P1-161 THE BURDEN OF CANCER: AN APPROACH TO EVALUATE IN-HOSPITAL PROFILE OF COST IN ITALY

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Introduction Due to changes in cancer-related risk factors, improvements in diagnostic procedures and treatments, and the ageing of the population in most developed countries, cancer accounts for an increasing proportion of healthcare expenditures. Measuring the burden of disease is of great interest to public health researchers and policy makers. The objective of this study is: (1) to reconstruct the cancer pathway, which is subdivided into three phases according to the disease and cost-related dynamics: initial (1 year after diagnosis), continuing (time between initial and final) and final (1 year before death); (2) to estimate the related cost subdivided into phases of care.
Methods The profiles of cost directly attributable to cancer are reconstructed, using hospital discharge cards and DRG codes, in a cohort of colorectal cancer cases diagnosed in two areas covered by cancer registries in Italy in years 2000–2001 and followed-up to end of 2006; cancer survivors at end of 2005 in the two areas are decomposed into the three phases of care; and are multiplied by the corresponding cost profiles, to obtain an estimate of the in-hospital cost of care subdivided into phases of care.
Results Cost distribution curve follows a U-shape: higher initial and final cost and lower cost in the continuing phase. There is a trend by age and stage at diagnosis.
Conclusion Data confirm the connection between stage at diagnosis, profile of therapies and related cost. Results show that primary prevention and early detection of cancer are extremely important in a public health perspective.

P1-162 PLANNED CAESAREAN SECTION ASSESSMENT IN AN ITALIAN REGION

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Introduction This study aimed to evaluate the impact of planned caesarean section (PCS) and investigate variation in its use in 11 hospital maternity services in the Umbria region (Central Italy).
Methods A population-based study using routine maternity discharge data (CEDAP) from 2007 to 2008. The study included 15 898 women (nulliparous, single cephalic, ≥37 weeks, physiological pregnancy and without fetal development defects). The outcome of the study was the "planned caesarean" section rate and excluded women with "emergency caesarean". Using a multi-level model we evaluated non-observed heterogeneity; the second level variable was represented by different birthing centres and two context variables were included: the presence or absence of neonatal intensive care unit and the capacity of the service (1000 birth per year).
Results Of the 6811 births, 5934 (87.12%) were born by natural labour and 877 (12.88%) by PCS. The logistic model with random effects including some control variables at the individual level indicated a significant value in the residual variance of the second level (ρ 0.086). Introducing the two context variables resulted in a substantial reduction in unexplained variance.
Conclusions Variation in PCS rates in the 11 birthing centres is explained by the presence or absence of a neonatal intensive care unit and by birth centre capacity. These findings can be used by policy-makers to increase the efficiency and availability of appropriate technology in hospital maternity services.

P1-163 INCREASED INCIDENCE AND DETECTION RATES OF CARCINOMA IN SITU OF THE BREAST

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Background Increased incidence of carcinoma in situ (CIS) has generally been attributed to widespread application of mammography screening. However, direct evidence for the impact of screening is rare.
Methods Screen detected and total CIS (ICD-10 D05) incidence data were obtained, between 1990 and 2007 where possible, from regional cancer registries in the UK and the Republic of Ireland (ROI). Age-standardised incidence rates for the UK and ROI, and regional screen detected incidence rates were analysed.
Results The total incidence rate of CIS among women aged 50–64 years increased by 3.1-fold in the UK (1990–2007) and by 2.9-fold in the ROI (1994–2007). An increase of 7.3-fold in the UK and 3.5-fold in the ROI was observed in women aged 65–69 years. Finally, an increase of 8.3-fold in the UK and threefold in the ROI occurred in the age group 70–74 years. Screen detected incidence rates for CIS largely parallelled the total incidence rates for CIS.
Conclusion Our results show increased incidence of CIS in all age groups investigated, with the greatest increase observed in women over 65 years. Our regional screen detected incidence rates indicate that increased incidence may partly be attributed to screening. However, other contributing factors must also be considered for the apparent increase in CIS incidence outside the screening age and the consistent difference observed between the screen detected rate and the total incidence rates for CIS.

P1-164 EFFECTIVENESS OF A CLINICAL DECISION SUPPORT SYSTEM FOR BREAST CANCER SCREENING: PRELIMINARY RESULTS IN MAMMOGRAM PERFORMANCE

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Introduction A decision support system that identifies women lacking results from previous mammograms in their electronic medical record (EMR) and enables immediate corrective intervention was developed. The purpose of this study was to determine if this system increased mammography rates.
Methods In an ongoing cluster randomised pragmatic controlled trial, primary care physicians (PCPs) were allocated to either receive breast cancer screening decision support recommendations in patient's EMR or usual care. PCPs belonging to a Health Maintenance Organization with 150 000 members from Buenos Aires and having panels in which at least 100 women were eligible for routine breast cancer screening (no mammogram or a mammogram with BIRADS 0 within the past 2 years). Preliminary results of subjects' characteristics and mammograms performed are shown in percentages and compared by χ^2 test.
Results A total of 9872 women were eligible, with a mean age of 60.4 (SD 0.57) and were similar in: stroke (1.64%, p 0.06),

coronary disease (4.78%, p 0.867), hypertension (39.17%, p 0.51), congestive heart failure (0.71%, p 0.987), chronic renal failure (0.49%, p 0.596), tobacco use (26.65%, p 0.307) and number of consultations in the previous year (mean 0.53, SD 0.01, p 0.19). A total of 4237 visited their PCPs from 1 January 2010 to 26 August 2010. Patients cared for by clinicians randomised to the intervention group had significantly more mammograms performed (18.8% vs 15.9% p=0.047).

Conclusion We credit the decision support system with promoting completion of almost 30 delinquent mammograms per 1000 women who consulted their PCPs during an eight-month period.

P1-165 DIFFERENCES IN MATERNITY SERVICE USE BETWEEN POLISH MIGRANTS AND THE HOST SCOTTISH POPULATION

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Introduction Some migrant groups in Europe experience excess maternal morbidity and different processes may influence outcomes for specific groups. Polish women form the largest migrant group in Scotland with little data comparing their maternity experience with Scottish-born women. Qualitative findings suggest if women negotiated deliveries based on Polish not Scottish norms, they would have higher caesarean section and lower forceps deliveries rates than Scots. To assess this we compared data on access to care and maternity outcomes to identify any patterns associated with Polish migrants.

Methods NHS Scotland records detail about maternity care and maternal country of birth is required at birth registration. We matched these two datasets identifying mothers born in Poland and Scotland. Mode of delivery, use of analgesia, gestation, birth weight and proportion of live births were extracted for singleton deliveries and data adjusted for age, body mass index and smoking.

Results Polish migrants were younger, lighter, smoked less and booked maternity care later (11.2% after 20 weeks vs 5.3%). Caesarean section was less likely and forceps/ventouse more likely. Pregnancy outcomes tended to be better in Polish migrants with fewer low birth weight babies or neonatal admissions.

Conclusion Reduced Caesarian section rate and favourable birth and maternal outcomes in the Polish population, may be due to the 'healthy migrant' effect (as we were unable to adjust for education/socioeconomic status) and residual confounding. Reasons for excess instrumental deliveries remain unclear. Later maternity booking reflects patterns in other migrant groups, and reinforces the importance of improving health system understanding.

P1-166 EXPLAINING SOCIAL PATTERNING OF MORTALITY: THE ROLE OF LIFESTYLE

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Background Mortality is strongly correlated with socio-economic status (SES). Lifestyle factors impact on health and are also independently linked with SES, and thus may drive the mortality-SES associations. However, their relative individual and combined contributions to such inequalities have not been well quantified. We addressed this using nationally representative prospective data.

Methods Analyses were based on 6060 participants aged over 16 years in the 2003 Scottish Health Survey (60% response) providing data on cigarette smoking status, weekly alcohol intake, physical activity levels, diet (quality index) and body mass index (BMI; weight/[height]^2), and consenting to linkage with mortality records (until 2008). Cox proportional hazards regression assessed the relative index of inequality (RII) in mortality by SES (occupational social class) and attenuation by lifestyle factors.

Results Mortality-SES patterns were clear (292 deaths; p<0.001) and did not differ by sex (p=0.212). The inequality across the social classes was more than twofold [age-adjusted RII HR=2.26; 95% CI 1.47 to 3.47]. Mutually adjusting for lifestyle factors reduced differences by 49% [1.65; 1.06 to 2.57], with the greatest individual impacts made by cigarette smoking (29%), diet (27%) and physical activity (20%); alcohol consumption and BMI had lesser effect.

Conclusions Around half of the SES patterning of mortality was explained by these lifestyle factors. Our findings provide valuable insight on the relative impact of individual lifestyle factors—essential for tackling socio-economic inequalities in health—highlighting the importance of promoting healthy eating and physical activity as well as further reducing smoking.

P1-167 INDIVIDUAL AND TERRITORIAL DISPARITIES IN THE KNOWLEDGE AND PRACTICES OF THE FRENCH NATIONAL NUTRITIONAL GUIDELINE « FRUITS AND VEGETABLES: AT LEAST FIVE EVERY DAY » IN PARIS METROPOLITAN AREA

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Introduction The ageing of the European population raises questions concerning the growing incidence of chronic diseases. Improving population health status, by acting on one of its most important determinants, that is, nutrition, was the target of the PNNS (Nutrition Health National Program) launched in 2001 in France. This study aimed to examine the individual and territorial characteristics associated with the PNNS guideline to eat: « at least five fruits and vegetables every day » (R5FV).

Methods The third wave of the SIRS cohort interviewed a representative sample of the general population of Paris metropolitan area (3084 adults) in 2009–2010 about its knowledge of the R5VF. Adherence to this guideline, and reasons for non-adherence, were questioned too. Regression models analysed factors associated with non-knowledge of the guideline.

Results The vast majority of the population (98%) was familiar with the R5VF but only 50% adhered to it. Men (aOR=2.58), foreigners (aOR=5.53), people who had never worked (aOR=6.66), those who had only primary level education (aOR=3.47), those residing in underprivileged neighbourhoods (aOR=2.05) were more likely to ignore it. Among those who knew it, reasons declared for not adhering were: too complicated to manage (28%), too expensive (26%) and not desiring (17%).

Conclusion This study outlined individual and territorial inequalities in the reception of PNNS nutritional messages related to consumption of 5 F&V a day. Consideration of individuals' demographic, socioeconomic and residence characteristics can identify population groups that necessitate to be targeted in order that current nutritional know-how reaches all people, especially the disadvantaged.