Ageing: Health and social care

Social vulnerability, forgone care and healthcare utilization in later life: evidence from SHARE.
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Frailty is a fundamental concept in research on ageing societies, reflecting a multidimensional condition of reduced physiological reserve and increased vulnerability to adverse health outcomes in later life. This study examines the association between social variables and healthcare utilisation and explores whether these relationships co-occur with forgone care. Using Waves 6 and 7 of the SHARE survey, we analyse two types of services (GP visits, and hospitalisations) and forgone care due to waiting lists and economic reasons among 49,623 individuals aged 50+ across 17 European countries. We include loneliness, limited social activities, networks and supports as indicators of social vulnerability. Depending on the outcome, we estimate appropriate regression models, adjusting for socioeconomics, health and demographic characteristics. Preliminary results indicate that loneliness, absence of social activities and support are associated with greater forgone care. In addition, loneliness and low social support are associated with increased utilisation of both healthcare services, while weaker social networks are associated with lower use of general practitioner visits. Including forgone care in the models attenuates the associations between social frailty indicators and healthcare utilisation. These changes could reflect the complex interplay between unmet needs, health status and access barriers. These findings highlight the role of social isolation and unmet needs in shaping patterns of healthcare utilisation, with implications for the design of age-friendly and accessible healthcare systems. Future analyses will examine the temporal ordering between these components, assessing whether social vulnerability precedes, co-occurs with, or follows patterns of missed care and service use.

Mapping adult social care need in England: A small area estimation using the English Longitudinal Survey of Ageing (ELSA)
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England's adult social care (ASC) system faces growing pressure driven by population ageing and persistent structural constraints. This paper applies small area estimation to evaluate the distribution of care need across 152 Upper Tier Local Authorities in England against observed service provision.

Care need is estimated from the English Longitudinal Study of Ageing (ELSA) using spatial microsimulation, using Activities of Daily Living and Instrumental Activities of Daily Living limitations as indicators. These are combined with Census constraints and implemented via iterative proportional fitting to generate synthetic populations for local authorities. Uncertainty is addressed through imputation of missing data and systematic sensitivity analyses of model specifications, including alternative constraint sets. Model performance is evaluated using internal validation metrics and weight distributions, and results are compared with adult social care financial reports (ASCFR) as an external benchmark.

Results show that care need is strongly associated with age, socioeconomic status, and partnership status. While the model reproduces aggregate constraints well, representation is less accurate in urban and highly deprived areas, where ELSA provides limited coverage of complex population structures. Estimated care need is weakly associated with observed expenditure, explaining less than 10% of variation. This reflects both modelling limitations and the partial nature of administrative data, which capture patterns of engagement, access, and eligibility rather than underlying need, and do not account for the role of informal care. Replicating the analysis at smaller, more disaggregated spatial units would be an instructive next step for a more granular assessment of variation in need and expenditure.

Who benefits from long-term care insurance? Heterogeneous effects among spousal and adult child caregivers
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China's 2016 long-term care insurance (LTCI) pilots represent one of the world's largest social-care policy experiments. Using the five waves of the China Health and Retirement Longitudinal Study (CHARLS) from 2011 to 2020, we examine how access to LTCI affects the physical and mental health of informal caregivers.

We distinguish between spousal caregivers and adult-child caregivers. The latter provide nearly half of all informal care yet has received little attention in the literature. Using a staggered difference-in-differences design, we find that LTCI reduces physical pain for both groups of caregivers, although its effects on their mental health are limited. Our findings highlight the uneven health benefits of social-care reform and underscore the need for policies that provide stronger mental health support for caregivers in ageing societies.

Ageing: Health and well-being

Life course socioeconomic position and health in older adulthood: A formal mediation analysis in the 1958 British Birth Cohort

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Background: Childhood socioeconomic position (SEP) is an important determinant of later-life health. Understanding whether childhood SEP remains associated with health at the threshold of older age, and the extent to which adult SEP mediates this association, is important for explaining how health inequalities persist across generations and how they might be reduced.

Methods: We used data from the 1958 British Birth Cohort, a prospective study that has followed participants since birth, drawing on data collected at birth and ages 33, 55, and 62 years. Using interventional causal mediation analyses, we examined whether adult occupational class, education, housing tenure, and income mediated associations between childhood social class (manual vs non-manual) and health at age 62, measured by self-rated health, C-reactive protein (CRP), cholesterol ratio, glycated hemoglobin (HbA1c), and N-terminal pro–B-type natriuretic peptide (NT-proBNP).

Findings: Associations between childhood SEP and self-rated health, CRP, cholesterol ratio, and HbA1c persisted after accounting for adult SEP. Mediation was outcome-specific and differed by sex. Among men, occupational class mediated 39% of the association with self-rated health and education mediated 27%. Among women, education mediated 10% and housing tenure mediated 6%. Indirect effects for CRP were smaller, and mediation was minimal for cholesterol ratio, HbA1c, and NT-proBNP.

Interpretation: Improvements in adult SEP may reduce, but are unlikely to eliminate, later-life health inequalities associated with childhood SEP. Reducing these inequalities will require policies that address disadvantage in early life as well as adult financial and employment conditions.

Ageing well in the community: A mixed methods study of informal encounters, neighbourhood belonging, and healthy ageing

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Intergenerational communities are a UK government priority. As the population ages, the age structure of many neighbourhoods in England is becoming older and less age diverse. There is evidence for the importance of social cohesion and intergenerational interactions on healthy ageing and wellbeing. However, literature on healthy ageing has not yet engaged with the geographical literatures on micro-scale encounters in the neighbourhood Our study aims to bring these literatures into conversation to understand how formal and informal social encounters may contribute to healthy ageing and wellbeing among older adults in England and whether these encounters shape perceptions of neighbourhood social cohesion or exclusion.

We employ an iterative-integrated mixed methods design, using geographically-linked quantitative data from the English Longitudinal Study of Ageing (ELSA) and qualitative interview data from people aged 60 and over living in the South of England. Our longitudinal quantitative analysis emphasises the role of formal and informal social encounters and neighbourhood belonging for wellbeing in older adults. Our qualitative

approach uses ‘sit-down’ and go-along interviews to untangle the complexities of informal everyday neighbourhood encounters and their role in engendering a positive sense of wellbeing and belonging.

Overall, our mixed methods analysis emphasises the importance of place-based informal encounters for greater wellbeing in later life. We argue that everyday ‘micro-encounters’ offer important sites for intergenerational interactions. Our approach allows us to draw deeper conclusions about the role of different types of neighbourhood encounters and interactions.

The long-term effects of the COVID-19 pandemic on loneliness in European older women and men: A growth curve analysis

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This study examines the long-term impact of the COVID-19 pandemic on loneliness among adults aged 65 and over across 27 European countries, focusing on gender differences and the role of government-imposed containment measures. Using longitudinal data from four waves of the Survey of Health, Ageing and Retirement in Europe (SHARE), pre-pandemic (Wave 8), two SHARE Corona surveys (2020–2021), and post-pandemic (Wave 9), the analyses include 49,351 observations from 15,497 individuals. Logistic growth-curve models (wave–individual–country) were estimated to assess changes in loneliness across pandemic periods and to explore how gender and policy stringency shaped these patterns. The results show that loneliness increased significantly during the second COVID-19 phases and remained elevated in the post-pandemic period compared with pre-pandemic levels, indicating a sustained rise in emotional vulnerability among older adults, especially for women. Higher policy stringency was associated with greater loneliness, following a curvilinear pattern: loneliness rose with increasing restriction levels but levelled off and declined at the highest stringency levels. Interaction analyses showed that women were more sensitive to increases in policy stringency. The findings underscore the persistent and gendered effects of the COVID-19 pandemic on loneliness among Europe’s older population. Public health and social policy interventions should adopt gender-sensitive and context-aware approaches to reduce loneliness and enhance resilience during and after large-scale crises.

Digital inequality and unequal health returns in later life: Evidence from the United States

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As digital technologies become load-bearing infrastructure in American healthcare — patient portals, telehealth, online provider communication — a pressing question emerges: do older adults benefit equally from these tools, or does digital health engagement yield diminishing health returns with age, compounding existing inequalities?

Drawing on fundamental cause theory and life-course perspectives, this study conceptualizes digital health engagement as a flexible resource whose health returns, not just distribution, may be stratified across age cohorts — reframing digital inequality from a question of access to one of benefit.

Data come from HINTS 7 (2024), a nationally representative cross-sectional survey of U.S. adults, restricted to those aged 50 and above. Digital health engagement is operationalized as a composite capturing both behavioral dimensions — online health information seeking, provider messaging, patient portal access, and telehealth use — and skill-based dimensions via HINTS's digital literacy items, which distinguish what people do from what they are capable of doing. Outcomes are self-rated health and confidence in managing one's own health. Multivariate regression models with age-group interaction terms (50–64, 65–74, 75+) estimate whether health returns to digital engagement vary across the life course, adjusting for education, income, race/ethnicity, insurance coverage, chronic conditions, and functional limitations. Survey-weighted procedures account for HINTS's complex sample design.

The study anticipates attenuated associations between digital engagement and health outcomes among the 75+ group, consistent with cumulative disadvantage logic. If confirmed, this implies that digital health infrastructure expansion may concentrate benefits among already-advantaged older adults — with direct implications for age-inclusive digital health policy.

Ageing: Work and poverty in later life

Work, stress and cognitive ageing among older adults: Evidence from India
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In light of increasing longevity, improving health conditions and growing ageing population, productive engagement in different activities has gained greater attention. Engagement in work and different occupations is a direct measure of social standing and an important gradient in the recipe for achieving a healthy life. Therefore, researchers and policymakers have paid attention to the association between productive engagement and health of older people. This study examines the association between principal lifetime occupation and the occurrence of cognitive impairment older adults aged 45 years and above in India using the Longitudinal Ageing Study in India (LASI-1: 2017-2018). Further, the study also explores how occupational hazard exposure impacts cognitive function of working older adults. The main outcome variable is cognitive impairment; work characteristics and occupational hazards are key explanatory variables and control variables are socio-demographic and economic characteristics. Bivariate and Generalised Additive Model analysis is conducted to fulfil the objectives. Further, propensity score matching is performed on subsample to check robustness. The finding's shows that those previously worked but currently not working had higher prevalence of cognitive impairment. Males (7.49%) and females (20.76%) who were engaged in agricultural activities had the highest prevalence of poor cognitive function compared to other occupational categories. Further, compared to other physically dominated occupational categories, those engaged in intellectually demanding work such as professional and legislative works, exhibited a lower prevalence of poor cognitive function. This finding can be explained by the theory 'Use it or Lose it', which explains how the brain functions in aged population.

Social class, differentiated career trajectories and financial and wellbeing outcomes in later life
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This article examines, firstly, the extent social class at birth (father's social class) predicts activity pathways through life using the 1958 BCS. Secondly, we explore whether occupational class at birth or alternatively activity trajectory impacts financial and quality of life outcomes.

We employ sequence analysis to construct activity histories, based on occupational social class, unemployment and caring, and apply optimal matching and cluster analysis on 8,327 sequences. We identify 6 ideal typical trajectories: Disrupted; Professionals; Office workers; Skilled manual; Managerial-Technical; Upwardly mobile to Managerial-Technical. MNL of the trajectory antecedents shows women are more likely to be office workers or in the disrupted category while men are more likely to be upwardly mobile to managerial-technical jobs. Social class at birth predicts membership of these pathways even controlling for education, which is also a significant predictor.

Results show gender differences: women spend 13.52% of their time until age 55 looking after the family and home while men spent only 0.39% of their time doing so, men spend 23.61% of their time in skilled manual occupations, while women spent 24.76% of their time in office work. The transitioned to higher level managerial and technical occupations and skilled manual clusters are strongly associated with having a father employed in the same occupational classes.

For outcomes at age 62, occupational class at birth remains associated with savings and household income even controlling activity trajectory. The disrupted trajectory (mainly women) consistently predicts negative effects on wellbeing and financial outcomes (owns home, household savings).

Heterogeneous effects of state pension age increases on retirement expectations in the UK: Evidence from the wealth and assets survey
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The UK government has introduced a series of strategies to maintain the financial sustainability of the pension system in the context of an ageing population, including increases in the State Pension Age (SPA). The SPA for women was initially set to rise under the Pensions Act 1995 to achieve equalisation with men at

age 65 by 2020 and was later accelerated by the Pensions Act 2011. However, communication between affected women and the Department for Work and Pensions has been criticised as delayed and inadequate, which led to the launch of the "Women Against State Pension Inequality" (WASPI) campaign. This research uses data from the Wealth and Assets Survey to examine whether the WASPI women's retirement expectations, measured in terms of expected retirement age and expected income sources, have changed in response to increases in the SPA, and how these responses vary across subgroups with different demographic and socio-economic characteristics. The results show that women from ethnic minority groups, with lower levels of education, and without defined benefit (DB) pensions are more likely to be disadvantaged in how they adjust their retirement expectations and pension planning in response to increases in the SPA. The findings of this paper may provide evidence relevant to potential compensation strategies for WASPI women, as well as inform more tailored communication strategies for future pension policy reforms.

Labour market returns from internet access: Comparing older and younger workers in China
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Population aging and delayed-retirement reform are extending working lives, while digitalization is reshaping the labor market itself. It still remains unclear whether older workers obtain the same labor-market return from Internet access as younger workers, and how they benefit in different ways. Using panel data from the China Family Panel Studies (2014-2020), this study examines the association between Internet access and labor income among younger workers aged 18-35 and older workers (men aged 45-60 and women aged 45-55). Results show that Internet access is positively associated with labor income in both cohorts, but the return is larger and more cumulative in late-life career. For older workers, the labor-market return is more strongly tied to work-related Internet access and is strongest among those with more education, urban residence and occupied in lower-skill work. For younger workers, the return is concentrated more in online social use and less tied to prior advantages in labor market, but will increase as age and experiences increase. This study extends the research of digital returns from the early and middle career to later working life, and offers new evidence on how digitalization is changing age inequality in China's labor market.