

ABSTRACT

CORRELATION BETWEEN OF AMBIENT DUST LEVEL AND DISTANCE OF HOUSE FROM THE TILE/BRICK INDUSTRY WITH THE EVENT OF ARI IN THE REGION OF THE TILE/BRICK INDUSTRY, BOGOREJO VILLAGE, BARAT DISTRICT, MAGETAN REGENCY IN 2022

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ABSTRACT

Acute Respiratory Infection (ARI) was one of the public health cases that was stilled a problem in the world. The high incidence of ARI caused by various factor included environmental factor that could be made possible from air pollution. The purpose of this study was to determine the relationship between ambient dust levels and the distance of the house from the tile/brick industry with the incidence of ARI in the Tile/Brick Industrial Area, Bogorejo Village, West District, Magetan Regency.

The type of this research was exposed facto with a cross-sectional approach. The population of this research was the resident of Bogorejo village, West District, Magetan Regency, at a distance of 500m from the tile/brick industrial area. The sampling technique used in this study was purposive sampling and fixed disease methods.

The results of the analysis in this study showed that the incidence of ARI in Bogorejo Village was 21 patients or as much as 65%. The dust content in the tile/brick industrial area in Bogorejo Village qualified of Government Regulation no. 41 of 1999. The distance of the house from the tile/brick industry was five buffers with a distance of 100 metered for each buffer. The resulted of the Spearman rank correlation test show that there was a relationship between ambient dust levels (p value $0.30 < 0.05$; correlation coefficient 0.384) and the distance of houses from the tile/brick industry (p value $0.21 < 0.05$; correlation coefficient 0.406) with the incidence of ARI.

In this study it could be conclude that there was a relationship between ambient dust levels and the distance of the house from the house from the tile/brick industry with the incidence of ARI in the Tile/Brick Industrial Area, Bogorejo Village, West District, Magetan Regency.

Keywords: ARI, dust content, distance from house