≥20). An index of social isolation (0–7), with higher scores meaning greater isolation, was generated at baseline and each follow-up from seven indicators, each worth 1 point: living alone, less than monthly face-to-face or telephone contact with children/family/friends, not being a member of any organisations, not working, not volunteering. The complete-case sample was restricted to those with IC and isolation scores at baseline and no missing data on covariates. Sequential growth curve models included the predictors age and sex, isolation, and then covariate blocks of socioeconomic factors, health behaviours, health; a fully-adjusted model included all predictors and covariates.

Results In the unconditional model, average IC score at baseline was 7.06, decreasing 0.23 units over each follow-up to 6.38 at the final wave. In a model including isolation, age, and sex, higher isolation was associated with lower baseline IC (beta=-0.23, 95% CI=-0.28 — -0.18) but not associated with the rate of change of IC. This effect remained after adjusting for socioeconomic factors, health behaviours and self-rated health.

Conclusion These results suggest social isolation has a detrimental effect on IC level, but not on the rate of decline over time. However, this initial complete-case analysis should be expanded with imputation of missing data and more complex modelling of IC trajectories. Nevertheless, the study highlights the potential of this novel IC model to monitor IC over time and explore factors detrimental to healthy ageing.

P35 PSYCHOLOGICAL FRAILTY AND SOCIAL FRAILTY IN OLDER ADULTS: A SCOPING REVIEW

Mische Mckelvie*, Michael Donnelly, Dermot O'Reilly, Sharon Cruise. *Centre for Public Health, Queen's University Belfast, Belfast, UK*

10.1136/jech-2021-SSMabstracts.123

Background Frailty is increasingly being considered as multidimensional and can encompass physical, cognitive, psychological, and social frailty domains. However, while the physical and cognitive domains of frailty are established within the evidence base, there remains a lack of consensus over the psychological and social aspects of frailty. Therefore, the aims of this scoping review were to establish the extent of focus on psychological and social frailty within the frailty literature; how these domains are conceptualised/operationalised; and how they relate to physical and cognitive frailty.

Methods Using a focused search strategy to limit the scope to psychological and social frailty, one reviewer (MMcK) searched seven databases (CINAHL, EMBASE, MEDLINE, PubMED, Scopus, Web of Science, PsychINFO). Results were screened independently by two reviewers (MMcK, SC), without limits on date or geographic location of publication. Publications were considered eligible if they were focused on the specific domains of this review in community-dwelling individuals aged 50 years and over. Data was extracted using a piloted form and collated into descriptive and narrative synthesis.

Results Of 303 papers screened, 38 were included for full review. The majority of these were exclusively focused on social frailty (53%), whereas only 8% were focused on psychological frailty alone. The remaining 39% considered both domains along with other aspects of multidimensional frailty. Only one study per year was identified prior to 2014, with an exponential increase after this point highlighting the novelty of this area. Operationalisation of psychological frailty included the co-occurrence of physical frailty and low mood, depression, loneliness, and cognitive impairment. Social frailty was operationalised using a range of social concepts, including but not limited to loneliness, social support, participation, role, relationships, and networks. There was an interchangeability in definitions and measurements between frailty domains, with loneliness being utilised in measuring both psychological and social frailty, and in some cases cognitive frailty was conceptualised as psychological frailty. Both psychological and social frailty were consistently highly associated with adverse outcomes, including disability and mortality. However, the publications differed significantly on whether these associations were independent of or in addition to physical frailty.

Conclusion This review found that amongst the literature on psychological and social frailty there was little consensus on measurement, definitions, or the relationship between different frailty domains. What was evident, however, were the robust associations between negative outcomes and psychological and social frailty, which suggests that they should be afforded the same weight as the physical and cognitive frailty domains.

P36 IS IT GOOD, OR BAD, FOR HEALTH TO STOP WORKING AT OLDER AGES? EVIDENCE FROM THE HEALTH AND EMPLOYMENT AFTER FIFTY (HEAF) STUDY

[1,2]Georgia Ntani*, [1,2]Holly Syddall, [1,2]Stefania D'Angelo, [1,2]Cathy Linaker, [1,2]Martin Stevens, [1,2]Karen Walker-Bone. *[1]MRC Lifecourse Epidemiology Unit, University of Southampton, Southampton, UK; [2]MRC Versus Arthritis Centre for Musculoskeletal Health and Work, University of Southampton, Southampton, UK*

10.1136/jech-2021-SSMabstracts.124

Aim Generally, good work is good for health but there are few objective data about the effect of permanent exit from work (either through normal retirement, or health-related job exit) on health at older ages. We aimed to explore if exit from the workforce is followed by a change in self-rated health, using longitudinal data from the Health and Employment After Fifty (HEAF) Study.

Methods A cohort of participants aged 50–64 years were recruited from 24 English general practices in 2013–14 and have been followed-up annually by postal questionnaire. At baseline, information was collected about demographic and employment circumstances, physical workload, psychosocial aspects of work and their general health. At each subsequent follow-up, participants self-rated their health and additionally reported whether they were still in paid employment or whether they had exited the workforce, and if so, whether the reason for exit was at least partly due to their health. We used logistic regression modelling to explore the effect of exit from the workforce on changes in self-rated health after adjustment for self-rated health at baseline, before and after controlling for demographic, employment, and socio-demographic factors.

Results HEAF recruited a total of 8,134 people aged 50–64 years at baseline, amongst whom 5,059 were in paid employment and were successfully followed-up. Of these, 3,617 were still working 5 years later, 947 exited work permanently not for health reasons, and 333 exited work permanently at least partly due to their health. Self-rated health remained the same for: 53% of those still in paid employment; 55% of those who exited the workforce not on health grounds; and 47% of those who exited due to their health. Self-rated health

improved from baseline to 5-year of follow-up for: 21% of those still in paid employment; 25% of those who exited the workforce not on health grounds; and 18% among those who exited due to their health. Regression analysis showed that normal exit from the workforce was associated with improving health subsequently (OR: 1.32, 95%CI: 1.07,1.61), while health-related exit was associated with poorer health subsequently (OR: 2.88, 95% CI: 2.16,3.85). These effects were stronger among males than females, and were robust to adjustments for demographic, employment, and socio-demographic factors.

Conclusion This study highlights the need for more in-depth exploration of the dynamic impact of work exit on health amongst older people, aiming to develop effective policy measures for a healthy transition from work to retirement.

P37 MEASURING THE HEALTH OF PEOPLE IN PLACES: A SCOPING REVIEW OF OECD MEMBER COUNTRIES

[1]Emily T Murray*, [1]Nicola Shelton, [2]Paul Norman, [1]Jenny Head. [1]*Epidemiology and Public Health, University College London, London, UK*; [2]*School of Geography, University of Leeds, Leeds, UK*

10.1136/jech-2021-SSMabstracts.125

Background Defining and measuring population health in places is fundamental for local and national planning and conducting cross-geographic health comparisons. Yet availability and comparability of place-level health data is unknown.

Methods A scoping review was performed to identify how Organisation for Economic Co-operation and Development (OECD) countries measure overall health for sub-national geographies within each country. The search was conducted across MEDLINE, Scopus and Google Scholar, supplemented by searching all 38 OECD countries statistical agency and public health institute websites. For all three electronic databases, three concepts were created to identify studies where health indicators would have been used to assess health at a population-level: (1) health indicator, (2) population assessment and (3) OECD countries. Only at the full article assessment stage were studies excluded for not having health indicator data at a sub-country geography.

Results Out of a total of 1,157 non-duplicate titles and abstracts screened, 210 full texts were reviewed and sixty publications selected; plus extracted information from 37 of 38 OECD countries statistical agency and/or public health institute websites. Twelve health indicators were identified where data was available at a population level for sub-national geographies. Data sources varied by categorisation into mortality (all-cause, cause-specific, life expectancy at birth, life expectancy at 65 years, preventable, excess or amenable) or morbidity (self-rated health, long-standing illness, disability, activity limitations or healthy life expectancy) health indicators: the former mostly from national statistical agencies and the latter from population-level surveys. In all cases, geographic boundaries used administrative definitions. Region, or equivalent large subnational entities, was the predominant geographic level for both mortality and morbidity indicators. All-cause mortality, and some cause-specific mortality indicators, were available at regional level for all 38 OECD countries. All other mortality indicators were frequently available at this level, with the exception of life expectancy at 65 years (5 countries only). Similar but slightly fewer indicators were available for urban areas (max countries per most frequent indicator = 24), followed by municipality (range of 1–14 countries per indicator). Other geographies, particularly those at smaller granularity, were infrequently available across health indicators and countries.

Conclusion Health indicator data at sub-national geographies are generally only available for a limited number of indicators at large administrative boundaries. Relative uniformity of health indicator question format allows cross-national comparisons. However, wider availability of health indicators at smaller, and non-administrative, geographies is needed to explore the best way to measure population health in local areas.

P38 MAKING SENSE OF THE EVIDENCE IN POPULATION HEALTH INTERVENTION RESEARCH: BUILDING A DRY STONE WALL

[1]David Ogilvie*, [2]Adrian Bauman, [1]Louise Foley, [3]Cornelia Guell, [4]David Humphreys, [1]Jenna Panter. [1]*MRC Epidemiology Unit, University of Cambridge, Cambridge, UK*; [2]*School of Public Health, University of Sydney, Sydney, Australia*; [3]*European Centre for Environment and Human Health, University of Exeter, Truro, UK*; [4]*Department of Social Policy and Intervention, University of Oxford, Oxford, UK*

10.1136/jech-2021-SSMabstracts.126

Background To tackle population health challenges, we must address the fundamental determinants of behaviour and health. Systematic reviews frequently conclude that the available evidence about the effects of population health interventions is too diverse, flawed or inconclusive to support a more general conclusion about what should be done. However, merely increasing the supply of intervention studies is not enough. The pivotal link between research and policy or practice should be the cumulation of insight from multiple studies. In spite of all the developments in quantitative methods for evidence synthesis, however, we struggle to derive meaningful generalisable inferences to guide and support public health action.

Methods We review theoretical, methodological and case study material from a variety of disciplines and propose a more eclectic, flexible and reflexive approach to building and interpreting the evidence.

Results If conventional evidence synthesis can be thought of as analogous to building a wall, then we can increase the supply of bricks (the number of studies), their similarity (statistical commensurability) or the strength of the mortar (the statistical methods for holding them together). However, many public health challenges seem akin to herding sheep in mountainous terrain, where ordinary walls are of limited use and a more flexible way of combining dissimilar stones (pieces of evidence) may be required. This would entail shifting towards generalising the functions of interventions, rather than their effects; towards inference to the best explanation, rather than relying on binary hypothesis-testing; and towards embracing divergent findings, to be resolved by testing theories across a cumulated body of work. We present case studies of mixed-method primary research and evidence synthesis to illustrate ways of doing this in practice.

Conclusion We should look beyond simple notions of 'interventions', search for patterns and embrace the mess in evidence synthesis in order to better understand what makes for an effective public health strategy. In this way we might channel a spirit of pragmatic pluralism into making sense of complex sets of evidence, robust enough to support more