## Telling the story in statistics session abstracts

Session convenor: Dr. Esther Roughsedge (National Records of Scotland)

#### 4.00pm Tuesday 14 September

# Coronavirus (COVID-19) and the different effects on men and women in the UK, March 2020 to February 2021

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Throughout the first year of the coronavirus (COVID-19) pandemic, evidence emerged that men and women were experiencing the pandemic differently. Throughout the pandemic, the Office for National Statistics (ONS) produced work comparing men and women on selective topics. Whilst this is good for users who are interested in specific topics, a cross-cutting analysis approach, drawing this work together, is required to paint an equalities message. Our approach aimed to bring together previously published data from across the ONS and government to develop an overarching narrative around the different experiences of men and women during the first year of the coronavirus pandemic. One of the greatest constraints of this publication was being able to access enough data to ensure that we covered a full range of topics to provide a balanced picture. Some of these data sources included the Opinions and Lifestyle Survey, the Time Use Survey, and admin data for coronavirus related deaths and furlough. The use of a data journalist helped to construct a succinct yet powerful message and ensure media appeal. We concluded that, in general, while more men died from the coronavirus (COVID-19), generally, women's well-being was more negatively affected between March 2020 and February 2021. For example, we outlined how a greater proportion of women reported higher anxiety, depression, and loneliness during much of that period. We also outlined that women were more likely to be furloughed and, on average, spent more time on unpaid household work and childcare than men, during the same period.

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#### Population profiles for local authorities in England

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In 2020, during the pandemic, the Government switched from a national strategy to combat the spread of COVID-19 to a local approach using tiered restrictions in England. This heightened the need for local statistics to inform decision-making. The Analytical Impact Team at the Centre for Ageing and Demography approached the Cabinet Office, proposing the production of a visual tool to help decision-making. Population statistics at a local level are generally available, however the way in which they were presented did not always allow for quick and effective decision-making or easy comparisons between areas. 
The Analytical Impact Team worked with the ONS Data Visualisation Team to create a product which displayed population characteristics for local authorities in England in several 'beeswarm' charts. Initially the tool was published in December 2020 in time to inform any changes to the tiering restrictions in place at the time. It was subsequently updated in April 2021 with more up-to-date data and improvements in functionality. Characteristics in the tool include: age, population density, households with children, ethnicity, deprivation, industry, key workers, employment and unemployment using data from across government. The tool allows you to select multiple local authorities and compare against the regional average. This allows people to visualise differences between local authorities on these characteristics quickly and effectively, to aid in decision-making. The Cabinet Office were pleased with the tool and can see how it will be useful in the future, to inform decisions regarding COVID-19 and other policies, such as the levelling up agenda.

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#### Explorador Social: A partnership in actionable data

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Public agencies publish copious amounts of demographic and social data, much of which remains inaccessible to all but a small number of specialists. The reasons for limited access are clear. The data reside in a diversity of sources and formats, requiring users to be highly knowledgeable and technically skilled. In the US, this difficulty gave rise to Social Explorer, a location intelligence platform launched in 2005 and dedicated to the idea of making US Census data easy and actionable for non-specialist users. With data harmonized across various sources, time periods, and geographic levels, the platform enables users to visually explore a vast array of information through its powerful mapping interface. It also offers efficient data downloads through user defined reports. Technological innovations to the platform in 2020 paved the way for its benefits to be distributed outside the US. Specifically, a new multitenant capability makes it possible for novel Social Explorer products to be tailored to different regions, data, and languages. The first large-scale exploitation of this development was launched in April of 2021: Explorador Social. Created through a partnership between Social Explorer, Inc., and The Center for Demographic Studies of the Autonomous University of Barcelona, Explorador Social brings together in one place a wide variety of data on Spanish society, population, economy, environment, and politics. In this paper we tell the story of Explorador Social. We envision some of the possibilities for its expansion in Latin America and for other similar partnerships in other countries and regions.

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### Designing a dashboard to understand Scotland's demographic challenges Joseph Adams; National Records of Scotland

Scotland's Ministerial Population Taskforce was established in 2019 to consider Scotland's future population challenges. We were tasked with communicating a broad range of demographic evidence to support this Taskforce. We describe the practical steps we took to: identify user needs, ensure accessibility, and keep the dashboard up to date with minimal manual work. We cover some of the pros and cons of specific approaches we took (e.g. the R programming language, the shiny web application framework, and sparklines)

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