

**ABSTRACT****Zinc Levels and The Incidence of Respiratory Infection and Diarrhea In The Stunting-Wasting Children and Normal Children**

Stunting describes the state of longstanding malnutrition that takes time for children to grow and recover, while wasting can occur due to the period of a state of malnutrition which is relatively short and which can be recovered quickly. Several studies have shown that zinc deficiency affects the growth of hormone. Severe zinc deficiency weakens the immune function, was eventually increased susceptibility to infection, including diarrhea and respiratory infection. The objective of this reserch was to study and analysis the differences in zinc levels, the incidence of respiratory infection and diarrhea in the stunting-wasting children and normal children. The study was an analytical observational study, design for a comparative study using cross sectional approach, was conducted in the area of Nangapanda-Ende Regency. The study sample consisted of two groups of children 2-5 years old suffering from stunting-wasting and normal children, consisted of 20 children. The inclusive of criteria was aged 2-5 years who were already weaned, willing to participate in this study, agreeing that their hair zinc levels to be measured, are not physically ill, hair is unpainted. The research result showed there was no difference in zinc levels between stunting-wasting children groups and normal children groups ( $p=0,117$ ) used independent t-test. There were also differences in the incidence of respiratory infection in the stunting-wasting children and normal children ( $p=0,000$ ) used Mann-Whitney test. There were also differences in the incidence of diarrhea in the stunting-wasting children and normal children ( $p=0,000$ ) used independent t-test. Conclusion : there was a correlation between zinc levels with the incidence of respiratory infection in stunting-wasting children and normal children. There was a correlation between zinc levels with the incidence of diarrhea in stunting-wasting children and normal children.

**Key Words** : Zinc Levels, Incidence of respiratory infection and diarrhea, Stunting-wasting children.