Background

The SARS-CoV2 virus outbreak has led to the worldwide COVID-19 pandemic, the like of which has not been seen in over a century. Many aspects of daily life now harbour the risk of being infected with the virus — a psychological burden for many. Research has confirmed this with studies demonstrating that weeks of pandemic-related restrictions and lockdowns worsened the effects of depressive symptoms, including anxiety [1]. These psychological changes have affected whole populations, having the potential to greatly change consumer behaviour.

Our group has conducted a longitudinal study on prescription rate data from NHS England CCGs. Interrupted time series analysis has been run on the prescription rates from January 2016 to February 2021 of the 10 most affluent CCGs and the 10 most deprived CCGs. This will inform on whether consumer behaviour has changed due to the pandemic, throughout contrasting areas of England.

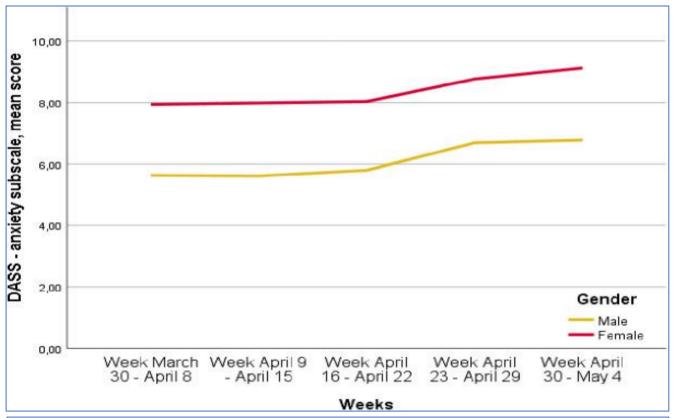
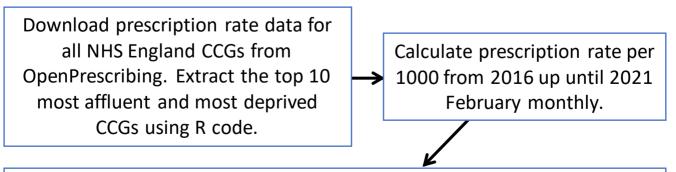


Figure 1- (Adapted from Fiorillo et al.,2020) Trend of Depression, Anxiety, Stress Scale (DASS)—Anxiety mean scores over time in men and women.

Fiorillo et al. conducted their study in Italy. It has also been reported that mental health within the UK population was on a decline over the lockdown period. An Office of National Statistics survey found 49.6% of respondents had expressed feeling higher levels of anxiety due to the pandemic [2].

Methodology



Run ARIMA forecast models for all 20 paragraphs, incorporating seasonal changes. The Ljung-Box test was used to test the fit of the model applied [3].