

# Impact of the COVID-19 pandemic on HRQoL of the general population: longitudinal analysis of EQ-5D-5L outcome in 3 country cohorts

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## BACKGROUND

Almost all countries affected by the COVID-19 pandemic face ongoing restrictive policies, with disruption of daily life, economic uncertainties, and barriers to health care. Little information exists on the impact on HRQoL, as longitudinal data are scarce.

## RESEARCH AIMS

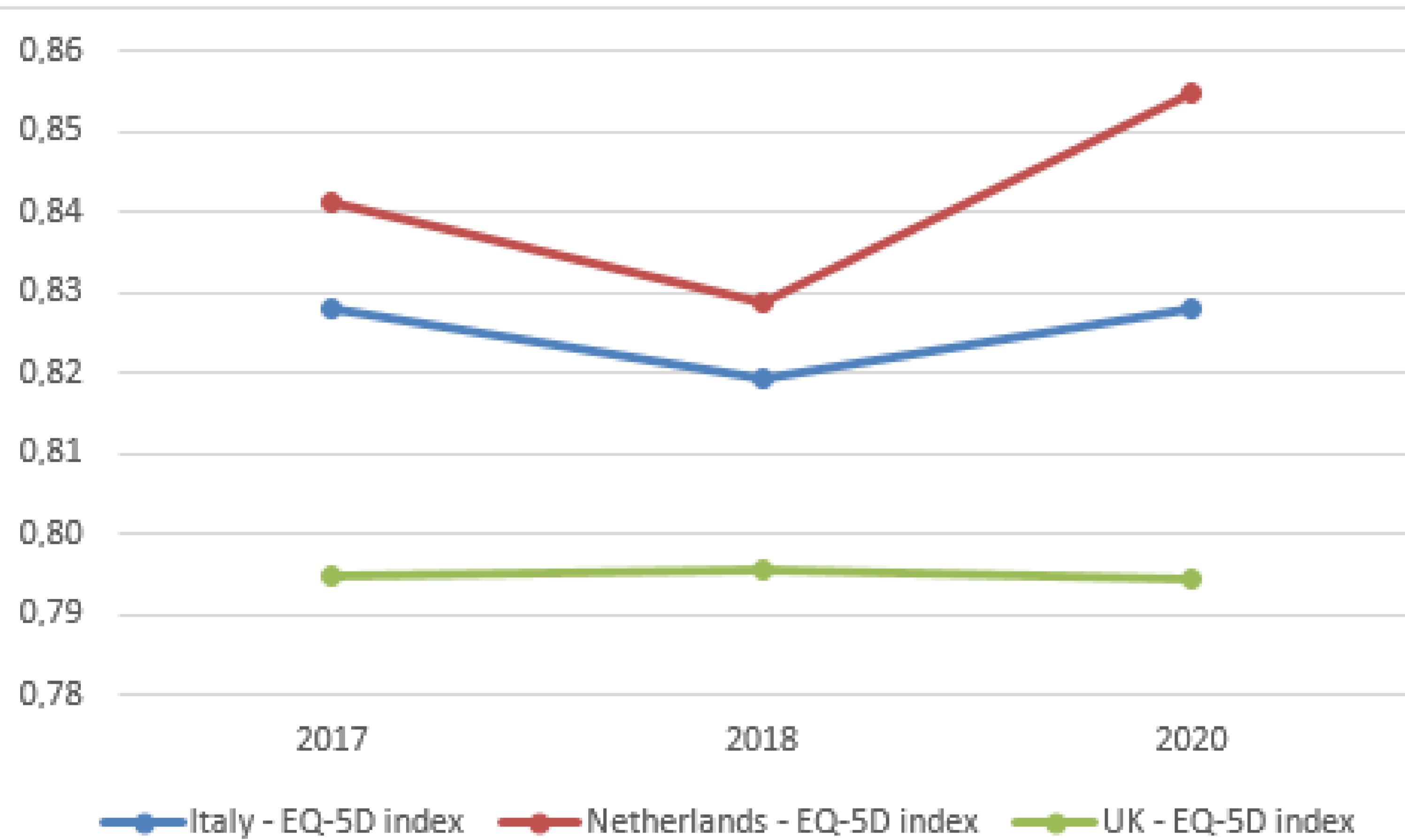
Aim: To investigate the impact of COVID-19 on the EQ-5D-5L of general population samples from three European countries, comparing individually linked EQ-5D-5L data that was collected before and during the first COVID-19 wave.

## METHODS

Web-based surveys were administered to general population samples from Italy, the Netherlands and UK at three time points (T1: July 2017; T2: February 2018 and T3: April 2020). We used responses on the chronic condition questions to categorize respondents into those with no change in disease status, improved disease status and worsened disease status. The Pareitian Classification of Health Change (PCHC) was used to categorize respondents into those with a better, same, worse or incomparable EQ-5D-5L profile. In addition, the probability of superiority was calculated for each EQ-5D-5L dimension.

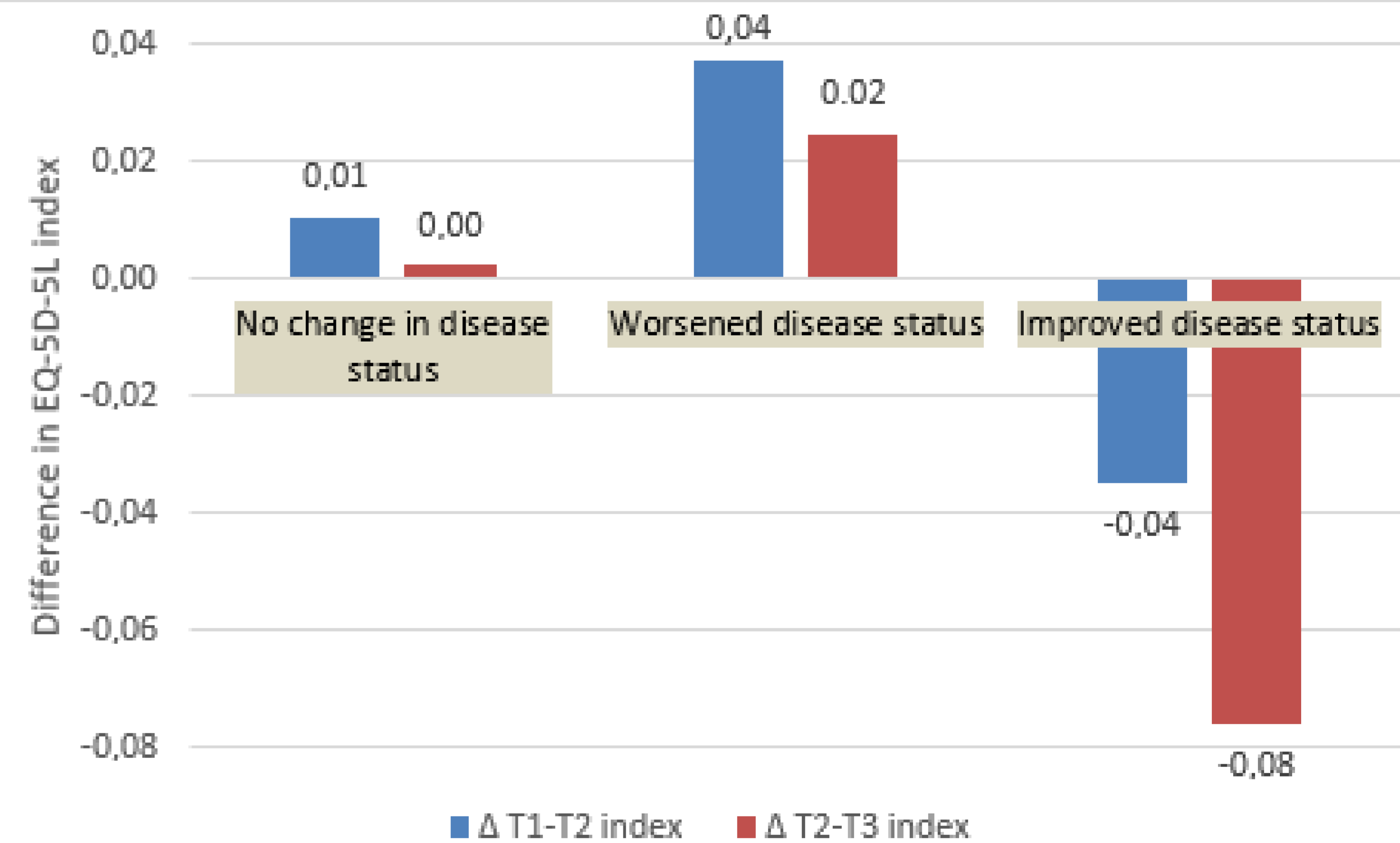
## RESULTS

**Figure 1.** Mean EQ-5D-5L index at T1, T2 and T3, by country



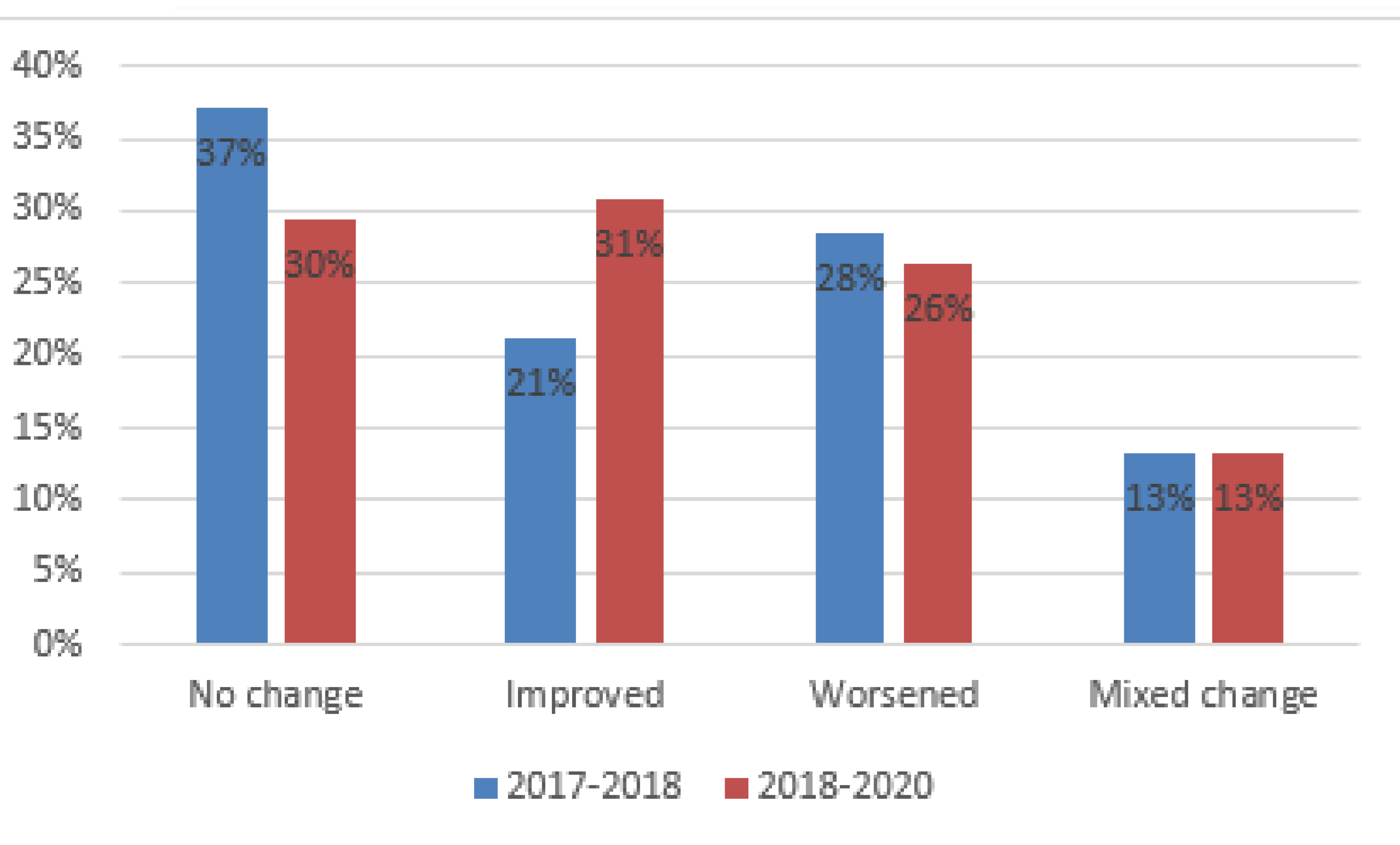
- 738 respondents completed the T1, T2 and T3 questionnaire (Italy: n=328, Netherlands: n=235, UK: n=220)
- The EQ-5D-5L index was 0.83 (standard deviation (SD) 0.20) at T1, 0.82 (SD 0.20) at T2 and 0.83 (SD 0.18) at T3. (see **Figure 1**)
- The differences in EQ-5D-5L index from T1 to T2 and T2 to T3 differed by change in disease status (see **Figure 2**).

**Figure 2.** The difference in EQ-5D-5L index for respondents with no change in disease status, worsened disease status and improved disease status, n=738



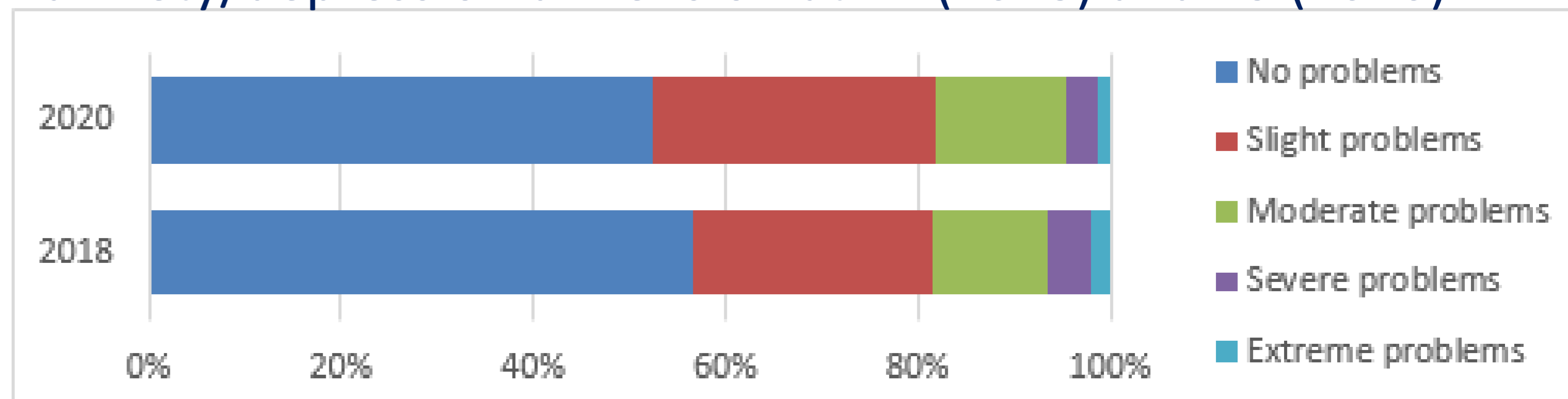
- Comparison of the T2 and T3 EQ-5D-5L profiles showed that 29.5% had no change, 30.9% improved, 26.3% worsened and 13.3% had a mixed change (see **Figure 3**).
- These percentages differed significantly for respondents with no change in disease status, worsened disease status and improved disease status ( $p < 0.001$ ).

**Figure 3.** PCHC, all respondents, n=738



- Overall, the dimension anxiety/ depression changed most frequently for T2-T3.
- The T2-T3 probability of superiority was  $< 0.5$ , indicating that more respondents deteriorated than improved, for the anxiety/depression dimension only (see **Figure 4**).

**Figure 2.** Percentage of reported limitations on the anxiety/depression dimension at T2 (2018) and T3 (2020)



## CONCLUSIONS

The findings of our study showed that the impact of the COVID-19 pandemic differed by subgroup and EQ-5D-5L dimension, with largest impact on the anxiety/depression dimension.