Loru Village, Sigi District, Indonesia. The mixed method approach was carried out with informants consisting of several parties from the PHC, health cadres, and the local community through triangulation and questionnaires. The results showed poor communication was inhibited by a lack of community outreach, the attitude of the community’s lack of participation, and the PHC staff’s perceptions (85.14%). There was still insufficient number of health workers as resources (79.73%) who could cover all work areas. While, 75.68% of the health workers considered the disposition to be unfavorable because the incentive budget functioned as an operational budget. Only the bureaucratic structure has been running well, according to 82.43% of PHC staff. Standard operating procedure is required to make the movement run well.

Keywords: acceleration of nutrition improvement, first 1,000 days of life, national movement, policy implementation

Introduction
The national movement for accelerating nutrition improvement is pivotal to reduce nutritional problems and create healthy, intelligent, and productive human resources by focusing on the first 1,000 days of life (270 days during pregnancy and 730 days from birth to two years of age) of mothers, pregnant women, nursing mothers, and children aged 0-23 months. The movement indicator is a decrease in low birth weight (LBW) babies, stunting, wasting, underweight, and overweight children.1 Stunting experienced by children can be caused by not receiving special attention in the first 1,000 days of life as it determines a person’s physical growth, intelligence, and productivity in the future.2 During this period, nutrition that a baby receives while in the womb and breast milk have a long-term impact on life as an adult.2 Critical periods that need to be considered during the first 1,000 days of life are the period in the womb (280 days) and the age periods of 0-6 months (180 days), 6-8 months (60 days), 8-12 months (120 days), and 12-24 months (360 days).2

The under-five children with a score of lower than two standard divisions are considered stunting.3 The condition of stunting appears in children aged two years with an inappropriate height or body length for their age.3 Globally, in 2020, the prevalence of stunting was 32.4% (30.9-34.0) in African, Asian, and American countries. The lowest average percentage in Africa was in the North Africa at 24.2% (18.1-31.6); while, the highest was in the East Africa at 45.8% (41.2-50.5). For Asian countries, the highest prevalence was in the South Asia at 49.7% (45.6-53.9), and the lowest was in the East Asia at 19.2% (17.8-20.6). The prevalence of stunting in America with the lowest average percentage was in the South America at 13.8% (10.4-18.0), and the highest was in the Central America at 223.7% (16.6-32.8).4

Based on child malnutrition reports by the World Health Organization, the United Nations Children’s Fund, and the World Bank Group in 2020, the estimated prevalence of stunting in the under-five children reached 21.3% globally (19.7-22.8). This data is divided into two groups: developing and developed countries. The group of developing countries consists of those countries in African and Asian continents, as well as the South American, Croatian Islands, and
Oceania regions. The African continent has the highest prevalence of stunting, reaching 29.1%. Then, the next data group is developed countries consisting of Australia and New Zealand, the European continent, and North American region. For this group, the prevalence of stunting was found only in North America at 2.6%.4

The prevalence of stunting in Indonesia is quite high. Based on the Indonesian Basic Health Research reports, the prevalence of stunting from 2007, 2010, 2013, and 2018 were 36.8%, 34.6%, 37.3%, and 30.8%, respectively.5-8 The results of Nutrition Status Monitoring by the Indonesian Ministry of Health in 2017 showed a 30.6% prevalence of stunting in the under-five children.9 Stunting represents a combination of nutritional problems focusing on results of measuring height/weight based on very short and shortages (height/age <-2 SD).4

The stunting occurring in Indonesia is not only experienced by the poor and underprivileged households/families, but also by those whose level of social and economic welfare is greater than 40%.3 However, based on data from the Central Sulawesi Provincial Health Office, it has decreased. Data in 2013 showed that the prevalence of stunting was 41%, decreasing to 32.2% in 2018.10-11 While, according to Nutrition Status Monitoring, the prevalence of stunting in the Central Sulawesi Province was 32% in 2016 and increased to 36.1% in 2017.12 Furthermore, the Sigi District Health Office data showed that the prevalence of the under-five children stated undernourished or below the red line on the Kartu Menuju Sehat, the records functioning to monitor a child’s growth from birth to five years old, was 1,052 out of 16,042 children in 2016, and 718 out of 19,554 children in 2017.9 In 2020, the prevalence of stunted toddlers was 1,192 cases.

Efforts were made for nutrition improvement, one of which is through the issuance of Presidential Regulation Number 42 of 2013 concerning the National Movement for the Acceleration of Nutrition Improvement within the Framework of the First 1,000 Days of Life.1 Such movement is implemented through community outreach at the national and regional levels, mobilizing funding sources in the state and regional budgets, preparing planning guidelines, and improving the daily food consumption through balanced nutrition education.1 Also, pregnant women who are thin, measured by arm circumference, are given food supplements as a source of energy and protein, which are made using fortified food ingredients, such as salt (iodine), wheat flour (iron, zinc, folic acid, and vitamins B1 and B2), and cooking oil (vitamin A).1

To achieve goals, a public policy could be implemented through possible steps composing a program or formulating a derivative policy.13 Four influential factors to policy implementation, which work simultaneously and interact with each other to assist and hinder policy implementation, are communication, resources, dispositions or attitudes, and bureaucratic structure.14-15

A preliminary study on program managers for the first 1,000 days of life in Loru Village, Sigi District, Indonesia highlighted some obstacles in implementing the Presidential Regulation No. 42 of 2013 concerning the National Movement for the Acceleration of Nutrition Improvement at the Biromaru Primary Health Care (PHC) working area. Loru Village has the second-highest stunting case with a total of 70 cases at the Biromaru PHC. The problem is on ineffectiveness of community and cross-sector outreach regarding regulations, also inadequate human resources.

Therefore, this study aimed to determine communication, resources, disposition, and bureaucratic structure in implementing the first 1,000 days of life at the Biromaru PHC and Loru Village. The study outcomes would provide insight into new parameters in evaluating the implementation of the first 1,000 days of life to achieve a reduction in stunting nationally.

Method

This study used mixed method with qualitative and quantitative descriptive survey approaches at the Biromaru PHC and Loru Village, Sigi District, Central Sulawesi Province, Indonesia, from May to June 2023. Qualitatively, subjects were selected by non-probability or purposive sampling according to study objectives. There were 11 informants consisting of the PHC head as the key informant, regular informants: the head of the PHC Nutrition Management Division and Nutrition Management staff, and additional informants: health cadres and Loru Village residents. While, this study obtained a sample of 74 PHC staff.

Data collection was conducted through technical triangulation: in-depth interviews, observation, documentation using interview guidelines, and interviews using questionnaires. Triangulation was the validity proxy for qualitative approach. In quantitative, both parameter estimation and point through all the PHC staff (n = 74) showed that internal validity was obtainable.

Content analysis was used as the qualitative-oriented technique, a standard parameter set by certain units usually used to determine and compare documents. Each respondent’s statement propensity was identified through quote transcription and matched it with each variable’s book code. Ultimately, all of it was described into a consensus theme under the definition of study variables. While, the results of the descriptive quantitative approach described in a fre-
quency distribution manner underpinned the obtained evidence.

**Results**

**Communication**

The results of in-depth interviews on the informants' understanding of the national movement of the first 1,000 days of life were considered good enough.

“It is just a few obstacles in conveying information and consistency of information.” (Respondent 1)

In the communication stage of policy implementation concerning the national movement of the first 1,000 days of life in the Biromaru PHC work area, three parameters used for measuring success were transmission, consistency, and clarity.

a) Transmission

Efforts made through message transmission have not been maximized. This was obtained based on the results of interviews with regular informants. Common informants stated that the media for communication channels were in the forms of poster and brochure, also nutritional counseling to the community at a Post for Stunting Prevention, which means it could not be considered optimally in communication.

b) Consistency

In an interview regarding consistency, respondents said that communication had been already well implemented through inter-sectoral coordination efforts. The communication process in the stunting prevention program was always carried out in an effort to cooperate between fields with the suitability of each main task.

“As the efforts made aimed at reducing stunting cases, each field performs training in accordance with its duties and functions, and reports and evaluation meetings are always held to see some progress.” (Respondent 2)

c) Clarity

For clarity, the national movement of the first 1,000 days of life was good, but inhibited by the process of channeling the communication itself. Health workers reached out to all the present residents as much as possible, but problems arose from the community itself. Some of them chose not to participate in the activity for different reasons. However, health workers still tried to visit the targets individually through home visits.

**Resource**

a) Staff

In the in-depth interviews regarding human resources or staff, they stated that they had done well their job. However, they were constricted by a fairly wide area coverage.

“Human resources were available, but we need more….” (Respondent 1)

The Biromaru PHC experienced insufficient health workers. This occurred for a quite wide working area, and the PHC only had one staff in the nutrition sector and one staff as a service officer handling the implementation of policies on stunting issues. According to a regular informant, the PHC had three staff consisting of two nutrition workers and one nurse.

b) Information

The resource on information was being distributed quite well. All officers, executors, and activity supervisors were well-trained. Educational background also followed their respective field; hence, the duties and functions were implemented without problems. Regeneration in the community had also been carried out, however, not all cadres understood the related program.

“All of the officers have been trained, and the cadres have also been given training, but not all of the cadres have been trained because there are still those who do not understand the program….” (Respondent 3)

This means that the information obtained by officers was nonoptimal. Less sustainable training related to the Presidential Regulation Number 42 of 2013 concerning the national movement within the framework of the first 1,000 days of life was the major cause of limited information.

**Disposition**

a) Bureaucratic Removal

Regarding bureaucratic appointment, respondents indicated that it was done by the structure in the coordination process and program managers to appoint field officers. This could be seen from the bureaucratic attitude, which was to be fully responsible for implementing the movement, which was already good. The results of in-depth interviews with regular informants obtained information.

“The bureaucratic appointment was left entirely to the program manager. There is no legal determination but rather
a direct appointment by the leadership of the primary health care for related fields such as nutrition. Then, the nutrition sector coordinates with other fields, and the cadre selection in each village is left entirely to the village. Usually, the village [office] appoints Human Development Cadres.” (Respondent 4)

b) Incentive

The incentives, functioned as operational budget, were not used the way it should be. The results of in-depth interviews with the key informant stated that the budgeting for the movement implementation was taken from the budget for health operational costs, following the rules set by the health service.

“Align with that (incentive), there is an incentive in form of an honorarium received by those health workers going out to the field, but this is only calculated for one health worker, and the village office provides fees for such program activity.” (Key informant)

Bureaucratic Structure

Related interviews regarding the bureaucratic structure dimensions in the movement implementation revealed that the bureaucratic structure had been carried out properly according to the standard operating procedures (SOP), duties, and functions. Based on Table 1, for the Biromaru PHC staff’s perceptions, 85.14% of them thought the communication was poor, 79.73% thought the resources were poor, 75.68% thought the disposition was poor, and 82.43% considered the bureaucratic structure good regarding the movement implementation.

Discussion

The implementation of the national movement on the first 1,000 days of life in Pasaman District, Indonesia, in 2017 was not performed well for several obstacles: any absent written regulations, vision, mission, and specific program objectives. There was also a maximum involvement of stakeholders, unavailable budget, lack of human resources, facilities, and infrastructure. Communication is crucial in policy, in which in the implementation means a success parameter for a public policy. Good transmission would greatly affect the policy implementation, thus no miscommunication occurs in the bureaucrats implementing the policy. However, the communication that exists must also be consistent, or not change, and be clear to avoid ambiguous communications between the bureaucracies.

Communication transmission is channeling information, ideas, or opinions, which would also be well implemented. However, in the practice of communication transmission, misunderstandings often occur because communication stages pass through several bureaucratic levels, resulting in a distortion in the information distribution process. An important point in communication is consistency. Orders given in performing a communication must be consistent and clear, not frequently changed, so that implementers in the field are not confused.

In a prior study in the South Central Timor District, efforts were made to carry out the mandate in Indonesian Law Number 52 of 2009 concerning Population Development and Family Development. However, the stunting problem in society has been considered not a critical problem and not requiring serious treatment. A mystical side involvement is still rooted in local culture, in which people consider stunting to be part of the mystical world. Therefore, the implementation of stunting prevention policy by the District Occupation Control and Family Planning Office run from a communication perspective. However, several obstacles were still found in terms of consistency of information provided and community’s participation.

Clarity of communication received by the policy implementers (street-level bureaucrats) must not ambiguous. Although sometimes any unclear message from a policy still remains, it does not hinder the implementation process. A thing needed is a flexibility from the policy implementers. However, the lack of clarity becomes a vessel for diverting...
goals to be achieved. Edward III stated that the primary resource in policy implementation is staff or human resources. One of the most important factors in the failure to implement a policy is the insufficient quantity and incompetent quality of staff in the field. Raising the number of staff is not enough without being balanced by increasing the quality of the staff’s ability and expertise in carrying out their respective duties.

The quality of human resources is not only determined by their expertise, but also accompanied by a controlled and commendable mental attitude in achieving policy goals. One of the parameters for the success of a policy is the availability of adequate human resources, both in terms of quantity and quality. Human resources are active actors who will carry out activities such as implementing policies. Two forms of information in policy implementation include 1) information related to how to implement the policy. Implementers must know what to do when they get an order; 2) information on any compliance data from implementers with applicable government rules and regulations. The implementers must know whether other people involved in implementing the policy are complying with it.

The results of this study are not aligned with Megawati’s study. Generally, most cadres already had adequate knowledge of prevention and early detection of stunting. They felt that such training was useful in elevating their knowledge and capacity regarding balanced nutrition and stunting prevention. All cadres received a thorough explanation of questions related to inaccurate understanding of nutrition so far. Through the training, cadres also had a better understanding of an optimal nutrition in the first 1,000 days of life to prevent stunting. In addition, the cadres also learned the way to identify risk factors of stunting incidence in their working areas. The cadres hoped the training would be provided sustainably and periodically and be much better programmed to make their knowledge and skills honed and improved.

Other than communication and resources, disposition or attitude of policy implementers also determined the implementation of policy for their important role in running activities or programs. In addition, it requires ability to observe and comprehend conditions occurring in the community. Effectiveness and efficiency are needed in this case so that it becomes the policy implementers’ responsibility. In disposition variable, considerable aspects in the implementation included the bureaucratic appointment and incentives.

The disposition or attitude of implementers might generate real obstacles for the policy implementation if individuals involved could not carry out any policies expected by the higher-ups. Hence, in the process of appointing executives, they must review not only their personal abilities, but also their dedication to the policies made. More specifically, they are people who care about the general interest, not the interests of certain groups or individuals, which means that a concept of appointing a bureaucrat has been carried out well, continuously every month.

Edward III suggested the way to overcome the policy implementers’ tendency problem was by granting incentives. In principle, people would act according to their own interests, therefore, available incentives would affect their attitude. Incentive means an effort that might be a supporting factor for policy implementers to perform their duties and mandates properly. The fourth variable affecting the success rate of public policy implementation is bureaucratic structure. Highly complex policies require a cooperation of many people. The bureaucratic structure which is not conducive to available policies would result in various resources to be ineffective and hinder the implementation of policies. As the implementer of a policy, a bureaucrat is required to have an ability to support any politically-made policy by making a good coordination.

Therefore, two characteristics boosting a better performance of bureaucratic or organizational structure are implementing SOP and fragmentation. The SOP is a routine activity allowing the policy implementers/administrators/bureaucrats to do various daily activities according to predetermined or minimum standards required by residents. While, what is meant by implementing fragmentation is an effort to divide responsibility for activities or employee activities among several work units. Through adequate SOPs, the bureaucratic or organizational structure could accompany performance with additional policies, including breastfeeding and early childhood cognitive development.

Conclusion

The only factor that has been running well in the national movement for the first 1,000 days of life is the bureaucratic structure. The communication and resources are good enough, yet still nonoptimal. There is still a lack of transmission and clarity in communications and inadequate PHC staff in term of resources. However, the disposition is in poor condition since it has not been done legally. The SOP is needed to make the movement run well, and further efforts are needed to support the continuity to strengthen cross-sector communications and cooperation, reach all targets, and improve training. Special incentives for the PHC staff are expected.

Abbreviations

LBW: Low Birth Weight; PHC: Primary Health Care; SOP: Standard Operational Procedure.
Ethics Approval and Consent to Participate
All informants and subjects approved the informed consent before participating in the study. Their written approval was witnessed by independent bystanders. This study also passed ethical consideration and was granted ethical clearance from the Ethics Commission for Medicine and Health Research, Faculty of Medicine, Tadulako University, No. 5413/UN28.1.30/KL/2023.

Competing Interest
The authors declare that no significant competing financial, professional, or personal interests might have affected the performance or presentation of the work described in this manuscript.

Availability of Data and Materials
All qualitative and quantitative datasets belong to Tadulako University and can be accessed with the institution’s permission.

Authors’ Contribution
MV, MRN, V, NR, ASN, and A contribute equally to this study.

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