The risk of stillbirth increased monotonically with increasing FPG, suggesting no biological justification for one GDM diagnostic threshold over another.

Conclusion Women with raised FPG experience higher risk of late stillbirth. If diagnosed with GDM and managed accordingly, this appears to be largely mitigated. Inconsistent diagnostic practices however leave many women with borderline hyperglycaemia exposed to higher risks of stillbirth.

OP81 A MULTI-OMICS APPROACH TO INVESTIGATE THE INFLAMMATORY RESPONSE OF LIFE COURSE SOCIOECONOMIC POSITION: FINDINGS FROM EPIC-ITALY

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10.1136/jech-2019-SSMabstracts.84

Background Lower socioeconomic position (SEP) has consistently been associated with poorer health. Chronic inflammation has been proposed as having a prominent role in the construction of social inequalities in health. Disentangling the effects of social disadvantage along the life course on inflammation is key in elucidating biological mechanisms underlying socioeconomic disparities. In this study we investigate how life course socioeconomic conditions influence omics measures of inflammation at different molecular level traits from a subset of 173 Italian participants of the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort.

Methods We used genome-wide methylation and transcriptional profiles obtained from blood samples from 178 Italian participants of the EPIC cohort. Starting from 824 genes involved in human inflammatory responses and corresponding to 11 502 CpG sites, we first identified 61 potential *cis* acting CpG loci whose degree of methylation was associated with gene expression (eMS) at a Bonferonni correction, out of which 78.7% were inversely associated with gene expression in *cis*. We further investigate the relationships between indicators of SEP at 3 life stages through father's occupation, education and highest household occupation and the 61 cis eMS, involved in inflammation and functionnally relevant, separately and combined through an inflammatory methylome score. We finally investigated life course effects of early-life SEP experiences by sequentially controlling for time-ordered SEP.

Results Our results consistently show that participants with a less advantaged SEP in young adulthood or in adulthood exhibit, later in life, a lower inflammatory methylome score (β=-0.0075, P-value=0.0067, β=-0.0076, P-value=0.0073 for educational level and highest household occupational position respectively), hence suggesting an overall increased level of expression for the corresponding inflammatory-related genes. Adjusting for either behavioural factors (smoking status, alcohol consumption and physical activity) and bmi, or all of them together only marginally affected our results: effect size estimates showed consistent signs, and associations reach statistical significance (P<0.05) for both participant's education and highest household occupational position. Adopting a life course approach weakened these associations suggesting a common pathways between young and later in life SEP. Sensitivity analyses indicated that our findings were not affected by the way the inflammatory methylome score was calculated.

Conclusion Our results support the hypothesis that social inequalities impacts, independently from behavioural factors, adult physiology through inflammation and can be observed at the DNA methylation level. Understanding biological mechanisms by which social environment influences the inflammatory system has important implications in treatment and especially in prevention, by potentially identifying modifiable factors in the environment that affect physiological health.

OP82 DOES A RAPID REVIEW VERSION OF A LARGE EPIDEMIOLOGICAL SYSTEMATIC REVIEW FAIL TO IDENTIFY MANY ELIGIBLE STUDIES, AND WHAT IMPLICATIONS DOES THIS HAVE FOR THE RESULTS OF THE REVIEW?

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10.1136/jech-2019-SSMabstracts.85

Background Systematic reviews (SR) are the gold standard evidence synthesis method. Rapid reviews (RR) have been proposed as an alternative method that may provide evidence in a more timely fashion to inform clinical decision making and policy making. However, RR may fail to identify all relevant evidence, which may bias the review conclusions. An analysis was conducted to compare SR and RR versions of a large epidemiological review in terms of completeness and efficiency of evidence retrieval and any differences in overall review findings.

Methods A SR on the political determinants of health was conducted with searches in November 2017 on 10 scholarly bibliographic databases using a combination of MeSH terms and key words, accompanied by a search on Google Scholar (GS) and backward citation chasing. Internationally comparative studies assessing the relationship between any of four political themes (democracy, globalisation, political tradition, and welfare state) and any population health outcome, excluding healthcare expenditure, were eligible for inclusion. A RR version of this review was conducted with the same search dates. The RR comprised a GS search for health plus each of 'politics', 'political' and the four political themes plus backward and forward citation chasing. The SR and RR were compared on completeness (% of total included studies identified), efficiency (% of reviewed records that were included) and results profile (% of included studies with positive vs non-positive results). Analysis was descriptive in terms of n(%) and used chi-square and McNemar test as appropriate in SPSS v.25.

Results 114 studies were eligible for inclusion, of which SR identified 101 (89%, due to absence of forward citation chasing) and RR 64 (56%, McNemar test p<0.001). SR reviewed 35,262 records (0.3% were included) and RR reviewed 92 records (70% were included). For the welfare state theme, 54 (77%) studies had positive results in SR vs 31(78%) in RR (chi-square=0.002, p=0.966), for political tradition theme 3 (60%)vs 2(50%, chi-square=0.090, p=0.764), for democracy theme 14(78%) vs 14(82%, chi-square=0.114, p=0.735), and for globalisation theme 3(17%) vs 5(38%, chi-square=1.873, p=0.171).

J Epidemiol Community Health: first published as 10.1136/jech-2019-SSMabstracts.84 on 3 September 2019. Downloaded from http://jech.bmj.com/ on April 18, 2024 by guest. Protected by copyright.