

questionnaires on their socio-demographic, reproductive, family and medical history, and behaviours/exposures such as dental and surgical procedures, blood transfusion, induced abortion, early sexual exposure, multiple sexual partners, anal sex, acupuncture, ear and body piercing, body tattoo and sharing needles for drug use.

Results Sixteen of 1105 (1.4%, 95% CI 1.0 to 2.0%) mothers test positive for HBV infection. The most common behaviours/exposures were ear piercing (77.5%), dental procedures (51.2%), surgical procedures (21.4%), and other body piercing (12.4%). Very few reported blood transfusion (3.4%), body tattoo (3.1%), induced abortion (2.9%), multiple sexual partners (1.6%), anal sex (0.5%), drug addiction (0.4%) or needle sharing (0%). The prevalence of HBV infection were significantly higher among confirmed HBV carriers, and those with positive family history of HBV infection, and jaundice. There were no significant differences in HBV infection by ethnicity, history of surgical and dental procedures, history of blood transfusion, or any of the risk behaviours explored.

Conclusion Prevalence of HBV infection was low at 1.4%. Risk behaviours were low due to under reporting or antenatal mothers are lower risk compared to the general population. We did not find any significant association between HBV infections and the explored risk behaviours.

P1-517 DRIVERS AND VISION: A SURVEY IN KERMAN PROVINCE (SOUTHEASTERN PART OF IRAN)

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Introduction About 90% of sensory information to a driver is through vision. Vision is the most important sense for driving. The purpose of this study was to determine vision and causes of visual defects among public vehicle drivers.

Methods In this cross-sectional study, vision and causes of visual deficits were evaluated among drivers that were selected sequentially by transportation organization in Kerman province in 2009.

Results Of 4000 public drivers assessed, 361 (9.02%, 95% CI 9.01 to 9.03) had visual acuity at the level not approved for driving by traffic rules in Iran (with old glasses). After ocular examination and correction of refractive errors they were 69 (1.72%). Legal blindness (VA<1/10) was found in 13 eyes. The common causes of visual deficits were refractive errors (88.7%), age related macular degeneration (10.9%) and amblyopia (6.3%).

Conclusion A large number of public vehicle drivers did not have vision at the level approved for driving in Iran. Most of them, their vision can be improved. Some of them should not be allowed to drive due to irreversible poor vision.

P1-518 DISTRIBUTION OF β^E -GLOBIN GENE IN MALARIA ENDEMIC AND NON-ENDEMIC ZONES OF ASSAM, INDIA

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Introduction β^E -globin gene is the major variant haemoglobin prevalent among the autochthonous population of Assam, India, with variable gene frequencies. The gene frequency for this variant haemoglobin is as high as 0.6 in some of the ethnic groups. The geo-climatic condition of the area also facilitates transmission of *Plasmodium falciparum* in this part of the country. Distribution pattern of

β^E -globin gene among autochthonous inhabitants inhabiting in malaria endemic and non-endemic zones was evaluated.

Methods Blood sample were collected from Kachari communities (Bodo & Mech) inhabiting in malaria endemic (n=669) and non-endemic zones (n=202) adopting stratified random sampling method. Individual samples were screened for Red Cell Indices by automated haematology cell counter and HPLC based Variant Haemoglobin Testing System were used for the detection of variant haemoglobins and thalassaemias.

Results Red Blood Cell indices indicated lower level of haemoglobin, Mean Cell Volume (MCV) and Mean Cell Haemoglobin (MCH) in subject carrying β^E -globin gene. Gene frequency of β^E -globin gene in malaria endemic and non endemic zone was 0.586 and 0.483 respectively. However, distribution of β^E -globin gene is increased in malaria endemic zone. In malaria endemic zone, Hb F level in subject carrying β^E -globin gene was significantly differed from non-endemic zone.

Conclusion Significant difference of distribution pattern of β^E -globin gene and higher level of Hb F in subject carrying β^E -globin gene in malaria endemic zone is the striking outcome of the study.

P1-519 ASSOCIATION OF SERUM FERRITIN AND TRANSFERRIN SATURATION WITH ALL-CAUSE AND CARDIOVASCULAR DISEASE MORTALITY: NHANES III FOLLOW-UP STUDY

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The purpose of this study is to examine the association between serum ferritin and transferrin saturation with all-cause, and CVD mortality among 13 858 persons (men: 6532, women: 7326) aged 20 years and older from death certificate data linked to the NHANESIII of a nationally representative sample of the noninstitutionalized USA population. Serum ferritin and transferrin saturation levels were categorised according to sex-specific quintiles. RR and 95% CIs were calculated from Cox proportional hazards regression models adjusted for age, race-ethnicity, poverty index, education, body mass index, smoking, alcohol intake, systolic blood pressure, total cholesterol, and Charlson Comorbidity Index. There were no statistically significant associations between serum ferritin and all-cause, and CVD mortality. There were statistically significant u-shaped associations between transferrin saturation and all-cause mortality in men (first quintile vs third quintile, RR 0.73 (95% CI 0.61 to 0.88), first quintile vs fifth quintile, RR 0.79 (95% CI 0.65 to 0.95) and between transferrin saturation and CVD mortality in women (first quintile vs fourth quintile, RR 0.58 (95% CI 0.48 to 0.84), first quintile vs fifth quintile, RR 0.68 (95% CI 0.48 to 0.98), all tests for trend, p<0.01). In this large cohort, there was consistent evidence of increasing risk of mortality at lower transferrin saturation levels. In fact, lower transferrin saturation levels were associated with an increased risk of all-cause and CVD mortality. The results are compatible with the possibility that there is an inverse association between transferrin saturation levels and risk of mortality.

P1-520 PREVENTIVE HEALTH OF INVISIBLE AND UNCONTACTED TRIBES IN AMAZON FOREST

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The Amazon has uncontacted indigenous peoples in its forests. To remain away from contemporary civilisation these tribes may be