

## ABSTRACT

Rabies is the most important zoonotic disease in Sri Lanka causing a great economic loss and loss of lives to the country.

To find ways to reduce the incidence of human rabies, the health seeking behaviour of people, following an exposure and elimination of the disease in the main transmitter, the dog, needs to be considered.

A community based descriptive study was carried out to determine the health seeking behaviour of people following an animal bite, their knowledge and attitudes towards rabies and to evaluate the present immunisation services for rabies control in the canine population.

Following the baseline descriptive study, two types of interventions, a community health education and a service intervention were carried out, singly and in combination in three PHI areas keeping another as a control. The effectiveness of the interventions were reassessed by a post intervention survey by mainly assessing the immunisation coverage in the intervention areas in comparison to control.

Conducting awareness programmes in schools and the community by PHIs and by other field staff during clinics and home visits was used for the health education intervention.

As for service intervention, conducting repeat immunisation centres during the weekend and prolonging the afternoon sessions till six p.m. was the strategies used to improve the immunisation coverage.

A cluster sampling method using the first household randomly was used to select the sample. An interviewer administered structured questionnaire was used to collect the data as well as observation of the vaccinators to assess the quality of the service.

The pre and post intervention surveys with two different samples was carried out in four selected PHI areas situated in two DDHS areas in Colombo District.

The highest prevalence of dog bites (14.3/1000) was in school going males. The group of victims who go for allopathic treatment and traditional treatment do not vary significantly according to ownership of dog, its vaccination status or the severity and place of bite in the victim did not differ significantly. Therefore, by seeking traditional treatment of unproven effect, the development of rabies in the population is high.

Non-availability of services in between mass vaccinations was seen to be the main cause for non-vaccination of dogs. In dogs over one year of age, 82% were immunised at a state vaccination centre indicating a high level of utilisation when the service is available. But lower utilisation was seen with higher socio-economic categories. However, a poor awareness (15%) was also a contributing factor.

Accessibility and acceptability of the services were found to be very favourable. 97% could reach a state immunisation centre within fifteen minutes and the distance between two centres was less than half a kilometre. 87% said the waiting time at the centre was less than fifteen minutes.

The overall service given at the centre is satisfactory to more than 90% of the population. But the quality of service given based on maintenance of cold chain,

sterilisation of equipment, record keeping, adequacy of equipment and punctuality was poor. A significant improvement in quality was seen with an in-service training ( $p < .001$ ).

The baseline survey showed that the immunisation coverage in the four areas (50%, 49.6%, 46.2%,  $p > 0.19$ ) was not significantly different.

During the post intervention period, a significant increase in immunisation coverage was seen in all three intervention areas in comparison to the control area.

The knowledge of the respondents in the three intervention PHI areas were found to be not significantly different in comparison to the control area during the pre-intervention period. But a significant difference was seen only in areas where the health education intervention was done in comparison to the control area in the post intervention period.

The attitudes remained the same, after the interventions when compared to the control.

This study suggest that immunisation coverage and the knowledge on rabies can be improved by carrying out a planned health education campaign prior to a mass vaccination programme in the community, within the existing infrastructure of the Department of Health Services without added cost. Changing the times of service delivery too can improve the coverage.

It also identified that useful information can be obtained on quality of services by developing simple tools (eg. check list).