

methodology and study design, theoretical frameworks proposed and the impacts described in each report.

**Results** The majority of research was conducted in the Pacific or Caribbean region (49%, 44%) and primarily focused on fishing and crop farming (39%, 26%). The findings indicate that there is a predominance of research focusing on the environmental impact of marine and coastal resources (mostly fishing), and very limited evidence regarding the impact of locally implemented food production programs on human health, particularly nutrition and diet-related outcomes. Furthermore, there was a general absence of explicit theoretical frameworks or logical models to explain how CFPIs may bring about health, social, economic or environmental change. The studies which reported the impacts on CFPIs tended to report the impact of management factors, social characteristics or higher level socio-political environment on CFPIs and subsequent food security.

**Conclusion** Evidence of the health and other impacts of CFPIs in SIDS is limited and the approaches taken inconsistent. This review demonstrates the need and provides a basis for developing a coherent body of methods to examine the impacts of CFPIs and provide evidence to guide policy.

#### P5 EXPLORING CONTEXTUAL PREDICTORS AND MODIFIERS OF ASSOCIATIONS BETWEEN THE NEIGHBOURHOOD BUILT ENVIRONMENT AND OBESITY ACROSS THE UK

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**Background** Studies of neighbourhood built environments and obesity-related outcomes have produced inconsistent findings in different settings. One explanation for this may be that built environment effects on health are context dependent, and therefore vary geographically. Understanding broader contextual factors that might modify or influence health effects of neighbourhood built environments could help identify conditions under which neighbourhood interventions are more likely to succeed. Using the large, geographically diverse UK Biobank sample and linking it to other area-level data, we examine whether various contextual factors at multiple scales modify our previously observed associations between the neighbourhood physical activity (PA) environment and adiposity, and/or predict geographical heterogeneity of those associations.

**Methods** The UK Biobank cohort comprises approximately 4 00 000 adults aged 40–69, recruited from across the UK between 2006 and 2010 using a clustered sampling design. Linked to each individual is detailed information about their neighbourhood environment, derived from national spatial databases. First, we examine whether cross-sectional associations between the number of formal PA facilities within 1 km of people's homes, and BMI, are modified by other neighbourhood characteristics (e.g. greenspace) operating at the same scale, by fitting interaction terms between the PA environment and potential modifiers and examining stratum-specific associations. Second, we describe how the main association varies geographically across UK nations, regions and local authorities, then explore how contextual factors at various scales might explain this variation. We apply single and multilevel regression modelling techniques to a dataset we

have constructed by mapping the UK Biobank sample and linking it to publicly available data on a range of geodemographic and environmental characteristics of areas.

**Results** While the overall association between the PA environment and BMI is negative, models stratified by other neighbourhood characteristics showed some evidence of effect modification at this scale. The main association also varied geographically at various scales, even after comprehensive adjustment for sociodemographic and other characteristics of individuals. For example, we observed an association of above-average magnitude in Scotland, but below-average in Wales, and strong in Bristol and Glasgow, but null in parts of Yorkshire and the North East. Preliminary results suggest characteristics of the broader areas in which neighbourhoods are located may explain some of this observed variation.

**Conclusion** Associations between neighbourhood PA environments and BMI appear to vary across the UK, at multiple geographical scales. Understanding this heterogeneity may help identify where built environment interventions might be expected to succeed or fail, and what contextual factors might support such interventions.

#### P6 VARYING MENTAL HEALTH IN THE POPULATION ACROSS SCOTLAND DURING THE RECENT RECESSION

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**Background** This research focusses on geographical variation in population mental health over the period 2007–2011 (during the onset of the economic recession). We report preliminary results from a project recently funded under the ESRC SDAI programme, seeking to explore variability in mental illness in Scotland during this period. Our methods combine information on individual lifecourse changes, as well as change over time in areas where the individuals are living. This research contributes to a growing field concerned with the relationships between population health and changes in wider determinants of health, operating over time for both individual *people* and *places* where they live.

**Methods** We are making innovative use of a variety of data sources including individual data from the Scottish Longitudinal Study (SLS), a large (5%) sample from the Scottish population; drawn from the population census made available under secure conditions at the Longitudinal Studies Centre Scotland, with help and supervision of SLS staff. (SLS is supported by the ESRC/JISC, the Scottish Funding Council, the Scientists Office and the Scottish Government.) We report on work which has linked these data to information on prescriptions likely to be used to treat mental illness (provided by the Electronic Data Research & Innovation Service (eDRIS) and information on area socio-economic conditions publicly available via Scottish National Government and NOMIS (Durham University) a service provided by the Office for National Statistics, ONS.

**Results** We report preliminary results from a dataset for more than 1 20 000 people. Most of those reporting mental illness were taking antidepressants. There is a significant statistical