

## **OVERVIEW OF THE NUMBER OF TODDLERS IN THE FAMILY AND THE HEALTH CONDITION OF TODDLERS IN THE IMPLEMENTATION OF IMMUNIZATION**

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### **ABSTRACT**

This study aims to describe the number of toddlers in the family and the health conditions of toddlers at the time of immunization. This study used a quantitative descriptive design. A sample of 103 respondents was selected using a simple random sampling technique. The results showed that most mothers cared for fewer than two toddlers (89.3%), and all toddlers who received immunization were in good health (100%). The study concluded that the number of toddlers and the toddlers' health conditions were in the category that supported the implementation of immunization.

Keywords: Children Under Five Years Old, Immunization

### **INTRODUCTION**

Immunization is one of the most effective public health interventions in reducing morbidity, disability, and mortality in infants and toddlers. Through immunization, the child's body acquires specific immunity to various infectious diseases that have the potential to cause serious complications. Various studies show that immunization has been widely proven to be an effective and cost-effective health intervention in disease prevention efforts worldwide (Ismail et al., 2023). The success of immunization programs does not only depend on the availability and distribution of vaccines, but is also greatly influenced by the level of parental understanding and awareness of the importance of immunization for children's health (Devita, 2020).

The immunization status of infants and toddlers is influenced by various interrelated factors, both individual, family, and social environment. Educational factors and parental knowledge are important determinants in making decisions related to child immunization. In addition, family support and the role of the community also contribute to the successful implementation of the immunization program (Nur et al., 2022). Lack of socialization and effective communication between health workers and the public can lead to low levels of understanding, which ultimately leads to non-adherence to immunization schedules (Ismail et al., 2023). Research by Mardianti & Farida (2020) also showed that infants living in areas with limited access to immunization information and services tend to have incomplete immunization status.

Toddlers are an age group that is very susceptible to infectious diseases because the immune system has not developed optimally. Therefore, the provision of immunization properly and according to schedule is a basic need for this age group. The implementation of immunization in toddlers is influenced by various family factors, both internal and external. One of the factors that has the potential to affect the completeness of immunization

is the number of toddlers in the family. Families with a larger number of children tend to face limited attention, time, and access to health services, which can have an impact on declining immunization completeness (Samino et al., 2024; Harahap et al., 2023). Family support and parental understanding of the benefits of immunization have also been shown to contribute significantly to the success of vaccination programs in toddlers (Harahap et al., 2023; Masulilli et al., 2023).

In addition to family factors, the health condition of toddlers is an important aspect in the implementation of immunization. Immunization is generally given to children in healthy and optimal conditions, so that the physical health status of toddlers is the main consideration in the implementation of immunization (Ali et al., 2024). Toddlers who experience health problems, including malnutrition or acute illness, often experience delays or even incompleteness of immunization because they require more urgent medical treatment (Pratiwi & Hasriani, 2023). Therefore, monitoring the growth and development and health status of toddlers through public health programs, such as Posyandu, plays an important role in ensuring the readiness of toddlers to receive complete and timely immunizations (Harahap et al., 2023).

Various previous studies have examined factors that affect the implementation of immunization, especially those related to maternal knowledge and attitudes. Research by Nurhayati et al., (2024) at the Babelan II Health Center showed a significant relationship between maternal knowledge and immunization compliance, with a p value of 0.000 in 274 mothers under five. Similar results were also found by Aprilianto et al., (2024) at the Menteng Health Center, who reported that mothers with a high level of knowledge were more likely to complete the immunization of clowns ( $p = 0.005$ ). Meanwhile, research by Mamahit et al., (2025) in the Modinding area showed that 90.3% of toddlers from mothers with good knowledge had complete immunization status, with a p value of 0.001. These findings indicate that maternal knowledge is a consistent factor related to the success of immunization in toddlers.

Nonetheless, most of the existing research uses an analytical approach and focuses on maternal factors, such as knowledge, attitudes, and behaviors, as the main determinants of immunization implementation. Research that specifically describes the number of toddlers in the family and the health conditions of toddlers in the implementation of immunization is still relatively limited, especially in the context of descriptive research in public health services. In fact, these two aspects have an important role in supporting the success of the immunization program and need to be comprehensively understood.

Based on previous research studies, it can be identified that there is a research gap, namely the lack of studies that focus on the picture of the number of toddlers in the family and the health conditions of toddlers as supporting factors for the implementation of immunization without directly associating it with other analytical variables such as knowledge or maternal attitudes. Descriptive information on these two aspects is very important as basic data in the planning, implementation, and evaluation of immunization programs at the primary health service level.

The novelty of this study lies in presenting a descriptive picture of the number of toddlers in the family and the health conditions of toddlers in the implementation of immunization. This study does not emphasize the causal relationship, but rather provides a contextual initial picture of family conditions and child health that support the successful implementation of immunization, especially in public health services.

## RESEARCH METHOD

This study is a quantitative research with a quantitative descriptive design that aims to describe the number of toddlers in the family and the health conditions of toddlers in the implementation of immunization. The data of this study is primary data collected in April 2010 and re-analyzed descriptively with the support of the latest scientific literature to provide a contextual picture of the implementation of immunization in toddlers. The descriptive approach is used to present the characteristics of the respondents as they are in the form of frequency and percentage distributions, without conducting relationship analysis or hypothesis testing.

## RESULTS

### Overview of the Number of Toddlers Who Are Cared for by Immunization

Table. 1  
Frequency Distribution of the Number of Toddlers Who Are Taken Care of Immunization

Number of Toddlers	F	%
< 2 children	92	89.3
>2 children	11	10.7
Total	103	100.0

The results of the study in table 1 show that most respondents have fewer than two children under the age of toddlers in their care. Of the total 103 respondents, 92 mothers (89.3%) took care of less than two toddlers, while 11 mothers (10.7%) took care of more than two toddlers. These findings illustrate that the majority of respondent families have a relatively small number of toddlers at the time of immunization.

### An Overview of the Condition/Health of Toddlers Against Immunization in Toddlers

Table. 2  
Distribution of Frequencies of Health Conditions of Toddlers  
in the Implementation of Immunization

Toddler condition/health	F	%
Healthy	103	100
Total	103	100.0

Based on table 2, all toddlers who received immunizations were in good health. Of the total 103 toddlers who became respondents, all (100%) were recorded in good health at the time of immunization. These results show that immunization is given to toddlers with health conditions that meet the requirements for immunization.

## DISCUSSION

### An Overview of the Number of Toddlers Who Are Cared for by Immunization

The results showed that the majority of respondents were in the category of small families, namely having 1-2 children as many as 92 respondents (89.3%), while respondents with more than two children were only 11 respondents (10.7%). The dominance of this small family indicates that most mothers have a relatively lighter parenting burden, so that they are theoretically better able to manage children's health needs, including in fulfilling the immunization of toddlers in a timely and complete manner.

Family size is known to have an influence on mother's parenting patterns and adherence in immunization. Mothers who have their first child or are in a small family tend to have more focused attention, time, and resources on each child, making it easier to schedule immunization visits and follow the recommendations of health workers. The results of this study are in line with the findings of Efendi (2020) who stated that mothers with fewer children have a greater chance of completing child immunizations than mothers with a large number of children. In fact, mothers with their first child were reported to have a 2.84 times greater chance of being fully immunized than mothers with six or more children.

On the other hand, families with more than two children tend to face various obstacles in the implementation of immunization for toddlers. These obstacles include the complexity of setting different immunization schedules for each child, limited maternal time and energy, and physical fatigue due to the heavier burden of parenting. This condition has the potential to cause delays or incompleteness of immunization. Research by Rahayuwati et al., (2025); Atkinson et al., (2024) also shows that extended families have a higher risk of immunization non-compliance due to increasing parenting demands and uneven distribution of attention.

In addition to family size, other contextual factors such as maternal education level, economic conditions, access to health facilities, and family support also affect the success of immunization of children under five. Mothers with lower levels of education tend to have a limited understanding of the benefits and schedule of immunization, thus increasing the risk of immunization incompleteness (Hartanti et al., 2024). Family support, especially from husbands and other family members, also plays an important role in encouraging maternal adherence to immunization programs, where lack of support can reduce maternal participation in child health services (Zaimy & Rahayuningrum, 2020; Siramaneerat & Agushyana, 2021).

Based on the results of the research and the support of the literature, it can be concluded that family size is an important factor that affects parenting patterns and immunization compliance in toddlers. Small families are more supportive of the implementation of routine and complete immunization, while large families need special attention through more intensive educational approaches and increased access and support for health services. Therefore, health workers are expected to identify families with more than two children as a priority group in an effort to improve immunization coverage and overall health status of children.

### **Overview of the Condition/Health of Toddlers to Immunization in Toddlers.**

The results showed that all toddlers who were immunized by mothers were in good health, namely 103 respondents (100%). These findings confirm that the role of mothers is very crucial in the successful implementation of immunization, considering that mothers are the main decision-makers in meeting children's health needs, including in determining the completeness and timeliness of immunization. The optimal health condition of toddlers in all respondents reflects the success of preventive care carried out by mothers through adherence to recommended immunization programs.

Previous research has shown that maternal knowledge, attitudes, and behaviors have a significant effect on children's immunization status. Mothers who have adequate knowledge and a positive attitude towards immunization tend to be more obedient in providing complete immunizations to their children (Elbert et al., 2023). In addition, the support of health workers and the use of information media by mothers have been proven to increase

understanding of the benefits and immunization schedules, thus having an impact on increasing the coverage of immunization of toddlers (Machmud et al., 2022). Thus, a good health condition for toddlers can be an indicator of the success of the mother's role in managing children's health preventively.

Other factors that also affect the completeness of immunization and health conditions for toddlers include the child's birth order, family socioeconomic status, and access to health care facilities (Siramaneerat & Agushybana, 2021). Mothers with their first child or those in a small family generally have more focused attention and resources, so they are more consistent in carrying out immunizations. Nour et al., (2020) research states that families with 1–2 children allow mothers to give more optimal attention, which has an impact on increasing adherence to immunization schedules. On the other hand, large families with a number of  $\geq 5$  members have a higher risk of incomplete immunization due to limited maternal attention, time, and resources (Kebede et al., 2025).

The condition of all toddlers who are in good health also shows the effectiveness of family support in overcoming various logistical challenges that are often obstacles to immunization, such as the timing of visits to health facilities and maternal physical fatigue. Family support, both emotionally and instrumentally, plays an important role in improving the consistency of mothers in bringing children to health services. This is in line with research by Fauziyah et al., (2023) which states that active family involvement contributes significantly to immunization compliance and improvement of children's health status.

In addition to protecting children individually, mothers' compliance in the implementation of immunization also plays an important role in the formation of herd *immunity*, which effectively suppresses the spread of infectious diseases in the community. Although immunization coverage in Indonesia is relatively high, the timeliness of immunization is still a challenge that needs to be improved so that herd immunity can be achieved optimally (Oktaria et al., 2022). Family support, continuous education from health workers, and maternal trust in health authorities are key factors in increasing immunization compliance and the sustainability of the national immunization program (Zaimy & Rahayuningrum, 2020).

Based on this description, it can be concluded that the mother's responsibility in the implementation of immunization, which is supported by a small family structure and optimal family support, contributes significantly to the health condition of toddlers. Therefore, efforts to increase immunization coverage need to continue to be focused on strengthening the role of mothers through continuous health education, increasing access to health services, and supporting families and health workers, in order to maintain and improve the overall health status of children.

## CONCLUSION

The conclusion of the study showed that the number of children under five in their care was dominated by families with  $< 2$  children (89.3%), while the health condition of those under five who were immunized reached 100% healthy. The distribution of 89.3% of respondents with 1-2 children reflects a lighter parenting burden, which supports immunization adherence in primipara mothers through gradual understanding. All 103 respondents under five in good health (100%) affirmed the effectiveness of maternal responsibility and family support, overcoming potential logistical challenges in large families (10.7%).

## SUGGESTION

It is recommended that health workers in primary health services continue to strengthen education and assistance to mothers, especially in families with more than two children, in order to increase compliance and timeliness of immunization of toddlers. Strengthening the role of health cadres and family support needs to be optimized to support the success of the immunization program. Further research is expected to use analytical design to examine the factors that affect the completeness and timeliness of immunization more comprehensively.

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