Results  Girls, but not boys, hospitalised for infections at least twice in the first 6 months of life had pubertal onset at about 8 months older (mean 10.3 years), time ratio 1.08 (95% CI: 1.04 to 1.12), than those without such hospitalisations (9.6 years) adjusted for infant characteristics and socio-economic position (sex interaction p value 0.02). There were no such associations for infections at 6 months to <8 years. Growth did not mediate the association.

Conclusion Early infectious morbidity in girls may be associated with later puberty, perhaps via suppression of the gonadotropic axis. Fewer infections in early life with economic development may be an additional factor contributing to earlier puberty.

Methods A cross-sectional survey among 5190 adults selected by stratified random sampling in two Nairobi slums covered. Data were collected on behavioural risk factors for cardiovascular diseases including self-reported tobacco and alcohol use, dietary habits and physical activity.

Results About 19% of respondents had ever used tobacco, and 12% were current users. Males were 20 times more likely to be current tobacco users than females. Majority of respondents (85%) reported sufficient physical activity though large sex differences were observed. Females were three times more likely to be inactive than males. Less than half of respondents consumed sufficient fruits and vegetables while a little over a third had high salt consumption. Ten percent of respondents were current alcohol users of which, more than a third were frequent heavy drinkers.

Conclusion We found high levels of behavioural risk factors for NCD, specifically high alcohol and tobacco use and poor dietary habits albeit with marked gender differentials. Targeted intervention programmes that promote healthy lifestyles among the urban poor are recommended.

Introduction The study was conducted to determine whether the leukaemia incidence rate in Chernobyl Nuclear Power Plant catastrophe clean-up workers depended on the year of the emergency work and the period after irradiation.

Methods All cases collected were verified. The analysis was performed for workers in 1986 and 1987 by periods of observation of 1987–1991 and 1992–1996.

Results Leukaemia RR in workers of 1986 vs workers of 1987 in 1987–1991 was 2.32 (95% CI 1.19 to 4.70). No significant differences were identified in 1992–1996. The results of these studies were the beginning of the project “Leukaemia” in collaboration with the Cancer Institute of the U.S. The project used modern methods for epidemiological studies and created a database of case and controls. Further analysis is based on 71 cases of histologically confirmed leukaemia diagnosed in 1986–2000 and 501 residence-matched controls selected from the same cohort. Study subjects or their proxies were interviewed about their clean-up activities and other relevant factors. The excess RR (ERR) of total leukaemia was 3.44 per Gy (95% CI 0.47 to 9.78, p<0.01). We found a similar dose-response relationship for chronic and non-chronic lymphocytic leukaemia (ERR=4.09 per Gy (95% CI <0 to 14.41) and 2.73 per Gy (95% CI <0 to 13.50), respectively). We found a linear dose-response relationship between Chernobyl-related radiation exposure among cleanup workers and their risk of leukaemia.

Conclusion The project plans to extend the case-control study to ascertain cases for another 6 years (2001–2006).

Introduction To investigate the association of radiographic finger osteoarthritis (OA), hand use, and lifestyle factors with incident and persistent finger joint pain among female dentists and teachers.

Methods Random samples of female dentists (n=295) and teachers (n=248) aged 45–63 years were examined for the presence of finger joint OA by radiography. Body weight was measured. Information on finger joint pain during the past 30 days, height, smoking, and leisure-time hand activity was collected by questionnaire. Five years later, 482 women (ie, 89%; 65% still occupationally active) responded to a survey on finger joint pain.

Results The incidence and persistence of finger joint pain were higher among the subjects with OA compared to those without. The RR of incident pain in the 1–3rd fingers was 1.5 (95% CI 1.2 to 2.7) in the right hand and 3.0 (2.0 to 4.6) in the left, allowing for age, occupation, and lifestyle factors. The corresponding figures for the 4–5th fingers were 2.3 (1.4 to 5.8) in the right and 1.9 (1.1 to 3.5) in the left hand. Regarding persistent pain, the RRs varied between 2.4 and 5.4. Body mass index, smoking, or leisure-time hand activity were not associated with pain. The dentists tended to have a higher incidence of pain in the 1–3rd fingers of the right hand than the teachers.

Conclusion Radiographic finger joint OA was a significant determinant of both persistent and incident finger joint pain in a 5-year follow-up among middle-aged women. Hand use may modify the association between radiographic OA and finger joint pain.

Introduction The Healthy Community Council (HCC) is a nonprofit community-based network composed of over 100 local stakeholders representing both public and private organisations within the community. The HCC has been working to improve the health of the community by conducting needs assessments, identifying priorities and assisting in the implementation of programs and

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PRENATAL STRESS FOLLOWING MATERNAL Bereavement during pregnancy and overweight in the offSPRING: A COHORT STUDY IN 109 919 DANISH CONSCRIPTS

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Introduction It has been suggested that prenatal stress contributes to the risk of obesity later in life. In a population-based cohort study, we examined whether prenatal stress related to maternal bereavement during pregnancy was associated with the risk of overweight in the offspring in young adulthood.

Methods We conduct a cohort study of 109,919 Danish men who were born in 1986-1990 and presented for conscription in 2006-2009. By linkage of the conscription file ("session") and national registers, we identified 4549 conscripts who were exposed to prenatal stress, defined by being born to mothers who were bereaved by death of a close family member from 1 year before pregnancy until birth of the child. Differences in the means in Body mass index and RR of overweight between the exposed and the unexposed were analysed by GLM regression or Logistic regression in SAS.

Results Body mass index values and prevalence of overweight were higher in the exposed group. The overall adjusted OR for overweight was 1.13 (95% CI 1.04 to 1.23). The highest OR was observed in the subjects whose mothers lost a child or husband during pregnancy (OR 1.35, 95% CI 1.07 to 1.71).

Conclusions Our results suggest that severe pre-pregnancy stress is associated with an increased risk of overweight in the offspring in young adulthood.