

due to peer pressure, 35.2% consumed tobacco as they felt better, and 5% consumed tobacco to ease abdominal complaints and dental problem. The reasons for non use of tobacco among girls were fear of cancer (59%) and poor oral health (37.9%).

**Conclusions** The current consumption of any tobacco products among rural adolescents was found very high with multiple pro-tobacco influences. It requires policy level intervention to tackle the problem.

#### P1-134 DELAYS IN ACCESSING HIV/AIDS HEALTH SERVICES PERSIST IN SALVADOR, BRAZIL

doi:10.1136/jech.2011.142976d.27

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**Introduction** Even though Brazil was the first country to provide universal and free access to ARVs, substantial regional differences exist in the timing that services and care are accessed. Studies among people living with HIV have documented delays in accessing services, with the largest proportion of delayed access reported in the Northeastern Region. Further investigation is needed to understand the factors contributing to this delay despite the availability of HIV/AIDS services.

**Methods** This is a retrospective cohort of patients (n=1440) from the only state reference center located in Salvador, the capital city in the Northeastern state of Bahia. The data were abstracted from the electronic medical records of all new patients between 2007 and 2009, and is supplemented with information from two national databases. The dependent variable, delayed access, is defined as patients accessing services with a CD4 count <350 cells/mm<sup>3</sup>. The independent variables are based on a comprehensive review of the literature. Frequencies and cross tables informed the final logistic regression model.

**Results** Nearly 35% of patients were delayed in accessing HIV/AIDS services. The final logistic regression model (p value=0.05) showed that individuals who both drank and smoked were 3.4 times more likely to delay in accessing services (p value=0.036). Additionally, individuals with a family income of <1 minimum wage were 1.9 times more likely to delay in accessing services (p value=0.07).

**Conclusions** Considering this documented delay, it is clear additional efforts are necessary to ensure HIV/AIDS services in Brazil are truly free and universal.

#### P1-135 ADULT PSYCHOSOCIAL OUTCOMES OF CHILDHOOD PUBLIC CARE: A LIFE COURSE PERSPECTIVE USING THE BCS70 COHORT STUDY

doi:10.1136/jech.2011.142976d.28

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**Objectives** The extent to which differences in childhood experiences of public care are related to adult psychosocial outcomes is unknown. This study aimed to estimate associations between childhood experiences of the public care system with emotional and behavioural traits at age 30 years.

**Methods** Participants included 10895 respondents at the age 30 survey of the 1970 British Cohort Study (BCS70) who were not adopted and whose care history was known. Two estimation models were employed to determine whether public care and placement patterns were associated with adult psychosocial outcomes. Analyses were adjusted for individual, parental and family characteristics in childhood.

**Results** Cohort members with a public care experience reported lower childhood family socio-economic compared to those in the no

public care group. After adjusting for confounding, exposure to both foster and residential care, longer placements and multiple placements were associated with more extensive adult emotional and behavioural difficulties. Specifically, residential care was associated with adult criminal convictions (OR 3.09, 95% CI 2.10 to 4.55) and adult depression (1.81, 1.23 to 2.68) compared to no public care placement. Multiple placements were associated with low self-efficacy in adulthood (3.57, 2.29 to 5.56). Admission to care after the age of 10 was associated adult criminal convictions (6.03, 3.34 to 10.90) and smoking (3.32, 1.97 to 5.58).

**Conclusion** Children who experience public care have impaired well-being as adults. Older age at admission, multiple care placements and residential care are associated with worse outcomes.

#### P1-136 SECOND AND THIRD TRIMESTERS PREGNANCY WEIGHT GAIN: ASSOCIATION WITH MATERNAL AND FETAL OUTCOMES

doi:10.1136/jech.2011.142976d.29

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**Background** The Institute of Medicine (IOM) has recently made new recommendations for total and trimester gestational weight gain. However, deviates from recommended weight gain according to gestational trimester have been little investigated with regard to obstetric outcomes.

**Objectives** To investigate association between weekly weight gain during second and third trimesters, and maternal and fetal outcomes, taking into account pregestational body mass index and other variables.

**Methods** Gestational weight gain was evaluated in 3063 pregnant women of the Brazilian Study on Gestational Diabetes (Estudo Brasileiro do Diabetes Gestacional—EBDG) and classified according to the last IOM recommendation. Outcomes were cesarean delivery, preterm birth and small or large for gestational age. Associations between adequate weight gain and outcomes were estimated using Poisson regression. Possible confounders were pregestational body mass index, age, height, race, parity, education, smoking, alcohol consumption, diabetes and hypertensive disorders.

**Results** In fully adjusted models, second trimester insufficient weight gain was associated with small for gestational age (RR 1.55 95% CI 1.19 to 2.01); second trimester excessive weight gain with large for gestational age (RR 1.58 95% CI 1.20 to 2.08); third trimester insufficient weight gain with preterm birth (RR 1.55 95% CI 1.08 to 2.22). Third trimester excessive weight gain was associated with preterm birth (RR 1.54 95% CI 1.07 to 2.21) and cesarean delivery (RR 1.17 95% CI 1.04 to 1.33).

**Conclusion** Deviates from recommended weight gain during each trimester are associated with adverse pregnancy outcomes. These findings support the IOM recommendations for nutritional care during pregnancy.

#### P1-137 RACIAL DIFFERENCES IN INFANT MORTALITY: ANALYSIS OF AVOIDABLE CHILD DEATHS IN BELO HORIZONTE, BRAZIL (2000–2007)

doi:10.1136/jech.2011.142976d.30

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Infant mortality (IM) is an important health index. Avoidable deaths are those preventable through effective health services.

Analyses by race seek to reflect racial inequalities in access to health services. To describe avoidable IM from the Brazilian List of Avoidable Deaths (LBE). A descriptive study of avoidable child deaths among Caucasians and Afro-descendants in Belo Horizonte from 2000 to 2007. We calculated the infant mortality rate (IMR), the neonatal IMR (N IMR) and Postneonatal IMR (PN IMR), infant mortality proportional to avoidable cause (IMPAC) and infant mortality proportional to ill-defined causes (IDC). There was a reduction of 31.23% in the IMR, of 32.6% in the N IMR and of 28.4% in the PN IMR. Avoidable deaths accounted for 70.2% of the total, and this percentage was higher (73.8%) among Afro-descendants. The highest percentage occurred in the subgroup "newborn care" (48.6%). Afro-descendants accounted for 52.9% and Caucasians for 42.8% of these deaths. The main causes were respiratory and cardiovascular diseases, with the highest proportion for Afro-descendants (29.8%). Deaths from IDC decreased 23.8% in the period, but the largest proportion occurred among Afro-descendants (4.5%). Filling in of information on the variable race/colour still presents problems. We observed a high number of deaths by "newborn care" and "pregnancy care." We detected racial inequality in IMPAC, Afro-descendant children having the highest percentages. These inequalities are influenced by socio-economic status and access to health services. The health services play a fundamental role in reducing the gaps in infant mortality observed in this study.

# P1-138 FRAILTY SYNDROME IN BRAZILIAN OLDER ADULTS

doi:10.1136/jech.2011.142976d.31

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**Introduction** The increase in the percentage of older adults is increasing more rapidly today in the developing world than previously occurred in the developed nations. These trends have important implications for understanding the mechanisms of population ageing and for all aspects of contemporary life. Frailty is considered to be a wasting syndrome that elevates the risk for a variety of adverse outcomes.

**Objectives** Using Fried's model, identify frailty syndrome and associated factors in Brazilian older adults.

**Methods** Data comes from a longitudinal survey—SABE (Health, Well-being and Ageing), with a multistage clustered sample of 1413 people aged  $\geq 65$  years-old in Sao Paulo-Brazil in 2006. Frailty was defined as the presence of 3 or+ of five criteria of the Fried's model, unintentional weight loss, exhaustion, weakness, slowness and low physical activity. Pre-frail was defined as the presence of one/two items. Multivariable linear regressions identified associated factors with frailty at baseline.

**Results** Prevalence of pre-frail was 45.9% and frailty was 12.9%. Associated factors adjusted by age and gender included less education (OR=2.40,  $p=0.03$ ); fair/poor self-reported health (OR=2.81/3.63,  $p=0.01$ ), stroke (OR=6.54,  $p=0.02$ ), depressive symptoms (OR=4.55,  $p<0.00$ ), disability  $\geq 1$ ADL (OR=2.79,  $p=0.02$ ) and  $\geq 1$ ADL (OR=3.81,  $p=0.04$ ), hospitalisation last 12 months (OR=3.81,  $p=0.01$ ). There was poor concordance between frailty and disability (3.4%) and modest with comorbidities (26.2%). These three conditions were present in 55.1% and frailty alone was identify in 15.2% of older.

**Conclusion** Recognition of associated factors with frailty syndrome may help to perform active prevention and intervention actions and, consequently, maximise older quality of life.

# P1-139 FRAILTY IMPACT ON OLDER BRAZILIAN SURVIVAL: 3 YEARS FOLLOW-UP SURVEY

doi:10.1136/jech.2011.142976d.32

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**Objective** In this study we will analyse the survival curve of older Brazilians ( $\geq 75$  years) according frailty categories (not frail, intermediate, frail) in a large, well-defined sample of older Brazilian in 3 years follow-up.

**Methods** Data comes from a longitudinal survey—SABE Study (Health, Well-being and Ageing) that began in 2000 with a sample ( $n=2143$ ) older adults ( $\geq 60$  years) living in São Paulo/Brazil. In 2006 1115 older adults were re-interviewed when the frailty analysis (Fried's model) began. The follow-up were analysed with data from four waves, on 2008 and 2009. Survival analysis was done based on data of 2006 ( $n=687$  older  $\geq 75$  years) up to 2009 (death analyses). Kaplan-Meier Survival Analysis was used to analyse the results considering frailty categories in baseline. Cox proportional hazards model was tested using social demographic and health conditions.

**Results** There were 134 deaths and 116 follow-up losses. In survival analysis, the three strata (not frail, intermediate and frail) did not reach the median survival; only frail elders reached 25% survival time, with 17.2 months, so frail elders presented the worst prognosis. The HR for intermediate is 1.94 and 5.47 for frail, in relation to robust ( $p$  trend=0.000). The hazard adjusted model showed a HR 1.6 for pre-frail and 2.9 for frail ( $p<0.01$ ;  $p$  trend=0.003).

**Conclusions** Frailty is associated with mortality in Brazilian elders. Recognition of variables involved in frailty may help to perform active prevention and intervention actions and, consequently, maximise survival.

# P1-140 WHAT KINDS OF HAND INJURIES ARE MORE LIKELY TO RESULT IN AMPUTATION? AN ANALYSIS OF 6549 HAND INJURIES

doi:10.1136/jech.2011.142976d.33

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**Aim** The aim of this study was to identify risk factors for hand amputations using the records of a hospital in Turkey specialising in hand and microsurgery.

**Method** This is a retrospective analytical chart study. We analysed 6549 hand injuries treated between 1992 and 2005. Researchers coded the variables "intent", "activity when injured", "mechanism of injury", "object/substance producing injury" and "place of occurrence" according to the International Classification of External Causes of Injuries (ICECI), 2004.  $\chi^2$  Test and univariate logistic regression analyses were used to explore the effects of ICECI categories and gender, age, social security, residence, season on the presence of an amputation.

**Results** There were 2899 (44%) hand amputations and 2812 (97%) were finger amputations. Left-side injuries were more prone to amputation (OR=1.13, CI 1.03 to 1.25). The risk of amputation was higher in men, workers and those in the 15–24 and 45–54 year-old age groups. Compared to home, commercial area was the place with highest risk (OR=4.06, CI 2.52 to 6.54), followed by farm (OR=3.64, CI 2.66 to 4.98) and industrial/construction area (OR=3.12, CI 2.55 to 3.82). The majority of amputations occurred in industrial/construction areas (87%). Among objects/substances producing injury, watercraft (OR=49.5, CI 6.2 to 394.9) led to the highest risk of amputation and contact with machinery (OR=9.04, CI 7.53 to 10.85) was the mechanism with highest risk. Press machines were the most frequent objects causing amputation both