

Factors Influencing UCI (*Universal Child Immunization*) Achievement in the Working Area of Technical Implementation Unit Melak Public Health Center

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Introduction: The immunization program is part of the ways for the government in prevention and breaking the spread of diseases. The target of UCI (*Universal Child Immunization*) at Technical Implementation Unit of Melak Public Health Center has not reached it, which is 50% in comparison to the target, 90%. **Objectives:** This research aims to describe the factors that contributed to the target of UCI (*Universal Child Immunization*) at the work area of Technical Implementation Unit of Melak Public Health Center. **Method:** This research was done by using an analytical observational approach of cross sectional. The sampling was non probability sampling, which was a technique that did not give the same equal chance or opportunity to the population that became a sample. **Result and Discussion:** There was no cause on education ($\alpha=0,76$) and occupation ($\alpha=0,58$) to the target of UCI (*Universal Child Immunization*). But there were causes on knowledge ($\alpha=0,001$), behavior ($\alpha=0,02$), family support ($\alpha=0,001$) and medical workers support ($\alpha=0,027$) for the target of UCI (*Universal Child Immunization*) in the work area of Technical Implementation Unit of Melak Public Health Center. **Conclusion:** Based on the result, it is highly recommended for Technical Implementation Unit of Melak Public Health Center to increase their communication with people about immunization, side effects, kinds of immunizations that are conducted and the contents of immunizations. **Keywords:** Occupation; Education; Knowledge; Behavior; Family Support; Medical Workers Support; Target of UCI (*Universal Child Immunization*);

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Introduction

Basic immunization is very important to be given to infants aged 0-11 months to provide immunity from diseases that can be prevented by immunization, namely Tuberculosis, Diphtheria, Pertussis, Tetanus, Polio, Hepatitis B, and Measles (Ministry of Health RI, 2017) in (Wahyuni & Prasetya, 2019)

According to the Indonesian Ministry of Health (2015), of the 194 member countries of the *World Health Organization* (WHO), 65 of them have Diphtheria, Pertussis, and Tetanus (DPT) immunization coverage below target 90% (Sapardi et al., 2021). (Sapardi et al., 2021) It is estimated that worldwide in 2013, one in five children or about 21.8 million children did not get immunizations that could save their lives (Musdhalifah et al., 2022)

The UCI GAIN program can be carried out well if the availability of vaccines, the availability of political support (APBD budget), the implementation of increased visits by mothers and babies, the implementation of service quality (such as: officer behavior, strengthening coverage and improving in areas / villages / ward). *Universal Child Immunization* (UCI) villages which now reach 82.9% need to be increased to reach 92% in 2019v (Dinengsih & Hendriyani, 2018).

Meanwhile, according to the province, there are 15 provinces that have achieved the 2019 strategic plan target. As for East Kalimantan province in 2019, UCI's achievement was 92% (Indonesian Health Profile 2019). For West Kutai district in 2020, UCI's achievement was 79.38% and in 2021 until September it was 86.08%. UCI achievement data at the Melak Public Health Center in 2019 was 66.76%, in 2020 it was 83.3% and in 2021 from January to October it was 50%.

Method

This study is a correlation description study with a cross sectional approach. This research was carried out in the working area of the Technical Implementation Unit of the Melak Public Health Center. The research was conducted in April 2022. The population in this study was mothers who had children aged 0-11 months as many as 158 people. A sample of 77 people used purposive sampling technique.

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Results and Discussion

Result

Table 1.

Distribution of Education, Employment, Knowledge, Attitudes, Family support, and health worker support

No	Characteristic	Total	
		F	%
1	Education		
	Upper middle	71	63.4
	Basis	41	36.6
2	Work		
	Work	27	24,1
	Not Working	85	75.9
3	Knowledge		
	Good	64	7.1
	Less	48	42.9
4	Attitude		
	Positive	93	83
	Negative	19	17
5	Family Support		
	Support	94	83.9
	Does not support	18	16.1
6	Health Workforce Support		
	Support	92	82.1
	Does not support	10	17.9
7	UCI (<i>Universal Child Immunization</i>)		
	Incomplete	96	85.7
	Complete	16	14.3

Based on table 1 shows that:

- Most respondents with upper secondary education (63.4%) and almost half were poorly educated (36.6%)
- Most respondents are not working (75.9%) and a small percentage of respondents are working(24.1%)
- Almost most respondents with good knowledge (57.1%) and a small percentage with less knowledge (42.9%)
- Most respondents have a positive attitude (83%) and a small percentage with a negative attitude (17%)
- Most respondents received family support (83.9) and a small percentage did not support (16.1%)
- Most health workers support (82.1%) and a small percentage do not support (17.9%)
- Most with incomplete UCI (85.7%) and a small percentage with complete UCI (14.3%)

Table 2

The influence of education, knowledge, employment, attitudes, family support and health worker support with UCI (*Universal Child Immunization*) achievements

Factor	Targets of UCI (<i>Universal Child Immunization</i>)						<i>p-value</i>
	Incomplete		Complete				
	<i>F</i>	%	<i>F</i>	%	<i>F</i>	%	
Education							0.552
Middle to the Top	62	64.6	9	56.2	71	63.4	
Basis	34	35,4	7	43,8	41	36,6	
Knowledge							0.001
Good	49	51	15	93.8	64	57.1	
Less	47	49	1	6.2	48	42.9	
Work							0.58
Work	24	25	3	18.8	27	24.1	
Not Working	72	75	13	81.2	85	75.9	
Attitude							0.02
Positive	84	87.5	9	56.3	93	83.1	
Negative	12	12.5	7	43.7	12	16.9	
Family Support							0.001
Support	85	88.5	9	56.2	94	83.9	
Not Supported	11	21.5	7	43,8	18	16.1	
Health Workforce Support							0.027
Support	82	85.4	10	62.5	92	82.1	
Not Supported	14	14.6	6	37.5	20	17.9	

Based on the results of bivariate analysis in table 2, it was found that most of those who received basic immunization were incomplete from mothers with middle education and above (64.6%) and some with basic education (35.4%). For the knowledge factor, most showed that respondents were almost mostly on good knowledge with incomplete UCI achievements (51%) and a small number with less knowledge (49%), obtained a value of $\alpha = 0.001$ ($0.001 < 0.05$), so it can be concluded that there is an influence between maternal knowledge and UCI (*Universal Child Immunization*) achievements.

On the influence of occupational factors, it was found that most respondents showed that most respondents were those who did not work with incomplete UCI achievements, as many as 75% and a small part with respondents who worked with incomplete UCI achievements (25%). From the results of the analysis, a value of $\alpha = 0.58$ was obtained. While on the variable attitude of large mothers' respondents with a positive attitude on UCI coverage is incomplete (87.5%) and a small percentage with negative attitudes on UCI achievement is incomplete (12.5%). The results of the analysis using the chi square test obtained a value of $\alpha = 0.02$ ($0.02 < 0.05$).

On the family support variable, most families support incomplete UCI achievement (88.5%) and some families do not support incomplete UCI achievement (21.5%). The results of the analysis found a value of $\alpha = 0.001$ ($0.001 < 0.05$), meaning that there is an influence between family support and UCI (*Universal Child Immunization*)

achievements. While in the support of health workers, most health workers support incomplete UCI achievements (85.4% and a small part do not support incomplete UCI achievements (14.6%). From the results of the analysis, a value of $\alpha=0.027$ was obtained.

Discussion

The influence of education with UCI (*Universal Child Immunization*) Achievement

A person's behavior and education can mature a person and behave well, so that they can choose and make decisions more precisely. The role of a mother in the immunization program is very important.

The results of statistical tests on educational variables obtained a value of $\alpha=0.552$, which means that there is no significant influence between education and UCI (*Universal Child Immunization*) achievements. This result is not in line with research conducted by (Sari, 2018) which shows that there is an influence between education level on immunization achievement with a value of $\alpha=0.029$.

According to the researchers' assumptions based on research, the level of education does not affect UCI achievement because the education obtained by a person does not only come from formal education but can come from non-formal knowledge. Although a person has a high level of education, if he does not have the awareness to bring his child to get immunization, the child will not get complete immunization

The influence of knowledge with UCI (*Universal Child immunization*) achievements

Knowledge is the initial stage where the subject recognizes new ideas and learns to understand which in turn can change behavior. The better the mother's knowledge about immunization, the more positive response it will be, which is to increase the mother's ability to provide basic knowledge to the baby. Sufficient knowledge is expected to influence the actions of a mother in providing complete immunization to her baby (Budiman, 2013)

Based on the results of the analysis conducted using the *Chi-Square* test, a value of $\alpha=0.001$ ($0.001 < 0.05$) was obtained, which means that there is an influence between maternal knowledge and UCI (*Universal Child Immunization*) achievements. This study is also in line with research conducted by (Rakhmawati et al., 2020) which states that there is an influence between knowledge and completeness of basic immunization in infants with a value of $\alpha=0.037$ where infants who have mothers with knowledge of good immunization will have complete basic immunization status

According to the assumption of researchers, knowledge affects the achievement of UCI (*Universal Child Immunization*) because knowledge has a role as an initial motivation for someone in behavior. Good knowledge will also encourage parents to do anything for their children including efforts to achieve UCI (*Universal Child Immunization*)

The effect of work on UCI (*universal child immunization*) achievement

The employment status of mothers is related to the opportunity of mothers to bring their children to be immunized to the Integrated Healthcare Center according to a predetermined schedule and these non-working mothers or housewives are often encountered in the field to make visits to Integrated Healthcare Center because mothers who do not work have more free time to pay attention to their children such as immunizing children to Integrated Healthcare Center (Safitri et al., 2017). Mothers who do not work will focus more on the health of their children and how to stay healthy and avoid disease (Sari, 2018) Based on the results of analysis using the *Chi-Square* test, the value of $p\text{-value} = 0.58$ is greater than the value of $\alpha = 0.05$ or ($0.58 > 0.05$), that means there is no influence between work and UCI (*Universal Child Immunization*) achievements.

This result is in line with Sari's research (2018) showing that there is no significant influence between maternal work ($p\text{-value} = 0.185$) and UCI (*Universal Child Immunization*) achievement. This study is also in line with research conducted by Rakhmawati (2020) which states that there is no influence between work and completeness of basic immunization with a value of $\alpha = 0.848$, because working mothers bring their children more often to be immunized so that the basic immunization status in their babies is more complete, when compared to working mothers.

According to the researchers' assumptions, the level of employment does not affect the achievement of UCI (*Universal Child Immunization*) because basically non-working mothers have more time to take care of, care for babies and immunize their children. So, there is no reason for them not to bring their children to the Integrated Healthcare Center. In addition, mothers who do not work may behave better in providing immunizations without the constraints of having to work out of the home

The influence of attitudes towards UCI (*Universal Child Immunization*) achievements

Attitude is the willingness to act and not the execution of a particular motive. Attitude clearly shows the connotation of the suitability of reactions to certain stimuli which in everyday life are emotional reactions to social stimulus. Toddlers with mothers who have negative attitudes are 6.7 times more likely not to provide complete basic immunization compared to toddlers who have mothers with positive attitudes, so good habits towards immunization must continue to be carried out for families (Rhossela et al., 2018). The process of attitude occurs due to stimuli such as community knowledge. These stimuli stimulate the community to respond in the form of positive attitudes and negative attitudes which will eventually be manifested in the form of concrete actions (Triana, 2016)

Based on the results of the analysis conducted using the *Chi-Square* test, a value of $\alpha = 0.02$ ($0.02 < 0.05$) was obtained, which means that there is an influence between maternal attitudes and UCI (*Universal Child Immunization*) achievements. This result is in line with research (SALIMAH, 2019) that the attitude of respondents in the negative category is 57.1% and positive 42.9% with $\alpha = 0.013 < 0.05$, so there is an influence

between the attitude of mothers and the achievement of UCI (*Universal Child Immunization*) Village at the Binjai Estate Public Health Center.

This study is inversely proportional to research conducted by Rakhmawati (2019) which states that there is no influence between maternal attitudes and the completeness of basic immunization in infants with a value of $\alpha = 0.595$ ($0.595 > 0.05$) where the differences in attitudes possessed by mothers with good and bad attitudes have a greater chance of having the same behavior, which is incomplete in providing basic immunization to toddlers.

According to the researchers' assumptions, a good mother's attitude will affect the achievement of UCI (*Universal Child Immunization*), this happens because having a good attitude will encourage a person to get health services, especially immunization. Even though the exposure to information received is lacking, mothers still feel worried that if their children are not immunized, bad things will happen to their children. In addition, mothers also have neighbors who actively participate in immunization, so mothers feel the need to participate with neighbors and surrounding areas to participate in immunizing their children

The effect of family support on UCI (*Universal Child Immunization*) achievement

Family support is the attitude, action and acceptance of family members towards family members, in the form of emotional support, so that family members feel that someone is paying attention (Cahyanti, 2020). Family support is an emotionally beneficial assistance and provides a positive influence in the form of information, instrumental assistance, emotions, and assessments provided by family members consisting of husbands, parents, in-laws, and other relatives.

Based on the results of the analysis of the effect of family support with UCI (*Universal Child Immunization*) achievements, it shows that most respondents in families who support with incomplete UCI achievements are as many as 85 people (88.5 %) and a small percentage in families who do not support with incomplete UCI achievements are as many as 11 people (21.5%). Based on the results of the analysis conducted using the *Chi-Square* test, the value of $\alpha = 0.001$ is smaller than the value of $\alpha = 0.05$ or ($0.001 < 0.05$), that means there is an influence between family support and UCI (*Universal Child Immunization*) achievements.

This result is in line with Sari's research (2018) that there is an influence between family support, there are still many families who do not support rather than support, The results of this study are also in line with research conducted by (Igiany, 2019) which states that there is an influence between family support and the completeness of basic immunization with a value of $\alpha = 0.004$ ($0.004 < 0.05$) which states that family support is the main key to attitudes and behaviors Mother so that she feels that she is cared for, valued and gets help from people who matter and has strong family ties with other family members.

According to the researchers' assumption, family support greatly affects UCI achievement, this is supported by the results of research where family support will affect

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UCI achievement. Because the family is the closest person to the mother, all decisions and actions will be communicated within the family. The strongest factor for mothers to immunize their children is the family, if the family responds negatively, then most likely the mother will discourage her intention to come to the immunization site, but on the contrary if the family responds positively and provides support, then the mother will confidently immunize.

The effect of health worker support on UCI (*Universal Child Immunization*) achievement

A health worker is responsible for providing health services to individuals, families, and communities. The support of health workers (immunization officers) is social support in the form of informative support, where the subject's feeling that the environment (immunization officer) provides clear enough information about things that are known. Health workers will support the mother's behavior to make health efforts (immunize her child) through communication skills and there is a tendency that the efforts of health workers strengthen mothers by giving praise, encouragement and discussion or by being a reliable source of information (Barqin et al., 2020)

Based on the results of the analysis conducted using the *Chi-Square* test, the value of $\alpha = 0.027$ is smaller than the value of $\alpha = 0.05$ or ($0.027 < 0.05$), that means there is an influence between the support of health workers and the achievement of UCI (*Universal Child Immunization*). The results of this study are in line with research conducted by sari (2018) which states that there is a significant influence between health worker support on immunization achievement, with a value of $\alpha = 0.012$ according to the researchers' assumption that health worker support is a factor that affects UCI (*Universal Child Immunization*) achievement.

Health workers have begun to proactively invite the public to carry out complete basic immunization. In addition, health workers provide counseling on complete basic immunization to mothers when mothers come to immunize their children. The support of health workers plays an important role in achieving UCI (*Universal Child Immunization*). They are the frontline to deliver immunization to the community at large. Health workers are the main pioneers of community mobilization to realize the importance of achieving UCI (*Universal Child Immunization*).

Conclusion

There is no influence between educational factors on UCI (*Universal Child Immunization*) achievement in the working area of the Technical Implementation Unit of the Melak Public Health Center with a value of $\alpha = 0.552$ ($0.552 > 0.05$), and an influence between knowledge factors on the achievement of UCI (*Universal Child Immunization*) in the working area of the Technical Implementation Unit of the Melak Public Health Center with a value of $\alpha = 0.001$ ($0.001 < 0.05$)

There is no influence between occupational factors on the achievement of UCI (*Universal Child Immunization*) in the working area of the Technical Implementation

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Unit of the Melak Public Health Center with a value of $\alpha = 0.588$ ($0.588 > 0.05$), and an influence between maternal attitude factors towards UCI (*Universal Child Immunization*) achievement in the working area of the Technical Implementation Unit of the Melak Public Health Center with a value of $\alpha = 0.002$ ($0.002 < 0.05$).

There is an influence between family support factors on the achievement of UCI (Universal Child Immunization) in the working area of the Technical Implementation Unit of the Melak Public Health Center with a value of $\alpha = 0.001$ ($0.001 < 0.05$), and the influence between the support of health workers on the achievement of UCI (*Universal Child Immunization*) in the working area of the Technical Implementation Unit of the Melak Public Health Center with a value of $\alpha = 0.027$ ($0.027 < 0.05$). Knowledge, maternal attitude, family support and support of health workers are factors that influence the achievement of UCI (*Universal Child Immunization*) in the working area of the Technical Implementation Unit of the Melak Public Health Center

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