

Mortality in Serbia due to the COVID-19 pandemic

Overview of basic mortality data for 2020 and 2021

The coronavirus disease (COVID-19) is an infectious disease caused by the newly discovered coronavirus, SARS-CoV-2. The coronavirus pandemic was declared on 11 March 2020 by the World Health Organization (WHO), and by the end of that month, around 50,000 individuals around the world had died from COVID-19. The curve of infected and dead then began to rise significantly, especially in Europe. In Serbia over the past seven decades (since the end of World War II), there has been no annual increase in mortality as great as that recorded in 2020 and especially in 2021. Mortality increased by 14% in 2020 and as much as 34% in 2021 compared to the average mortality from 2017 to 2019. Monthly balance sheets show that during the two years of the pandemic there were record high death tolls. Particularly large deviations were recorded in December 2020 (when the number of deaths almost doubled compared to the 2017–2019 average) and October 2021 (when the number of deaths increased by 85%). The absolute highest number

of COVID-19 deaths was recorded in October 2021 (5,277 deaths).

Males in Serbia have higher mortality rates due to COVID-19 than females. During the first year of the pandemic, the relative difference was as high as 78%, while in the second year of the pandemic, the relative difference was significantly lower at around 21%. Data by age shows that the elderly population (65+) is more burdened by mortality due to COVID-19 and that young people and children (0–19) are much less affected. In the male population, the highest number of deaths was in the 70–74 age group for both years, while in the female population, the highest number of deaths was in the 70–74 age group in 2020 and in the 80–84 age group in 2021.

The statistical annex was prepared based on final mortality data in 2020 and 2021 published by the Statistical Office of the Republic of Serbia (SORS 2020, 2021), and data from the SORS' detailed database on deaths by cause of death obtained by official request.

Table 1. Total deaths and deaths due to COVID-19 per month in Serbia

Months	Total deaths			COVID-19 deaths	
	2017–2019	2020	2021	2020	2021
I	10,919	9,886	12,538	0	2,619
II	9,448	9,205	10,085	0	1,670
III	9,230	9,050	12,767	75	3,316
IV	8,338	8,710	12,584	597	3,528
V	8,125	7,943	9,977	178	1,452
VI	7,765	8,222	8,918	177	329
VII	7,830	9,959	8,452	1,212	112
VIII	7,888	8,626	8,379	640	401
IX	7,390	7,646	11,756	163	2,748
X	8,471	8,580	15,653	168	5,277
XI	8,162	11,914	13,808	2,121	4,185
XII	8,713	17,109	11,705	5,025	2,105
SUM	102,278	116,850	136,622	10,356	27,742

Note: The average values are calculated from 2017 to 2019.

Table 2. Deaths due to COVID-19 by sex and age in Serbia in 2020 and 2021

Age group	2020			2021		
	Total	Male	Female	Total	Male	Female
Total	10,356	6,629	3,727	27,742	15,218	12,524
0	2	1	1	3	0	3
1–4	2	0	2	0	0	0
5–9	0	0	0	1	1	0
10–14	0	0	0	1	1	0
15–19	1	1	0	9	5	4
20–24	10	6	4	19	12	7
25–29	24	11	13	32	19	13
30–34	20	12	8	76	52	24
35–39	60	48	12	157	105	52
40–44	123	96	27	266	197	69
45–49	198	148	50	472	342	130
50–54	348	259	89	746	483	263
55–59	591	427	164	1,215	793	422
60–64	979	697	282	2,159	1,309	850
65–69	1,664	1,177	487	3,969	2,337	1,632
70–74	1,921	1,226	695	5,061	2,850	2,211
75–79	1,548	922	626	4,356	2,246	2,110
80–84	1,590	906	684	4,939	2,438	2,501
85 +	1,271	690	581	4,259	2,027	2,232
Unknown	4	2	2	2	1	1

Smrtnost u Srbiji usled pandemije COVID-19

Pregled osnovnih podataka o mortalitetu za 2020. i 2021. godinu

Koronavirusna bolest ili COVID-19 je zarazna bolest koju uzrokuje novootkriveni koronavirus SARS-CoV-2. Pandemiju virusa korona proglasila je Svetska zdravstvena organizacija 11. marta 2020. godine (SZO) i do kraja samo tog meseca umrlo je sa dijagnozom COVID-19 oko 50 hiljada lica širom sveta. Kriva zaraženih i umrlih tada počinje značajno da raste, naročito u Evropi. Na teritoriji Srbije u poslednjih 7 decenija (od kraja Drugog svetskog rata) nije bilo takvog godišnjeg rasta smrtnosti kakav je zabeležen 2020. i naročito 2021. godine. U odnosu na očekivane i ranije podatke o smrtnosti, vrednosti su, u odnosu na prosek 2017–2019, povećane za 14% tokom 2020. odnosno čak 34% u 2021. godini. Bilansi po mesecima pokazuju da su tokom dve godine pandemije uspostavljeni rekordno visoki brojevi umrlih, a naročito velika odstupanja su evidentirana u decembru 2020. (kada je gotovo dupliran broj umrlih u odnosu na prosek

2017–2019) i oktobru 2021. godine (povećana smrtnost za 85%). Apsolutno najveći broj umrlih od COVID-19 zabeležen je u oktobru 2021. godine (5.277 umrlih lica).

Posmatrano po polu, muškarci u Srbiji imaju višu smrtnost usled bolesti COVID-19 od žena. U prvoj godini pandemije relativna razlika je čak 78%, dok je u drugoj znatno niža i iznosi oko 21%. Podaci po starosti pokazuju da je staro stanovništvo (65+) više opterećeno smrtnošću od ovog uzroka, kao i da mladi i deca (0–19) beleže niske vrednosti. Kod muške populacije najveći broj umrlih je u starosti 70–74 za obe posmatrane godine, dok je u ženskoj 2020. grupa 70–74, a 2021. stari 80–84 godine.

Statistički prilog je pripremljen na osnovu konačnih podataka o smrtnosti tokom 2020. i 2021. godine koje je objavio Republički zavod za statistiku (RZS) (SORS 2020, 2021) i podataka iz detaljne baze podataka RZS-a o umrlim po uzroku smrti dobijenih na službeni zahtev.

Tabela 1. Ukupno umrli i umrli od bolesti COVID-19 po mesecima u Srbiji

Meseci	Ukupno umrli			Umrli od COVID-19	
	2017–2019.	2020.	2021.	2020.	2021.
I	10.919	9.886	12.538	0	2.619
II	9.448	9.205	10.085	0	1.670
III	9.230	9.050	12.767	75	3.316
IV	8.338	8.710	12.584	597	3.528
V	8.125	7.943	9.977	178	1.452
VI	7.765	8.222	8.918	177	329
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VIII	7.888	8.626	8.379	640	401
IX	7.390	7.646	11.756	163	2.748
X	8.471	8.580	15.653	168	5.277
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SUM	102.278	116.850	136.622	10.356	27.742

Napomena: Izračunate su prosečne vrednosti za period 2017–2019. godine.

Tabela 2. Umrli od bolesti COVID-19 prema polu i starosti, Srbija, 2020. i 2021. godina

	2020.			2021.		
	Ukupno	Muško	Žensko	Ukupno	Muško	Žensko
Total	10.356	6629	3727	27.742	15.218	12.524
0	2	1	1	3	0	3
1-4	2	0	2	0	0	0
5-9	0	0	0	1	1	0
10-14	0	0	0	1	1	0
15-19	1	1	0	9	5	4
20-24	10	6	4	19	12	7
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70-74	1.921	1.226	695	5.061	2.850	2.211
75-79	1.548	922	626	4.356	2.246	2.110
80-84	1.590	906	684	4.939	2.438	2.501
85 +	1.271	690	581	4.259	2.027	2.232
Nepoznato	4	2	2	2	1	1

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REFERENCES

- SORS (2020). *Demographic Yearbook 2019*. Belgrade: Statistical Office of the Republic of Serbia.
<https://publikacije.stat.gov.rs/G2020/Pdfe/G202014017.pdf>
- SORS (2021). *Demographic Yearbook 2020*. Belgrade: Statistical Office of the Republic of Serbia.
<https://publikacije.stat.gov.rs/G2021/Pdfe/G202114018.pdf>

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