

## Health & mortality

Strand organizer: Tiziana Leone (London School of Economics)

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Health & well-being – Monday 9 September, 4.45pm

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### **The impact of menstrual taboos on psychosocial well-being and mental health in Dailekh, Nepal**

*Melanie Channon<sup>1</sup>, Mahesh Puri<sup>2</sup>, Kusum Wagle<sup>2</sup>, Jennifer Thomson<sup>1</sup>, Frances Amery<sup>1</sup>*

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Menstrual taboos are common in many low- and middle-income countries, though the form varies. Such taboos – which can include diktats on where a menstruator sleeps, what she eats, who she interacts with – may have a direct negative effect on psychosocial and mental health; taboos also contribute to poor menstrual hygiene management, which in turn leads to further negative health outcomes. Despite the importance of menstruation for satisfying basic human rights, as well as its potential negative health impacts, it remains a neglected area of research. Evidence on the extent of the relationship between menstrual taboos and psychosocial and mental health is particularly lacking. In Nepal the practice of chhaupadi, where women and girls are secluded in an outbuilding during their menstrual period, is a particularly severe menstrual restriction. At least four people have died as a result of this practice in 2019. Chhaupadi became illegal last year, but it is unclear if this policy change is having any effect. The objectives of this paper are: (1) to establish the prevalence of chhaupadi and other menstrual taboos in Dailekh district, Nepal; and (2) to test for associations between the practice of menstrual taboos and psychosocial and mental health. Data has been collected from adolescent girls aged 14–19 in Dailekh, Nepal, using stratified two-stage random sampling. Multivariate regression analysis is used to look at the association between different menstrual taboos and a range of psychosocial well-being measures (shame, stress, self-efficacy) as well as mental health (measured using the Nepali depression self-rating scale).

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### **The psychological impact of deprivation in conflict: The case of the occupied Palestinian territory**

*Weeam Hammoudeh<sup>1</sup>, Suzan Mitwalli<sup>1</sup>, Rawan Kafri<sup>1</sup>, Tracy Lin<sup>2</sup>, Rita Giacaman<sup>1</sup>, and Tiziana Leone<sup>3</sup>*

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Evidence shows that deprivation can be an important determinant of health, particularly in conflict areas. The aim of this study is to analyse how different forms of deprivation impact mental health among Palestinians, accounting for community effects in the occupied Palestinian territory (oPt). We employ multilevel modelling to analyse the Socio-economic Conditions of the Palestinian Households Survey 2014 that includes a sample of 7,827 individual adults. The main outcome of interest is the General Health Questionnaire Score (GHQ score). Deprivation variables include subjective deprivation, material deprivation, food deprivation, and political deprivation. Additionally, we include measures of different stressors experienced by households and control for demographic characteristics including age, sex, education, wealth and region. We then conduct a two-level random intercept effects multilevel regression (individual and community level), where we use locality as a proxy for neighbourhood. The model indicates a significant variance at neighbourhood level. Poor mental

health is significantly associated with subjective, economic, political, and food deprivation; health, economic, and political stressors; age, gender, post-secondary education, and wealth. Economic, political, and food deprivation are positively associated with GHQ scores. Individuals indicating that they felt somewhat or very deprived have significantly higher GHQ scores compared with individuals indicating that they did not feel deprived ( $\beta = 1.73$ , and  $4.33$ ,  $p < 0.001$ ). Health, political, and economics stressors are significantly positively associated with GHQ ( $\beta = 0.23$ ,  $0.35$ ,  $0.19$  respectively,  $p < 0.001$ ). The findings demonstrate that the mental health of Palestinians is associated with various forms of deprivation and stressors, providing further evidence for the political and social determinants of health.

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## **Years of Good Life (YoGL): A well-being indicator designed to serve as a sustainability criterion**

*Wolfgang Lutz, Anastasia Aldelina Lijadi, Erich Striessnig, Anna Dimitrova, Sonja Spitzer, Dilek Yildiz*

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The sustainable well-being of all human population groups today and in the future is the overarching goal of sustainable development (SD) as defined by the Brundtland Commission and as enshrined in the Sustainable Development Goals (SDGs). To assess whether progress in this direction is being made, large numbers of quantitative indicators have been defined by various organizations and scientists. These indicators either cover partial aspects of SD or give weighted averages of a broad range of aspects, which typically can be assessed for the past but not modelled for the future. Yet, sustainability science calls for a comprehensive indicator of human well-being that can be both empirically assessed and modelled in its future trends as a function of influencing factors, including possible feedbacks from environmental change. Here we propose a tailor-made indicator to serve precisely this purpose following the specification of five well-justifiable criteria that should be met. Years of Good Life (YoGL) is based on the fact that in order to be able to enjoy any quality of life, one has to be alive (1). But since mere survival cannot be considered a sufficient criterion for sustainability, life years are counted conditional on meeting minimum standards in three objective dimensions – being out of absolute poverty (2) and enjoying physical (3) and cognitive health (4) – and in the subjective dimension of life satisfaction (5). We present the theoretical foundations, discuss the data requirements and methods for calculating the indicator, and illustrate its derivation for populations at different stages of development.

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## **Sex differences in functional difficulty and disability-free life expectancy among older persons in Indonesia and the Philippines**

*Jeofrey B Abalos*

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This research aims to compare sex differences in functional difficulty and disability-free life expectancy among older persons in Indonesia and the Philippines. It also examines patterns in functional difficulty by demographic and socio-economic characteristics. Sullivan's method is used to calculate disability-free life expectancy. This method requires age- and sex-specific data on health status and life expectancy at ages 60 and over. Data on functional difficulty are drawn from the 2010 Indonesian and Philippine Census of Population and Housing (CPH), while data on life expectancy are derived from the WHO 2010 life tables. Preliminary results show that the prevalence of functional difficulty is higher in Indonesia than in the Philippines. In addition, older women in both countries live longer than older men, but men spend a higher

proportion of their remaining life in a healthy state. Sex differences in disability-free expectancy are much higher in Indonesia than in the Philippines.

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## Health & mortality: Mortality & age – Tuesday 10 September, 1.30pm

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### **Female disadvantage in under-five mortality in India: Measuring explicit gender discrimination using data on twins**

*Ridhi Kashyap<sup>1</sup>, Julia Behrman<sup>2</sup>*

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Son preference has been linked to excess female under-five mortality, and the largest burden of this female disadvantage in mortality is found in India. Girls' mortality disadvantage can emerge from explicit discrimination processes whereby parents invest more resources in sons relative to daughters, or implicit discrimination processes whereby girls are differentially sorted into families of different conditions (e.g. larger and/or poorer families). Population-level estimates of the female mortality disadvantage mask these differential microprocesses and how they change over time. We propose a quasi-experimental strategy to measure the effects of explicit discrimination on girls' excess under-five mortality, drawing on mixed-sex fraternal twin fixed effects models applied to data from four waves of the Indian National Family Health Survey. We find evidence for a sizeable impact of explicit discrimination on girls' excess mortality in India, particularly compared with a placebo analysis from Africa, where girls have a survival advantage. However, we show that explicit discrimination has weakened over subsequent birth cohorts, particularly in the North-Western region of the country where explicit discrimination was strongest. Our analysis contributes to demographic understandings of how the microprocesses contributing to the aggregate female mortality disadvantage have changed over time in contemporary India.

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### **Contributions of age group and cause of death to the recent stalling of life expectancy gains in Scotland**

*Julie Ramsay, Maria Kaye-Bardgett*

*National Records of Scotland*

The long-term increasing trend in life expectancy in Scotland has slowed in recent years for males and females. This slowdown has been especially evident in more deprived areas. The analysis presented here investigates how deaths across different age groups and from different causes have contributed to the change in life expectancy growth across two time periods: 2000–02 to 2012–14 and 2012–14 to 2015–17. We use population and deaths data from National Records of Scotland (NRS) to construct abridged lifetables for Scotland at the start and end of each time period. We then apply Arriaga's method of life expectancy decomposition to estimate the contribution of different age groups and underlying causes of death to changes in life expectancy at birth across each of the two periods. We show how average annual life expectancy gains have decreased across almost all age groups in the second period, particularly for those aged between 55 and 84 years. The analysis also shows that the decreases are in part due to the slowing in improvements to mortality from heart disease and other circulatory conditions but also due to worsening mortality from causes that affect specific age groups, namely drug-related deaths (younger ages) and dementia and Alzheimer's disease (older ages). We also present

some preliminary results of decomposition analysis on populations in differently deprived areas in Scotland. These results have significance in understanding life expectancy patterns in modern societies and direct application in informing health and social policy in Scotland.

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## **Subnational variations in the recent rise in neonatal mortality: England**

***Paul Norman***

***University of Leeds***

Recent evidence in England shows that, after a long-term trend of falling infant mortality, there has been a rise in rates since 2013 (Taylor-Robinson et al. 2019). Previously, there was a period (1999–2010) when absolute inequalities between differently deprived areas were narrowing; this coincided with New Labour’s English health strategy on geographical inequalities. After the strategy period ended in 2011, absolute inequalities increased, coinciding with austerity policies (Robinson et al. 2019). Infant mortality (deaths to infants aged less than one year) can be differentiated by neonatal (up to 28 days) and postneonatal (28 days up to one year) deaths. At national level this presentation will first illustrate a gradual shift from the 1980s when the ratio of neonatal to postneonatal deaths was c. 1.5 to 2017 when the ratio was 2.6 (i.e. babies die younger). This work will then evidence that the rise at national level in infant mortality since 2013 is largely due to a rise in neonatal mortality. These trends will be investigated subnationally by inputting local authority level data into a classification of rate trends and by aggregating by deprivation group. This reveals that, while there is a strong relationship with deprivation such that persistently deprived areas over time have the highest mortality rates, some less deprived areas have experienced recent rises in neonatal mortality. The presentation will conclude with an estimate of how many excess deaths occurred in comparison with a situation based on a projection of the long-term trends for areas.

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## **Long-term mortality in young people Not in Education, Employment or Training (NEET) in England and Wales using the ONS Longitudinal Study**

***Wei Xun, Nicola Shelton, Stephen Jivraj, Rebecca Lacey***

***University College London***

Worklessness at early stages in the life course may have long-term effects on health status in later life, possibly via the perpetuation of socio-economic disadvantage. There are indications of the subsequent shorter-term economic penalties and psychological morbidities. However, the longer-term (decadal scale) consequences in physical health are unclear. This study follows a representative sample of 1% of the England and Wales (E&W) census population aged 16–24, drawn at 1971 from the Office of National Statistics Longitudinal Study (ONS LS, n = 65,234). The differences in survival time by worklessness status at baseline in 1971 were explored in men and women using a path modelling framework. Preliminary results show that for men (n = 24,853): not being in work/study in 2001, having routine and lower lifetime social class, not being married, reporting poor health in 1991 and not having a working spouse in the household were all significantly correlated to reduced survival in the risk period from 2001 to 2016. Being unemployed in 1971 also had a direct effect of increasing mortality risk by 19% (95% CI 1.02–1.39), in addition to indirect effects through several other variables in the pathway. Results for women are to follow shortly. In conclusion: in a large, representative historical sample from E&W, unemployment at the age of 16–24 in men was found to be directly associated with a higher mortality rate several decades later, even after adjusting for numerous intervening variables.

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## **Associations of area-level factors at birth and childhood obesity**

***Sam Wilding<sup>1</sup>, Nida Ziauddeen<sup>1</sup>, Dianna Smith<sup>2</sup>, Paul Roderick<sup>1</sup>, Nisreen A Alwan<sup>1</sup>***

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There is a lack of evidence for the role of early-life area-level factors in the obesity epidemic. We aimed to identify area-level factors around the home address at birth associated with being overweight or obese in childhood. We used anonymized records of all births at University Hospital Southampton (2003–18). Children’s addresses were aggregated to Lower layer Super Output Areas (average population ~1,500). Childhood Body Mass Index (BMI) was measured at reception (age 4–5) and year 6 (age 10–11). Area-level factors were derived from Ordnance Survey’s MasterMap and Points of Interest products, including bluespace, greenspace, walkability, spaces for social interaction, supermarkets and unhealthy vs. healthy food outlet densities. The outcome in this analysis is overweight or obese, which is defined as a BMI >85th national centile. Population-average models are used to estimate relative risk ratios (RRR) by each area-level factor, adjusting for maternal confounders in early pregnancy (BMI, age, smoking history, ethnicity, education, employment) and child’s birthweight. There was no association between area-level factors and weight at age 4–5. A 10% increase in greenspace coverage was negatively associated with risk of being overweight/obese at age 10–11 (RRR 0.974, 95% CI 0.957–0.991). For each unhealthy food outlet relative to the number of healthy food outlets, the risk of being overweight/obese at age 10–11 increased (RRR 1.02, 95% CI 1.001–1.029). Poor access to greenspace and the relative density of unhealthy food outlets were associated with increased risk of being overweight/obese at age 10–11. These results will inform obesity prevention interventions in pregnancy. Email: [s.a.wilding@soton.ac.uk](mailto:s.a.wilding@soton.ac.uk)

## **Subsidizing rice and sugar? The nutritional impact of the Public Distribution System in Andhra Pradesh, India**

***Janita Bartell, Jasmine Fledderjohann, Sukumar Vellakkal, David Stuckler***

***Department of Sociology, Lancaster University***

India’s Public Distribution System (PDS) is India’s main food and nutrition security programme. We assessed whether PDS subsidies skewed diets towards sugar and rice consumption, thereby increasing risk of stunting. Longitudinal data on children aged 5–16 years in Andhra Pradesh, India, were taken from the Young Lives Survey (n = 5,281). Linear regression models were used to quantify additional rice and sugar consumption associated with accessing the PDS, and the association of consumption with stunting. After adjusting for socio-demographic factors, we found accessing the PDS was positively, significantly associated with consumption of rice (50g per day) and sugar (6.76g per day). This additional consumption was greater in the lowest income tertile. We estimated that each 100g increase in daily rice intake was associated with a lower height-for-age z-score (HAZ) of 0.71 and an increased risk of stunting by 0.18. A 1g increase in sugar consumption was associated with a 1% higher likelihood of receiving an adequately diverse diet. Taken together, additional consumption of rice associated with the PDS was associated with a significant decrease in HAZ of 0.35 and an elevated risk of stunting by 9%. These results were consistent even after using propensity score matching models to address potential unobserved confounding in household decisions to access PDS. There was no evidence that receipt of subsidized rice and sugar was associated with improvements in child nutrition. In fact, subsidized rice was linked to a lower HAZ and an elevated risk of stunting.

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## **The impact of exposure to air pollution on frailty among elderly people in China**

***Kai Hu***

***University of St Andrews***

Background: Most studies have established the association of air pollution with health. Although elderly people are more vulnerable to air pollution, the effect of air pollution on elderly health is uncertain and this paper applied the Chinese context to untangle the relationship between air pollution and frailty (a multidimensional indicator for elderly health). Methods: Data from the Chinese Longitudinal Healthy Longevity Survey (CLHLS) were linked with air pollution data at the city level from the Ministry of Ecology and Environment of China according to the exact interview time and locations. CLHLS is the largest survey sample of centenarians in the world and covers elderly Chinese aged 80–112. In this study, I chose two waves, 2011 and 2014. In terms of air pollution data, I used a measure of the daily air quality index (AQI) from 1 January 2009 to 31 December 2014 in 93 metropolitan areas. To examine the effect of transitory and cumulative exposure to air pollution on frailty, I used the interview date as the end of duration of exposure, and then calculated the mean AQI for time prior to the interview date: one day, one week, one month, one quarter, and previous year. I used the mean of AQI (within one, two or three years) as the long-term exposure, but used the z-score to measure short-term exposure. The main dependent variable (frailty) consists of two components: impairment components (cognitive, vision, hearing, ADL, balance) and co-morbidity components (hypertension, diabetes, pulmonary diseases, strokes, arthritis, tumour, digestive diseases, Parkinson's disease, and dementia). Frailty as an additive index is the sum of all components, ranging from 0 to 15 as every component was weighted 1. The association between air pollution and frailty was evaluated longitudinally with individual fixed effect regression models. Some control variables (socio-economic status, age, residence, pension information, etc.) are also included. Results: In multilevel Poisson models, to explore the effect of transitory and cumulative exposure to air pollution, I run 12 models separately and each one applied the AQI mean of different duration time. All models show the long-term exposure has positive effects on frailty. Specifically, when daily exposure is the same, a 1% increase in yearly AQI means the frailty index increases by 0.433 (95% CI 0.355–0.511). The results show the strong association between exposure to air pollution and frailty, and also reveal that respondents with long-term and cumulative exposure to air pollution have more risks of frailty. Conclusions: We provide evidence that the effect of air pollution on frailty is pronounced as elderly people age, especially for those with low socio-economic status and from rural areas. A short-term effect of air pollution on frailty exists but long-term exposure (more than a week) to air pollution is more harmful. With China's society ageing, addressing air pollution is crucial to improving the health of older people, particularly for frailty that relates to their daily quality of life.

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## **Determinants of inequalities in low birth weight in Sri Lanka: The evidence from the first post-war Demographic and Health Survey in 2016**

***Gayathri Abeywickrama, Sabu Padmadas, Andrew Hinde***

***University of Southampton***

The study examines the socio-economic inequalities in low birth weight in Sri Lanka using the first island-wide Demographic and Health Survey (DHS) conducted in 2016 after the war. The indicator of low birth weight has stagnated for nearly two decades in Sri Lanka, affecting nearly 17% of children and being characterized by inequalities across different population groups. No studies have so far examined the contribution of different socio-economic determinants to these inequalities in low birth weight in Sri Lanka. This study used the records of 7,913 children who were aged under five years. Socio-economic inequality was assessed by using concentration curves and concentration indices for different socio-

economic groups. Factors such as maternal body mass index (BMI) and height, antenatal visits, preceding birth interval, wealth, ethnicity and residential sector were identified as significant determinants of low birth weight. Low birth weight was highest among Indian Tamils who live in Estate areas. The negative concentration index (-0.132) of low birth weight indicated that low birth weight was more concentrated among the poor households in rural and Estate areas. This study applies multilevel logistic regression models to examine associations of birth weight with maternal-level and community-level variables, due to the hierarchical data structure. The results show that there is substantial unobserved variation at the maternal level. The findings of the study suggest implementing nutrition-based interventions for mothers and taking relevant actions to reduce income inequalities in vulnerable areas in Sri Lanka.

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## **Health co-benefits of air quality improvements in India under global climate mitigation policies**

***Asya Dimitrova<sup>1,2</sup>, Guillaume Marois<sup>3</sup>, Gregor Kiesewetter<sup>3</sup>, Samir KC<sup>4,3</sup>, Cathryn Tonne<sup>1</sup>***

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This study aims to quantify the future mortality burden related to projected changes in ambient air pollution under climate change for all states in India up to 2050. A multidimensional cohort-component projection model will be employed to explore the range of potential health impacts under alternative climate change and demographic scenarios. We will draw population data from the two latest Indian censuses, complemented with vital rates estimates from the Sample Registration Survey. Future ambient particulate matter exposure will be derived from global and regionally downscaled climate and air pollution models, driven by the Representative Concentration Pathways. Modelling the impacts of environmental exposures dynamically, by considering the change in the size and structure of the population, and spatially, will yield more realistic estimates and enable us to reduce one of the main areas of uncertainty in projections of health impacts under climate change.

Rapid socio-economic development in India has been accompanied by gains in life expectancy and improvements in a range of health outcomes. However, it is uncertain how the fast pace of urbanization, the ageing of the population and climate change will alter this trend in the future. Demographic changes have a direct implication for future health risk assessment as they alter baseline population and mortality as well as the relative proportion of vulnerable individuals in the population.

Quantitative health impact assessments at subnational level are needed to estimate the scale of these challenges, identify vulnerabilities, and inform the design of efficient and spatially explicit adaptation and mitigation strategies. This study aims to assess the health co-benefits from projected changes in ambient air pollution up to 2050 under alternative climate mitigation scenarios. A multidimensional cohort-component projection model is employed to explore the range of potential health impacts across urban and rural areas in the states of India. Population data is drawn from the two latest Indian censuses, complemented with vital rates estimates from the Sample Registration Survey. Future ambient particulate matter exposures are derived from integrated assessment models and air quality models. Modeling the impacts of environmental exposures dynamically, by considering the change in the size and structure of the population, and spatially, will yield more realistic estimates and enable us to reduce one of the main areas of uncertainty in projections of health impacts under climate change.

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## **Men's economic dependency and allostatic load at midlife: Health damaging and promoting?**

*Joeun Kim, Nancy Luke*

*The Pennsylvania State University, US*

Objective: This presentation investigates the relationship between men's economic dependency during midlife and allostatic load, an indicator of chronic stress, and how this relationship varies with men's gender ideology. Background: Women are primary breadwinners in almost a third of heterosexual couples in the US. Emerging research finds that female primary breadwinning (or men's economic dependency) is a threat to masculinity that has negative implications for men's midlife health. However, there is no quantitative evidence of the mechanisms linking men's economic dependency and health, particularly the role of stress, and whether men's gender ideology moderates this relationship. Method: Using two waves of Midlife in the United States (MIDUS) data for men who remained in the same union between waves (n = 348), the authors test the relationship between men's economic dependency in wave 1 and allostatic load in wave 2. Results: There was no evidence of an association between men's economic dependency and higher allostatic load on average. However, gender ideology had a moderating influence; men's economic dependency was associated with higher allostatic load for those who espoused the more traditional gender attitudes and lower allostatic load for those with the most egalitarian attitudes. Conclusion: The findings underscore the existence of multiple masculinities and suggest that economic dependence has a negative or positive influence on men's midlife health depending on the meanings men attach to female primary breadwinning.

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## **Health that shapes health: The menopause and changes in health behaviours**

*Maria Herica La Valle, Amos Channon, Heini Väisänen*

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The paper draws data from the English Longitudinal Study of Ageing (ELSA) to investigate whether menopause can be defined as a teachable moment for changes in health behaviours. The analysis is conducted through two steps. Firstly, two pairs of consecutive waves of ELSA (waves 1–2 and waves 3–4) are selected and two groups of women are examined, i.e. those experiencing menopause between baseline and follow-up and those still having a period at follow-up. The aim is to study the association between menopause and changes in the frequency of alcohol intake and physical activity engagement that occurred between consecutive waves. Propensity score weighted regression analysis and multinomial logistic regression are employed at this stage. Secondly, all eight waves of ELSA are employed and only women experiencing menopause between consecutive waves are selected in order to examine age at menopause as related to changes in the two health behaviours mentioned above. Multinomial logistic regression models are run to carry out such an analysis. Very preliminary results show a link between menopause and physical activity, while no association seems to exist between menopause and change in the frequency or level of alcohol intake. Future analyses will aim to assess whether age at menopause plays a role in this context. To identify menopause as a teachable moment for changes in health behaviours would help with promoting interventions for health behaviour change targeted at women experiencing this natural life transition on the basis of the age when menopause occurs.

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## Partnership status and health

*Hill Kulu<sup>1</sup>, Júlia Mikolai<sup>1</sup>, Sebastian Franke<sup>2</sup>*

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Married individuals have better health and lower mortality than non-married people. Recent studies show that cohabiting and married individuals have similar health and, once we distinguish cohabitants from other non-married groups, the health differences between partnered and non-partnered individuals become even more pronounced. The reasons for better health among partnered individuals are far from clear. Some studies argue that married and cohabiting individuals have better health and lower mortality because of the protective effects that a partnership offers; others argue that partnered people have better health and lower mortality because healthier persons are more likely to form a union and less likely to dissolve it. This study investigates health and mortality by partnership status in England and Wales and analyses the causes of mortality differentials. We use data from the British Household Panel Study and apply survival analysis. Our analysis supports significant health differences by partnership status; partnered individuals have better health and lower mortality than non-partnered people. Our study also shows that healthy individuals are more likely to form a union and less likely to separate than unhealthy people. Our final step will be to control for both observed and unobserved selection into partnerships by applying simultaneous equations hazard models.

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## Quality of Life and health status in older people with colorectal cancer: Findings from the ColoRECTal Wellbeing (CREW) cohort study

*Natalia Permyakova<sup>1</sup>, Rebecca Foster<sup>1</sup>, Amanda Cummings<sup>1</sup>, Lynn Calman<sup>1</sup>, Jackie Bridges<sup>1</sup>, Theresa Wiseman<sup>2</sup>, Teresa Corbett<sup>1</sup>, Claire Foster<sup>1</sup>*

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Colorectal cancer (CRC) is the third most common cancer worldwide and has a median age of onset of 65–70. We describe the clinical, treatment and socio-demographic features of older CRC survivors in the CREW cohort study. Our purpose was to identify those older survivors most at risk of poor Quality of Life (QoL) and health status, up to five years after treatment. CREW is a UK-based, prospective, longitudinal cohort study investigating factors associated with recovery of health and well-being in the five years following CRC. Participants completed questionnaires including socio-demographic, psychosocial, health and well-being measures pre-surgery, then at 3, 9, 15, 24, 36, 48, and 60 months post-surgery. Clinical details were collected from the recruiting sites. Multivariable linear and logistic regression models with a population-average approach were conducted to identify pre-surgery risk factors associated in older survivors with poor outcomes of QoL (QLACS score) and health status (binary EQ-5D domains) over five years following surgery. 501 participants aged 65 or over completed baseline questionnaires; 445 were followed up. The regression models revealed that low confidence in managing the effects of cancer prior to surgery was significantly associated with poorer QoL and health status outcomes over the following five years. Poorer QoL was also associated with being over 80, inadequate perceived social support and presence of limiting comorbidities. Identifying older population at greater risk of lower QLACS/EQ-5D scores following curative intent treatment for CRC is important in developing interventions to reduce deterioration in QoL and health status of older cancer survivors.

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