

# SEROPREVALENCE OF RUBELLA IMMUNITY AMONG WOMEN OF CHILDBEARING AGE IN BANGKOK, THAILAND

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**Abstract.** Rubella infection during the first trimester of pregnancy can cause congenital rubella syndrome in the fetus. This can be prevented with the live attenuated rubella vaccine given prior to pregnancy. This study aimed to determine rubella seroprevalence among non-pregnant women of childbearing age in Bangkok, Thailand, in order to inform congenital rubella preventive measures by measuring the prevalence of protective antibody levels and measure the levels of rubella-specific immunoglobulin G (IgG) antibody titers using an indirect enzyme-linked immunosorbent assay (ELISA). Serum samples were collected from 289 non-pregnant Thai women aged 28-40 years who presented to Rangsit University Healthcare medical center, Bangkok, Thailand for a check-up during 2014. A protective rubella IgG antibody level was determined to be  $\geq 10$  IU/ml. Eighty-seven point two percent [95% Confidence Interval (CI): 83.4-91.0] of study subjects (252/289) were found to have protective antibody levels. The mean  $\pm$  standard deviation of antibody level was  $41.4 \pm 37.3$  IU/ml (95% CI: 37.0-45.7 IU/ml). There were no significant differences in protective rubella IgG antibody levels by age group. Further population-based surveys are needed to determine if the levels found in our study are consistent throughout the Thai population.

**Keywords:** rubella, seroprevalence, seropositivity, IgG, immunity, childbearing age women

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