

Thesis Title     **The Effect of High Dose Vitamin-A  
Supplement Among Breast-Feeding Mothers in  
Preventing Their Infants Against Acute  
Respiratory Infection, on Pemalang  
District, Indonesia, 1995**

Name             **Edhie Santosa Rahmat**

Degree           **Master of Science (Medical Epidemiology)**

Thesis Supervisory Committee

**Jayanthon Patumanond, B.Sc., MD., M.P.H.,  
D.T.M. & H., M.Sc.(Epid)**

**Amornrath Podhipak, B.Sc., M.S.(Biostat),  
Ph.D.(Epid)**

**Muhilal, B.Sc.(Nutr), Ph.D.(Biochemical  
Nutr)**

Date of Graduation   **25 July B.E. 2538 (1995)**

**ABSTRACT**

A randomized - double blind - controlled - field trial was conducted to study the protective effects of 100,000 IU of vitamin-A to breast-feeding mothers against infantile acute respiratory infection. 382 mother-infant pairs were selected from a rural-coastal area of central Java province, Indonesia. 172 mothers was randomly assigned as vitamin-A groups and 210 mothers received no content of vitamin-A capsules as control group. They were followed-up

weekly at domiciliary visits for 3 months of rainy season. Maternal perceived illnesses of acute respiratory infection among their infants were collected by local midwives. Any fever occurred with nasal discharge or cough or rapid breathing was diagnosed as acute respiratory infection.

The incidence rate of infantile acute respiratory infection was lower in the vitamin-A group than in control group (15.64 versus 17.03 episodes per 1,000 infant-days); the rate ratio was 0.87 [90% confidence interval: 0.74 - 1.03]. The protective effect of vitamin-A was more clearly shown among infants who got more doses of DPT vaccine. Infants in vitamin-A group also have longer duration of free from acute respiratory infection after dosing than control group infants; the hazard ratio was 0.82 [90% confidence interval: 0.68 - 0.99].

The benefits were also found on incidence rate of infantile gastroenteritis, and maternal acute respiratory infection. There was no minor-acute-side-effect found both in mothers and their infants, in part of this study.

The study showed that high dose vitamin-A supplement reduce the rate of infantile acute respiratory infection during follow-up period on interaction with DPT vaccine given. It is also prolonged the duration free from acute respiratory infection. It should be considered as a beneficial effect on acute respiratory infection.