OP59 PREVALENCE AND PATTERNING OF HEALTHY, LOW-CARBON LIFESTYLES IN THE UK: A CROSS-SECTIONAL ANALYSIS OF UK BIOBANK BASED ON COMBINATIONS OF TRAVEL AND DIETARY BEHAVIOUR

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Background There is considerable policy interest in promoting behaviours with health and environmental co-benefits, but current research has typically focused on single behaviours in isolation rather than on understanding healthy, sustainable lifestyles more broadly. The aim of this study was to describe the prevalence and socio-demographic patterning of healthy, low-carbon (HLC) lifestyles in the UK population by identifying clusters of travel and dietary behaviours that have implications for both human health and carbon emissions.

Methods We analysed self-reported data from participants in UK Biobank (aged 39–72) who completed a 24 hour dietary recall questionnaire (n=211,049). Measures of travel behaviour included transport mode(s) for both commuting and non-work journeys (car, public transport, walking, cycling) as well as average daily driving time. Measures of dietary behaviour included consumption of red and processed meat (RPM), fruit and vegetables, and vegetarian status. We used latent class analysis (LCA) to identify unique clusters of travel and dietary behaviour and characterised each group as 'higher-carbon' or 'lower-carbon' based on its indicators. Best-fitting LCA models were selected using information criteria and interpretability. Multinomial logistic regression was used to examine socio-demographic differences between each cluster, compared to the highest-carbon class. All analyses were stratified by sex due to gender differences in diet and active travel behaviour.

Results The best-fitting models identified 10 different classes among females and 9 among males. The largest classes were characterised by higher car use (2–4 hours/day) and higher RPM consumption (>1 serving/day) representing 72% of males, and 65% of females. The proportion leading entirely HLC lifestyles (composed of female cyclists, urban vegetarians) was very small (3%). Several groups comprised a much larger segment whose lifestyles were partially or predominantly HLC (20% of males, 27% of females). In fully adjusted multinomial models, the most consistent predictors of HLC lifestyles (across all classes) were having higher qualifications, residing in an urban postcode, and living in and around London.

Discussion This is the first study to measure HLC lifestyles in the UK based on combinations of travel and dietary behaviour. We found that wholly HLC lifestyles are very rare and particularly scarce outside of the most highly urbanised areas, however a sizable minority of the population engages in behaviours that are partially or predominantly HLC. The existence of clustering between travel and dietary behaviours suggests that there is a policy role for establishing stronger links between these areas and for promoting HLC lifestyles more holistically.

OP60 AGE-FRIENDLY ENVIRONMENTS AND PHYSICAL ACTIVITY: A CROSS-SECTIONAL, OBSERVATIONAL STUDY OF THE OVER 55S IN IRELAND

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Background The benefits of physical activity extend beyond improving or maintaining physical health. Regular activity reduces the risk of dependency in old age, enables social participation, promotes mental health and well-being, and in combination with other lifestyle factors, may reduce the chances of developing dementia. Despite the benefits of regular physical activity, one-in-three older adults in Ireland have low activity levels. Therefore, the objective of this study is to examine the effect of health, social connectedness, and perceived accessibility and safety of the local environment on physical activity in the over 55 s in Ireland.

Methods Data was from the Age-Friendly City and Counties Survey (2016), a population-representative cross-sectional survey of community-dwelling adults aged 55+administered in 21 Local Authority areas in Ireland (n=10,540). Data was collected face-to-face using Computer Assistant Personal Interviews. Mixed-effects negative binomial regressions were used to estimate the effect of 1) health status and behaviours, 2) social connectedness, 3) availability and accessibility of recreational green areas, and 4) perceptions of safety in the local area, on physical activity. Moderate and vigorous activity was measured using a brief version of the International Physical Activity Questionnaire and reported as minutes-per-week. Models were adjusted for socio-demographic characteristics. Results are reported as Beta (β) Coefficients, with Standard Errors (S.E).

Results In the fully adjusted model, area-level differences explained 8% of the observed variance in physical activity. Poor health (β −0.74, S.E. 0.22, $p<0.001$), loneliness (β −0.11, S.E. 0.02, $p<0.001$), community participation (β 0.34, S.E. 0.5, $p<0.001$), and difficulty accessing green spaces (β −0.19, S.E. 0.09, $p<0.05$) partially explained physical activity differences. Several socio-demographic characteristic were also associated with physical activity. Women (β −0.03, S.E. 0.09, $p<0.001$) older adults (aged 75+) (β −0.02, S.E. 0.07, $p<0.001$), and those looking after a family or home (β −0.02, S.E. 0.08, $p<0.01$), were less physically active than their peers. These findings are limited to self-reported perceptions of the local environments whereas geographical data could add further relevant information about area-level social deprivation and distance to services and green spaces.

Conclusion In Ireland, like many other cities and countries that have subscribed to the World Health Organisation's Age-friendly Cities and Counties Programme, locally-directed social and health strategies are increasingly being developed. These results shows that, combined with individual-level behaviour change interventions, improvements to the local environment and promoting social connectedness may be useful in promoting physical activity among the over 55 s.