

**ABSTRACT**

**ANALYZE FACTORS ASSOCIATED WITH LUNGS FUNGTION OF FIREFIGHTERS  
SURABAYA FIRE DEPARTMENT**

Firefighters in performing the duties outages are often faced with a variety of health problems. The most frequent complaint after performing the task outages are complaints of the respiratory tract include shortness of breath. Another complaint related to the respiratory tract is a mild cough accompanied by phlegm, these symptoms are signs of decline in lung function in firefighters even though they are subjective.

This study aimed to analyze the relationship of individual factors (age, length of employment, nutritional status, smoking habits, use of PPE, exercise habits) with impaired lung function on firefighters and to analyze the relationship between work factors (length of service and long-exposure) with impaired function lung firefighters. This research is a type of observational (non-experimental). This research was conducted with the approach of cross sectional survey. The population in this study amounted to 55 people with the inclusion criteria Gender; man; Age 18-56 years; Fire fighting operations officer; and Willing to be a study respondents with a signed informed consent.

Based on the statistical test with fisher exact P-value (0.05), it is known that there is a relationship between the individual factors based on age with impaired lung function in firefighters variable age factor (0.006), smoking (0.019), nutritional status (0.028), use of personal protective equipment (0.015), and exercise habits (0.016), based on the value of P-fischer exact known that there is a relationship between the factors based on years of employment with impaired lung function on firefighters are working period (0.025).

Based on these results, it is expected Surabaya City Fire Department carry out monitoring, provision of personal protective equipment for all firefighters, to regulate the ban on smoking, regular exercise three times a week through socialization and training on the dangers of fire smoke and gas.

Keywords: Firefighters, lung function.