

Evaluation of the implementation of COVID-19 prevention and control in the work area of Kalibaru Kulon health center

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ABSTRACT In early 2020, the COVID-19 pandemic spread rapidly to all countries, including Indonesia. This problem prompted the government to immediately make efforts to suppress the spread of COVID-19. Public Health Centers are at the front line in breaking the chain of transmission of COVID-19 because they are located in every sub-district and have a regional concept. This research is a participatory observational study and was conducted from July 6 – 31, 2020. Researchers at the same time as volunteers coordinated with the Public Health Centers and evaluated the implementation of COVID-19 Prevention and Control in the Work Area of Kalibaru Kulon Health Center. The evaluation was done based on the guidelines for the Prevention and Control of COVID-19 by analyzing and interpreting the data and developing a descriptive narrative. The results of the evaluation have shown the suitability of the guidelines with the implementation of the rapid test program, screening COVID-19 at check point posts, and 'Sekolah Tangguh & Pondok Tangguh'. But, there are still some indicators that are not following the guidelines, especially in the implementation of rapid test program and 'Sekolah Tangguh & Pondok Tangguh'. The conclusion from the evaluation of the implementation of Kalibaru Kulon Health Center program in making efforts to prevent and control COVID-19 is that the implementation of the program has not been optimal when compared to existing guidelines so that more efforts need to be made such as increasing the role of the government as the developer of policies, which is supported by public awareness to realize community independence in the health sector.

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1. Introduction

The World Health Organization (WHO) since January 2020 has declared COVID-19 a Public Health Emergency of International Concern (PHEIC), and on 11 March 2020, officially declared it as a pandemic. This is a follow-up to the report of the WHO China Country Office in Wuhan City, Hubei Province, China in 2019, on the finding of a pneumonia case of unknown etiology which was identified as a new type of coronavirus.¹

In response to the WHO's determination of the PHEIC, the Indonesian Ministry of Health has issued

the Ministry of Health Decree Number HK.01.07/MENKES/104/2020 concerning the Determination of Novel Coronavirus Infections (2019-nCoV Infection) as Types of Diseases that Can Cause Outbreaks and Countermeasures. In addition to these rules, Indonesia already has regulations regarding the control of infectious disease outbreaks, such as Law (UU) Number 4 of 1984 concerning Outbreaks of Infectious Diseases, Government Regulation (PP) Number 40 of 1991 concerning Overcoming Outbreaks of Infectious Diseases, and Regulation of the Minister of Health (Permenkes) Number 1501/Menkes/Per/X/2010 concerning Certain Types of Infectious Diseases that Can Cause Outbreaks and Control Efforts.

The high population mobilization in the world, especially Indonesia, and variants have caused

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several spikes in COVID-19 cases in the world to be increasingly out of control. On March 2, 2020, Indonesia reported the first case of COVID-19, and it quickly spread to several areas in Indonesia.¹ As of August 28, 2022, there have been 6,343,076 confirmed cases of COVID-19 with 157,493 deaths.²

The COVID-19 vaccination program has been accomplished throughout Indonesia, but the risk of transmission is still high. Less than one year from the initial case, active cases on a national scale as of December 17, 2021, found 4,833 active cases, and for the East Java region there were 139 active cases, and among these active cases, some were from Banyuwangi Regency. Under certain conditions, the spread of COVID-19 after the implementation of a national-scale vaccination program, can create a wave or surge of the spread of COVID-19 that threatens the health of the people of Indonesia.

Epidemiological and virological studies prove that COVID-19 is highly contagious, and its transmission by symptomatic people to people around them is typically by droplets, which are water-filled particles with a diameter of >5-10 m. Droplet transmission occurs when a person is at a close distance (within 1 meter) with someone who has respiratory symptoms (e.g., coughing or sneezing) so that droplets are a risk of transmission through mucosa (mouth and nose) or conjunctiva (eyes). Transmission can also occur through objects and surfaces contaminated with droplets around an infected person. Therefore, there are several scenarios for stopping the transmission of COVID-19, one of which is preventing the virus from spreading.³

In addition, the airborne transmission may be possible in special circumstances where aerosol-generating supportive procedures or treatments such as endotracheal intubation, bronchoscopy, open suction, administration of nebulized medication, manual ventilation before intubation, turning the patient to the prone position, disconnecting the ventilator, positive pressure ventilation non-invasive, tracheostomy, and cardiopulmonary resuscitation. Further research is needed on airborne transmission.¹

Based on the HL BLUM theory, health status is influenced by four main interrelated factors which are: the environment (40%), health behavior (30%),

health services (20%) and genetics (10%).⁴ Of the four factors, the behavior and environment have considerable influence. These factors are strongly influenced by the behavior of the community itself, therefore the implementation of the Healthy Living Community Movement (Germas) in promoting a culture of healthy living and cross-sectoral involvement need to be emphasized. This can be done by local governments starting from the RT/RW to the central level. Referring to this theory, the institutionalization of the performance of controlling the spread of COVID-19 is very important for an organized and systematic response.

At the grassroots level of RT/RW, the existence of the Public Health Center as a form of institutionalization for controlling the spread of COVID-19 is very relevant. According to the Ministry of Health, the scope of Public Health Center services during the COVID-19 pandemic includes Public Health Center management, Community Health Efforts, Individual Health Efforts, and Infection Prevention and Control.¹ As a result, the roles of the Public Health Center in carrying out prevention, detection and responses are implemented in an integrated manner in providing health services to others during the COVID-19 pandemic.

The existence of the Public Health Center is very important in realizing community independence through community empowerment in changing behavior and the environment which is in line with HL Blum's theory, that people need to have awareness, willingness and ability to live healthily and live in a healthy environment.

Community independence needs to be realized through community empowerment to change behavior patterns and the environment. The community in the working area of the Kalibaru Kulon Health Center is expected to be able to have healthy lifestyle behaviors and have the awareness, willingness and ability to live healthily and live in a healthy environment. Therefore, the authors participated in volunteer activities in Community Health Efforts. This is in line with what Syafrida said, that awareness of the joint task of community elements is an effort to prevent the spread of COVID-19.⁵

This study aimed to evaluate the implementation of prevention and control of COVID-19 at Kalibaru Kulon Health Center, Kalibaru District, Banyuwangi Regency.

2. Method

Researchers used a descriptive method, with primary data sources interviews and observations based on the involvement of researchers in volunteer activities within the period July 16–31, 2020 conducted in the work area of the Kalibaru Kulon Health Center, Kalibaru District, Banyuwangi Regency. The technique of collecting primary data was by interview with Mr. Sonika and Mr. Edo as the implementing team for Community Health Efforts (UKM), while gathering observational data was done by optimizing the ability of researchers in terms of identifying motives, beliefs, attention, unconscious behavior, habits, etc.

The evaluation of activities was done by comparing primary data with secondary data, such as reviewing data and documents related to health protocols, guidelines and standard operating procedures (SOPs), which include: Kalibaru Kulon Health Center Profile Documents, COVID-19 Case Documents in Provinces and Districts, Health Protocol Documents for Public Health Center Services in Pandemic Era (Banyuwangi District Health Office), SOP Document for Homecoming Health Services at Checkpoints in Preventing the Spread of COVID-19 (COVID-19 Screening) Banyuwangi District Health Office, Banyuwangi District Health Education Protocol Document (Banyuwangi District Health Office), and Guidelines for the Prevention and Control of Corona Virus Disease 2019 (COVID-19) of the Indonesian Ministry of Health. Data analysis was done as the next phase of this study involving interpretation techniques on the data that were collected, then generating narratives to clarify the description of the data presented.

3. Result

The results of the study concerned the evaluation of the implementation of the prevention and control of COVID-19 in the work area of the Kalibaru Kulon Health Center: first, the results of the evaluation of the rapid test at the Kalibaru Kulon Health Center

included seven evaluation variables referring to the Guidelines for Prevention and Control of COVID-19 in Health Service Facilities. The implementation of rapid test at the Public Health Center has been running according to standard guidelines based on four evaluation variables, which are the implementation of the use of Personal Protective Equipment (PPE), installation of special markers to maintain distance, installation of physical barriers, and health monitoring for workers at the Public Health Center. However, there are still three evaluation variables that have not been done according to standard guidelines. They are the implementation of hand hygiene, regular disinfection of the Public Health Center area, and temperature measurement for Public Health Center visitors.

Second, the results of the evaluation of the implementation of the COVID-19 screening at the Check Point Post include three evaluation variables referring to the COVID-19 Prevention and Control Guidelines which include the variables of prevention (prevent), case-finding efforts (detect), elements of fast and effective handling (respond), and four variables that refer to the Guidelines for Health Services for Homecoming Flows at Check Point Command Posts in Preventing the Spread of COVID-19. The implementation of the COVID-19 screening activity at the Check Point Post has been running following the COVID-19 Prevention and Control Guidelines.

Third, teaching and learning in schools and Islamic boarding schools (Sekolah Tangguh & Pondok Tangguh) have conducted activities following standard guidelines/SOP⁶ on installation of signs/boards, implementing social distancing, separate student and teacher desks, providing sufficient space for movement, providing seats for each student, implementing rooms with windows that can be opened and closed, and not installing air conditioning (AC) in the room. But, there are still some variables that have not been done according to standard guidelines, which are the implementation of reminder signs on the floor or posters on the walls, disinfecting the school areas, providing handwashing facilities with soap (CTPS), providing a special room for students with symptoms of COVID-19, and the installation of electric fans.

4. Discussion

Factors causing the implementation discrepancy with the official recommendation document to prevent the spread of COVID-19 in the work area of the Kalibaru Kulon Health Center, Banyuwangi, start from the difficulty in implementing of the rapid test at the Kalibaru Kulon Health Center, which eventually had an impact on the implementation of standard guideline. Three evaluation variables have not been done according to standard guidelines. They are the implementation of hand hygiene, regular disinfection of the Public Health Center area, and temperature measurement for Public Health Center visitors.

The implementation of hand hygiene is not following standard guidelines based on observations, indicated in 40% of Public Health Center visitors who have not underwent hand hygiene and are not following the COVID-19 Prevention and Control Guidelines. Indecision among visitors to wash their hands before entering the Public Health Center area is a factor, so that patients do not wash their hands before doing medical check-ups which will increase the risk of transmitting COVID-19. A study conducted by Nakoe stated that hand hygiene is very important to maintain because human hands are often contaminated with microbes, so hands can be an intermediary for the entry of microbes into the body. Hand washing activities will kill the microbes on the hands so that the application of hand hygiene can reduce the risk of transmitting COVID-19.⁷

The procedure for cleaning and disinfection is routinely done every day around the environment by wiping the entire surface of the room environment and mopping the floor of the room using a liquid detergent, cleaning with clean water, and then using 0.05% chlorine.¹ Cleaning the Public Health Center area by mopping the floor is done routinely, but disinfection of the surfaces of the room environment in the Public Health Center area has not been carried out according to the procedure, based on the results of interviews with officers during volunteer activities, disinfection is carried out approximately 1-2 months before the interviews were conducted. The lack of discipline from officers in carrying out disinfection of the Public Health Center area is a factor that

causes the implementation of the environmental disinfection of the Public Health Center to not follow the standard guidelines, which can increase the risk of transmitting COVID-19 through media and facilities contaminated with the virus.

Temperature measurement using a Thermal Gun for visitors who enter the Public Health Center area is not done according to standard guidelines, so that visitors can enter the Public Health Center area without checking their body temperature first. Inadequate human resources to take temperature measurements for visitors who come there are a factor that causes body temperature measurements not to be conducted. Measurement of body temperature is one of the efforts to prevent the transmission of COVID-19 through symptoms of fever/high body temperature so that the failure to measure body temperature can increase the risk of transmission of COVID-19 in the Public Health Center environment.

The next evaluation of the implementation of the COVID-19 screening was done at the Check Point Command Post. First, Health promotion activities (promote) are done through socialization, education, and the use of various information media, have been implemented at the screening post locations through printed media installed at the location such as how to wash hands and efforts to prevent COVID-19. The media at the Check Point Command Post location are posters and banners installed in the Check Point Command Post area.

Second, protection activities (protect) have been implemented through several efforts: (1) providing facilities for hand-washing with soap that are easily accessible and according to standards, or provision of hand sanitizers; (2) efforts to screen the health of people who will enter public places and facilities; (3) regulation of social distancing; (4) disinfection of surfaces, rooms, facilities and equipment regularly; and (5) increase discipline on community behavior for people that are at risk of transmitting and contracting COVID-19 (crowding, not wearing masks, smoking in public places and facilities, etc.).¹

In addition, the effectiveness of COVID-19 prevention measures is highly dependent on the

strength of surface disinfection, hand hygiene, and the use of appropriate materials for PPE.⁸ Several types of PPE are considered to work optimally to prevent the transmission of COVID-19, which include masks, face shields, and gloves whose main purpose is to prevent exposure to the virus into the body or transmit the virus to others.⁹

Third, case finding efforts (detect) consist of early detection and monitoring of health conditions. Early detection to anticipate the spread of COVID-19 can be done by all elements and community groups through coordination with the local health office or health care facilities.¹ The checkpoint post has conducted early detection efforts by collaborating between the health service and cross-sector such as the Police, Indonesian National Army (TNI), Department of Transportation and community organizations in Kalibaru District. That is, early detection is a basic strategy for effective efforts to break the chain of transmission of infectious diseases.^{10,11} Early detection must be done considering that COVID-19 has a strong transmission capacity and there is a very vulnerable population base, so it is possible to spread on a larger scale if early detection is not done correctly and regularly.¹⁰

Fourth, the element of handling quickly and effectively (respond) consists of physical and social restrictions and the application of coughing and sneezing etiquette. Physical restrictions are physical distancing activities between individuals¹ that have been implemented for volunteers and people who enter sanitized waiting areas. Volunteers are placed at their respective locations on duty by implementing social distancing between them. The application of coughing and sneezing etiquette is applied by providing education to the public through printed media at the checkpoint location, there is education on the importance of using masks. Not using masks can cause exposure or contamination of bacteria that are transmitted if coughing occurs carelessly.¹²⁻¹⁴ In addition, there is the education to not travel far during a pandemic, except in urgent conditions, as an effort and government programs to stop the spread of COVID-19, even involving complete lock-down in various countries of the world.¹⁵

The last evaluation is the evaluation of the

implementation of Sekolah Tangguh & Pondok Tangguh in Kalibaru District which includes twelve evaluation variables referring to the Health Protocol of the Banyuwangi Regency Educational Order, where seven variables have been running according to standard guidelines, which are the implementation of installing signs/boards containing prohibitions, implement social distancing, separate the teacher's desk from the student desk, provide sufficient space for movement, students have their seats, the windows of the room can be opened and closed, and not installing AC. There are five evaluation variables that have not been done according to standard guidelines are the implementation of placing reminder signs on the floor/posters, disinfecting the school environment, providing hand washing facilities with soap (CTPS), providing special rooms for symptomatic students, and installing electric fans.

Based on the results of the researchers' observations, the occurrence of discrepancies in the implementation of Sekolah Tangguh & Pondok Tangguh is caused by three factors: first, structural factors influenced by the environment that give rise to disciplinary attitudes, and awareness of health care; second, institutional factors due to the limitations of educational institutions in terms of infrastructure; and third, the factor of coordination of educational institutions with agencies that have the authority in the health sector, so that they interfere with other learning activities and the importance of maintaining health, especially understanding of the dangers of infectious diseases.

Therefore, in order to build public health independence in facing the health crisis due to COVID-19, there are several recommendations for implementing COVID-19 prevention and control based on the work area of Public Health Center throughout Indonesia, including the Kalibaru Kulon Health Center, as follows: first, the Government and stakeholders policies need to evaluate and increase human resources for health workers, especially at the grassroots level to maximize performance and effectiveness in stopping the spread of COVID-19; second, regional-based institutional specifications are needed for handling the spread of COVID-19 under the Public Health Center institution; third, improving

socialization and health education is important through health education units in each region in order to provide understanding and implementation of health independence; and fourth, incorporating health education should be done in an independent education curriculum as a subject or integrative in certain subjects in order to build awareness of health care through activities to protect case-finding efforts, and to respond quickly and effectively (respond) to support sustainable health independence. This is in line with the results of recent research which states that educational interventions on health greatly affect people's awareness of healthy living.¹⁶

5. Conclusion

Based on the results and discussions related to the evaluation of the implementation of COVID-19 prevention and control in the work area of the Kalibaru Kulon Health Center, it can be concluded that community independence in the health sector is rooted in all lines of national and regional life. The government as the developer of health policy must be supported by public awareness to ensure the widest possible health coverage for the people of Indonesia, and the community has health care initiatives to realize community independence which can be started from community empowerment to change behavior and environmental patterns, as well as sustainable health education.

The health centers are at the front line in breaking the chain of transmission of COVID-19 because it is located in every sub-district and has a regional concept, including the Kalibaru Kulon Health Center, it is necessary to make various efforts in handling prevention and control of infection transmission. The efforts carried out by the Kalibaru Kulon Health Center include rapid test program, screening COVID-19 at check point post, and Sekolah Tangguh & Pondok Tangguh.

Conflict of interests

There is no conflict of interest in this study.

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