

MIAU – HU ISSN 1419-1652 – Special Edition 2020 Spring - Editorials: The papers in MIAU Nr.261 (2020.V) are products of a new education frame system “QuILT” (<https://miau.myx.hu/mediawiki/index.php/QuILT>). The goals of QuILT are supporting/conducting Students on the way of KNUTH, who said (1992): Knowledge is, what can be transformed into source code, each other human activity is a kind of artistic performance. It also means we need to leave the world of the magic of words step by step. A solid evidence that we all are capable of going this way is: creating publications behind which the human expertise and the robotized knowledge (like online engines: <https://miau.myx.hu/myxfree/coco/index.html> --- offering context free = quasi General-Problem-Solving force fields) can be integrated in case of a rational and relevant decision making scenario. The cyborg effects make possible to face the classic naïve and/or intuitive approaches and parallel the optimized approximations. This way can be realized without deep competences about mathematics, Excel (spreadsheets), statistics, etc. The new (inter/trans/multi-disciplinary) way just expects from us to be able and willing to cooperate with the best moments of the history – it means, with the already prepared robotized elements in order to build something creative one! Parallel, in the second QuILT-semester - https://miau.myx.hu/mediawiki/index.php/QuILT2_parts - there are not only classic publication possibilities like robotizing the investigative journalism – there are further specific tasks too like 2DM-games, gamification in general, thinking experiments, etc.

Coronavirus publication

Author: Várkonyi Sára (IYEOP4)

Abstract: In this publication I will show how the coronavirus numbers changed in a month. I will write about the death rates and the infection rates (with different calculations) in my chosen countries: Austria, Belgium, Croatia, Czech Republic, Finland, Germany, Greece, Hungary, Iceland, Ireland, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom. These are all European countries, with different populations, healthcare and Covid-19 cases.

Keywords: Coronavirus, Death rate, Infection rate, Population, Change in rate

Introduction

In this table I have gathered all the basic informations regarding the pandemic. I have chosen two days with about a month inbetween them, so that I could get an overall picture of how the numbers changed.

The first coloumn shows the given countries, the second shows all the Covid-19 cases up to 16th of May, the third shows all coronavirus deaths until 16th of May. The fourth coloumn shows all the cases up to 15th of June and the last one shows the numbers of the updated deaths.

Death rate

Everybody can Google the exact death rate of the pandemic but I wanted to observe it from a different angle. Usually death rates are given per 1000 people. What I have done however, was taking the nubner of deaths in each counrty and divided them by the numbers of all of the infections. This way I got a number that indicated the amount of deaths compared to the actual cases. I analysed the death rate within the number of the infected people.

Then, I have compared these percentages with the numbers from one month later , and I could see a change in the rate of deaths. In the table below, I highlighted the **growth rates** in green and the **shrinking** in pink.

Sorcímkék	Értékek (05.16)		Értékek (06.15)	
	Összeg /cases	Összeg / deaths	Összeg / cases	Összeg / deaths
Europe	1095676	124469	1234061	138377
Austria	16068	628	17038	677
Belgium	54644	8959	60029	9655
Croatia	2222	95	2252	107
Czechia	8406	295	10024	329
Finland	6228	293	7104	326
Germany	173772	7881	186461	8791
Greece	2810	160	3121	183
Hungary	3473	448	4076	563
Iceland	1802	10	1810	10
Ireland	23956	1518	25303	1706
Italy	223885	31610	236989	34345
Netherlands	43681	5643	48783	6059
Norway	8197	232	8606	242
Spain	230183	27459	243928	27136
Sweden	29207	3646	51614	4874
Switzerland	30431	1594	31034	1676
United_Kingdom	236711	33998	295889	41698
Végösszeg	1095676	124469	1234061	138377

Growth in these rates mean that the death rate is higher now than it was a month ago, and shrinking means that there are less deaths in those certain countries.

Sorcímkék	16.máj				15.jún				change in the rate
	Értékek	death rate			Értékek	death rate			
▼	Összeg / cases	Összeg / deaths	(deaths/cases)	death rate %	Összeg / cases	Összeg / deaths	(deaths/cases)	death rate %	
Europe	1095676	124469	-	-	1234061	138377	-	-	-
Austria	16068	628	0,039083893	4%	17038	677	0,039734711	4%	0,000650817 0,07%
Belgium	54644	8959	0,163952126	16%	60029	9655	0,160838928	16%	-0,003113199 -0,31%
Croatia	2222	95	0,042754275	4%	2252	107	0,047513321	5%	0,004759046 0,48%
Czechia	8406	295	0,03509398	4%	10024	329	0,032821229	3%	-0,002272751 -0,23%
Finland	6228	293	0,047045601	5%	7104	326	0,04588964	5%	-0,001155961 -0,12%
Germany	173772	7881	0,045352531	5%	186461	8791	0,047146588	5%	0,001794057 0,18%
Greece	2810	160	0,056939502	6%	3121	183	0,058635053	6%	0,001695551 0,17%
Hungary	3473	448	0,128995105	13%	4076	563	0,138125613	14%	0,009130508 0,91%
Iceland	1802	10	0,00554939	1%	1810	10	0,005524862	1%	-2,45277E-05 0,00%
Ireland	23956	1518	0,063366171	6%	25303	1706	0,067422835	7%	0,004056664 0,41%
Italy	223885	31610	0,141188557	14%	236989	34345	0,144922338	14%	0,003733782 0,37%
Netherlands	43681	5643	0,129186603	13%	48783	6059	0,124203104	12%	-0,004983499 -0,50%
Norway	8197	232	0,028303038	3%	8606	242	0,028119916	3%	-0,000183121 -0,02%
Spain	230183	27459	0,119292042	12%	243928	27136	0,111245941	11%	-0,0080461 -0,80%
Sweden	29207	3646	0,124833088	12%	51614	4874	0,094431743	9%	-0,030401345 -3,04%
Switzerland	30431	1594	0,052380796	5%	31034	1676	0,054005285	5%	0,001624489 0,16%
United_Kingd	236711	33998	0,143626616	14%	295889	41698	0,140924468	14%	-0,002702148 -0,27%

1. figure: Death rate of Covid-19 (where death rate is calculated by dividing the total number of deaths with the total number of cases) source: <https://www.ecdc.europa.eu/en/publications-data/download-todays-data-geographic-distribution-covid-19-cases-worldwide>

I also wanted to see how different countries' deaths were compared to the number of the population. Again, I did not calculate the proper death rate, but instead I came up with numbers that show how each country's deaths grew in the past month. Greece had the least bit of growth which indicates that they have had the least deaths compared to the population, and the United Kingdom's numbers were the highest, which means that they have had the most fatalities compared to the population.

Sorcímkék	Population	16.máj		15.jún	
		Összeg / deaths	(deaths/pop.) %	Összeg / deaths	(deaths/pop.) %
Europe	-	124469	-	138377	-
Austria	9004330	628	0,007%	677	0,008%
Belgium	11587597	8959	0,077%	9655	0,083%
Croatia	4106271	95	0,002%	107	0,003%
Czechia	10708185	295	0,003%	329	0,003%
Finland	5540376	293	0,005%	326	0,006%
Germany	83773195	7881	0,009%	8791	0,010%
Greece	10425075	160	0,002%	183	0,002%
Hungary	9661328	448	0,005%	563	0,006%
Iceland	341154	10	0,003%	10	0,003%
Ireland	4935551	1518	0,031%	1706	0,035%
Italy	60465371	31610	0,052%	34345	0,057%
Netherlands	17133353	5643	0,033%	6059	0,035%
Norway	5419531	232	0,004%	242	0,004%
Spain	46754054	27459	0,059%	27136	0,058%
Sweden	10096730	3646	0,036%	4874	0,048%
Switzerland	8652070	1594	0,018%	1676	0,019%
United_Kingdom	67871671	33998	0,050%	41698	0,061%

2. figure: Death rate (where we divide all deaths with the population's number, and get a percentage of the growth)
Source: own calculations, and <https://www.worldometers.info/population/europe/> for the exact population numbers

Rate of Infections

I also wanted to see how the numbers of coronavirus infections were. I calculated the infection rate by dividing all cases with the population. The percentage I got this way shows the rate of infections, the number of people that got ill compared to the number of people that live in the given country.

The third figure shows a table with these said calculations. I still worked with the data from the 16th of May and the 15th of June. I also added an extra column with the total growth of infections in this one month span.

Sorcímkék	Population	16.máj		15.jún		total growth in infections
		Összeg / cases	infection rate by population (cases/pop.) %	Összeg / cases	infection rate by population (cases/pop.) %	
Europe	-	1095676	-	1234061	-	
Austria	9004330	16068	0,178%	17038	0,189%	970
Belgium	11587597	54644	0,472%	60029	0,518%	5385
Croatia	4106271	2222	0,054%	2252	0,055%	30
Czechia	10708185	8406	0,079%	10024	0,094%	1618
Finland	5540376	6228	0,112%	7104	0,128%	876
Germany	83773195	173772	0,207%	186461	0,223%	12689
Greece	10425075	2810	0,027%	3121	0,030%	311
Hungary	9661328	3473	0,036%	4076	0,042%	603
Iceland	341154	1802	0,528%	1810	0,531%	8
Ireland	4935551	23956	0,485%	25303	0,513%	1347
Italy	60465371	223885	0,370%	236989	0,392%	13104
Netherlands	17133353	43681	0,255%	48783	0,285%	5102
Norway	5419531	8197	0,151%	8606	0,159%	409
Spain	46754054	230183	0,492%	243928	0,522%	13745
Sweden	10096730	29207	0,289%	51614	0,511%	22407
Switzerland	8652070	30431	0,352%	31034	0,359%	603
United_Kingdom	67871671	236711	0,349%	295889	0,436%	59178

3. figure: Infection rate by total population (what percentage of given country's population got infected with the Coronavirus)
Source: my own calculations.

In the table below I took these results even further, and calculated the change of the infection rate in the past month. The green number shows that Greece had the lowest percentage of infection cases by the number of the population, and the pink highlight indicates that Iceland had the most cases compared to its' population.

The change in rate column shows how these percentages had changed in one month. The lowest this number is, the more consistent the country's health care is, and had the least bit of change since May. When these percentages seemingly change a lot, that means that country had rising numbers of infections.

Even though the UK has had the most cases on my list, Sweden's number is a lot higher when we look at the rates. This is due to the fact that there are more than 6 times more people living in the UK than in Sweden, and when we compare the infection numbers with the population, their rate comes out the highest. Croatia has had the lowest change in the infection's rate, which means that they registered the least cases in the past month (compared to the population).

Sorcímkék	Population	16.máj		15.jún		change in the rate
		Összeg / cases	infection rate by population (cases/pop.) %	Összeg / cases	(cases/pop.) %	
Europe	-	1095676	-	1234061	-	-
Austria	9004330	16068	0,178%	17038	0,189%	0,011%
Belgium	11587597	54644	0,472%	60029	0,518%	0,046%
Croatia	4106271	2222	0,054%	2252	0,055%	0,001%
Czechia	10708185	8406	0,079%	10024	0,094%	0,015%
Finland	5540376	6228	0,112%	7104	0,128%	0,016%
Germany	83773195	173772	0,207%	186461	0,223%	0,015%
Greece	10425075	2810	0,027%	3121	0,030%	0,003%
Hungary	9661328	3473	0,036%	4076	0,042%	0,006%
Iceland	341154	1802	0,528%	1810	0,531%	0,002%
Ireland	4935551	23956	0,485%	25303	0,513%	0,027%
Italy	60465371	223885	0,370%	236989	0,392%	0,022%
Netherlands	17133353	43681	0,255%	48783	0,285%	0,030%
Norway	5419531	8197	0,151%	8606	0,159%	0,008%
Spain	46754054	230183	0,492%	243928	0,522%	0,029%
Sweden	10096730	29207	0,289%	51614	0,511%	0,222%
Switzerland	8652070	30431	0,352%	31034	0,359%	0,007%
United_Kingdom	67871671	236711	0,349%	295889	0,436%	0,087%

4. figure: Change in the rate (where I subtracted the May 16th data from June 15th)
The lower numbers indicate fewer cases registered in the past month.
Source: my own calculations.

Best Results (all things considered)

I gathered all the information from the tables that I have worked on and made a final one, presenting all the collected data and the changes in the rates (infection and death). The blue columns indicate the death rate calculated from dividing all the deaths with all the infections in the given countries, the greens show the death rate of the population, and the pinks show the infection rates from dividing all cases with the population.

Sorcímkék	DEATH RATE = DEATHS/CASES				DEATH RATE = DEATHS/POPULATION			INFECTION RATE = ALL CASES/POPULATION				
	2020. május 16. (deaths/cases)	death rate %	2020. június 15. (deaths/cases)	death rate %	change in the rate	16.máj (deaths/pop.) %	15.jún (deaths/pop.) %	change in rate	16.máj (cases/pop.) %	15.jún (cases/pop.) %	change in rate	
Europe	-	-	-	-	-	-	-	-	-	-	-	
Austria	0,039083893	4%	0,039734711	4%	0,000650817	0,07%	0,008%	0,001%	0,178%	0,189%	0,011%	
Belgium	0,163952126	16%	0,160838928	16%	-0,003113199	-0,31%	0,077%	0,083%	0,006%	0,472%	0,518%	0,046%
Croatia	0,042754275	4%	0,047513321	5%	0,004759046	0,48%	0,002%	0,003%	0,000%	0,054%	0,055%	0,001%
Czechia	0,03509398	4%	0,032821229	3%	-0,002272751	-0,23%	0,003%	0,000%	0,000%	0,079%	0,094%	0,015%
Finland	0,047045601	5%	0,04588964	5%	-0,001155961	-0,12%	0,005%	0,006%	0,001%	0,112%	0,128%	0,016%
Germany	0,045352531	5%	0,047146588	5%	0,001794057	0,18%	0,009%	0,010%	0,001%	0,207%	0,223%	0,015%
Greece	0,056939502	6%	0,058635053	6%	0,001695551	0,17%	0,002%	0,002%	0,000%	0,027%	0,030%	0,003%
Hungary	0,128995105	13%	0,138125613	14%	0,009130508	0,91%	0,005%	0,006%	0,001%	0,036%	0,042%	0,006%
Iceland	0,00554939	1%	0,005524862	1%	-2,45277E-05	0,00%	0,003%	0,003%	0,000%	0,528%	0,531%	0,002%
Ireland	0,063366171	6%	0,067422835	7%	0,004056664	0,41%	0,031%	0,035%	0,004%	0,485%	0,513%	0,027%
Italy	0,141188557	14%	0,144922338	14%	0,003733782	0,37%	0,052%	0,057%	0,005%	0,370%	0,392%	0,022%
Netherlands	0,129186603	13%	0,124203104	12%	-0,004983499	-0,50%	0,033%	0,035%	0,002%	0,255%	0,285%	0,030%
Norway	0,028303038	3%	0,028119916	3%	-0,000183121	-0,02%	0,004%	0,004%	0,000%	0,151%	0,159%	0,008%
Spain	0,119292042	12%	0,111245941	11%	-0,0080461	-0,80%	0,059%	0,058%	-0,001%	0,492%	0,522%	0,029%
Sweden	0,124833088	12%	0,094431743	9%	-0,030401345	-3,04%	0,036%	0,048%	0,012%	0,289%	0,511%	0,222%
Switzerland	0,052380796	5%	0,054005285	5%	0,001624489	0,16%	0,018%	0,019%	0,001%	0,352%	0,359%	0,007%
United_Kingdom	0,143626616	14%	0,140924468	14%	-0,002702148	-0,27%	0,050%	0,061%	0,011%	0,349%	0,436%	0,087%

5. figure: Collective data table (gathering information from previous tables)

Source: own calculations

Then I had a look at the numbers and highlighted the “best results” with yellow, in the columns that showed the difference from the previous month.

In the third column (death rate) I highlighted Iceland and Norway. Their numbers were the lowest from the list, meaning that they have had the least amount of deaths considering the number of all cases.

Then, in the next column I highlighted the negative changes in the rate (negative change means a drop in the death rate, as in fewer deaths).

In the 6th column I highlighted Greece because they had the lowest rate, meaning they have had the least death cases/population.

In the following column I focused on the lowest changes in the rate. The lower the rate is, the less people died in one month’s span.

In the 9th column I highlighted Greece again. Their infection rate was the lowest of the list.

And finally, in the last column I highlighted the lowest changes in the infections’ rate. The lower rates mean that those countries had the least infections in the previous month.

Sorcímkék	DEATH RATE = DEATHS/CASES					DEATH RATE = DEATHS/POPULATION			INFECTION RATE = ALL CASES/POPULATION		
	2020. május 16.		2020. június 15.		change in the rate	16.máj	15.jún	change in rate	16.máj	15.jún	change in rate
	(deaths/cases)	death rate %	(deaths/cases)	death rate %		(deaths/pop.) %	(deaths/pop.) %		(cases/pop.) %	(cases/pop.) %	
Europe	-	-	-	-	-	-	-	-	-	-	-
Austria	0,039083893	4%	0,039734711	4%	0,000650817	0,07%	0,008%	0,001%	0,178%	0,189%	0,011%
Belgium	0,163952126	16%	0,160838928	16%	-0,003113199	-0,31%	0,077%	0,006%	0,472%	0,518%	0,046%
Croatia	0,042754275	4%	0,047513321	5%	0,004759046	0,48%	0,002%	0,003%	0,054%	0,055%	0,001%
Czechia	0,03509398	4%	0,032821229	3%	-0,002272751	-0,23%	0,003%	0,003%	0,079%	0,094%	0,015%
Finland	0,047045601	5%	0,04588964	5%	-0,001155961	-0,12%	0,005%	0,006%	0,112%	0,128%	0,016%
Germany	0,045352531	5%	0,047146588	5%	0,001794057	0,18%	0,009%	0,010%	0,207%	0,223%	0,015%
Greece	0,056939502	6%	0,058635053	6%	0,001695551	0,17%	0,002%	0,002%	0,027%	0,030%	0,003%
Hungary	0,128995105	13%	0,138125613	14%	0,009130508	0,91%	0,005%	0,006%	0,036%	0,042%	0,006%
Iceland	0,00554939	1%	0,005524862	1%	-2,45277E-05	0,00%	0,003%	0,003%	0,528%	0,531%	0,002%
Ireland	0,063366171	6%	0,067422835	7%	0,004056664	0,41%	0,031%	0,035%	0,485%	0,513%	0,027%
Italy	0,141188557	14%	0,144922338	14%	0,003733782	0,37%	0,052%	0,057%	0,370%	0,392%	0,022%
Netherlands	0,129186603	13%	0,124203104	12%	-0,004983499	-0,50%	0,033%	0,035%	0,255%	0,285%	0,030%
Norway	0,028303038	3%	0,028119916	3%	-0,000183121	-0,02%	0,004%	0,004%	0,151%	0,159%	0,008%
Spain	0,119292042	12%	0,111245941	11%	-0,0080461	-0,80%	0,059%	0,058%	0,492%	0,522%	0,029%
Sweden	0,124833088	12%	0,094431743	9%	-0,030401345	-3,04%	0,036%	0,048%	0,289%	0,511%	0,222%
Switzerland	0,052380796	5%	0,054005285	5%	0,001624489	0,16%	0,018%	0,019%	0,352%	0,359%	0,007%
United_Kingdom	0,143626616	14%	0,140924468	14%	-0,002702148	-0,27%	0,050%	0,061%	0,349%	0,436%	0,087%

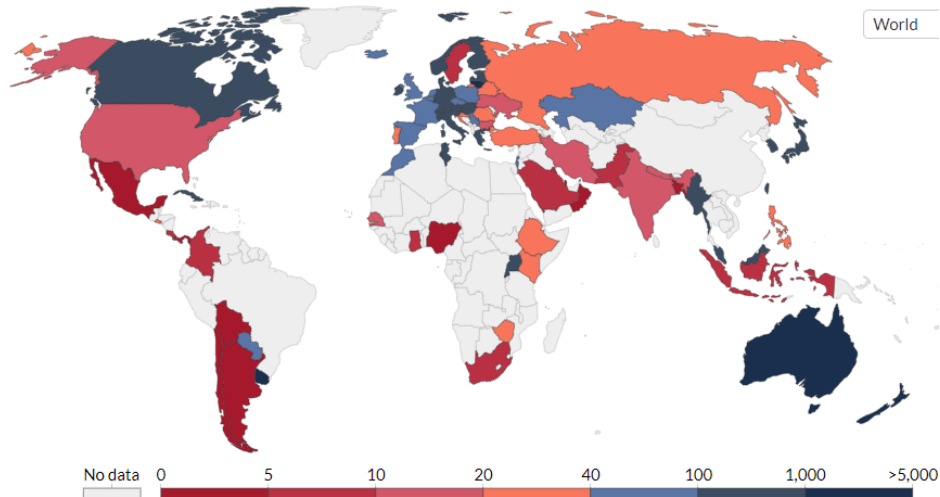
6. figure: Best cases – highlighted (source: own presentation)

According to this table I could easily find out which country had the best results overall. I highlighted more than one country in almost all categories, but two of them stood out the most: Greece and Norway. These two countries were the ones that had the most highlights in their row, meaning that they have had the most “best cases” of all the countries on my list.

Both countries had restrictions from the beginning of this pandemic, and had very low fatality numbers. This is probably due the fact that both of them closed everything very early on to stop and cut all the possible ways the virus could spread and many people were tested to filter the Covid-19 cases.

Tests conducted per new confirmed case of COVID-19, Jun 23, 2020

Shown is the daily number of tests for each new confirmed case. This is a rolling 7-day average.



7. figure: Amounts of tests per new cases

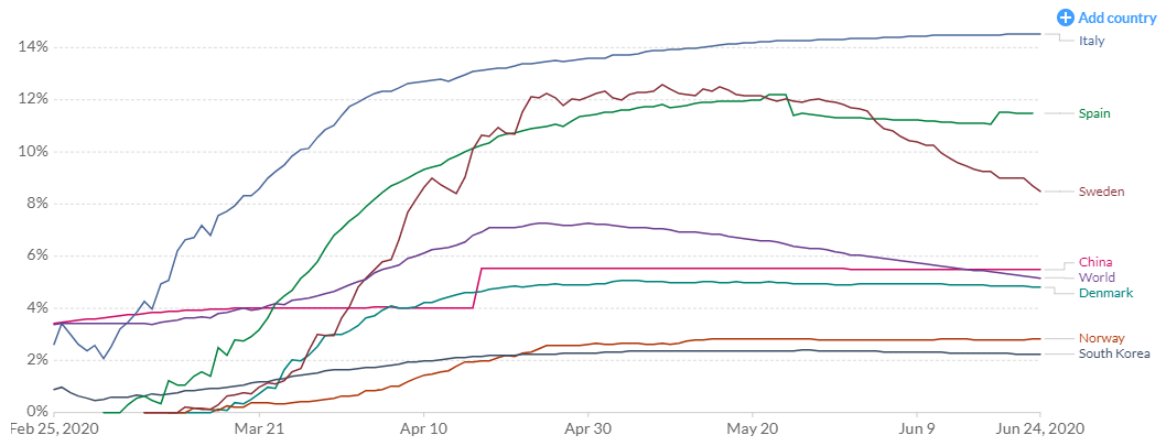
Source: <https://ourworldindata.org/coronavirus-testing#are-countries-testing-enough-to-monitor-their-outbreak>

Not just out of the countries on my list but in the whole world, these two countries performed very well compared to others.

Case fatality rate of the ongoing COVID-19 pandemic

The Case Fatality Rate (CFR) is the ratio between confirmed deaths and confirmed cases.

During an outbreak of a pandemic the CFR is a poor measure of the mortality risk of the disease. We explain this in detail at [OurWorldInData.org/Coronavirus](https://ourworldindata.org/coronavirus)



8. figure: Fatality rate in the World

Source: <https://sciencenorway.no/crisis-epidemic-mortality/very-low-mortality-rate-from-coronavirus-in-norway-compared-to-other-countries/1661751>

Conclusion

In conclusion, out of the countries that I had examined Greece and Norway came out as “winners” (see Annex). In the previous table I highlighted 4-4 “best cases” at each of their rows and they have had the least cases, or slightest changes in the rates leading them to be the most suitable for a pandemic.

In the last table below, I highlighted these winners in purple, so the difference between their numbers and others’ is visible.

Sorcímkék	DEATH RATE = DEATHS/CASES					DEATH RATE = DEATHS/POPULATION			INFECTION RATE = ALL CASES/POPULATION			
	2020. május 16.		2020. június 15.		change in the rate	16.máj	15.jún	change in rate	16.máj	15.jún	change in rate	
(deaths/cases)	death rate %	(deaths/cases)	death rate %	(deaths/pop.) %		(deaths/pop.) %	(cases/pop.) %		(cases/pop.) %			
Europe	-	-	-	-	-	-	-	-	-	-	-	
Austria	0,039083893	4%	0,039734711	4%	0,000650817	0,07%	0,008%	0,001%	0,178%	0,189%	0,011%	
Belgium	0,163952126	16%	0,160838928	16%	-0,003113199	-0,31%	0,077%	0,083%	0,006%	0,472%	0,518%	0,046%
Croatia	0,042754275	4%	0,047513321	5%	0,004759046	0,48%	0,002%	0,003%	0,000%	0,054%	0,055%	0,001%
Czechia	0,03509398	4%	0,032821229	3%	-0,002272751	-0,23%	0,003%	0,003%	0,000%	0,079%	0,094%	0,015%
Finland	0,047045601	5%	0,04588964	5%	-0,001155961	-0,12%	0,005%	0,006%	0,001%	0,112%	0,128%	0,016%
Germany	0,045352531	5%	0,047146588	5%	0,001794057	0,18%	0,009%	0,010%	0,001%	0,207%	0,223%	0,015%
Greece	0,056939502	6%	0,058635053	6%	0,001695551	0,17%	0,002%	0,002%	0,000%	0,027%	0,030%	0,003%
Hungary	0,128995105	13%	0,138125613	14%	0,009130508	0,91%	0,005%	0,006%	0,001%	0,036%	0,042%	0,006%
Iceland	0,00554939	1%	0,005524862	1%	-2,45277E-05	0,00%	0,003%	0,003%	0,000%	0,528%	0,531%	0,002%
Ireland	0,063366171	6%	0,067422835	7%	0,004056664	0,41%	0,031%	0,035%	0,004%	0,485%	0,513%	0,027%
Italy	0,141188557	14%	0,144922338	14%	0,003733782	0,37%	0,052%	0,057%	0,005%	0,370%	0,392%	0,022%
Netherlands	0,129186603	13%	0,124203104	12%	-0,004983499	-0,50%	0,033%	0,035%	0,002%	0,255%	0,285%	0,030%
Norway	0,028303038	3%	0,028119916	3%	-0,000183121	-0,02%	0,004%	0,004%	0,000%	0,151%	0,159%	0,008%
Spain	0,119292042	12%	0,111245941	11%	-0,0080461	-0,80%	0,059%	0,058%	-0,001%	0,492%	0,522%	0,029%
Sweden	0,124833088	12%	0,094431743	9%	-0,030401345	-3,04%	0,036%	0,048%	0,012%	0,289%	0,511%	0,222%
Switzerland	0,052380796	5%	0,054005285	5%	0,001624489	0,16%	0,018%	0,019%	0,001%	0,352%	0,359%	0,007%
United_Kingdom	0,143626616	14%	0,140924468	14%	-0,002702148	-0,27%	0,050%	0,061%	0,011%	0,349%	0,436%	0,087%

9. figure: The “winners” of Best cases highlighted in purple – source: own calculations

References:

<https://sciencenorway.no/crisis-epidemic-mortality/very-low-mortality-rate-from-coronavirus-in-norway-compared-to-other-countries/1661751>

<https://sciencenorway.no/epidemic-mortality-virus/norways-mortality-rate-during-the-coronavirus-pandemic-is-probably-lower-than-usual/1678780>

<https://time.com/5824836/greece-coronavirus/>

<https://www.ecdc.europa.eu/en/publications-data/download-todays-data-geographic-distribution-covid-19-cases-worldwide>

<https://www.worldometers.info/population/europe/>



Arzonosító:	6256245	Objektumok:	17	Attríbutumok:	9	Lépcsők:	17	Eltolások:	0	Létezős:	COCO V0: 6256245
Rangsor	X(A1)	X(A2)	X(A3)	X(A4)	X(A5)	X(A6)	X(A7)	X(A8)	X(A9)	Y(A10)	
01	14	14	8	10	10	11	11	11	11	1000	
02	1	1	14	1	1	3	4	3	3	1000	
03	13	1	2	16	13	13	13	13	17	1000	
04	15	15	12	15	14	12	14	14	10	1000	
05	11	13	11	11	11	10	13	13	8	1000	
06	12	12	5	9	9	8	10	10	5	1000	
07	9	9	6	17	17	14	17	17	13	1000	
08	5	4	1	12	12	7	16	16	14	1000	
09	17	17	9	14	15	16	1	1	16	1000	
010	8	8	3	7	7	5	3	4	6	1000	
011	3	2	4	3	4	4	5	7	7	1000	
012	4	5	3	13	6	6	9	9	4	1000	
013	16	16	10	13	13	15	12	12	12	1000	
014	7	6	16	2	3	17	2	2	5	1000	
015	6	7	17	5	5	1	8	5	1	1000	
016	10	10	7	8	8	9	6	8	13	1000	
017	2	3	17	4	2	2	7	6	2	1000	

Lépcső#(1)	X(A1)	X(A2)	X(A3)	X(A4)	X(A5)	X(A6)	X(A7)	X(A8)	X(A9)
01	(8981+32.1)(2)+465.6	(16.1+16.1)(2)+16.05	(72.3+96.4)(2)+52.05	(16.1+16.1)(2)+16.05	(16.1+16.1)(2)+16.05	(40.2+16.1)(2)+28.15	(82.4+21.1)(2)+21.05	(16.1+16.1)(2)+16.05	(16.1+905.1)(2)+460.6
02	(8971+32.1)(2)+464.6	(15.1+15.1)(2)+15.05	(71.3+96.4)(2)+51.05	(15.1+15.1)(2)+15.05	(15.1+15.1)(2)+15.05	(17.1+15.1)(2)+16.05	(44.2+20.1)(2)+20.15	(15.1+15.1)(2)+15.05	(15.1+904.1)(2)+459.6
03	(8961+32.1)(2)+463.6	(14.1+14.1)(2)+14.05	(34.2+96.4)(2)+50.05	(14.1+14.1)(2)+14.05	(14.1+14.1)(2)+14.05	(4.1+14.1)(2)+14.05	(4.1+14.1)(2)+14.05	(14.1+14.1)(2)+14.05	(14.1+903.1)(2)+458.6
04	(8951+30.1)(2)+462.6	(13.1+13.1)(2)+13.05	(21.1+96.4)(2)+49.05	(13.1+13.1)(2)+13.05	(13.1+13.1)(2)+13.05	(13.1+13.1)(2)+13.05	(13.1+13.1)(2)+13.05	(13.1+13.1)(2)+13.05	(13.1+902.1)(2)+457.5
05	(894+29.1)(2)+461.6	(12.1+12.1)(2)+12.05	(20.1+96.4)(2)+48.05	(12.1+12.1)(2)+12.05	(12.1+12.1)(2)+12.05	(12.1+12.1)(2)+12.05	(12.1+12.1)(2)+12.05	(12.1+12.1)(2)+12.05	(12.1+901.1)(2)+456.5
06	(893+28.1)(2)+460.6	(11.1+11.1)(2)+11.05	(19.1+96.4)(2)+47.05	(11.1+11.1)(2)+11.05	(11.1+11.1)(2)+11.05	(11.1+11.1)(2)+11.05	(11.1+11.1)(2)+11.05	(11.1+11.1)(2)+11.05	(11.1+14.1)(2)+12.05
07	(892+27.1)(2)+459.6	(10+10)(2)+10.05	(18.1+96.4)(2)+46.05	(10+10)(2)+10.05	(10+10)(2)+10.05	(10+10)(2)+10.05	(10+10)(2)+10.05	(10+10)(2)+10.05	(10+13.1)(2)+11.05
08	(891+26.1)(2)+458.6	(9+9)(2)+9.05	(17.1+96.4)(2)+45.05	(9+9)(2)+9.05	(9+9)(2)+9.05	(9+9)(2)+9.05	(9+9)(2)+9.05	(9+9)(2)+9.05	(9+11.1)(2)+10.05
09	(890+25.1)(2)+457.55	(8+8)(2)+8.05	(16.1+96.4)(2)+44.05	(8+8)(2)+8.05	(8+8)(2)+8.05	(8+8)(2)+8.05	(8+8)(2)+8.05	(8+8)(2)+8.05	(8+11.1)(2)+9.55
10	(889+24.1)(2)+456.55	(7+7)(2)+7.05	(15.1+96.4)(2)+43.05	(7+7)(2)+7.05	(7+7)(2)+7.05	(7+7)(2)+7.05	(7+7)(2)+7.05	(7+7)(2)+7.05	(7+10)(2)+8.55
11	(888+23.1)(2)+455.55	(6+6)(2)+6.05	(14.1+96.4)(2)+42.05	(6+6)(2)+6.05	(6+6)(2)+6.05	(6+6)(2)+6.05	(6+6)(2)+6.05	(6+6)(2)+6.05	(6+9)(2)+7.55
12	(887+22.1)(2)+454.55	(5+5)(2)+5	(13.1+96.4)(2)+41.05	(5+5)(2)+5	(5+5)(2)+5	(5+5)(2)+5	(5+5)(2)+5	(5+5)(2)+5	(5+8)(2)+6.55
13	(886+21.1)(2)+453.55	(4+4)(2)+4	(12.1+13.1)(2)+12.05	(4+4)(2)+4	(4+4)(2)+4	(4+4)(2)+4	(4+4)(2)+4	(4+4)(2)+4	(4+7)(2)+5.55
14	(885+20.1)(2)+452.55	(3+3)(2)+3	(9+12.1)(2)+7.55	(3+3)(2)+3	(3+3)(2)+3	(3+3)(2)+3	(3+3)(2)+3	(3+3)(2)+3	(3+6)(2)+4.55
15	(884+19.1)(2)+451.55	(2+2)(2)+2	(2+11.1)(2)+6.55	(2+2)(2)+2	(2+2)(2)+2	(2+2)(2)+2	(2+2)(2)+2	(2+2)(2)+2	(2+5)(2)+3.55
16	(883+18.1)(2)+449.55	(1+1)(2)+1	(1+1)(2)+1	(1+1)(2)+1	(1+1)(2)+1	(1+1)(2)+1	(1+1)(2)+1	(1+1)(2)+1	(1+1)(2)+1
17	(882+0)(2)+441	(0+0)(2)+0	(0+0)(2)+0	(0+0)(2)+0	(0+0)(2)+0	(0+0)(2)+0	(0+0)(2)+0	(0+0)(2)+0	(0+0)(2)+0

Lépcső#(2)	X(A1)	X(A2)	X(A3)	X(A4)	X(A5)	X(A6)	X(A7)	X(A8)	X(A9)
01	465.6	16.1	528.4	16.1	16.1	28.1	32.1	16.1	460.6
02	464.6	15.1	519.4	15.1	15.1	16.1	32.1	15.1	459.6
03	463.6	14.1	500.3	14.1	14.1	14.1	14.1	14.1	458.6
04	462.6	13.1	492.2	13.1	13.1	13.1	13.1	13.1	457.6
05	461.6	12.1	492.0	12.1	12.1	12.1	12.1	12.1	456.6
06	460.6	11.1	491.2	11.1	11.1	11.1	11.1	11.1	456.6
07	459.6	10	490.2	10	10	10	10	10	456.6
08	458.6	9	489.2	9	9	9	9	9	456.6
09	457.6	8	488.2	8	8	8	8	8	456.6
10	456.6	7	487.2	7	7	7	7	7	456.6
11	455.6	6	486.2	6	6	6	6	6	456.6
12	454.6	5	485.2	5	5	5	5	5	456.6
13	453.6	4	484.2	4	4	4	4	4	456.6
14	452.5	3	483.2	3	3	3	3	3	456.6
15	451.5	2	482.2	2	2	2	2	2	456.6
16	449.5	1	481.2	1	1	1	1	1	456.6
17	441	0	480.2	0	0	0	0	0	456.6

COCO-V0	X(A1)	X(A2)	X(A3)	X(A4)	X(A5)	X(A6)	X(A7)	X(A8)	X(A9)	Becslés	Tényi0	Delta	Delta/Tényi
01	452.5	3	489.2	7	7	6	6	6	7.5	964.5	1000	15.5	1.55
02	465.6	16.1	7.5	16.1	16.1	14.1	13.1	14.1	458.6	1021.1	1000	-21.1	-2.11
03	463.6	6	519.4	1	1	4	2	2	0	989	1000	11	1.1
04	451.5	2	485.2	2	3	5	3	3	8.5	963.4	1000	36.6	3.66
05	453.6	4	486.2	6	6	7	4	4	10.5	983.5	1000	16.5	1.65
06	454.6	5	492.2	8	8	9	7	7	9.5	1000.5	1000	-0.5	-0.05
07	457.6	8	491.2	0	0	3	0	0	3.5	963.4	1000	36.6	3.66
08	461.6	13.1	528.4	5	5	10	1	1	4.5	1021.6	1000	-21.6	-2.16
09	441	0	488.2	3	2	1	32.2	16.1	1	1004.6	1000	-4.6	-0.46
010	458.6	9	500.3	10	10	12.1	14.1	13.1	12.6	1039.7	1000	-39.7	-3.97
011	463.6	15.1	492.2	14.1	13.1	13.1	12.1	10	11.6	1045.7	1000	-45.7	-4.57
012	462.6	12.1	6.5	11.1	11.1	11.1	8	8	457.6	988	1000	12	1.2
013	449.5	1	487.2	4	4	2	5	5	6.5	964.4	1000	35.6	3.56
014	459.6	11.1	1	15.1	14.1	0	32.1	15.1	456.6	1004.6	1000	-4.6	-0.46
015	460.6	10	0	12.1	12.1	28.1	9	12.1	460.6	1004.6	1000	-4.6	-0.46
016	456.6	7	490.2	9	9	8	11.1	9	5.5	1005.6	1000	-5.6	-0.56
017	464.6	14.1	12.6	13.1	15.1	16.1	10	11.1	459.6	1016.1	1000	-16.1	-1.61

01 -összeg:	1591.3
02 -összeg:	841
Becslés -összeg:	17000.3
Tényi -összeg:	17000
Tényi-becslés eltérés:	0.3
Tényi-növekedés/összeg:	
Becslés-növekedés/összeg:	
Növekedés/összeg hány:	0

Open url

Maximális memória használat: 1.38 Mb
A futtatás időtartama: 0.06 mp (0 p)