



[ABS-70]

## Risk Factors for The Incident of Pneumonia in Toddlers in The Working Area of The Kamonji Health Center, Palu City

Vidyana Aulia Rahma<sup>1\*</sup>, Fariani Syahrul<sup>2</sup>, Eny Qurniyawati<sup>2</sup>, Kartika Noviazada<sup>3</sup>, Herawanto<sup>3</sup>

<sup>1</sup>Master of Epidemiology, Public Health Faculty, University of Airlangga, Indonesia

<sup>2</sup>Department of Epidemiology, Biostatistics, Population Study and Health Promotion, Public Health Faculty, University of Airlangga, Indonesia

<sup>3</sup>Departement of Epidemiology, Public Health Faculty, University of Tadulako, Indonesia

Corresponding author: [vidyana.aulia.rahma-2022@fkm.unair.ac.id](mailto:vidyana.aulia.rahma-2022@fkm.unair.ac.id)

### ABSTRACT

**Background:** Pneumonia is one of the major causes of morbidity and mortality in children under five age group in the world. The incidence of pneumonia in Indonesia is 2,1% with a prevalence of 4,8%. The largest number of pneumonia cases in Central Sulawesi was in the City of Palu, namely 2.174 cases. The number cases of pneumonia in 2018 in Kamonji Health Center Palu City were 336 cases.

**Purpose:** The purpose of this research is to analyze the risk factors of pneumonia in toddlers in work area of Kamonji Health Center Palu City.

**Methods:** This type of research was an analytic survey with case control approach. Case samples were 63 pneumonia toddlers and control samples were 63 non-pneumonia toddlers with matching age and gender. Sampling was taken through Purposive sampling technique. The dependent variable is pneumonia, and the independent variables are immunization status, cigarette smoke, kitchen smoke, and mosquito coil smoke. Data collection was carried out from March to May 2019 using an odds ratio value of  $a = 5\%$ .

**Results:** The results of the study shows that incomplete immunization (OR=2,793 and 95%CI= 1,327-5,877), cigarette smokes exposure (OR=5,043 dan 95%CI= 2,358-10,784), kitchen smoke exposure (OR= 6,727 and 95%CI= 2,959-15,295), and mosquito coils of smoke exposure (OR= 5.565 and 95%CI= 2.566-12.069), are risk factors of pneumonia among toddlers.

**Conclusion:** Incomplete immunization status, exposure to cigarette smoke, kitchen smoke and mosquito coil smoke are risk factors for the incidence of pneumonia in toddlers in the working area of the Kamonji Health Center Palu City. The prevention of pneumonia among toddlers can be done with give complete immunization, reduce smoking activity inside home and maintain the air vents around home so that air exchange goes properly.

**Keywords:** Burning Fumes; Respiratory Tract Infection; Vaccine Preventable Diseases

**Topic:** Caring for Communicable and Non-Communicable Diseases