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NISA SIRISUKKARN : CORRELATION OF TETANUS TOXOID IN CHILD BEARING AGE WOMEN WITH NEONATAL TETANUS IN RISK AREAS. THESIS ADVISORS : PORAPAN PUNYARATABANDHU, M.D., M.P.H., M.H.S., UTHEN JARANASRI, M.D., M.P.H.T.M., DUSIT SUJIRARAT, B.Sc., M.Sc. 131 p. ISBN 974-663-653-7

The objective of this study was to identify the relationship between tetanus toxoid vaccination in women in child bearing age and the occurrence of tetanus neonatorum in the high risk areas for this disease, the association of tetanus neonatorum and other protecting factors was also studied. The study design was an ecological study conducted in 809 subdisticts from 320 disticts of 64 provinces, except Bangkok Metropolis, considered to be high risk areas for Tetanus neonatorum according to criteria set be the Department of Communicable Diseases Control. Data was collected using questionaires distibuted to health personel responsible for immunization and maternal and child health services . Each reported on their activities between 1990 and 1994 reporting concerned the number of tetanus neonatorum cases occurring during this period plus the number of women in child bearing age who were immunized.

The result of the study show that, although the immunization coverage in studied women of child bearing age was low (less than 20%) there were also low rates of occurrence of tetanus neonatorum as well, which seemed to reject the proposed hypothesis. The study did reveal a reverse trend of association, without statistical significance, among the occurrence of tetanus neonatorum and other protective factors : rate of tetanus toxoid vaccination in pregnant women, delivery and postnatal care by trained health personnel to insure the hygienic condition of the umbilical cord.

All findings can be explained by the following reasons. Firstly, there were many independent factors influencing the occurrence of this disease and those factors also had high coverage rate in the studied area (more than 80%) and resulted in the low rate of tetanus neonatorum. Secondly the duration of the study was not long enough to cover the period of high and low rate of the disease, so an association could be identified. Thirdly, the study had an ecological fallacy because the study was not conducted on an individual population so many influencing factors could not be controlled in analyzing the results.