

Analysis Of The Implementation Of The Ispa Management Program In Toddlers In The Work Area Of Pelompek Community Health Center, Gunung Tujuh District, Kerinci Regency

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ABSTRACT

ISPA disease in Pelompek Health Center is included in the highest disease among other diseases with several cases of 507 visits. The results of the preliminary study conducted obtained data on the most sufferers by toddlers and conducted interviews with 10 mothers whose toddlers had experienced ISPA, namely 3 mothers said they only compressed their children with warm water and gave them warm water to drink without giving any medicine, 6 other mothers did not take any action when their children had a fever and cough, and 1 mother said she only gave her child medicine from the shop. This study is a mixed-methods study. This study uses a qualitative method that is descriptive in nature with primary data collection obtained through in-depth interviews about the ISPA control program with the person in charge of the ISPA program. This study is included in cross-sectional research because the data was collected at a certain time and was retrospective, with the sample being mothers of toddlers in the Pelompek Health Center work area with a total of 100 people. The results of the study showed that the role of the Pelompek Health Center in ten ISPA control programs for toddlers that ran optimally was only three programs, namely the availability of logistics, recording reporting, and network partnerships. In this case, the health center has limitations in running programs that cannot be run properly.

Keywords: ISPA, monitoring, prevention, ten ISPA control programs.

INTRODUCTION

The problem of ISPA is still one of the causes of death from infectious diseases in the world. Acute respiratory infections are the main cause of morbidity and mortality from infectious diseases in the world. Nearly 4 million people die from

Acute respiratory infections each year, of which 98% are caused by lower respiratory infections. Mortality rates are very high in infants, children, and the elderly, especially in low- and middle-income countries. Acute respiratory infections are one of the most common causes of consultation or treatment in healthcare facilities, especially in pediatric services (WHO, 2020).

ISPA is still the main cause of morbidity and mortality of infectious diseases in the world. The mortality rate of ISPA reaches 4.25 million each year in the world. The World Health Organization (WHO) in 2020 found that in toddlers aged 1–5 years, there were 1,988 cases with a prevalence of 42.91% (WHO, 2020). The group most at risk is toddlers; around 20–40% of patients in hospitals and health centers are among children due to ISPA, with around 1.6 million deaths due to pneumonia alone in toddlers per year. ISPA disease in developing countries is a 25% contributor to child mortality, especially in infants under two months of age. Indonesia is one of the developing countries with the highest cases of ISPA. In Indonesia, it always ranks first as a cause of death in infants and toddlers. ISPA also often ranks in the list of 10 most common diseases in hospitals and health centers. ISPA disease in developing countries is a 25% contributor to child mortality, especially in infants under two months of age. Indonesia is one of the developing countries with the highest cases of ISPA (Zolanda et al., 2021).

Jambi Province is a province with a fairly high prevalence of ISPA based on the results of the 2018 Jambi Province Riskesdas. According to the diagnosis of health workers, some symptoms had been experienced by household members (ART) of 5.5%. In Jambi Province, one of the dominant diseases is ISPA. The prevalence of ISPA in Jambi Province, diagnosed according to health workers, was 3.20%, while based on the diagnosis or symptoms that had been experienced, it was 5.55%. The incidence of ISPA in Jambi Province was dominated by the age group 70+ years 3 by 10.88%, at the age of 15-24 years by 6.88%, and at the age of <1 year by 5.19%. Kerinci Regency is ranked first with the highest prevalence of ISPA in Jambi Province at 6.15%. According to data from the Central Statistics Agency of Kerinci Regency in 2019, ISPA also ranked first out of 10 diseases that dominate in Kerinci Regency, namely 15,096 cases with a prevalence of 64.96%; the incidence of ISPA almost dominates in every sub-district in Kerinci Regency (BPS Kerinci Regency, 2020).

Efforts to overcome ISPA disease, whether carried out by mothers or other families, can be done by ensuring that toddlers get good nutrition, providing complete immunizations, maintaining personal and environmental hygiene to keep them clean, and preventing toddlers from coming into contact with ISPA clients. The active role of parents in preventing ISPA is very important in cISPAng for toddlers because those who are usually affected by ISPA are toddlers whose immune systems are still susceptible to disease, so parents must understand the negative impacts of ISPA and know how to prevent ISPA, namely by regulating toddlers' diets, creating a comfortable environment, and avoiding triggers (Sukarto et al., 2016).

LITERATURE REVIEW

According to the WHO definition, acute respiratory infection (ISPA) is a disease of the respiratory tract caused by an infectious agent. Anyone can get ISPA. The main symptoms of respiratory tract infection are: fever, runny nose, sneezing, coughing, weakness, aches and pains, sore throat, shortness of breath, and difficulty breathing in severe cases. ISPA is divided into two classifications: Upper respiratory tract infection: includes infections of the nose and throat. Lower respiratory tract infection, namely lung infection in the form of pneumonia or bronchitis. Lower respiratory infections sometimes require hospitalization and can be severe to life-threatening (Safitry, 2020).

Acute Respiratory Tract Infection (ISPA) is an infectious disease that attacks one or more parts of the respiratory tract, from the nose (upper tract) to the alveoli (lower tract), including the appendix tissue, such as the sinuses, middle ear cavity, and pleura. ISPA is a respiratory tract infection that lasts for 14 days. Acute respiratory tract infection (ISPA) is a disease that is often found in toddlers and children, ranging from mild to severe ISPA. Severe ISPA if it enters the lung tissue will cause pneumonia. Pneumonia is an infectious disease that can cause death, especially in children (Jalil, 2018). Acute Respiratory Tract Infection (ISPA) is an infectious disease that attacks one or more parts of the respiratory tract, from the nose (upper tract) to the alveoli (lower tract), including the appendix tissue, such as the sinuses, middle ear cavity, and pleura. ISPA is a respiratory tract infection that lasts for 14 days. Acute respiratory tract infection (ISPA) is a disease that is often found in toddlers and children, ranging from mild to severe ISPA. Severe ISPA if it enters the lung tissue will cause pneumonia. Pneumonia is an infectious disease that can cause death, especially in children (Jalil, 2018).

ISPA can be caused by various causes, such as bacteria, viruses, fungi, and aspiration. Bacteria that cause ISPA include *Diplococcus pneumoniae*, *Pneumococcus*, *Streptococcus pyogenes*, *Staphylococcus aureus*, *Haemophilus influenzae*, and others. Viruses that cause ISPA include Influenza, Adenovirus, and Cytomegalovirus. Fungi that cause ISPA include *Aspergillus* spp., *Candida albicans* histoplasma, and others. ISPA is not only caused by bacteria, viruses, and fungi but also by aspiration such as food, motor vehicle fumes, fuel oil, amniotic fluid at birth, foreign objects (seeds), small plastic toys, and others (Rosana, 2016).

The occurrence of ISPA is certainly influenced by many factors, namely environmental conditions (air pollutants such as cigarette smoke and cooking fuel smoke, family density, house ventilation conditions, humidity, cleanliness, season, temperature), availability and effectiveness of health services and infection prevention measures to prevent the spread (vaccines, access to health care facilities, isolation room capacity), host factors (age, smoking

habits, host ability to transmit infection, nutritional status, previous infections or simultaneous infections caused by other pathogens, general health conditions) and pathogen characteristics (mode of transmission, contagiousness, virulence factors such as genes, number or dose of microbes). Environmental conditions that have the potential to be risk factors for ISPA are environments that are heavily polluted by motor vehicle fumes, fuel oil, smoke from burning, and foreign objects such as small plastic toys (Rosana, 2016).

ISPA is a disease that can spread through the air (airborne disease). ISPA can be transmitted when ISPA disease agents, such as viruses, bacteria, fungi, and pollutants in the air, enter and settle in the respiratory tract, causing swelling of the mucosa of the respiratory tract walls and narrowing of the respiratory tract. Agents irritate, damage, stiffen, or slow down the movement of vibrating hairs (cilia) so that the cilia cannot sweep mucus and foreign objects that enter the respiratory tract. Deposition of agents in the mucociliary transport (mucosa-producing channel) causes excessive mucus secretion (hypersecretion). If this happens to children, the excess production of mucus will flow out of the nose because the mucociliary transport's working capacity has exceeded its limits. Coughing and mucus coming out of the nose indicate that someone has contracted ISPA (NoviantISPA, 2018).

Management and Treatment of ISPA Patients, namely Early detection of pneumonia patients with correct case management is a strategy to achieve two of the three program objectives (reducing deaths due to pneumonia and reducing the use of antibiotics and inappropriate cough medicines in the treatment of ISPA). Guidelines for the management of ISPA cases will provide standard instructions for the treatment of ISPA, which will have an impact on reducing the use of antibiotics for cases of common colds and coughs, as well as reducing the use of less useful cough medicines. Danger signs: every baby or child with danger signs must be given special care for further examination; dosage instructions can be seen in the appendix (Rosana, 2016). Age group 2 months-<5 years, severe pneumonia, pneumonia, and non-pneumonia. Severe pneumonia is accompanied by shortness of breath, which is when the child pulls the chest wall inward when inhaling. Pneumonia originates from coughing and is accompanied by rapid breathing according to age, which is 40 times per minute or more. If there is no lower chest wall pulling and no rapid breathing, it is not pneumonia. The classification of ISPA is based on the presence of coughing and breathing that occurs according to age. The limit for rapid breathing for children aged 2 months to <1 year is 50 breaths per minute, and for children aged 1 to <5 years is 40 breaths per minute (Siburian, 2019).

ISPA is based on the presence of cough and/or difficulty breathing. The diagnosis of these

symptoms is based on age. The limit of rapid breathing frequency in children aged 10 months to <1 year is 50 times per minute, and for children aged 1 to <5 years, it is 40 times per minute. Severe ISPA is based on the presence of cough and/or difficulty breathing accompanied by shortness of breath or inward pulling of the lower chest wall in children aged 2 months to <5 years (Siburian, 2019).

METHODS

This study is a mixed-methods study. The location of the study was in the working area of the Pelompek Health Center, Kerinci Regency, conducted in October-December 2023. 3.3 Population and Sample The population in this study were all people who were considered to know about the implementation of ISPA control in toddlers in the working area of the Pelompek Health Center, Kerinci Regency. The sample in this qualitative study was the head of the health center and the person in charge of the ISPA program at the Pelompek Health Center, Kerinci Regency.

RESULTS

Table 1. Results of In-depth Interviews on the ISPA program according to the ISPA program holder at Pelompek Health Center

Informant	Statement
Informant of ISPA program holder of Pelompek Health Center	First, ISPA is divided into 3, the first is severe pneumonia, pneumonia, and cough, not pneumonia. The activities carried out are counseling in the building if in the field all do it, and officers who provide counseling on ISPA prevention in the field. Then we have cooperation with networks such as clinics, hospitals, private midwife practices, and doctor practices to collect reports every month. If in the building, this service is in 3 polyclinics, there are adults, children, and the elderly. So if there is counseling in the building, there is a distribution of leaflets on ISPA prevention such as what is ISPA, how to handle it, and what to do at home if a family member experiences a cough, or runny nose for more than 14 days, it is suspected, immediately consult the lung or TB department.

Based on the results of in-depth interview research conducted by researchers with ISPA Program Holders, the promotion of ISPA control programs is difficult to do because of post-

COVID. This can be seen in Table 1 below.

Table 2. Results of In-depth Interviews on the promotion of ISPA control programs according to the ISPA program holder at Pelompek Health Center

Informant	Statement
Informant, ISPA program holder	Yes, it is necessary, but now after COVID-19, it is difficult for us to go to the field because people think they are worried if officers are going to the field.

Table 3. In-depth Interview Results on Advocacy and Socialization According to the ISPA Program Holder of Pelompek Health Center

Informant	Statement
Informant of the ISPA program Holder Pelompek Health Center	We can invite the community together and understand what ISPA ofis, how to prevent it, and how to control it so that it does not get worse, it's not that difficult.

Table 4. In-depth Interview Results on the Discovery and Management of Pneumonia in Toddlers According to the ISPA Program Holder of Pelompek Health Center

Informant	Statement
Informant of the ISPA program holder of Pelompek Health Center	For now, we have visited both in the building and outside the building with the cooperation of the network for community education and we also have reports from cadres.

Table 5. In-depth Interview Results on Supervision According to the ISPA Program Holder at Pelompek Health Center

Informant	Statement
Informant of the ISPA program holder at Pelompek Health Center	There is no supervision because my job is partly to input the recording and reporting of ISPA sufferers from infants, adults, and the elderly. So if you want to see the recording and reporting of ISPA, you can go directly to me or the administration because they also have records that have become data.

Table 6. In-depth Interview Results on Partnership and Networking According to the

ISPA Program Holder of Pelompek Health Center

Informant	Statement
Informant of the ISPA program holder of Pelompek Health Center	We have monthly visits to collect the average ISPA in the network and previously we also had meetings but since after this pandemic there has been a little time gap or it is not as intense as before Covid.

Table 7. In-depth Interview Results on Program Development According to the ISPA Program Holder at Pelompek Health Center

Informant	Statement
Informant holding ISPA program at Pelompek Health Center	if currently, it is still the program that was at the beginning, such as taking it from the network and conducting counseling in the building. Now outside the building, coordinate first with others whether it is possible or not because, after COVID-19, everything has changed.

Table 8. Results of In-depth Interviews on Human Resource Capacity Building According to the ISPA Program Holder at Pelompek Health Center

Informant	Statement
Informant, ISPA program holder at Pelompek Health Center	Yes, previously, because of the pandemic, it had stopped, but now there have been meetings again which are held every month by the health office because the program must continue to run.

Table 9. In-depth Interview Results on the Verbal Autopsy Program According to the ISPA Program Holder at Pelompek Health Center

Informant	Statement
Informant of the ISPA program holder at Pelompek Health Center	Previously, during COVID-19, it had stopped, but now verbal autopsies have started again at the health center.

Table 9. In-depth Interview Results on the Verbal Autopsy Program According to the

ISPA Program Holder at Pelompek Health Center

Informant	Statement
Informant of the ISPA program holder at Pelompek Health Center	Previously, during COVID-19, it had stopped, but now verbal autopsies have started again at the health center.

Table 10. In-depth Interview Results on Obstacles According to ISPA Program Holders at Pelompek Health Center

Informant	Statement
Informant ISPA program holders at Pelompek Health Center	Obstacles are certain in any program, but it's up to us to respond to them and how we coordinate because this program is very much related to all lines, both up and down. So it's up to us to communicate it.

DISCUSSION

Based on the results of research conducted at the Pelompek Health Center, efforts to control ISPA through ten ISPA control programs, according to the Director General of Disease Control and Environmental Health (Directorate General of PP & PL), have been carried out, but there are still several programs that are hampered and have not run well due to the health center and the mother of the toddler with ISPA. This can be seen from respondents who have received counseling about ISPA, information about preventing ISPA, community involvement in a program of activities, provision of ISPA drugs, recording of ISPA patients, questions about complaints of ISPA sufferers, and health center services in handling ISPA.

Advocacy and socialization at the Pelompek Health Center are running as they should. However, in an interview with the ISPA program holder, it was explained that socialization.

And advocacy is starting to run well again. The community, especially ISPA sufferers, can work together with health center officers in matters carried out by the health center, such as socialization to the community so that they can understand what ISPA is, how to prevent it, and how to control it so that it does not progress to more severe disease.

Partnerships and networks that have been carried out have also been running well. In its implementation, the Pelompek Health Center collaborates with networks such as clinics, hospitals, private midwife practices, and doctor practices. In this case, partnerships and

networks are carried out when going to the field for community meetings or cross-sector meetings. In the meeting, they will discuss health problems such as the problem of ISPA, which is the disease in the highest position at the Pelompek Health Center, to find a solution together and divide the roles of each network to be able to make the program a success.

The availability of logistics is running well; in the results of in-depth interviews conducted, the results are logistics interpreted by the ISPA program holder here mentioned in the form of medicines and sound timers to count the frequency of breathing in 1 minute, then there are also such things as recording and reporting of ISPA sufferers.

Supervision activities at the Pelompek Health Center in efforts to overcome ISPA have not gone well because they were stopped due to the COVID-19 pandemic. In addition, due to the limited number of cadres or officers in the activity, it was hampered.

Recording and reporting activities at the Pelompek Health Center have been running but have not been optimal, namely because recording and reporting are taken from the visit register to the health center. The recording and reporting are taken from 3 polyclinics, namely children, adults, and the elderly. There are deficiencies in recording and reporting because, at the time of reporting ISPA patients in the field, it was not as optimal as before the COVID-19 pandemic.

Efforts to increase human resource capacity (HR) have not run optimally because the ISPA control program carried out by the Pelompek Health Center has been hampered by the COVID-19 pandemic. Activities that are usually carried out in the building or going directly to the field to meet the community have only just been carried out again and have not been realized as before. This also makes it difficult for the community to socialize with ISPA officers at the Pelompek Health Center and Health Service officers who go directly to the field.

Efforts to develop the program have been carried out but have only focused on the old program, namely taking results from ISPA networking and counseling carried out in the building so that it is necessary to revitalize the ISPA program.

Verbal autopsies carried out at the Pelompek Health Center are currently being re-implemented. Because when a patient dies, it is usually in the hospital, and the hospital is the one that goes directly at that time. Monitoring and evaluation carried out at the Pelompek Health Center has not been good because, in the past year, monitoring has not been carried out by the health center. In cases of pneumonia, there should be a home visit, which is a program from the Health Service carried out by cadres or health centers, but it did not run well due to the previous COVID-19 pandemic.

CONCLUSION

In the implementation of ten ISPA control programs that have been carried out by the Pelompek Health Center, they have been running well, but only 3 programs have been running optimally, namely the availability of logistics, recording reporting, and network partnerships. Some have not been implemented optimally, namely advocacy and socialization, discovery and management, pneumonia in toddlers, supervision, increasing human resource capacity, program development, and monitoring and evaluation. This is what makes ISPA disease in the Pelompek Health Center still the highest disease position.

The ISPA control program in toddlers has not been optimal due to the lack of cadres and counseling in the form of health promotion about ISPA in the community, especially for mothers of toddlers or other people who need information about ISPA.

ACKNOWLEDGEMENT

The author would like to express gratitude to all their colleagues for their assistance in finishing this article.

REFERENCES

- BPS Kabupaten Kerinci. 2020. *Kabupaten Kerinci Dalam Angka 2020*. Kerinci; 2020.
- Jalil, R. 2018. *Faktor - Faktro Yang Berhubungan Dengan Kejadian ISPA Pada Balita Di Wilayah Kerja Puskesmas Kabangka Kecamatan Kabangka Kabupaten Muna*. <http://ojs.uho.ac.id>
- NoviantISPA, D. 2018. *Gambaran Karakteristik Balita Dan Kondisi Lingkungan Dalam Ruangan Terhadap Keluhan Gejala ISPA Di Tempat Penitipan Anak*. <http://repository.uinjkt.ac.id>.
- Rosana, E.N. 2016. *Faktor Resiko Kejadian ISPA Pada Balita Ditinjau DISPA Lingkungan Dalam Rumah Di Wilayah Kerja Puskesmas Blado1*. Tersedia dalam <http://lib.unnes.ac.id>
- Safitry, Oktavinda. 2020. *Penanganan Covid-19: Pengalaman RSUI*. Jakarta: UI Publishing.
- Siburian, Yunita E. —*Faktor-Faktor Yang Berhubungan Dengan Kejadian Infeksi Saluran Pernapasan Akut Pada Balita Di Puskesmas Padang Bulan Kota Medan Tahun 2019*. Medan. Program Studi Kesehatan Masyarakat Fakultas Kesehatan Masyarakat Universitas Sumatera Utara.
- World Health Organization. 2020. *Pneumonia*. WHO. <https://www.who.int/news-room/fact-sheets/detail/pneumonia>

Zolanda, A. R. 2021. *Faktor Risiko Kejadian Infeksi Saluran Pernafasan Akut Pada Balita Di Indonesia* (Vol. 17(1)). Link.