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### 3089 The Prevalence of Domestic Violence in a Dental Patient Population. K. GIANNETTI\* and B. GERBERT (University of California, San Francisco, USA).

This study was designed to determine the one year prevalence and lifetime prevalence of domestic violence in a female dental population and associated with behavioral risk histories. Thus far little has been known about the prevalence of domestic violence in the dental patient population. However, the dental profession is obligated legally and ethically to recognize domestic violence and make the appropriate referrals to their patients who need help.

The participants were recruited from the University of California, San Francisco School of Dentistry. All female patients that presented during a number of randomly selected clinic sessions were asked to participate in the study. The experimental design is a descriptive cross-sectional survey that was developed and tested by the Division of Behavioral Sciences, University of California at San Francisco.

138 surveys were completed (68% response rate). We found no association between domestic violence and marital status, level of education, utilization of dental services, or risk of alcohol abuse. The one year prevalence rate for domestic violence was 16.6% and the lifetime prevalence rate was 68.7%. Ten percent of women surveyed had experienced severe violence such as being choked, punched or hit with an object in the last year. At least 25% of the women surveyed had been seriously hurt during their lifetime by a partner. Nineteen percent of all the women surveyed had injuries in the head and neck region as a result of partner abuse. Twelve percent of these women went to their dentist seeking care for a problem that was a direct result of a violent incident.

Most dental practitioners feel uncomfortable offering assistance to domestic violence victims. But the enormous economic and human costs associated with preventable diseases make it essential that prevention become a top priority of public health efforts. Clinician office visits represent important opportunities for the implementation of preventative interventions, whether it is counseling of a referral.

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### 3090

Prevalence and characteristics of child and adolescent abuse  
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The aim of this study was to investigate the children and adolescents abuse cases (AC) prevalence. For this 2,035 protocols were evaluated in the Children's Protective Services (Niterói - RJ - Brazil), from 1993 to 1997. The victims age varied from 0 to 18 years old. It was observed that 84 (56%) of these registers involved AC and 47 (56%) were females while 37 (44%) were males. The majority of the AC occurred in victim's residence 71 (84.5%). In half of the cases the aggressor were their own parents - 42 (50%). The physical violence was the most common injury reported 68 (82.9%) followed by sexual abuse - 14 (17%). In addition, 71 (84.5%) of the cases had sequels. Only 10 (11.9%) of the victims were hospitalized. Concerning the frequency of AC 55 (62.5%) occurred more than three times. Injuries to the head were present in 19 (22.5%) cases and there was only one register of labial laceration, showing dislocation of right upper central temporary incisor. Ten victims (12%) were submitted to medical and / or psychological accompaniment. In conclusion, parents were the most common aggressor of children and adolescents. The most usual kind of aggression was the physical injury. In spite of the sequels occurrence, in the majority of AC the victims were accompanied in only few cases.

### 3091 Prevalence of Oro-Facial Injuries Due to Child Abuse/Neglect in Illinois C FURUSHO,\* S FADAVI and I C PUNWANI (University of Illinois at Chicago, Dept of Pediatric Dentistry, USA)

The incidence of physical abuse and neglect in children has been estimated to be approximately half a million to two million cases per year, approximately three percent of all children in the United States being abused each year. Dentists are among the mandated reporters of child abuse and neglect (CAN) in fifty states of the United States. However, it has been shown that there is very little involvement of the dentists in the community to identify and report suspected abuse and neglect cases compared to other health professionals (Pattison 1994). In recent studies, it was reported that cranio-oro facial injuries are counted for 65% to 75% of the problems related to child abuse and neglect. The purpose of this study was to identify the prevalence of the cranio-oro-facial injuries related to child abuse and neglect in the state of Illinois and to find out if the reports by dentists has increased since 1994. A retrospective review of the Illinois Department of Children and Family Services (DCFS) computer files was performed and data was collected on the victim, perpetrator and alleged allegation. Data was then entered into the Microsoft Office Excel program and analysis was performed using SAS statistical package. The findings revealed the prevalence of oro-facial injuries due to child abuse and neglect in a 6 months period in Illinois was 46.9%. There was an increase in the number of dentists reporting cases. In addition, there was statistically significant differences when age and sex of victims were compared with perpetrators age and sex at  $p=0.001$  using Chi-square test. we concluded that the prevalence of oro-facial injuries due to child abuse and neglect in Illinois is lower than reported in the past, yet the number of dentists reported CAN has increased.

### 3092

Oral Mucosal Lesions in Adults in Southern China  
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The objectives of this study were to determine the prevalence of oral mucosal lesions (OML) among adults in Southern China and to determine if any association exists between detected OML and reported tobacco and alcohol consumption. The study population comprised 1,573 35-44-year-old and 1,515 65-74-year-old Chinese recruited from both urban and rural areas of Guangdong Province through multi-stage cluster sampling. All subjects were interviewed by trained interviewers and clinically examined by one of three calibrated examiners. Systematic examination procedures for inspection of the oral mucosa were performed according to WHO guidelines. A specially prepared colour atlas of OML was used for lesion recognition during the survey. The overall prevalence of OML was found to be 9.0% among the 35-44-year-olds and 19.7% among the 65-74-year-olds. Tongue lesions and white lesions were relatively common but denture related lesions were not. The prevalence of oral leukoplakia was found to be 0.5% in the 35-44-year-olds and 1.1% in the 65-74-year-olds. No overt oral squamous cell carcinoma or erythroplakia were observed. Tobacco smoking habits, age, and gender were found to be related to the occurrence of OML but reported alcohol consumption was not. The difference in prevalence of aphthous ulcerations detected between men and women was more likely due to different smoking habits than to gender itself. The results of the present study indicate that tongue lesions and white oral mucosal lesions are relatively common but oral pre-cancerous lesions are not prevalent in adults in Southern China. (Funded by the Research Grants Council of Hong Kong.)

### 3093

The Effect of Betel Quid Chewing on Oral Mucosal Lesion in Aborigines of Taiwan  
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Many studies have shown the significant association between betel quid chewing and various oral mucosal diseases in countries of Southeast Asia. Unlike most of these countries, in Taiwan, the betel quid does not contain any tobacco. Instead, the inflorescence, or the vine (only seen in aborigines) of *Piper Betle Linn* was added into *Areca* nut along with slaked lime. A systematic survey sampling was designed to investigate the effects of betel quid chewing on oral submucous fibrosis and betel chewer's mucositis in an aborigine county of southern Taiwan. Three hundred and twelve persons of 20 years old or older were participated in the study. The prevalence of chewing betel quid was 72.3% with an average of 17.6 counts a day. In aborigine people, more women (78.7%) than men (62.2%) chew betel quid, which is in the opposite direction of non-aborigines in Taiwan. The logistic regression models were used to assess the effects of chewing betel quid, smoking, drinking, and some other risk behaviors on oral submucous fibrosis and betel chewer's mucositis. The odds ratio of chewing betel quid were 86.6 for having oral submucous fibrosis, and 3.16 for having betel chewer's mucositis. Other additional risk factors included age, smoking, drinking, chewing more than 10 a day and chewing more than 30 years. Although the betel quid in aborigines of Taiwan do not contain any tobacco, a significant association was also found between betel quid chewing and oral mucosal lesion.

### 3094

The Intervention Trial for the Betel Quid Cessation in Taiwan  
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(National Cheng Kung University Hospital, National Taiwan University Hospital, Taiwan)

**INTRODUCTION:** An increasing trend in the incidence of and mortality from the oral cancer has been observed recently in Taiwan. Previous studies have shown a correlation between the susceptibility of oral cancers and the betel quid chewing habits. Hence, a community-based oral cancer screen program, in conjunction with the oral health education program against the betel-quid chewing habit, was conducted in 1995-1998. The aim of this report is to present the results of the intervention trial after 2-year of follow-up. **MATERIALS AND METHODS:** From Nov 1995 to Apr 1996, an oral cancer screen program was held in the Alien Hsiang, Kaohsiung County, Taiwan. There were 461 residents (aged above 20 years old) attending the first part of the program. 50 of them claimed to have the betel-quid chewing habit. They were randomly selected for the oral health education and/or the mouth self-examination program, according to the date they appeared to the clinics. Two-years later, they were recalled for evaluating the effectiveness of the cessation trial. **RESULTS:** There were 4 types of cessation study, namely: the oral health education and mouth self-examination program (17), the mouth self-examination program (2), the oral health education (28), and none (3). There were 19 habitues admitted to have quit or take fewer quid per-day after the intervention. The quids they had per-day in the pre-trial and two years later are significantly correlated with the types of the intervention (ANOVA, repeated measures,  $p < 0.0001$ ). **CONCLUSION:** The study demonstrated that the oral health education and/or the mouth self-education program are feasible or results in a sustained effect on the betel quid chewing habit cessation.

### 3095

Head and Neck In-Situ Carcinoma: Incidence, Trends and Survival  
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In-situ carcinomas of the head and neck region (anatomic sites of lip, oral cavity, pharynx, and larynx) present as an extreme form of dysplasia and represent an important stage in the histopathologic spectrum spanning from normal to frankly malignant epithelium. The purpose of this analysis is to add to the currently limited epidemiology of these lesions to aid in elucidating its natural history and public health impact. Data were derived from nine population based cancer registries participating in the National Cancer Institute's SEER Program. Only microscopically confirmed in-situ carcinomas of the lip, oral cavity, pharynx and larynx diagnosed from 1973-1995 were included in the analyses. Relative survival statistics were frequency matched for age, race, and sex. The age adjusted incidence of in-situ head and neck carcinoma has increased 59% between 1973 and 1995 for all registries combined. The estimated annual percent change (EAPC) in incidence during this time was 1.8 ( $P < 0.05$ ). Age-adjusted incidence trends by anatomic site range from an EAPC of 2.9 for oral cavity to -0.9 for lip, both ( $P < 0.05$ ). From 1973 to 1995 a total of 3,457 in-situ carcinomas were reported: 365 (lip), 1,154 (oral cavity), 221 (pharynx) and 1,717 (larynx). The age-adjusted incidence per 1,000,000 persons by anatomic site was 0.7 (lip), 2.3 (oral cavity), 0.4 (pharynx), and 3.3 (larynx). The age-adjusted incidence rate ratios were 3.6 male/female and 1.0 white/black. The 5 and 10-year relative cumulative survival rates were most reduced for persons with pharyngeal lesions. Persons with lip lesions had no excess mortality. Incidence and survival associated with head and neck in-situ carcinomas varied by anatomic site, age, sex, and race and do so in a pattern similar to that seen for invasive carcinomas of this region. However, the climbing incidence of in-situ carcinoma contrasts sharply with that of invasive carcinoma. Supported by NIDR NRSA T32 DE-7255

### 3096

Estimations of an Ecological Lag Period: Farming and Lip Cancer  
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Studies have associated farming with an increased risk of lip cancer, though some reports question the role of active radiation, the presumed occupational causal factor. The purpose of this study was twofold: 1) to evaluate the association between farming and lip cancer incidence in Connecticut (CT) over the 50-years (1945-94) and 2) to estimate the associated lag period (induction/latency time) for this population. Lip cancer (ICD-O-2 C00) age-adjusted incidence rates for the 5-year periods 1945-49 through 1990-94 were derived from CT Tumor Registry data. USDA data was used to calculate the number of farms per 100,000 CT population for each year and in turn to estimate the number of farms/100,000 at the midpoint of each corresponding 3-year interval. CT farms was used in place of farmers because of the lack of definitional consistency among Census reports. The analysis used three regression techniques: linear regression, Poisson regression and Poisson regression with a log link. We regressed the age-adjusted lip cancer rates on the number of farms per 100,000 CT population at the 5-year interval midpoints and then stepped back the number of farms/100,000 in 5 yr intervals. The lag period was determined by identifying the stepped back model with the best fit. Each of the regressions yielded statistically significant results ( $p < 0.02$ ). The best fitting models were: 1) -15 years for linear, 2) -20 years for Poisson, and 3) -20 years for Poisson with a log link. We conclude that: 1) an ecological relationship between lip cancer rates and farming is supported by this most recent data, 2) there is an apparent ecological lag period of between 15 and 20 years, 3) further research is needed to determine the most appropriate regression model, given that the results were differentially affected by the model used, 4) a lag period should be incorporated into ecological analyses of lip cancer. NIDR #T32-DE07255