under investigation. Of these, six were male and white. The median age was 68 years old, ranging from 40 to 77. Four had complete higher education, four high school and two elemetary education. Ten died. None of the suspected cases underwent iatrogenic exposure and had no family history of disease. All had cerebellar ataxia, 80% had progressive dementia and extra-pyramidal signs and 60% had psychiatric disorders, pyramidal signs, myoclonus and sleep disturbances. Of the specific tests performed five had typical result by electroencephalogram; six with typical diffusion by MRI/CT; five presented Protein 14-3-3; none of them presented mutation of prion; four patients had spongiform encephalopathy brain by biopsy; four positive by immunohistochemistry for PRPNPc. Only three patients underwent necropsy had histological positive result.

Conclusion Since this is a new and yet unknown disease in our country, needs to improve the clinical diagnosis as a way to better understand the natural history of it and thereby promote effective measure control.

P1-131 | **THE IMPACT OF ATTRITION ON THE REPRESENTATIVENESS OF COHORT STUDIES OF OLDER PEOPLE**

doi:10.1136/jech.2011.142976d.24

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Introduction There are well-established risk factors, such as lower education, for attrition of study participants. Consequently, the representativeness of the cohort in a longitudinal study may deteriorate over time. Death is a common form of attrition in cohort studies of older people. The aim of this paper is to examine the effects of death and other forms of attrition on risk factor prevalence in the study cohort and the target population over time.

Methods Differential associations between a risk factor and death and non-death attrition are considered under various hypothetical conditions and data from the Australian Longitudinal Study on Women's Health (ALSWH) and the Australian Censuses and National Health Surveys are used to illustrate the evolution of bias over 12 years.

Results Between 1996 and 2008, 28.4% of ALSWH participants born in 1921—1926 died, 16.5% withdrew and 10.4% were lost to follow-up. Hypothetical scenarios illustrate how death and other attrition can affect changes in bias over time. For this cohort there were differential associations with various risk factors, for example, being born in a non-English speaking country was associated with non-death attrition but not death whereas being underweight was associated with death but not other forms of attrition.

Conclusions Deaths occur in both the target population and study cohort, while other forms of attrition occur only in the study cohort. Therefore non-death attrition may cause greater bias than death in longitudinal studies. However although more than a quarter of the oldest participants in the ALSWH died, differences from the national population changed only slightly.

P1-132 | **DESCRIPTION OF A NATIONWIDE AND MULTIDISCIPLINARY PROJECT FOR THE EVALUATION OF INTERVAL BREAST CANCER RATES, DETERMINANTS AND CHARACTERISTICS, IN SPAIN. INCA STUDY**

doi:10.1136/jech.2011.142976d.25

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Introduction Interval cancer (IC) rate, risk factors and biological characteristics have been scarcely evaluated. In January 2010 started a multicentric project with the aim to estimate rates and determinants of IC and to compare their characteristics with those detected in the routine screening mammography.

Methods Information from women aged 45/50 to 69, participating in seven population-based screening programs in Spain from January 2000 to December 2006, was collected. The cohort was followed-up to June 2009 for cancer (IC and screening) identification. Three protocols were defined: (1) To describe the joint database format and architecture, and for the achievement of variables, including women and tumour-related data (prognostic factors and biomarkers expression); (2) To unify IC diagnosis criteria and identification process; (3) A radiological protocol for mammogram's review and IC classification, based on European Guidelines.

Results A database with information of 1 350 058 mammographies from 759 604 screened women has been built. 94.2% were analogical and 5.8% digital mammographies. A total of 4656 screen-detected cancers and 1479 IC have been identified. For IC identification, which is not finished, databases of screening programs have been linked with poblational and hospital-based cancer registries and data from active case search.

Conclusions The database will allow us to evaluate women's and screening determinants for IC (including true interval and false negatives cancers), and to compare tumour characteristics between IC and screen-detected cancers. This information will be useful to improve the efficiency of screening programs and the breast cancer classification, and could offer new insights on cancer prevention for specific subsets of women.

P1-133 | **TOBACCO CONSUMPTION AMONG ADOLESCENTS IN RURAL INDIA: WHERE AND HOW TOBACCO CONTROL SHOULD FOCUS ITS ATTENTION?**

doi:10.1136/jech.2011.142976d.26

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Objectives The objectives of the present study were to study the pattern of tobacco use among rural adolescents (15—19 years) and to find out reasons for use and non use of tobacco products in rural central India.

Material and Methods In the present community based research, triangulation of qualitative (free list, focus group discussions) and quantitative methods (survey) was undertaken. The findings of qualitative assessment and the Global Youth Tobacco Survey (GYTS) questionnaire were used for development of locally relevant questionnaire. Assuming the rough estimate of rural adolescents' proportion, for knowledge and practices of study variables as 0.5, 95% CI and 5% precision, the minimum sample size required was 384 which was inflated by 10% to cover non-response. A team of trained medical personnel interviewed 385 adolescents (92% response rate) by paying home visits. After survey, six focus group discussions were undertaken with adolescent boys to bridge gaps in information and develop a conceptual framework of pro-tobacco influences.

Results About 68.3% boys and 12.4% girls had consumed any tobacco products in last 30 days. Among boys, 51.2% consumed it

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

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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^3. 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

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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 10 895 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

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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)

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