



## Education For Waste Management of Covid-19 Medical Mask in Pamotan Village, Porong District, Sidoarjo Regency

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### Abstract

During the Covid-19 Pandemic, masks are a must-have item for almost everyone. The use of masks, which has become a new habit in society, certainly adds to the generation of waste, which if not managed properly can damage the environment. The activity is aimed at increasing the knowledge of the people of Pamotan Village, Porong District about the management of mask waste. The form of activity is in the form of lectures, discussions and questions and answers. 20 people and village officials participated in the activity. Community participation in the form of participation in socialization activities and questions asked in the question and answer session. The material presented was about the management of mask waste and about the role of the community in the management of Covid-19 medical mask waste. This activity received a good response from the Pamotan Village community and is expected to be sustainable as a form of education for the community.

**Keywords:** Covid-19; Masks; Medical Waste; Environmental Law.

### I. Introduction

The Covid-19 pandemic that hit Indonesia left a lot of problems, not only problems in the health aspect but also problems in the environmental aspect. One of the problems that occur is the problem of waste and waste, both generated by health service facilities and those generated by households. If in health service facilities this waste management can still be overcome with a waste management tool called an incinerator, while it is the waste produced by the community that requires more attention.

Handling COVID-19 medical waste is one of the most important things, because it is feared that this waste could become one of the media for the spread of the virus if it is not handled optimally. In addition, with the increasing number of patients exposed to the Covid-19 virus, the volume of medical waste piles will increase significantly every day. Infectious waste is medical waste which is classified as hazardous and toxic waste (B3). The infectious waste is in the form of used masks, used gloves, used bandages, used tissues, used plastic drinks. There are also used syringes, used infusion sets, used personal protective equipment (PPE), to the rest of the patient's food. The various wastes

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are also found from people under monitoring of People Under Monitoring (ODP) who are undergoing self-quarantine at home.<sup>1</sup>

Disposable masks are one of the infectious wastes which are currently produced in quite a lot by households, considering that these masks are currently included in the community's main needs as a form of preventive effort in protecting themselves from the Covid-19 Virus. This is a common concern and requires integrated countermeasures to manage this waste safely so that there is no transmission of Covid-19 caused by the waste of used masks. So that the Lecturer Team of the Faculty of Law of the UPN Veterans East Java was moved to provide socialization on how to properly manage COVID-19 medical mask waste to the people of Pamotan Village, Porong District, Sidoarjo Regency. Health, cleaning staff and the surrounding community. There are two managements of household infectious waste:<sup>2</sup>

1. Management of infectious waste from Confirmed Patients Asymptomatic (OTG), Confirmed Patients with Mild Illness (Mild PDP) and Close Contact with Covid-19 cases in the family, for example infectious waste such as masks, gloves, used tissues and food scraps
2. Management of waste resulting from healthy behavior during the Covid-19 pandemic, for example, used mask waste There are several reasons why infectious waste must be managed specifically, the first is to reduce the possibility of infectious waste in the form of sharp objects damaging the container, causing infectious waste splattered when handled. Second, reduce the possibility of transmitting infectious waste to those who handle infectious waste. Third, make it easier for cleaners to detect any infectious waste to be processed so that it can be handled properly.

The socialization was held at the Pamotan Village hall which was attended by the village head and village officials as well as several representatives from the community including PKK cadres, cleanliness and environmental health cadres of Pamotan village. Pamotan

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<sup>1</sup> Nia Ramadhanty Purwanto, et al. 2020. Pengaturan Pengelolaan Limbah Medis Covid-19. Jurnal Yustika. Vol 23 No 02. Page 67-76

<sup>2</sup> Kementerian Kesehatan Republik Indonesia dan Kemeterian Lingkungan Hidup Republik Indonesia. 2021. Laeflet : Ayo Kita Kelola Limbah Infeksius Covid-19 Di Rumah Tangga Dengan Aman.

village itself is one of 19 villages located in Porong sub-district, Sidoarjo district, East Java. The Pamotan Village area is located in a lowland area with an area of 126,775 ha with the following territorial boundaries: In the north it is bordered by Candipari Village and Wunut Village, in the east by Siring Village and Gedang Village, in the south by Kesambi Village and in the west by Kesambi Village. with Lajuk Village.

Before the start of the socialization activity, the Law Faculty Team had conducted an initial visit to find out the understanding of the village community towards waste management, from the initial visit the team got the results that most of the village people did not understand how to manage Covid-19 waste properly and correctly. From these problems, through service activities with the theme Socialization of Covid-19 Medical Mask Waste Management in Pamotan Village, Porong District, Sidoarjo Regency, it is hoped that it can provide education to the public about how to manage COVID-19 medical waste so that it can reduce waste accumulation in the surrounding environment and can increase public awareness in protecting the environment.

## II.Method

This service activity is carried out in 3 (three) stages, namely:

1. the Licensing Stage. At this stage, observations were made to the service location and took care of licensing in Pamotan Village, Porong District, Sidoarjo Regency, including preparing materials, attendance lists, and maturation of the service sites. At this stage the team from the UPN Veterans East Java Faculty of Law was met directly by the Head of Pamotan Village, Mrs. Hj. Wiwin Andriani, SE.
2. The socialization stage includes: providing material on Covid-19 Medical Waste Management in Pamotan village,
3. The evaluation stage. The evaluation stage was carried out to find out, assess, and measure the level of understanding of the target after the service related to the management of Covid-19 medical waste in Pamotan Village.

Service activities are carried out using the lecture method, discussion method and question and answer method. For the Question and Answer Method itself, after the discussion, several questions were discussed regarding the behavior of using masks,

managing waste masks and the active role of the surrounding community to stop the spread of Covid-19.

### III. Main Heading of the Analysis or Results

#### *A. Covid-19 Medical Waste Management in Pamotan Village, Porong District, Sidoarjo Regency*

Various efforts have been made to stop the spread of Covid-19 in the community, in addition to the vaccine that has been given, the government continues to encourage people from the top to the lowest levels to remain disciplined in implementing the 5M Health protocol, namely Washing Hands, Wearing Masks, Keeping Distance, Staying Away from Crowds, Reducing Mobility. Even with the provision of vaccines and even boosters, and restrictions on outdoor activities that are getting looser, the use of masks is still recommended for the public. Especially when doing activities indoors, for people who have comorbidities, and children who have not been vaccinated.

The use of masks, especially disposable masks, has become a new habit in the community, of course leaving new problems with the large pile of garbage that is a threat to the surrounding environment. Disposable masks are one of the medical waste that is currently quite a lot in the community. The behavior of the Pamotan Village community in the use and management of this mask waste varies. Some stated that they had received quite a lot of information about how to use masks properly and correctly and how to manage mask waste before being disposed of, but most people did not know about this. Medical masks are categorized as medical waste, so their disposal must be appropriate to prevent the spread of Covid-19 in the community. The use of this mask can indeed prevent the spread of Covid-19, but this must also be accompanied by cleanliness and healthy living behavior. During the discussion session, the local community said that they often saw waste masks, especially disposable masks scattered in public places.

Masks should be cut or tampered with, tied, rolled up, and wrapped in plastic before being thrown away. The disposal site should not be arbitrary, but in a special place with

a yellow color code and coated with special plastic. This is intended so that infectious waste does not mix with other waste so as to reduce the possibility of infection risk.<sup>3</sup>

Based on the guidelines issued by the Ministry of Health of the Republic of Indonesia and the Ministry of the Environment, the method of managing Covid-19 medical waste, especially disposable masks in the household scope, is as follows:<sup>4</sup>

1. Collect used masks

Disposal of disposable mask waste in a pandemic situation is very important. Currently, the use of masks by the general public is increasing. This is because of vigilance against COVID 19. But on the positive side, people are starting to realize that wearing a mask can reduce the risk of getting the COVID-19 virus. However, the use of masks has also been exploited by irresponsible persons. Problems arise when recycling used masks and reselling them in the market. Therefore, the community can manage the waste of single-use masks.

2. Disinfect used masks by soaking them in a disinfectant/chlorine/bleach solution.

The goal is to kill bacteria, or viruses that stick to the mask.

3. After disposable masks are not used, they should be reshaped/destroyed. The goal is that used masks are not reused or sold by irresponsible parties. The trick is to collect the mask in a safe / plastic container. Then, break the straps and the middle of the mask.

4. Dispose of in the domestic trash (household waste)

Collect masks that have been deformed or tampered with in a landfill. Prepare a closed trash can specifically for used masks. The plastic bags are marked with "used masks" to make it easier for garbage collectors to sort waste. Use a yellow plastic bag, if it's thin, use a double bag and seal it tightly. If you don't have a yellow plastic bag, you can use any color plastic bag with a sign. It is better for this mask waste not to be mixed with other household waste.

5. Washing Hands

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<sup>3</sup> Agung Purwanto, Nurfadhilah, Ilmi Zajuli Ichsan. 2022. Penyuluhan Tentang Pengelolaan Sampah Masker Saat Pandemi. KHIDMAH : Jurnal Pengabdian Kepada Masyarakat. Vol 2 No 1. Page 1-7.

<sup>4</sup> Tips dan Cara Mengelola Limbah Masker Sekali Pakai di Rumah. <https://tirto.id/tips-dan-cara-mengelola-limbah-masker-sekali-pakai-di-rumah-git8> . Accessed May 24, 2022

After disposing of disposable masks, you should wash your hands with soap and running water for at least 20 seconds, or use hand sanitizer if hand washing equipment is not available.

Based on this explanation, many people stated that they did not carry out this specific behavior. Various reasons were expressed by the community, namely the absence or limited facilities for the disposal of this infectious waste in public places. As well as the lack of socialization and public knowledge about the importance of processing infectious waste.

The lack of public knowledge of the necessity of this specific behavior requires mutual attention. Empowerment or initiation is needed for the community in the form of socialization regarding who parties should be involved and what their roles are in securing this used mask waste as a preventive effort to break the Covid-19 chain. Various roles that can be taken by the government, the community, even in the smallest environment, namely the family.

Government roles that can be carried out include:

1. Actively informing procedures for infectious waste management, as well as implementing Community-Based Total Sanitation (STBM)
2. Encouraging special cleaners to use Personal Protective Equipment (PPE) to transport infectious waste and bring it to a B-3 waste treatment site
3. . drop box in a strategic but well-maintained place by
4. weighing infectious waste before it is taken to a B-3 waste processing site.

Community roles that can be carried out include:

1. Always be active to find out who residents are suspected of having Covid-19 symptoms, check regularly, anticipating residents who are suspected of being OTG, PDP or close contacts, carried out by local religious leaders, youth groups, RT, RW to villages
2. Strive for special garbage bags to store infectious waste and help residents suspected of being exposed to Covid-19 to organize infectious waste from their homes to placed in the drop box y available

3. Continue to carry out STBM and periodically control the surrounding community

Roles of the family include:

1. Actively maintain family health, check themselves and family regularly and report any symptoms related to Covid-19
2. Ensure that infectious waste bags are not reached by children by giving special colors or markings
3. Using medical masks that are replaced every 4 (four) hours once and/or use a cloth mask that is washed every day with soap or detergent to reduce medical waste
4. Each maintains the implementation of STBM in the family

Besides various active roles that can be carried out by the government, community and family. Organizing steps that can be taken by the Pamotan Village community include:

1. Covid-19 Task Forces in villages, hamlets, to RT or RW play an active role in knowing whether there are people without symptoms (OTG) or those who are confirmed to have mild illness (PDP). or anyone who has been in close contact with the exposed parties
2. Initiating special waste sorting by using separate plastic bags (ideally using yellow plastic bags and marked infectious) and marked with a permanent marker marked with infectious waste that gives a distinguishing mark from waste other, and tightly closed in a certain box or drum which should also be labeled infectious waste.
3. Special cleaning officers using Personal Protective Equipment will regularly transport the infectious waste.
4. If it is not possible for each house to have a personal box or drum, the RT/RW or village initiates the drop box or box for placing the infectious waste.
5. The RT/RW or village head has a role in contacting stakeholders related interests (Department of Hygiene or Office of the Environment) to carry out the transportation of the infectious waste.



Picture 1. Lecture Session by Mrs Aldira



Picture 2. Discussion Session by Miss Maria



Picture 3. Photo Session with the Community Services Team and Participant



#### IV. Conclusion

The lack of public knowledge regarding the management of medical mask waste for covid-19 needs to get joint attention, proper management of waste for medical masks for covid-19 can reduce waste accumulation which can certainly have an effect on environmental damage. And also with good management of Covid-19 medical mask waste, it can prevent the transmission of Covid-19. Public concern for the surrounding environment needs to be increased so that it can be used as a strong basis for changing behavior that is clean, healthy and sustainable.

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