

The impact of the covid-19 pandemic on coverage of basic immunization in Jayapura city public health centers

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ABSTRACT

The government has declared Coronavirus Disease 2019 (COVID-19) as a non-natural disaster in the form of an outbreak/pandemic, this determination is followed by efforts to prevent the spread of the corona virus. This condition also affects the schedule and procedures for immunization services both at posyandu, puskesmas and other health facilities including the private sector. The survey results showed that almost 84% of health facilities reported that immunization services experienced significant disruption due to the COVID-19 outbreak (Ministry of Health, UNICEF 2020). Objective: To determine the impact of COVID-19 on basic immunization coverage at health centers in Jayapura City. This research method is a combination of quantitative and qualitative methods. The sample is all health centers in Jayapura City. The research location is in Jayapura City. Time from June to October 2020. The independent variables are the COVID-19 pandemic and the dependent variables are basic immunization coverage and immunization service policies. The instruments used were questionnaires and interview guidelines. Data analysis was carried out in a bivariate manner for quantitative data and qualitative analysis. Research Results Immunization Coverage before and during the pandemic decreased by a difference of 898. The average immunization coverage before the pandemic was 334.5 and during the pandemic the value decreased by an average of 222.5. Based on the results of the paired t test, it was found that the value of $p = 0.003$ (<0.005) where there was a significant difference in the coverage of immunization before and during the Covid-19 pandemic at public health centers in Jayapura. Conclusion The Covid-19 pandemic has had an impact on decreasing immunization coverage at the Public Health Center in Jayapura City..

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INTRODUCTION

Immunization is the most effective and efficient public health effort in preventing dangerous diseases. To realize the highest degree of public health, efforts are needed to prevent the occurrence of a disease through immunization (Permenkes No 20 of 2017). Coronavirus Disease 2019 (COVID-

19) as a non-natural disaster in the form of an outbreak/pandemic with efforts to prevent the spread of the corona virus through social restrictions including limiting crowds of people, travel restrictions, imposing isolation and closing public facilities and arrangements. This condition also influences the schedule and procedures for immunization services at posyandu, puskesmas and other health facilities, including the private sector. A number of parents were worried about providing immunizations for their children, and not a few health teams were hesitant to provide immunization services amid the COVID-19 pandemic. If this condition continues, the national immunization coverage will decrease, eventually the low immunization coverage can cause outbreaks of PD3I such as measles, rubella, and others. Of course, this will become a double burden for the community and the country in the midst of the ongoing COVID-19 pandemic (Ministry of Health 2020).

The Indonesian Ministry of Health, and UNICEF from 20 to 29 April 2020, conducted rapid assessments at various levels of the health system. The survey results showed that in almost 84% of health facilities that reported immunization services experienced significant disruptions due to the COVID-19 outbreak. Immunization services in April 2020 there was a significant decrease compared to data for the same month in the 2019 period, namely a decrease of 4.7% (Ministry of Health, UNICEF 2020). During the COVID-19 pandemic, only a few puskesmas provided full immunization services. There is a potential risk of disease outbreaks that cannot be prevented if immunization services are not strengthened by providing adequate knowledge and preparing resources (Ministry of Health, UNICEF 2020).

RESEARCH METHOD

This study uses a combination of quantitative and qualitative methods. Quantitative with a cross-sectional approach is to find out differences in immunization coverage before and during the COVID-19 pandemic while a qualitative design is used to find out changes in puskesmas service policies during the COVID-19 pandemic. The population is all health centers in Jayapura City. The research location is in Jayapura City. Time from June to October 2020. The independent variables are the COVID-19 pandemic and the dependent variables are basic immunization coverage and immunization service policies. The instruments used were questionnaires and interview guidelines. Data analysis was carried out in a bivariate manner for quantitative data and qualitative analysis.

RESULTS AND DISCUSSIONS

Results

Table 1. Distribution of Immunization Coverage Before the Covid-19 Pandemic Period January-August 2019 in Jayapura City Public Health Centers chapters.

Immunization Coverage	Before the Covid-19 Pandemic								Total
	Jan	Peb	Mar	April	Mei	Juni	Juli	Agst	
Hb< 7 Day	14	19	19	14	16	17	35	19	604
BCG	27	26	23	19	21	41	33	32	877
Polio 1	27	26	24	19	21	38	33	32	870
DPT 1	24	30	21	14	13	31	26	30	748
Polio 2	24	30	18	14	13	31	26	30	740
DPT 2	18	25	23	13	11	24	24	27	654
Polio 3	16	25	23	13	11	24	20	33	655
DPT 3	21	24	18	10	8	23	14	32	597
Polio 4	22	24	18	10	8	24	13	33	604
Campak	29	27	19	17	12	25	24	40	762
Total	221	254	204	140	132	276	248	305	

Source: Primary Data, 2019

Based on table 1, the immunization coverage before the covid-19 pandemic at the Jayapura City Public Health Center showed that the highest immunization coverage was BCG immunization

of 604 and the lowest coverage was DPT 3 immunization of 597. Based on the number per month, August reached the highest number of 305.

Table 2. Distribution of Immunization Coverage During the pandemic Covid-19 Period January-August 2020 in Jayapura City Public Health Centers

Immunization Coverage	During The Pandemic Covid-19								Total
	Jan	Peb	Mar	April	Mei	Juni	Juli	Agst	
Hb< 7 hari	17,3	32	32	32	16	24	14	26	773
BCG	38,8	29	36	36	20,5	35	31	21	987
Polio 1	38,8	25	37	33	24	35	27,25	21	961
DPT 1	33	26	45	37	32	34	39	36	1119
Polio 2	33	29	39	33	36	34	33	36	1085
DPT 2	32	27	42	36	36	39	39	38	1155
Polio 3	32	26	45	38	32	39	39	43	1181
DPT 3	38	45	48	45	42	46	30	40	1330
Polio 4	37	45	48	45	37	39	30	35	1257
Campak	23	22	24	21	31	30	24	41	856
Total	321	305	396	355	306	354	304	335	

Source: Primary Data, 2020

Based on table 2, immunization coverage during the covid-19 pandemic at the Public Health Center in Jayapura City showed that the highest immunization coverage was DPT 3 immunization of 1330 and the lowest coverage was HB immunization <7 days of 773. Based on the number per month, March reached the highest number that is as many as 396

Table 3. Differences in basic immunization coverage and achievement of basic immunization targets before and during the Covid-19 pandemic in the January - August period at Public Health Centers in Jayapura City

No	Immunization coverage	Mean	Standard Deviation	Deference Reduction	P Value
1	Before Pandemic of Covid-19	334,50	32,465	898	0,003
2	During Pandemic of Covid-19	222,50	61,704		

Immunization Coverage before and during the pandemic decreased by a difference of 898. The average immunization coverage before the pandemic was 334.5 and during the pandemic the value decreased by an average of 222.5. Based on the results of the paired t test, it was found that the value of p = 0.003 (<0.005) where there was a significant difference in the coverage of immunization before and during the Covid-19 pandemic at public health centers in Jayapura.

Discussions

Immunization has great benefits for toddler health (Kartini, Sari, & Aryastuti, 2021). A big challenge for health workers, especially puskesmas workers, is to provide education on prevention of infectious diseases that can be prevented by immunization to the public (Aritonang, Anita, Sinarsi, & Siregar, 2020) during a pandemic. The Covi-19 pandemic with the existence of large-scale national restrictions on physical-social distancing and lock down in Jayapura City and the anxiety that has gripped the community has caused mothers with toddlers to be afraid to bring their children for immunization. Research conducted at the Sekota Jayapura Health Center by looking at differences in immunization coverage rates in January-August 2019 before the pandemic occurred and in January-August 2020 during a pandemic obtained significant results with the paired t test at immunization coverage value p: 0.003 (< 0.005).

Decline in immunization coverage during the Covid-19 pandemic. Health workers continue to intensively provide education and counseling to the community in almost all puskesmas in Jayapura City, both at Posyandu and puskesmas to increase public understanding of the importance

of immunization for toddlers (Felicia & Suarca, 2020) by arranging visit schedules for mothers to prevent crowds at immunization sites (Iswati, 2020) and strictly implement health protocols. The immunization schedule will also continue to be carried out according to the schedule that has been planned with the time that has not changed, only the immunization schedule at the Posyandu which has been stopped for a while due to the surge in Covid-19 cases. However, from the results of observations, mothers prefer to go to midwives' practices or private clinics or doctor's practices when they want to give immunizations to their children. The decrease in the results of this immunization coverage should be of particular concern to health workers by more intensively providing information to parents to continue to take the time to give their children immunization (Pinilih, Hermawan, & Yanti, 2022).

CONCLUSION

The results showed that the Covid-19 pandemic had an impact on decreasing immunization coverage at the Jayapura City Health Center. A combination of quantitative and qualitative methods can be used in analyzing the impact of COVID-19 on basic immunization coverage. This research also enriches references to research on the topic of the COVID-19 pandemic and becomes a source of reference for further research on similar topics. Future research is expected to be able to carry out an analysis of the impact of COVID-19 on other health care sectors and can use more than two research methods.

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