

**Prevalence, Severity, Pattern of Dental Caries and Care Index of Six Year Old Primary School Children in a Semi Urban Area in Kandy, Sri Lanka**

**E.M.U.C.K. Herath<sup>1</sup>, B.G.T.L. Nandasena<sup>1</sup>, K. Perera<sup>2</sup>, A. Steepenson<sup>2</sup>,  
S.C. Ratnayake<sup>3</sup>, S. Sakuma<sup>4</sup> and H. Miyazaki<sup>4</sup>**

<sup>1</sup>*Faculty of Dental Sciences, University of Peradeniya*

<sup>2</sup>*Faculty of Engineering, University of Peradeniya*

<sup>3</sup>*Medical Corps, Sri Lanka Army*

<sup>4</sup>*Faculty of Dentistry, Graduate School of Medical and Dental Sciences, Niigata University, Japan*

Dental caries is a significant health problem among Sri Lankan children and fluoride is the most important agent that can be used to control dental caries. The School based Fluoride Mouth Rinsing (SFMR) program is a world recognized economical dental caries preventive measure. The aim of the present study is to evaluate the prevalence, severity, and patterns of dental caries and care index of 6 year-old primary school children in a semi urban area in Kandy in order to implement a SFMR program.

This study group consisted of 410 children from six selected schools in Denuwara Educational Zonal, Kandy. The clinical oral examinations were carried out and the numbers of decayed, missing or filled teeth (DMFT/dmft index) or affected tooth surfaces (DMFS/dmfs index) were recorded. Care Index was adapted to assess the oral health care level of the population.

According to the study group, 32% children were caries-free, while the mean dmft was 3.5 ( $\pm 0.36$ ), mean dmfs was 6.78 ( $\pm 0.79$ ) and mean DMFT was 0.02 ( $\pm 0.01$ ) for the total sample. There was no statistically significant difference between males and females on the prevalence of caries. The decayed component of the dmft was 76.26% and the filled component was 10.74%. The Care Index which reflects the contribution made to the dmft by filled teeth (ft), of the present study was very low (10.61%) when compared to that of the British population (86.4%). Further, 11.8% of total sample showed Molar Incisor Hypomineralization (MIH). This suggests a high risk for demineralization of teeth in these children. In 1981, WHO and FDI (International Dental Federation) formulated an oral health goal for 5-6 year old children by year 2000, by which 50% of children would be caries free. However, our results indicate that we are far behind this goal even in 2010. Therefore, the necessity to develop preventive strategies such as SFMR program or water fluoridation or fluoride varnishing program is significant.