

decline. Therefore, we may conclude that while genetic susceptibility to schizophrenia conveys developmental cognitive deficit, it does not result in an ongoing cognitive decline, at least in later life. This, in turn, disproves the Kraepelinian notion of schizophrenia as a genetically determined progressively deteriorating brain disease.

P07 LONG-TERM TRENDS IN LUNG CANCER INCIDENCE IN UK NON-SMOKERS: A COHORT STUDY OF 3.7 MILLION PEOPLE

LJ Horsfall*, G Rait. *Research Department of Primary Care and Population Health, UCL, London, UK*

10.1136/jech-2020-SSMabstracts.103

Background There have been reports that lung cancer in non-smokers (LCINS) is increasing in the UK but it is unclear whether this simply reflects fewer people smoking cigarettes or changing environmental risk factors such as increased emissions from domestic combustion. We examined UK-wide socio-demographic trends in the incidence of LCINS.

Methods We identified a cohort of 3,679,831 people self-reporting to their general practice physician as non-smokers from The Health Improvement Network (THIN) IQVIA™ Medical Research Data. Using multivariable Poisson regression, we estimated gender-specific time-trends in the incidence of LCINS for 1998–2018 and explored the impact of geographic location, social deprivation and urban-rural classification.

Results The analysis included 3,121 cancer events and 16,051,244 person-years (PYs). Earlier time periods, high social deprivation, urban living, and residing in the North of England were associated with higher age-adjusted LCINS rates in men. Living in the North of England was the only clear risk factor for women. Between 1998–2008, age-adjusted rates in men declined by 9% per year (95%CI: 7–11%) from an estimated 5.6 to 1.5 per 10,000 PYs and then remained stable. These time trends for men were similar across sociodemographic variables. Between 1998 and 2007, incidence rates were stable for women at 1.3 per 10,000 PYs. However, for the least socially deprived rates increased by around 5% per year (95%CI: 2–9%) from an estimated 1.3 per 10,000 PYs in 2008 to 2.1 in 2018.

Conclusion The incidence of LCINS has reduced or remained stable for most of the UK with the exception of women living in the least socially deprived areas.

P08 THE PSYCHOSOCIAL DETERMINANTS OF QUALITY OF LIFE IN BREAST CANCER SURVIVORS: A SCOPING REVIEW

¹MG Culbertson, ¹KB Bennett, ²CK Kelly, ³LS Sharp, ¹CC Cahir*. ¹*Division of Population Health Sciences, Royal College of Surgeons in Ireland, Dublin 2, Ireland;* ²*Mater Misericordiae University Hospital, Dublin 1, Ireland and Cancer Trials, Ireland;* ³*Population Health Sciences Institute, Newcastle University Centre for Cancer, Newcastle University, Newcastle, UK*

10.1136/jech-2020-SSMabstracts.104

Background Breast cancer care today involves state-of-the-art biomedical treatment but can fail to address the broader psychosocial and quality-of-life (QoL) issues associated with the transition to breast cancer survivorship. This scoping review

examines the evidence on the influence of psychosocial determinants on QoL in breast cancer survivors.

Methods Scoping review methodology was used to: (1) identify the research question(s); (2) identify relevant studies; (3) undertake study selection; (4) extract data; (5) collate, summarise and report the results.

Results A total of 34 studies met the inclusion criteria. The majority of studies were conducted in the US (n=23, 68%) and were mainly cross-sectional (n=27, 79%). Sixteen psychosocial determinants of QoL were identified. Social support (n=16, 47%), depression (n=7, 21%) and future appraisal and perspective (n=7, 21%) were the most frequently investigated determinants. Eighteen different QoL measures were used. A range of different measurement tools were also used per psychosocial determinant (weighted average=6). The 16 studies that measured the influence of social support on QoL employed 11 different measures of social support and 10 different measures of QoL. In general, across all 34 studies, a higher level of a positive influence and a lower level of a negative influence of a psychosocial determinant was associated with a better QoL e.g. higher social support and lower levels of depression were associated with a higher/better QoL. For some determinants such as spirituality and coping skills the influence on QoL varied, but these determinants were less commonly investigated.

Conclusion Consensus around measures of QoL and psychological determinants would be valuable and would enable research to determine the influence of psychosocial determinants on QoL adequately. Research in other healthcare settings beyond the US is required, in order to understand the influence of organisation and follow-up clinical and supportive care on psychosocial determinants and QoL and to improve the quality of care in breast cancer survivors.

P09 DEVELOPMENT OF A COMMUNITY-BASED INTERVENTION TO INCREASE UPTAKE OF HOME BOWEL CANCER SCREENING IN SOUTH ASIANS: A MIXED METHODS STUDY

¹L Smith*, ²S Howcutt, ³P Saini, ^{2,4}J Brett, ^{2,4}C Henshall, ^{2,4}E Watson. ¹*ICAHR, Faculty of Health Sciences, University of Hull, Hull, UK;* ²*Faculty of Health and Life Sciences, Oxford Brookes University, Oxford, UK;* ³*School of Psychology Faculty of Health, Liverpool John Moores University, Liverpool, UK;* ⁴*OXINMAHR, Faculty of Health and Life Sciences, Oxford Brookes University, Oxford, UK*

10.1136/jech-2020-SSMabstracts.105

Background Bowel cancer is common and accounts for 10% of all cancer mortality-second only to lung cancer deaths. If detected early through screening tests, mortality is significantly reduced. The NHS Bowel Cancer Screening Programme (BCSP) invites adults aged 60–74 years to carry out a home screening test biennially. The national target for test completion is 60%; completion is substantially lower (~30%) amongst South Asian populations.

Universal approaches to increase screening uptake, e.g. text reminders, are effective, but may widen health inequalities, as they tend to benefit individuals with greater agency. Strategies tailored to ethnic minority groups show promise but are poorly specified and evidence of effectiveness is lacking. Limited evidence suggests that barriers to bowel cancer screening for South Asians are complex.

The aim was to develop a community-based intervention to increase completion of the home bowel screening test in South Asians.

Methods Multi-methods comprising two stages: 1) group and individual interviews with S.Asians aged 50–74 years purposively sampled from faith-based venues in Oxfordshire (Mosques, Hindu temples and Sikh Gurdwaras), religious festivals and local community groups for maximum variation. Semi-structured interviews based on the Theoretical Domains Framework (TDF) investigated determinants of bowel screening completion. Interviews were recorded, transcribed, and analysed using framework analysis and findings mapped onto the COM-B Behaviour Change Wheel; 2) Co-production of intervention during two workshops with key stakeholders and target population. Findings from stage one were presented, feedback sought and amendments to the intervention prototype were made.

Results To-date 25 adults recruited of Indian, Pakistani and Bangladeshi ethnicity with variation in age, gender, first language, faith, compliance with bowel screening. Key barriers and TDF domains that they mapped to were: - lack of knowledge about bowel cancer and screening; lack of language, literacy and physical ability (skills) to carry out the home test; confidence to carry it out correctly (belief about capabilities); appropriate space and time to carry out the test (environmental context and resources); putting off undertaking the test (memory attention and decision processes); risk perception and fear of cancer (emotions). Enablers were: social influences from peers; goals and motivations. Data collection and workshops will be completed by May 2020.

Conclusion Early results suggest an intervention comprising education, persuasion, modelling and enablement functions could increase completion of the home test. An intervention prototype will be produced and further funding sought for intervention refinement and evaluation of early feasibility and acceptability.

P10

CIRCULATING INSULIN-LIKE GROWTH FACTOR-I (IGF-I) CONCENTRATIONS AND INCIDENCE OF CANCER AT 26 SITES: PROSPECTIVE ANALYSES IN UK BIOBANK

¹A Knuppel*, ¹GK Fensom, ¹EL Watts, ²MJ Gunter, ²N Murphy, ¹K Papier, ¹A Perez-Cornago, ¹JA Schmidt, ³K Smith-Byrne, ¹TJ Key, ¹RC Travis. ¹Cancer Epidemiology Unit, Nuffield Department of Population Health, University of Oxford, Oxford, UK; ²Section of Nutrition and Metabolism, International Agency for Research on Cancer, Lyon, France; ³Genetic Epidemiology Group, International Agency for Research on Cancer, Lyon, France

10.1136/jech-2020-SSMabstracts.106

Background Insulin-like growth factor-I (IGF-I) is suggested to support cancer cell growth and proliferation. Pre-diagnostic circulating IGF-I concentrations have been shown to be positively associated with breast cancer, prostate cancer and colorectal cancer but evidence for less common cancer sites is limited. The aim of this study was to investigate the associations between serum IGF-I concentrations and the incidence of rarer cancers using an outcome-wide approach to study cancers at 26 sites in UK Biobank, in which serum concentrations of IGF-I were measured for ~ 467,000 participants (93%).

Methods We analysed data from 394,406 cancer-free participants (52% women). IGF-I was measured in serum collected at baseline and in a subsample of 14,149 participants again in repeat samples collected during follow-up. Cancer diagnosis and death due to cancer during follow-up were determined using data-linkage with cancer and death registries. Multivariable-adjusted Cox proportional hazards models were used to

determine associations between baseline serum IGF-I concentrations and cancer incidence, using the repeated measurements to correct estimates for regression dilution.

Results After a mean follow-up of 6.9 years, 23,496 participants were diagnosed with a malignant cancer. Higher IGF-I concentration was associated with an increased risk of colorectal cancer (hazard ratio per 5 nmol/l 1.10, 95%-CI 1.05–1.15), colon cancer (1.11, 1.05–1.17), malignant melanoma (1.08, 1.01–1.15), breast cancer in women (1.11, 1.07–1.15), prostate cancer (1.08, 1.04–1.11), thyroid cancer (1.23, 1.05–1.43) and multiple myeloma (1.13, 1.01–1.27), and a reduced risk of oral (0.86, 0.77–0.97), liver (0.37, 0.30–0.45), endometrial (0.90, 0.82–1.00) and ovarian cancer (0.88, 0.78–0.99).

Conclusion Higher IGF-I concentrations were associated with higher risks of cancer at the established sites (breast, colorectal and prostate cancer) and malignant melanoma, thyroid cancer and multiple myeloma. Higher IGF-I concentrations were associated with lower risks of oral, liver, endometrial and ovarian cancer; longer follow-up is needed to investigate the possible role of reverse causality.

P11

IMPROVING PROSTATE CANCER CARE THROUGH THE 'OUTLIER PROCESS': A NATIONAL QUALITY IMPROVEMENT WORKSHOP

^{1,2}J Nossiter*, ^{1,2}M Morris, ^{1,2}M Parry, ¹A Sujenthiran, ³A Aggarwal, ⁴P Cathcart, ⁵H Payne, ⁶N Clarke, ²J van der Meulen. ¹Clinical Effectiveness Unit, Royal College of Surgeons of England, London, UK; ²Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK; ³Department of Cancer Epidemiology, Population and Global Health, Kings' College, London, UK; ⁴Department of Urology, Guy's and St Thomas' NHS Foundation Trust, London, UK; ⁵Department of Oncology, University College London Hospitals, London, UK; ⁶Departments of Urology, Salford Royal and The Christie NHS Foundation Trusts, Manchester, UK

10.1136/jech-2020-SSMabstracts.107

Background The National Prostate Cancer Audit (NPCA) reports publicly performance indicators for all hospitals in England and Wales providing radical prostate cancer treatment, identifying those with results that fall outside the 'accepted range' as 'potential negative outliers'. Hospitals with outlying results are requested to provide a formal response.

This 'outlier process', targeting a limited number of hospitals, mirrors a 'high-risk approach' of preventing poor quality care in contrast to a 'population approach' that would target all hospitals. We invited clinicians to a national workshop to learn how the outlier process contributes to quality improvement.

Methods The workshop started with presentations on reducing the 'toxicity' of radical prostate cancer treatment. Then, clinicians from three hospitals identified as outliers shared their experience of the process and the changes in practice they had made as a result. We collected data in three ways. First, an online platform was used to gather comments from participants during the workshop. Second, a number of participants were interviewed about the outlier process as a means to improve quality of care. Third, feedback was sought after the workshop from all participants. Responses were collated and analysed for themes.

Results Sixty-nine clinicians attended including urologists, oncologists, radiographers and nurses, representing a spread of hospitals across England and Wales. There were 6 interviews, 21 online comments and 31 responses after the workshop. The clinicians representing outlying hospitals highlighted the