Impact of COVID-19 on EU/ EEA countries in April – May 2020

April 16th, 2020

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Demand forecasting model *Legal disclaimer*

Estimations are based on the following:

- This calculator is not an epidemiology model. The inputs, such as projected deaths, no. of days on ventilation, choice of ventilation medicines are based on the available information as well as expert and academic opinion.
- This model was created solely to estimate the potential demand for critical medicines due to Covid-19.
- These inputs and corresponding outputs may not reflect the reality of what users will ultimately see.
- Users are discouraged from drawing strong conclusions about deaths or new cases on the basis of these estimates.
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Source: Medicines for Europe; Accord Healthcare

A demand forecasting model was developed to forecast the demand of critical COVID-19 medicines

Demand forecasting model

– Developed by **Medicines for Europe** and **Accord Healthcare**

Approach

– **Favoring overestimation of cases** due to the fact that the risk of underestimating is higher than the risk of overestimating

– **Not addressing the impact of flexing of containment measures**, which could result in subsequent waves of increasing case numbers (secondary peaks)

Data sources

– Worldometer Coronavirus reports

– Expert opinions

Key assumptions

– Number of daily deaths decreasing around 28-days post-lockdown

– All deaths preceded by mechanical ventilation

– 75% of patients in intensive care requiring mechanical ventilation
  – A mechanical ventilation factor of 75% was assumed (i.e., 100% means all patients on mechanical ventilation will eventually die)

– 14 days on mechanical ventilation

Source: Medicines for Europe; Accord Healthcare

The color coding on the country maps indicates the relative severity of COVID-19 per country for a specific period of time

General information on the color coding

- The purpose of the color coding is to indicate the **relative severity** of COVID-19 in a specific country for a specific period of time
- This is expressed as actual/ expected **new COVID19 related deaths per million inhabitants**

Step 1: Forecast new COVID-19 deaths

- Forecast of the **number of new COVID-19 related deaths** across all 31 EU/EEA countries[1] between 01.04.2020 and 31.05.2020 (according to the demand forecasting model)
- **Example**: 11.380 (Belgium)

Step 2: Calculate new deaths per capita

- Obtain the **population** for each of the 31 EU/EEA countries[1] in million
- Divide the forecast number of COVID-19 related new deaths by the population of each country to obtain the **per capita rate** (per million inhabitants)
- **Example**: 11.380:11.6 = ~982 new deaths per million in Belgium

Step 3: Rank and create the color coding

- **Rank** the new deaths per capita for each of the 31 EU/EEA countries[1] in **an ascending order** from 1 to 31
- Assign **colors** to ranks:
  - Green: ranks 1-10
  - Yellow: ranks 11-20
  - Red: ranks 21-31
- **Example**: Belgium is rank 31, i.e. red

1. Exluding Liechtenstein due to lack of data
Source: Medicines for Europe; Accord Healthcare

The degree to which countries are affected by COVID-19 is likely to remain stable – overall, the number of deaths will decrease

Illustrative –
based on data from 13.04.2020

Actual/ expected new COVID-19 deaths per million inhabitants over time

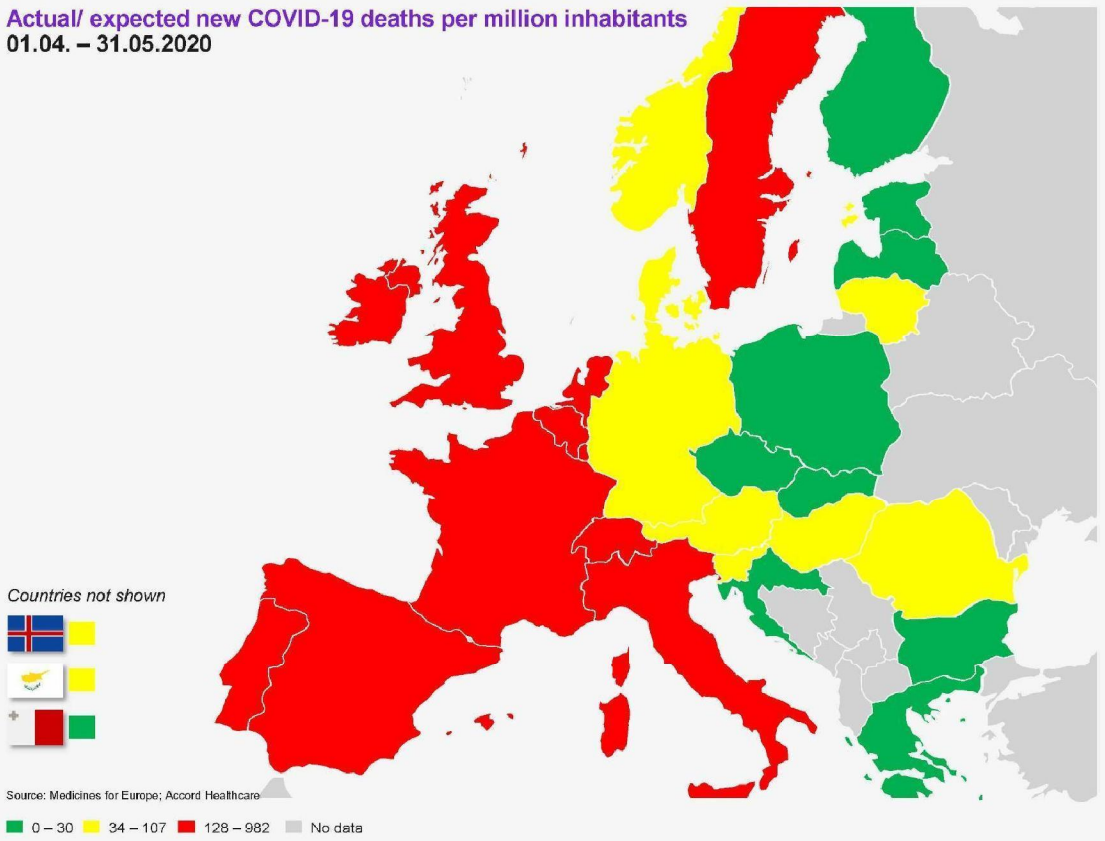
Country	CW14	CW15	CW16	CW17	CW18	CW19	CW20	CW21	CW22
Austria	13	16	12	13	8	5	4	2	1
Belgium	88	186	200	199	132	86	56	36	23
Bulgaria	2	1	4	6	5	3	2	1	1
Croatia	2	2	2	3	2	2	1	1	0
Cyprus	2	2	7	10	9	6	4	2	2
Czechia	5	7	4	2	1	1	1	0	0
Denmark	18	16	11	9	8	5	3	2	1
Estonia	9	8	4	4	3	2	1	1	0
Finland	3	5	3	3	3	2	1	1	0
France	84	97	81	75	48	31	20	13	8
Germany	12	18	11	11	7	5	3	2	1
Greece	3	2	2	3	2	1	1	1	0
Hungary	2	7	9	11	9	6	4	3	2
Iceland	6	12	13	25	20	13	9	6	4
Ireland	23	36	29	25	23	15	10	6	4
Italy	84	66	67	50	32	21	14	9	6
Latvia	1	2	3	5	4	3	2	1	1
Lithuania	2	4	5	8	6	4	3	2	1
Luxembourg	24	48	65	94	79	52	33	22	14
Malta	0	7	2	3	2	1	1	1	0
Netherlands	58	57	18	15	15	14	9	6	4
Norway	8	11	4	5	3	2	1	1	1
Poland	2	4	3	4	3	2	1	1	0
Portugal	17	20	22	22	20	13	8	5	4
Romania	5	9	6	6	6	4	2	2	1
Slovakia	0	0	0	0	0	0	0	0	0
Slovenia	8	12	5	3	3	2	1	1	1
Spain	117	98	85	67	43	28	18	12	8
Sweden	29	49	26	33	26	17	11	7	5
Switzerland	46	45	25	22	21	13	9	6	4
UK	55	84	75	68	67	55	45	36	30

Source: Medicines for Europe; Accord Healthcare

Country rank per calendar week
1 – 10 11 – 20 21 – 31

Most of the new COVID-19 deaths per capita are expected in Belgium, United Kingdom and France

Illustrative –
based on data from 13.04.2020



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