



# Roles of Midwives and Indonesian Midwives Association in **Reducing Risk Factors for Stunting in Indonesia**

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#### Abstract

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BACKGROUND: Stunting is caused by multidimensional factors and the most decisive intervention should be carried out in the first 1000 days of life. Poor parenting practices, lack of knowledge about health and nutrition before and during pregnancy are some of the contributing factors, and 60% of children aged 0-6 months do not receive exclusive breastfeeding

AIM: The aim of the study is to assess the role of midwives and the Indonesian Midwives Association Professional Organization in reducing the risk of stunting in Indonesia.

METHOD: This type of descriptive research uses an exploratory study approach by assessing the role of midwives and the professional organization of the Indonesian Midwives Association in reducing the risk of stunting in Central Sulawesi. The data of 288 midwives were collected using google Forms from 22 July 2020 to 22 August 2020. Data were analyzed with Chi-Square and SPSS.

RESULT: In general, midwives have provided maternal and child health books to pregnant women, recorded complete maternal and child health records, conducted antenatal care for pregnant women, provided nutritional food counseling for pregnant women, gave Fe 90 tablets to pregnant women, provided calcium tablets to pregnant women, conducting classes for pregnant women, delaying umbilical cord-cutting (>30 min), providing Vitamin A to postpartum mothers, conducting exclusive breastfeeding counseling, providing family planning services, providing IYCF counseling. However, the activities of implementing a special stunting prevention program, implementing postnatal care, and initiating early breastfeeding still need improvement.

CONCLUSION: The role of midwives in efforts to prevent stunting in Indonesia with midwives have provided maternal and child health books to pregnant women. Delaying umbilical cord cutting to 30 min, giving vitamin A to postpartum mothers, breastfeeding counseling, providing family planning services, and providing IYCF counseling. The role of Midwives in reducing risk factors for stunting in Indonesia is important in implementing postnatal care

### Introduction

Stunting is caused by multi-dimensional factors and the most decisive intervention should be carried out in the first 1000 days of life. Poor parenting practices, lack of knowledge about health and nutrition before and during pregnancy are among the contributing factors. In addition, sixty percent of children aged 0-6 months do not receive exclusive breastfeeding, two out of three children aged 0-24 months do not receive complementary foods, and the availability of health services including antenatal care and postnatal care are limited. Two out of three pregnant women have not taken adequate iron supplements and lack of access to nutritious food. One of three pregnant women with anemia is a factor causing stunting in Indonesia [1].

The Basic Health Research by the Ministry of Health of the Republic of Indonesia reported that the national prevalence of child stunting in 2013 was 37.2% and decreased in 2018 to 30.2% [2], [3].

Despite the decline, the problem of stunting still needs to be controlled [4]. Maternal and child health services carried out by midwives play an important role in the prevalence of stunting. The results showed that maternal height <150 cm, birth spacing <3 years and the absence of antenatal care were risk factors for stunting [5]. Research in Ethiopia shows risk factors for stunting include maternal age>30 years, mothers without formal education, mothers who work every day, mothers who do not perform postnatal care, and mothers who are sick during their pregnancy [6]. Research in Bhutan shows the risk factors for stunting in children 6-23 months are; antenatal care factor is less than ≤3 times, do not perform antenatal care on doctors, nurses and midwives, and mothers who are <18 years old [7].

In line with that, prevention efforts can be carried out by streamlining existing health programs such as antenatal care, classes for pregnant women, iron and calcium supplementation, and supplementary feeding for pregnant women [8]. Specifically, a study also recommended long breastfeeding through

The purpose of the current study is to assess the role of Midwives and the Indonesian Midwives Association Professional Organization in reducing the risk of stunting in Indonesia.

# Methods

This type of descriptive research uses an exploratory study approach. Data of 288 midwives were collected using google form from 22 July 2020 to 22 August 2020 with URL: https://forms.gle/ MMd5ijjESSZkBvj16.

The research sample was midwives from all over Indonesia and who successfully filled out the questionnaire a total of 288 people. The inclusion criteria for this study were a midwives, active as a member of the Indonesian Midwives Association Professional Organization, worked for 2 years, had Registration Certificate of midwives, had attended a socialization about preventing stunting. The exclusion criteria were working for <2 years, not having Registration Certificate of midwives, and not working in a health facility.

The instrument for data collection used was a research questionnaire using Google Form which was distributed through the WhatsApp group of Indonesian midwives. The variables include; the role of the Indonesian Midwives Association and the prevalence of children under two in Indonesia; socializing the program for the first 1000 days of life; participating in scientific activities related to stunting; providing/assisting antenatal care training related to stunting. Roles of midwives and prevalence of stunting among children under two in Indonesia include: Provide maternal and child health books to pregnant women; complete maternal and child health books; carry out antenatal care for pregnant women; provide nutritional advice to pregnant women; Give Fe tablets 90 seeds to pregnant women; provide calcium tablets to pregnant women, preparation of classes for pregnant women, implementation of a special prevention program, implementation of postnatal care, delay in umbilical cord-cutting (>30 min), early initiation of breast-feeding, provision of Vitamin A to postpartum mothers, exclusive breastfeeding counseling, provision of family planning services, and provision of complementary breastfeeding counseling.

Data analysis is descriptive analysis on respondent characteristics and bivariate analysis to test the Role of Indonesian Midwives Association and prevalence of stunting in Children Under Two in Indonesia using the Chi-Square Test with a significant level of p < 0.05.

### Results

In general, respondents aged 20–35 years (86.5%). They work as a midwife for <5 years (58.7%), have a 3-year midwifery diploma (75.3%), work in a hospital (40.3%), and not as an administrator of the Indonesian midwifery association (61.8%) (Table 1).

#### Table 1: Respondents characteristics

Variable	n (288)	%
Age	249	86.5
20–35 years	37	12.8
36–50 years	2	0.7
>50 years		
Length of work As Midwifery		
<5 years	169	58.7
5–10 years	63	21.9
>10 years	56	19.4
Education		
Diploma III	217	75.3
Diploma IV/Graduate	64	22.2
Post Graduate	7	2.4
Work place		
Public Health Office	11	3.8
Educational Institution	17	5.9
Non-governmental organization	33	11.5
Public health center	111	38.5
Hospital	116	40.3
Management of the Indonesian Midwives Association		
Yes	110	38.2
No	178	61.8

Table 2 shows that there is no significant relationship in the variable socializing the program for the first 1000 days of life, participate in scientific activities related to stunting, Provide/Attend Antenatal care training related to stunting against the prevalence of stunting in children under two with a p > 0.05. Then, table 3 shows that implement postnatal care as a duty of

Table 2: Role of Indonesian midwives association andprevalence of stunting in children under two in Indonesia

Prevalence	Prevalence of Stunting in			
Children U	Children Under Two			
30–40%	<29.9%			
<u>n (%)</u>	n (%	6)		
the Program for the first 1000 days of life				
43 46.2	2 50 53	3.8		
/ear 15 62.5	5 9 3	7.5 0.215		
r semester 19 65.5	5 10 34	1.5		
nonth 77 54.2	2 65 4	5.8		
in scientific activities related to stunting				
53 50.0	) 53 50	0.0		
/ear 21 65.6	6 11 34	1.4 0.346		
r semester 20 60.6	5 13 39	9.4		
nonth 60 51.3	3 57 48	3.7		
end Antenatal care training related to				
64 53.3	3 56 46	6.7		
18 69.2	2 8 30	0.8 0.158		
/ear 16 64.0	) 9 36	5.0		
r semester 56 47.9	61 5	2.1		
nonth				
43   46.2     'ear   15   62.5     r semester   19   65.5     nonth   77   54.2     in scientific activities related to stunting   53   50.0     rear   21   65.6     r semester   20   60.6     nonth   60   51.3     ear Antenatal care training related to   64   53.3     rear   16   64.2     r semester   56   47.5     nonth   56   47.5     nonth   56   47.5	2     50     5:       5     9     3:       5     10     3-       2     65     4:       0     53     5:       6     11     3-       6     13     3:       3     57     4:       2     56     4:       3     57     4:       4     2     8     3:       3     56     4:     2       4:     56     4:     4:       2     65     4:     5:       3     57     4:     5:       4:     9     5:     4:       2     8     3:     5:       4:     9     3:     9:     3:	3.8   7.5 0.215   4.5 0.346   0.4 0.346   0.4 3.7   3.7 0.8   0.158 0.0		

Table 3: Role of midwives	and prevalence	of stunting of	children
under two in Indonesia			

Joint Hase     Joint Hase     Joint Hase       Provide maternal and child health books to pregnant women     1     60.9     9     39.1     0.349       Never     14     60.9     9     30.1     0.349       Rarely     12     54.5     102     45.5       Complete maternal and child health books to Frequency     122     54.5     102     45.5       Complete maternal and child health books to Frequency     16     44.4     200     56.6       Frequency     16     44.4     200     56.6     5       Carrying out Antenatal Care for Pregnant Women     Never     4     40.0     6     60.0     0.663       Rarely     15     51.7     14     48.3     5     1       Provide nutritional food counseling for pregnant women     Never     3     42.9     4     57.1     0.409       Rarely     17     45.9     20     54.1     7     53.8     0.478       Give Calcium tablets to pregnant women     Never     5     41.7     7     53.8     <	Variable	Prevalence of stunting children			p-value	
In     (%)     n     (%)       Provide maternal and child health books to pregnant women     124     60.9     9     39.1     0.349       Rarely     18     43.9     23     56.1     102     45.5       Complete maternal and child health books     Never     5     31.3     11     68.8     0.076       Rarely     16     44.4     20     55.6     55.7     14     48.3       Frequency     15     51.7     14     48.3     114     45.8       Frequency     15     51.7     14     45.8     116     114     45.8       Provide nutritional food counseling for     Frequency     16     53.3     11     46.2       Give Fe tablets 90 seeds to pregnant women     Never     6     42.9     8     57.1     0.409       Rarely     18     47.4     20     52.6     116     116     116     116     116     116     116     116     116     116     116     116     116     116		30-40%	6	<29.9%		
Provide maternal and child health books to     pregnant women     Never   14   60.9   9   39.1   0.349     Rarely   18   43.9   23   56.1     Frequency   122   54.5   102   45.5     Complete maternal and child health books   122   54.5   102   45.5     Carrying out Antenatal Care for Pregnant   16   44.4   20   55.6     Carrying out Antenatal Care for Pregnant   6   40.0   6   60.0   0.663     Rarely   135   54.2   114   45.8   9     Provide nutritional food counseling for   pregnant women   8   6   2.9   4   57.1   0.849     Rarely   17   45.9   20   54.1   7   58.3   106   44.7     Give Calcium tablets to pregnant women   10   55.3   106   44.7   6   22.6   6   7   58.3   0.478     Rarely   18   47.7   7   58.3   0.478   7   58.3   0.478     Rarely   18 <td< td=""><td></td><td>n</td><td>(%)</td><td>n</td><td>(%)</td><td></td></td<>		n	(%)	n	(%)	
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Never     14     60.9     9     39.1     0.349       Rarely     18     43.9     23     56.1       Frequency     122     54.5     102     45.5       Complete matemal and child health books     Never     5     31.3     11     68.8     0.076       Rarely     16     44.4     20     55.6     Frequency     133     56.4     103     43.6       Carrying out Antenatal Care for Pregnant     Women     Never     4     40.0     6     60.0     0.6633       Rarely     15     51.7     14     48.8     14     46.7       Provide nutritional food counseling for     Never     3     42.9     4     57.1     0.409       Rarely     16     53.3     116     46.2     7     14     46.7       Frequency     131     55.3     106     44.7     10.409     13     15.0     107     45.0       Carrying out classes for pregnant women     Never     5     41.7     7 <td< td=""><td>pregnant women</td><td></td><td></td><td></td><td></td><td></td></td<>	pregnant women					
Nate     18     4.3.9     2.3     50.1       Frequency     122     5.5     102     45.5       Complete maternal and child health books     Never     5     31.3     1     16     44.4     20     55.6       Carrying out Antenatal Care for Pregnant     16     44.4     20     55.6       Carrying out Antenatal Care for Pregnant     7     14     45.8     114     46.7       Rarely     135     54.2     114     45.8     114     46.7       Frequency     135     53.8     116     46.7     114     46.7       Frequency     135     53.8     116     46.7     114     46.7       Frequency     131     55.3     116     46.2     114     46.7       Frequency     131     55.3     116     46.2     114     46.7       Frequency     131     55.0     107     45.0     107     45.0       Oive calcium tablets to pregnant women     131     55.0     107     45.0	Never	14	60.9	9	39.1	0.349
Frequency   122   34.3   112   63.3     Never   5   31.3   11   68.8   0.076     Rarely   163   44.4   20   55.6   55.7     Frequency   133   56.4   103   43.6   55.6     Carrying out Antenatal Care for Pregnant   Women   6   60.0   0.663     Rarely   135   51.7   14   48.3   55.7     Frequency   135   51.7   14   48.3   55.7     Provide nutritional food counseling for   Frequency   135   53.8   116   46.7     Frequency   131   55.3   106   44.7   55.8   117   0.409     Rarely   17   45.9   20   54.1   7   58.3   0.478     Rarely   171   55.0   107   45.0   50   107   55.0   107   55.0   107   55.0   107   55.0   107   55.0   107   55.0   107   55.0   107   55.0   107   55.0   107   55.0   10	Fragueney	18	43.9	23	50.1 45 5	
Inver     5     31.3     11     68.8     0.076       Rarely     16     44.4     20     55.6       Frequency     133     56.4     103     43.6       Carrying out Antenatal Care for Pregnant     155     51.7     14     48.3       Never     4     40.0     6     60.0     0.663       Rarely     155     51.7     14     48.3       Provide nutritional food counseling for     135     54.2     114     45.7       Prequency     16     53.3     14     46.7     14.7       Rarely     16     53.3     116     46.2     114       Size fa tablets 90 seeds to pregnant women     11     55.3     106     44.7       Rarely     17     45.9     20     54.1     11       Never     5     41.7     7     58.3     0.478       Rarely     18     47.4     20     56.5     11       Never     6     46.2     7     53.8     0.759<	Complete maternal and child health books	122	54.5	102	40.0	
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Women     Never     4     4     4     0.06     6     6.00     0.663       Rarely     15     51.7     14     48.3     -       Prequency     135     54.2     114     45.8     -       Prequency     135     54.2     114     45.8     -       Prequency     135     53.8     116     46.7     -       Rarely     16     53.3     14     46.7     -       Never     6     42.9     8     57.1     0.409       Rarely     131     55.3     106     44.7     -       Frequency     131     55.3     106     44.7     -       Give calcium tablets to pregnant women     -     -     -     -       Never     6     46.2     7     53.8     0.759       Rarely     19     50.0     19     50.0     -       Frequency     107     52.7     53.8     0.759       Rarely     24     48	Carrying out Antenatal Care for Pregnant					
Never     4     40.0     6     0.0.0     0.063       Rarely     15     51.7     14     48.3       Frequency     135     54.2     114     45.8       Provide nutritional food counseling for pregnant women     135     53.3     14     46.7       Never     3     42.9     4     57.1     0.849       Rarely     16     53.3     14     46.7       Frequency     135     53.8     116     46.2       Give Fe tablets 90 seeds to pregnant women      8     7.4     20     54.1       Frequency     131     55.3     106     44.7     45.0     26.6       Carrying out classes for pregnant women     14     48.0     26     52.0     7     53.8     0.759       Rarely     19     50.0     19     50.0     107     45.0     26       Implement a special stunting prevention     19     50.0     19     50.0     17     44.8     0.037*       Rarely     29	Women	4	40.0	6	60.0	0.663
National for the second seco	Never	4	40.0	0 14	10.0	0.663
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pregnant women     Never     3     42.9     4     57.1     0.849       Rarely     16     53.3     14     46.7       Frequency     135     53.8     116     46.2       Give Fe tablets 90 seeds to pregnant women     6     42.9     8     57.1     0.409       Rarely     17     45.9     20     54.1     54.1       Frequency     131     55.3     106     44.7       Give calcium tablets to pregnant women     5     41.7     7     58.3     0.478       Rarely     18     47.4     20     52.6     52.6       Frequency     129     54.4     108     45.6     111       Never     6     46.2     7     53.8     0.759       Rarely     19     50.0     19     50.0     19       Prequency     102     54.4     108     45.6     111       Implement a special stunting prevention     107     52.7     96     47.3     111       Never <td>Provide nutritional food counseling for</td> <td>155</td> <td>54.2</td> <td>114</td> <td>40.0</td> <td></td>	Provide nutritional food counseling for	155	54.2	114	40.0	
Never     3     42.9     4     57.1     0.849       Rarely     16     53.3     14     46.7       Frequency     135     53.8     116     46.2       Give Fe tablets 90 seeds to pregnant women     17     45.9     20     54.1       Frequency     131     55.3     106     44.7       Give calcium tablets to pregnant women     18     47.4     20     52.6       Frequency     18     47.4     20     52.6     5.0       Frequency     131     55.0     107     45.0     5.0       Carrying out classes for pregnant women     Kever     6     46.2     7     53.8     0.759       Rarely     19     50.0     19     50.0     19     50.0       Frequency     107     52.7     96     47.3     111       Implement a special stunting prevention     29     40.8     42     50.0       Frequency     107     52.7     96     47.3     1111       Implement Postatal Ca	pregnant women					
Rarely     16     53.3     14     46.7       Frequency     135     53.8     116     46.2       Rarely     17     45.9     20     54.1       Frequency     131     55.3     106     44.7       Give calcium tablets to pregnant women     5     41.7     7     56.3     0.478       Rarely     18     47.4     20     52.6     54.17       Frequency     184     47.4     20     52.6     57.9       Rarely     18     47.4     20     52.6     57.9       Frequency     131     55.0     107     45.0     55.0       Carrying out classes for pregnant women     5     41.7     7     53.8     0.759       Rarely     19     50.0     19     50.0     19     50.0       Frequency     129     54.4     108     45.6     1109     55.0     172     34.4     0.252       Rarely     23     65.7     12     34.4     0.252	Never	3	42.9	4	57.1	0.849
Frequency     135     53.8     116     46.2       Give Fe tablets 90 seeds to pregnant women     6     42.9     8     57.1     0.409       Rarely     17     45.9     20     54.1     54.1       Frequency     131     55.3     106     44.7     64.7       Give calcium tablets to pregnant women     5     41.7     7     58.3     0.478       Rarely     18     47.4     20     52.6     52.6     52.6       Frequency     131     55.0     107     45.0     53.8     0.759       Rarely     18     47.4     20     52.6     52.6     52.6       Frequency     129     54.4     108     45.6     50.0     52.7       Rarely     19     50.0     19     50.0     52.7     53.8     0.759       Rarely     24     48.0     26     52.0     52.7     54.3     5       Implement Postnatal Care     7     53.8     10.45.7     5     54.3	Rarely	16	53.3	14	46.7	
Give 1e fablets 90 seeds to pregnant women       Never     6     42.9     8     57.1     0.409       Rarely     17     45.9     20     54.1       Frequency     131     55.3     106     44.7       Give calcium tablets to pregnant women     5     41.7     7     58.3     0.478       Rarely     18     47.4     20     52.6     52.6       Frequency     131     55.0     107     45.0     55       Carrying out classes for pregnant women     19     50.0     19     50.0     19       Never     6     46.2     7     53.8     0.759       Rarely     19     50.0     19     50.0     19       Prequency     129     54.4     108     45.6     100       Implement a special stunting prevention     107     52.7     96     47.3       Implement Postnatal Care     107     52.7     96     43.5       Prequency     104     56.5     80     45.7	Frequency	135	53.8	116	46.2	
Never     6     42.9     8     57.1     0.409       Rarely     17     45.9     20     54.1       Frequency     131     55.3     106     44.7       Give calcium tablets to pregnant women     5     41.7     7     58.3     0.478       Rarely     18     47.4     20     52.6     Frequency     131     55.0     107     45.0       Carrying out classes for pregnant women     -     -     50.0     19     50.0     19     50.0     19     50.0     Frequency     129     54.4     108     45.6     Implement a special stunting prevention     - <td>Give Fe tablets 90 seeds to pregnant women</td> <td>0</td> <td>10.0</td> <td>0</td> <td><b>F7</b> 4</td> <td>0.400</td>	Give Fe tablets 90 seeds to pregnant women	0	10.0	0	<b>F7</b> 4	0.400
Iterity     11     4.0.3     20     3.4.1       Frequency     131     55.3     106     44.7       Give calcium tablets to pregnant women     5     41.7     7     58.3     0.478       Rarely     18     47.4     20     52.6     0       Frequency     131     55.0     107     45.0       Carrying out classes for pregnant women     8     47.4     20     52.6       Rarely     19     50.0     19     50.0     Forguency     128     54.4     108     45.6       Implement a special stunting prevention     Frequency     120     54.4     10.8     5.6     1       Never     23     65.7     12     34.4     0.252     Rarely     24     48.0     26     52.0       Frequency     107     52.7     96     47.3     1     107     52     50.0     43.5     109     47.0       Implement Postnatal Care     Never     25     54.3     21     45.7     10.60	Barely	0 17	42.9	o 20	57.1 57.1	0.409
Never     5     41.7     7     58.3     0.478       Rarely     18     47.4     20     52.6     0       Frequency     131     50.0     107     45.0     0       Carrying out classes for pregnant women     19     50.0     19     50.0     19       Never     6     46.2     7     53.8     0.759       Rarely     19     50.0     19     50.0       Frequency     129     54.4     108     45.6       Implement a special stunting prevention     program     - <td< td=""><td>Frequency</td><td>131</td><td>4J.9 55.3</td><td>106</td><td>34.1 44.7</td><td></td></td<>	Frequency	131	4J.9 55.3	106	34.1 44.7	
Never     5     41.7     7     58.3     0.478       Rarely     18     47.4     20     52.6       Frequency     131     50.0     107     45.0       Carrying out classes for pregnant women     6     46.2     7     53.8     0.759       Rarely     19     50.0     19     50.0     19     50.0       Frequency     129     54.4     108     45.6     108     45.6       Implement a special stunting prevention program     7     53.8     0.252     8       Frequency     107     52.7     96     47.3     108       Implement Postnatal Care     7     53.8     0.037*     8       Never     21     63.6     12     36.4     0.037*       Rarely     29     40.8     42     59.2     59.2       Frequency     104     5     50.6     40.0     0.903       Rarely     29     40.8     42     59.2     59.2       Perform early initiation of	Give calcium tablets to pregnant women	101	00.0	100		
Rarely     18     47.4     20     52.6       Frequency     131     55.0     107     45.0       Carrying out classes for pregnant women     55.0     107     45.0       Never     6     46.2     7     53.8     0.759       Rarely     19     50.0     19     50.0       Frequency     129     54.4     108     45.6       Implement a special stunting prevention     57.7     12     34.4     0.252       Rarely     24     48.0     26     52.0     100       Frequency     102     52.7     96     47.3     1100       Implement Postnatal Care     Never     21     63.6     12     36.4     0.037*       Rarely     29     40.8     42     59.2     1100     1100     1100       Delay cutting the umbilical cord (> 30 min)     Never     6     60.0     4     40.0     0.903       Rarely     29     50.3     21     45.7     1100     11000	Never	5	41.7	7	58.3	0.478
Frequency     131     55.0     107     45.0       Carrying out classes for pregnant women     6     46.2     7     53.8     0.759       Rarely     19     50.0     19     50.0     19     50.0       Frequency     129     54.4     108     45.6     Implement a special stunting prevention program       program     23     65.7     12     34.4     0.252       Rarely     24     48.0     26     52.0       Frequency     107     52.7     96     47.3       Implement Postnatal Care     Never     21     63.6     12     36.4     0.037*       Rarely     29     40.8     42     59.2     55.5     <	Rarely	18	47.4	20	52.6	
Carrying out classes for pregnant women       Never     6     46.2     7     53.8     0.759       Rarely     19     50.0     19     50.0       Frequency     129     54.4     108     45.6       Implement a special stunting prevention     129     54.4     108     45.6       Implement a special stunting prevention     23     65.7     12     34.4     0.252       Rarely     24     48.0     26     52.0     52.7       Frequency     107     52.7     96     47.3     1101       Implement Postnatal Care     Never     21     63.6     12     36.4     0.037*       Rarely     29     40.8     42     59.2     51.5     50.0     43.5       Delay cutting the umbilical cord (> 30 min)     Never     6     60.0     4     40.0     0.903       Rarely     25     54.3     21     45.7     51.6     4     44.4     0.79       Preduency     75     48.7     79	Frequency	131	55.0	107	45.0	
Never     6     46.2     7     53.8     0.759       Rarely     19     50.0     19     50.0     19     50.0       Frequency     129     54.4     108     45.6       Implement a special stunting prevention     program     54.4     108     45.6       Never     23     65.7     12     34.4     0.252       Rarely     24     48.0     26     52.0       Frequency     107     52.7     96     47.3       Implement Postnatal Care     7     56.5     80     43.5       Prequency     104     56.5     80     43.5       Delay cutting the umbilical cord (> 30 min)     7     51.3     0.903       Rarely     25     54.3     21     45.7       Frequency     123     53.0     109     47.0       Perform early initiation of breastfeeding     123     53.0     109     47.0       Prequency     75     48.7     79     51.3     10.60       Rarely<	Carrying out classes for pregnant women		40.0	-	50.0	0 750
Name     15     50.0     19     50.0     19     50.0       Frequency     129     54.4     108     45.6       Implement a special stunting prevention     100     56.7     12     34.4     0.252       Rarely     23     65.7     12     34.4     0.252       Rarely     24     48.0     26     52.0       Frequency     107     52.7     96     47.3       Implement Postnatal Care     7     36.6     12     36.4     0.037*       Rarely     29     40.8     42     59.2     59.2       Frequency     104     56.5     80     43.5       Delay cutting the umbilical cord (> 30 min)     104     56.0     43.5       Prequency     104     53.0     109     47.0       Perform early initiation of breastfeeding     123     53.0     109     47.0       Prequency     29     50.9     28     49.1     108     60.0     12     40.0       Previde Vitamin A to postpar	Never	b 10	46.2	/	53.8	0.759
Implement a special stunting prevention     program     Never   23   65.7   12   34.4   0.252     Rarely   24   48.0   26   52.0     Frequency   107   52.7   96   47.3     Implement Postnatal Care   7   96   47.3     Never   21   63.6   12   36.4   0.037*     Rarely   29   40.8   42   59.2     Frequency   104   56.5   80   43.5     Delay cutting the umbilical cord (> 30 min)   8   40.0   0.903     Rarely   25   54.3   21   45.7     Frequency   123   50.0   109   47.0     Perform early initiation of breastfeeding   9   50.0   64.9   27   35.1   0.060     Rarely   29   50.9   28   49.1   9   9   50   64.7   7.9   51     Provide Vitamin A to postpartum mothers   8   60.0   12   40.0   12   40.0     Frequency   18   60.0	Frequency	19	54.4	108	30.0 45.6	
Program     Program       Never     23     65.7     12     34.4     0.252       Rarely     24     48.0     26     52.0       Frequency     107     52.7     96     47.3       Implement Postnatal Care	Implement a special stunting prevention	125	54.4	100	40.0	
Never     23     65.7     12     34.4     0.252       Rarely     24     48.0     26     52.0       Frequency     107     52.7     96     7.3       Implement Postnatal Care     52.7     96     7.3       Never     21     63.6     12     36.4     0.037*       Rarely     29     40.8     42     59.2     52.7       Frequency     104     52.5     80     43.5     50.4       Delay cutting the umbilical cord (> 30 min)     50.5     64.0     40.0     0.903       Rarely     25     54.3     21     45.7       Frequency     12     50.0     109     47.5       Perform early initiation of breastfeeding     50     64.9     27     35.1     0.060       Rarely     29     50.9     28     49.1     5       Provide Vitamin A to postpartum mothers     18     60.0     12     40.0       Frequency     18     65.6     4     44.4     0.739	program					
Rarely     24     48.0     26     52.0       Frequency     107     52.7     96     47.3       Implement Postnatal Care     52.7     96     47.3       Never     21     63.6     12     36.4     0.037*       Rarely     29     40.8     42     59.2       Frequency     104     55.5     80     43.5       Delay cutting the umbilical cord (> 30 min)     55     54.3     21     45.7       Never     25     54.3     21     45.7       Frequency     123     50.0     109     47.0       Perform early initiation of breastfeeding     50     64.9     27     35.1     0.060       Rarely     29     50.9     28     49.1     50     51.3     51.3       Provide Vitamin A to postpartum mothers     18     60.0     12     40.0     51.3       Rarely     18     60.0     12     40.0     51.3     51.3       Rarely     18     60.0     12	Never	23	65.7	12	34.4	0.252
Frequency     107     52.7     96     47.3       Implement Postnatal Care     .	Rarely	24	48.0	26	52.0	
Implement Postnatal Care     21     63.6     12     36.4     0.037*       Rarely     29     40.8     42     59.2       Frequency     104     56.5     80     43.5       Delay cutting the umbilical cord (> 30 min)       40.0     0.903       Rarely     25     54.3     21     45.7       Frequency     123     53.0     109     47.0       Perform early initiation of breastfeeding      88.7     9     51.3       Prequency     29     50.9     28     49.1     9       Frequency     75     48.7     79     51.3     0.060       Rarely     29     50.9     28     49.1     9       Frequency     75     48.7     79     51.3     0.060       Rarely     18     60.0     12     40.0     739       Rarely     19     59.4     13     40.6     74.4       Conduct exclusive breastfeeding counselling     75     51.5     45.5	Frequency	107	52.7	96	47.3	
Rarely   21   60.0   12   30.4   0.037     Rarely   29   40.8   42   59.2     Frequency   104   56.5   80   43.5     Delay cutting the umbilical cord (> 30 min)   104   56.5   80   43.5     Never   6   60.0   4   40.0   0.903     Rarely   25   54.3   21   45.7     Frequency   123   53.0   109   47.0     Perform early initiation of breastfeeding   80.9   27   35.1   0.060     Rarely   29   50.9   28   49.1   49.1     Frequency   75   48.7   79   51.3     Provide Vitamin A to postpartum mothers   79   51.3   79     Rarely   18   60.0   12   40.0     Frequency   13   52.6   118   47.4     Conduct exclusive breastfeeding counselling   9   59.4   13   40.6     Frequency   19   59.4   13   40.6   47.4   47.4     Providing family	Implement Postnatal Care	21	63.6	12	36.4	0.037*
Initiality   104   56.5   80   43.5     Piequency   104   56.5   80   43.5     Delay cutting the umbilical cord (> 30 min)   104   56.5   80   43.5     Never   6   60.0   4   40.0   0.903     Rarely   25   54.3   21   45.7     Frequency   123   53.0   109   47.0     Perform early initiation of breastfeeding   123   53.0   109   47.0     Perform early initiation of breastfeeding   29   50.9   28   49.1     Frequency   75   48.7   79   51.3     Provide Vitamin A to postpartum mothers   5   55.6   4   44.4   0.739     Rarely   18   60.0   12   40.0   12   40.0     Frequency   18   65.5   5   45.5   0.771     Rarely   19   59.4   13   40.6     Frequency   19   59.4   13   40.6     Frequency   19   59.4   13   40.6	Rarely	29	40.8	42	50.4 59.2	0.037
Delay cutting the umbilical cord (> 30 min)     Never     6     60.0     4     40.0     0.903       Rarely     25     54.3     21     45.7       Frequency     123     53.0     109     47.0       Perform early initiation of breastfeeding     123     53.0     109     47.0       Perform early initiation of breastfeeding     29     50.9     28     49.1       Frequency     75     48.7     79     51.7       Provide Vitamin A to postpartum mothers     7     44.4     0.739       Rarely     18     60.0     12     40.0       Frequency     131     50.6     4     44.4     0.739       Rarely     18     60.0     12     40.0     4.4     0.739       Rarely     18     65.6     4     44.4     0.739     4.3     4.6     4.7       Conduct exclusive breastfeeding counselling     6     54.5     5     45.5     0.771       Rarely     19     59.4     13     40.6     4.7<	Frequency	104	56.5	80	43.5	
Never     6     60.0     4     40.0     0.903       Rarely     25     54.3     21     45.7       Frequency     123     50.0     109     47.7       Perform early initiation of breastfeeding           Never     50     64.9     27     35.1     0.060       Rarely     29     50.9     28     49.1       Frequency     75     55.6     4     44.4     0.739       Provide Vitamin A to postpartum mothers       40.0     12     40.0       Frequency     18     60.0     12     40.0     40.6     40.6       Conduct exclusive breastfeeding counselling       45.5     0.771     4.6       Rarely     19     59.4     13     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.6     40.	Delay cutting the umbilical cord (> 30 min)					
Rarely     25     54.3     21     45.7       Frequency     123     53.0     109     47.0       Perform early initiation of breastfeeding     50     64.9     27     35.1     0.060       Rarely     29     50.9     28     49.1       Frequency     75     45.7     79     51.3       Provide Vitamin A to postpartum mothers     7     51.6     4     44.4     0.739       Rarely     18     60.0     12     40.0     74.0     74.0       Frequency     18     60.0     12     40.0     74.0     74.0       Conduct exclusive breastfeeding counselling     7     74.5     74.0     74.0     74.0       Never     6     54.5     5     45.5     0.771     71.0       Rarely     19     59.4     13     40.6     74.0       Frequency     129     52.7     116     47.3       Providing family planning services     70.0     3     50.0     0.388       Ra	Never	6	60.0	4	40.0	0.903
Frequency   123   53.0   109   47.0     Perform early initiation of breastfeeding   50   64.9   27   35.1   0.060     Rarely   29   50.9   28   49.1     Frequency   75   48.7   79   51.3     Provide Vitamin A to postpartum mothers   5   55.6   4   44.4   0.739     Rarely   18   60.0   12   40.0   12   40.0     Frequency   131   52.6   118   47.4   47.4     Conduct exclusive breastfeeding counselling   9   52.5   45.5   0.771     Rarely   19   59.4   13   40.6   13     Frequency   129   52.7   116   47.3     Providing family planning services   129   52.7   116   47.3     Providing family planning services   3   50.0   3   50.0   0.388     Rarely   19   65.5   10   34.5   5   5   5   5   5   5   5   5   5   5   5   5	Rarely	25	54.3	21	45.7	
Periodim early initiation of breastieeding     50     64.9     27     35.1     0.060       Rarely     29     50.9     28     49.1       Frequency     75     48.7     79     51.3       Provide Vitamin A to postpartum mothers      75     48.7     79     51.3       Never     5     55.6     4     44.4     0.739       Rarely     18     60.0     12     40.0       Frequency     131     52.6     118     47.4       Conduct exclusive breastfeeding counselling       75     48.7     5     5     6     74     40.0       Frequency     131     52.6     118     47.4            771	Frequency	123	53.0	109	47.0	
Never   50   64.3   27   50.1   0.000     Rarely   29   50.9   28   49.1     Frequency   75   48.7   79   51.3     Provide Vitamin A to postpartum mothers   75   55.6   4   44.4   0.739     Rarely   18   60.0   12   40.0   12   40.0     Frequency   131   52.6   118   47.4   74     Conduct exclusive breastfeeding counselling   13   50.4   13   40.6     Frequency   19   59.4   13   40.6     Frequency   19   59.4   13   40.6     Frequency   19   59.4   13   40.6     Providing family planning services   19   50.0   3   50.0   0.388     Rarely   19   65.5   10   34.5   5   14.5   5     Frequency   132   52.2   121   47.8   2   2   2   2   2   2   2   3   3   3   3   3   3   3<	Never	50	64.0	27	35.1	0.060
Initiality     Image: Constraint of the second sec	Barely	29	50.9	28	49.1	0.000
Provide Vitamin A to postpartum mothers     5     55.6     4     44.4     0.739       Rarely     18     60.0     12     40.0       Frequency     131     52.6     118     47.4       Conduct exclusive breastfeeding counselling     131     52.6     118     47.4       Conduct exclusive breastfeeding counselling     19     59.4     13     40.6       Frequency     19     59.4     13     40.6       Frequency     19     59.4     13     40.6       Providing family planning services     Never     3     50.0     3     50.0     0.388       Rarely     19     65.5     10     34.5     Frequency     Frequency     132     52.2     121     47.8	Frequency	75	48.7	79	51.3	
Never     5     55.6     4     44.4     0.739       Rarely     18     60.0     12     40.0       Frequency     131     52.6     118     47.4       Conduct exclusive breastfeeding counselling     52.6     118     47.4       Never     6     54.5     5     45.5     0.771       Rarely     19     59.4     13     40.6       Frequency     19     59.4     13     40.6       Providing family planning services     7     116     47.3       Never     3     50.0     3     50.0     0.388       Rarely     19     65.5     10     34.5     5       Frequency     132     52.2     121     47.8	Provide Vitamin A to postpartum mothers					
Rarely     18     60.0     12     40.0       Frequency     131     52.6     118     47.4       Conduct exclusive breastfeeding counselling     52.6     118     47.4       Never     6     54.5     5     45.5     0.771       Rarely     19     59.4     13     40.6       Frequency     129     52.7     116     47.3       Providing family planning services     52.7     116     47.3       Never     3     50.0     3     50.0     0.388       Rarely     19     65.5     10     34.5     5       Frequency     132     52.2     121     47.8	Never	5	55.6	4	44.4	0.739
Frequency     131     52.6     118     47.4       Conduct exclusive breastfeeding counselling	Rarely	18	60.0	12	40.0	
Never     6     54.5     5     45.5     0.771       Rarely     19     59.4     13     40.6       Frequency     129     52.7     116     47.3       Providing family planning services     50.0     3     50.0     0.388       Rarely     19     65.5     10     34.5       Frequency     12     52.2     121     47.8	Frequency	131	52.6	118	47.4	
Never     3     50     34.5     5     43.5     61.771       Rarely     19     59.4     13     40.6     Frequency     129     52.7     116     47.3       Providing family planning services     Never     3     50.0     3     50.0     0.388       Rarely     19     65.5     10     34.5       Frequency     132     52.2     121     47.8	Conduct exclusive breastreeding counselling	6	<b>51 5</b>	5	15 5	0 771
Its     55.4     10     40.5       Frequency     129     52.7     116     47.3       Providing family planning services     8     50.0     3     50.0     0.388       Rarely     19     65.5     10     34.5     57.7     57.8       Frequency     132     52.2     121     47.8     57.9	Rarely	0 10	54.5 50 /	5 13	45.5 40.6	0.771
Providing family planning services     Never     3     50.0     3     50.0     0.388       Rarely     19     65.5     10     34.5       Frequency     132     52.2     121     47.8	Frequency	129	52.7	116	47.3	
Never     3     50.0     3     50.0     0.388       Rarely     19     65.5     10     34.5       Frequency     132     52.2     121     47.8	Providing family planning services					
Rarely     19     65.5     10     34.5       Frequency     132     52.2     121     47.8       Providing complementary feeding     52.2     121     47.8	Never	3	50.0	3	50.0	0.388
Frequency 132 52.2 121 47.8 Providing complementary feeding	Rarely	19	65.5	10	34.5	
Providing complementary teeding	Frequency	132	52.2	121	47.8	
	Providing complementary feeding					
Never 3 /2 0 / 57 1 0 769	Never	3	42 0	4	57 1	0 768
Rarely 16 50.0 16 50.0	Barely	16	50.0	16	50.0	0.700
Frequency 135 54.2 114 45.8	Frequency	135	54.2	114	45.8	

midwives has a significant relationship to the prevalence of stunting children under two with a value of p < 0.05.

### Discussion

A midwife is a woman who graduated from a midwifery education recognized by the government

and professional organizations in the territory of the Republic of Indonesia and has the competence and qualifications to be registered, certified and/or legally licensed to carry out midwifery practices. Midwives are responsible and accountable professionals, who work as partners for women to provide support, care and advice during pregnancy, labor, and childbirth, facilitate and lead delivery on their own responsibility and provide care for newborns, and babies. This care includes prevention, promotion of normal delivery, detection of complications in mothers and children, and access to medical assistance or other appropriate assistance, as well as carrying out emergency measures [10].

Midwives have an important task in counseling and health education, not only for women but also for families and communities. These activities include antenatal education and preparation for parenthood and can extend to women's health, sexual health or reproductive health, and child care. Midwives can practice in a variety of service settings: including at home, community, hospital, clinic, or other health units [10].

The Indonesian Midwives Association is a professional organization for midwives in Indonesia. It is a midwives' body in achieving their goals through policies to increase the professionalism of members to ensure that the community gets guality services. The Indonesian Midwives Association was founded on 24 June 1951, became a member of the Indonesian Women's Congress in 1951, and joined as a member of the International Confederation of Midwives in 1956. The mission of the Indonesian Midwives Association is to increase organizational strength, increase the role of the Indonesian Midwives Association in improving the quality of midwife education and services, improve the welfare of members and establish cooperation with networks. The values that underlie the Indonesian Midwives Association are prioritizing togetherness, unifying themselves in one forum, protecting members, self-development, participation in the community, maintaining the image of a midwife, and providing quality services to mothers and children.

A retrospective study assessed antenatal use using an index of prenatal care use. The use of intensive antenatal care was noted in more than half of low-risk women. On the other hand, there are 26% of women at high risk without the expected intensive use. High-risk or non-educated women tend to have higher rates of utilization of antenatal care compared to educated ones [11].

Antenatal care is defined as care provided by skilled health care professionals to pregnant women and women to ensure the best possible health conditions for both mother and baby during pregnancy. ANC components include risk identification; prevention and management of pregnancy-related or concurrent diseases; and health education and health promotion [12]. The Svefors (2019) study shows that currently, most interventions are carried out in late infancy and early childhood. Studies that identify the most critical prenatal and postnatal determinants of 0–24 months linear growth and risk factors for stunting at 2 years show that determinants of stunting in rural young children include a wide range of high-quality prenatal and postnatal data, household and family information, environmental factors, Child characteristic at birth, infant feeding and morbidity. Prenatal factors including childbirth, maternal anthropometry, and parental education are critical factors for stunting at 24 months of age [13].

The study of Schmidt (2002) shows that one of the determinants of growth and nutritional status of infants in Indonesia is a postnatal factor. Neonatal weight ( $3.2 \pm 0.5$  kg) and length ( $49.7 \pm 2.2$  cm) are still reasonable. However, growth starts to weaken at the age of 6–7 months or after delivery resulting in a prevalence of 24% stunting and 32% underweight at 12 months of age. Multiple regression models explain 19–41% of the variation in growth and nutritional status of infants. Neonatal weight ( $\beta = 0.285$ ) and length ( $\beta = 0.492$ ) were the strongest positive predictors of weight Z score for age and height for age [14].

Study Krisnana (2020) showed Exclusive breastfeeding was the only postnatal factor that was associated with stunting. Infants who were given exclusive breast milk had a 3.98 times lower risk of stunting compared to babies who did not get exclusive breast milk [15]. Early detection of postpartum depression, intervention, prevention or treatment of maternal depressive disorders, and effective measures will not only reduce the burden of postpartum depression on mothers but will also aid newborn growth [16].

Systematic reviews of 14 studies in low and middle-income countries show that the education of mothers and their partners is the most significant factor in influencing maternal health service use in addition to wealth quintile, media exposure, and rural/urban housing [17]. There are five factors that contribute to stunting, namely: household and family factors, inadequate complementary feeding, inadequate breastfeeding practices, infectious disease factors, and social and community factors. Household and family factors which include: malnutrition during preconception, pregnancy, and breastfeeding, short mothers, infections, teenage pregnancy, mental health, intrauterine growth retard (IUGR) and preterm birth, close labor distance, hypertension, stimulation and activity Inadequate children, poor care practices, Inadequate sanitation and water supply, food insecurity, inadequate household food allocation, and low caregiver education. Inadequate complementary food factors include; poor quality micronutrients in complementary foods, low food diversity and food ingredients containing anti-nutrition, low energy content in complementary foods, rarely, inadequate food during and after illness, consistency of liquid food, insufficient amount of food, food unresponsiveness, contamination of food and water, poor hygiene practices, and unsafe storage and preparation [18].

In Indonesia, the SUN Movement is called the National Movement for the Acceleration of Nutrition Improvement in the Framework of the First 1000 Days of Life, shortened to the First 1000 Days of Life Movement. To formulate the First 1000 Days of Life Movement in Indonesia, a series of activities have been carried out involving key stakeholders consisting of Ministries and Institutions, the business world, international development partners, social and community organizations, and supported by professional organizations, universities, and the media. The First 1000 Days of Life Movement consists of specific nutrition interventions and sensitive nutrition interventions. Specific intervention is an action or activity which in its planning is specifically aimed at the group of the First 1000 Days of Life. These activities are generally carried out by the health sector, such as immunization, supplementary feeding for pregnant women and toddlers, monitoring the growth of toddlers at integrated-service-post, supplementing pregnant women with iron-folate tablets, promoting exclusive breastfeeding, complementary feeding for breast milk, and so on. The specific intervention is short-term, the results can be recorded in a relatively short time. While sensitive interventions are various development activities outside the health sector. The target is the general public, not specifically for the first 1000 days of life. However, if planned specifically and integrated with specific activities, the impact is sensitive to the safety of the growth and development process of the first 1000 days of life [19].

Consistent evidence of the determinant of stunting in Indonesia shows that non-exclusive breastfeeding for the first 6 months, low socioeconomic status of the household, preterm birth, short birth length, low maternal height, and education are determinants of stunting in Indonesia. Breastfeeding children up to the age of two was targeted for measures to avoid stunting in children under the age of two following natural disasters [20]. Households with latrines that are not repaired and untreated drinking water are also at higher risk. Community factors, poor access to health care, and living in rural areas, have been repeatedly linked to stunting [21]. In carrying out infant and child feeding to the extent possible to avoid bottle feeding. If forced to use a milk bottle, a good knowledge of cleanliness and presentation is needed [22]. Counseling is a crucial component of an effective infant and young child feeding. Counseling takes place in person, with the counselor meeting with pregnant women, mothers of toddlers, and caregivers. The benefit of providing infant and young child feeding therapy is that mothers would be aware of their children's nutritional status [23]. Role of midwives and Indonesian midwives Association in Reducing Risk Factors for Stunting in Indonesia is important in implementing postnatal care.

The limitation of this study is that the target sample is all midwives in Indonesia, but the sample is not evenly represented in several provinces in Indonesia.

### Conclusions

Implement postnatal care as a duty of midwives has a significant relationship to the prevalence of stunting children under two with a value of p < 0.05. Role of Midwives in reducing risk factors for stunting in Indonesia is important in implementing postnatal care. The suggestion of this research is that the results of this study can become a policy brief regarding the role and involvement of midwives and the Indonesian Midwives Association in an effort to prevent stunting in Indonesia.

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