



**A CASE CONTROL STUDY OF THE PROTECTIVE EFFECT  
OF MEASLES VACCINE USED DURING 1994-1996  
IN VIENTIANE MUNICIPALITY (LAO.P.D.R)**

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A case-control study was conducted during 17 March to 7 June 1997 to assess the protective effect of measles vaccination, and factors affecting the protective effect, which was used during 1994-1996 in Vientiane Municipality. A total of 164 cases of children under five years old were taken from most recent hospital records of 5 main hospitals. All of the cases came to hospitals to receive treatment for measles during 1994-1996. The 171 controls were selected by choosing the closest neighbors to the cases who were closest in age and never had measles. The information on the past history of the measles vaccination, and other factors affecting the protective effect of the vaccine, were collected by using questionnaires.

The results of the study showed that the majority of measles cases occurred in children aged 13-24 months (39.63 %). The percentage of those who never received a measles vaccination (67.68 %) was higher than among controls (32.32 %). Among the cases who did not receive the vaccination 17.68 % were children aged less than 9 months. This age group had not yet received the scheduled measles vaccination which suggested the maternal antibody had diminished.

The overall protective effect of the measles vaccine used during 1994-1996 was 76 %. The adjusted significant factor affecting the protective effects of the measles vaccine was found to be only the place of vaccination. Children who received measles vaccination from a fixed center had protective effect of 91 % (OR = 0.09 and 95 % CI = 0.05-0.12) higher than those who received vaccination from a mobile team of 66 % (OR = 0.34 and 95 % CI = 0.18-0.69 ).

The results from this study suggest that the knowledge of mothers about their nutritional status to increase maternal antibody in their children, and the schedule of measles vaccination of their children should be improved. Cold-chain, especially for the mobile team, needs to be reviewed in order to improve the protective effect of the measles vaccine for preventing measles in children in Vientiane Municipality.