

Coronavirus Restrictions & Subjective Well-Being (SWB)

New evidence from the OPN COVID-19 Survey

Health Studies User Conference 2022

12 July 2022

Dr Christopher Deeming

University of Strathclyde, Scotland

chris.deeming@strath.ac.uk

Motivation/Questions

1. Impact of the pandemic on SWB, assessed against a prepandemic SWB baseline.
2. Duration, how SWB varies over time during the pandemic.
3. Impact of restrictions on SWB in England, Scotland and Wales, e.g. school shutdown, work closure, stay-at-home.
4. Impact of homeworking, homeschooling and the furlough scheme on SWB.
5. Impact of restrictions on different sections of the population.

Policy context

- Lockdown laws, 1st UK ‘stay at home’ order 23 March 2020; 2nd UK lockdown 5 January 2021.
- Lockdown laws in England, Scotland, Wales and Northern Ireland; from May 2020 the four nations diverged in their approach to COVID-19 legislation (Barber et al, 2021).
- Diverge in the timing, duration and stringency of the policy responses, as the devolved administrations introduced and lifted restrictions in their respective territories (Tatlow et al, 2021).
- Creates a ‘natural experiment’ (see Scottish Government Social Research Group, 2009) in the UK, regarding public health restrictions introduced by policymakers, which allows us to examine the experiences of people living under different lockdown restrictions.
- Coronavirus Job Retention Scheme (CJRS) announced 20th March 2020, the ‘furlough’ scheme provided replacement income for employees 1 March 2020 - 31 October 2021.

OPN Survey (ONS)

- Opinions and Lifestyle Survey (OPN) allows reliable information on topics of immediate policy interest, established 2012.
- Random probability stratified sample, region, age etc.
- Royal Mail's small-user postcode address file to draw the sample from across Great Britain.
- Participation is purely voluntary.
- The interviewer uses a Kish grid to randomly select one of the adults aged 16+ living within the household for interview.
- All interviews are carried out face-to-face (except for a very small number of telephone reissues) by ONS trained interviewers.
- Sample circa 1,100 adults aged 16+, response rates circa 60%.

OPN COVID-19 Survey (ONS)

- COVID-19 questions fielded, Wave 1: 20-30 March 2020.
- Larger sample size increases reliability, 6,000 adults 16+ surveyed, circa 3,800 responses, response rate circa 63% (ONS, 2021a).
- Online survey introduces sampling issues (to be discussed later).
- ‘Social impacts’, broadly defined indicators, e.g.
 - Contact and social distancing at work.
 - Impact on finances.
 - Impact on caring responsibilities.
 - Impact on wellbeing.
 - Concerns about work and household finances.
 - Expectations for the future.
 - Understanding information about the coronavirus.
 - Actions undertaken to prevent the spread of the coronavirus, e.g. personal hygiene, social distancing, working from home, self-isolation.
 - Coping whilst staying at home and community support networks and community engagement and belonging.

Methods

- We pool 50+ waves of the OPN COVID-19 ‘Social Impacts’ survey, implanted by the Office for National Statistics (ONS, 2021b), to empirically examine the impacts of the lockdown laws, pandemic measures and restrictions on SWB.
- The pooling or merger of the OPN data provides a combined sample size of over 150,000 respondents, with sufficient statistical power to support a detailed examination of the social impacts of the coronavirus pandemic across time, space and under different lockdown restrictions.
- We use a variety of techniques, Difference-in-Difference (DID) design, Pooled Ordinary Least Square (OLS) regression, multivariate logistic regression and Poisson to estimate the social impacts and SWB effects of the pandemic and the different public health restrictions.

OPN & Subjective Well-Being (SWB)

- Overall, how satisfied are you with your life nowadays? (MCZ_1).
- Overall, to what extent do you feel that the things you do in your life are worthwhile? (MCZ_2).
- Overall, how happy did you feel yesterday? (MCZ_3).
- Overall, how anxious did you feel yesterday? (MCZ_4).

These questions are answered on a rating scale of 0 to 10, where 0 is ‘not at all’ and 10 is ‘completely’.

For example, 0 is ‘not at all happy’ and 10 is ‘completely happy’.

SWB questions are the standard global or overall holistic measures now employed in the major national and international social surveys (Deeming, 2013; Deeming and Hayes, 2012; Deeming and Jones, 2015).

Figure 1. MCZ_1 life satisfaction pandemic/ prepandemic comparison

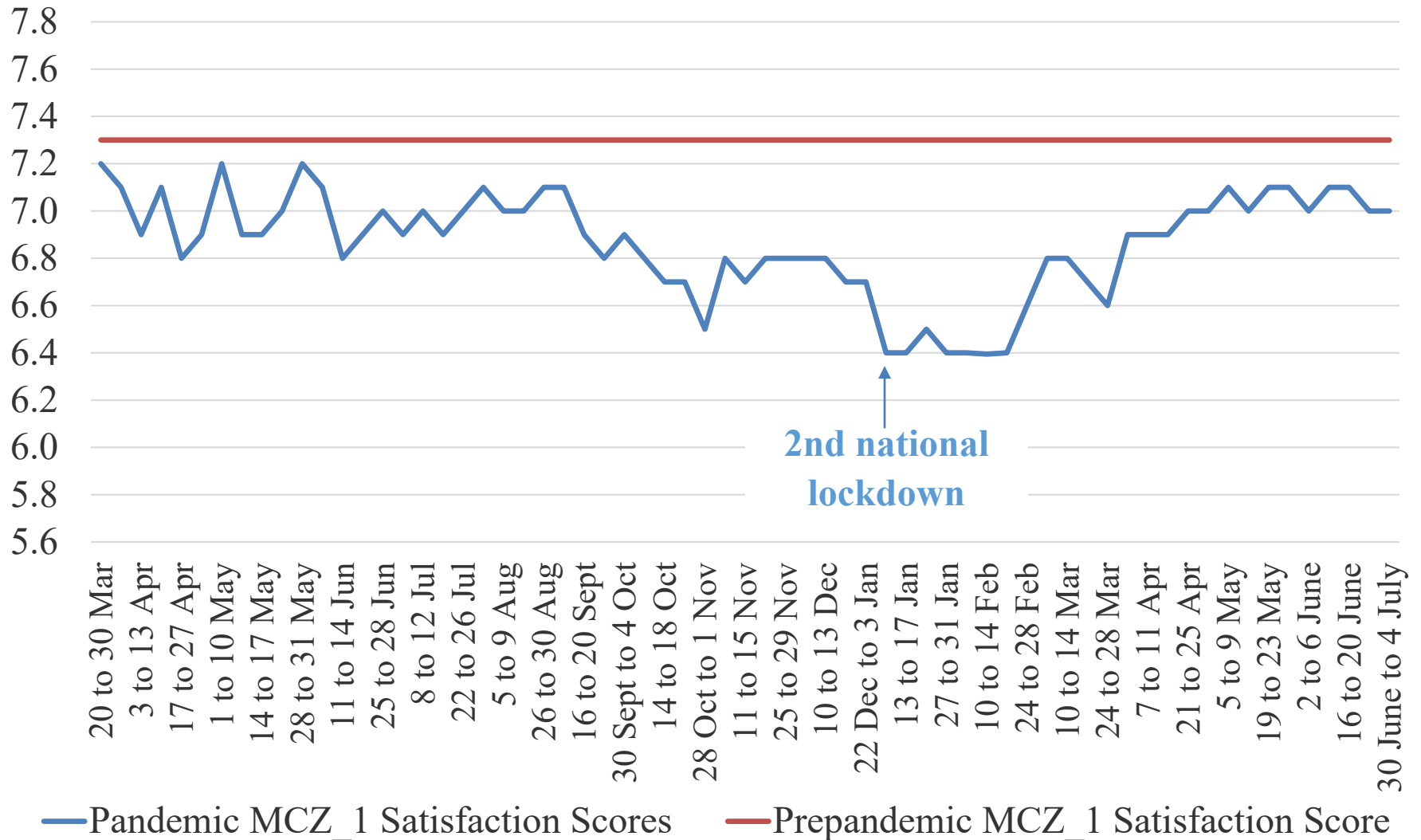


Figure 2. MCZ_2 life is worthwhile pandemic/ prepandemic comparison

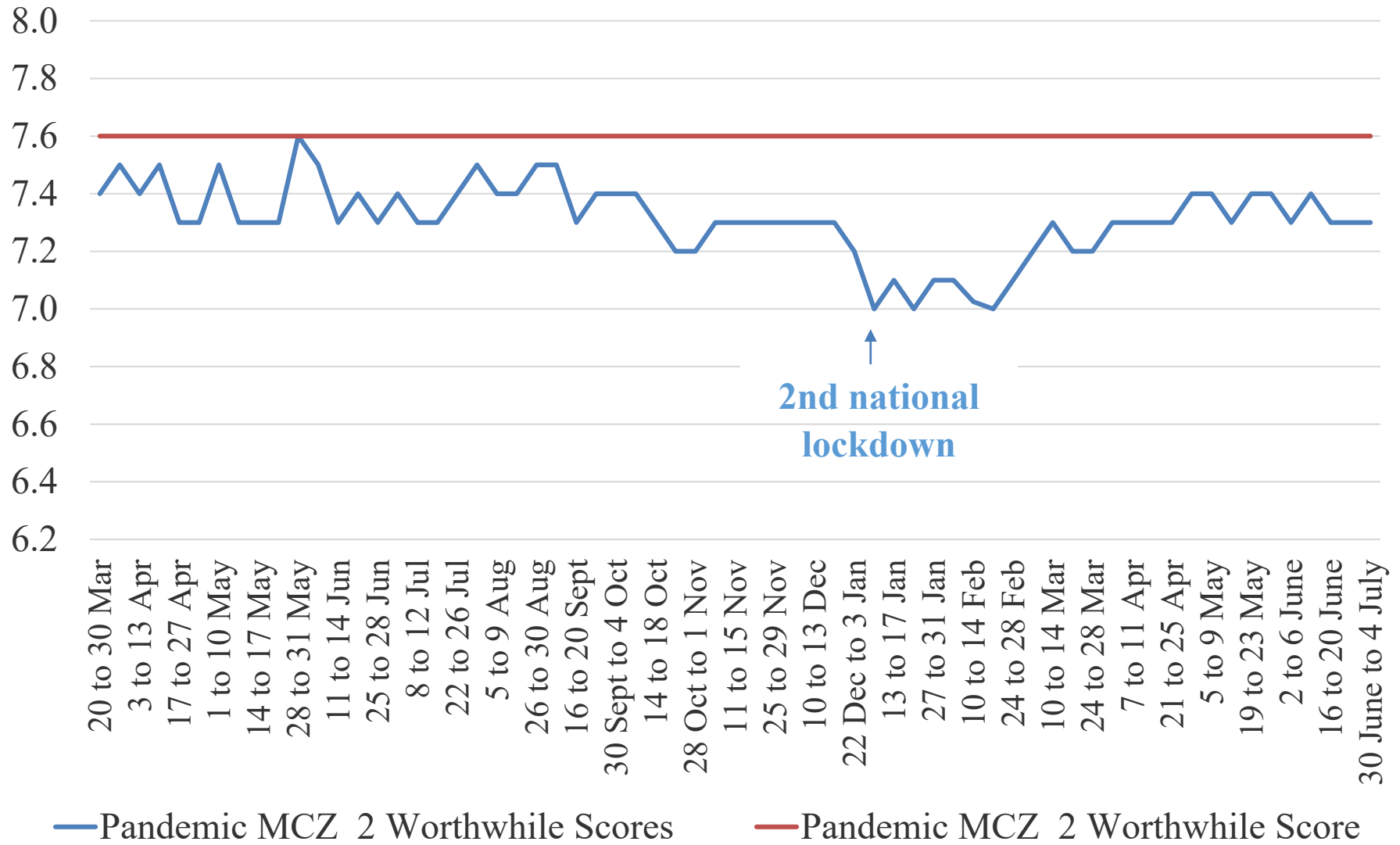


Figure 3. MCZ_3 happiness levels pandemic/ prepandemic comparison

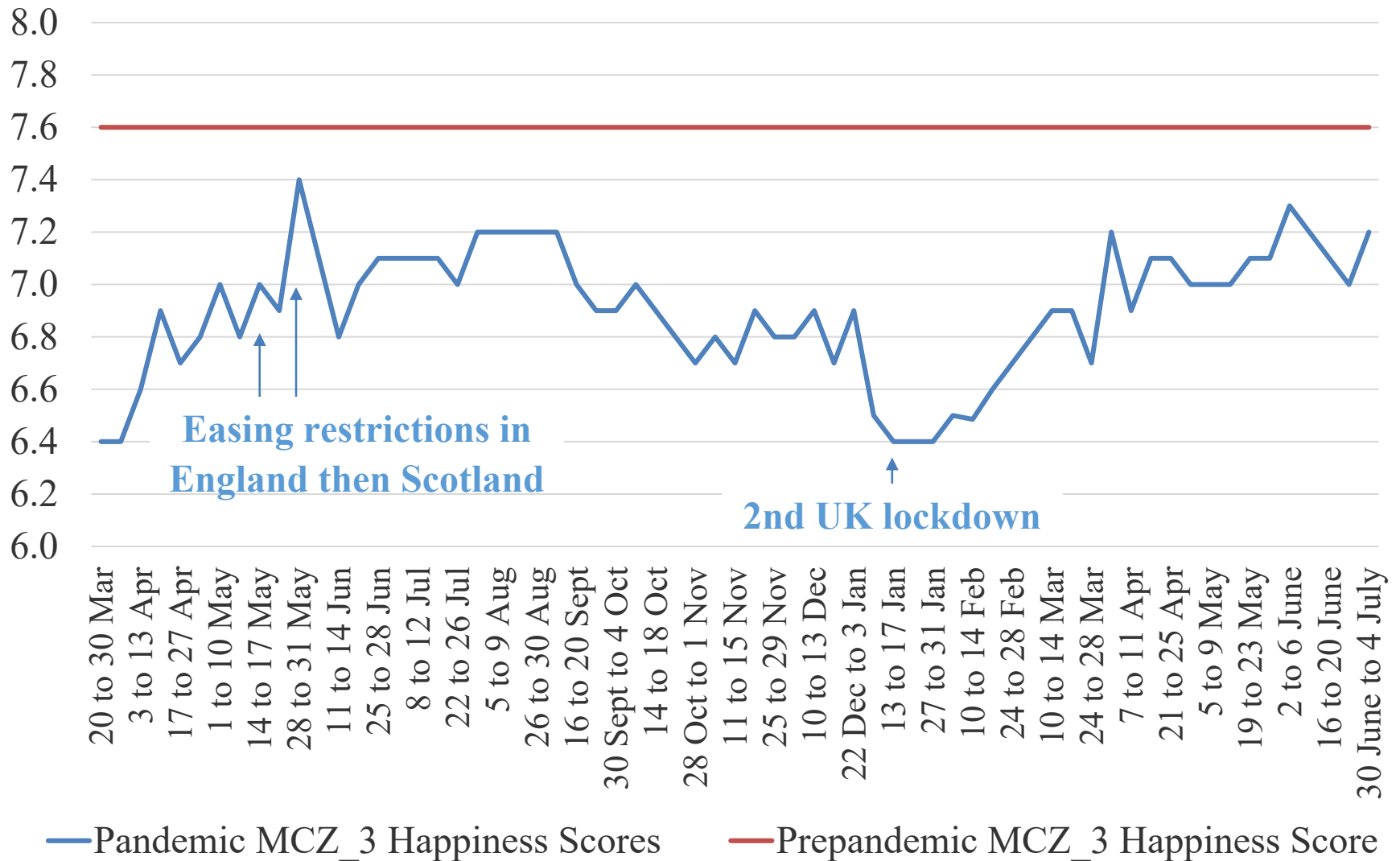


Figure 4. MCZ_4 anxiety levels pandemic/ prepandemic comparison

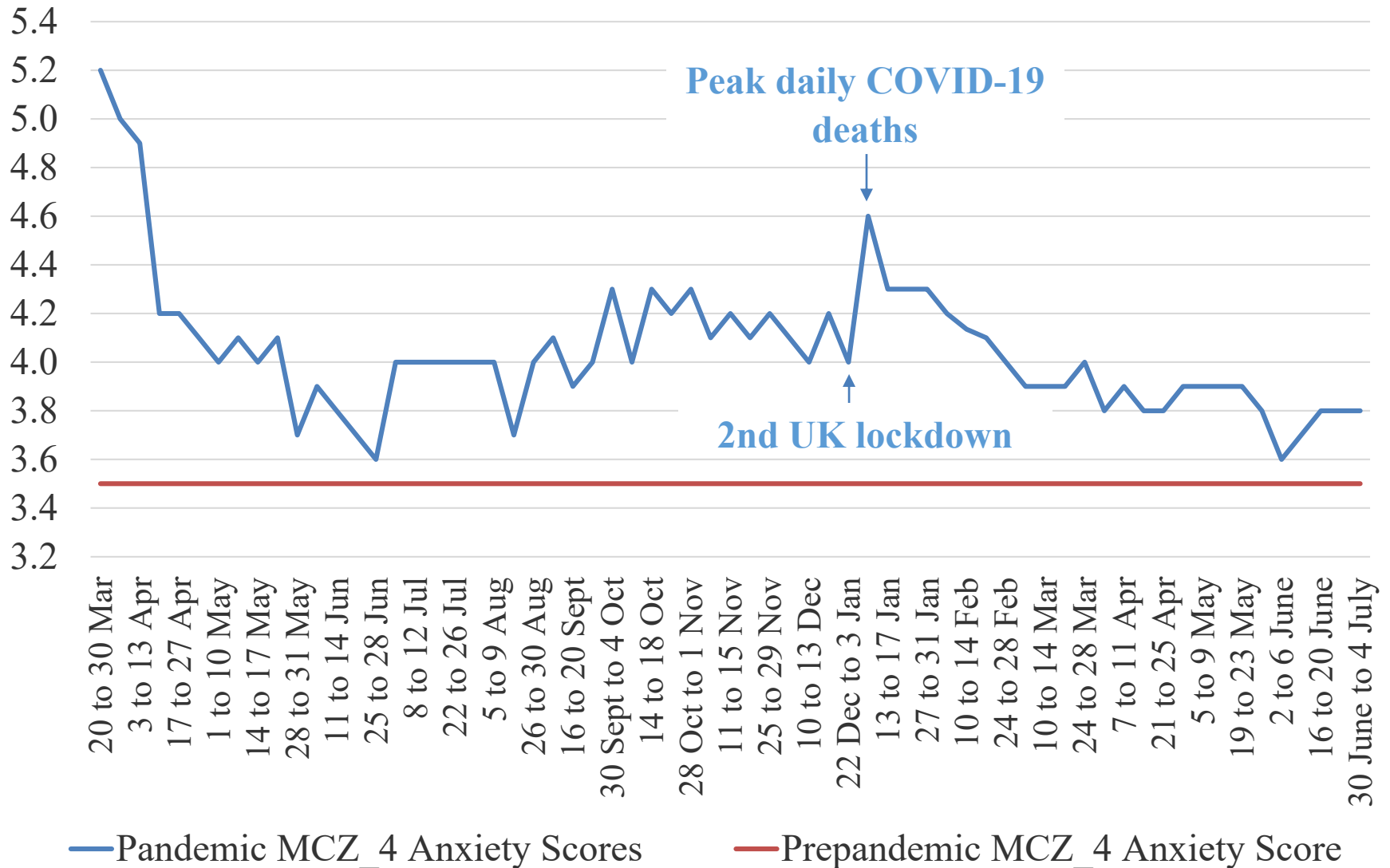
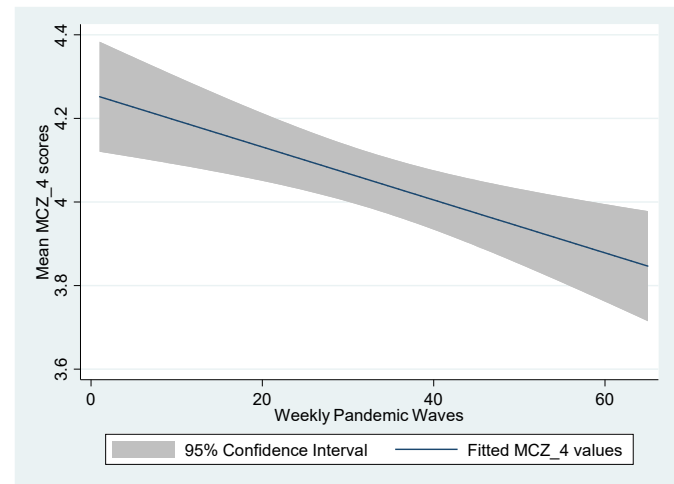
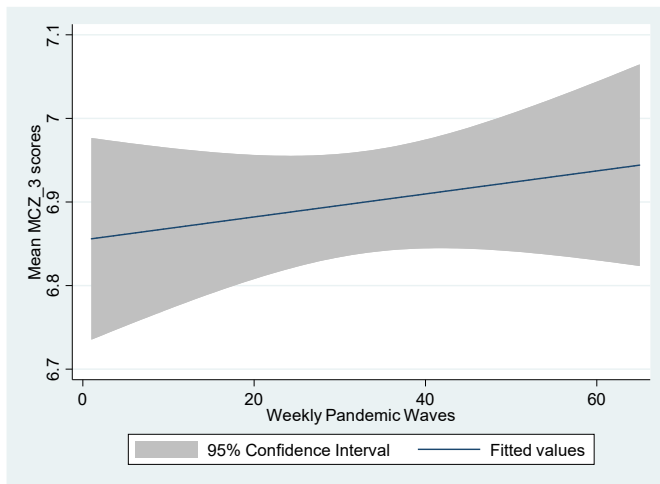
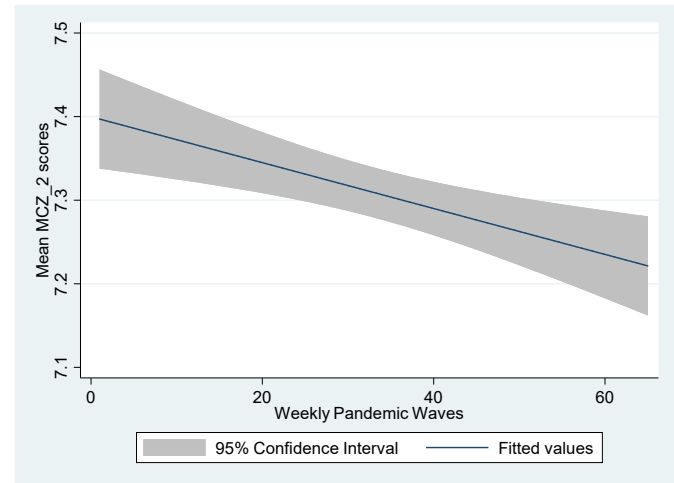
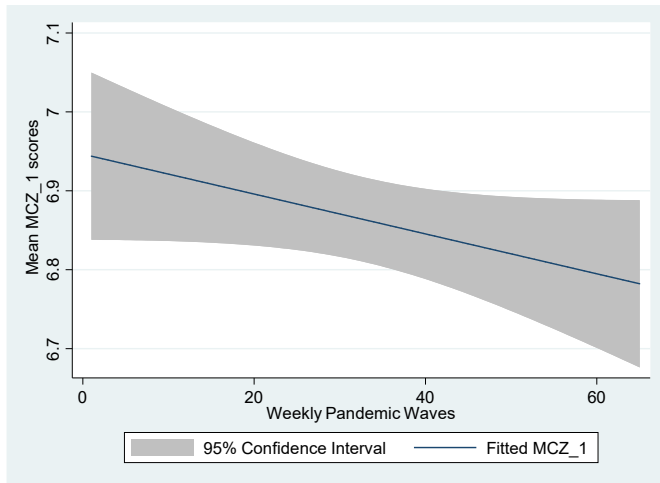


Figure 5. Fitted regression lines and 95% confidence interval bands, MCZ_1 – MCZ_4



Challenges

- Assessing and disentangling pandemic effects and policy effects in SWB data can be challenging. The “start” of the coronavirus (COVID-19) pandemic can also be subjective or have a different meanings or impact for different policies and research topics.
- WHO declared a public health emergency on 30 January 2020, an event that might represent a global pandemic effect.
- UK lockdown announced 23 March 2020, an event that might signal a pandemic (and policy) effect in the UK.
- ONS began collecting information on people’s experiences relating to the pandemic from the 20 March 2020, when the new COVID-19 questions were added to the existing OPN survey, just 2/3 days before the first UK lockdown.

Challenges

- UK nations increased and decreased the stringency of policy measures at similar times, within a similar range of stringency – however, there is some variation, for analyses and modelling.
- Variables and indicators in the microdata are excellent for analyses and modelling, e.g. experience of homeworking, homeschooling and furlough on SWB.
- Exercise caution in comparisons between periods, subnational geographies, groups and sub-groups, also for Wales and Scotland with a single OPN wave, pooling multiple waves can help boost statistical power (ONS, 2019, 2021).

Challenges

- Online surveys introduce sampling issues, as the OPN team note “the mode is online only so the sample may be subject to more bias than usual” (ONS, 2020).
- OPN datasets include sampling and weighting options and strategies to limit the impact of bias but are they up to the job with the online surveys? (ONS, 2020).
- Some practical issues working with the OPN COVID-19 data, which is accessed remotely via the new ONS Secure Research Service (SRS), approvals, permissions, registrations, secure environment, special requests to import existing materials like syntax, storage, buffering, clearance, outputs up to 5 working days etc.

	Official ONS population estimates	OPN pandemic study sample	OPN prepandemic study sample
Age (median)	40 years (UK, 2020)	57 years	53 years
Female	51% (UK, 2020)	53%	53%
Ethnic minorities (excluding White minorities)	14% (UK, 2017)	6%	2%
Single (living alone/one-person households)	34% (Scotland, 2020)	42%	46%
Income (gross median)	£479 weekly (UK, 2020)	£442 weekly	n/a
Income band	-	£15,600-£16,639 (21, annual)	£17,680-£18,719 (23, annual)
Education (degree)	42% (UK, 2017)	36%	30%
Unemployment rate	4.5% (UK, 16+, 2020)	2.8%	2.2%
Homeownership	63% (England, 2018)	79%	74%
Household size (mean)	2.4 (UK, 2020)	2.3	2.2
Disability prevalence (% of people)	22% (UK, 2020/21)	27%	n/a
Overweight prevalence (% of people)	4%/3% (England, 16+, 2017/ Scotland, 16+, 2018)	3%	n/a
Smoking prevalence (% of people smoking)	13.8% (UK, 2020)	11.0%	n/a
Observations	-	150,000	1,800

Acknowledgements & Permissions

- The study is supported by one of the UKRI COVID-19 awards, ESRC grant reference ES/W001187/1.
- The ONS material used in this study is Crown Copyright and has been used with relevant permissions.
- The project is registered with the ONS Secure Research Service (SRS), Project Reference Number 2001318.
- Project 2001318 was accredited by the Research Accreditation Panel (RAP), UK Statistics Authority (UKSA).
- Dr Deeming is an ONS Accredited Researcher, Number 34168.

References

- Barber, S., Brown, J. and Ferguson, D. (2021) *Coronavirus: Lockdown Laws*, 30 July 2021, House of Commons, <https://researchbriefings.files.parliament.uk/documents/CBP-8875/CBP-8875.pdf>.
- Deeming, C. (2013) Addressing the Social Determinants of Subjective Well-Being: The Latest Challenge for Social Policy, *Journal of Social Policy*, 42(3): 541-565.
- Deeming, C. and Jones, K. (2015) Investigating the Macro Determinants of Self-Rated Health and Well-Being Using the European Social Survey (ESS): Methodological Innovations across Countries and Time, *International Journal of Sociology*, 45(4): 256-285.
- ONS (2019) *Opinions and Lifestyle Survey QMI: Quality and Methodology Information for the Opinions and Lifestyle Survey (OPN), including strengths and limitations, recent improvements and quality characteristics*, <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/methodologies/opinionsandlifestylesurveyqmi/pdf>.
- ONS (2020) *Coronavirus and the social impacts on Great Britain: 9 April 2020*, Office for National Statistics.
- ONS (2021a) *Coronavirus and the social impacts on Great Britain: 30 April 2021*, Office for National Statistics.
- ONS (2021b) *ONS Opinions and Lifestyle Survey, Covid-19 Module, 2020-2021: Secure Access [data collection], 4th Edition*, UK Data Service, SN: 8635, DOI: 10.5255/UKDA-SN-8635-4.
- Scottish Government Social Research Group (2009) *Social Science Methods Series Guide 3: Natural experiments*, <https://www2.gov.scot/Resource/Doc/175356/0091395.pdf>.
- Tatlow, H. et al. (2021) *Variation in the Response to COVID-19 Across the Four Nations of the United Kingdom*, BSG-WP-2020/035 Version 2.0, Blavatnik School of Government, Oxford: University of Oxford.