

# How are quarantine impacting on the health-related quality of life?

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## Background

The COVID-19 pandemic has forced many countries to implement social distancing and lockdown in order to limit the spread of the virus. In Spain, restrictive measures were imposed on 15 March and the state of alarm ended on 21 June. The national lockdown appears to have been effective to break chains of community transmission and avoid the collapse of hospitals. However, the impact of the prolonged enforced confinement, on the health-related quality of life (HRQoL) of the general public is unknown.

## Objectives

The aim of this research was to explore the impact of the confinement measures on the HRQoL of the Spanish general population.

## Methodology

We implemented a quota based online survey starting previous of lockdown with three follow-ups (baseline 14 March, follow-up every 2 weeks during a period of 1.5 months) within the curfew using EQ-5D-5L. At each round, age, gender, region and HRQoL data were collected from a total of 500 adults.

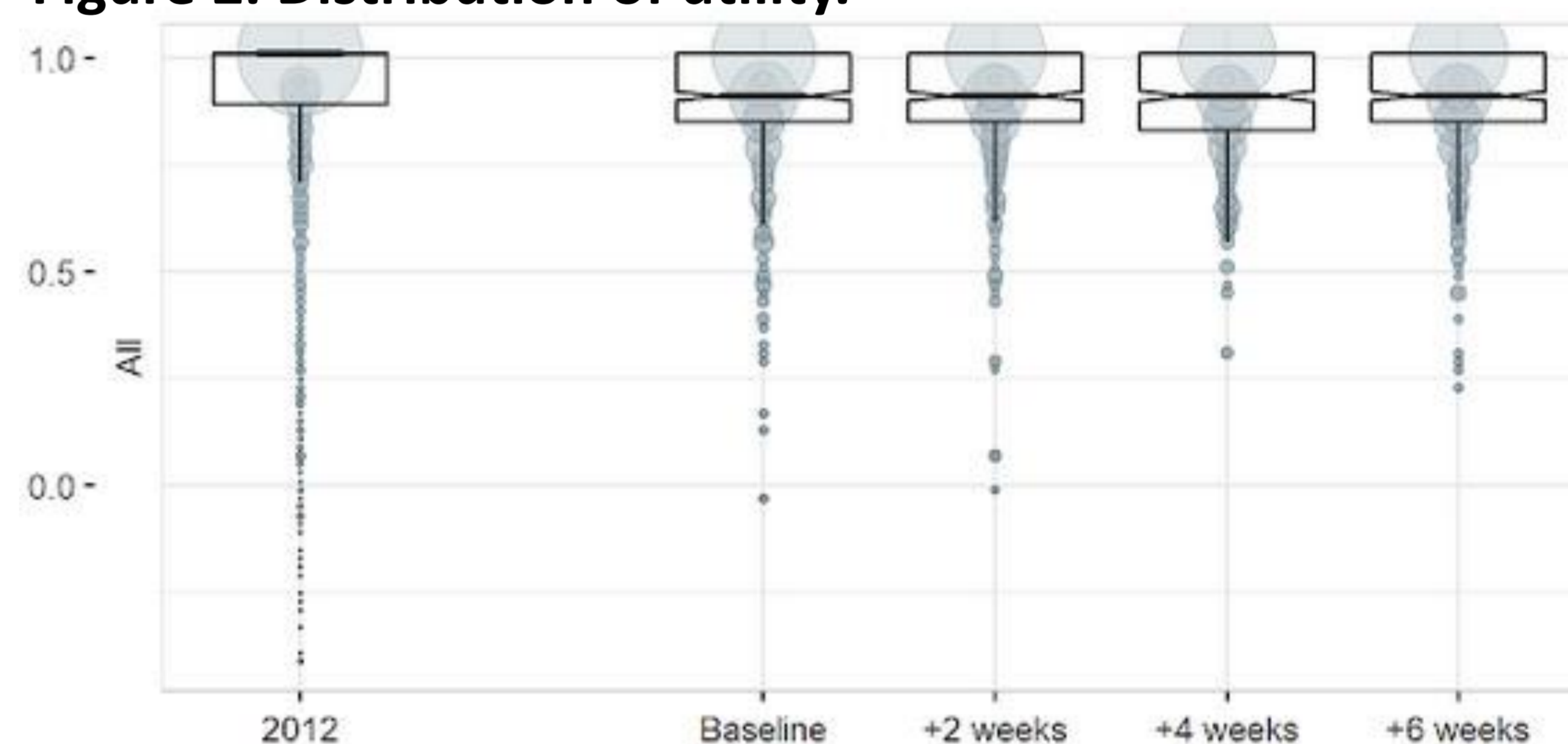
EQ-5D-5L responses were described using the percentage of patients reporting each level of functioning on each domain over the follow-up period. Utility values were estimated from the Spanish EQ-5D-5L value set [1] and graphically represented using notched box-plots. For comparison with pre-covid responses, data from the national health survey (NHS) conducted in 2011-2012 was used as reference [2].

QALY-loss was calculated by taking the difference between utility values from the NHS study and the corresponding values from the four surveys. The calculated QALY loss was counted for a total of 8 weeks. We also calculated the yearly QALY-loss taking the mean values for the 4 waves.

## Results

The proportion of respondents reporting each level of problems on each dimension can be found in figure 1, with darker colour indicating more severe problems. Comparing the results from the baseline to those from the NHS shows a significant reduction of the severity pain/discomfort problems was highlighted. Besides, a 32% increase in the proportion of anxiety/depression reported problems was found (most prominently for level 2, from 9% to 35%). Results shows little changes during the follow-up period. The distribution of utility over the follow up period is shown at Figure 2, coloured circle area represents the proportion of respondents assigning particular value.

Figure 2. Distribution of utility.

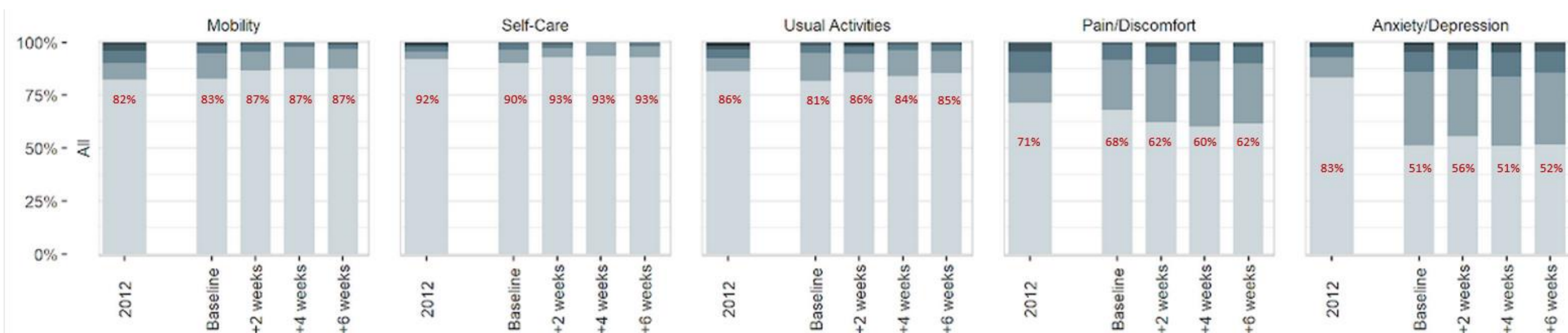


Over the 8 weeks covered by study, Spanish population was estimated to accrue a total of 6,474,727.3 QALYs. Based on corresponding HRQoL data from the NHS, the population should have accrued a total of 6,749,355.6 QALYs. The difference indicates a loss of 274,628.3 QALYs. If the situation observed were to continue for a full year, the corresponding loss would be approximately 1.78 million QALYs.

## Conclusions

There is no evidence supporting a decrease of HRQoL over the 1.5 months of lockdown included in the study period. However, there is a clear decrease when comparing with normative values.

Figure 1. Proportion of respondents reporting each level of health by EQ-5D dimension.



[1] Ramos-Goñi JM, Craig B, Oppe M, Ramallo-Fariña Y, Pinto-Prades JL, Luo N, Rivero-Arias O. Handling data quality issues to estimate the Spanish EQ-5D-5L Value Set using a hybrid interval regression approach. Value in Health. 2017; 21(5): 596-604

[2] Hernandez G, Garin O, Pardo Y, et al. Validity of the EQ-5D-5L and reference norms for the Spanish population. Qual Life Res. 2018;27(9):2337-2348.