

What can UK Censuses tell us about health inequalities among young people?

PhD project: Katrin Metsis

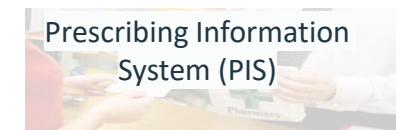
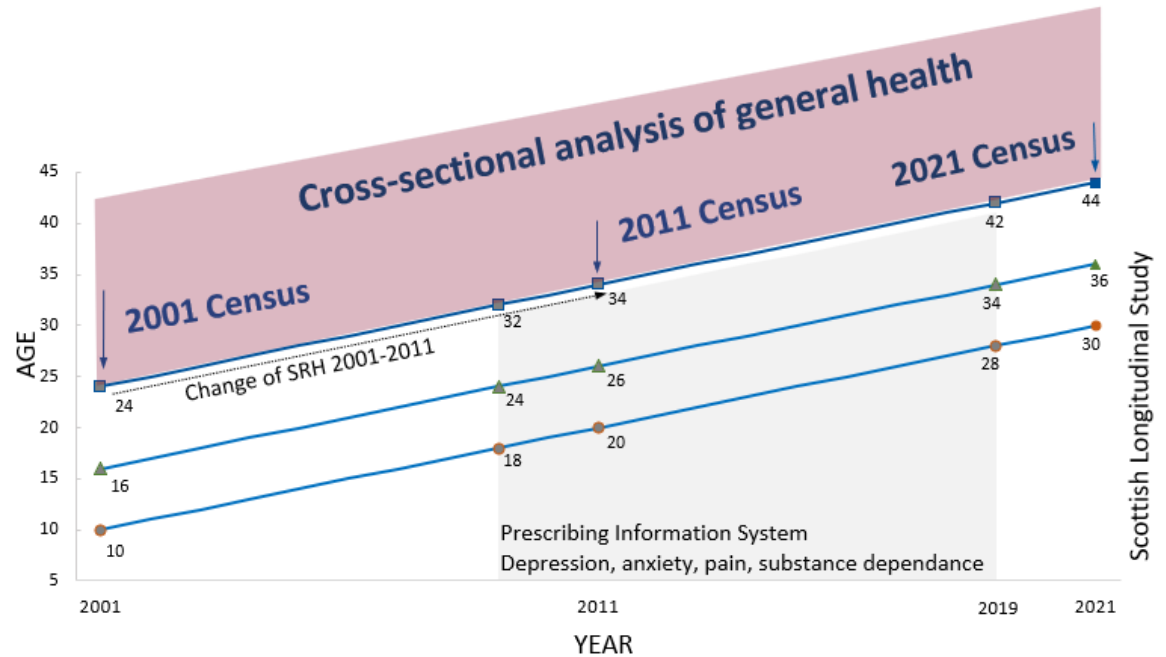
Team: Frank Sullivan, Joanna Inchley, and Andrew James Williams

Motivation

70% of premature deaths in adulthood due to the behaviours initiated in adolescence (WHO 2001)

Self-rated health as a predictor of future health

PhD Project



Aim

How is the socioeconomic position (SEP) of the household reference person related to the young people's self-rated health?

What are the patterns of socioeconomic inequalities in the 2001, 2011, and 2021 UK Censuses?

Data, variables and methods

Design and data collections

Study population: young people (10–24-year-olds)

Cross-sectional study

Census 2001: Small Area Microdata (SAM). UK Data Service. SN: 7207

2011 Census Microdata Individual Safeguarded Sample (Local Authority): England and Wales. UK Data Service. SN: 7682

2011 Census Microdata Individual Safeguarded Sample (Local Authority): Scotland. UK Data Service. SN: 7835

2021 Census: Safeguarded Individual Microdata Sample at Region Level (England and Wales). UK Data Service. SN: 9154

Health outcome: general health question

2001 Census

Over the last twelve months would you say your health has on the whole been:

Good?

Fairly good?

Not good?

2011 and 2021 Censuses

How is your health in general?

Very good

Good

Fair

Bad

Very bad

Comparison of the 2001, 2011 and 2021 Censuses

(Smith and White, 2009)

Binary health variable	2001	2011 and 2021
Good health (0)	Good	Very good
	Fairly good	Good
Bad health (1)	Not good	Fair
		Bad
		Very bad

Socioeconomic position

The UK National Statistics Socio-economic Classification (**NS-SEC**) of the household reference person (**HRP**)

Five class version and three residual categories

1. Managerial and professional occupations
2. Intermediate occupations
3. Small employers and own account workers
4. Lower supervisory and technical occupations
5. Semi-routine and routine occupations
 - Never worked or long-term unemployed (**NWLTU**)
 - Full-time students
 - Not classifiable occupations (2001 data)

Covariates

Demographics: age and gender

Household deprivation: educational and housing dimensions

Region

- No person aged 16 to pensionable age has at least level two education (level 1 in Scotland), and no person aged 16 to 18 is a full-time student
- Either overcrowded, in a shared dwelling, does not have sole use of a bath/shower or toilet, or does not have central heating

North and North-East of England
South and East of England
London
Wales
Glasgow City
Other Scotland

Statistical analysis

Stata version 16

10–24-year-olds selected from the datasets

A separate analysis of 2001, 2011 and 2021 datasets

Bivariate analysis

Chi-square test to assess the association between SRH and covariates

Stepwise logistic regression analysis

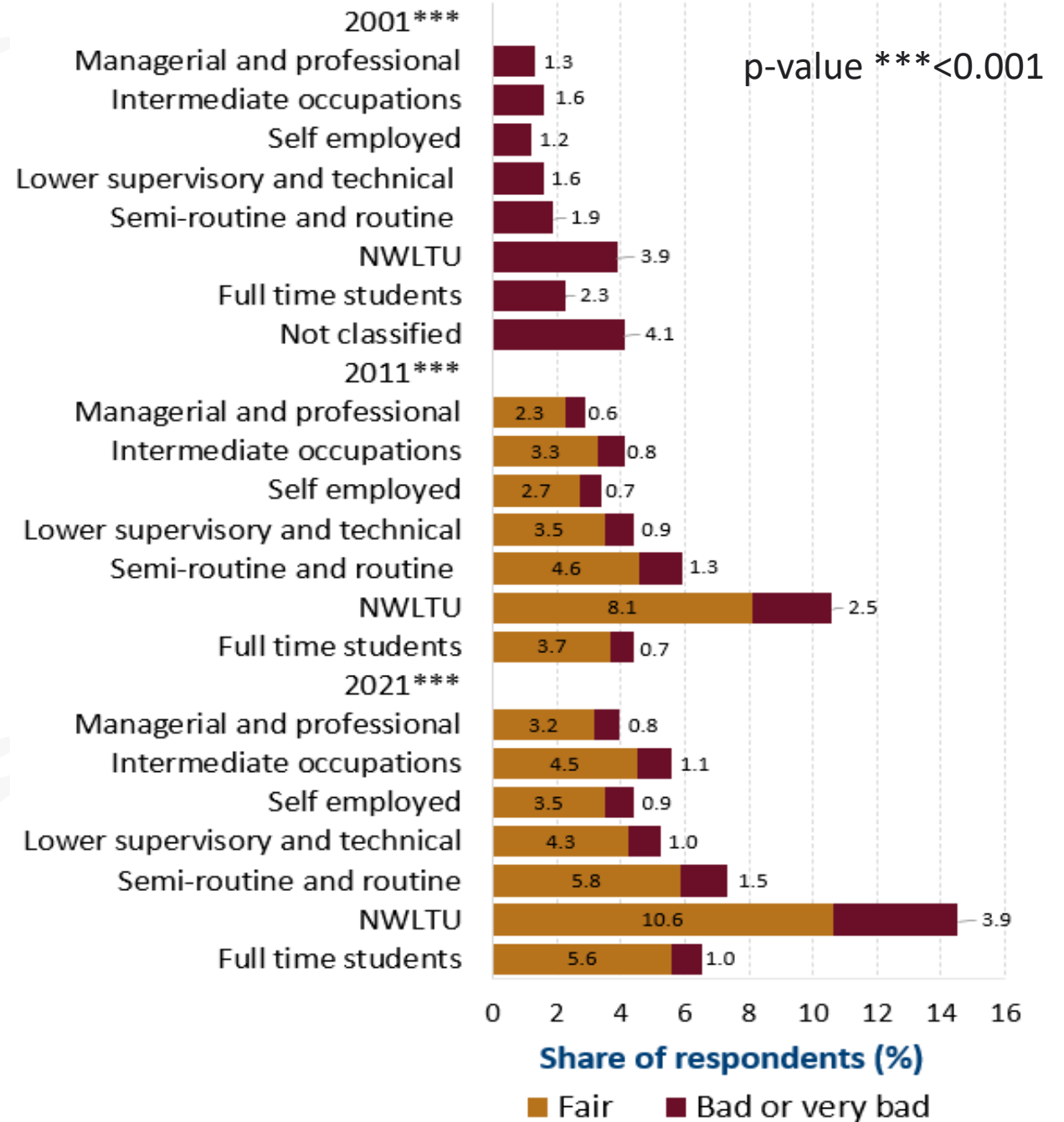
Odds ratios and 95% confidence intervals

Results

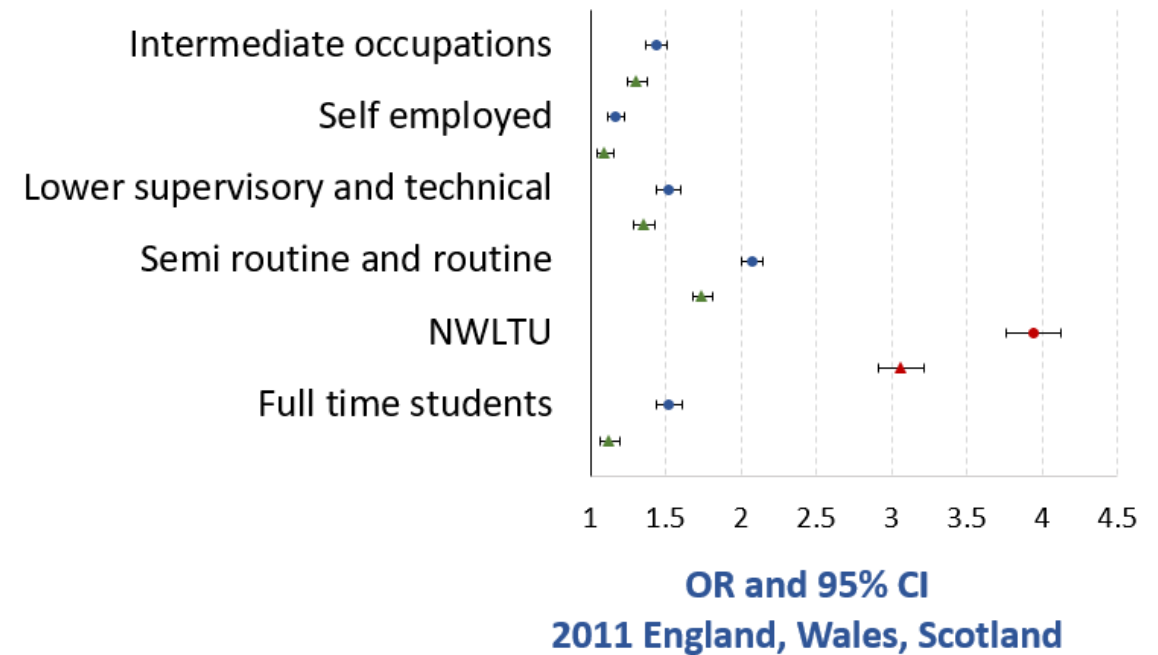
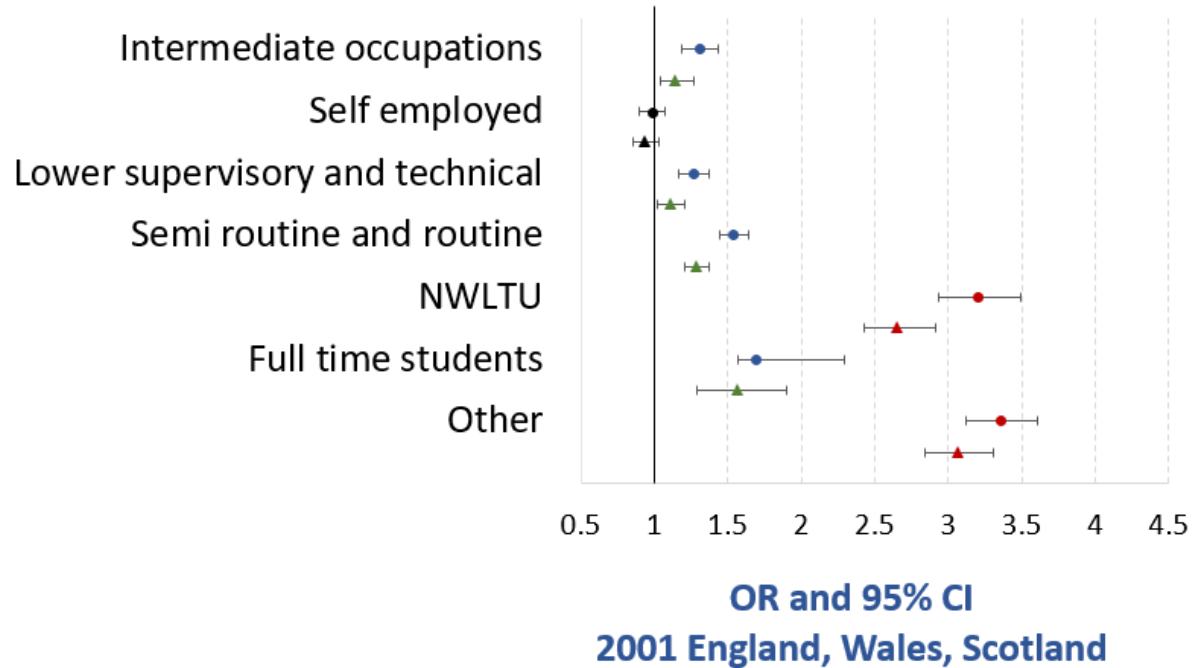
Bivariate analysis: prevalence of bad health by the NS-SEC of the HRP*

2001, 2011, and 2021 Censuses

* Pooled data for England, Wales, and Scotland
2021 data includes England and Wales only



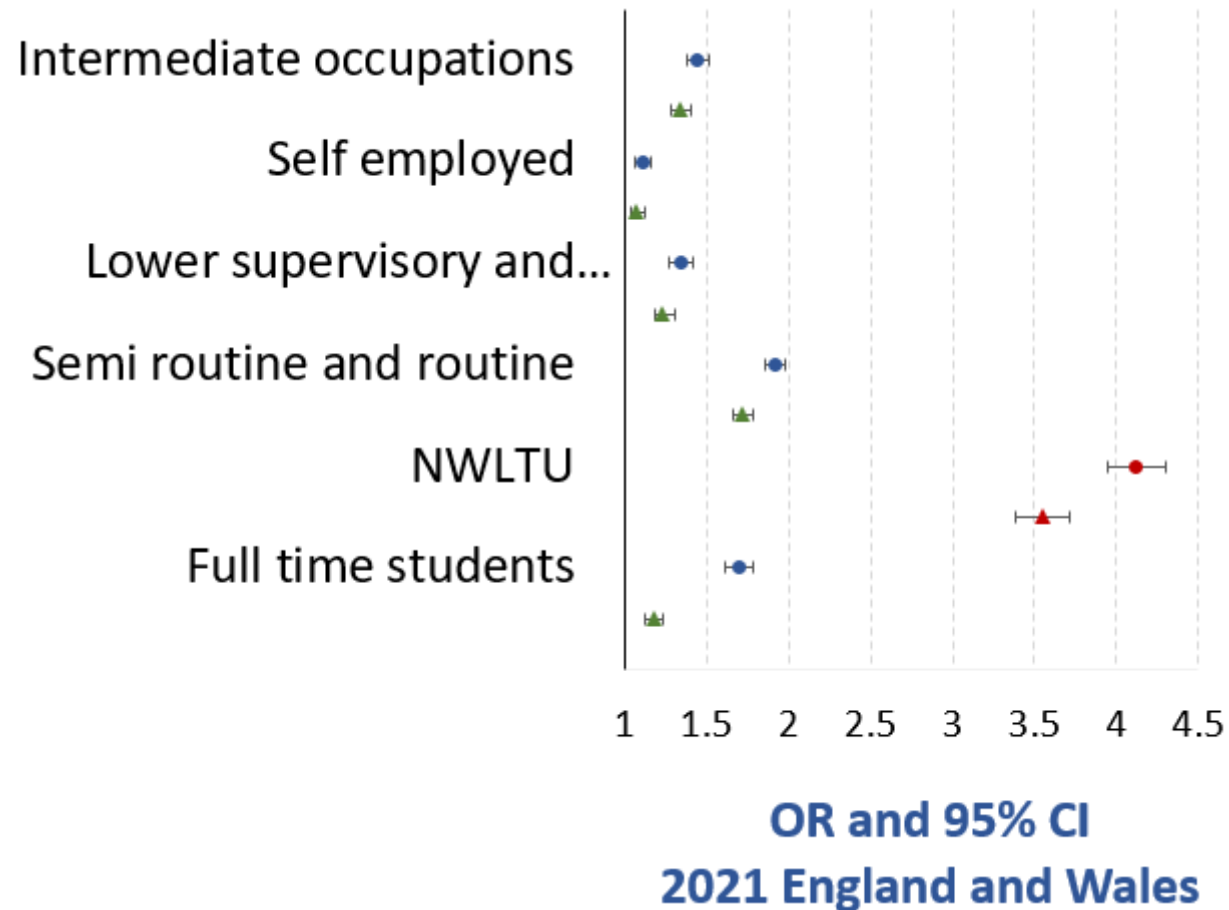
Logistic regression analysis 1: Odds of reporting poor health and 95% CI*



*Compared to the young people from households with the HRP from managerial or professional NS-SEC group

● Unadjusted model ▲ Model adjusted for age, sex, household deprivation, region

Logistic regression analysis 2: Odds of reporting poor health and 95% CI



Conclusions

- Health inequalities among 10–24-year-olds can be observed using data from the UK Censuses; and the NS-SEC of the HRP.
- We observed a similar gradient of poor health across the 2001, 2011 and 2021 datasets. As the disadvantage increases, the share of those reporting poor health also increases.
- Our findings support the view of family as a unit of shared resources and perceived life chances, that place young people from different SE backgrounds to more or less favourable health pathways.

References

World Health Organization (2001) *The Second Decade: Improving Adolescence Health and Development*. Department of Child and Adolescent Health and Development, Family and Community Health, World Health Organization.

University of Manchester, Cathie Marsh Centre for Census and Survey Research, Office for National Statistics, Census Division. (2023). *Census 2001: Small Area Microdata (SAM)* . [data collection]. UK Data Service. SN: 7207, [DOI: 10.5255/UKDA-SN-7207-1](https://doi.org/10.5255/UKDA-SN-7207-1)

Office for National Statistics, *2011 Census Microdata Individual Safeguarded Sample (Local Authority): England and Wales* [computer file]. Colchester, Essex: UK Data Archive [distributor], March 2015. SN: 7682.

National Records of Scotland, *2011 Census Microdata Individual Safeguarded Sample (Local Authority): Scotland* [computer file]. Colchester, Essex: UK Data Archive [distributor], November 2015. SN: 7835.

Office for National Statistics. (2023). *2021 Census: Safeguarded Individual Microdata Sample at Region Level (England and Wales)*. [data collection]. UK Data Service. SN: 9154, [DOI: http://doi.org/10.5255/UKDA-SN-9154-1](https://doi.org/10.5255/UKDA-SN-9154-1)

Smith M, White C: An investigation into the impact of question change on estimates of general health status and healthy life expectancy. *Health Stat Q* 2009(41):28-41.



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