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# Capacity Building in Health Worker as an Alternative Solution to Solve Stunting Problem

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## Abstract

Stunting is a public health issue that is the topic of world nutrition. The country of Indonesia is ranked fifth in the world with a short-term prevalence of 30-40%. The incidence of stunting in East Java amounted to 26,1% in 2015 occurred in the area of Surabaya City of 19,3%. This study aims to examine the problem of stunting, identify the cause factors, and provide an alternative solution to solve the problem of stunting in the work area of Puskesmas Tanah Kali Kedinding Surabaya. The study was conducted in April-May 2018. Primary data was obtained through indept interview on nutrition officer. The results showed that the intervention of stunting case in Puskesmas Tanah Kali Kedinding had not been done due to lack of knowledge and understanding of all officers regarding prevention and handling of stunting. The CARL method is used to get the most prioritized solution possible. The solution is to conduct capacity building on the prevention and handling of stunting at all Puskesmas officers. Thus all Puskesmas officers are able to implement the stunting intervention program in their working area.

**Keyword:** *stunting, capacity building, health planning program.*

## Introduction

Stunting describes the chronic underweight status of growth from early life. The stunting state was presented with a standard z-score of height by age less than -2 standard deviation<sup>[1]</sup>. Stunted children closely related to conditions that occur over a long period of time such as poverty, poor hygiene and environmental health, poor parenting and low levels of parental education.

Cohort study of child growth in Bogor City by Agency of Health Research and Development, Indonesia Health Ministry in 2013 has successfully followed 220 mothers giving birth and monitored until their babies was 15 months. The results state that the growth of stunted babies is always left behind compared to normal babies. Studies shown other results that stunted babies may become normal when intervened appropriately. Conversely, a normal babies can also be stunting if with wrong parenting pattern<sup>[2]</sup>.

Stunting problems in children can inhibit child growth and cause negative impacts such as intellectual decline, decreased productivity resulting in poverty and the risk of delivering low birth-weight infants<sup>[3][1]</sup>.

Globally, about 1 in 4 children suffer from stunting<sup>[4]</sup>. Based on the Nutrition Status Monitoring survey results from 2014-2016, the percentage of stunting cases 0-59 months in East Java in 2014 by 29%. The number decreased to 27% in 2015 and 26.1% in 2016<sup>[5]</sup>. However, the decrease in stunting cases was not significant because the prevalence of stunted children would be a public health problem in 20% or more<sup>[1]</sup>.

The prevalence of stunting in toddlers in Surabaya 2014 is 21.5%. Puskesmas Tanah Kali Kedinding is a puskesmas with stunting prevalence of 20.83% in 2012. Stunting cases increased to 21.86% in 2013 and 25.69% in 2014<sup>[6]</sup>. The incidence of stunting continues to occur in 2017. There were 105 children under five are stunted than 3,798 children (2.76%). Although the presentation seems to be declining from previous years but the absolute number is still high.

This study aims to examine the problem of stunting and stunting factors in the working area of Puskesmas Tanah Kali Kedinding Surabaya. This is done to provide a possible solution to solve of stunting issue.

## Material and Method

The research was conducted by observational approach, using quantitative and qualitative data, and it was conducted at Puskesmas Tanah Kali Kedinding Surabaya in April-May 2018. Primary data was obtained through indept interview to 2 nutrition officers of Puskesmas, which was a research informant. The data obtained were analyzed descriptively. The activity begins by analyzing the situation, determining the priority of the problem, identifying the cause of the problem, and prioritizing the solution<sup>[7]</sup>.

Situation analysis to determine the organization's position is done by using SWOT. SWOT analysis is a strategic planning method used to evaluate strengths, weaknesses, opportunities and threats within an organization. The SWOT analysis guides to identify the positive and negative sides of the organization's internal (S-W) and external organizational (O-T) conditions. Identify the cause of the stunting problem obtained by using fishbone. Fishbone is a tool that describes a systematic way to identify causes of a particular impact.

Priority problem and solution determination using USG (Urgency, Seriousness, Growth) and CARL (Capability, Accessability, Readiness, Leverage) methods. The USG method is one of the tools for compiling the priority sequence of problems to be solved. USG is done by determining the level of urgency, seriousness, and the growth of issues by determining the scale of values 1-5. The problem with the highest total score is a priority issue to be resolved soon. CARL is one of the tools to determine the priority of alternative health problem solutions<sup>[7]</sup>. CARL method is done by determining the score based on certain criteria, namely capability, accessability, readiness and leverage. An alternative solution that has the highest score is the most likely solution to run. The CARL method is used if the program implementer still has limitations in solving the problem. The use of this method emphasizes the ability of program implementers<sup>[7]</sup>.

## Findings

### Overview of Nutrition Program

Puskesmas Tanah Kali Kedinding Surabaya is a primary health care which located in northern part of Surabaya. The location is near to the coast of Nambangan so the availability of high protein food is

fulfilled. There are 2 nutrition officers at Puskesmas Tanah Kali Kedinding. The type and number of health staff in the Puskesmas in accordance with Ministry of Health Regulation No. 75 in 2014 that there is at least 1 nutrition officer for urban Puskesmas<sup>[8]</sup>. While the service program efforts to improve the nutritional status of the community that has been done, among others:

### Posyandu Program for toddlers

Counseling of supplementary feeding for infants and toddlers

Supplementary feeding for pregnant with chronic energy deficiency

Supplementary feeding for malnourished infants and toddlers nutrition assistance

Screening for toddlers malnutrition

Family conscious of nutrition program

Provision of vitamin A and iodized salt for children

Provision of Fe tablets for pregnant and young women

Based on the program that has been done, there is no special program to solve the stunting problem. Stunting events are always encountered at the time of screening, however the discovery of stunting cases has never been acted upon.

### Organizational Internal Condition and Situation Analysis

Base on SWOT analysis, it is found that the position of the organization is in quadrant 4. The picture shows that Puskesmas have weaknes from internal organization and strong threat from external organization. The weakness of ogranisation is derived from human resources factors both quantity and quality, and poor coordination among work units in running health programs. While the threat from external organizations is the lack of public knowledge about stunting and there is no follow-up stunting program from Surabaya Health Office.

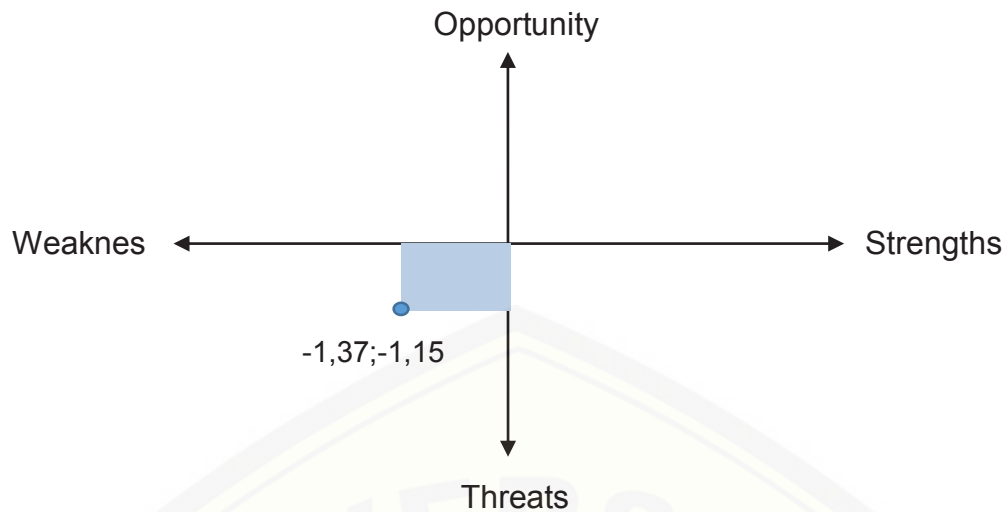


Figure 1. Matrix of SWOT Analysis on Stunting Problems in Puskesmas

**Priority of Issues**

Stunting situation analysis has been done and found that there are some problems related to stunting in terms of officer, community, and environment. Some of the problems that have been found are impossible to solve simultaneously because Puskesmas have resources limitation. It becomes the reason that necessary to prioritize the problem to determine which problems can be solved first. Determining the priority of the problem is done using USG method by considering the urgency, seriousness, and risk of growth level of the problem.

Table 1. Determination of Stunting Problem Problems with USG Methods

No	Issues	U	S	G	Total	Priority
1	Lack of public knowledge about the program stunting.	4	4	4	64	4
2	No follow-up policy on stunting program of Surabaya City Health Department and Head of Puskesmas.	4	3	4	48	5
3	Child body length measurement inaccuracies due to limited cadres and facilities.	2	3	3	18	8
4	Lack of knowledge and understanding of nutrition officers about stunting.	4	4	5	80	3
5	No intervention of stunting cases (priority of nutrition officers only on the handling of malnutrition).	5	5	5	125	1
6	Stunting program policies have not been socialized to nutrition workers	4	5	5	100	2
7	Puskesmas just screened two times a year, never do counseling about stunting to the public.	2	3	4	24	7
8	Breaking up of child nutrition monitoring at age> 5 years old child of early childhood.	2	2	2	8	9
9	Screening is not performed on children aged> 5 years so that the incidence of stunting at that age is not detected.	3	3	4	36	6



The priority result of the problem to be addressed is related to the absence of intervention to the stunting case (priority of nutrition officers only on the handling of malnutrition).

### Determinant of Issues and Alternative Solutions

We identify the cause of the problem after deciding priority issues. Identification is done by using fishbone approach. Based on the approach, the root of the

problem associated with the absence of intervention to the stunting case is because the Puskesmas staff does not have sufficient ability and knowledge about stunting and how to intervene. So alternative solutions that could be done is to carry out capacity building on the prevention and control in all Puskesmas staff. Selection of alternative solutions is done by using the CARL method with regard to capability, accessibility, readiness and leverage of proposed solutions.

**Table 2. Results of Alternative Solution Determination by Using CARL Method**

No	Alternative of Solution	C	A	R	L	Total	Priority
1	Conducting capacity building for all officers related to prevention and stunting prevention.	4	4	3	5	240	1
2	Empowerment of cadres.	4	2	2	1	16	5
3	Make proposed follow-up of stunting program policy to Surabaya City Health Office.	3	4	3	2	72	3
4	Conducting community capacity building to improve understanding of stunting.	3	3	2	3	54	4
5	Establish coordination system between work units at Puskesmas.	4	2	4	4	128	2
6	Make planning of stunting program implementation.	3	2	2	2	24	7
7	Create a stunting prevention strategy.	3	3	2	2	36	6

Based on the cause problem identification, the most appropriate solution is capacity building about stunting. Some of the things that can be done when building capacity are:

Improving understanding of officers related stunting (factors causing and how to prevent & handling)

Increase knowledge and understanding of stunting policy from Surabaya City Health Office and Indonesian government

Improving the ability to implement an integrated stunting intervention program at the Puskesmas

### Discussion

There are several studies that have been done in Indonesia found that stunting is associated with factors that cause maternal nutritional status during pregnancy (age, parity, BMI, upper arm circumference, psychology

and social condition). Causes of stunting from family and environmental conditions can lead to infection in children and decrease the nutritional status of children<sup>[9]</sup>. Another determinant of stunting is behavioral factors that are inconsistent with the suggestion of healthy behavior, family economic status, and parental education status<sup>[10]</sup>. So some solutions to stunting solutions are mostly focused on handling them.

Based on the situation analysis of stunting problem in this research, the main factor causing the stunting situation actually comes from health service factor. As in Hendrik L. Blum's theory that health care providers have contributed to the incidence of health problem. In line with Trihono's research results in 2015 that the determinants of stunting causes are derived from health services and the success of intervention programs lies in the ability of health workers to implement stunting prevention programs<sup>[10]</sup>.



The stunting problem that must be handled in Puskesmas Tanah Kali Kediniding Surabaya is related to the absence of any intervention in the stunting case. The identification result of problem is the lack of ability from nutrition officer in identifying stunting problem. Nutrition officer not understand how to determine the value of z-score, causes stunting, and how to handle stunting. The First 1000 Day Life Program (Scalling Up of Nutrition program in Indonesia) has not been integrated in prevention and stunting programs. Thus it can be concluded that the stunting program has not been well socialized by the Surabaya City Health Office so that the implementation has not been effective in Puskesmas Tanah Kali Kediniding.

Based on the research results found that capacity building is the solution of the stunting problem that occurred in the Puskesmas Tanah Kali Kediniding Surabaya. Capacity building activities undertaken at all Puskesmas officers are expected to improve their ability in identifying causes of stunting, prevention and handling of stunting problems.

The selection of the solution is in accordance with the Stunting Summary Book compiled by the National Team for Accelerating Poverty Alleviation 2017, that there are several possible causes of the ineffectiveness of the stunting intervention policy and program<sup>[11]</sup>. Causal factors are among others:

Policies and regulations regarding stunting intervention have not been used as a common ground for handling stunting.

Ministries/institutions implement programs according to their responsibilities without good coordination among institutions.

The planned stunting intervention programs have not been fully implemented.

Existing programs/interventions still require improvements in program design, coverage, quality and objectives.

Nutrition knowledge improvement program and healthy life behavior change has not been done.

Community-based programs are not implemented maximally;

The knowledge and capacity of both central and local governments in handling stunting need to be improved.

To strengthen human capacity to deliver priority nutrition interventions at scale, a country needs to develop a workforce strategy that uses evidence-based systematic approaches to produce sufficient numbers of skilled workers with the needed technical competencies in nutrition<sup>[12]</sup>. This requires clearly defining the challenges and gaps in nutrition competencies and training, followed by the strategic scaling up of proficient nutrition competencies within various public service cadres. Without specific articulation of the nutrition competencies that are required of people working in this field, workforce development and continuing professional development will be inefficient<sup>[13]</sup>.

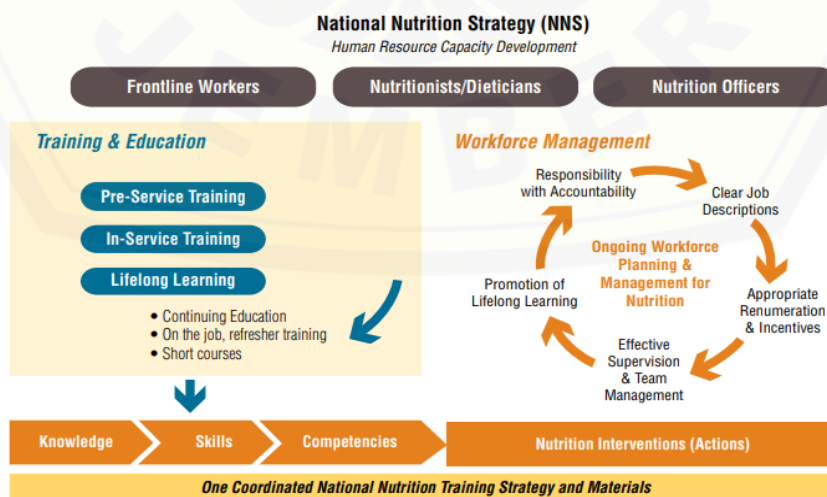


Figure 2. Strengthening Human Capacity Strategy to Implement Priority Nutrition

### Intervention at Scale

Based on the previous study, the problem solving of stunting should not only focus on determining the cause of stunting from community but also the capacity of the implementing resources of the intervention program, specifically all of health workers in the Puskesmas. Without adequate capacity in terms of program implementers then the program will not be possible to run well and the program objectives will not be achieved.

### Conclusion

The problem of stunting at Puskesmas Tanah Kali Kedinding Surabaya is no longer caused due to the nutritional status of pregnancy, family economic condition, environmental condition, but due to internal factors of Puskesmas. Based on the result of identification of cause of stunting problem which continuously happened is because have not implemented intervention in stunting case. This is due to the limited ability of health workers at the Puskesmas as the program implementer. So that the improvement of the ability of health workers about prevention and handling stunting can be used as an alternative solution to the settlement of the case.

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