

# **Counseling of Complete Basic Immunization Coverage in Agricultural Communities in Tuwi Kareung Village, Pasie Raya Sub-District, Aceh Jaya District**

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## **Abstract**

The coverage of complete basic immunization in Aceh is still low, including in Tuwi Kareung Village, Pasie Raya Sub-district, Aceh Jaya District, although some mothers are aware of the benefits of immunization. Problems that arise are limited permission from husbands, family influence, and low environmental support. To answer this, counseling was conducted at the posyandu and door to door visits to 19 mothers of infants using lecture, discussion, leaflet distribution, and evaluation through pretest and posttest. The results showed an increase in knowledge, with the good category increasing from 16% to 58%, the moderate category decreasing from 58% to 37%, and the low category decreasing from 26% to 5%. Thus, counseling is proven to be able to improve maternal understanding, although family involvement is needed so that complete basic immunization coverage in the village can increase more optimally.

**Keywords:** Counseling; Immunization; Knowledge; Public Awareness

## **Introduction**

One of the most effective and efficient forms of intervention in public health is immunization, which is believed to save millions of lives each year. The implementation of the complete basic immunization program has been carried out in Indonesia since 1956 and continues to evolve through the Immunization Development Program (IDP). The goal is to provide protection against PD3Is such as diphtheria, tuberculosis, measles, hepatitis B. and polio (Wigunarti et al., 2025).

The Ministry of Health defines health as important for every individual. Health includes the optimal mental, physical, and social condition of a person, thus increasing their chances of living a productive life, both in the social and economic fields. This is especially crucial for children, as good health can be a valuable asset for their future and support optimal physical, social-emotional and cognitive development (Akbar et al., 2025).

Health Law No. 17 of 2023 emphasizes that vaccination is mandatory for all infants and children as a protective measure against communicable diseases (PD3I). In this provision, immunizations are classified into two main groups, namely program immunizations and optional immunizations. Program immunization includes vaccinations that are mandatory to prevent PD3Is, while routine, supplementary, and special immunizations are also included in the program immunization group (Dewi et al., 2022).

Approximately 115 million infants or 89% of all infants in the world have received at least one dose of diphtheria, tetanus and pertussis (DTP) combination vaccine. Of these, approximately 109 million infants, or about 85%, completed the full three doses. This data comes from the latest report on national immunization coverage released by the World Health Organization (WHO) and UNICEF. In Indonesia, the complete basic immunization rate in 2018 was 90.61%, slightly lower than the Strategic Plan target of 92.5% (Handayani et al., 2025). Aceh province ranked third lowest with an achievement of only 41.5%. The term Universal Child Immunization (UCI) refers to the village of or urban villages where at least 80% of infants have received complete basic immunization (Afdila et al., 2024).

Other findings revealed that the majority of parents of children who were not fully immunized actually understood the benefits of immunization in promoting increased immunity in children and protecting them from disease. However, the limited information they receive makes their attention to immunization low. Parents have more concerns about the content of vaccines than the benefits. This condition is exacerbated by the prevalence of false information (hoaxes) about immunization and news about adverse events after immunization (AEFI), which further fosters public hesitation to bring their children for immunization (Wigunarti et al., 2025).

Low immunization coverage is not only caused by constraints on access to health services, individual and family variables, but also socio-cultural factors that occur in the community. A study that observed several studies how much influencing factors when correlated with immunization coverage, knowledge factors, family support, and community perceptions greatly determine the success of immunization programs. Therefore, efforts to raise awareness through health counseling are very important so that people get the right information.

In 2025, Tuwi Kareung Village has a total of 72 children under five years of age, divided into two posyandu, namely Post 1 with 29 children under five and Post 2 with 43 children under five. Based on immunization target data for children aged 0-24 months, in Post 1 there are 10 children but only 4 children have received complete basic immunization, while in Post 2 of the existing targets, only 2 children have received complete basic immunization.

Tuwi Kareung Village, Pasie Raya Sub-district, Aceh Jaya District is one of the locations of Field Learning Practice (PBL) 2 students of the Faculty of Health Sciences, Teuku Umar University. Where some mothers actually have the desire to immunize their children. However, obstacles still often arise, such as not getting permission from husbands and grandmothers of toddlers, as well as a lack of family understanding of the benefits of immunization. This situation is one of the reasons why the coverage of complete basic immunization is not optimal.

Health counseling is an important step to address this issue. Through counseling at posyandu and door to door visits, mothers can be given a better understanding of the schedule, benefits, and risks if their children are not immunized. Thus, this community service activity aims to increase awareness and encourage the commitment of mothers in completing complete basic immunization for their children, so that it is expected to contribute to increasing immunization coverage in Tuwi Kareung Village.

## Methods

This community service activity was carried out in Tuwi Kareung Village, Pasie Raya Sub-district, Aceh Jaya District in July 2025. The targets of the activity are mothers who have children under two years old and mothers who are present at the posyandu at the time of the activity. The method of implementation was carried out through two approaches, namely counseling at the posyandu and door to door visits to the homes of mothers with young children.

The first stage was counseling at the posyandu which was held in conjunction with routine posyandu activities. Counseling was provided by the team with the support of village midwives and posyandu cadres. The material presented included the definition of complete basic immunization, the schedule of administration, the benefits of immunization, and the impact if the child does not get immunized according to age. The delivery was carried out using interactive lecture methods and simple discussions, using leaflet and poster media.

The second stage is door-to-door visits to the homes of mothers with infants, especially for those who cannot attend the posyandu due to busy schedules. At this visit, counseling was conducted personally with easy-to-understand language, so that the message about the importance of complete basic immunization was still well conveyed. In addition to delivering the material directly, the team also distributed leaflets as additional reading material at home.

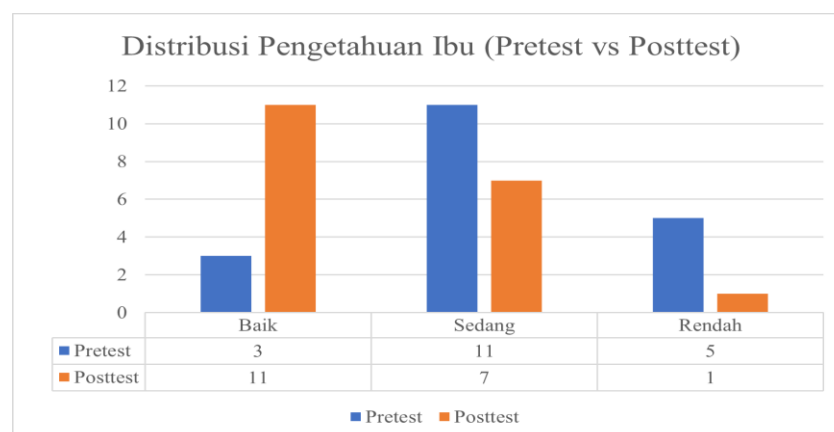
Evaluation of activities is carried out by observing the mother's response during the activity and through records of posyandu cadres regarding changes in the mother's interest and willingness to complete basic immunization for her child after counseling is carried out.

## Results

The complete basic immunization counseling activity in Tuwi Kareung Village, Pasie Raya Sub-district, Aceh Jaya District was carried out using two methods, namely counseling at the posyandu and door to door visits. Activities at the posyandu were attended by 22 mothers, although not all were able to participate due to their busy schedules. To reach more specific targets, door to door visits were made to 19 mothers with infants. In the door to door activity, pretest and posttest were conducted and leaflets were distributed as additional educational media.



**Figure 1.** Counseling at Posyandu and Door to Door



**Figure 2.** Results of Maternal Knowledge Distribution (Pretest vs Posttest)

The graph above shows that there is an increase in maternal knowledge after complete basic immunization counseling, where the good category increased from 3 people (16%) to 11 people (58%), the moderate category decreased from 11 people (58%) to 7 people (37%), and the low category decreased from 5 people (26%) to 1 person (5%), so it appears that counseling is able to increase the mother's understanding of the importance of immunization.

**Table 1.** Results of pretest and post-test of complete basic immunization counseling

Question	<i>Pre-test</i>				<i>Post-test</i>			
	Correct		False		Correct		False	
	n	%	n	%	n	%	n	%
1. Immunization only needs to be given once in a lifetime in child.	5	26%	14	74%	17	89%	2	11%
2. Immunization can prevent dangerous diseases in children under five.	12	63%	7	37%	18	95%	1	5%
3. Children who have already had measles do not need immunization measles.	6	32%	13	68%	16	84%	3	16%
4. Side effects of immunization such as low-grade fever are which is reasonable.	10	53%	9	47%	18	95%	1	5%
5. Complete basic immunization is given only to infants under 6 month.	7	37%	12	63%	17	89%	2	11%
6. Infants start to require complementary foods at 6 months of age.	13	68%	6	32%	18	95%	1	5%
7. Toddlers should eat only 2 meals a day to avoid satiety.	8	42%	11	58%	16	84%	3	16%
8. Vegetables and fruits are important to give to children under five every day.	12	63%	7	37%	18	95%	1	5%
9. Balanced nutrition only means eating enough rice.	9	47%	10	53%	16	84%	3	16%
10. Exclusive breastfeeding is given from birth to 6 months of age with no other additions.	14	74%	5	26%	19	100%	0	0%

The table of pretest and post-test results of complete basic immunization counseling shows an increase in maternal knowledge after being given counseling. At the pretest stage, most mothers still answered incorrectly, such as in question number 1 "immunization only needs to be given once in a lifetime" where only 26% answered correctly, on question number 1 "immunization only needs to be given once in a lifetime" where only 26% answered correctly, while after counseling it increased to 89%. Likewise, in the question about the side effects of immunization (number 4), initially 53% answered correctly, increasing to 95% in the post-test. Another question that experienced a large increase was related to exclusive breastfeeding (number 10), from 74% to 100%.



Figure 2. Complete Basic Immunization Leaflet

## Discussion

The counseling carried out is a health education effort to increase mothers' understanding of the importance of complete basic immunization in children. This activity was carried out in a structured manner, starting with a pretest to determine the initial level of knowledge of the participants, then continued with the provision of material on the benefits of immunization, types of basic immunization, schedule of administration, as well as an explanation of minor side effects that may occur after immunization and how to handle them. The delivery of the material was carried out interactively through lectures and discussions, so that mothers did not only receive information in one direction, but also had the opportunity to ask questions and share experiences related to their child's immunization. Counseling is an effort to improve the knowledge, skills, and attitudes of individuals or groups through the transfer of information and experience. This is proven by the results of community service (Nufus et al., 2024). Complete basic immunization coverage in Indonesia is still low, which is thought to be based on several factors such as maternal knowledge and beliefs (Suryawati et al., 2021).

However, field observations show that increased knowledge has not fully impacted immunization practices. Some mothers still do not bring their children to the posyandu due to limited permission from their husbands or the influence of the toddler's grandmother in decision making. The attitude of mothers who are positive but do not provide basic immunization to their children is motivated by fear and hesitation to provide basic immunization to their children, as well as the negative attitude of mothers regarding the provision of basic immunization, another reason is not getting support from the family (Putri et al., 2022).

This finding shows that increasing knowledge through counseling needs to be continued with strategies that involve the family. Maternal compliance in immunization is not only influenced by the level of knowledge, but also by family support, especially in providing permission and moral encouragement (Jayatmi & Noviyani, 2023). Maternal behavior in providing complete basic immunization is influenced by three main factors, namely knowledge, motivation, and family support that provides reinforcement in decision making (Fauzi et al., 2024).

As a supporting material, leaflets containing brief and clear information about complete basic immunization were also distributed. This leaflet is intended to provide mothers with additional reading resources that can be studied at home, as well as help them convey information to other family members, especially husbands, who often have a major



influence in making decisions related to children's health. With this counseling method accompanied by leaflet distribution, mothers seemed to understand the importance of immunization better, as evidenced by the posttest results which showed an increase in knowledge compared to before the counseling was conducted.

A sheet-shaped communication tool used to convey information, including in the health sector, is known as a leaflet. This information sheet contains text, images, or a combination of both that have been designed in such a way as to attract the attention of the reader. The advantages of leaflet media lie in its practical, foldable, and compact form so that it can be stored simply, read repeatedly, and distributed quickly. In addition, the material on the leaflet allows readers to access certain topics that are often considered sensitive when discussed directly with others (Nufus et al., 2024).

## Conclusion

Counseling activities on complete basic immunization in Tuwi Kareung Village, Pasie Raya Sub-district, Aceh Jaya District showed that insight into the importance of complete basic immunization in mothers had increased, as shown by the pretest results where 16% of respondents were in the good category, 58% were moderate, and 26% were low, then increased in the posttest to 58% good category, 37% moderate, and only 5% low. Counseling conducted at the posyandu, followed by door to door visits and distribution of leaflets, was proven to help improve maternal understanding even though there were still obstacles in the form of limited permission from husbands and family influence. Based on these findings, it is recommended that counseling activities be carried out continuously and involve more the role of husbands and other family members, so that support for complete basic immunization is stronger and immunization coverage in the village can be optimally increased.

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