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**Developmental Profiles of Mucosal Immunity in
Pre-School Children**

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Abstract

Previous studies of the ontogeny of the mucosal immune system have shown a significant increase in salivary Immunoglobulin A levels occurring at about five years of age. This study has monitored a group of 3 and 4 year old children during one year of attendance at Pre-School to examine whether such an increase could be linked to increased antigenic exposure associated with moving into a school like environment.

Saliva samples were collected at regular intervals and analysed for immunoglobulin and total protein levels. Daily health records were maintained for each child, and a detailed social and medical history was collected for each child at the beginning of the study. The elevated mucosal immune response observed in previous studies involving children in day care centres and attending school was not seen in this study. No significant difference was observed between children who had previously attended Pre-School or child care centres and those who were attending for the first time. However, a marked seasonal increase in mean salivary IgA during the winter months was observed and this increase correlated with an increase in respiratory infections. Hence, in studies of developmental aspects of mucosal immune response it is essential that modifiers such as season and infection be recorded.

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