

importance of spatial context increases over the study period. No analogous pattern is visible for non-COVID mortality. Higher relative deprivation is associated with increased COVID-19 mortality at all stages of the pandemic but does not explain structural inequalities.

Conclusion Results support initial stochastic viral introduction in the South, with initially high inequality decreasing before the establishment of regional trends by June and July, prior to reported regionality of the ‘second-wave’. We outline how this framework can help identify structural factors driving such processes, and offer suggestions for a long-term, locally-targeted model of pandemic relief in tandem with regional support to buffer the social context of the area.

P48 RISK OF COVID-19 INFECTION AMONG MEN AND WOMEN DURING THE LOCKDOWN OF SPRING 2020 IN FRANCE

¹Lola Neufcourt*, ¹Camille Joannès, ¹Marine Maurel, ¹Niamh M Redmond, ¹Cyrille Delpierre, ^{1,2}Michelle Kelly-Irving. ¹CERPOP, University, de Toulouse, Inserm, UPS, Toulouse, France; ²Iferiss-Fed 4241, University, Toulouse III Paul Sabatier, Toulouse, France

10.1136/jech-2021-SSMabstracts.136

Background In the context of the Covid-19 pandemic, several factors such as age, chronic disease or obesity have been associated with adverse outcomes and mortality from Covid-19. However, the social distribution of Covid-19 infection among men and women was largely neglected in France, mainly due to a lack of data. The aim of this study is to describe and analyse the risk of Covid-19 infection in relation to sex, and the influence of other social factors, specifically occupation, in this association.

Methods We used data from the citizen science initiative ‘Baromètre Covid-19’. Each week, an internet survey was administered to a sample of 5,000 people representative of the French mainland population aged 18 and over, using the quota method. A total of 25,001 participants were interviewed between 7 April and 11 May 2020. We used multi-variable nested logistic regression modelling to study the relationship between sex, occupation and Covid-19 infection. Confounders included age, region of residence, population density, whether you worked outside of home during the lockdown, house overcrowding, comorbidities and body mass index.

Results Women reported a medical diagnosis of Covid-19 infection more often than men (4% vs. 3.2%). In a model adjusted for confounders, women were 23% more likely to report a medical diagnosis of Covid-19 infection than men (OR=1.23 [95%-CI=1.06–1.42]). Controlling for sex and socioeconomic variables (occupation), the risk of infection for women was reversed (OR=0.84 [95%-CI=0.59–1.19]). While most men, other than executives, were less likely to report the infection, this association was not observed amongst women.

Conclusion Occupation was found to influence the relationship between sex and Covid-19 infection suggesting a gender effect. The differences in the risk of infection between men and women require exploration with regard to socioeconomic factors. The social roles of women and men are associated with a non-random distribution of the virus, potentially reflecting structural societal inequalities.

P49 COVID-19 AT THE DEEP END: EXPERIENCES OF PRIMARY CARE STAFF WORKING IN THE MOST DEPRIVED AREAS OF ENGLAND DURING THE COVID-19 PANDEMIC

Claire Norman*, Josephine M Wildman, Sarah Sowden. *Population Health Sciences Institute, Newcastle University, Newcastle upon Tyne, UK*

10.1136/jech-2021-SSMabstracts.137

Background COVID-19 is disproportionately impacting people in low-income communities. Primary care staff in areas of high blanket deprivation (also known as the ‘Deep End’) have unique insights into the challenges posed by the pandemic. We aim to explore the impact of the COVID-19 pandemic from the perspective of Deep End primary care practitioners in North East England, the most deprived region of the country.

Methods Semi-structured interviews followed by thematic analysis. 13 participants were interviewed (11 GPs, 1 nurse practitioner and 1 district nurse) with Deep End careers ranging from 3 months to 31 years. Participants were recruited via purposive and snowball sampling. Semi-structured interviews were conducted using video-conferencing software. Data were analysed using thematic content analysis. Participants were interviewed between September–December 2020, at the start of the UK second wave of the COVID-19 pandemic.

Results Our results can be categorised into three broad themes: the immediate health risks of COVID-19 on Deep End general practices and patients; factors likely to exacerbate the effects of existing socioeconomic deprivation; and wider implications for remote consulting.

Discussion Deep End practitioners have valuable insights into the impact of social distancing restrictions and remote consulting on patients’ health and wellbeing and on the delivery of primary care in areas of deep deprivation. Their experiences should guide future pandemic response measures and any move to ‘digital first’ primary care to ensure that existing inequalities are not worsened.

P50 TIME-VARYING SELECTION BIAS IN ANALYSES OF COVID-19 IN UK BIOBANK

Alice R Carter*, Gareth J Griffith, Apostolos Gkatzionis, Rachael Hughes, George Davey Smith, Deborah Lawlor, Kate Tilling. *Medical Research Council Integrative Epidemiology Unit, Population Health Sciences, University of Bristol, Bristol, UK*

10.1136/jech-2021-SSMabstracts.138

Rationale Associations between COVID-19 risk factors and COVID-19 outcomes change over time, likely due to selection into who receives a COVID-19 test. When studies do not account for the changes in testing criteria, the association between a risk factor and outcome is a joint estimate across time. The transportability of a joint estimate aggregated over multiple testing periods may be limited. To improve generalisability, it is desirable to estimate effects net of time-varying selection.

Aim 1) Demonstrate variation in the association between covariates expected to associate with testing, and those which would not, on COVID-19 at different timepoints. 2) Apply methods to mitigate biases in empirical estimates.

Methods Analyses will be carried out on up to 421,037 UK Biobank participants residing in England at baseline (mean