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Sources searched: Embase, Medline and Cinahl, Grey literature search

Time taken: 6 hours

Date Range: 2020-2022

Other Limits: UK only

Search terms and notes:

obesity or overweight or fat or obese or unhealthy weight or high bmi

"risk group*" or "risk patient*" or "risk individual*" or "risk cohort*" or inequalities

Please note I have had to avoid using 'high risk' when combined with obesity as this produces large amounts of results that relate to the high risks of having obesity and associated health problems rather than identifying high risk groups themselves.

Search requested by:	
Email:	
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Searched by:	Anna Chapman
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Tel:	01384 816893
Date(s) search carried out:	19 th – 27 th April 2022

Results

The results of your search are displayed on the following pages. Some results may provide live links directly to the articles. These may not be highlighted/underlined but should still be active. If these are not present and you require access to the full text of the article, please contact Knowledge Services and we will try and source the text for you.

Disclaimer: It is recommended that you check the references for their relevance and that they are critically appraised before being applied to a clinical decision. Please be aware that published journal articles will have been peer reviewed, however, other evidence such as pre-prints, reports and other grey literature may not have been through this process.

Overweight adults

Abstract Black adults were the most likely out of all ethnic groups to be overweight or obese, while adults from the Chinese ethnic group were least likely.

URL <https://www.ethnicity-facts-figures.service.gov.uk/health/diet-and-exercise/overweightadults/latest>

Accessed 21/04/2022, 14:37:00

Date Added 21/04/2022, 14:37:00

Attachments

Snapshot

SN03336.pdf

URL <https://researchbriefings.files.parliament.uk/documents/SN03336/SN03336.pdf> **Accessed** 27/04/2022, 13:19:10

Date Added 27/04/2022, 13:19:10

A foresight whole systems obesity classification for the English UK biobank cohort | BMC Public Health | Full Text

URL <https://bmcpublikealth.biomedcentral.com/articles/10.1186/s12889-022-12650-x> **Accessed** 27/04/2022, 11:52:09

Date Added 27/04/2022, 11:52:09

Attachments

A foresight whole systems obesity classification for the English UK biobank cohort | BMC Public Health | Full Text

Addressing socioeconomic inequalities in obesity: Democratising access to resources for achieving and maintaining a healthy weight

Author Jean Adams

Date 2020-7-28

Short Title Addressing socioeconomic inequalities in obesity

Library Catalog DOI.org (Crossref)

URL <https://dx.plos.org/10.1371/journal.pmed.1003243>

Accessed 27/04/2022, 11:53:24

Volume 17

Pages e1003243

Publication PLOS Medicine

DOI 10.1371/journal.pmed.1003243

Issue 7

Journal Abbr PLoS Med

ISSN 1549-1676

Date Added 27/04/2022, 11:53:24

Attachments

Adams - 2020 - Addressing socioeconomic inequalities in obesity .pdf

Area-level and family-level socioeconomic position and body composition trajectories: longitudinal analysis of the UK Millennium Cohort Study

Author Charis Bridger Staatz

Author Yvonne Kelly

Author Rebecca E Lacey

Author Rebecca Hardy

Abstract Background Inequalities in the trajectories of body composition in childhood and adolescence have been infrequently studied. Despite the importance of environmental factors in obesity development, little research has looked at arealevel socioeconomic

position, independent of family socioeconomic position. We aimed to assess how inequalities in body composition develop with age.

Date 08/2021

Short Title Area-level and family-level socioeconomic position and body composition trajectories

Library Catalog DOI.org (Crossref)

URL <https://linkinghub.elsevier.com/retrieve/pii/S2468266721001341>

Accessed 27/04/2022, 11:54:20

Volume 6

Pages e598-e607

Publication The Lancet Public Health

DOI 10.1016/S2468-2667(21)00134-1

Issue 8

Journal Abbr The Lancet Public Health

ISSN 24682667

Date Added 27/04/2022, 11:54:20

Attachments

Staatz et al. - 2021 - Area-level and family-level socioeconomic position.pdf

Distinct patterns of socio-economic disparities in child-to-adolescent BMI trajectories across UK ethnic groups: A prospective longitudinal study

Author Yi Lu

Author Anna Pearce

Author Leah Li

Abstract Background In many high-income countries, body mass index (BMI)/obesity levels are inversely associated with socio-economic position (SEP). Little is known whether socio-economic patterns in BMI trajectories throughout childhood differ by ethnicity, especially in the United Kingdom. Objectives To investigate socio-economic disparities in child-to-adolescent BMI trajectories and risks of overweight and obesity during adolescence across ethnic groups. Methods Mixed-effects fractional polynomial and multinomial regression models were applied to estimate socio-economic differences in BMI trajectories (3-14 years) and risk of overweight/obesity at 14 years, respectively, in the UK Millennium Cohort Study (n = 15 996). Analysis was stratified by ethnicity. Result Poverty was associated with higher BMI in children of White and South Asian origins, with a small difference at 3 years, which widened with age to 0.75 kg/m² (95% CI, 0.59-0.91) and 0.77 kg/m² (0.26-1.27) at 14 years for the White and South Asian groups, respectively. There was a reverse income-BMI

association in children of Black (African-Caribbean) origin with the poverty group having a lower BMI (-0.37 kg/m^2 [-0.71 to -0.04] at 5 years; -0.95 kg/m^2 [-1.79 to -0.11] at 14 years). These patterns also presented with maternal education as a SEP indicator and for obesity at 14 years. Conclusions Socio-economic advantage may not be universally associated with lower BMI, which should be considered when planning obesity interventions. The positive SEP-BMI association in children of Black origin requires replication and merits further investigation into underpinning mechanisms.

Date 2020-4

Short Title Distinct patterns of socio-economic disparities in child-to-adolescent BMI trajectories across UK ethnic groups

Library Catalog PubMed Central

URL <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7079192/>

Accessed 27/04/2022, 12:02:08

Extra PMID: 31872553 **PMCID:** PMC7079192

Volume 15

Pages e12598

Publication Pediatric Obesity

DOI 10.1111/ijpo.12598

Issue 4

Journal Abbr Pediatr Obes

ISSN 2047-6302

Date Added 27/04/2022, 12:02:08

Attachments

PubMed Central Full Text PDF

PubMed Central Link

Early Individual and Family Predictors of Weight Trajectories From Early Childhood to Adolescence: Results From the Millennium Cohort Study. - ProQuest

Abstract Explore millions of resources from scholarly journals, books, newspapers, videos and more, on the ProQuest Platform.

Short Title Early Individual and Family Predictors of Weight Trajectories From Early Childhood to Adolescence

URL <https://www.proquest.com/docview/2437843541>

Accessed 27/04/2022, 12:04:03

Date Added 27/04/2022, 12:04:03

Attachments

Snapshot

Family Income Gradients in Adolescent Obesity, Overweight and Adiposity Persist in Extremely Deprived and Extremely Affluent Neighbourhoods but Not in Middle-Class Neighbourhoods: Evidence from the UK Millennium Cohort Study.

Author Michael Osei Mireku

Author Alina Rodriguez

Abstract We investigated whether family income gradients in obesity, overweight, and adiposity persist at geographic-level deprivation quintiles using a nationally representative cohort of UK adolescents. Data from 11,714 eligible adolescents from the sixth sweep of the Millennium Cohort Study (14 years old) were analysed in this study. The International Obesity Task Force age- and sex-specific thresholds were used to define obesity and overweight. Self-reported family income was standardized using the Organisation for Economic Co-operation and Development (OECD)'s equivalised income scale. Geographic-level deprivation was defined by the index of multiple deprivation 2004. Results showed that the prevalence of obesity and overweight was 8.0% and 27.2%, respectively. Mean percentage body fat was 16.9% (standard error, SE = 0.2%) in male and 27.3% (SE = 0.1%) in female adolescents. Risk of obesity, overweight, and adiposity increased with decreasing family income quintiles (p for trend <0.001). After stratifying by geographic-level deprivation quintiles, a U-shaped association emerged, whereby family income gradients in the risk of adolescent obesity and adiposity persisted in extremely affluent and extremely deprived neighbourhoods but attenuated to non-significance in middle-class neighbourhoods. These results focus on the findings from England. Recognition of the persistence of inequalities in the risk of obesity in the most deprived and affluent neighbourhoods may be necessary in planning public health resources and interventions.

Date 2020 Jan 08

Archive MEDLINE®

Loc. in Archive 2338988306; 31936305

URL <https://www.proquest.com/scholarly-journals/family-income-gradients-adolescentobesity/docview/2338988306/se-2>

Volume 17

Publication International journal of environmental research and public health

DOI 10.3390/ijerph17020418

Issue 2

Date Added 22/04/2022, 15:36:44

Future trends in social inequalities in obesity in England, Wales and Scotland

Author Laura Keaver

Author Carolina Pérez-Ferrer

Author Abbygail Jaccard

Author Laura Webber

Abstract Background Previous studies have shown persistent or increasing socioeconomic inequalities in obesity in many European countries. The aim of this study was to project trends in social inequalities in obesity to 2035 in male and female adults (aged 16+) in the UK to ascertain if the gap is widening or narrowing. Methodology BMI data for the UK were extracted from the Health Survey for England (2004–14), Scottish Health Survey (2008–14) and the Welsh Health Survey (2004–14), respectively. A non-linear multivariate regression model was fitted to cross-sectional risk factor data to create longitudinal projections to 2035 stratified by sex, and occupational status or education level.

Date 2019-03-11

Library Catalog DOI.org (Crossref)

URL <https://academic.oup.com/jpubhealth/advancearticle/doi/10.1093/pubmed/fdz022/5374486>

Accessed 27/04/2022, 12:06:00

Publication Journal of Public Health

DOI 10.1093/pubmed/fdz022

ISSN 1741-3842, 1741-3850

Date Added 27/04/2022, 12:06:00

Attachments

Keaver et al. - 2019 - Future trends in social inequalities in obesity in.pdf

Genetic risk of obesity as a modifier of associations between neighbourhood environment and body mass index: an observational study of 335 046 UK Biobank participants.

Author Kate E Mason

Author Luigi Palla

Author Neil Pearce

Author Jody Phelan

Author Steven Cummins

Abstract Background There is growing recognition that recent global increases in obesity are the product of a complex interplay between genetic and environmental factors. However, in gene-environment studies of obesity, 'environment' usually refers to individual behavioural factors that influence energy balance, whereas more upstream environmental factors are overlooked. We examined gene-environment interactions between genetic risk of obesity and two neighbourhood characteristics likely to be associated with obesity (proximity to takeaway/fast-food outlets and availability of physical activity facilities). Methods We used data from 335 046 adults aged 40-70 in the UK Biobank cohort to conduct a population-based cross-sectional study of interactions between neighbourhood characteristics and genetic risk of obesity, in relation to body mass index (BMI). Proximity to a fast-food outlet was defined as distance from home address to nearest takeaway/fast-food outlet, and availability of physical activity facilities as the number of formal physical activity facilities within 1 km of home address. Genetic risk of obesity was operationalised by weighted Genetic Risk Scores of 91 or 69 single nucleotide polymorphisms (SNP), and by six individual SNPs considered separately. Multivariable, mixed-effects models with product terms for the gene-environment interactions were estimated. Results After accounting for likely confounding, the association between proximity to takeaway/fast-food outlets and BMI was stronger among those at increased genetic risk of obesity, with evidence of an interaction with polygenic risk scores ($p=0.018$ and $p=0.028$ for 69-SNP and 91SNP scores, respectively) and in particular with a SNP linked to MC4R ($p=0.009$), a gene known to regulate food intake. We found very little evidence of gene-environment interaction for the availability of physical activity facilities. Conclusions Individuals at an increased genetic risk of obesity may be more sensitive to exposure to the local fastfood environment. Ensuring that neighbourhood residential environments are designed to promote a healthy weight may be particularly important for those with greater genetic susceptibility to obesity.

Date December 2020

Archive MEDLINE®

Loc. in Archive 2484159899; 33521535

URL <https://www.proquest.com/scholarly-journals/genetic-risk-obesity-as-modifierassociations/docview/2484159899/se-2?accountid=47749>

Volume 3

Pages 247-255

Publication BMJ nutrition, prevention & health

DOI 10.1136/bmjnph-2020-000107

Issue 2

Date Added 22/04/2022, 15:36:43

Identifying adults at high-risk for change in weight and BMI in England: a longitudinal, large-scale, population-based cohort study using electronic health records

Author Michail Katsoulis

Author Alvina G Lai

Author Karla Diaz-Ordaz

Author Manuel Gomes

Author Laura Pasea

Author Amitava Banerjee

Author Spiros Denaxas

Author Kostas Tsilidis

Author Pagona Lagiou

Author Gesthimani Misirli

Author Krishnan Bhaskaran

Author Goya Wannamethee

Author Richard Dobson

Author Rachel L Batterham

Author Dimitra-Kleio Kipourou

Author R Thomas Lumbers

Author Lan Wen

Author Nick Wareham

Author Claudia Langenberg

Author Harry Hemingway

Abstract Background Targeted obesity prevention policies would benefit from the identification of population groups with the highest risk of weight gain. The relative importance of adult age, sex, ethnicity, geographical region, and degree of social deprivation on weight gain is not known. We aimed to identify high-risk groups for changes in weight and BMI using electronic health records (EHR).

Date 10/2021

Short Title Identifying adults at high-risk for change in weight and BMI in England

Library Catalog DOI.org (Crossref)

URL <https://linkinghub.elsevier.com/retrieve/pii/S2213858721002072>

Accessed 27/04/2022, 12:11:59

Volume 9

Pages 681-694

Publication The Lancet Diabetes & Endocrinology

DOI 10.1016/S2213-8587(21)00207-2

Issue 10

Journal Abbr The Lancet Diabetes & Endocrinology

ISSN 22138587

Date Added 27/04/2022, 12:11:59

Attachments

Katsoulis et al. - 2021 - Identifying adults at high-risk for change in weig.pdf

Cohort Study

Author Michelle Stennett

Author Alex Blokland

Author Richard G Watt

Author Anja Heilmann

Abstract Abstract Background There are stark ethnic inequalities in the prevalence of UK childhood obesity. However, data on adolescent overweight in different ethnic groups are limited. This study assessed ethnic inequalities in overweight prevalence during mid-adolescence using body mass index (BMI) and explored the contribution of socioeconomic and behavioural factors. Methods We analyzed data from 10 500 adolescents aged between 13 and 15 years who participated in sweep six of the Millennium Cohort Study. Ethnic inequalities in overweight and mean BMI were assessed using multiple regression models. Results were stratified by sex and adjusted for socioeconomic and behavioural factors. Results Black Caribbean males had significantly higher BMI than White males after full adjustment [excess BMI 2.94, 95% confidence interval (CI) 0.70–5.19] and were over three times more likely to be overweight [odds ratio (OR): 3.32, 95% CI 1.95–5.66]. Black Africans females had significantly higher BMI compared with White females (excess BMI 1.86, 95% CI 0.89–2.83; OR for overweight 2.74, 95% CI 1.64–4.56), while Indian females had significantly lower BMI compared with White females (reduced BMI –0.73, 95% CI –1.37 to –0.09). Socioeconomic and behavioural factors often considered to be associated with overweight were more prevalent in some ethnic minority groups (lower socioeconomic position, lack of breakfast consumption, low fruit and vegetable intake, high sugar-sweetened beverage and fast-food consumption, and infrequent physical activity), but adjustment for these factors did not fully explain ethnic differences in overweight/BMI. Conclusion Ethnic inequalities in overweight prevalence are evident in mid-adolescence and vary according to sex. Differences in overweight/BMI between ethnic groups were not fully accounted for by socioeconomic or behavioural factors.

Date 2021-04-24

Library Catalog DOI.org (Crossref)

URL <https://academic.oup.com/eurpub/article/31/2/396/6252353>

Accessed 27/04/2022, 12:11:03

Volume 31

Pages 396-402

Attachments

Stennett et al. - 2021 - Mid-adolescent ethnic variations in overweight pre.pdf

Predicting the risk of childhood overweight and obesity at 4–5 years using population-level pregnancy and early-life healthcare data

Author Nida Ziauddeen

Author Sam Wilding

Author Paul J. Roderick

Author Nicholas S. Macklon

Author Dianna Smith

Author Debbie Chase

Author Nisreen A. Alwan

Abstract Background: Nearly a third of children in the UK are overweight, with the prevalence in the most deprived areas more than twice that in the least deprived. The aim was to develop a risk identification model for childhood overweight/obesity applied during pregnancy and early life using routinely collected population-level healthcare data. Methods: A population-based anonymised linked cohort of maternal antenatal records (January 2003 to September 2013) and birth/early-life data for their children with linked body mass index (BMI) measurements at 4–5 years ($n = 29,060$ children) in Hampshire, UK was used. Childhood age- and sex-adjusted BMI at 4–5 years, measured between September 2007 and November 2018, using a clinical cut-off of ≥ 91 st centile for overweight/obesity. Logistic regression models together with multivariable fractional polynomials were used to select model predictors and to identify transformations of continuous predictors that best predict the outcome. Results: Fifteen percent of children had a BMI ≥ 91 st centile. Models were developed in stages, incorporating data collected at first antenatal booking appointment, later pregnancy/birth, and early-life predictors (1 and 2 years). The area under the curve (AUC) was lowest (0.64) for the model only incorporating maternal predictors from early pregnancy and highest for the model incorporating all factors up to weight at 2 years for predicting outcome at 4–5 years (0.83). The models were well calibrated. The prediction models identify 21% (at booking) to 24% (at ~ 2 years) of children as being at high risk of overweight or obese by the age of 4–5 years (as defined by a $\geq 20\%$ risk score). Early pregnancy predictors included maternal BMI, smoking status, maternal age, and ethnicity. Early-life predictors included birthweight, baby's sex, and weight at 1 or 2 years of age. Conclusions: Although predictive ability was lower for the early pregnancy models, maternal predictors remained consistent across the models; thus, high-risk groups could be identified at an early stage with more precise estimation as the child grows. A tool based on these models can be used to quantify clustering of risk for childhood obesity as early as the first trimester of pregnancy, and can strengthen the long-term preventive element of antenatal and early years care.

Date 12/2020

Library Catalog DOI.org (Crossref)

URL <https://bmcmedicine.biomedcentral.com/articles/10.1186/s12916-020-01568-z>

Accessed 27/04/2022, 12:10:16

Volume 18

Pages 105

Publication BMC Medicine

DOI 10.1186/s12916-020-01568-z

Issue 1

Journal Abbr BMC Med

ISSN 1741-7015

Date Added 27/04/2022, 12:10:16

Attachments

Ziauddeen et al. - 2020 - Predicting the risk of childhood overweight and ob.pdf

Tackling obesity: the role of the NHS in a whole-system approach

Library Catalog Zotero

Pages 38

Date Added 27/04/2022, 10:10:36

Attachments

Tackling obesity the role of the NHS in a whole-s.pdf

The association between area-based deprivation and change in body-mass index over time in primary school children: a population-based cohort study in Hampshire, UK

Author Abbie Twaits

Author Nisreen A. Alwan

Abstract Background/objectives Childhood obesity is a serious public health challenge. Cross-sectional evidence indicates that childhood obesity is strongly linked to area deprivation level, yet longitudinal research is scarce. We assessed the association of home-based and school-based deprivation indices with change in childhood body mass index (BMI) z-score and BMI status over 6 years in Hampshire, England. Subjects/Methods This longitudinal study linked the National Child Measurement Programme data for children aged 4–5 years (2007–08 to 2009–10) to 10–11 years. The dataset was stratified into two groups: 18,733 children for whom home deprivation quintiles, according to the Index of Multiple Deprivation (IMD), remained constant, and 6153 children who moved home deprivation quintiles between the two time points. The associations between IMD quintiles and change in BMI z-score and status were analysed. Results 63.7% of children remained a healthy weight, 3.1% remained overweight, 5.3% remained with obesity, 8.3% became overweight, and 10.3% developed obesity. Children living in the most deprived quintile increased their BMI z-score by 0.13 units more than those in the least deprived quintile (95% CI: 0.08–0.19). Home-based deprivation displayed associations with change in BMI status. (Relative risk for the most deprived quintile: become overweight 1.47, 1.21–1.78, remain obese 1.82, 1.34–2.40, become obese 2.07, 1.73–2.48.) School-based deprivation was not associated with change in BMI z-score or BMI status. Moving home to a more deprived quintile was associated with developing obesity (1.22, 1.04–1.43). Conclusions More children living in deprived areas developed obesity over time. Home-based deprivation level is more strongly associated with adverse change in childhood weight than school-based deprivation. Scholarly settings can provide opportunities for interventions, however obesity prevention interventions should tackle the obesogenic environment combining family and area-based measures.

Date 3/2020

Short Title The association between area-based deprivation and change in body-mass index over time in primary school children

Library Catalog DOI.org (Crossref)

URL <http://www.nature.com/articles/s41366-019-0418-9>

Accessed 27/04/2022, 12:09:38

Volume 44

Pages 628-636

Publication International Journal of Obesity

DOI 10.1038/s41366-019-0418-9

Issue 3

Journal Abbr Int J Obes

ISSN 0307-0565, 1476-5497

Date Added 27/04/2022, 12:09:38

Attachments

Twaites and Alwan - 2020 - The association between area-based deprivation and.pdf