

**Table S1.** Description and source of socio-demographic and health status, healthcare resources and facilities, and the COVID-19 response indicators

Indicators	Description	Source and last date available
Human Development Index (HDI)	HDI is a summary measure of average achievement in three key dimensions of human development: long and healthy life, being knowledgeable and standard of living. The HDI is the sum of these three dimensions indexes: life expectancy index, education index and gross national income index.	United Nations Development programme. Human development Reports. Available at: <a href="http://hdr.undp.org/en/composite/HDI">http://hdr.undp.org/en/composite/HDI</a> . Last data available refer to 2019.
Life expectancy at birth	Life expectancy at birth is defined as the mean number of years still to be lived by a person at birth, if subjected throughout the rest of his or her life to the current mortality conditions.	United Nations Development programme. Human development Reports. Available at: <a href="http://hdr.undp.org/en/composite/HDI">http://hdr.undp.org/en/composite/HDI</a> . Last data available refer to 2019.
Proportion of people at risk of poverty or social exclusion	This indicator corresponds to the sum of persons who are at risk of poverty or severely materially deprived or living in households with very low work intensity. At risk-of-poverty are persons with an equivalized disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalized disposable income. Material deprivation covers indicators relating to economic strain and durables.	Eurostat Database. Available at: <a href="https://ec.europa.eu/eurostat/databrowser/view/t2020_5_0/default/table?lang=en">https://ec.europa.eu/eurostat/databrowser/view/t2020_5_0/default/table?lang=en</a> Last data available refer to 2019 (UK and Island 2018).
Healthy life years (HLY)	HLY at birth is defined as the number of years that a person is expected to live in a healthy condition.	Eurostat Database. Available at: <a href="https://ec.europa.eu/eurostat/databrowser/view/hlth_hlye/default/table?lang=en">https://ec.europa.eu/eurostat/databrowser/view/hlth_hlye/default/table?lang=en</a> Last data available refer to 2019 (UK 2018).
Population density	Population density refers to the number of people per squared km of land area in the country.	The World Bank Available at: <a href="https://data.worldbank.org/indicator/EN.POP.DNST?viw=map">https://data.worldbank.org/indicator/EN.POP.DNST?viw=map</a> . Last data available refers to 2018.
Proportion of urbanization	This indicator represents the proportion of population of urban areas on the total population of the country.	United Nations. Department of Economics and Social Affairs. Available at: <a href="https://population.un.org/wup/Download/">https://population.un.org/wup/Download/</a> . Last data available refers to 2018.
Number of hospital beds/100,000 inhabitants	This indicator refers to the number of total available beds in hospitals /100,000 inhabitants.	Eurostat Database. Available at: <a href="https://ec.europa.eu/eurostat/databrowser/view/hlth_rs_bds/default/table?lang=en">https://ec.europa.eu/eurostat/databrowser/view/hlth_rs_bds/default/table?lang=en</a> . Last data available refer to 2018 (Germany 2017)
Intensive Care Units (ICU) beds/100,000 inhabitants	This indicator refers to the number of total available ICU beds / 100,000 inhabitants.	Organization for Economic Co-operation and Development (OECD), European Observatory on Health Systems and Policies – The Health System Response Monitor (HSRM) and scientific papers. Available at:

		<p><a href="https://www.oecd.org/coronavirus/en/data-insights/intensive-care-beds-capacity">https://www.oecd.org/coronavirus/en/data-insights/intensive-care-beds-capacity</a>;</p> <p><a href="https://www.tandfonline.com/doi/full/10.1080/17453054.2020.1768830">https://www.tandfonline.com/doi/full/10.1080/17453054.2020.1768830</a></p> <p><a href="https://www.covid19healthsystem.org/mainpage.aspx">https://www.covid19healthsystem.org/mainpage.aspx</a></p> <p>Bauer, J., Brüggmann, D., Klingelhöfer, D., et al (2020). Access to intensive care in 14 European countries: a spatial analysis of intensive care need and capacity in the light of COVID-19. <i>Intensive care medicine</i>, 46(11), 2026-2034.</p> <p>Rhodes, A., Ferdinande, P., Flaatten, H., et al. (2012). The variability of critical care bed numbers in Europe. <i>Intensive care medicine</i>, 38(10), 1647-1653.</p>
Percentage of health expenditure on the total GDP	This indicator reports the percentage of health expenditure on the total GDP for each country.	<p>Eurostat Database. Available at:</p> <p><a href="https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20201202-1">https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20201202-1</a>.</p> <p>Last data available refer to 2018.</p>
Stringency Index	This index was developed by the University of Oxford. It is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest). We calculated the average of these values for the first and the subsequent waves for each country.	<p>University of Oxford. Available at:</p> <p><a href="https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker">https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker</a></p>
Mobility Retail and Recreation	This indicator compares the mobility for Retail and Recreation during the COVID-19 period and the baseline (given as median value over the five-week period from January 3 <sup>rd</sup> to February 6 <sup>th</sup> 2020). It includes places like restaurants, cafes, shopping centers, theme parks, museums, libraries, and movie theaters. We calculated the average of these values for the first and the subsequent waves for each country.	<p>Our World in Data. Available at:</p> <p><a href="https://ourworldindata.org/covid-google-mobility-trends">https://ourworldindata.org/covid-google-mobility-trends</a>.</p> <p>Data are not available for Island and Ireland.</p>
Mobility Transit	This indicator compares the public transport mobility during the COVID-19 period and the baseline (given as median value over the five-week period from January 3 <sup>rd</sup> to February 6 <sup>th</sup> 2020). It includes the mobility in public transport hubs such as subway, bus, and train stations. We calculated the average of these values for the first and the subsequent waves for each country.	<p>Our World in Data. Available at:</p> <p><a href="https://ourworldindata.org/covid-google-mobility-trends">https://ourworldindata.org/covid-google-mobility-trends</a>.</p> <p>Data are not available for Island and Ireland.</p>

Mobility Outdoor	This indicator compares the outdoor mobility during the COVID-19 period and the baseline (given as median value over the five-week period from January 3 <sup>rd</sup> to February 6 <sup>th</sup> 2020). It includes the mobility in local parks, national parks, public beaches, marinas, dog parks, plazas, and public gardens. We calculated the average of these values for the first and the subsequent waves for each country.	Our World in Data. Available at: <a href="https://ourworldindata.org/covid-google-mobility-trends">https://ourworldindata.org/covid-google-mobility-trends</a> . Data are not available for Island and Ireland.
Total tests per 1000 inhabitants	This indicator refers to the total number of tests done per population (1000 inhabitants).	Our World in Data. Available at: <a href="https://ourworldindata.org/coronavirus-testing">https://ourworldindata.org/coronavirus-testing</a> . Data are not available for Czechia, France and Sweden.
New tests per 1000 inhabitants	This indicator refers to the new tests per 1000 inhabitants. We calculated the average of these values for the first and the subsequent waves for each country.	Our World in Data. Available at: <a href="https://ourworldindata.org/grapher/daily-tests-per-thousand-people-smoothed-7-day">https://ourworldindata.org/grapher/daily-tests-per-thousand-people-smoothed-7-day</a> . Data are not available for Czechia, Germany, Netherlands and Spain.
Tourism	This indicator calculates the nights spent at tourist accommodation establishments by residents/non-residents for each country. We used the sum of March and April 2020 for the first wave analysis and the sum of August and September 2020 for the subsequent waves analysis. Thus, we adjust these values per million population.	Eurostat Database. Available at: <a href="https://ec.europa.eu/eurostat/databrowser/view/tin00171/default/table?lang=en">https://ec.europa.eu/eurostat/databrowser/view/tin00171/default/table?lang=en</a> Data for France and Ireland are not available. Data for UK were available only for the first wave.

**Table S2.** Socio-demographic and health status, and healthcare resources and facilities indicators in the EU/EEA Countries plus UK and Switzerland

Country	HDI	Life expectancy at birth	Poverty and social exclusion	HLY	Population density	Percentage of urbanization	Percentage of health expenditure on the total GDP	Hospital beds/100.000	ICU beds/100.000
Austria	0.922	81.5	16.9	57.3	107.1	58.3	10.3	727.2	28.9
Belgium	0.931	81.6	19.5	62.4	377.4	98.0	10.3	562.2	17.4
Bulgaria	0.816	75.1	32.8	66.3	64.7	75.0	7.4	756.9	27.0
Croatia	0.851	78.5	23.3	57.4	72.2	56.9	6.8	561.3	9.8
Cyprus	0.887	81.0	22.3	62.5	128.7	66.8	6.8	330.1	6.1
Czechia	0.900	79.4	12.5	62.0	137.7	73.8	7.7	661.8	41.9
Denmark	0.940	80.9	16.3	58.9	144.8	87.9	10.1	243.0	7.8
Estonia	0.892	78.8	24.3	55.8	30.4	68.9	6.7	457.4	36.3
Finland	0.938	81.9	15.6	56.4	18.1	85.4	9.0	361.2	5.4
France	0.901	82.7	17.9	64.1	122.3	80.4	11.3	590.9	16.3
Germany	0.947	81.3	17.4	66.3	237.3	77.3	11.5	800.2	33.9
Greece	0.888	82.2	30.0	66.0	83.3	79.1	7.7	419.8	5.3
Hungary	0.860	76.9	18.9	61.7	107.1	71.4	6.7	701.3	11.2
Iceland	0.949	83.0	11.0	62.4	3.5	93.8	8.5	287.5	9.1
Ireland	0.955	82.3	20.6	69.6	70.7	63.2	6.9	297.4	5.0
Italy	0.892	83.5	25.6	68.3	202.9	70.4	8.7	314.1	8.6
Latvia	0.866	75.3	27.3	53.1	31.0	68.1	6.2	549.4	9.7
Lithuania	0.882	75.9	26.3	57.5	44.7	67.7	6.6	643.4	23.0
Luxembourg	0.916	82.3	20.6	62.6	250.2	91.0	5.3	450.7	20.7
Malta	0.895	82.5	20.1	73.2	1514.5	94.6	9.0	430.8	19.4
Netherlands	0.944	82.3	16.5	61.0	511.8	91.5	10.0	316.6	6.7
Norway	0.957	82.4	16.1	69.8	14.6	82.2	10.1	352.7	8.5
Poland	0.880	78.7	18.2	62.5	124.0	60.1	6.3	653.7	10.1
Portugal	0.864	82.1	21.6	59.2	112.3	65.2	9.5	344.5	5.7
Romania	0.828	76.1	31.2	60.2	84.6	54.0	5.6	696.8	3.8
Slovakia	0.860	77.5	16.4	56.2	113.3	53.7	6.7	569.6	14.9
Slovenia	0.917	81.3	14.4	60.9	103.0	54.5	8.3	442.8	27.7
Spain	0.904	83.6	25.3	69.9	93.7	80.3	9.0	297.2	9.7
Sweden	0.945	82.8	18.8	73.3	25.0	87.4	10.9	213.8	5.0
Switzerland	0.955	83.8	18.8	60.6	215.5	73.8	11.9	462.8	11.8
United Kingdom	0.932	81.3	23.1	61.2	274.7	83.4	10.0	249.5	10.5

**Table S3.** COVID-19 response indicators in in the EU/EEA Countries plus UK and Switzerland

Country	Average of Stringency Index		Average of mobility Retail and Recreation		Average of mobility Transit		Average of mobility Outdoor		Total tests per 1000		Average of new tests per 1000		Tourism per 1,000,000	
	first wave	subsequent waves	first wave	subsequent waves	first wave	subsequent waves	first wave	subsequent waves	first wave	subsequent waves	first wave	subsequent waves	first wave	subsequent waves
	Austria	53.2	67.4	-29.2	-38.4	-31.2	-32.2	28.2	15.4	115.2	5719.9	0.8	18.7	3.83
Belgium	62.5	58.1	-33.1	-30.2	-36.5	-29.5	30.0	34.8	177.3	1114.7	1.0	3.6	0.47	1.6
Bulgaria	51.9	49.7	-19.1	-22.6	-23.3	-5.6	26.1	21.6	48.9	396.4	0.4	1.3	0.15	2.2
Croatia	60.0	42.0	-16.2	-19.6	-26.6	-24.0	97.0	54.4	34.2	482.1	0.2	1.6	0.21	17.2
Cyprus	68.2	66.7	-	-	-	-	-	-	301.3	8763.2	2.1	28.4	0.20	0.9
Czechia	49.7	62.2	-20.2	-33.7	-19.2	-23.5	33.1	18.7	-	-	-	-	0.64	1.7
Denmark	58.6	56.1	-6.0	-11.8	-25.5	-32.9	138.3	77.9	350.5	5658.2	2.0	18.3	0.21	1.7
Estonia	46.7	44.5	-13.5	-14.3	-14.8	-21.5	79.1	29.9	121.2	1021.3	0.7	3.3	0.10	0.3
Finland	46.6	46.6	-18.4	-16.6	-34.0	-38.5	121.3	64.2	96.9	873.6	0.6	2.8	0.28	0.2
France	66.9	62.2	-35.4	-31.8	-38.1	-27.1	27.7	19.0	-	-	0.8	4.2	-	-
Germany	60.8	70.1	-22.2	-31.7	-26.7	-30.6	63.4	45.0	120.9	639.9	-	-	2.48	7.9
Greece	60.6	72.3	-24.2	-31.9	-26.5	-34.2	57.1	48.5	71.1	926.0	0.5	3.1	0.27	15.5
Hungary	61.1	62.1	-16.3	-18.9	-24.4	-22.7	37.1	27.9	39.7	542.4	0.2	1.8	0.33	0.7
Iceland	43.6	45.8	-	-	-	-	-	-	243.2	846.9	1.4	3.1	0.25	0.2
Ireland	63.1	74.7	-42.5	-36.7	-40.8	-51.2	10.2	23.4	147.9	810.0	1.0	3.0	-	-
Italy	68.1	72.7	-38.0	-27.7	-42.6	-33.2	5.3	11.1	126.4	1037.8	0.7	3.4	1.44	28.8
Latvia	54.4	51.1	-9.0	-20.6	-15.3	-28.2	68.2	39.8	121.3	1370.1	0.7	4.4	0.12	0.4
Lithuania	51.6	53.8	-26.6	-37.0	-22.8	-27.7	95.7	45.6	198.3	1214.8	1.3	3.9	0.10	0.2
Luxembourg	47.9	54.8	-37.6	-30.3	-33.2	-24.3	37.3	19.3	918.2	3956.4	5.3	12.8	0.07	0.4
Malta	58.2	54.9	-27.6	-17.6	-23.9	-17.3	10.7	2.9	369.9	1826.3	2.1	5.9	0.24	0.6
Netherlands	56.9	68.0	-17.4	-28.9	-39.9	-44.2	81.9	53.9	77.6	527.0	-	-	1.32	6.4
Norway	51.9	57.0	-10.9	-15.4	-24.9	-37.9	94.5	36.3	121.3	996.1	0.8	3.3	0.34	0.8
Poland	58.8	62.7	-19.8	-20.7	-30.3	-27.5	50.6	33.7	60.9	381.3	0.5	1.3	0.56	1.8
Portugal	68.6	67.7	-35.5	-29.4	-44.4	-40.5	4.9	-5.0	185.8	243.1	1.1	3.5	1.52	3.5
Romania	59.6	61.2	-28.0	-21.0	-30.6	-25.1	-6.5	-6.6	80.2	348.8	0.5	1.2	0.08	0.1
Slovakia	55.8	60.3	-26.6	-30.4	-27.6	-31.0	54.8	30.9	55.1	7208.7	0.3	23.3	0.15	0.7
Slovenia	54.2	61.0	-25.2	-35.0	-23.4	-24.8	39.4	21.8	70.2	573.9	0.4	1.9	0.14	1.2
Spain	65.2	67.1	-43.7	-30.3	-44.2	-28.0	-6.7	1.3	125.1	851.2	-	-	7.30	10.3
Sweden	55.5	63.1	-7.5	-15.9	-24.0	-35.5	124.8	55.2	-	-	0.8	3.2	0.46	0.8
Switzerland	52.1	52.6	-30.5	-28.0	-25.4	-23.8	41.3	30.5	61.4	837.7	0.7	2.7	0.83	2.7
United Kingdom	65.3	70.9	-45.5	-37.8	-44.9	-46.7	27.0	27.8	193.5	2779.4	1.3	8.6	3.85	-

**Table S4.** Overall deaths and SMRs (as of June 23, 2021) for COVID-19 of the 0-69 group and all ages group in 16 EU/EEA countries

Country	COVID-19 deaths 0-69 and proportion of the total	SMR 0-69	SMR all ages
Denmark	296/2531 (11.7%)	0.18	0.27
Finland	134/971 (13.8%)	0.08	0.10
France	13,537/110,606 (12.2%)	0.68	0.92
Germany	12,212/90,310 (13.5%)	0.46	0.55
Greece	3401/12,595 (27.0%)	1.04	0.58
Hungary	9758/29,971 (32.6%)	3.10	1.97
Italy	18,978/126,200 (15.0%)	1.00	1.00
Netherlands	1922/17,730 (10.8%)	0.36	0.65
Norway	150/792 (18.9%)	0.10	0.10
Poland	21,492/74,839 (28.7%)	1.74	1.34
Portugal	2223/17,079 (13.0%)	0.68	0.85
Romania	13,246/32,614 (40.6%)	2.16	1.08
Spain	11,948/80,467 (14.8%)	0.85	0.96
Sweden	1592/14,616 (10.9%)	0.57	0.85
Switzerland	949/10,331 (9.2%)	0.38	0.77
United Kingdom <sup>§</sup>	24,542/140,277 (17.5%)	1.58	1.56

<sup>§</sup> Data were available only for England and Wales in the selected age groups. Thus, we obtained the SMR (0-69 and all ages) using the population by age groups of England and Wales. Last data available refers to 28 May, 2021.