

**Methods** 71 412 women from the French E3N cohort returned in 2005 a questionnaire containing the CES-D scale. An interview study was carried out on a random sample of 204 participants to examine different hypotheses for the MD mechanism. The prevalence of DS was estimated with different methods for handling MD: complete cases analysis, single imputation, multiple imputation from CES-D items with or without covariates under missing at random (MAR) and missing not at random (MNAR) assumptions.

**Results** 45% of the 71 412 presented at least one missing value in the scale. The interviews showed that participants were not embarrassed to fill in questions about DS. Potential reasons of nonresponse were identified. MAR and MNAR hypotheses remained plausible. Among complete responders, the prevalence of DS was 26.1%. After multiple imputation under MAR assumption, it was 28.6%, 29.8% and 31.7% among women presenting up to 4, 10 and 20 missing values, respectively. The estimates were robust to the different imputation models, and the various scenarios of MNAR data.

**Conclusion** The CES-D scale can easily be used to assess DS in large cohorts. Multiple imputation under MAR assumption with the CES-D items only allows to reliably handle MD.

**P2-539** **RABIES: KNOWLEDGE, ATTITUDE AND PRACTICE SURVEY IN BAALBECK AND ZGHARTA DISTRICTS - LEBANON 2010**

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**Introduction** Between 1992 and 2009, 19 human rabies cases were reported to the Ministry of Health. In summer 2010, two human rabies deaths were reported from Zgharta and Baalbek. Therefore, Knowledge, Attitude and Practice (KAP) study was conducted in both districts.

**Objectives** The objectives are to: assess KAP of Zgharta and Baalbek population towards rabies; measure the association of knowledge score to possible factors; and provide basic awareness to the population.

**Methods** A cross-sectional study was conducted. Target sample size was 97 per district (10% error margin, 5%  $\alpha$ ). Six random villages were selected. One person aged 20 and above per household was selected. Face to face interview using structured questionnaire was administered. Knowledge scores were extracted. A flyer was distributed to provide households with basic awareness. Data were entered using EpiData 3.1 and analysed using STATA 10.

**Results** 196 respondents were interviewed. In Zgharta, 39% were males and mean age was 43 years, while in Baalbek 45% were males and mean age was 40 years. The majority of respondents in Zgharta (85%) and Baalbek (95%) heard about rabies, yet 80% stated having no/little information. 50% in Zgharta and 62% in Baalbek scored 6/9 or more on knowledge. Participants will seek medical care if bitten by stray dogs than scratched/bitten by domestic dogs. Only in Zgharta, knowledge self-evaluation and internet access were significantly associated with knowledge score.

**Conclusion** A comprehensive awareness campaign targeting the public is required to increase the population's knowledge about rabies' impact on health and the way to prevent the disease onset.

**P2-540** **EPIDEMIOLOGIC FEATURES OF PRION DISEASES IN JAPANESE ELDERLY: RESULTS FROM THE SURVEILLANCE**

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**Introduction** Incidence and mortality of prion diseases has been increasing in Japan, especially in aged populations. The objective of

this study was to investigate epidemiologic features of prion diseases in Japanese elderly.

**Methods** Since 1999, the Creutzfeldt-Jakob disease (CJD) Surveillance Committee collects data of all prion diseases by referring to registries to The Intractable Disease Treatment Research Program, reports of CJD as a notifiable disease and requests for prion protein gene or 14-3-3 protein analysis. In diagnosing prion diseases, all the referrals were assessed according to the case definition proposed by WHO. In the present study, patients with prion diseases over 65 years were analysed.

**Results** By August 2010, 1533 cases were confirmed and 996 (65%) were over 65 years of age. Among them, there were 798 (80%) sporadic CJD (sCJD), 35 (4%) dura mater graft-associated CJD (dCJD), 151 (15%) familial CJD (fCJD), 8 Gerstmann-Sträussler-Scheinker disease and three unclassified CJD. Proportions of sCJD and fCJD were higher in older patients than in younger patients. Percentage of definite cases which needs pathological confirmation were low (9% in sCJD, 46% in dCJD and 13% in fCJD) because only 12% underwent autopsy. The mean age at onset was 74 years. The latest follow-up survey revealed that 78% had died. The mean length of time from the onset to death was 15 months, which was 10 months shorter than in younger cases.

**Conclusion** In Japanese elderly, proportions of sCJD and fCJD were larger. Efforts to increase definite cases are needed to identify them correctly.

**P2-541** **THE IMPACT OF DEPRESSION AND DEPRESSIVE SYMPTOMS ON HEALTH SERVICE USE: THE SAO PAULO AGEING & HEALTH STUDY (SPAHS)**

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**Introduction** Depression is strongly associated with use of health services and disability among older adults, however it is still poorly diagnosed and treated. It is still unclear how severity of depression is associated with health service use.

**Methods** The present study is part of the SPAHS, a population-based study that investigated the epidemiology of mental disorders in 2072 community-dwelling elderly aged 65+ from economically disadvantaged areas of São Paulo, Brazil. ICD-10 depression and depressive symptoms (non ICD-10 depression) were assessed with the Geriatric Mental State and the Neuropsychiatric Inventory. Information on health services use was collected with a standardised questionnaire.

**Results** 2024 SPAHS participants were assessed for depression. Prevalence of depressive symptoms (23.1%) was approximately four times higher than ICD-10 depression (4.9%). Participants without depression used less health services than those with any severity of depression. The number of participants who used outpatient and inpatient services increased with severity of depression. Forty (41%) participants with depression and 144 (31%) with depressive symptoms had three or more out-patient consultations during the three months previous to the study assessment, and 15 (15%) participants with depression and 26 (5.6%) with depressive symptoms used inpatient services.

**Conclusion** From a population perspective, depressive symptoms have a higher impact than ICD-10 depression on health services use. Health services professionals, particularly those in primary care, must be aware of the increased likelihood of diagnosing depression or depressive symptoms in older adults who use health services more frequently. These individuals must be targeted by case-finding strategies.