**THE ANALYSIS OF ACTIONS OF THE RIAU PROVINCIAL HEALTH OFFICE**

**IN OVERCOMING ACUTE RESPIRATORY INSPECTION (ARI) DISEASE**

**DUE TO THE FOREST AND LAND FIRES IN RIAU PROVINCE**

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ABSTRACT

The smoke disaster caused by forest and land fires in Riau Province caused the government to take steps and procedures in handling the disease as the impact from the disaster through Riau Provincial Health Office. The purpose of this research was to find out the actions of the Riau Provincial Health Office, to identify the obstacles that face by Riau provincial health office and to find out the efforts to solve it. The research design used is qualitative research with descriptive methods. Researchers used data collection techniques through interviews, observation, and documentation with data validity determination techniques. Based on the research conducted, it can be concluded that the actions carried out by the Riau Provincial Health Office are still not running optimally because the implementation has not been well-coordinated so that there is an inaccuracy in the number of patients infected with ARI as a whole from districts and cities in the Riau Province. Likewise, with the establishment of Smoke Shelter and distribution of masks also medicines that are not felt as a whole by the community.

**Key words;** Procedure of overcoming; Riau Province Health Office actions; Smoke Shelter

INTRODUCTION

Indonesia has a strategic location between two continent and two oceans with richest source. Even in air, soil also sea that support any sector this country. Empowerment and controlling of natural source system that exists will affect Indonesian citizen welfare. Beside for having many benefits in natural source and the location, but it also appeared natural disaster and unnatural disaster that often happens periodically in some places in Indonesia. Which condition of that disaster based on potency that caused support and a trigger. Specially related disaster of forest fire that happen in Indonesia periodically every year. Disaster causes any loss in any sectors. Even health, economy and education surely this case make big amount of disadvantage to country even the district that fire forest occurred. The losses cost into billions of rupiah in every year.

Fire forest disaster causes of uncontrolled open fields with addition of long dry effect of El-Nino phenomenon that causes increasing of temperature in significant way and trigger to create the fire. The location that usually exposed this fire forest disaster are Sumatera Island and Kalimantan Island. Riau Province is one of the provinces that got impact because this forest fire disaster. Attached from internet media that since 1997, Riau citizen always being victims due to this hostile guest. Beside it that attached from media that the most danger and worst one in year 2014 and 2015 because is determined as haze emergency in national status.

*Source : Riau Pos and Jawa Pos, 2019*

**Chart 1. The Amount of ARI Disease Since**

**2015-2018**

Based on the chart above that wrote on Riau Pos Jawa Pos that the amount of Riau citizens who infected *ARI* disease in range of 2015 until 2018. The Head of Health Office Riau Province said this haze disaster causes damage to citizens as proven of *ARI(Acute Respiratory Infection)* disease victims that danger Riau Citizens especially their respiration. Forest and land fires that occur again in 2019 which an impact damage of infrastructure facilities to the loss of plantation and agricultural assets. Then ecologically it takes toll on the wildlife that lives in the forest and land so that it releases greenhouse gas emissions which will worsen the climate change. From an economic perspective, it also creates significant losses such as deforestation, and the smoke also affects visibility, especially for disturbed motorists in Riau Province.

The smoke in the air looks very concentrated and minimizes visibility so that it inhibits the vision of motorists and can be fatal. It also caused flight cancellations from and to Riau Province due to the air conditions. However, the most urgent impact of the haze due to forest and land fires is seen from the health sector caused by the disaster, namely the impact of smoke on the health of the people of Riau Province. Where the combustion results can cause smoke haze consisting of various hazardous chemical particles that interfere with breathing, such as PM10, SO2, CO, NO2, O3, and other particles that can trigger a decrease in respiratory health, especially for infants, toddlers, seniors to who has become a person with lung and heart disease even healthy people.

The wide-area coverage of Riau with the addition of population density, it causes medical staff and workers from the Riau Provincial Health Office become overwhelmed in handling, due to the lack of human resource personnel to reach the community as a whole in dealing with *ARI* due to forest fires and land that occurs. So that the community unsatisfied to the services in handling the disease.

Although the distribution of masks has been carried out as many as 700 thousand more mask distributions through the District / City Health Service and center in the Province, there are still many victims who came due to *ARI* complaints due to the smoke from forest fires and land. Where it proves the aid of masks by the Riau Provincial Health Service is still not evenly distributed to the public.

The promotion of health posts and shelters for emergency treatment of *ARI* victims due to haze by the Riau Provincial Health Office is also not optimal, this is because of the wide reach of the people of Riau Province and the lack of shelter posts and also not affordable for people living in remote areas. This is supported by complaints from the people of Kuansing district as explained in social media that the Shelter House is considered ineffective because it is difficult to reach by the community.

Then it can be seen from the uneven distribution of first aid and assistance in the form of medicines to the community when the disaster took place supported by based on data from Republica.co.id. There was a baby who was only 3 years old died, then through other online media, there were also 2 children, 1 parent aged 59 years and 1 firefighter who died from exposure to smoke from forest and land fires.

Lack of coordination between the Provincial Health Office in handling and dealing with *ARI* due to forest and land fires with other institutes, such as firefighters and Magna Alia who is tasked with extinguishing fires due to forest fires and land that experience a decrease in health because in the operation of extinguishing it has not been maximally facilitated in health services and also the absence of health field posts at the point near the outage took place. So that first aid in the form of artificial oxygen, smoke-free rooms, and food aid and medicines are difficult to find in the field when extinguishing a burning fire.

All in all, the research questions of this study are: What are the actions carried out by the Riau Provincial Health in the handling ARI disease? The obstacles faced by the office, and what are the efforts carried out by them?

**METHOD**

This study uses descriptive research methods with inductive approaches. According to Nazir (2011: 54), the descriptive method is "a method in examining the case of human groups, an object, a condition, a thought, or even a class of events in the present ". Inductive approach Nazir (2005: 166) "Inductive approach is a way of thinking to give reasons that begin with specific statements to make arguments are general."

Based on some of the opinions above it can be said that qualitative research is a research method that uses data that has been collected and processed into research reports in the form of quotes that can provide a more systematic, factual, and accurate description in the presentation of reports. From the qualitative research analysis above, researchers using qualitative methods. After determining the research design, research methods are needed to facilitate researchers in finding answers to the problem under study.

**Informants**

Research informants are people who are used to provide information about the conditions and situations in the background of the research situation and are designed by researchers to provide correct information about the object of research conducted to support the research process. The technique used to determine informants in qualitative research is purposive sampling and snowball sampling. Purposive sampling is the determination of the source of data in the interviewee carried out with certain considerations while snowball sampling is a sampling technique that initially amounts to a little longer over time. Like a rolling snowball that becomes big. In determining the researcher's informants using purposive techniques and snowball sampling.

**Table 1. Informants**

|  |  |  |  |
| --- | --- | --- | --- |
| **NO** | **INFORMANT** | **TOTAL** | **TECHNIC** |
| **1** | **2** | **3** | **4** |
| 1 | *Head of The Riau Provincial Health Office* | 1 | Purposive Sampling |
| 2 | *Secretary of The Riau Provincial Health Office* | 1 | Purposive Sampling |
| 3 | *Head of Civil Service and General Affairs* | 1 | Purposive Sampling |
| 4 | *Head of Health Services of The Riau Provincial Health Office* | 1 | Purposive Sampling |
| 5 | *Staff of The Riau Provincial Health Office* | 2 | Purposive Sampling |
| 6 | Communities | 4 | Snowball Sampling |
|  | Total | 10 people |  |

*Source: Processed by Researcher, 2019*

In determining informants based on purposive sampling and snowball sampling, the Head of the Riau Provincial Health Service Office was chosen because it has a great responsibility and has broad knowledge about health services, especially regarding *ARI* due to forest and land fires in Riau Province. Furthermore, the Secretary of the Riau Provincial Health Office in handling and as an extension of the Head of the Office in various efforts to deal with *ARI* that afflicts the community. Then the Head of Personnel and General Affairs acted in supporting the quality of Riau Province Health Department employees in handling it. Meanwhile, for services obtained by the people of Riau Province when there was a smoke disaster due to forest and land fires by strengthening data and optimizing health services, it was carried out by the Riau Provincial Health Services Division Head and his staff and staff. By paying attention to available health resources and pharmacy or facilities and medicines will be regulated by the Head of Health and Pharmaceutical Resources Section. While the community here has a role in getting health services related to *ARI* handling due to forest and land fires that occur in Riau Province.

Researcher carried out observation techniques at the Office Riau Province health to see the real conditions that occur in the field. In this research study, in-depth interviews conducted with officials at the Riau Provincial Health Office and other interested parties who are considered to know, understand, and understand the problems and objectives of this research and the people who feel the problems that occur.

**RESULTS AND DISCUSSION**

Geographically, the location of Riau Province is in the middle of Sumatera Island, which is in the middle of the east coast along the edge of straits of Melaka. Riau is one of the richest regions in Indonesia, and the sources such as kerosene, natural gas, rubber, palm oil, and fiber plantations.

A close up of a map

Description automatically generated

*Source: google map*

**Figure 1. Map of Riau Province**

The picture above is a detailed map of Riau Province which stretches from the Barisan hill to the Malacca Strait. The strategic location makes Riau as a bridge for traders, not only for the province but also internationally such as Malaysia and Singapore which are close to this province.

Riau Province is an area with a maximum air temperature between 35.1c and a minimum temperature between 21.8c. The area in Riau Province is quite flammable or burning with a potential fire of 0 - 330 (low - high). Therefore, Riau province in the past few years has always found many hotspots or points of catastrophic forest fires that occur in all regions of this province.

1. **Analysis of The Action of The Riau Provincial Health Office in Overcoming *ARI* due to Forest and Land Fires**

In handling carried out by the Department of Health of *ARI* due to smoke disasters arising from forest and land fires that took place in Riau Province is still classified as unstructured and coordinated as planned. This can be seen from the fact that there are still many people who do not feel the handling directly, such as the distribution of masks and medicines as well as food aid for those in need. And for certain regions that still have not received optimal handling resulting from a lack of coordination carried out.

Analysis of the actions of the Riau Provincial Health Office in overcoming cases of *ARI* caused by forest and land fires that occurred in 2019 has concluded that the presence of the smoke disaster caused many people of Riau Province who fell ill with *ARI* due to the smoke generated from the fire disaster. In the data found in the field that patients who contracted the disease up to a total of hundreds of thousands of people who became victims of the disaster that took place in Riau Province. Therefore, these patients must be treated quickly and in an emergency response.

The disaster caused several diseases, one of them is *ARI*. This disease can interfere with the specific respiratory of this type of acute infectious disease that will attack one component of the upper respiratory tract. Parts affected by the infection include the nose, sinuses, pharynx, and larynx. The disease initially attacks the infected part and directs the air that is inhaled from the outside to the trachea and finally lands in the lungs where respiration takes place.

Based on the presentation in one of the interview talks, it can be concluded that the danger caused by smoke from forest and land fires will have implications for the respiratory health of the people of Riau Province. The cause of this *ARI* is a virus that can enter the body through the nose or mouth. The virus spreads easily through air contaminated by coughing or sneezing from an infected person. And can be transmitted through direct contact such as shaking hands. Where this virus can last for hours in various objects and toys. But it is different from the case of *ARI* in Riau Province often occurs, it is triggered to increase every year and every time it happens in Riau Province is obtained because of the smoke generated from forest and land fires.

The smoke generated has a variety of bad molecules and particles that can cause various diseases such as eye irritation, skin irritation, coughing, and respiratory diseases such as *ARI* which are the most frequent donors of diseases suffered by the people of Riau Province due to this forest and land fire disaster. So that *ARI* becomes the main spotlight of diseases that can attack the community, therefore the local government, especially the Riau Provincial Health Office, is engaged in dealing with the disease when the smoke disaster due to forest and land fires takes place. *ARI* is the most common disease that causes patients to not be able to move as usual. *ARI* is a disease that often or commonly attacks children, the elderly, and also people with a weak immune system such as those who have difficulty having a history of respiratory or heart disease.

Health services needed by the community in minimizing *ARI* due to forest and land fires are provided from the effects of smoke, the Riau Provincial Health Office provides various facilities and infrastructure to support health services. In basic services or primary services, a number of key facilities are needed that act as a place or place for health services to deal with *ARI* due to forest and land fires. These places include:

- Health post

- Supporting Health Center

- Public health center

Specifically in the case of smoke disasters caused by forest and land fires that occur in Riau Province, the handling of health posts and health center alone is not enough. Therefore the Riau provincial government is working together with the Health Service and the Regional Disaster Management Agency of Riau Province by making a Smoke Shelter for this health service. *Rumah Singgah Asap* (smoke shelter)is opened by the Riau Provincial Government in Pekanbaru City totaled 13 shelters.

It is useful to assist in facilitating emergency handling of various diseases caused by smoke disasters caused by forest and land fires at several points, especially symptoms and diseases of *ARI*. Facilitated by various facilities and infrastructures as well as operational shifts that are supported and implemented by professionals from medical team representatives such as doctors and nurses/midwives. So the operating hours owned by *Smoke Shelter* opened by the Riau Provincial Government by having two shifts every day, which are morning shift at 08.00 WIB - 15.00 WIB and the afternoon shift at 15.00 WIB - 21.00 WIB.

Supporting Health centerare also included in the Health Posts which provide 24-hour services and in Riau Province, there are 232 supporting health centers spread throughout the province. Also, the Riau Provincial Health Office budgeted health equipment to support health services at the Riau Province Government Shelter through the costs required for the prevention of health impacts due to forest and land fires originating from the APBD of Rp. 1,134,550,000.00 (One Billion One Hundred Thirty-Four Million Five Hundred Fifty Thousand Rupiah) at DPA Riau Provincial Health Office 2019.

In addition to health equipment that contributed to the handling, so did all medical personnel from government hospitals totaling 23 hospitals and added to private hospitals with a total of 72 hospitals that all provided 24-hour services, serving referred patients or emergencies regardless of population status, health insurance are all treated for free by the Hospital during the smoke disaster.

By collaborating with government hospitals and private hospitals as a form of optimizing the cooperation of the Provincial Health Office in overcoming *ARI* due to forest and land fires. The magnitude of the influence of medical personnel who provide support and assistance in the implementation of services in open houses scattered in several points in Riau Province. In providing comprehensive services to the community not only in a permanent location but also carried out services that can be provided anywhere.

Such as mobile services provided by the Riau Provincial Health Office in handling emergency patient conditions that require emergency assistance. So that certain unit contributes to mobile services is expected to be able to serve the community in handling *ARI* due to forest and land fires. The system that runs is the shuttle system that is carried out by every ambulance in government hospitals and private hospitals by implementing an alert attitude towards patients who need to handle health emergencies, especially *ARI* due to forest and land fires that happened in Riau Province. Then not only the ambulance but also the shuttle service is also carried out by PSC 119 in the Riau Provincial Government which will be delivered by these patients to the nearest health post.

The design of activities in the control of diseases caused by forest and land fires in Riau Province above explains the sequence of activities carried out by the Health Office to address the health impacts felt by the community as a result of the ongoing haze disaster. Starting from the procurement of medical devices to the place for procurement of health care services such as health posts and halfway houses.

After preparing everything needed to overcome the disease, the Riau Provincial Health Office explained the steps and synchronization of the implementation time. In this way planning was carried out in handling activities, assisted with funds in terms of program funding needed in the case to overcome the impact of this forest fire originating from the APBD-P amounting to Rp. 1,134,550.00.00 at DPA Dinas Kesehatan in Riau Province (Report on activities to overcome health impacts due to forest and land fires from the Riau Provincial Health Office, 2019). Then health development is carried out one by one such as to prepare activities, carry out activities, evaluate activities, and also report on activities that will take place.

In coordinating in dealing with *ARI* due to forest and land fires in Riau Province, the Health Office is collaborating with various parties in terms of continuing to overcome the health impacts of the ongoing disaster. As with BPBD, BKMG, and the Office of Education, especially in terms of appeals intended for the community later. In carrying out the observation to the monitoring stage after the implementation of the handling of the emergency of health impacts on the people of Riau Province.

It can be said opinion from the Head of the Health Service Division of the Riau Provincial Health Office said that there were still various obstacles encountered in the process of managing *ARI* due to forest and land fires. Barriers found include:

1. The unequal distribution of masks to the people of Riau Province makes it difficult to reach as a whole

2. Lack of evenly distributed Health Post and Shelter Services, which are only located in certain areas, making it difficult to reach people in rural areas.

3. Lack of coordination from several districts that do not report on the number of people affected by *ARI*

4. Lack of coordination from a number of hospitals inaccurately reporting the number of people affected by *ARI*

With obstacles that occur during the treatment process, health services from the Health Service are not optimal as expected. This is supported by a surge in patient visits seeking treatment to make even more limited medical staff overwhelmed in handling the incident. The results from the field notes are reported by the supporting health center and also the health post and Smoke Shelter and will report directly to the Regency / City Health Office and Riau Provincial Health Office on the recapitulation of patient data with visiting *ARI*. Based on the recapitulation report on disease data from forest and land fires from 1 to 31 August 2019 in Riau Province, the highest *ARI* visit was in Pekanbaru City with 7377 visits and the lowest was in Indragiri Hulu Regency with 4040 ARI case visits. The following is a daily recapitulation report on disease data from forest and land fires from 1 to 31 August 2019 which shows the number of people who visited Riau Province during the smoke disaster.

Based on the interview excerpts, it can be said that the peak of the health crisis that was impacted by the people of Riau Province due to the haze disaster from forest and land fires occurred in September 2019. ISPU reports that exceed dangerous limits and also spikes in *ARI* patients indicate that there are still obstacles found in the field when handling is in progress. This is said by the health service staff of the Riau Provincial health service that the data received from the regencies and cities in the province is still not relevant and is not yet fully captured. So that handling from the province to the district was less than optimal. The *ARI* visit in October in each district and city in Riau Province has started to decline enough because this is influenced by the entry of the rainy season in several regions. Then also with the spread of smoke shelter and the supply of aid medicine, masks for toddlers also support to minimize patients infected with *ARI* due to forest and land fires, coupled with the form of socialization and appeal have given to the public in several media and places.

1. **Obstacle in Handling ARI Disease Due To Forest Fire**

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1. **Efforts Made by The Riau Provincial Health Office in Overcoming ARI Disease Due to Forest Fire**

**Handling Efforts**

In handling this impact as soon as possible, collaboration or coordination has been carried out with the Riau Provincial Health Office with cross-sectoral efforts to minimize the health impacts of forest and land fires in Riau Province.

1. BPBD (Regional Disaster Management Agency)

By searching for the cause of the hotspots, then looking for everything to reduce the fire that releases the forest and land through air bombs and other blackouts. They also reported about events that occurred on the dominant hotspot field and which areas should be evacuated and avoided by the community. Also at the time of extinction for the sake of safety from the BPBD, the medical representatives of the parties in the Provincial Health Service request, decide, and handle each scene with sufficient medical equipment for first aid to the extinguisher and the BPBD lives in the current extinguishing location.

2. BMKG (The Geophysical Climatology Meteorology Agency)

The Geophysical Climatology Meteorology Agency works in a non-department Indonesian government agency that has one of the tasks about air quality in certain areas. And also convey information and initial changes to the community related to the disaster that happened. Helping the public regarding safety and health issues in Riau Province. This department allow people looking the ISPU as standard of air pollution in order to update since smoke disaster as warn in do activities.

3. District / City Health Service

The district and municipal Health Offices collaborate with the Riau Provincial Health Office, namely by recapitulating data on infrastructure facilities, facilities, and infrastructure as well as medicine, PMT for toddlers and masks that have helped communities in the district/city and also those who need to be in the field. Then also related to people infected with ARI due to forest and land fires in Riau Province with the transfer according to existing data in the district and city, making it easier for the government provinces in recapitulating data as a whole and accelerating the process of further action.

4. Education Office

The Department of Education in collaboration with the Riau Provincial Health Office, in this case, appealed to be forwarded and followed up by the Education Office in remembering and weighing the air conditions that exist outside the room that are not healthy and very dangerous and makes the conditions not supportive to carry out various activities. One of them is the learning process activities carried out by students in Riau Province which must be stopped temporarily as determined by the Riau Provincial Education Office. Within approximately 2 weeks, as happened in September 2019, the Riau Provincial Education Office issued a circular appeal to every school in Riau Province not to carry out the learning process for a while, remembering and considering air conditions that made it impossible to carry out activities outside home or room.

5. Health organizations

Such as IDI with various Associations, especially Lung, Eye, and Skin Specialist associations that collaborate in the medical world voluntarily assist in handling one of the diseases that dominate, namely *ARI* due to forest and land fires through health posts and shelters scattered in

Meetings conducted with cross-sectoral agreements have been taken, especially in determining school holidays, not leaving the house, or evacuating. From the meetings conducted, agreements were made with related cross-cutting sectors. The results of the agreement of the Riau Provincial Government with related cross-sector regarding the reference to the Health Impact of forest and land fires in Riau Province with a meeting held on Wednesday the fourteenth of August of the year two thousand nineteen, observing the development of air quality due to forest and land fires in the Province Riau then agreed that if ISPU with a score of 101-199 is classified as unhealthy, it is included in vulnerable groups, namely: pregnant women, infants, toddlers, school-age children, and also the elderly. Thus, it is recommended not to carry out activities outside the home or building such as sports, casual walks, ceremonies, and similar activities. If forced to leave the house must use a mask and other protective equipment.

Meanwhile if the ISPU with a value of 200-209 is classified as very unhealthy, including the community to be encouraged not to work outside the building or home. Also, if an ISPU with a value above 300 is classified as dangerous for the community, so it is recommended not to do activities outside the house/building. Determination of the ISPU number value is local by the conditions of the region regency or city.

The agreements listed have been agreed by related parties such as the Riau Provincial Health Office, the Ministry of Environment and Forestry, *BMKG*, the Office of Education and the entire community to be complied with and carried out accordingly. On September 23, 2019, the Governor of Riau Province, in this case, considered something that happened because the ISPU which had more than three days reached a dangerous point or level of more than 300 or> 300. And this is the government considering by establishing the condition as an air pollution emergency in Riau Province in 2019 from September 23 to 30, 2019. In following up on this air pollution emergency condition, the Riau Provincial Government has established various Health Posts at certain points and also smoke shelter as a place for evacuation of victims resulting from smoke from forest fires and other respiratory and health problems until their condition is completely recovered. After that, it has also been told to the public how to make a smoke safe house or smoke-proof house as a shelter inside the house. Then also the call for a healthy life that is by multiplying drinking water, eating nutritious foods, and not smoking. In this case, the air pollution emergency conditions in Riau Province, the Minister of Health of the Republic of Indonesia has sent reinforcements including:

1. Masks of 1,586,000 pcs

2. Air Purifier as much as 3 pcs

3. Oxycan Concentrate of 2 pcs

4. Oxygen as much as 3,000 pcs

5. N95 mask

6. Medicines

With the total availability of medical equipment aid supplies for the haze disaster caused by forest and land fires, on September 16, 2019, the Minister of Health of the Republic of Indonesia brought the head of the crisis center and various related directorates to see conditions in the field. The Minister of Health of the Republic of Indonesia concluded that the Government of the Riau Province had provided proper handling of the effects of smoke. The handling efforts implemented by the Riau Provincial Health Office are carried out in the form of prevention of smoke-related disease in the form not to leave the house, distributing masks and giving them for free in the morning before work hours in districts and cities at some spots of streets.

Beside that the treatment for those who got sick get curing at location, health posts and smoke shelter. With sending several official letters in form of circulars to each district and city regarding calls to anticipate this health crisis, through Regulation No: 361/ Dinkes 4.2/ 2019 on 27 February 2019 regarding the dissemination of information and daily request data on five diseases caused by forest and land fires. One of them is upper respiratory tract infection which contributes the most patients among the diseases. Also, Riau governor's regulation number 158 / SE / 2019 about establishing health service posts in the context of facing the effects of forest and land fires. Health Posts scattered in a number of points.

With these actions taken, the Riau Provincial Health Office will certainly have implications for the handling of patients with *ARI* due to the smoke disaster from the forest and land fires. It is not spared from cooperation between local governments, cross-sectoral to the community in rebuilding the health crisis that struck the Riau Province when the disaster took place. Overall, in this case the Provincial Health Office has prepared to share a series of design activities that have been arranged in such a way in terms of handling. And with the utilization of available funds through subsidies, certainly optimizing all efforts to fulfill facilities such as facilities and infrastructure needed by *ARI* patients due to the smoke.

**CONCLUSION**

Based on the results of research that has been carried out previously reviewed that can be formulated through the actions taken by the Riau Provincial Health Office in dealing with *ARI* due to forest and land fires in Riau Province are as follows:

1. Various steps actions are carried out by the Riau Provincial Health in the handling are considered to have not been carried out optimal yet. By arranging planning in such a way through the procurement of activity plans by Law No. 36 of 2009 concerning Disaster Management that is synchronized with Riau Province Regional Regulation No. 21 of 2018 regarding Health Services adjusted to the emergency conditions of the disaster that occurred in the area. Health posts and smoke shelters as emergency posts for the first aid of the people of Riau Province. In this case, the Health Office also provides PSCs and ambulance drivers at each of these posts as a front line of assistance for patients who need more serious treatment to be taken to the post or smoke shelter.

2. The founding of obstacle whereas the cooperation that is intertwined in handling the cross-sector and also fellow health sectors is also not yet optimal. This can be seen from the lack of coordination carried out by the Riau Provincial Health Office with the District Health Office in Riau Province and even with several hospitals for depositing recapitulation of data that is still hampered and has not been carried out properly regarding patients infected with *ARI*, so that it caused difficulties for the Riau Provincial Health Office in handling the data. Barriers also found in the field that the unequal distribution in the form of masks to the whole community due to the Riau is a large area.

3. Efforts carried out by the Health Service started from activity planning, decree and appeal letter, employees who go directly to the field for handling up to distribution in the form of everything needed such as masks, medicines and other assistance such as sterile places namely health posts and smoke shelter. Also, in the form of socialization through banners and various mass media both in newspapers and the internet to make people always behave in a healthy lifestyle by eating nutritious food and to always be in the house or room. Then also reduce outdoor activities but if it is not possible, always make sure to use a mask.

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