

## Oral Presentations

## Aging Workforce

**0-114** EFFECTS OF CHANGES IN EARLY RETIREMENT POLICIES ON LABOR FORCE PARTICIPATION: THE DIFFERENTIAL EFFECTS FOR VULNERABLE GROUPS

<sup>1</sup>Karen Oude Hengel, Carlos Riumallo-Herl, Jolinda Schram, Daan Nieboer, Allard van der Beek, Lex Burdorf. <sup>1</sup>TNO, Netherlands

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**Introduction** From January 1st 2006 onwards, an early retirement reform was implemented in the Netherlands, in which workers born in 1950 or later were no longer fiscally rewarded to retire early. This reform did not apply to those born in 1949 or earlier.

**Objectives** This study investigated the effects of a national early retirement reform, which was implemented in 2006 and penalized early retirement, on paid employment and different exit pathways and examined whether these effects differ by gender, income level and health status.

**Methods** This study included all Dutch individuals in paid employment born six months before (control group) and six months after (intervention group) the cut-off date of the reform (1 January 1950) that fiscally penalized early retirement. A regression discontinuity design combined with restricted mean survival time analysis was applied to evaluate the effect of penalizing early retirement on labor force participation from age 60 until workers reached the retirement age of 65 years. This means that the effects between the intervention and control group were compared, while accounting for secular trends.

**Results** The intervention group postponed early retirement by 7.41 months (95% confidence interval (CI) 6.11–8.72), and partly replaced this by remaining 4.87 months (95% CI 3.60–6.24) longer in paid employment. Workers born after the threshold, annually earning €25 000–40 000, spent 1.24 months (95% CI 0.31–2.18) more in economic inactivity than those born before. The working months lost to unemployment increased by 1.50 months (95% CI 0.30–2.71) for female workers and 1.99 months (95% CI 0.06–3.92) for workers reporting multiple chronic diseases.

**Discussion** The national reform successfully prolonged working lives of older workers. However, workers with a middle income, female workers, and workers with chronic diseases were more vulnerable to premature exit from the labor market through unemployment or being without any income or benefit.

**0-204** THE INFLUENCE OF WORK-RELATED FACTORS ON RETIREMENT DECISIONS IN THE UK. THE HEALTH AND EMPLOYMENT AFTER FIFTY FACTORS INFLUENCING RETIREMENT STUDY (HEAF FIRST), A MIXED-METHODS STUDY

<sup>1</sup>Martin Stevens, Mary Barker, Stefania D'Angelo, Elaine Dennison, E Clare Harris, Cathy Linaker, Holly Syddall, Karen Walker-Bone. <sup>1</sup>University of Southampton, United Kingdom

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**Introduction** Ageing populations (caused by increased longevity and declining birth-rates) have changed workforce demographics in high-income countries, placing strain on pension systems. Recent policy changes have sought to encourage work at older ages. Modifiable work-related factors may present a further opportunity to extend working lives.

**Objectives** To establish the influence of work-related factors on the decision to retire in a contemporary UK cohort.

**Methods** The HEAF study is a cohort of English participants aged 50–64 years in 2013–2014. Participants complete annual questionnaires asking about work and health. HEAF FIRST involved qualitative interviews with retirees which informed the design of a nested case-control study. Qualitative - Retirees were sampled by socio-economic status (SES) and sex. Semi-structured telephone interviews were conducted asking about reasons for retirement and were thematically analysed. Questionnaire - Questionnaires were sent to employees in 2013–2014, who had reported retirement by 2018 (cases) or had remained employed (controls), matched on age (+/-2 years) and sex. Logistic regression models adjusted for sex, age, SES, finances, and marital status were used to investigate associations between work-related factors and retirement.

**Results** Qualitative - Work-related factors both pushed towards retirement and pulled back towards work. Retirement decisions seemed multi-factorial and work-related factors played an important role. Questionnaire - 936 responses were received from workers (n=448) and retirees (n=488). Increased retirement was associated with the following factors: (adjusted as described above): job strain (OR 2.00, 95%CI 1.33,3.01), effort/reward imbalance (OR 1.43, 95%CI 1.26,1.63), longer commutes (OR 1.36, 95%CI 1.02,1.82), lower flexibility (OR 1.25, 95%CI 1.10,1.42), perceived declining standards 2.01 (1.51,2.68), and perceived isolation (OR 1.79, 95%CI 1.18,2.71).

**Conclusion** In this cohort retirement seemed to be influenced by work-related factors. Later working was more likely where workers perceived appreciation, autonomy or flexibility in their jobs. Employers may be able to encourage later working by implementing interventions based on these findings.

**0-331** UNDERSTANDING AGE DIFFERENCES IN RETIREMENT EXPECTATIONS USING DATA FROM THE CANADIAN LONGITUDINAL STUDY ON AGING

<sup>1</sup>Jonathan Fan, Monique Gignac, Anne M Harris, Peter Smith. <sup>1</sup>University of British Columbia, Canada

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**Introduction** The proportion of the labour market comprised of older-aged workers has increased in many high-income countries. In this changing arena of aging and work, retirement expectations are of renewed interest because they can impact organizational planning and potential worker health and well-being. However, large variations in retirement outcomes have been noted across age groups.

**Objectives** This study aimed to examine: 1) the overall association between age and retirement expectations using a large population health survey; 2) the degree of variation in functional, psychosocial, organizational and life-stage factors across age groups; 3) the extent to which these factors explain the overall association between age and retirement expectations;

and 4) whether there is a remaining association not mediated by these factors.

**Methods** We used cross-sectional data from the Canadian Longitudinal Study on Aging (N= 17,938), focusing on working, non-retired adults aged 45–64 years. Data were collected via telephone and in-person interview over the 2011–2015 period. Functional, psychosocial, organizational and life-stage factors were measured using existing variables to create composite index scores. Path models examined the relationship between age and retirement expectations, and the proportion of the relationship explained via each factor.

**Results** Age was associated with functional, psychosocial, organizational and life-stage scores in expected directions. Older age also was associated with earlier retirement expectations. Path models found that 25–30% of the total relationship between older age and retirement expectations was mediated through life-stage and organizational factors.

**Conclusion** Our study demonstrates the feasibility of measuring functional, psychosocial, organizational and life-stage concepts via existing data to better understand age-related inequalities in retirement expectations. Future research should focus on measuring additional items for psychosocial and organizational factors, followed by validation of the extent to which each item explains age differences in other work outcomes.

**0-439 THE COMPLEX ASSOCIATION OF PERCEIVED WORKPLACE SAFETY, WORK ENVIRONMENT, AND NATIONAL FACTORS WITH THE MENTAL HEALTH OF AGING WORKERS IN EUROPE DURING THE COVID-19 PANDEMIC**

Shuli Bramli-Grinberg, David Christiani, <sup>1</sup>Lilah Rinsky Halivni. <sup>1</sup>Hebrew University, Israel

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**Introduction** The widespread COVID-19 contagion in workplaces has created a new workplace hazard, albeit investigated mainly among health care workers. Work-environment factors are related to workplace infection risks and individual vulnerability factors, like older age, predispose workers to severe illness. The stress and anxiety associated with the concerns regarding workplace safety and COVID-19 repercussions are jeopardizing aging workers' mental health (MH).

**Objectives** We aimed at investigating the individual and macro-level factors associated with declines in the MH of aging workers from different industry sectors. We hypothesize that higher perceived workplace safety is crucial in protecting their MH and mediates the work-environment influences.

**Methods** Using the Health, Ageing and Retirement in Europe (SHARE) data from COVID-19 survey (summer 2020) from 27 countries in Europe and Israel and additional data collected from pre-pandemic waves, we performed multi-level and mediation analyses to characterize work-environment, safety perception, socio-demographic, clinical, and national-level factors associated with MH among workers aged 50–70.

**Results** Multi-level analyses demonstrated that 24% of the aging workers experience MH declines characterized by East-West geographical European gradient associated with disease burden. The perceived workplace safety, which is low among 10% of the workers, is the strongest predictor- explaining 30% of their MH status and mediates the effects of work-environment aspects, such as workplace contagion risk. Being a woman, having financial difficulties, a higher vulnerability

index (comorbidities and age>60), pre-existing mental morbidity, and the national high burden of COVID-19 are associated with declines in MH, whereas exclusively working on-site is protective.

**Conclusion** Evaluating workplace conditions and screening vulnerable sub-groups among the aging workers who are more prone to MH declines are imperative. Workplace interventions, integrated with individual targeted approaches to reduce the influence of work-environment factors on infection risks and mental distress, hence elevating workplace safety perception, are recommended.

**0-447 ASSOCIATION OF PERCEIVED JOB SECURITY AND CHRONIC HEALTH CONDITIONS WITH RETIREMENT IN OLDER UK AND U.S. WORKERS**

<sup>1</sup>Miriam Mutambudzi, Evangelia Demou. <sup>1</sup>Syracuse University, United States

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**Background** The relationship between job insecurity, chronic health conditions (CHCs), and retirement among older workers are likely to differ between countries that have different labor markets and health and social safety nets. To date, there are no epidemiological studies that have prospectively assessed the role of job insecurity in retirement incidence, while accounting for CHCs in two countries with vastly different welfare systems. We investigated the strength of the association baseline job insecurity and retirement incidence over an 11-year period while accounting for CHCs, among workers aged 50 and above in the UK and U.S.

**Methods** We performed Cox proportional hazards regression analysis, using data from the Health and Retirement Study (HRS [U.S. cohort, n=491]) and English Longitudinal Study on Aging (ELSA [UK cohort n=821]).

**Results** We found evidence of reduced likelihood of retirement among job insecure adults in both cohorts, and a significant association between CHCs and retirement in the U.S cohort only. In the UK cohort, the association between job insecurity and decreased retirement incidence (HR=0.69, 95% CI =0.50–0.95) was attenuated after adjustment for CHCs and covariates. In the U.S cohort, adjustment for CHCs and other social and health factors significantly decreased this association (HR=0.60, 95%CI = 0.36–0.99), indicating that CHCs, social, and health factors are contributing mechanistic factors underpinning retirement incidence in the U.S.

**Conclusions** The country level differences we observed may be driven by macro level factors operating latently, which may affect the work environment, health outcomes, and retirement decisions uniquely in different settings.

## Biomarkers

**0-123 DNA DAMAGE IN LYMPHOCYTES OF FEMALE FARMERS MEASURED USING THE ALKALINE COMET ASSAY.**

<sup>1</sup>Poppy Evenden, Yannick Lecluse, Pierre Lebailly, Stephanie Perrier, Mathilde Boulanger, Matthieu Meryet-Figuère, Anne-Sophie Lacaue, Elodie Niez, Hervé Perdry, Elisa Boutet-Robinet, Séverine Tual, Stefano Bonassi, Raphaël Delépée. <sup>1</sup>ANTICIPE INSERM U1086, France

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