

## ANALYSIS OF THE IMMUNIZATION PROGRAM IN TRENGGALEK DISTRICT, EAST JAVA PROVINCE IN 2019 - 2021

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### Abstract

The immunization program is aimed to reach herd immunity, is requires high immunization coverage. The coverage of Universal Child Immunization (UCI) at the Village level in Trenggalek District for the period 2019–2021 still had not reached the target (100%), 91.08% in 2019, 92.36% in 2020, and 89.17% in 2021. This study aimed to identify the causes of the problem and suggest alternative solutions. This observational descriptive study was conducted at the Trenggalek District Health Office in January 2023. Informants were 17 people (4 officers of the health office who were responsible for the immunization program and 13 immunization coordinators from the Public Health Center/PHC which in 2019–2021 had not reached the UCI coverage at Village level). Identification of root causes was using a fishbone diagram and determining the priority of root causes to be intervened with using the Capability, Accessibility, Readiness, and Leverage (CARL) method which was done through brainstorming with all respondents. There were identified 11 root causes of not achieving the UCI coverage at the Village level. The dominant factor affecting the root problem was the officers (81.81%). The root problem that received the highest score with the CARL method was the immunization officers did not give communication, information, and education to parents optimally. This happened because the officers only focused on the number of targets to reach. In each PHC, there needs to be a team that gives communication, information, and education to assist immunization officers in providing education and information about immunization. The Immunization Officer in the District Health Office needs to monitor and evaluate the immunization services and give feedback to the PHC periodically.

**Keywords:** Communication Information Education; Immunization; Trenggalek; UCI Village

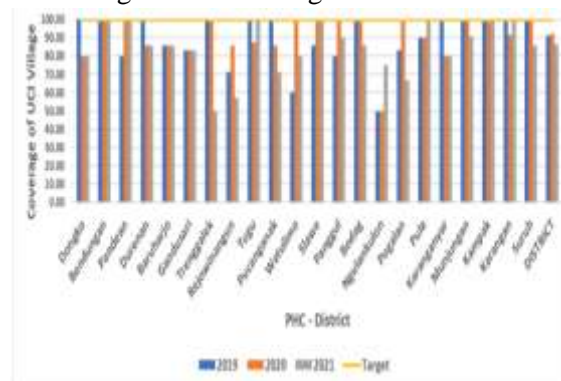
### Introduction

The Immunization Program is one of the most effective and effective preventive measures for Vaccine Preventable Disease/VPD<sup>[1]</sup>. Immunization has become one of the five priorities of the national medium-term health development. Four other strategic issues include high maternal mortality/neonatal mortality, stunting, tuberculosis, and non-communicable diseases<sup>[2]</sup>.

Some Efforts have been made to increase national immunization coverage among others: PIN Polio in 2016, MR Campaign in 2017, ORI diphtheria in 2018 as well as Drop Out and Follow Up (DOFU) and Backlog Fighting activities (BLF). But during the COVID-19 pandemic, immunization coverage decreased according to the latest routine data of the Ministry of Health, Complete Basic Immunization coverage has decreased significantly from 84.2% in 2020 to 79.6% in 202<sup>[3]</sup>. As a result

of this, more babies and children did not get immunization protection from Vaccine Preventable Diseases<sup>[4]</sup>.

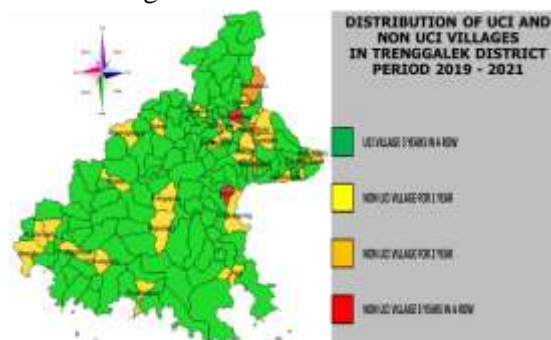
East Java province is one of the provinces with the second largest number of targets of immunization programs in Indonesia. The size of the targets has greatly influenced the success of the immunization program in Indonesia as a whole. Trenggalek District is one of the districts in East Java Province that has not reached the target of UCI Village from 2019 to 2021.



**Figure 1. Coverage of UCI village in Trenggalek District period 2019 – 2021**

From Figure 1 we can see that the performance indicator of the UCI Village Coverage had never been achieved for three consecutive years including in Trenggalek District.

Trenggalek district has 157 villages and 22 Public Health Centers (PHCs) spread over 14 sub-districts. During these three periods only two PHCs have reached the target of the UCI Village for three years in a row, namely Bendungan PHC and Kampak PHC, while the other PHCs have achieved fluctuating achievements, even the four PHCs, the Baruharjo, Gandusari, Rejowinangun and Ngulankulon have not reached their target.



**Figure 2. Distribution of UCI and non-UCI villages in Trenggalek District in 2019-2021**

On Figure 2 above it could be seen that there were still 2 (two) villages that have not reached UCI for three years in a row – including Jajar Village (working area of Gandusari PHC) and Surodakan Village (working area of Rejowinangun PHC).

The UCI Village problem should be given special attention and immediate efforts should be made to deal with it by prioritizing the problem. This was done because of the limitations of resources, time, and cost so that not all problems could be solved at the same time, then it was necessary to determine which problems were prioritized and formulate alternative solutions.

## Methods

This study was a descriptive observational study carried out at the Trenggalek District Health Office from 2 to 27 January 2023.

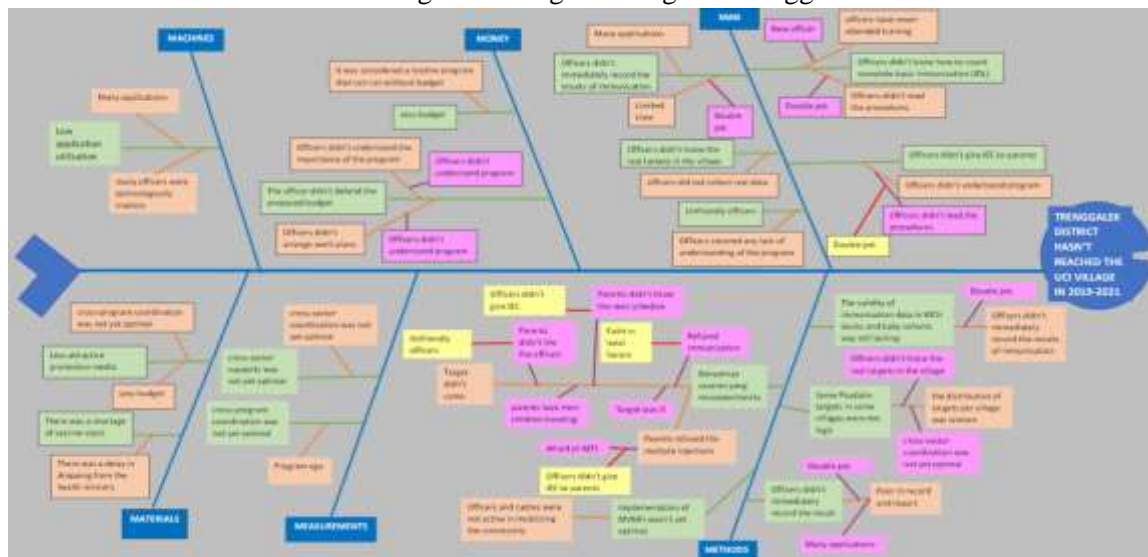
The informants involved were the Head of the UKP and UKM field, the Head of the Health Services Section, the Chief of Health Promotion Sections, the District Immunization program manager, and the Immunization Coordinator of 13 PHC (Rejowinangun, Trenggalek, Tugu, Pucanganak, Watulimo, Dongko, Suruh, Baruharjo, Durenan, Pogalan, Ngulankulon, Gandusari, Karanganyar). PHC respondents who in 2019 - 2021 consecutive have not reached UCI Village coverage.

The identification of the problem was carried out by conducting a document study [5] related to the implementation of immunization program guidelines from the Ministry of Health of the Republic of Indonesia and secondary data, namely the results of immunization program implementation in Trenggalek District in 2019 – 2021. Identifying the roots of the problem using Ishikawa's Fishbone diagram was done through the opinion of 13 PHC immunization coordinators. Priority determination of the root problems to be intervened was done using the CARL method (Capability, Accessibility, Readiness, and Leverage) together with the Head of the UKP and UKM field, Head of the Health Services Section, District Immunization program manager, two PHC Immunization Coordinators who have been at the Village Non-UCI for three years in a row – including Rejowinangun and Gandusari PHC. Alternatives to problem-solving were formulated based on the roots of the problem.

## Results

### Identify The Roots of The Problem

Identification of the roots of the problem has not been reached coverage of UCI village in Trenggalek District in 2019–2021 through a brainstorming session. Here were the results of Fishbone Ishikawa on the cause of not reaching UCI village coverage in Trenggalek District in 2019–2021:



**Figure 3. The Fishbone Diagram of identifying the causes of problem in Trenggalek District has not reached UCI village coverage in 2019-2021**

Based on the fishbone Figure 3 above some roots of the problem were obtained, among others: officers got the double job, officers were less friendly, the officers had not given maximum CIE to the target parents, the officers lacked understanding of the program, officers did not know the real targets in their village, officers did not immediately record the results of immunization services, lack of coordination with cross-program and cross-sector, too many applications to fill out and the time

constraints that officers possess. The officers' factor dominated the root of the problem, which was 81.81%.

### ***Priority Determination of the Roots of the Problem to be Intervened***

After identifying the roots of the problem, recapitulating the roots of the problems that often arise. Priority determination of the root problem to be intervened was done by scoring using the Capability, Accessibility, Readiness, and Leverage (CARL) method that was carried out jointly – equally informants. The result was as follows:

**Table 1 Scoring Results for Determining Priorities Causes of Problems Unreached by Coverage of UCI Village in Trenggalek District for The Period of 2019 - 2021**

NO	CAUSE OF PROBLEM	capabilities (C)	Accessibility (A)	Readiness (R)	Leverage (L)	TOTAL (CxAxRxL)	Rank
1	Officers have dual duties	17	13	17	14	52,598	V
2	Officer not enough friendly	14	12	10	14	23,520	IX
3	Officers have not optimally provided IEC to target's parents	21	15	16	21	105,840	I
4	Officer not enough understand the program	12	13	14	18	39,312	VII
5	Some officers did not know the real targets in the village	16	17	18	16	78,336	II
6	Officers did not immediately record the results of immunization services	17	14	16	14	53,312	IV
7	Lack of coordination with cross programs	17	17	16	15	69,360	III
8	Lack of coordination with cross sectors	17	16	16	18	78,336	II
9	There are too many applications for officers to fill out	17	15	12	16	48,960	VI
10	The officers did not read the technical guidelines	15	12	11	14	27,720	VIII
11	Many officers have limited time	14	10	10	11	15,400	X

From Table 1 above the highest scoring outcome priority determination root problems not achieved UCI village coverage in Trenggalek District in 2019–2021 there was on the problem Immunization Officers have not given maximum Communication, Information and Education (CIE) to the target parents.

### ***Identifying The Reason Why the Officers Have Not Optimally Provided IEC To The Target's Parents***

For alternative problem-solving to be more relevant and operational, it was necessary to identify the cause of the maximum immunization officer giving KIE to the target parents. Alternatives to problem-solving were formulated in consultation with the Chief of the Health Services Section and Head of the Health Promotion Section in the Trenggalek District Health Office.

## **Discussion**

The problem of the immunization program that became a priority in Trenggalek District based on the secondary data identification results that had been done was not reached the UCI village coverage period 2019–2021, especially in 2021 which was decreased according to Figure 1. The officers factor dominating the root of the problem was not reached UCI Village coverage was 81.81% as shown in Figure 3, this was like the case of research <sup>[6]</sup> which stated that 60.8% of parents said that the officers were not good in providing immunization services. For that, it was necessary to prioritize the roots of the problem using the CARL method, the highest score becoming the root priority of the issue to be intervened immediately (in Table 1): the immunization officer gives the minimum KIE to the target parent. This may be because the officers could not yet perform a good and interesting CIE, not all the

Operational Procedure Standards of the immunization service in PHC mention that the CIE should be given when the immunization service and officers lack understanding of the immunization program because they had not studied the Guidelines and officers were worried about the long wait because they must give CIE so that the service time becomes long.

Alternative problem-solving has been formulated based on the cause that the immunization officers did not give maximum CIE to the target parents. The recommendation was made by adjusting the budget, Human Resources, and facilities available at the Trenggalek District Health Office to be easily and promptly implemented. Because if this problem was not resolved immediately it would lead to a lack of knowledge of the target parents about the dangers of VPD, the benefits of immunization, the losses when not being immunized, and the occurrence of follow-up after immunization as well as how to deal with it when there was a vaccine effect<sup>[7]</sup>.

The problem of the lack of CIE immunization was not much different from some previous research results. Research results<sup>[8-10]</sup> expected immunization officers to do more on immunization so that no more mothers did not carry their children immunized and the UCI target was reached. Research results<sup>[11]</sup> also mentioned that the low coverage of the UCI village in the PHC Rumbai working area due to the program of health promotion immunization had not been performed to the maximum, the limited media being a means of public awareness. Align with research results<sup>[12,13]</sup> it concluded that the minimalization of the socialization of immunization programs was one of the roots of the problem of reducing immunization visits so immunization coverage has not been reached.

Other research<sup>[14]</sup> described a relationship between mother's attitude and complete basic immunization at the time of the pandemic in the Gajah Village of Sambit sub-district of Ponorogo District. There was a need for active health care, especially the midwife, in giving counsel to the entire community, as well as active cadres in providing information to mothers about the availability of basic immunization during the COVID-19 pandemic. Research results<sup>[15]</sup> stated that the problem with immunization completeness was the mother's lack of knowledge in giving a complete basic immunization to her baby and effective intervention by conducting deliberations to increase her knowledge of basic immunization.

Referring to the identification stage of the root cause of the problem, some results were obtained such as the lack of officer skills in conducting the CIE, lack of officers understanding of the program, immunization procedures, and Operational Procedures Standards of the immunization service as well as officer concerns. This was one of the reasons that officers became less confident in their attitudes and behavior when providing health care. The statement was consistent with<sup>[16]</sup> the knowledge of each individual was one of the factors that play a role in performing health services. The more knowledge one possesses increases confidence and improves one's attitudes and behavior.

## **Conclusion**

Immunization program performance indicators must be reached by the minimum target. Access to immunization programs that were still low/below target and uneven could be a threat to the emergence of VPD Outbreaks in a region. Immunization program problem analysis was very useful in formulating solutions to get access in line with expectations through several stages, ranging from identifying problems to formulating alternative problem-solving solutions. The officers' factor dominating the root problem had not been reached by UCI village coverage in Trenggalek District from 2019 to 2021. The root priority of the problem that needed immediate intervention was that the officers at least give the CIE to the target parents. Problem-solving alternatives should be the ones that were easy to implement in the area.

Therefore, it is expected that the Health Service will increase the capacity of the officers and form a CIE Team in each PHC that can help the immunization officers to provide education and

information about immunization. In addition, the Health Office should monitor and evaluate periodically the implementation of immunization services and provide feedback to the PHC.

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