OBJECTIVE: To investigate how the oral health of young adults was affected by their family socio-demographic characteristics, oral health and utilization of dental services during childhood and adolescence.

METHODS: A birth cohort of 638 students was followed from childhood (12-year-old) through adolescence (15-year-old) to early adulthood (18-year-old) in Hong Kong. Dental examination included the assessment of caries experience (DMFT score) and periodontal condition (Community Periodontal Index, CPI) according to WHO criteria. Information on utilization of dental services, parents' highest education level and monthly household income level was also collected. Path analyses were performed to investigate the relationships between oral health (DMFT scores and highest CPI values) at age 18 years and the socio-demographic characteristics at age 12 years, oral health and utilization of dental services during childhood and adolescence.

RESULTS: Overall, 232 subjects had attended all three dental examinations. Results of the two path models showed that parents' highest education level had no significant effect on either DMFT scores or highest CPI values (P>0.05). However, monthly household income level had significant positive effects on the utilization of dental services ($\beta>$0.36, $P<$0.05) and the utilization of dental services had significant positive effects on DMFT scores ($\beta>$0.12, $P<$0.05) but not for highest CPI values ($P>0.05$). DMFT scores and highest CPI values at age 18 years were significantly positively associated with DMFT scores and highest CPI values at earlier ages ($\beta>$0.38, $P<$0.05).

CONCLUSION: Economic circumstance of the subjects was found to be positively related to their utilization of dental services and then utilization of dental services contributed to the subjects' caries experiences but not to the periodontal conditions. Oral health at earlier ages was positively associated with succeeding oral health conditions.

Supported by a grant from the Research Grants Council of the Hong Kong SAR, China (Project No. HKU 778907M).