



Title	Patterns of dental caries severity in Chinese kindergarten children
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Oral Health Conditions of Inhabitants in Rural Commune, Cambodia. H. MIYAZAKI¹, N. IKEDA², K.K.S. WIN³, Y. YAMAGUCHI¹, T. TAKEHARA¹ and P.K. SO³ (Kyushu Dental College, ²School of Dentistry, Aichigakuin University, Japan and ³Phnom Penh University, Cambodia)

The purpose of this survey was to ascertain baseline data on oral health conditions, including prevalence of dental caries, periodontal diseases and oral mucosal lesions in inhabitants of the Preg Russey Commune, Cambodia. The number of subjects examined was 4,040, aged 2 to 86 years, which comprised 79% of all the inhabitants of the Commune. Four calibrated dentists examined the subjects' oral health conditions with dental mirrors, explorers and specially designed periodontal probes according to the WHO criteria. Caries-free children were observed in 30% of 5-year-olds and in 27% of 12-year-olds. The mean numbers of dft in 6-year-old children and DMFT in 12-year-old children were 3.8 and 1.3, respectively. The mean number of remaining teeth decreased from the 30-34-year-old group and reached 17.6 teeth in the 65-74-year-old group. In the 15-19-year-old group, mean numbers of sextants with healthy periodontal tissues and calculus were 3.5 and 2.2. In the 35-44-year-old group, the most frequently observed condition was calculus (92%) and 4% of persons had periodontal pockets of 4-5 mm. On the other hand, 25% of persons and 1.3 sextants in average had 4-5 mm of loss of attachment (LA) and 7% of persons and 0.3 sextants had 6-8 mm of LA. 135 oral mucosal lesions were observed in 122 persons out of 1,968 persons 15 years of age and older. The prevalence rates of cancer, leukoplakia, lichen planus, candidosis and erythroplakia were 0.1%, 0.3%, 2.2%, 0.1% and 0.1%, respectively. These data from this survey provide valuable information in establishing proper oral health programs in rural areas of Cambodia. Supported by the Japan Association of International Cooperation for Oral Health.

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Oral Health Status of Indigenous Australians and non-Aborigines. KINGA PENINSKA* and P. D. BARNARD. (Public Health Dentistry, University of Sydney, Australia).

This study investigates and compares the oral health status in Aboriginal (indigenous) and non-Aboriginal Australian children and adults. Data has been collected from the records of agencies, government and non-government, concerned with the provision of dental services, and from the Australian Bureau of Statistics. The statistics show that the prevalence of dmft and DMFT in Aboriginal children is almost double that of non-Aborigines [eg at 5yrs Aborigines: 33% caries free versus non-Aborigines 64%]. Periodontal diseases are widespread in Aboriginal children and adults with a higher prevalence than in non-Aborigines. The Aboriginal population is exposed to a high risk of oral diseases for several reasons: their scattered distribution throughout the Australian continent; fluoride deficiency in water; scarcity of dentists; high turnover of dental staff; diet high in sugar; and poor oral hygiene. Aboriginal adults utilise dental services infrequently in case of emergency. In some areas, basic programs for the Aboriginal population have been established to improve their oral health. The Aboriginal population in 1991 in Australia was 261,129 or 1.53 per cent of the total Australian population. The Aboriginal population has a 16.6 per cent growth since 1986, and provisional projections show an increase up to 340,000 by the year 2001. Oral health status of Aborigines is worse than that of Australian born non-Aborigines. The development of dental services for an increasing Aboriginal population, improvement in access and acceptance of dental health care (including prevention, education and promotion) is necessary to improve their oral health status.

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Oral Health Status of Adults in an Aged Area. M. FUKUSHIMA* and M. IWAKU (Niigata University, School of Dentistry, Niigata, Japan).

The dramatic increase in the number of people aged 65 years and over in the population may greatly influence the medical and dental circumstances. The purpose of this study was to evaluate the present oral health status of residents in an area with high proportion of the elderly and predict the trend of oral disease in the next generation. In this study, DMFT, RCI (Root Caries Index), CPTN and daily oral/general health conditions were surveyed for 528 adults (Men n=192, Women n=336) over 20 years old living in Ogi Town located in southern Sado Island, Niigata Prefecture, Japan. The proportion of people over 65 years old in this town was 24.5% in 1993. Means of DMFT and RCI(%) indicated 11.1 and 15.2% for 20-29 years, 13.7 and 26.9% for 30-39 years, 14.9 and 22.5% for 40-49 years, 18.6 and 21.0% for 50-59 years, 21.3 and 18.2% for 60-69 years, 26.3 and 25.3% for 70-79 years, and 26.2 and 25.9% for 80+ years, respectively. Twenty percent of the total population showed CPTN Code 4 (pathologic pocket 6mm or deeper). Eighty two percent of people underwent oral discomforts daily and 33% had general diseases under medical treatments. This study confirmed the importance of oral health promotion in the earlier stage of life for not only healthy life but socio-economic effect to dental care with aging of population.

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Changes of Oral Health Status in Japanese High School Students. M. YONEMITSU*, K. SEINADA, Y. SASAKI, S. OHARA, Y. KAWAGUCHI and S. OKADA (Department of Preventive Dentistry, Faculty of Dentistry, Tokyo Medical and Dental University, Japan).

Dental caries incidence of young children has been decreasing in recent years in Japan. Nevertheless, incidence in high school students is not completely clear. The aims of this study were to reveal the changes of oral health status in Japanese high school students for the period of 1982 to 1994, and to consider dental health activities conducted in high schools. Dental examinations for high school students enrolled in the same school were carried out in 1982, 1987 and 1994 in a school of Saitama Prefecture. The number of examinees was 1240(1982), 364(1987) and 488(1994) respectively. The mean numbers of DMFT were 9.05(15yrs), 9.97(16yrs) and 10.68(17yrs) in 1982, 9.24(15yrs), 9.17(16yrs) and 10.48(17yrs) in 1987, and 7.63(15yrs), 7.79(16yrs) and 8.55(17yrs) in 1994, respectively. There were significant decreases in mean DMFT for all years of age among 1982 and 1994. Caries prevalence rates of students with one or more carious anterior teeth were 49.6%(196/395), 52.9%(222/420, 16yrs) and 57.1%(242/424, 17yrs) in 1982, 42.7%(41/96, 15yrs), 46.6%(61/131, 16yrs) and 51.5%(69/134, 17yrs) in 1987, and 30.8%(48/156, 15yrs), 41.3%(64/155, 16yrs) and 41.2%(70/170, 17yrs) in 1994. Further, there were significant decreases in the rates of caries prevalence in students with one or more carious anterior teeth for all school grades when comparing 1982 and 1994. The PMA index of anterior teeth was 8.93(15yrs), 8.25(16yrs) and 7.75(17yrs) in 1982, 5.07(15yrs), 5.82(16yrs) and 5.22(17yrs) in 1987, and 4.89(15yrs), 4.19(16yrs) and 3.95(17yrs) in 1994. From 1982 to 1994 the PMA index of anterior teeth also decreased significantly. These data indicated that the oral health status of Japanese high school students has been improving in recent years.

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Patterns of Dental Caries Severity in Chinese Kindergarten Children. E. SCHWARZ, M.C.M. WONG* and E.C.M. LO (Department of Periodontology and Public Health, The University of Hong Kong).

The dental caries status of a population group is traditionally described by mean values of decayed, missing and filled teeth or surfaces (DMFT or S). Due to the often non-normal distribution of the DMF values, means and standard deviations *per se* become less useful and additional measures become of importance. A system of describing the pattern of dental caries attack hierarchically according to severity of caries was suggested by Poulsen & Horowitz (*Community Dent Oral Epidemiol* 1974; 2:7-11). The purpose of the present study was to analyse caries data from 3-6 year-old Chinese kindergarten children according to this hierarchical system and to assess the hierarchical assumptions of the system with deciduous teeth and to evaluate its usefulness as an additional caries description for a kindergarten population. As part of longitudinal field trial, baseline caries data were collected from 452 children according to criteria described by WHO. Caries was registered by tooth surface without the use of X-rays. Each child was assigned to one of six zones of increasing caries-severity, assuming that once a child was classified into a given zone it automatically belonged to all zones of lesser severity (except 0=caries free). On the basis of the original 6 zones 80% of the children were classified correctly according to the hierarchical concept, but different alternative models which merged one or more zones together demonstrated varying percentages of correct classification, the professionally most acceptable one placing 87% correctly. For each age group there was a close correlation between mean dmfs and increasing severity. The hierarchical model provides a valuable additional description of the caries status in the population and is consistent with professional and epidemiological knowledge of caries attack patterns. This study is supported by the CRCG of The University of HK and by Colgate-Palmolive (HK).

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Caries Prevalence and Oral Health Habits in HIV+ Children. I.P.R.SOUZA*, G.S.TELES, R.FONSECA, R.VIANNA & U.V.MEDEIROS. (WHO Coll. Cr., UFRJ, Brazil).

The aim of this case-control study is to determine caries prevalence in Brazilian children infected with HIV and their hygiene habits, compared to healthy children. A group of 93 children of both sexes were examined by the same researcher; 48 of the case group (CAG) were HIV+ (mean age 5.5), and 50 of the control group (COG) were healthy (mean age 4.5). All of them belonged to the same social-economic level. A closed questionnaire was used in order to obtain data about family income, education and oral hygiene. The dental exam was made according to WHO criteria. In CAG the dmft was 5.21 (mean 18.10 deciduous teeth) and the DMFT 1.14 (mean 5.18 permanent teeth). In COG the dmft was 2.31 (mean 12.34 teeth) and the DMFT 0.80 (mean 9.47 teeth). The oral hygiene index was 0.93 (CAG) and 1.01 (COG). The responsibility for toothbrushing in CAG and COG were respectively: 80.4% and 64.0% of the children themselves; 22.9% and 28.0% the guardian; 2.0% and 4.0% others; and, 14.5% and 2.0% of children did not brush their teeth. The brushing/day percentage was, for CAG and COG: 20.8% and 24.0% - 1 time; 33.3% and 32.0% - 2 times; 29.1% and 30.0% - 3 times; 2.0% and 12.0% - 4 or more times. The oral hygiene conditions were not considered satisfactory because a high number of children were responsible for their own toothbrush. Both groups presented a very high caries prevalence according to WHO criteria. The CAG were more susceptible to the caries disease. Supported by CNPq - 520354/93-1.

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A Survey of Odontogenic Tumours in a South African Population. A.J. LIGTHELM* and T.J.P. SWART (University of Pretoria, Pretoria, South Africa).

Reports on the incidence of odontogenic tumours are limited. Since the publication of the World Health Organization (WHO) 1992 criteria for the diagnosis of odontogenic tumours, no such study has been reported.

The aim of this study was to report on the incidence of odontogenic tumours as experienced by the Department of Oral Pathology, University of Pretoria, during the period 1984-1993. A total of 150 odontogenic tumours were diagnosed. Reassessment of the diagnoses with use of the WHO (1992) criteria yielded 143 benign tumours and 7 odontogenic carcinomas. The benign lesions included 55 (35%) multicystic ameloblastomas, 29 (19.3%) unicystic ameloblastomas, 17 (11.3%) odontogenic myxomas, 14 (9.3%) odontomas, 11 (7.3%) peripheral odontogenic fibromas and 7 (4.6%) adenomatoid odontogenic tumours. Four odontogenic fibromas included one case of the rare central granular cell odontogenic fibroma. The 7 odontogenic carcinomas included a tumour in an 18 month old child, the youngest such case yet to be reported.

Most of the published studies on odontogenic tumours either represent reports on rare entities or reports on large series of specific histopathological entities. Published surveys on the relative incidence of the different odontogenic tumours were done with use of outdated histological criteria. In order to establish geographic differences in the incidence of the tumours there is a real need for retrospective studies with use of the WHO (1992) criteria.

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A National Epidemiological Survey of Oral Mucosal Lesions in Malaysia. RB ZAIN*, N IKEDA, A RAZAK, M YAACOB, ZA MAJID, T AXELL (University of Malaya, Malaysia; Aichigakuin University, Japan; Ministry of Health Malaysia, University of Oslo, Norway).

The purpose of this paper is to present the prevalence of oral mucosal lesions in Malaysia. A total of 11,707 subjects aged 25 years and above were randomly selected throughout the 14 States in Malaysia. The sampling frame for this survey was based on "The Preliminary Census Data for 1991". It was a 2 stage stratified random sampling in which in the first stage, Enumeration Blocks (EBs) were selected from the strata within the States. In the second stage, a systematic sample of Living Quarters with a random start was selected from within the EBs. The survey consisted of a questionnaire on subjects' socio-demographic characteristics, their oral habits and a clinical examination. The clinical examination was carried out by 16 Dental Public Health Officers who were trained and calibrated prior to the survey. The coincident rate between the examiners and the trainer was found to be 92%. A total of 11,707 subjects were examined over the survey period of 5 months. Complete data from 11,697 were analyzed. The results showed that the age of the subjects ranged from 25-115 years with a mean of 44.50 ± 13.93. There were 4,698 (40.16%) males and 6,999 (59.84%) females, 6,529 (55.82%) were Malays, 1,060 (9.06%) Other Bumiputras, 2,792 (23.92%) Chinese, 1,166 (9.97%) Indians and 144 (1.23%) Others (i.e. Other ethnic groups). Of the total subjects, 2,714 (23.2%) were current smokers, 815 (7.0%) were current betel-quid chewers and 485 (4.15%) were current consumers of alcoholic beverages. Oral mucosal lesions were detected in 1,127 (9.6%) subjects. Among these subjects 0.04% (5) had oral cancer, 1.4% (164) had oral precancers (OPC-leukoplakia, erythroplakia, submucous fibrosis and lichen planus) and 1.6% (187) had betel chewer's mucosa. Within each ethnic group, OPC was found to be highest amongst Indians (4.03%, 47/1166) and lowest amongst the Chinese (0.5%, 14/2798). This study was supported by Ministry of Health Malaysia, University of Malaya (F105) and Aichigakuin University.