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Immunization Coverage on Infant in High-Risk Area in Semarang City Indonesia

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ABSTRACT

In 2013, the national target of UCI was 86%, and 20% villages in Indonesia have not yet reached the national standard coverage. High risk Areas were very risky to have lower coverage. The aim this research was to identify the coverage of immunization (UCI) in Semarang City. The research is an observational descriptive with quantitative and qualitative approach. The high-risk areas in this study were Bandarharjo, Dadapsari, Kuningan, Pedurungan Lor, and Tanjungmas villages. The sample was 64 infants from all villages and the respondent were the infant's parent. UCI was measured using Rapid Card Check (RCC) form recommended by UNICEF. The results of the study indicated that several infants were still unimmunized. High-risk areas meant that the areas status was economically poor, crowded, and bad sanitation. Under-five mothers refused to immunize their babies for any reasons, such as because of religion, preoccupation, and sickness. Immunization was infant's right. Immunization was very important to maintain the infant's health from the disease in case of outbreak. Understanding of the infant's mother was necessary to raise the coverage of immunization in Semarang City.

Keywords: *Immunization coverage, UCI, RCC, High risk*

INTRODUCTION

To eradicate infectious diseases is very difficult because their spread might go anywhere even across administrative boundaries. To prevent the spread of the disease to other areas, immunization is one of the measures although it is very cost effective. Immunization is of primary prevention efforts.⁽¹⁾

According to Law Number 36, 2009 on Health, immunization is one of priority activities of the Ministry of Health. The main objective of the immunization program is to reduce morbidity and mortality caused by

preventable diseases by immunization (PDI). PDI is a contagious disease that potentially leads to outbreaks and death especially in Toddlers.⁽²⁾

Routine Data of Directorate General of P2P of 2015 showed that the coverage of complete basic immunization from 2013-2015 decreased from 89.9%, 86.9%, to 86.5% nationally.⁽³⁾ According to routine data of 2013, the complete basic immunization coverage reached its target as stated in Strategic Plan (Renstra) of the Ministry of Health.⁽⁴⁾ However, in 2014 and 2015, the immunization coverage did not reach its target of the strategic plan.⁽⁵⁾

In 2013-2015, the coverage of complete basic immunization in Central Java was 100.7%, 93.4%, and 97.2%. In the case of PDI, measles was considered extraordinary events (KLB), as there were 32 cases in 2013, 308 cases in 2014, and 576 cases in 2015.⁽⁶⁾

In Semarang City during 2013-2015, the basic immunization coverage decreased. The coverage of HB0

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immunization in 2013-2015 was 113%, 88%, and 94%; of BCG immunization was 118%, 102%, and 100%. Meanwhile, the immunization of Penta 3 was 121%, 100%, and 101%; of Polio 4 immunization was 120%, 100%, and 102%; and of Measles immunization was 122%, 101%, and 104%.⁽⁷⁾

In 2013, approximately 20% of villages in Indonesia did not meet the national UCI target of 86%. In Central Java during 2013-2015, the achievement of UCI was 99.14%, 99.7%, and 99.95%.⁽⁶⁾ Meanwhile, in Semarang City in 2015, the number of villages that meet UCI was > 80%, as many as 177 villages (100%) from 177 villages. This number is still the same until today since 2013.⁽⁷⁾

The Government at district/municipal and provincial level undertaken by community health center shall carry out national planning for the implementation of immunization. The immunization planning includes identifying the location, logistical needs, and funding. In the era of decentralization, the success of the immunization program is largely determined by strong commitment, operational cost support, and other resources provided by local governments.

The condition of health of infants and toddlers in Semarang City is still high at the level of community health center. Based on the problems, the coverage of immunization in high risk areas in Semarang City was being the focus of the investigation

METHOD

The research design used in this research was descriptive observational with quantitative and qualitative approach that describes immunization coverage in Semarang City. The population was all parents who have babies of < 2 years old living in high-risk areas in Semarang City i.e. Bandarharjo, Dadapsari, Kuningan, Pedurungan Lor, and Tanjungmas. The sample was parents who have babies of < 2 years old in Semarang City with a total sample of 64 respondents. The technique in sampling in this research was random sampling. This research was conducted in 1 month from February-March 2017.

The research instrument used was Rapid Card Check (RCC) form recommended by UNICEF. The research variables include immunization coverage and accuracy of immunization.

RESULT AND DISCUSSION

Table 1: Criteria of High Risk Community and Sources of Immunization Information

Variables	Yes		No	
	f	%	f	%
HRC Criteria				
Slum	18	28.1	46	71.9
Poor	16	25.0	48	75.0
Boro	1	1.6	63	98.4
Minority	15	23.4	49	76.6
River banks	0	0	64	100
Railway Sides	0	0	64	100
Certain religion	0	0	64	100
Certain ethnicity	0	0	64	100
Others	0	0	64	100
Source of information				
Health worker	41	64.1	23	35.9
Kader	25	39.1	39	60.9
School	0	0	64	100
Religion Leaders	4	6.3	60	93.8
Friend/Neighbor	9	14.1	55	85.9
TV	11	17.2	53	82.8
Radio	0	0.0	64	100
Newspaper	1	1.6	63	98.4
Leaflet	0	0	64	100
Banner	0	0	64	100
Poster	2	3.1	62	96.9
Others	4	6.3	60	93.8

Table 1 shows that 18 out of 64 respondents chose slums as the greatest criteria in high-risk groups; while, riverbank, rail sides, religion, and ethnic were not categorizing as high-risk groups criteria.

Furthermore, 64.1% of respondents received immunization information from health workers; while, information from schools, radio, leaflets, and banners were not the sources for respondents.

Table 2: Coverage and Accuracy of Immunization

Variables	Yes		No	
	f	%	f	%
Coverage of Immunization				
HB0	47	73.4	17	26.6
BCG	49	76.6	15	23.4
Penta 3	31	48.4	33	51.6

Conted...

Polio 4	33	51.6	31	48.4
Measles	27	42.2	37	57.8
Accuracy of Immunization				
HB0	43	67.2	21	32.8
BCG	42	65.6	22	34.4
Penta 3	22	34.4	42	65.6
Polio 4	21	32.8	43	67.2
Measles	18	28.1	46	71.9

According to data research of basic immunization coverage in Semarang City, many parents did not immunize their children in that region. The most immunization not given was penta 3 immunization as many as 51.6% and measles as many as 57.8%.

The result showed that many mothers did not properly provide immunization to their baby. For HB0 immunization, 67.2% had immunized their baby at the age of 0-7 days; while, 32.8% of infants were immunized improperly time.

For BCG, 65.6% infants had received BCG immunization before their infants were 1 month old; while, 34.4% of infants were immunized improperly time.

For Penta 3, 34.4% of infants had been immunized Penta 3 before the baby was 4 months old; while, 65.6% of infants were immunized not at proper time.

For Polio 4, 32.8% of infants had received Polio 4 immunization before the baby was 4 months old; while, 67.2% of infants were immunized not at proper time.

For measles, 28.1% of infants had been immunized against Measles before the baby was 9 months old; while, 71.9% of infants were immunized not at proper time.

The result showed that immunization coverage in high-risk area in Semarang city was low because there were still infants who have not been immunized. Data from interviews showed that mothers did not immunize their children for several reasons such as sick children, parents were busy working, lack of knowledge, and religious factors believed that the vaccine used was forbidden (haram).

The research conducted Arumsari (2015) concluded that the reason most often raised by mothers who do not immunize their baby is due to busy mom working and inappropriate schedule of immunization.⁽⁸⁾ Meanwhile,

Maryani and Sulastri (2009) stated that there are values and beliefs influence mother not to immunize their infant taken place in Blumbang Village Tawangmangu Subdistrict, Karanganyar Regency.⁽⁹⁾

Parents also stated that health officer's factors also affected the implementation of immunization by mothers. This finding was in accordance with the research conducted Adriani (2015) who stated that health officers who have poor performance affect the coverage of immunization.⁽¹⁰⁾ This was also in line with the research of Kontesa & Mistuti (2013) in working area of community health center of Air Dingin, Kecamatan Koto Tengah, Kota Padang that more than half (57.6%) of respondents stated that a health officer in the working area of community health center Air Dingin, KotoTengah Subdistrict perform poorly.⁽¹¹⁾

The absence of counseling from cadres caused little information of immunization mothers obtained and the mother feared about the emergence of ill effects after immunization. The lack of cadres in maximum reaching the mother was caused by several factors such as limited facilities and infrastructure in making home visits, lack of knowledge about immunization, and the number of reports that cadres must do.

This finding was consistent with L. Green's theory of enabling factors that include the availability of infrastructure, health care facilities, and individual health care needs.⁽¹²⁾ In a study conducted by Adriani (2015), there was an association between education, training, and knowledge, posyandu facilities and infrastructure, motivation, wage salary, tenure, and cadre attitude with the performance of posyandu cadres on the performance of posyandu cadres.⁽¹⁰⁾

The impact was that mothers did not immunize nor delayed in giving immunization to their children. In addition, the cadres expressed the need for cooperation with religious leaders/community leaders in supporting immunization activities to encourage and convince community that immunization is religiously accepted (halal).

CONCLUSION

The conclusion of this research is that there are still babies who still do not completely immunized on time in Semarang City. Immunization is the right of the baby.

Immunization is very important to keep baby's health from disease in case of outbreak. Maternal understanding needs to be developed to increase immunization coverage in Semarang City. Support of religious leaders/ community leaders can be the one of the efforts in encouraging people to immunize their children.

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Conflict of Interest: None

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