

Thesis Title Risk Factors of Diarrheal Disease in Children
Aged 0-5 Years
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ABSTRACT

The purpose of this research was to analyze the risk factors of diarrheal disease in children aged 0-5 years and to construct an equation for forecasting probability to get diarrhea from these factors. The samples randomly selected by 2-stage probability sampling were 466 children in Singhaburi Province. The data were collected from two sources; the records from the health officials in villages and the persons who looked after their children.

The results revealed that the incidence rate of diarrhea by survey in July, 1989 was 14.59% , higher than the rate of the official records (5.36%) from the health centers. Using the technique of stepwise logistic regression, the risk factors of 4 age groups of children (under 1 year, 1-2 years, 2-3 years, and 3-4 years) when using the group of 4-5 years of age as the based group, showed the relative risks of 24.0, 16.1, 9.5 and 7.3 respectively. The nutritional status of children classified by weight for age indicated two malnutrition group, 1st and 2nd-3rd degrees. When using the normal children as the based group the first group had the relative risk of 3.6 where as the

second group had the relative risk of 6.1. The other important factors ranked by the values of relative risks were knowledge and health believes about diarrhea in children of person who looked after their children (88.3, 45.2), incorrect health behavior (6.0), children's illness (5.9), low income (2.8) and the person who looked after their children but not children's father-mother (2.7). The equation for forecasting probability to get diarrhea (P_1) was

$$\begin{aligned}
 P_1 = & 1/(1 + \exp(-\{-6.56 + 3.18 \text{ (under 1 year)} + 2.78 \text{ (1-2 years)} \\
 & + 2.26 \text{ (2-3 years)} + 1.98 \text{ (3-4 years)} \\
 & + 1.05 \text{ (income } < \text{ 500 baht/capita/month)} \\
 & + 1.79 \text{ (mother's bad health behavior)} \\
 & + 3.81 \text{ (mother's wrong health believe)} \\
 & + 1.77 \text{ (history of children's illness eg, URI. or} \\
 & \text{hypersensitivity)} \\
 & + 1.27 \text{ (1}^{\text{st}} \text{ degree of malnutrition W/A)} \\
 & + 1.81 \text{ (2}^{\text{nd}} \text{ -3}^{\text{rd}} \text{ degree of malnutrition W/A)} \\
 & + 0.99 \text{ (person who look after children but not father-mother)} \\
 & + 4.48 \text{ (lacking of knowledge about diarrhea)} \\
 & + 0.46 \text{ (fair level of knowledge about diarrhea)}}).
 \end{aligned}$$