

KSE

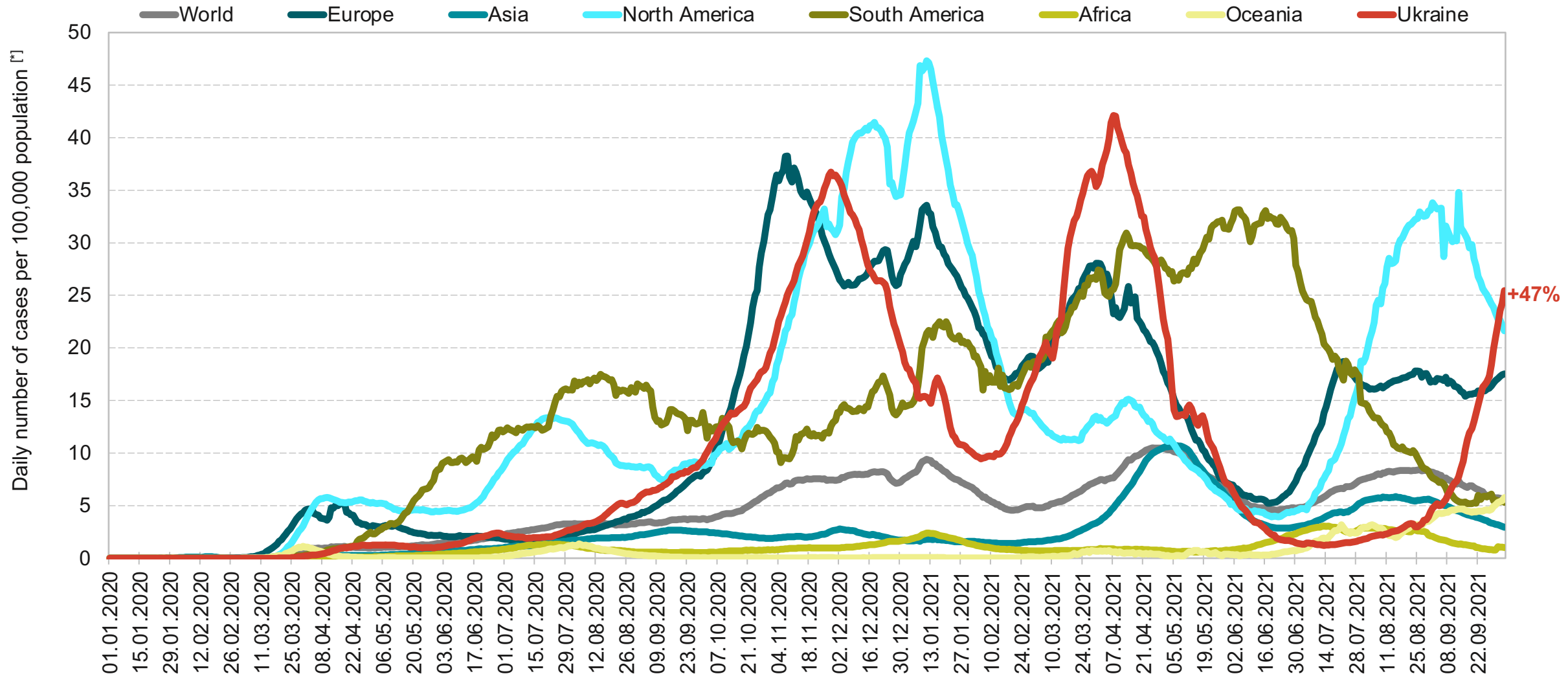
Kyiv
School of
Economics

COVID-19

Current situation analysis and outbreak scenarios modeling

October 6, 2021

Ukraine is above all continental levels of incidence. The incidence in Europe has not decreased for three months.



Sources: OWID, Public Health Center of MOH of Ukraine, KSE analysis

[1]7-day moving average

Ukraine is in the top-3 in Europe^[*] in terms of incidence. Romania with 28% of the population being vaccinated has one of the highest mortalities.

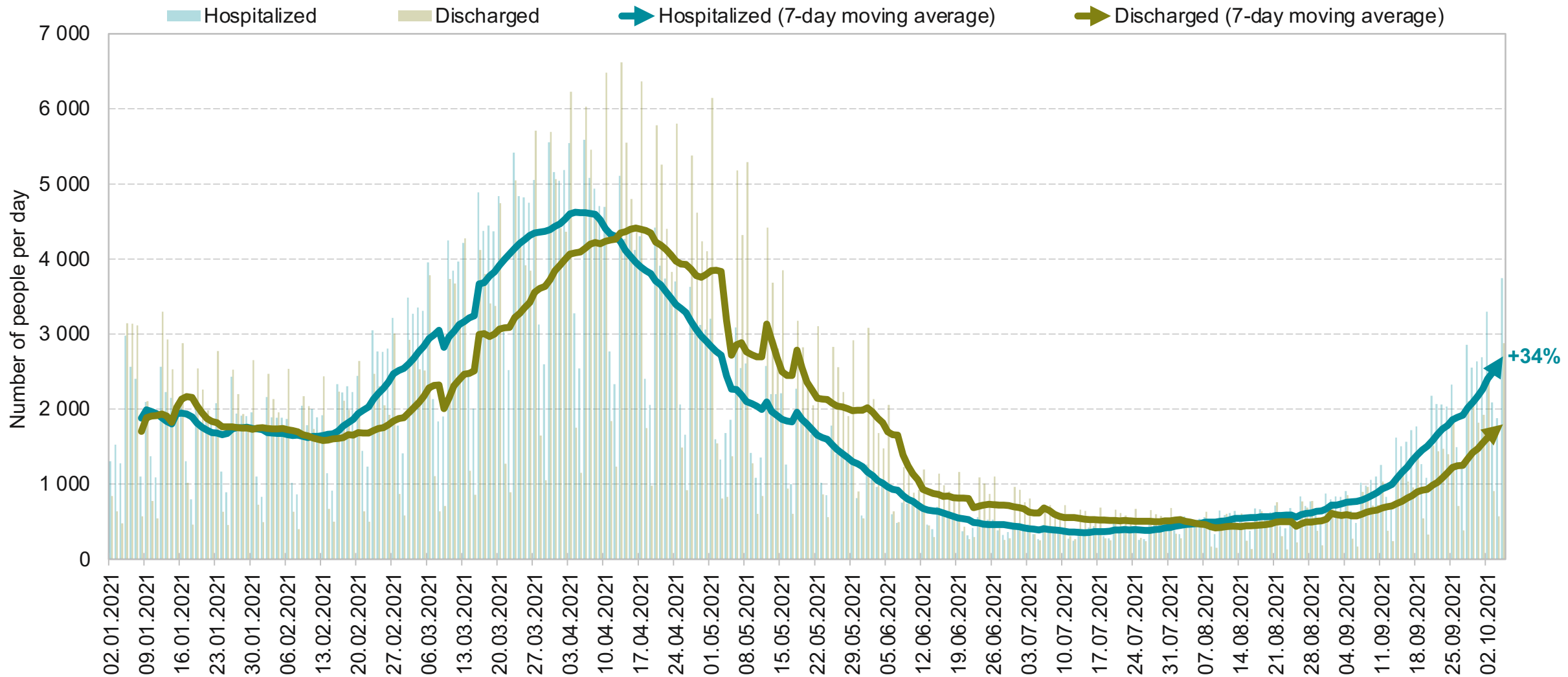
Indicator As of 05.10.2021	Place of Ukraine within Europe	United Kingdom	Romania	Ukraine	Greece	Belgium	Russia	Netherlands	Germany	France	Sweden	Portugal	Italy	Czechia	Spain	Poland
14-day cumulative cases per 100,000 population	No3	691	638	299	294	232	213	143	131	113	89	88	75	72	64	35
14-day cumulative deaths per 100,000 population	No3	2,6	10,9	5,6	4,3	1,0	8,0	0,5	1,0	1,3	0,9	0,8	1,2	0,4	1,3	0,5
7-day cumulative tests per 100,000 population	No3	10 155	1 878	1 217	16 587	2 813	2 474	2 886	1 144	5 090	1 593	3 724	3 644	3 288	1 293	688
7-day average positivity rate	No2	3,4%	20,7%	14,6%	0,9%	4,1%	4,6%	2,5%	5,8%	1,0%	3,0%	1,1%	1,0%	1,3%	2,3%	3,0%

No1 – the worst in Europe, No8 – average in Europe, No15 – The best in Europe

Sources: OWID, ECDC, Public Health Center of MOH, KSE analysis

[*]European Countries with the population of more than 10 million

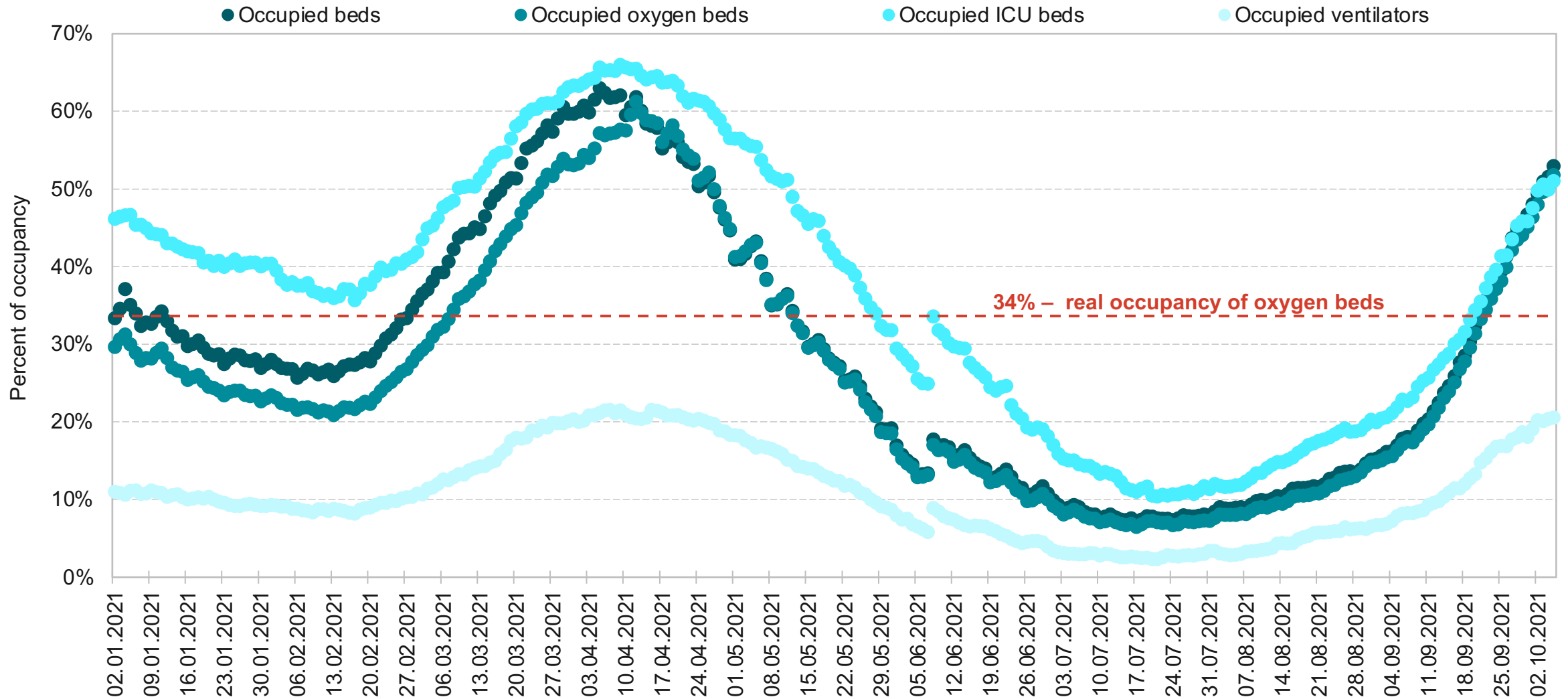
The growth rate of hospitalizations has stabilized at the maximum level of the spring wave.



Sources: MedData, MOH of Ukraine, KSE analysis

1st and 2nd waves of COVID-19 hospitals, confirmed + suspected

Occupancy of COVID-19 beds has grown by 8 percentage points in a week. A third of patients on oxygen beds don't need oxygen therapy.



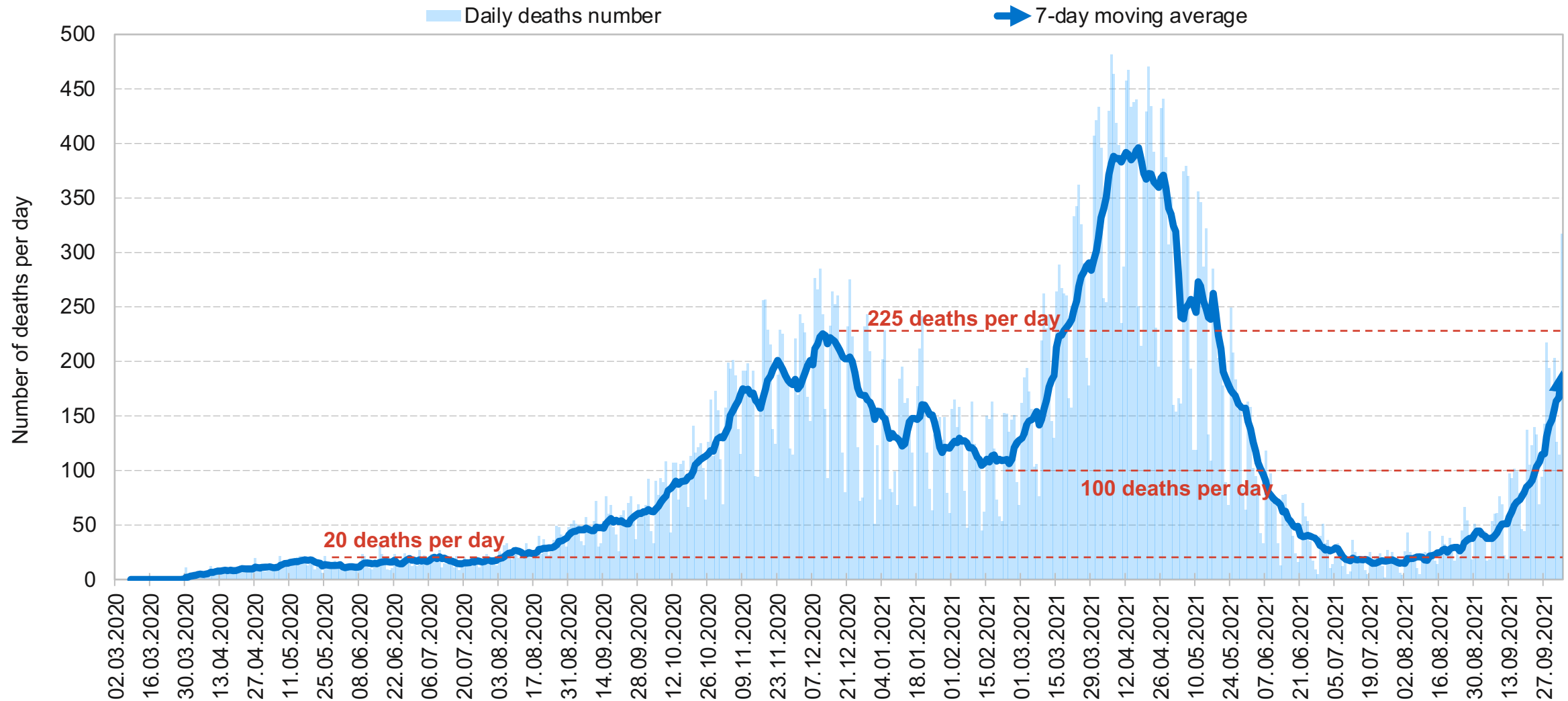
Sources: MedData, MOH of Ukraine, KSE analysis

1st and 2nd waves of COVID-19 hospitals, confirmed + suspected

Kharkiv, Zaporizhia and Kherson oblasts formally meet the criteria of the red level of epidemic danger.

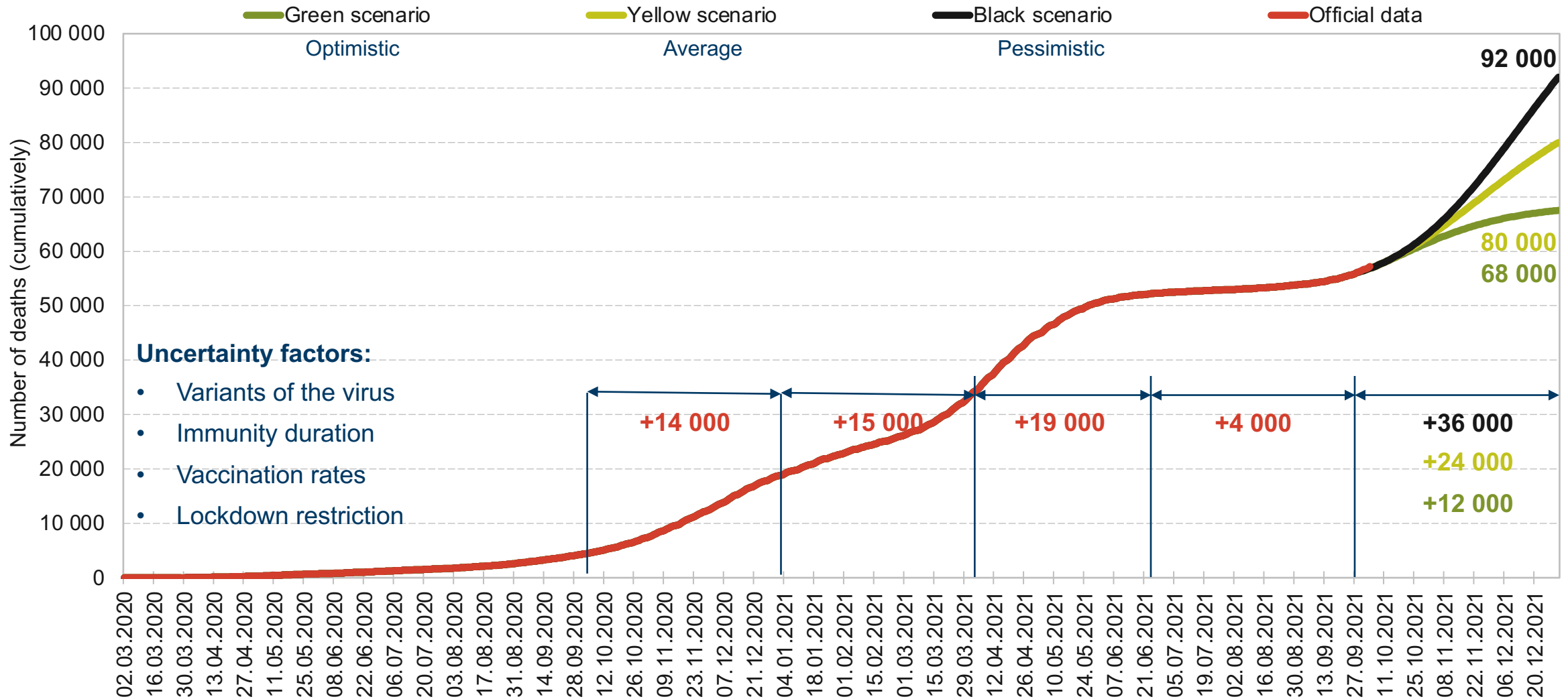
As of 06.10.2021		Data available as of 05.10.2021															
Region	Epidemic zone	Notification rate	Test positivity rate			Testing rate			Hospitalization rate			Dynamics of hospitalization			Occupancy of beds with oxygen		
Target indicator		<75 per 100 000 population	≤20% / <4%			≥300 per 100 000 population			≤60 per 100 000 population			≤50%			≤65%		
Date		05.10	03.10	04.10	05.10	03.10	04.10	05.10	03.10	04.10	05.10	03.10	04.10	05.10	03.10	04.10	05.10
Ukraine		315	14,2%	14,6%	14,0%	1 195	1 217	1 327	45,7	47,3	49,6	31,7%	34,1%	34,0%	49,6%	50,2%	51,8%
City of Kyiv		210	4,4%	4,4%	4,4%	2 398	2 497	2 648	37,3	38,6	39,6	33,6%	36,8%	34,2%	30,8%	32,7%	33,7%
Vinnitsia		144	8,7%	9,0%	9,3%	844	852	877	34,1	35,3	37,8	45,4%	46,2%	50,8%	52,2%	55,8%	53,7%
Volyn		308	14,8%	16,4%	16,5%	1 100	1 063	1 117	48,7	48,7	50,5	33,5%	29,4%	28,7%	64,6%	61,6%	60,8%
Dnipro		322	16,3%	17,2%	17,1%	1 018	1 039	1 075	59,0	59,4	61,2	33,3%	30,3%	26,1%	61,0%	62,7%	60,9%
Donetsk		394	17,0%	17,5%	16,4%	1 267	1 268	1 376	56,8	57,9	61,6	40,4%	40,4%	36,1%	63,4%	64,9%	67,1%
Zhytomyr		339	20,2%	20,3%	21,1%	961	963	975	57,6	58,2	63,2	46,5%	37,5%	39,4%	58,4%	58,9%	60,3%
Zakarpattia		87	7,4%	7,1%	7,5%	612	656	674	19,4	20,3	20,7	42,9%	53,0%	40,8%	25,3%	25,1%	26,8%
Zaporizhzhia		409	17,9%	18,2%	18,0%	1 235	1 264	1 344	62,5	65,8	67,7	50,6%	55,1%	46,1%	62,1%	63,8%	65,6%
Ivano-Frankivsk		213	12,0%	12,3%	13,0%	958	947	939	42,6	43,2	47,0	38,0%	29,4%	40,5%	56,7%	55,5%	59,3%
Kyiv		222	15,0%	16,0%	16,5%	735	756	774	29,4	30,5	32,2	26,9%	32,4%	37,6%	35,4%	36,8%	39,8%
Kirovograd		68	5,8%	5,8%	6,0%	695	696	713	13,6	15,3	17,7	-3,1%	16,4%	29,1%	16,9%	18,3%	18,8%
Lugansk		663	15,2%	15,7%	15,7%	2 311	2 335	2 380	56,2	56,2	57,7	20,8%	23,1%	24,0%	57,6%	52,3%	52,2%
Lviv		332	16,5%	16,9%	17,1%	1 097	1 110	1 140	49,1	50,6	55,7	16,1%	18,7%	24,0%	50,3%	50,5%	54,9%
Mykolaiv		275	17,6%	17,9%	18,9%	916	921	944	43,7	47,1	47,2	42,4%	50,0%	41,3%	38,5%	42,2%	42,3%
Odesa		336	13,3%	14,1%	14,2%	1 294	1 332	1 447	47,9	48,5	48,7	13,2%	10,7%	9,2%	53,3%	53,9%	57,5%
Poltava		223	13,1%	15,7%	17,8%	800	816	817	22,4	24,1	26,7	19,8%	34,3%	48,2%	22,8%	25,3%	26,8%
Rivne		349	15,5%	16,6%	17,4%	1 193	1 213	1 204	35,1	36,5	39,5	56,0%	59,1%	64,9%	44,3%	47,5%	49,4%
Sumy		388	22,7%	22,9%	21,8%	982	1 001	1 085	47,6	50,0	54,4	36,0%	40,5%	43,8%	55,1%	52,9%	57,6%
Ternopil		356	18,2%	18,1%	18,1%	1 108	1 122	1 170	25,9	27,7	26,8	-1,8%	17,1%	4,5%	49,9%	50,0%	53,1%
Kharkiv		465	21,4%	23,2%	13,2%	1 173	1 147	2 074	68,6	72,2	76,6	29,1%	36,4%	41,6%	66,4%	63,6%	63,9%
Kherson		384	14,0%	14,1%	14,0%	1 618	1 633	1 692	65,4	71,2	70,9	58,8%	71,1%	52,8%	49,1%	54,1%	56,0%
Khmelnyskiy		358	19,1%	19,3%	19,8%	1 051	1 057	1 068	49,4	50,2	54,0	47,5%	45,0%	51,0%	63,0%	50,6%	52,2%
Cherkasy		293	16,6%	16,1%	16,3%	962	1 027	1 062	26,7	26,7	27,7	8,6%	6,0%	9,3%	30,2%	32,0%	31,0%
Chernivtsi		674	16,9%	16,9%	17,3%	2 184	2 301	2 290	65,6	67,7	69,2	30,8%	32,1%	25,4%	58,1%	59,7%	58,6%
Chernigiv		226	16,0%	16,3%	15,3%	845	877	908	41,1	43,5	47,4	23,5%	35,3%	39,8%	47,9%	42,6%	49,2%
Crimea									no data								
City of Sevastopol									no data								

Daily mortality has doubled over the last two weeks: 192 deaths per day this week vs 80 two weeks ago.



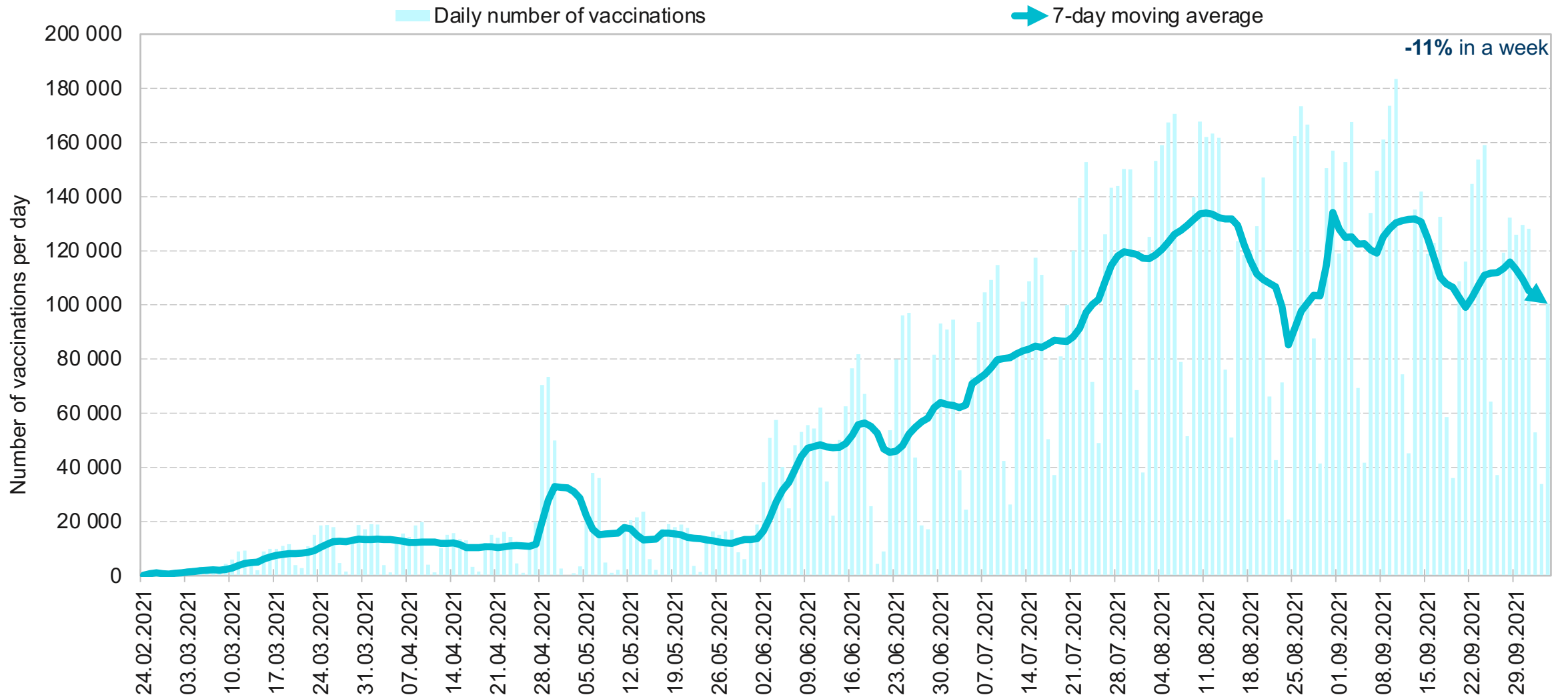
Sources: Public Health Center of the MOH of Ukraine, KSE analysis

According to the various KSE scenarios, 68,000 to 92,000 people might die from COVID-19 by 2022 cumulatively since the beginning of pandemic.



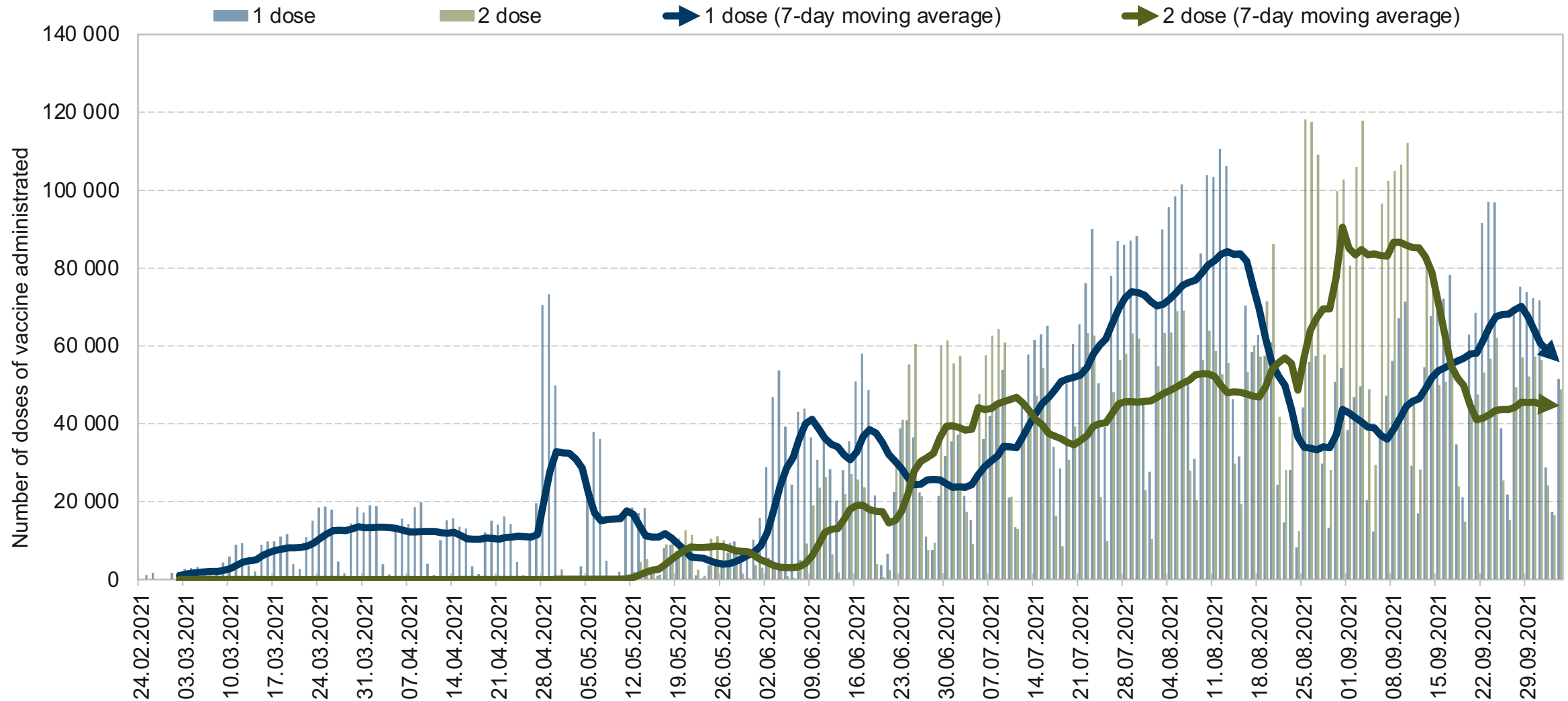
Sources: Public Health Center of the MOH of Ukraine, KSE analysis

Vaccination rate in Ukraine has stabilized: the average number of vaccinations is now 100,000 per day.



Sources: MOH of Ukraine, KSE analysis

The reason for stagnation in the rate of vaccination is the decline in the level of vaccination with the first dose last week.



Sources: MOH of Ukraine, KSE analysis

Conclusions and recommendations

- 1 **The incidence of COVID-19 in Ukraine has consistently high growth rate.**
 - The weekly growth rate of hospitalizations has stabilized at the maximum level of the spring wave – currently **+34%** a week. The number of COVID-19 patients has increased by **+35%**. Hospitalizations dominate discharges by **50%** – therefore, the load on the healthcare system will continue to grow.
 - Oxygen beds are occupied by **52%**, ICU beds – by **51%**. At the same time, **every third** patient on oxygen bed does not need oxygen therapy. Ukraine is able to increase the number of COVID-19 resources by at least **50%** – by the example of spring wave.

- 2 **Kharkiv, Zaporizhzhya and Kherson oblasts formally met the criteria of the red epidemic zone. Zhytomyr, Sumy, Khmelnytsk and Chernivtsi oblasts are at risk.**
 - During the coming days KSE expects a meeting of the State Commission on Technogenic and Environmental Safety and Emergencies to consider establishment of a red epidemic zone in these three oblasts.

- 3 **KSE recommends vaccination against COVID-19 now – before the overload of the medical system.**
 - All COVID-19 vaccines available in Ukraine are **WHO approved** for emergency use and are **safe**.
 - **98%+** hospitalized with COVID-19 in Ukraine are unvaccinated.

This analysis has been prepared under support of the **Embassy of Netherlands** and the **International Renaissance Foundation**. The contents of this analysis are the sole responsibility of **Kyiv School of Economics**, and do not necessarily reflect the views of the donors.



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Thank you!