

Primordial prevention of high BP from younger age is necessary to prevent future CVD.

### P1-531 ESTIMATION OF INCIDENCE RATE OF HEPATITIS B VIRUS HORIZONTAL INFECTION IN THE JAPANESE POPULATION IN 2005

doi:10.1136/jech.2011.142976h.19

H Tanaka,\* S Hosono. *Aichi Cancer center Research Institute, Nagoya, Japan*

**Introduction** There have been noted that not only hepatitis B virus (HBV) vertical but horizontal infection elicits a risk of persistent HBV infection even in healthy adulthood. There is little information on incidence rate of HBV infection in Japan.

**Methods** Firstly, we estimated age-specific incidence rate of HBV infection among blood donors in Osaka in 1990s from (1) the number of HBsAg sero-converting donors (57 persons) among 185 554 repeat donors who donated in Osaka between 1992 and 1993, and (2) age-specific ratio for acute HB incident cases reported in Japan. Secondly, we modified the age-specific rates in 1990s to estimate the rates in 2000s by using age-specific coefficients which were provided under the assumption that the incidence rate is proportional to the prevalence in the same population. In the assumption, we obtained the coefficients by comparing age-specific HBsAg positive rates between first time blood donors in 1990s and those in 2000s. Finally, we calculated the annual number of HBV horizontal infection in Japan in 2005, using age-specific Japanese population in 2005. Sensitivity analysis was performed by changing parameters we assumed.

**Results** The estimated HBV horizontal infection rates among Japanese aged 15–19, 20–24, —, 60–64 were 2.4, 11.5, 18.4, 16.5, 11.9, 8.4, 8.8, 7.3, 8.8, 3.9 per 100 000 P-Y, respectively in 2005. The estimated number of HBV horizontal infection in Japan was 8,409 in 2005.

**Conclusion** HBV horizontal infection rate was high in young adulthood in the Japanese population.

### P1-532 SOFT TISSUE ORAL LESIONS AND ASSOCIATED FACTORS IN YOUNG ADULTS FROM A BRAZILIAN BIRTH COHORT

doi:10.1136/jech.2011.142976h.20

<sup>1</sup>S Tarquinio,\* <sup>1</sup>L Oliveira, <sup>1</sup>M Correa, <sup>2</sup>M Peres, <sup>2</sup>K Peres, <sup>2</sup>D Gigante, <sup>2</sup>B Horta, <sup>1</sup>F Demarco. <sup>1</sup>Federal University of Pelotas, Pelotas, Rio Grande do Sul, Brazil; <sup>2</sup>Federal University of Santa Catarina, Florianopolis, Santa Catarina, Brazil

**Introduction** Few population-based studies have evaluated the prevalence of soft-tissue oral lesions in young adulthood and associated factors.

**Objectives** To assess the prevalence and main characteristics of oral lesions, participants self-examination and their associations with social and behaviour factors in young adults.

**Methods** This study was carried out nested in a population-based birth cohort from Pelotas, Brazil, started in 1982. A representative sample (n=720) of all 5914 births was interviewed and examined at aged 24. Data from several life course cohort waves were used. The lesions were classified according to type and location. Multivariable Poisson regression analyses were performed.

**Results** The prevalence of oral lesions was 23.3% (95% CI 20.3 to 26.6). Papules/nodules were predominant [32.0% (25.6 to 38.9)] followed by ulcers [26.5% (20.5 to 33.2)]. Gingiva was the most affected site [35.0% (28.4 to 42.0)] followed by lips [21.0% (15.6 to 27.3)]; 31% of the individuals reported that had never performed oral self-examination. Adjusted analyses showed that family low socio-economic status at birth [Prevalence Ratio (PR) = 1.56 (95% CI: 1.08 to 2.26)], lower mother's participants schooling [PR 2.79

(1.34 to 5.79)], lack of oral hygiene advices by a dentist at age 15 [PR 1.64 (1.11 to 2.41)] and be a smoker at age 22 [PR 1.41 (1.07 to 1.85)] were associated with oral lesions.

**Conclusions** Nearly 1/4 of the sample presented oral lesion. Papules/nodules, ulcers and erosions were the most common type of alterations of the oral mucosa. The most frequent affected oral sites were gingiva and lips. Self-examination of oral cavity should be stimulated in order to improve earlier diagnosis and treatment.

### P1-533 TRENDS IN PREVALENCE, PREGNANCY OUTCOME, AND SURVIVAL OF CHILDREN BORN WITH SPINA BIFIDA

doi:10.1136/jech.2011.142976h.21

<sup>1</sup>P Tennant,\* <sup>1</sup>M Pearce, <sup>2</sup>M Bythell, <sup>1,2</sup>J Rankin. <sup>1</sup>Institute of Health and Society, Newcastle University, Newcastle upon Tyne, UK; <sup>2</sup>Regional Maternity Survey Office, Newcastle upon Tyne, UK

**Introduction** Spina bifida is a serious congenital anomaly associated with life-long disability. This study describes trends in the prevalence and survival of spina bifida, to 10 years, using data from a long-standing congenital anomaly register in Northern England.

**Methods** Cases of isolated spina bifida, delivered during 1985–2003, were identified from the population-based Northern Congenital Abnormality Survey (NorCAS). Survival status was determined from local to national records. Trends in prevalence and survival were examined by the Cochran-Armitage test and by Cox regression respectively.

**Results** 500 cases of spina bifida were identified during the study, including 196 (39%) live born cases. The total prevalence of spina bifida was 7.5 (95% CI 6.9 to 8.2) per 10 000 total births, while the live born prevalence was 3.0 (95% CI 2.6 to 3.4) per 10 000 live births. Total prevalence decreased over time from 9.6 (95% CI 8.4 to 11.0) per 10 000 total births in 1985–1990 to 5.8 (95% CI 4.8 to 6.9) per 10 000 total births in 1997–2003 (p<0.001). The proportion of terminations of pregnancy concurrently increased, from 40.2% (95% CI 34.0 to 46.6) in 1985–1990 to 72.4% (95% CI 64.5 to 79.3) in 1997–2003 (p<0.001). 10 year survival among traced live born cases (n=195) was 66.6% (95% CI 59.8 to 72.6), increasing with time from 60.2% (95% CI 51.1 to 68.0) in 1985–1990 to 83.3% (95% CI 64.5 to 92.7) in 1997–2003 (p=0.002).

**Conclusions** The prevalence of spina bifida has decreased over time while survival for live born cases has significantly increased. These data are important for counselling families when a spina bifida is detected and for health service planning.

### P1-534 RECURRENCE OF ADVERSE PREGNANCY OUTCOMES IN WOMEN WITH PRE-GESTATIONAL DIABETES

doi:10.1136/jech.2011.142976h.22

<sup>1</sup>P W G Tennant,\* <sup>1</sup>S Prapathan, <sup>2</sup>R Bilous, <sup>1,3</sup>R Bell. <sup>1</sup>Institute of Health and Society, Newcastle University, Newcastle upon Tyne, UK; <sup>2</sup>James Cook University Hospital, Newcastle upon Tyne, UK; <sup>3</sup>Regional Maternity Survey Office, Newcastle upon Tyne, UK

**Introduction** Women with pre-gestational diabetes experience an increased risk of adverse pregnancy outcome, but there are limited data on recurrence of adverse outcome. This study examined recurrence of adverse outcome in a cohort of women with pre-gestational diabetes from Northern England.

**Methods** 221 women with pre-gestational diabetes and with a first and second pregnancy during 1996–2008 were identified from the Northern Diabetes in Pregnancy Survey. Rates of adverse outcome (fetal loss at any gestation, major congenital anomaly, or infant death) for each pregnancy and recurrence rates were determined