Objective Social position and social mobility are associated with cancer incidence and mortality, yet little is known about their association with mediating factors such as occupational exposures to carcinogens. Our aim was to assess the association between the type of professional trajectory and multiple occupational exposure profiles.

Method Data were extracted from the Giscop93 study (n = 1 009), which is a cohort of cancer patients with (mainly) respiratory tumours. Job histories were reconstructed through interview, then a multi-disciplinary expert group examined the probability of occupational exposure to a list of 54 potentially carcinogenic agents. The typology of professional trajectories was built based on employment stability, employment continuity, job qualification trend, and multiple skills through Multiple Correspondence Analysis followed by Ascending Hierarchical Classification. Association with multiple-exposure profiles was then assessed through multiple logistic regression.

Results Men and women differed in terms of predominant job category over the life course (68.2% of blue-collar-workers among men, 57.3% of employees among women, p = 0.0001). Professional trajectories were grouped in four classes as “stable qualified, employee” (21.3%), “stable manual, independent blue-collar-worker” (24.4%), “stable tiring, no gain in qualification” (30.5%), and “very unstable, precarious” (23.8%). Among men, the last two categories were associated with exposure to at least five different occupational carcinogens (ORstable_tiring/stable_qualified=2.0 [1.3;3.1], ORvery_unstable/stable_qualified=2.6 [1.6;4.2]). No such association was found among women.

Conclusions The association found between the type of professional trajectory and multiple occupational exposures among men should be replicated among people not suffering cancer. Forthcoming analysis will investigate the gendered differences observed.

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Poster presentation

1. Mental Health Inequalities by Involuntary Employment and Gender in Central America

**Objectives**

The objective was to study participatory for solid waste management of undergraduate students Faculty of Physical Education Srirakarinwiroi University Ongkarak.

**Method**

Collect the data by the questionnaire developed interview used as a tool to collect employed quantitative data. The content validity was improved and adjusted by the suggestion of the experts.

**Results**

The result revealed that: the sample were women 75.5%, age between 18–22 years old, age average 19.75 years old (S. D. = 1.047, Min=18, Max=22), the bin condition, or storage of waste provided by the University have various stains 81.5%, minor is not covered or close incompletely 56.8% and 36.1% damaged, broken or leaking the trash. The storage of waste by University provide cause of nuisance 88.7%; almost of foul smell 92.5%, minor is nuisance form animals and insects such as flies, mice, etc., 36.6% and the other (the leachate outflow / waste overflow flooded / gruesome) 4.2%. The knowledge level about solid waste management almost moderate level 53.5%, minor was high level 45.5% and low level 1.1%. The attitude level about solid waste management almost moderate 65.8%, minor were low level 18.2%, and high level 16.0%. The practice behaviour level about solid waste management almost moderate 72.8%, minor were high level 15.2% and low level 12.0%.

**Conclusions**

Undergraduate students have the knowledge, but not implemented for separate the garbage, and the correct type of waste, uncooperative for separate the garbage because of that embarrassment and there is not enough knowledge about solid waste management. The University do not have the campaign seriously.

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2. Prostate Cancer Risk among French Farmers in the AgriCan Cohort

**Objectives**

To analyse the relationship between mental health and non-agricultural informal employment in Central America; and to examine whether patterns of association differ by gender.

**Method**

Cross-sectional study of 8904 non-agricultural workers (48% women) based on the I Central American Survey of Working Conditions and Health of 2011. Employment profiles were created combining formal and informal characteristics: labour contract (permanent employees, temporary employees, self-employed, employers), social security coverage (yes, no), type of contract for employees (written, oral or no contract), company size for employers (≤5, >5 workers). Using logistic regression models, odds ratios (OR) of poor mental health (measured by GHQ12 questionnaire) and 95% confidence intervals (95% CI) were calculated by sex, adjusting for country and age, with employment profiles as independent variable. The reference group was permanent employees covered by social security with a written contract.

**Results**

Around 37% of women and 34% of men reported poor mental health. In both sexes all profiles without social security coverage were associated with poor mental health except for permanent employees. Temporary employees covered by social security were associated with poor mental health if they have oral or no contract for women and men. Covered permanent employees with oral or no contract among women (OR: 1.70, 95% CI:1.12–2.59) and covered-self-employed among men (OR: 1.59, 95% CI:1.03–2.46) were associated with poor mental health.

**Conclusions**

In Central America health inequalities by employment profiles exist, principally for not being covered by social security, or having an oral or no contract for employees (main characteristics of informal employment). Few gender inequalities have been found.
Objectives Prostate cancer is one of the most frequent cancers worldwide. Its aetiology is largely unknown with farming being suspected. Our aim was to identify occupational risk factors for prostate cancer in farmers in the French prospective cohort study AGRICAN.

Method During the period from enrollment (2005–2007) to 31 December 2009, 1664 incident prostate cancer cases were identified in the cohort (n = 92669) by linkage with cancer registries. Data on occupational history and agricultural exposures during lifetime on 13 types of crops and 5 types of animals were collected by the enrollment questionnaire. Hazard ratios (HR) were estimated using Cox regression analysis with attained age as underlying time scale.

Results Elevated risks were found for six agricultural activities: cattle, hogs, horses, grassland, wheat/barley and tobacco (HR=1.07 to 1.16; p = 0.07 to 0.23). Prostate cancer risk was related to duration of work in wheat/barley and tobacco production, number of cattle and hogs, and grassland area. We also observed an increased risk for fruit growing, with both duration and area. Increased prostate cancer risk was associated with applying pesticides on wheat/barley (HR=1.40, p = 0.06) with a duration relationship, and with making hay (HR=1.16, p = 0.03).

Conclusions Our analysis suggests that the risk of prostate cancer is increased in some farming activities, mainly in crops. This work will be completed by a multivariate analysis, with variables positively associated with the outcome in the previous analysis. The possible association between use of some chemical classes of pesticides and prostate cancer occurrence will be analysed through a crop-exposure matrix (PESTIMAT).

Objectives Young adults between 16 and 24 years of age represent only 13% of the working population in the UK, yet they have higher rates of work-related accidents and injuries compared to workers of other age groups. However, little is known about the incidence and risk factors for occupational diseases such as occupational asthma in these individuals.

Method The study was based on data from the Avon Longitudinal Study of Parents and Children (ALSPAC). At 16 and 18 years, participants were asked to report their employment, along with questions on respiratory health.

Results At 16 years, those who left education and were employed had less severe asthma compared to those in education. At 18, asthma prevalence was higher among the employed, and the severity of asthma in these individuals did not differ significantly from those staying in education and who were not employed. There was no obvious relationship between the prevalence of asthma or the major occupational groups and the proportion of respondents reporting time lost from work.

Of all respondents who had asthma at 18 years, 3% had lost time due to the condition, and 11% suggested the symptoms were better at weekends. Symptom improvement was mostly seen among waiters and waitresses, kitchen and catering assistants, and sales and retail assistants.

Conclusions The high prevalence of work-related symptoms suggests they may be substantial number of cases of occupational asthma in the young workforce.