Participants will be flagged for notification of all cancer and death registrations, and hospital episode statistics for particular health conditions. More detailed pesticide exposure data will be collected annually, beginning in December 2013.

Results The baseline data will be analysed to provide summary data describing the characteristics of the new cohort. Descriptive statistics will include basic demographics, regional distribution, and summaries of pesticide exposures and lifestyle factors. Response rates, the effect of reminders, the proportion responding online, and factors associated with online response will be presented.

Conclusions This cohort study will play an important role in the post-marketing surveillance of ill-health among professional pesticide applicators in Britain. It will also provide a resource for more detailed investigation of specific health outcomes and exposures.

391 ASSOCIATION BETWEEN OCCUPATIONAL EXPOSURE TO WOOD DUST AND RISK OF NASOPHARYNGEAL CANCER: A CASE-CONTROL STUDY FROM THAILAND

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Objectives To explore possible association between occupational wood dust exposure and risk of nasopharyngeal cancer (NPC), a matched case - control study was conducted in Bangkok and 6 regional cancer treatment centers in Thailand.

Methods Three hundred and twenty-seven diagnosed NPC cases were compared with 327 age and gender matched controls. Data of socio-demographic characteristics and potential risk factors were collected by personal interviews. Wood dust exposures were assessed by 3 industrial hygienists by reading lifetime occupational histories of the participants with unknown for case-control status. Assessments were done for probability, frequency and intensity of exposure to wood dust. Multivariate analyses were performed adjusting for educational level, smoking status and histories of chronic sinusitis.

Results We found the association between occupational wood dust exposure and NPC risk (OR 1.66, 95% CI 1.03 - 2.67) especially for those who have definite probability of exposure (OR 1.77, 95% CI 1.04 - 3.00), moderate frequency of exposure (OR 2.8, 95% CI 1.22 - 6.39) and low intensity of exposure (OR 2.29, 95% CI 1.15 - 4.59).

Conclusion Results of this study shows that occupational exposure to wood dust are likely to be associated with increasing risk of NPC.

392 AGRICULTURAL ACTIVITIES AND LUNG CANCER MORTALITY IN FRANCE: A NESTED CASE-CONTROL ANALYSIS FROM THE AGRICAN COHORT

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Objectives Farmers have lower lung cancer rates than the general population, due to low smoking rates. Exposure to endotoxins may also play a role. These exposures do not however preclude the role of lung carcinogen exposures in farming activities. We assessed the associations between farming activities and lung cancer from a case-control analysis nested in the French agricultural cohort AGRICAN (n = 180,060).

Methods Incident lung cancer deaths from enrolment (2005–2007) to 31/12/2009 (n = 399) were individually matched with 4 controls by year of birth and sex by incidence density sampling method. Associations between self-reported lifetime farming activities and lung cancer were estimated using conditional logistic regression, controlling for cigarettes pack years.

Results Lifetime exposure to animals was significantly related to a decreased lung cancer risk (OR = 0.59, 95% CI:0.41–0.84) with a similar association among non-smokers (OR = 0.57, 95% CI: 0.29–1.12). Non-significant decreased risks were observed for some animals: cattle, sheep/goat and horse (OR = 0.63–0.74, p = 0.10–0.15). Animal care on sheep/goat was the only task significantly inversely related to lung cancer (OR = 0.48, 95%CI: 0.25–0.94). A non-significant increased risk was associated with lifetime exposure to vineyards (OR = 1.29, 95%CI: 0.90–1.86, p = 0.17), association strengthened among non-smokers (OR = 1.84, 95%CI:0.99–3.44). An increased risk was observed for cellar work in vineyards (OR = 1.59, 95%CI:0.96–2.63, p = 0.07), strengthened and significant in non-smokers (OR = 4.06, 95%CI: 1.59–10.37).

Conclusion These findings support the role of a decreased lung cancer risk associated with animal-related exposures and suggest the role of hazardous exposures in vineyard, particularly for cellar work. The role of other potential hazardous exposures (including arsenic pesticides that have been used in France in vineyard until 2001 and in some fruit growing and potato production until mid 1970s) will be further investigated in this study using a crop-exposure matrix. Further efforts are needed to identify etiologic protective agents and hazardous exposures for lung cancer in farming.

393 CANCER RISKS AMONG CANADIAN AGRICULTURAL WORKERS IN A POPULATION-BASED COHORT

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Objectives Agricultural workers may be exposed to several potential carcinogens including pesticides, sensitising agents and solar radiation. Previous studies have shown increased risks of hematopoietic cancers in this population, as well as reduced risks of other types of cancer, possibly due to differences in lifestyle and risk behaviours. This study aimed to estimate cancer risks among agricultural workers in a national population-based cohort.

Methods The 1991 Canadian Census Cohort was created by Statistics Canada through probabilistic linkage between the 1991 Canadian Census (long form) to national cancer registry records from 1969–2003. Occupations were self-reported. Analyses were restricted to persons aged 74 and under who reported working at baseline (1991, total cohort N = 2050300). Follow-up continued until December 31, 2003. Hazard ratios (HR) and corresponding 95% confidence intervals were estimated by Cox proportional hazards modelling for all workers in agricultural occupations (N = 70300; 49000 male), stratified by sex and adjusted for age at cohort entry and province of residence.