

Impact of COVID-19 on Health-Related Quality-of-Life in the United States, Sweden and Norway:

A Cross-country Comparison Using a Panel Survey

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Acknowledgement

This study was funded by research grant 246-2020-RA
from the EuroQol Research Foundation.

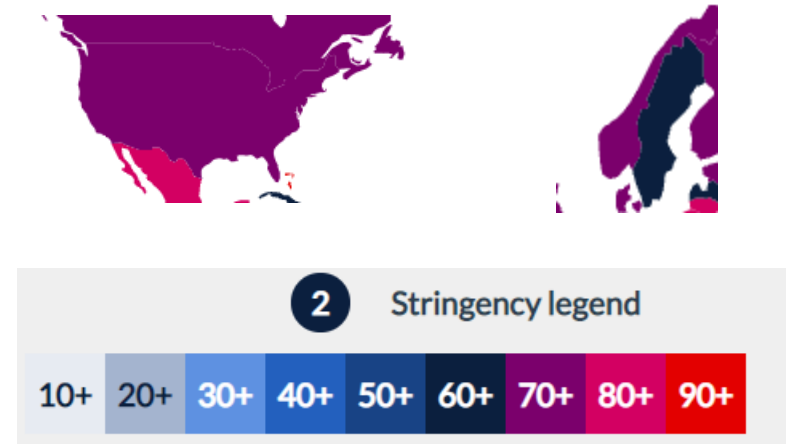
Background: Current Evidences

- Many studies on the COVID-19 pandemic...
 - Clinical outcomes
 - Economic outcomes
 - Humanistic outcomes (HRQoL)
- ...and the impact of different public health policies imposed
 - Within-country comparison
 - Cross-country comparison

Objective

- **Compare the impact of COVID-19 on population HRQoL in the three countries**
 - Sweden had less strict policies
 - Norway and the US similar at policy level
 - Sweden and Norway similar at geo level

Fig. Oxford Government Response Stringency Index on Apr 1st, 2020



Source: OxCGRT, Blavatnik School of Government at University of Oxford

Methods

- **2 waves of web-based survey**
 - Pooled cross-sectional
 - 1ST wave in April 2020 (case peak)
 - 2nd wave in January 2021
- **Main data collected**
 - Demographics
 - COVID-19 experiences
 - Visual Analog Scale (VAS)
 - EQ-5D-5L
 - Utility

Results: Descriptive Stats

Wave 1 April 2020

United States
N = 2,734
Mean Age = 42.6 $\pm$ 14.3

Sweden
N = 1,003
Mean Age = 47.8 $\pm$ 17.1

Norway
N = 1,020
Mean Age = 46.9 $\pm$ 17.0

Wave 2 Jan 2021

United States
N = 2,252
Mean Age = 42.6 $\pm$ 13.9

Sweden
N = 1,013
Mean Age = 46.7 $\pm$ 16.6

Norway
N = 1,011
Mean Age = 46.9 $\pm$ 16.6

- US survey population younger than Sweden and Norway
- Generally comparable across wave

Results: VAS

- Significantly higher ($p < 0.001$) mean VAS scores in US vs. Sweden/Norway
- Elderly reported higher VAS scores in Scandinavian
- Significantly higher ($p < 0.001$) mean VAS scores in US wave 2 vs. wave 1
— all age groups

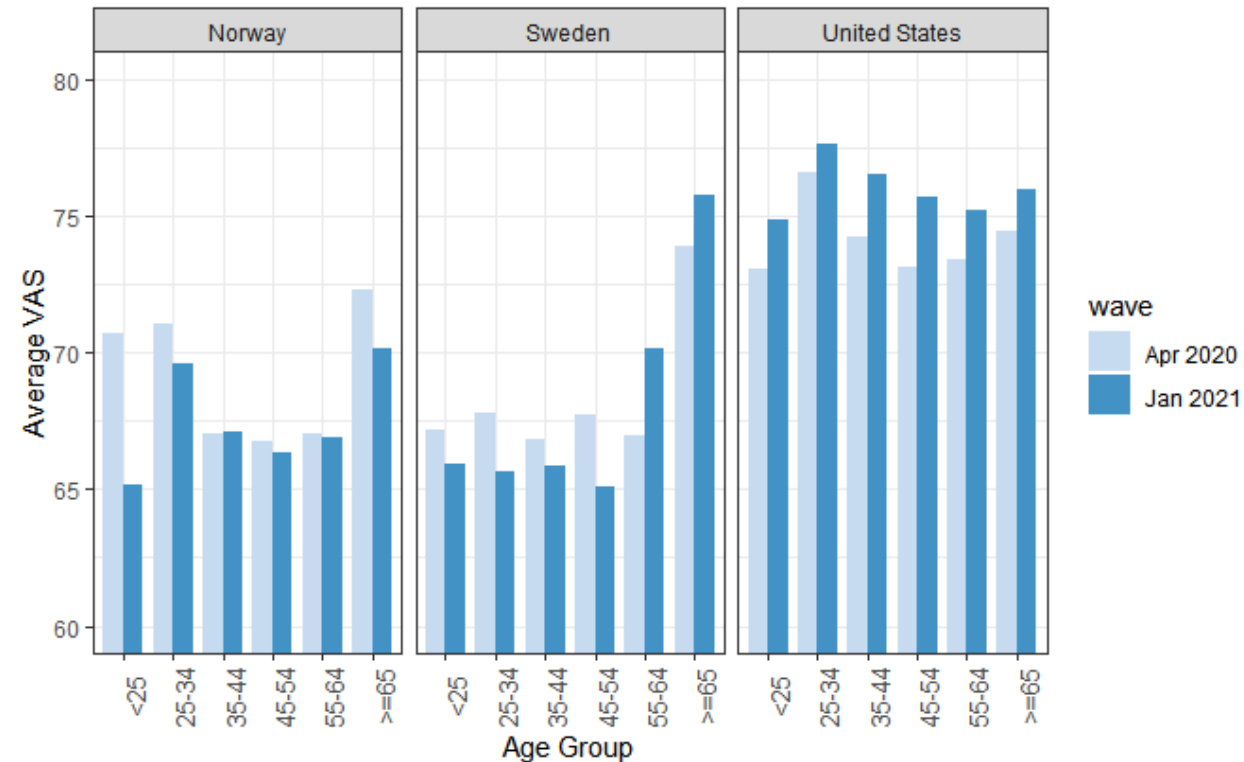


Fig. Average VAS Response,
Stratified by Age Group

Results: Utility

- Significantly higher ($p < 0.001$) mean utility values in US vs. Sweden/Norway
- Youngest reported lowest utility values — regardless of country and wave
- No overall significant trend wave 1 vs. wave 2

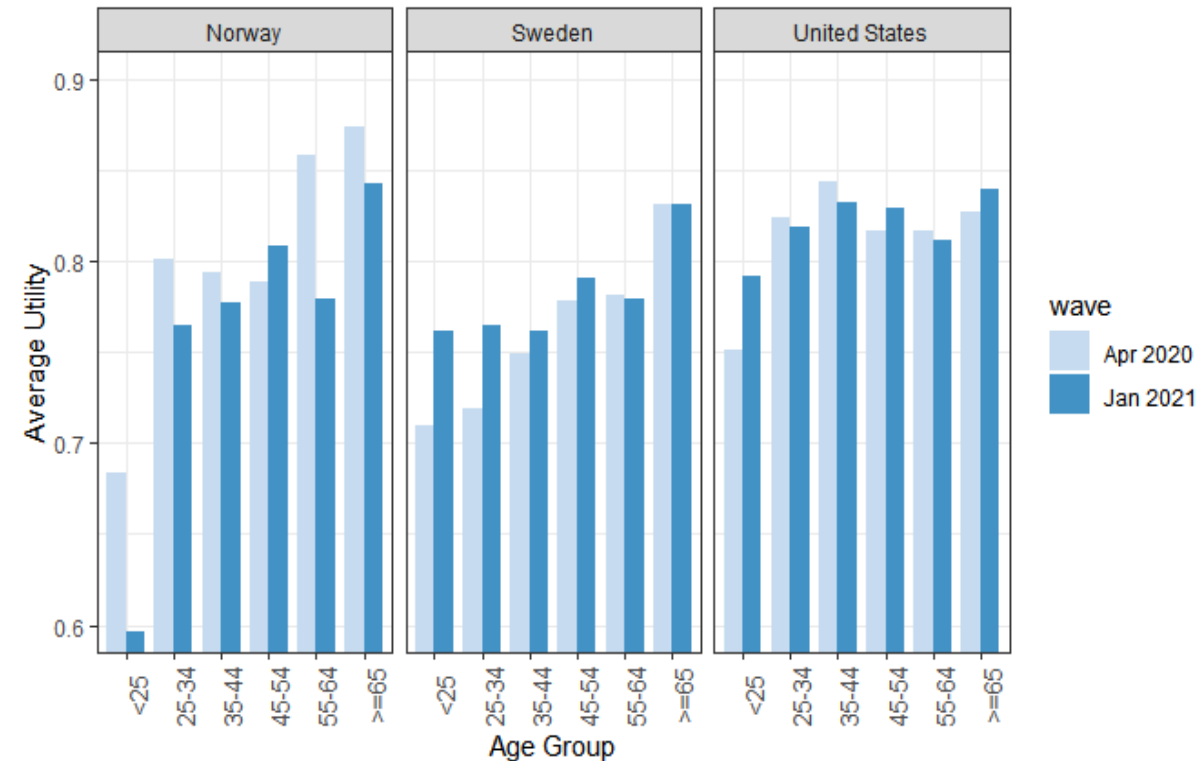


Fig. Average Utility Response,
Stratified by Age Group

Results: EQ-5D-5L

- **AD was the most problematic subdomain in US and Sweden**
 - the second most in Norway, following PD
- **SC, MB and UA less problematic**
 - regardless of country and wave

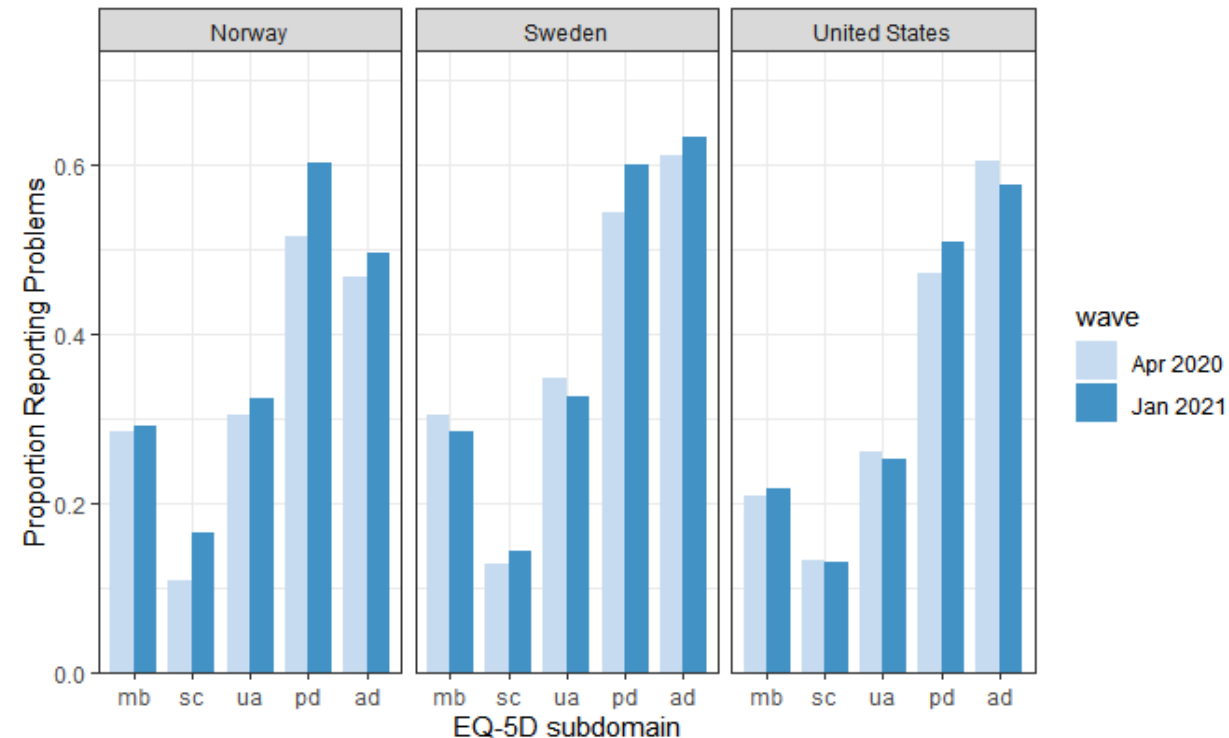


Fig. EQ-5D-5L Subdomain Responses

mb = mobility
sc = self-care
ua = usual activities;
pd = pain/discomfort;
ad = anxiety/depression

Results: EQ-5D-5L AD Subdomain

- People aged <45 reported more problems
 - <25 the most, ≥65 the least
 - >60% for all <25 groups
 - regardless of country and wave

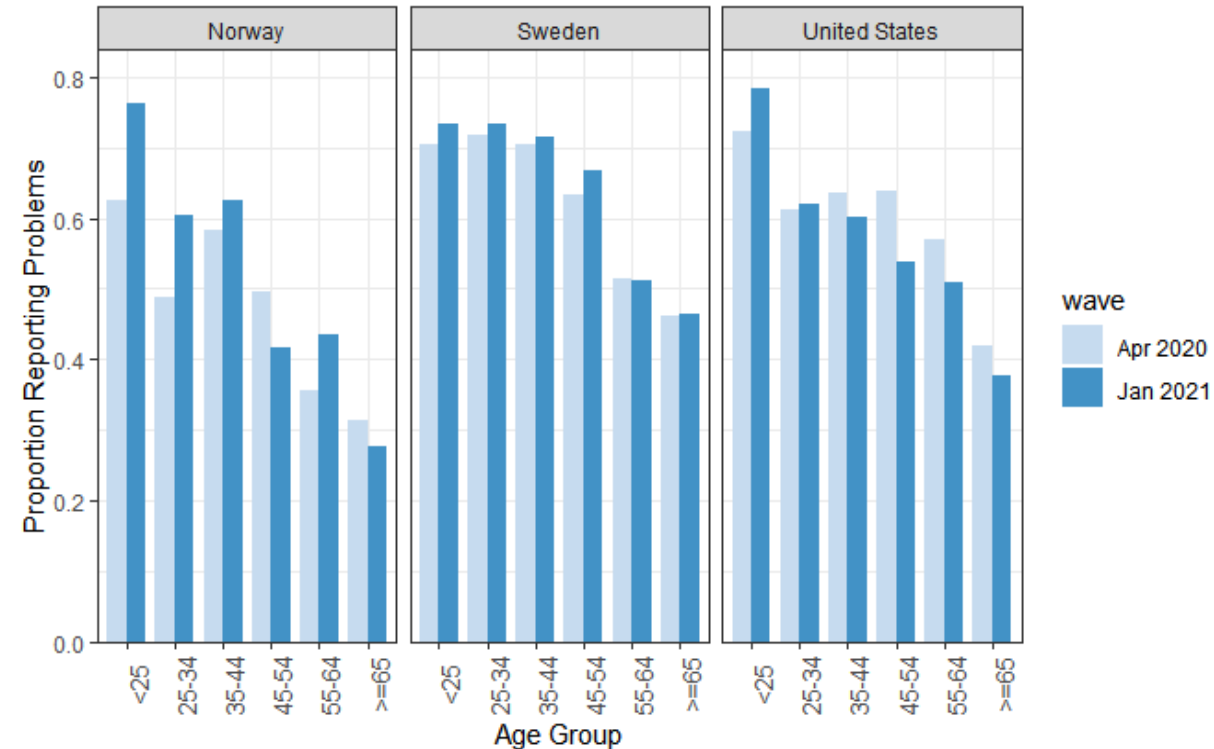


Fig. EQ-5D-5L Anxiety / Depression
Subdomain Responses,
Stratified by Age Group

Discussions

- **Population HRQoL in Sweden and Norway similar throughout the pandemic, according to VAS**
 - **compared to the improve in US wave 2**
 - “pandemic fatigue” in Scandinavian
 - presidential election in US
 - **no significant trend if according to utility**
 - **may due to self-rating nature of VAS**
 - vs. societally-weighted rated utility values

Discussions cont.

- **Anxiety/Depression remained a major concern**
 - **large problematic proportion across country/wave**
 - **consistent with theoretical discrepancy of VAS vs. utility**
 - **negatively associated with age**
 - younger groups may be more impacted by the pandemic
 - driven by fear to loss of normal social activities
 - e.g., unemployment and financial loss

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