

Case studies – secondary analysis of health surveys

Vanessa Higgins and Deb Wiltshire, UK Data Service



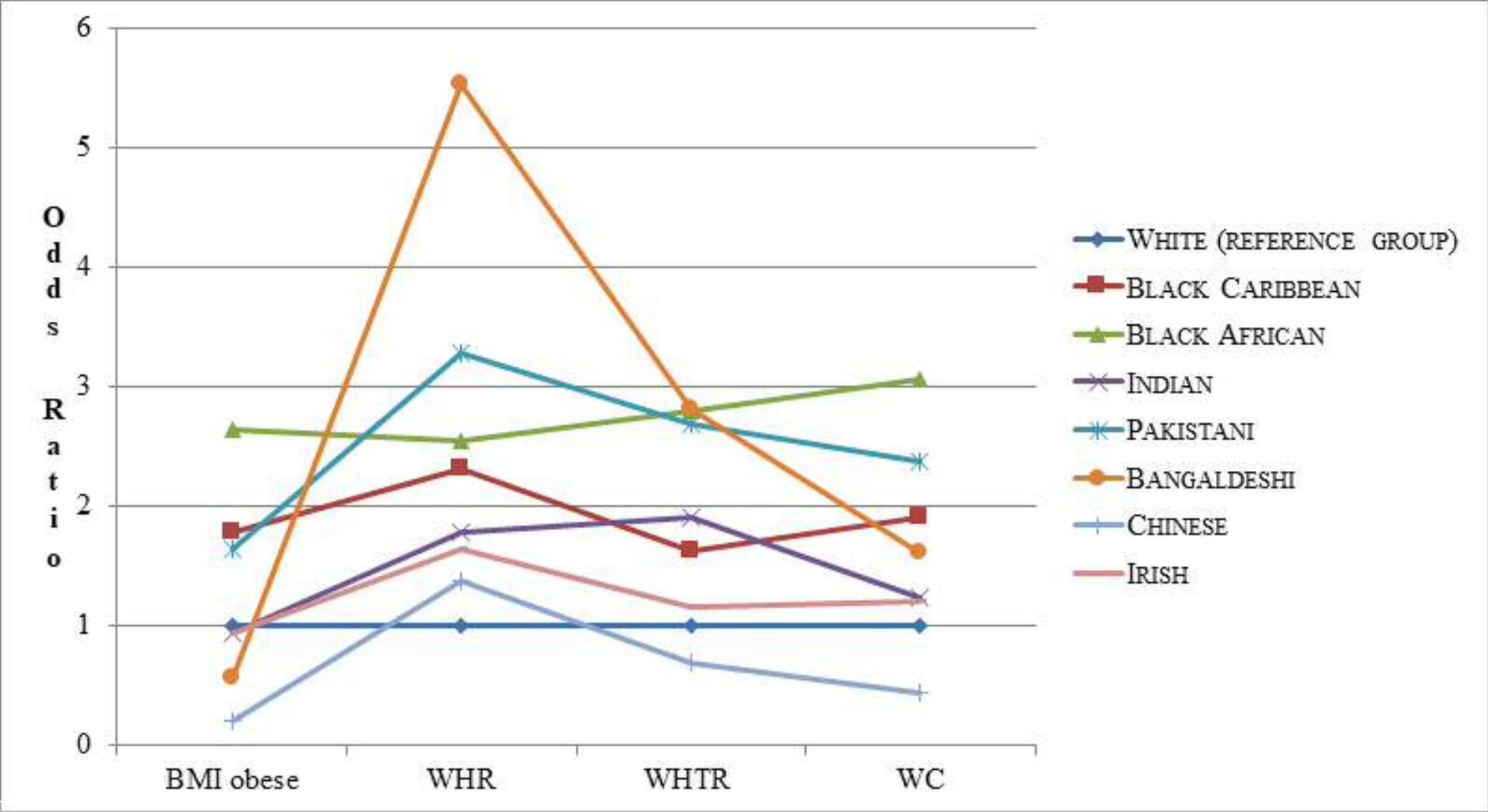
Ethnic differences in obesity

- Research spanning last decade
- Health Survey for England 1999 and 2004 ethnic boost. Combined with HSE 1998 and 2003 general population datasets.
- Combined with Census 2001 small area data.
- Logistic and linear regression and multi-level modelling in STATA
- Outcome variables: BMI, Weight, Waist Circumference, Waist Hip Ratio and Waist-to-height ratio
- Wide variety of covariates e.g: gender, age, physical activity, diet, socio-economic group, country of birth, date of migration to UK and many more.

Among women, which ethnic group has the highest level of BMI obesity (BMI >30)?



Women (age 16-74) , controlled for age



Odds ratios: BMI obese, waist-hip ratio, waist-to-height ratio and waist circumference by ethnic group:

Variety of analyses due to breadth and flexibility of the data

- individual level pathways
- area level pathways: area deprivation and co-ethnic density
- three theorised pathways combining individual and are level variables: migration, culture, socio-economic position
- sub-group analyses
 - ethno-religious groups
 - separate ethnic groups
 - gender
- household analyses: parents and children
- explored physical activity and diet as outcome variables.
- comparison over time
- operationalisation of obesity

Many health-related publications using cross-sectional surveys

RESEARCH ARTICLE

Regional differences in mental health stigma —Analysis of nationally representative data from the Health Survey for England, 2014

Vishal Bhavsar^{1*}, Peter Schofield², Jayati Das-Munshi^{3,4}, Claire Henderson^{3,4}

1 Section of Women's Mental Health, Health Services and Population Research Department, King's College London Institute of Psychiatry, Psychology and Neuroscience, London, United Kingdom, **2** Department of Population Health Sciences, School of Population Health & Environmental Sciences, King's College London, London, United Kingdom, **3** Health Services and Population Research Department, King's College London Institute of Psychiatry, Psychology and Neuroscience, London, United Kingdom, **4** South London & Maudsley NHS Foundation Trust, London, United Kingdom

* vishal.2.bhavsar@kcl.ac.uk

Epidemiology of autism in adults across age groups and ability levels*

Traolach S. Brugha, Nicola Spiers, John Bankart, Sally-Ann Cooper, Sally McManus, Fiona J. Scott, Jane Smith and Freya Tyrer

Background

The epidemiology of autism in adults has relied on untested projections using childhood research.

Aims

To derive representative estimates of the prevalence of autism and key associations in adults of all ages and ability levels.

Method

Comparable clinical diagnostic assessments of 7274 Adult Psychiatric Morbidity Survey participants combined with a population case-register survey of 290 adults with intellectual disability.

Results

The combined prevalence of autism in adults of all ages in England was 11/1000 (95% CI 3–19/1000). It was higher in

those with moderate to profound intellectual disability (odds ratio (OR)=63.5, 95% CI 27.4–147.2). Male gender was a strong predictor of autism only in those with no or mild intellectual disability (adjusted OR=8.5, 95% CI 2.0–34.9; interaction with gender, $P=0.03$).

Conclusions

Few adults with autism have intellectual disability; however, autism is more prevalent in this population. Autism measures may miss more women with autism.

Declaration of interest

None.

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Are some ethnic groups more vulnerable to COVID-19 than others?

The COVID-19 pandemic has affected some sections of the population more than others, and there are growing concerns that the UK's minority ethnic groups are being disproportionately affected. Following evidence that minority groups are over-represented in hospitalisations and deaths from the virus, Public Health England has launched an inquiry into the issue.

In the short term, ethnic inequalities are likely to manifest from the COVID-19 crisis in two main ways:



Understanding Society: monthly Covid-19 survey

- Longitudinal studies have reacted quickly to COVID-19
- UK lockdown started 23 March
- COVID survey in the field 23-29 April
- Data deposited in UK Data Archive by May

- Wave 8/9 participants age 16+
- Web survey, plus telephone
- Monthly

- GHQ-12 every wave

Research questions: one month into lockdown...

1. Who's most likely to be in mental distress now?

Pierce M, et al. (in press) Mental Health Before and During the COVID-19 Pandemic: A Longitudinal Probability Sample Survey of the UK Population. *Lancet Psychiatry*.

<http://dx.doi.org/10.2139/ssrn.3624264>

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2. Has the level of mental distress increased since the pandemic?

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Research questions: one month into lockdown...

1. Who's most likely to be in mental distress now?
2. Has the level of mental distress increased since the pandemic?
3. What characteristics predict the greatest change in mental distress?

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Which age group showed the highest mean GHQ-12 total score in April 2020?



1. Who's most likely to be in mental distress now?

- Socio-demographics (young, female, Asian)
- Household composition (living with children, not with partner)
- Socioeconomics (low income, unemployed/inactive (cf. employed/retired))
- Urban
- Health condition

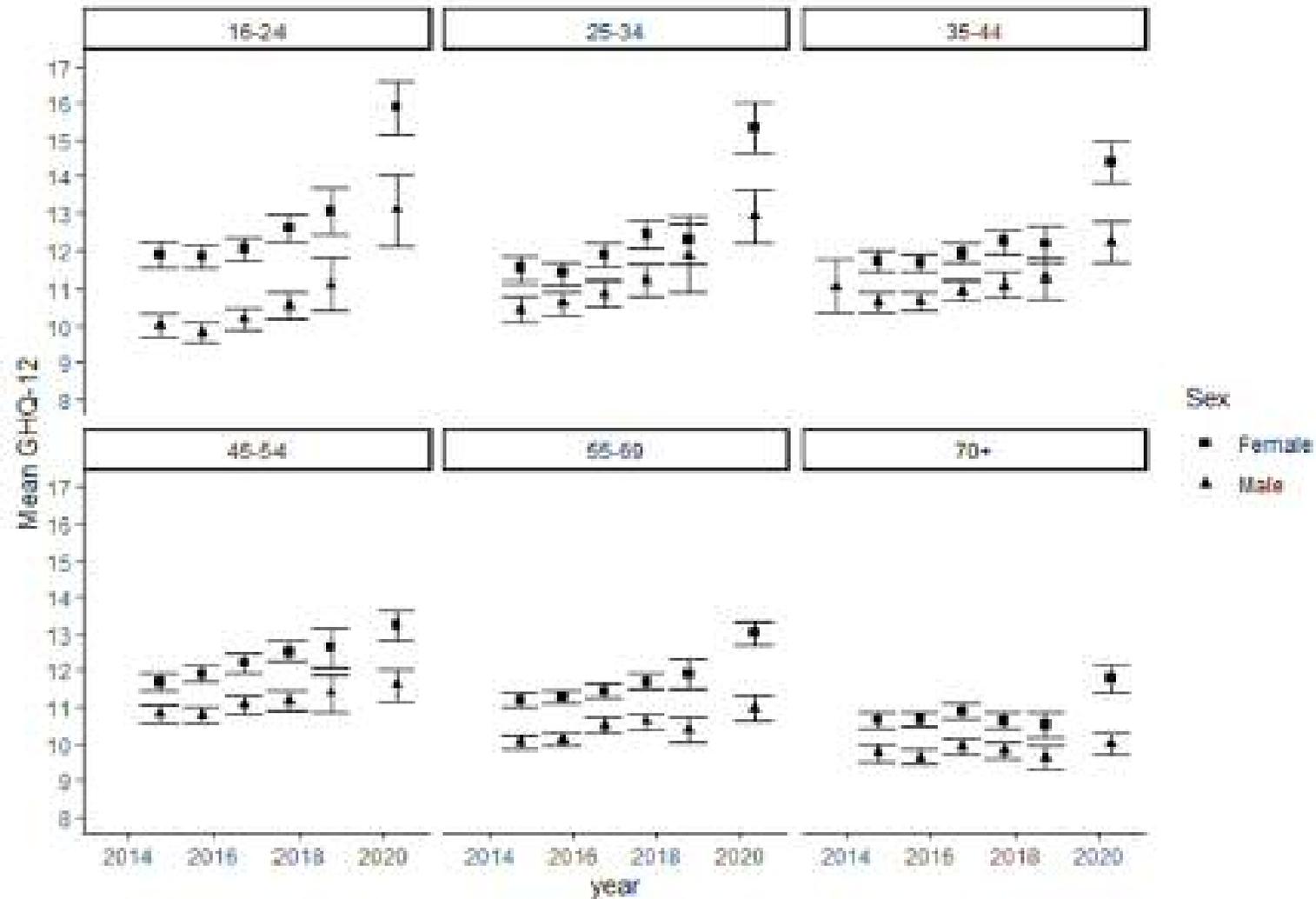
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Has mental distress increased since the start of the pandemic?



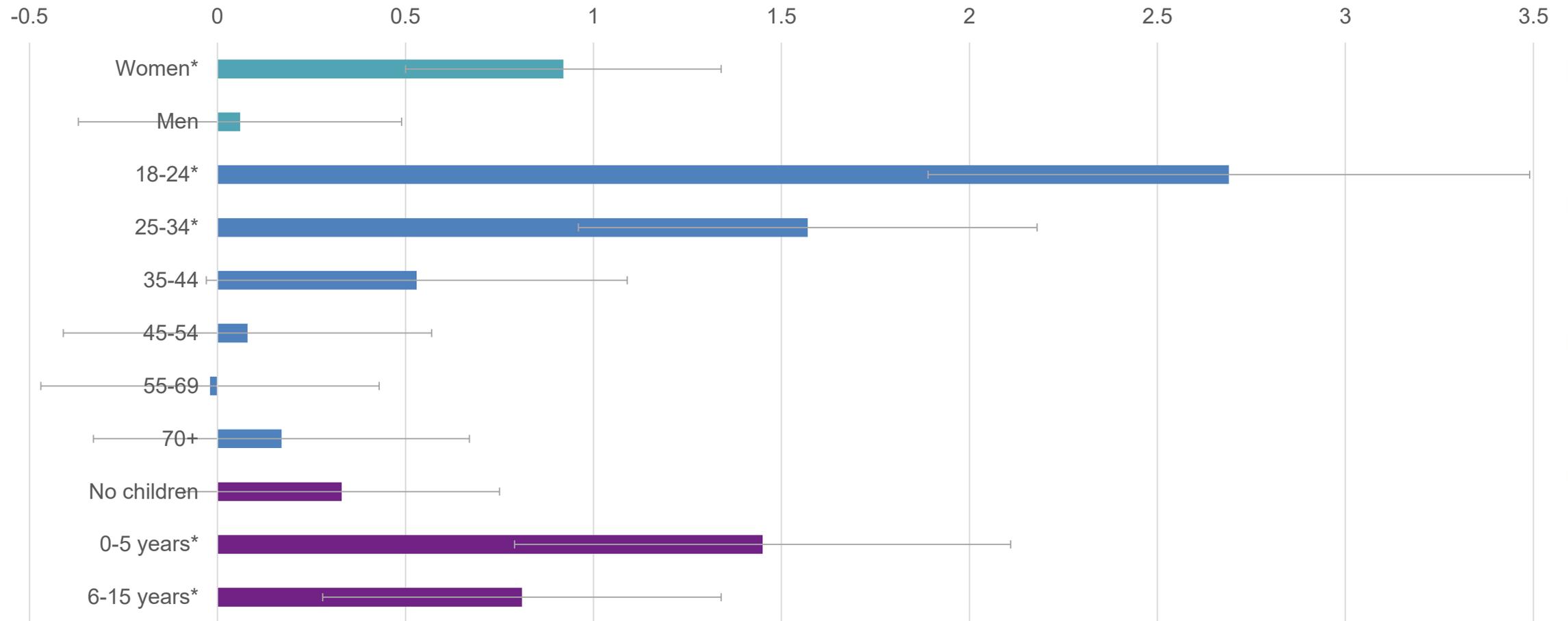
2. Has mental distress increased since the start of the pandemic?



Which of the following groups has seen the greatest change in mental distress?



3. What characteristics predict the greatest change in mental distress?



Fixed effects regression showing the within-person change in GHQ-12 score associated with the pandemic above the trends observed 2014-2019 and other factors. 15,376 Understanding Society Covid web-survey participants aged 18+.

Questions

