




Impact of the COVID-19 Pandemic on Integrated Health Service for Child (*Posyandu*) Management in Palu City

Bertin Ayu Wandira^{1*}, Hemiyanti Hermiyanti¹, Novi Inriyanny Suwendro¹, Ketut Suarayasa² 

¹Department of Health Administration and Policy, Faculty of Public Health, Tadulako University, Palu, Indonesia; ²Department of Public Health Sciences and Community Medicine, Faculty of Medicine, Tadulako University, Palu, Indonesia

Abstract

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***Correspondence:** Bertin Ayu Wandira, Department of Health Administration and Policy, Faculty of Public Health, Tadulako University, Palu, Indonesia. E-mail: bertinayuwandira76@gmail.com
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BACKGROUND: *Posyandu* is an integrated health service for the child, a form of community-based health effort managed from, for, and with the community. It is addressed to empower the community and provide convenience to the community in obtaining basic health services.

AIM: This study aims to obtain an overview of the impact of the COVID-19 pandemic on *Posyandu* management in Palu City, including the status of *Posyandu* development, *Posyandu* activities, *Posyandu* cadre activities, and *Posyandu* supervision practices by the Community Health Center (*Puskesmas*) during the COVID-19 pandemic.

METHODS: It used a mixed study method by combining two study methods conducted previously, namely, quantitative and qualitative. The study also carried out *Posyandu* observations and interviews with several informants.

RESULTS: The results showed that during the COVID-19 pandemic: (1) *Posyandu* development status did not decrease, remained the same as before; (2) *Posyandu* activities were prioritized on toddler immunization. After 3 months of the COVID-19 pandemic, *Posyandu* activities returned to normal; (3) *Posyandu* cadre activities included registration, weighing, recording, and counseling; (4) *Posyandu* supervision activities were focused on monitoring the growth and development of toddlers but could not run optimally due to the busyness of Community Health Center (*Puskesmas*) officers dealing with COVID-19; and (5) constraints: The unavailability of infrastructure for implementing health protocols in *Posyandu* and not accustomed to implementing health protocols. Challenges: The demands of the community using *Posyandu* so that the *Posyandu* applies standard health protocols, and the workload of *Puskesmas* officers was excessive (basic tasks and additional tasks for COVID-19). Efforts: Following the instructions of the Palu City Health Office to implement health protocols at the *Posyandu* according to standards.

CONCLUSION: During the COVID-19 pandemic, *Posyandu* ran normally, except for the first 3 months of the pandemic, when the service was interrupted because the *Posyandu* was closed. *Posyandu* management indicators included *Posyandu* status conditions (primary, middle, full-time, and independent strata), *Posyandu* main activities (monitoring growth and development of toddlers), cadre activities (registration, weighing, recording, and counseling), and supervision activities running as usual.

Introduction

Since the first COVID-19 case entered Indonesia in March 2020, the spread of COVID-19 has expanded with increasing cases and deaths [1]. The government then issued Government Regulation Number 21 of 2020 concerning large-scale national restrictions [2]. On the one hand, the government must prevent the spread of COVID-19 by limiting activities that cause community gatherings, especially at high-risk groups such as toddlers and the elderly. One activity that is also restricted is the Integrated Health Service for the Child (*Posyandu*). Nevertheless, on the other hand, the government must ensure that the continuation of maternal and newborn health services can continue to be carried out correctly [3]. The government has the responsibility to provide services for pregnant women, toddlers, and the elderly. Antenatal care examinations must continue to be carried out

to control the development of the health of pregnant women. Health services for children under 5, including weighing, monitoring growth and development, providing basic and advanced immunizations, Vitamin A capsules, management of sick toddlers, and disease prevention programs, must continue to be implemented. The front line to carry out this series of activities is the *Posyandu* [4].

In Central Sulawesi, most *Posyandu* has closed their routine activities since April 2020 for 3 months. This was due to a letter from the Ministry of Home Affairs of the Republic of Indonesia Number: 094/1737/BPD regarding Operations of Integrated Health Service for Child (*Posyandu*) in Preventing the Spread of COVID-19, which contains instructions for implementing health protocols at *Posyandu*. Because the government has not implemented COVID-19 standards in *Posyandu* and other community-based health services, several districts have chosen to close their activities. This certainly has an impact on routine

Posyandu services, especially health services for children under 5.

The general purpose of the study was to obtain an overview of the impact of the COVID-19 pandemic on *Posyandu* management in Palu City.

Methods

A mixed methods study was applied in this research by combining quantitative and qualitative methods from the previous studies [5]. The research was conducted in Palu City by taking four *Puskesmas* locations (Bulili, Kamonji, Mabelopura, and Mamboro). For the qualitative study, the researchers selected eight *Posyandu* cadres as primary informants, four heads of the Community Health Center (*Puskesmas*) as additional informants, and two officials at the Palu City health office as key informants.

Results and Discussion

Status of *Posyandu* development during the COVID-19 pandemic

The development of Integrated Health Service for Child (*Posyandu*) in several Palu City health centers working area in the past 3 years is shown in Figure 1.

The COVID-19 pandemic that occurred at the beginning of 2020 also did not have a significant impact on the level of development of *Posyandu* in the four

Puskesmas which chosen as the research locations, as provided by the information of the Mamboro, Kamonji, and the Palu City Community Health Center (*Puskesmas*) staffs:

“...In 2020, there was a Pandemic, but it would not affect the *Posyandu* strata in the Mamboro Public Health Center area. Even an additional 1 *Posyandu* for Madya *Posyandu* strata in 2020 compared to the previous year....” (Mamboro Health Center Officer)

“It does not seem to have any effect. The *Posyandu* strata data at our *Puskesmas* are still the same as before the pandemic....” (Kamonji Health Center Officer)

“Yes, it is true.... there is no effect on *Posyandu* strata...” (Palu City Health Office staff).

Posyandu activities during the COVID-19 pandemic

Posyandu activities consist of main activities and development activities. The main activities include: (a) Maternal and Child Health, such as pregnant women, postpartum and breastfeeding mothers, infants, and toddlers health services; (b) reproductive health and contraceptive; (c) immunization; (d) nutrition; and (e) prevention and management of diarrhea. Meanwhile, additional or development activities included: Family Development for Toddlers (in Indonesian: Bina Keluarga Balita, abbreviated as BKB), Early Childhood Development Play Group (in Indonesia: Pengembangan Anak Usia Dini, abbreviated as *PAUD*), and others.

The results of the study at four *Puskesmas* showed that the main activities continued as they

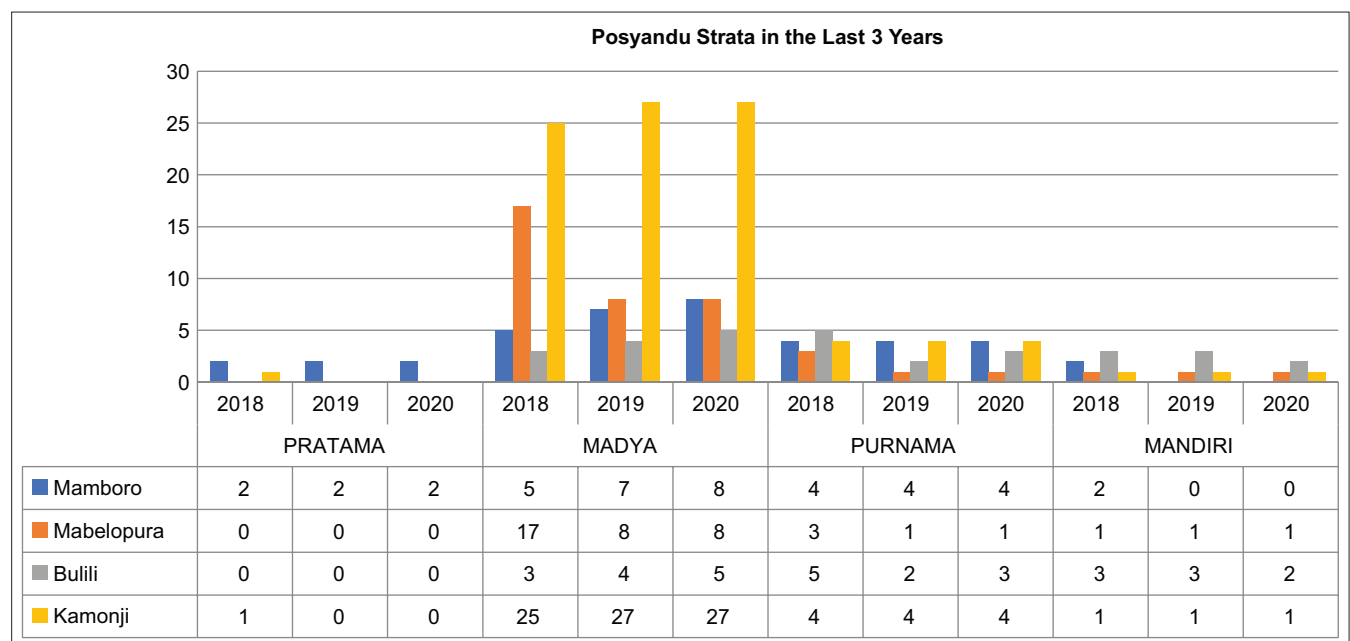


Figure 1: *Posyandu* strata in four health centers working area in Palu City, 2018–2020

should, even though at the beginning of the COVID-19 pandemic, activities had been closed, as stated by *Posyandu* cadres and *Puskesmas* officers:

“... In our *Posyandu*, activities were closed. No one dared to take their child to the *Posyandu*. We are also prohibited from providing services. We do not understand well the Health protocol yet...” (*Posyandu* cadre)

“That is right....had stopped our activities for 3 months. If I am not mistaken in April, May, and June 2020. But vaccinations are still running... at the *Puskesmas*...” (*Bulili Puskesmas* officer)

Meanwhile, according to the Palu City Health Office staff, *Posyandu* activities at the beginning of the COVID-19 pandemic were focused on the main activities of the *Posyandu*, Immunization:

“We prioritize immunization activities. After 3 months of the pandemic... new activities are back to normal...”

Posyandu visits before the pandemic (in 2019) compared to during the pandemic (in 2020) also did not experience significant changes, as shown in Figure 2.

Posyandu cadre activities during the COVID-19 pandemic

Posyandu activities are organized and led by *Posyandu* cadres with technical guidance from the *Puskesmas* and related sectors. The results of the study at four Palu City Community Health Centers showed that the routine activities of cadres, which included weighing and recording, were running as usual during the pandemic. Except at the beginning of the pandemic,

where the *Posyandu* did not carry out routine activities. Immunization activities were carried out directly by *Puskesmas* officers at the *Puskesmas*, door to door (visiting the target’s house) or sweeping targets in the following month.

“The routine activities at our *Posyandu* are running as usual. There is registration, weighing, recording, and counseling. Midwives or nurses are still immunizing... so nothing is different.... only use Health protocols...” (*Posyandu* cadre)

“...The activities are the same, only more stringent. We have to wear masks, keep our distance. Mothers are not allowed to congregate...” (*Posyandu* cadres)

“Cadre activities are as usual. The cadre is the same. Only at the beginning of the pandemic, the *Puskesmas* of Mabelopura only carries out immunizations at *Puskesmas*. The *Posyandu* was closed as the Health Service advised...” (*Mabelopura Puskesmas* officer).

Posyandu supervision practices during the COVID-19 pandemic

Posyandu guidance or supervision was carried out in an integrated manner through the workgroup (POKJA) of *Posyandu* in the village. Although it was not maximal since members of the *Pokja Posyandu*, such as the *Puskesmas*, had additional tasks to deal with COVID-19, the guidance was carried out on the number of toddlers whose weight had increased and toddlers whose body weight was below the red line, as shown in Figure 3.

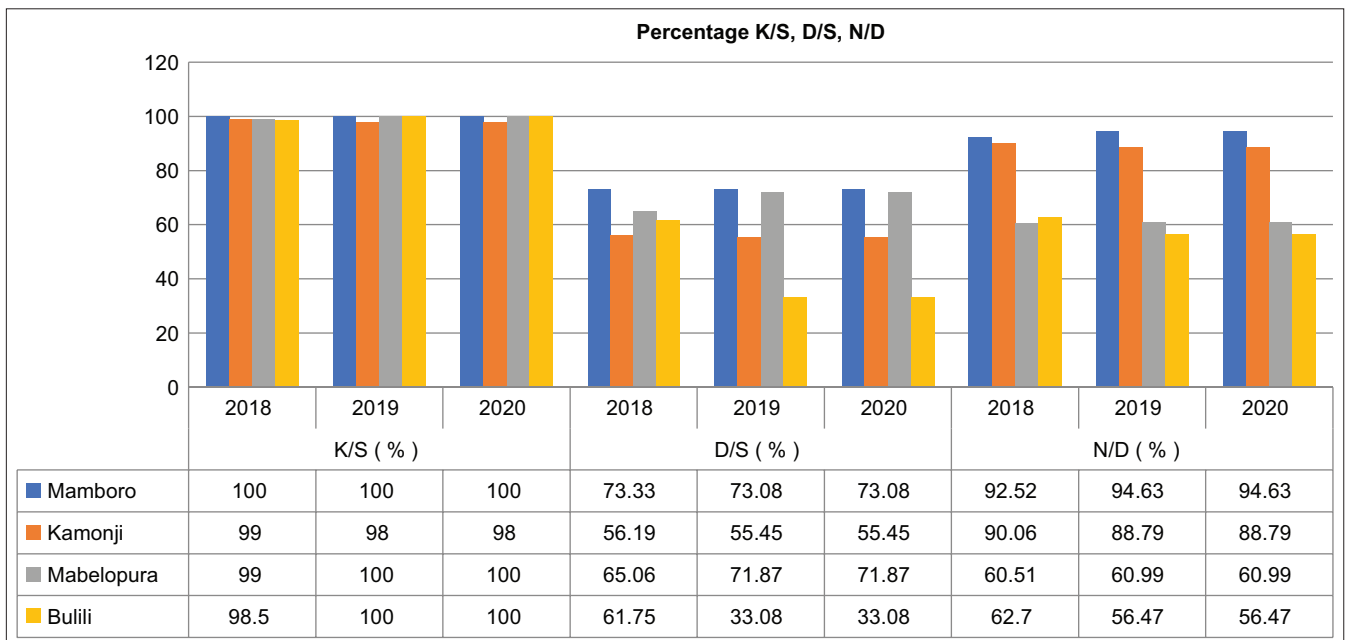


Figure 2: Data on *Posyandu* visits in four Palu City community health centers (*Puskesmas*) in 2018–2020

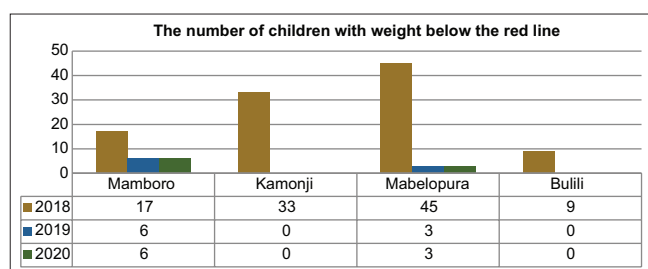


Figure 3: Number of toddlers with weight under the red line in four community health centers (Puskesmas) in Palu City, 2018–2020

Constraints, challenges, and efforts of posyandu cadres, puskesmas centers, and the Palu City health office during the COVID-19 pandemic

Constraint

Posyandu has been known for a long time as a center for basic health services for pregnant women, parents, and toddlers. During the pandemic, *Posyandu* is required to provide complete health information so that it becomes a center for public health activities. However, for this effort, *Posyandu* cadres did not have experience, and there was no infrastructure for health protocols, or it was not easy to get tools and materials to implement health protocols, as stated by *Posyandu* cadres:

“We are asked to wash our hands or using hand sanitizer, wear a mask. but the Puskesmas do not provide it.” (Posyandu cadre)

“...it’s hard to get masks first...it’s better to just close the Posyandu. Rather than children getting...” (Posyandu cadres)

Another obstacle, according to *Posyandu* cadres, was a matter of habit. At the beginning of the pandemic, it was not customary to wear masks and wash hands.

“It was difficult, not used to it... But now it is a common behavior... it is going well...” (Posyandu cadre).

Pada masa pandemi COVID-19 kondisi sosial masyarakat berhubungan dengan pelayanan kesehatan bayi dan balita termasuk diantaranya kegiatan *posyandu*. Rutinitas pelaksanaan *posyandu* terabaikan termasuk pemantauan tumbuh kembang bayi balita dan cakupan imunisasi. Hal tersebut dikarenakan seluruh pelayanan dan kesehatan terfokus pada COVID-19 [6].

The threat of contracting the COVID-19 virus and government policies to limit activities outside the home, maintain distance, work from home, wear masks, and other health protocols has made many *Posyandu* temporarily stop their activities. At the same time, this *Posyandu* is very necessary to detect nutritional problems or health problems for toddlers. It is very important to monitor toddlers’ growth to find out early growth faltering. Weighing every month is very necessary to know this. Growth and development

in infants can be monitored through weighing children every month [7].

Challenge

With a more established level of education and economy, the biggest challenge is actually from the community itself, as stated by *Posyandu* cadres and *Puskesmas* officers:

“The biggest challenge....from the community itself. Our Puskesmas is located in the City, and public education is quite good. Thus... they are critical if they take their children to Posyandu that do not apply health protocols properly....” (Posyandu cadres)

Another challenge comes from the increased workload during the pandemic. *Puskesmas* officers are expected to focus on their main duties and responsibilities on the health program but also have to fight against the COVID-19 pandemic, as expressed by *Puskesmas* officers:

“The challenges of friends at the Puskesmas are quite big. On the one hand, we have to focus on Posyandu services; on the other hand, we have to race against the pandemic...” (Mabelopura Puskesmas officer)

“...Especially if you have a friend who gets sick....the isolation will take a long time. The service is not maximal anymore...” (Mamboro Puskesmas Officer)

Other research results show that insufficiency of medical staff as well as medical equipment was common and resulted in increased workload. Apart from this, shortage of personal protective equipment, fear of being infected, social exclusion, and mismanagement contributed further to put the health-care professionals in adversity [8]. In addition, a study showed that there was a significant relationship between the anxiety of mothers of children under 5 with *posyandu* activities in the COVID-19 era in Pelintahan Village in 2021 with $p = 0.00$ ($p < 0.05$) and there was a significant relationship between family support toward *Posyandu* activity in the COVID-19 era in Pelintahan Village with $p = 0.00$ ($p < 0.05$) [9].

This is in line with the study findings of Elston *et al.* (2016) which show that the reluctance of people in Sierra Leone to immunize their children during the Ebola outbreak is due to fear of contracting the virus [10].

Effort

To keep *Posyandu* services running, the Palu City Health Office issued a policy that allows *Posyandu* to continue providing services with strict health protocols: All cadres and participants are in good health (measured body temperature), the schedule is set

for several sessions, the service is in an open space, *Posyandu* providing facilities and infrastructure for Health protocols, managing safe distances, and limiting the types of services at *Posyandu*.

The results showed that counseling could increase cadre's knowledge about health protocols, but in its application, there were still those who did not routinely wash their hands every time they served and maintain social distance [11]. The COVID-19 pandemic has generally reduced the number of visits to maternal and child nutrition and health services (KIA), especially basic immunization services and weighing for children under five, in East Jakarta City, Bekasi Regency, Maros Regency, Badung Regency, and Kupang City [12].

Conclusion

The development status of Integrated Health Service for Child (*Posyandu*) in Palu City during the COVID-19 pandemic did not decrease. Conditions remain the same as before the COVID-19 pandemic. The *Posyandu* activities were prioritized on toddler immunization activities. However, after 3 months of the COVID-19 pandemic, *Posyandu* activities returned to normal. The activities of *Posyandu* cadres there included registration, weighing, recording, and counseling. *Posyandu* supervision activities by the Community Health Center (*Puskesmas*) in Palu City during the COVID-19 pandemic focused on monitoring toddlers' growth and development but could not run optimally due to the busyness of *Puskesmas* officers dealing with COVID-19.

The obstacles were the unavailability of infrastructure for implementing health protocols in *Posyandu* and not being accustomed to implementing health protocols. The challenge was the demands of the community using *Posyandu* to implement standard health protocols and the excessive workload of *Puskesmas* officers (main tasks and additional tasks for COVID-19). Efforts were made to follow the instructions of the Palu City Health Office to implement health protocols at the *Posyandu* according to standards.

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