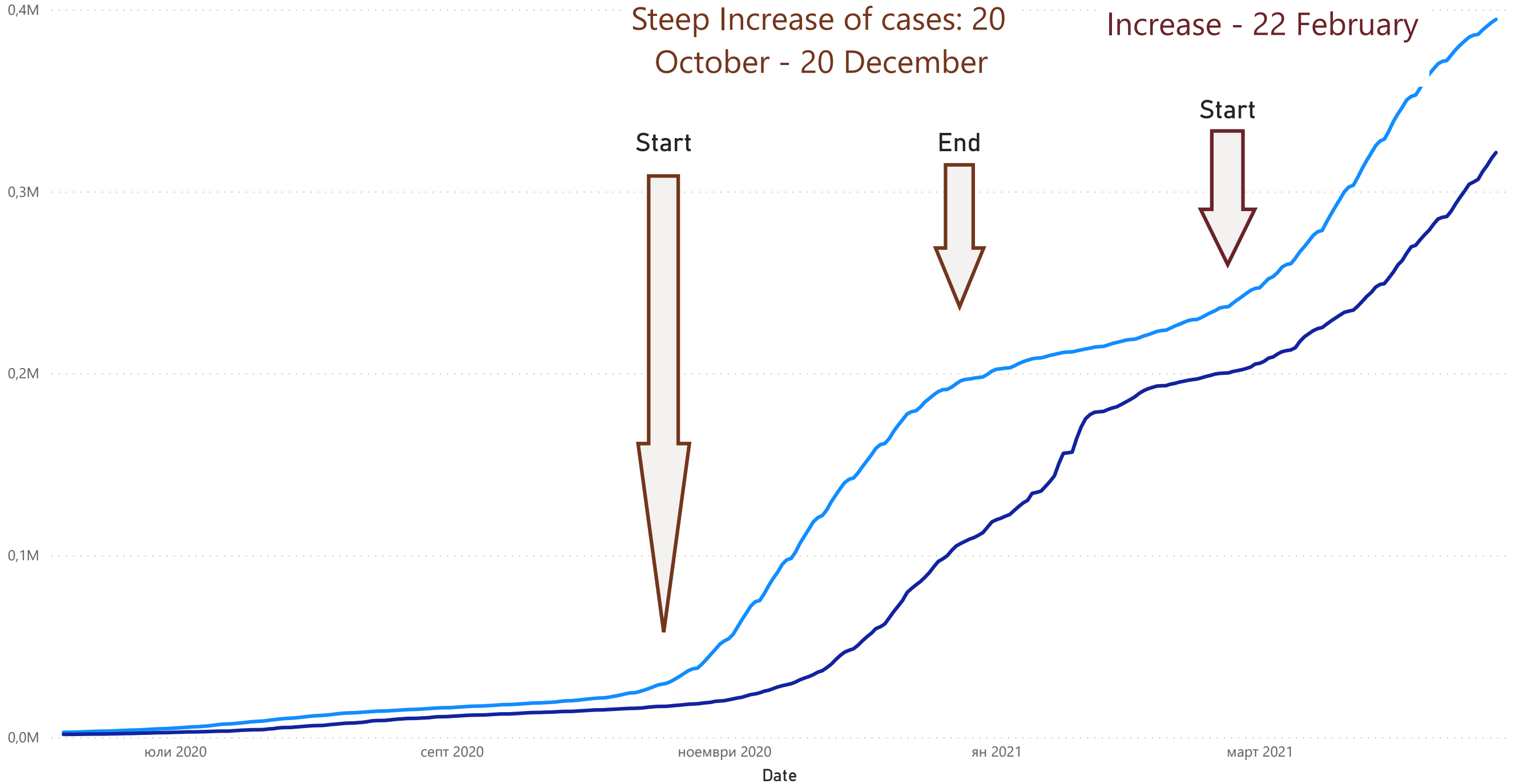


Accumulated Cases, Cured Accumulated and Active Cases

● Accumulated Cases ● Cured Accumulated



Steep Increase of cases: 20
October - 20 December

Start of New Steep
Increase - 22 February

Start

End

Start

юли 2020

септ 2020

ноеври 2020

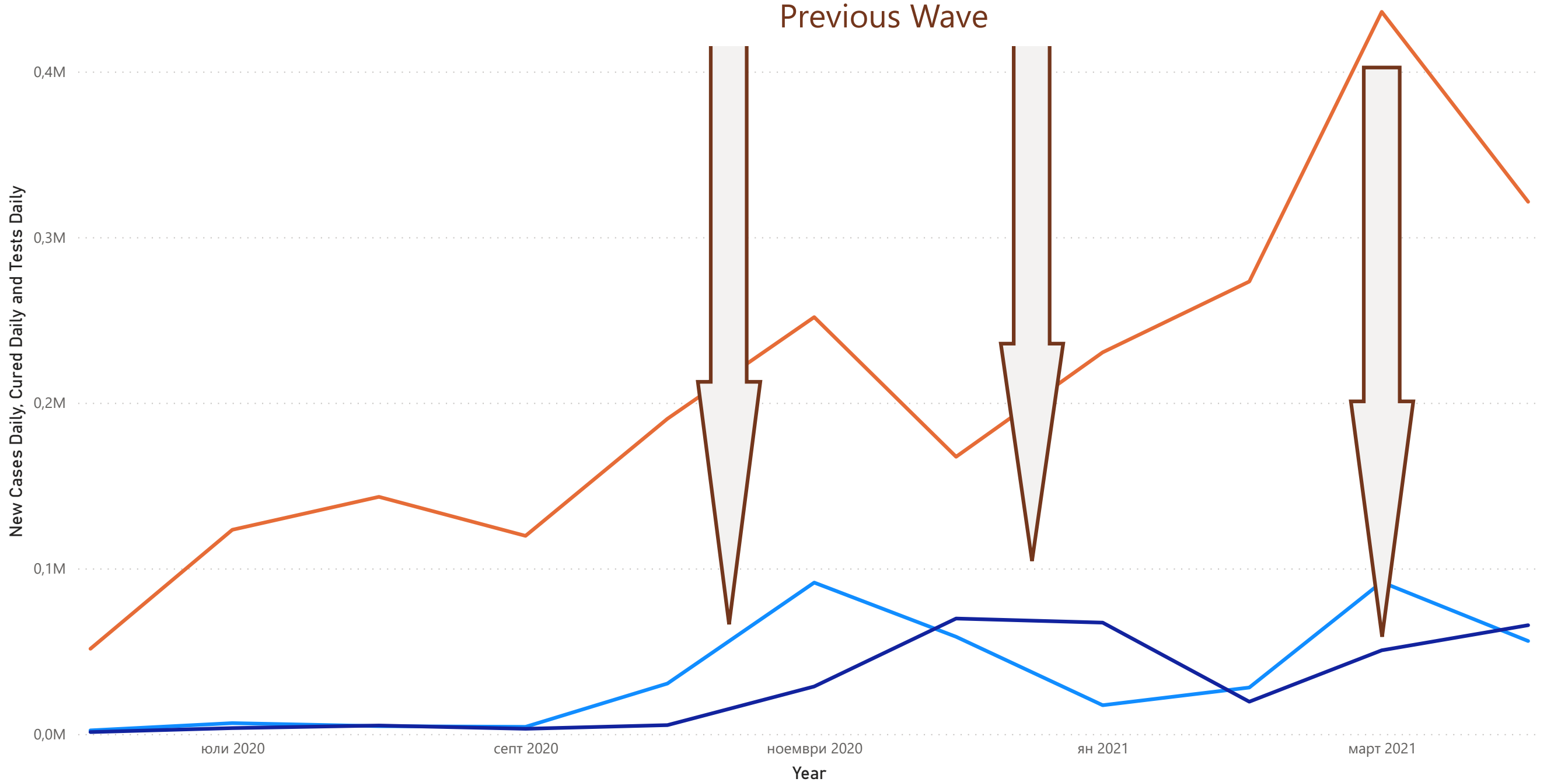
ян 2021

март 2021

Date

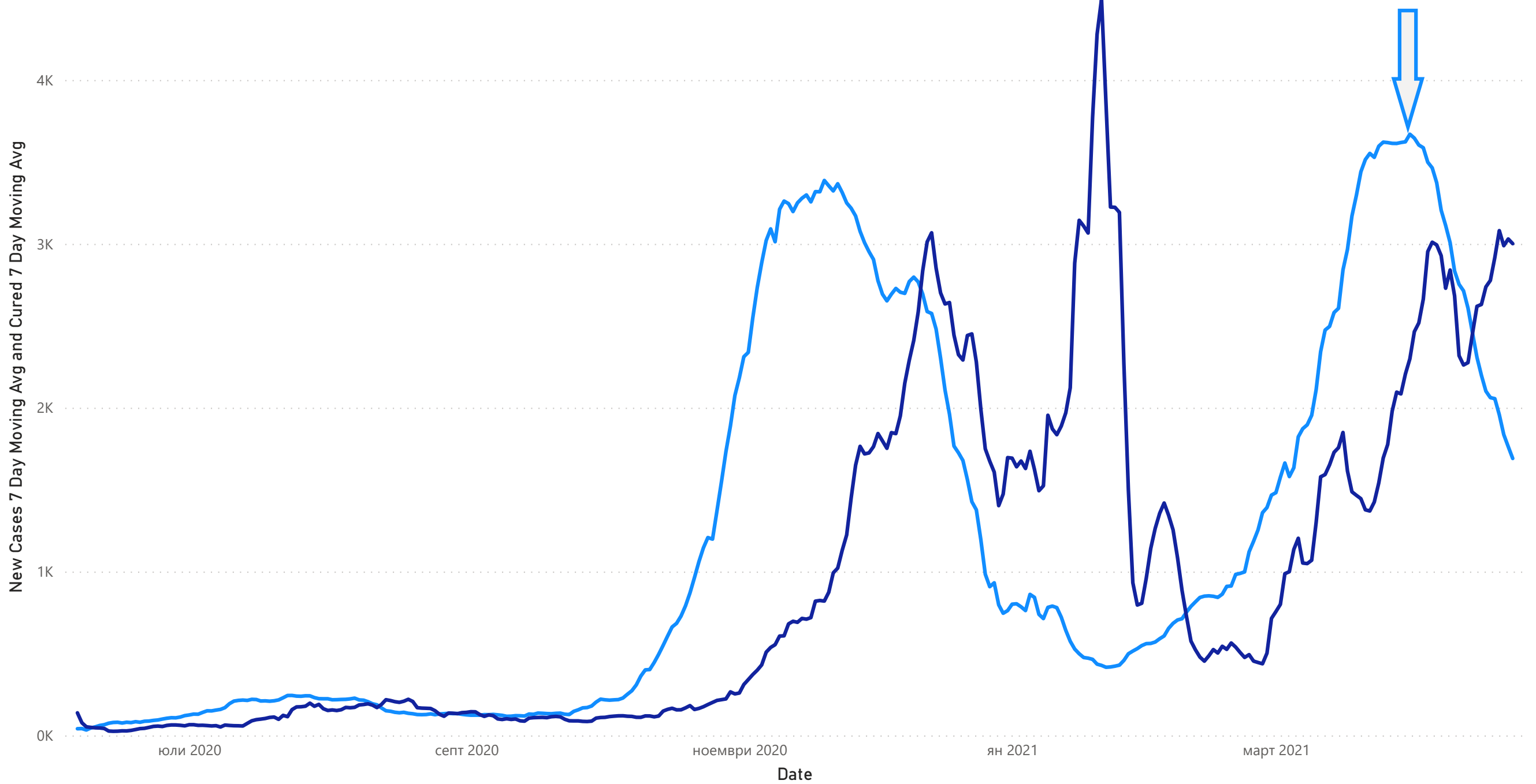
Tests, New Cases and Cured (Monthly basis)

● New Cases Daily ● Cured Daily ● Tests Daily

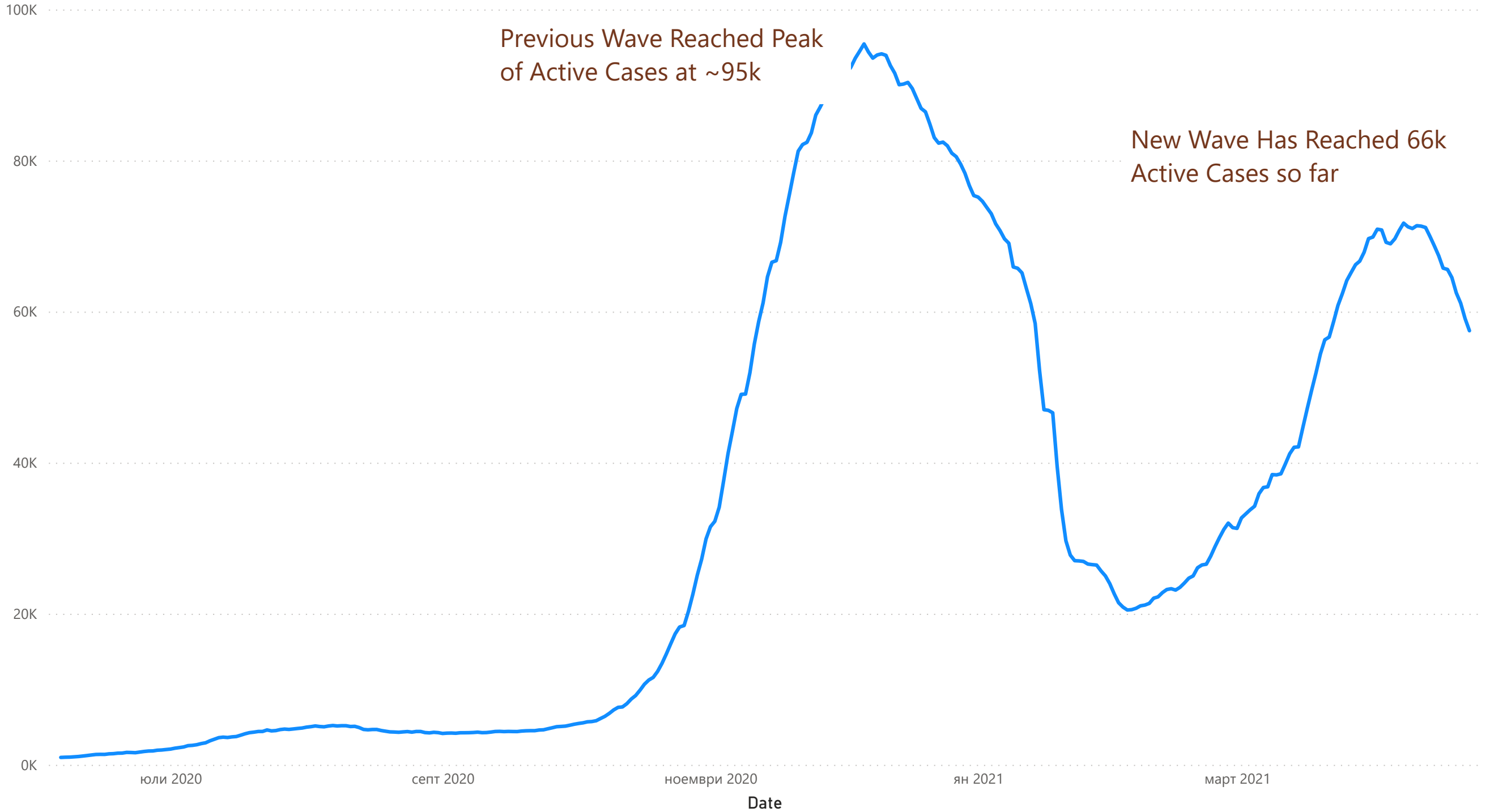


New Cases and Cured - 7 Day Moving Avg

● New Cases 7 Day Moving Avg ● Cured 7 Day Moving Avg



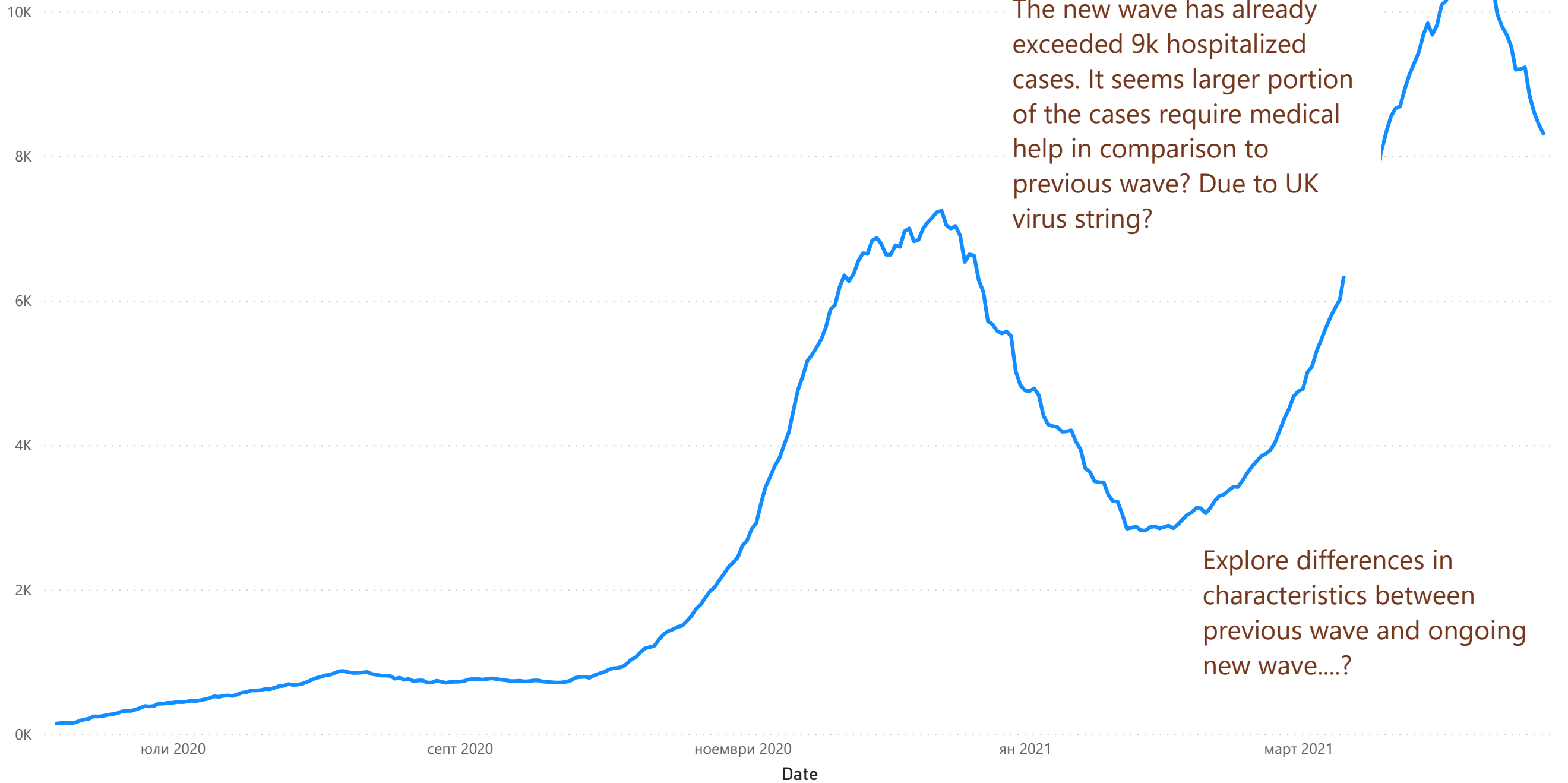
Active Cases (Daily basis)



Previous Wave Reached Peak of Active Cases at ~95k

New Wave Has Reached 66k Active Cases so far

In Hospital (Daily basis)



Previous Wave reached ~7200 hospitalized cases.

The new wave has already exceeded 9k hospitalized cases. It seems larger portion of the cases require medical help in comparison to previous wave? Due to UK virus string?

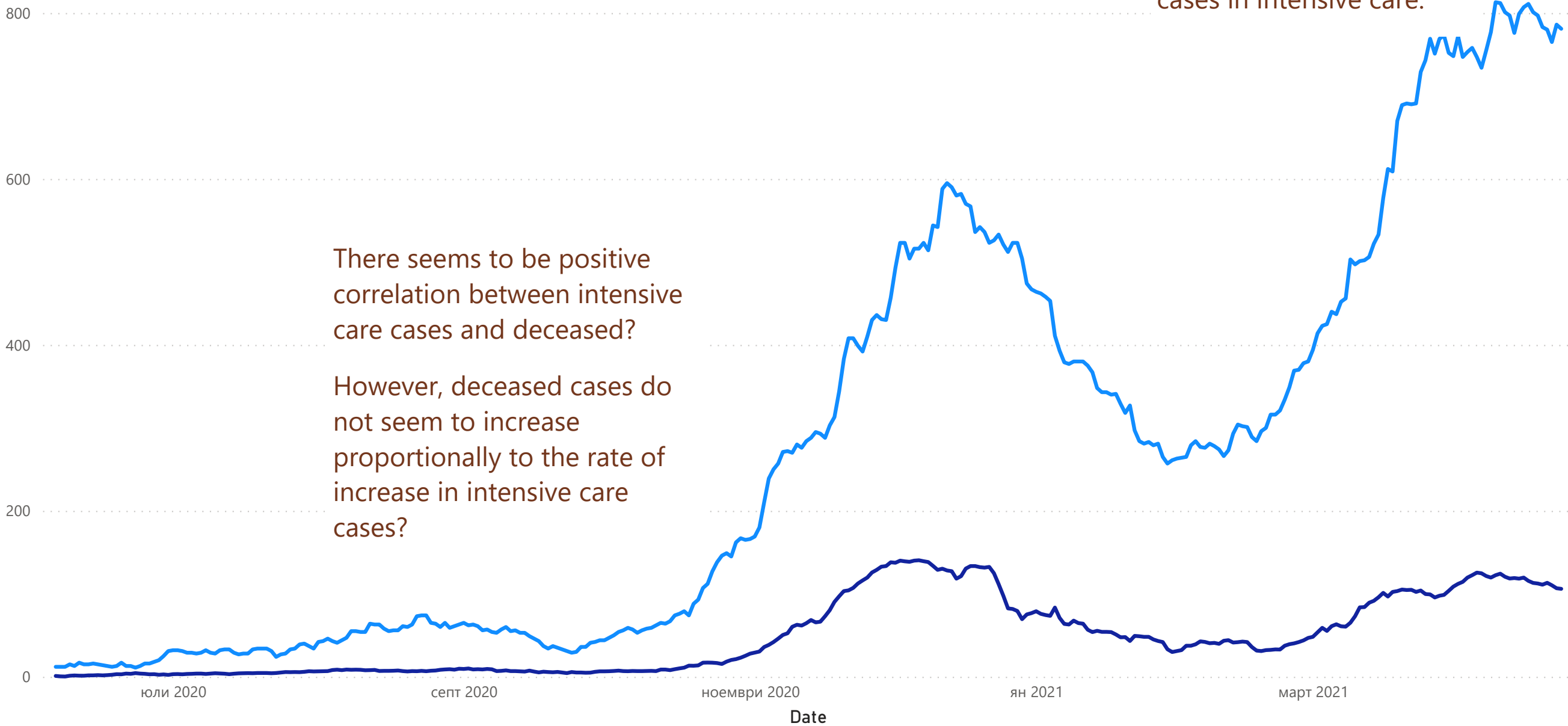
Explore differences in characteristics between previous wave and ongoing new wave....?

Intensive Care and Deceased (Daily basis)

● Intensive Care ● Deceased 7 Day Moving Avg

Previous Wave reached 590 intensive cases.

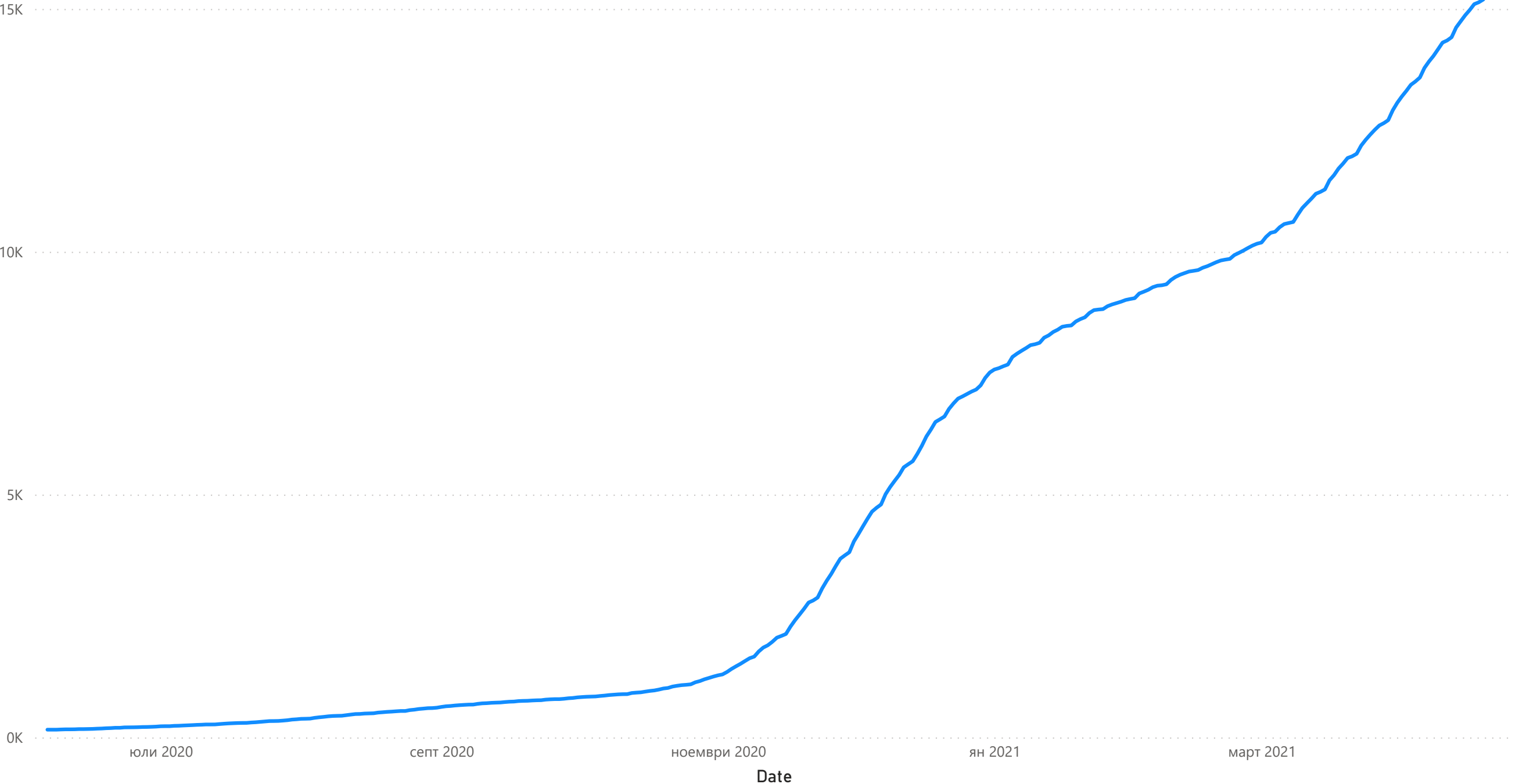
New wave reached 750 cases in intensive care.



There seems to be positive correlation between intensive care cases and deceased?

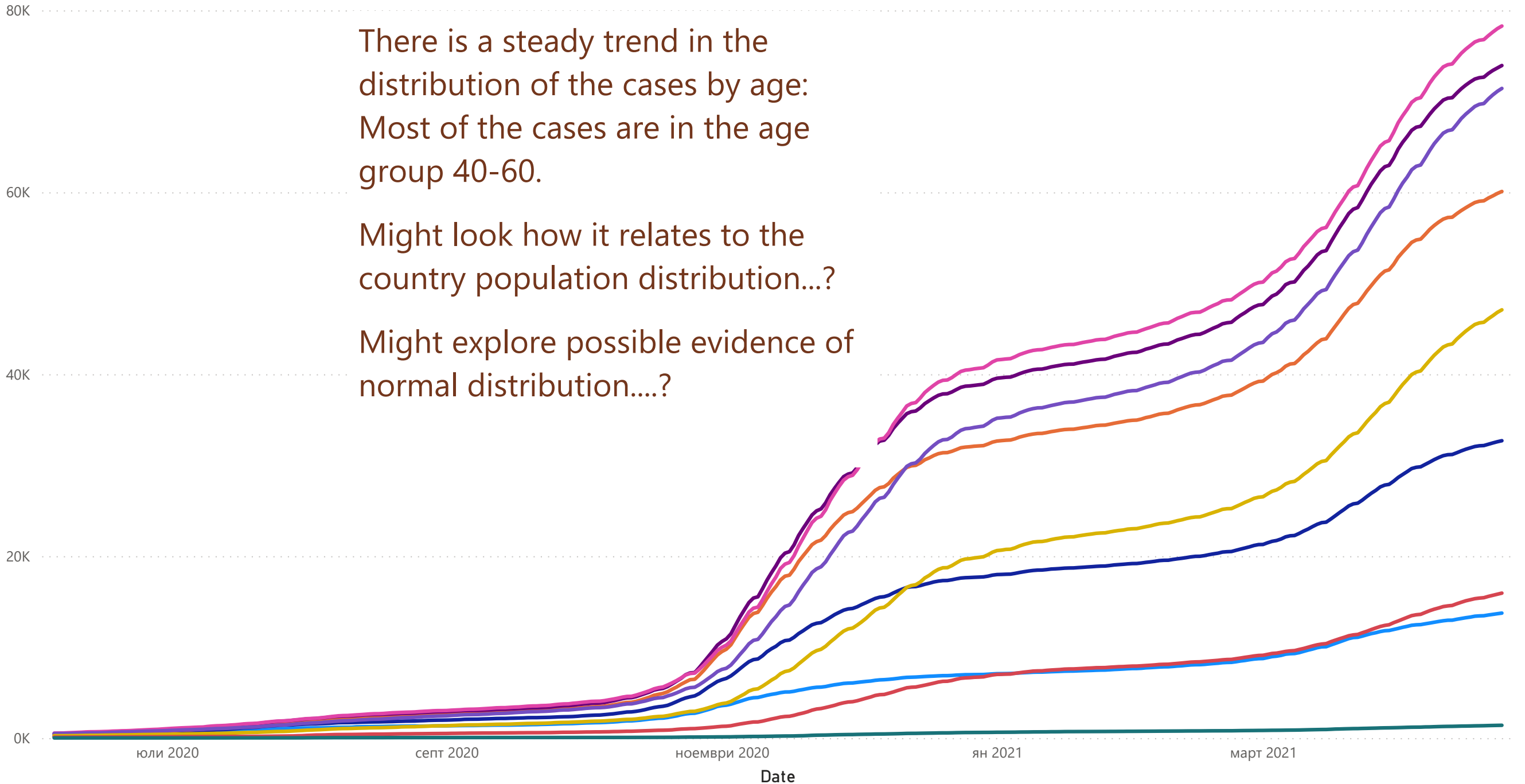
However, deceased cases do not seem to increase proportionally to the rate of increase in intensive care cases?

Deceased Accumulated (Daily basis)



Accumulated Cases by Age Groups

● 0 - 19 ● 20 - 29 ● 30 - 39 ● 40 - 49 ● 50 - 59 ● 60 - 69 ● 70 - 79 ● 80 - 89 ● 90+



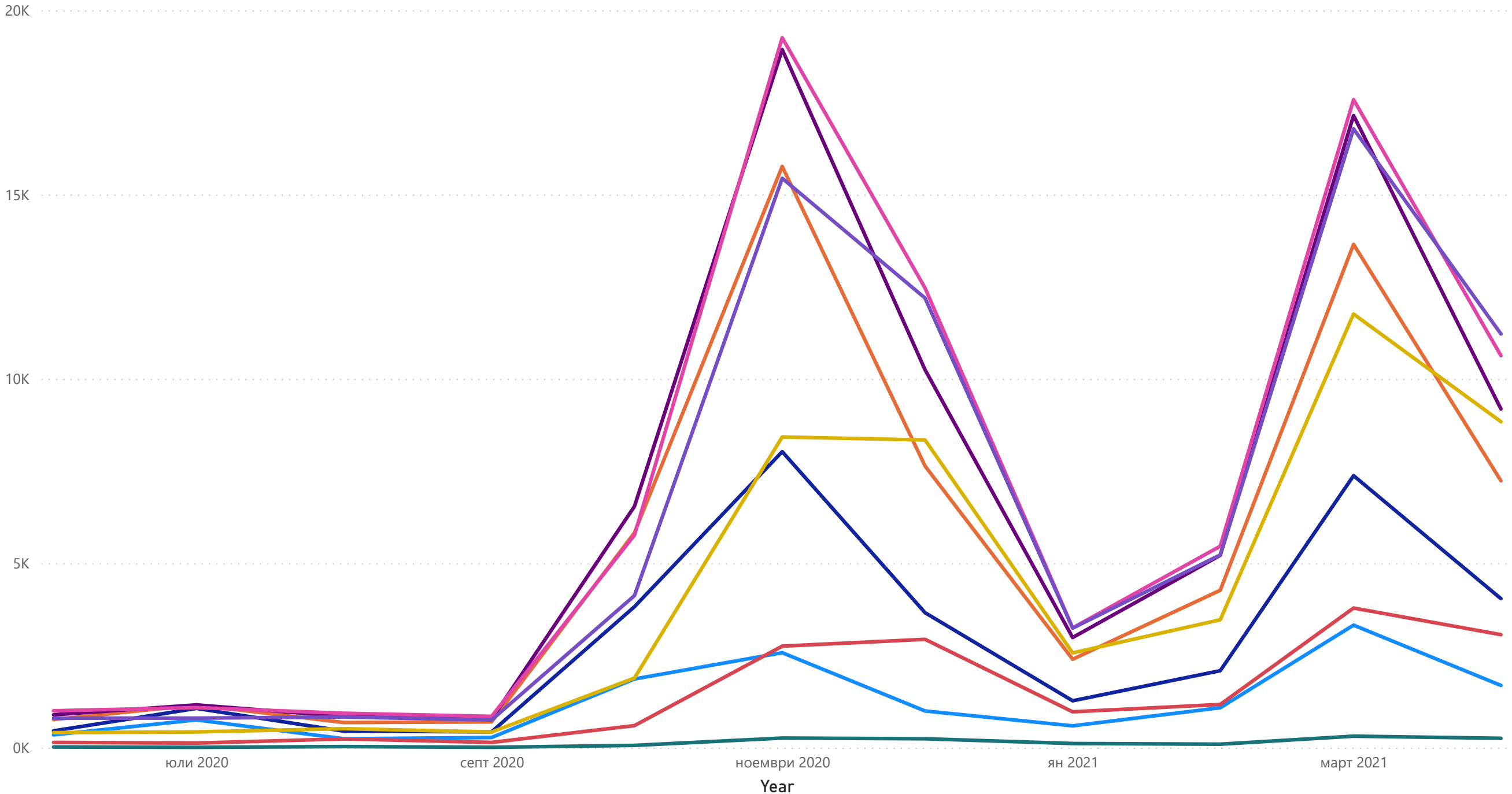
There is a steady trend in the distribution of the cases by age: Most of the cases are in the age group 40-60.

Might look how it relates to the country population distribution...?

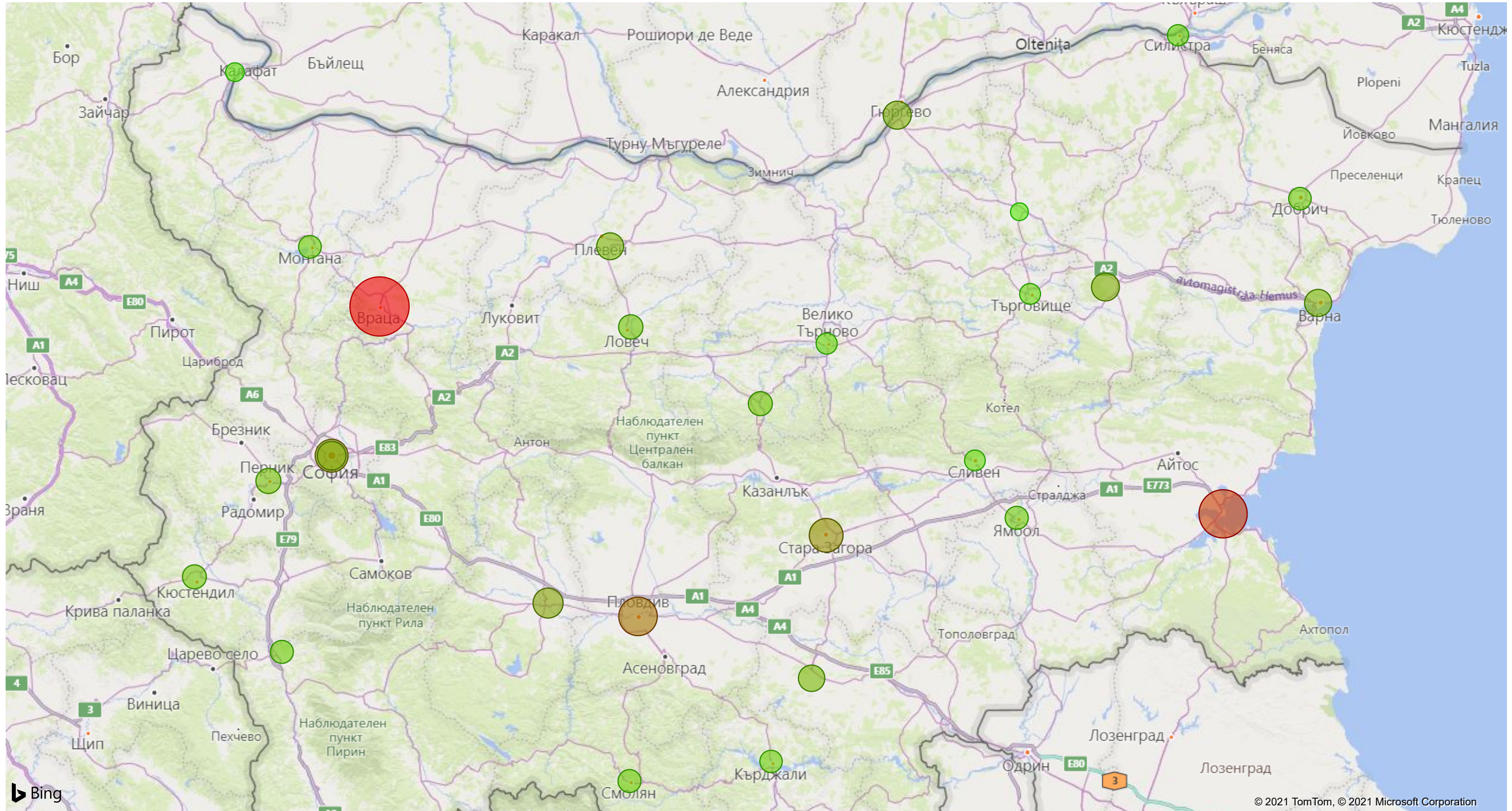
Might explore possible evidence of normal distribution....?

New Cases by Month

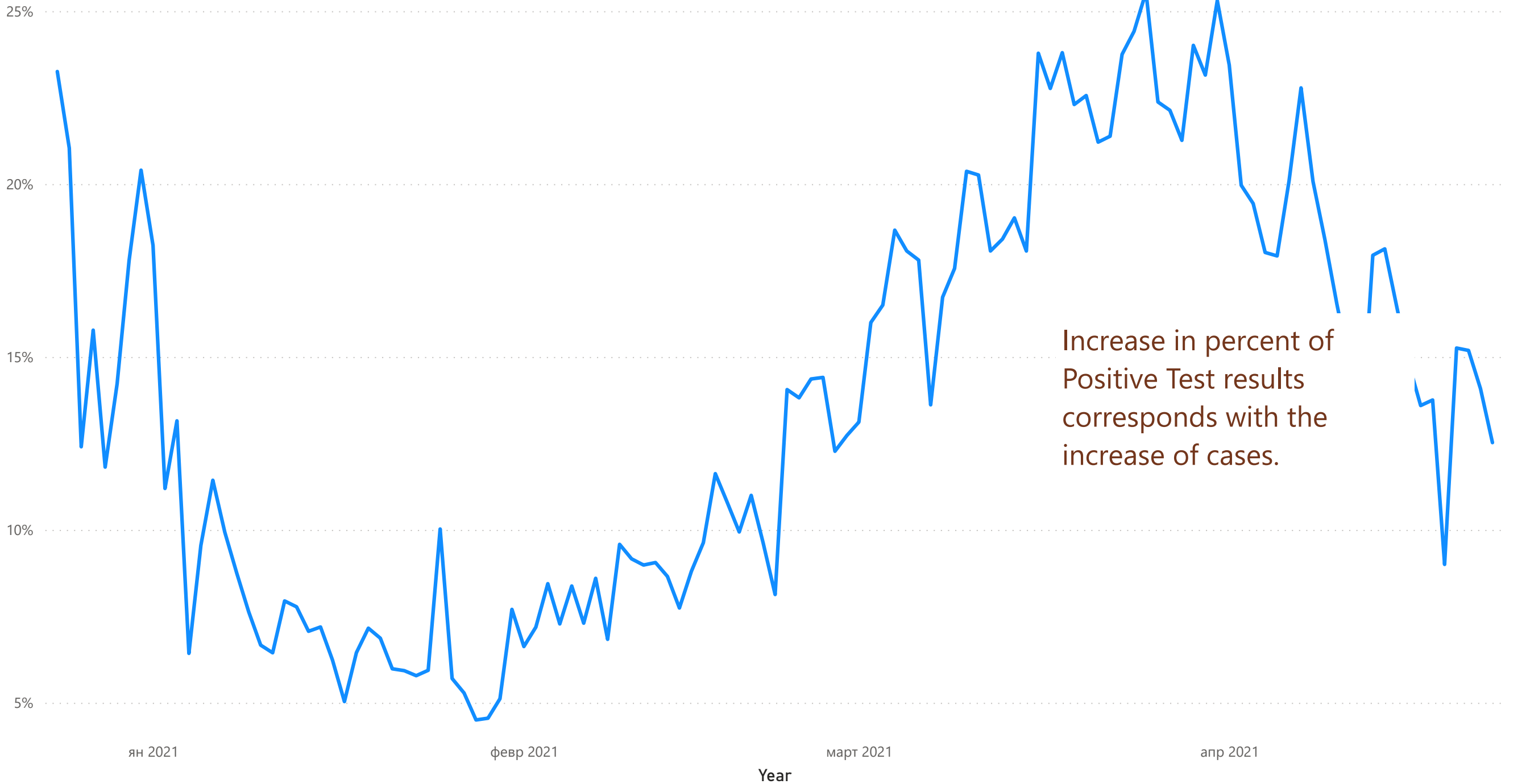
0-19_Daily 20-29_Daily 30-39_Daily 40-49_Daily 50-59_Daily 60-69_Daily 70-79_Daily 80-89_Daily 90+_Daily



Latest Active Cases per 100k



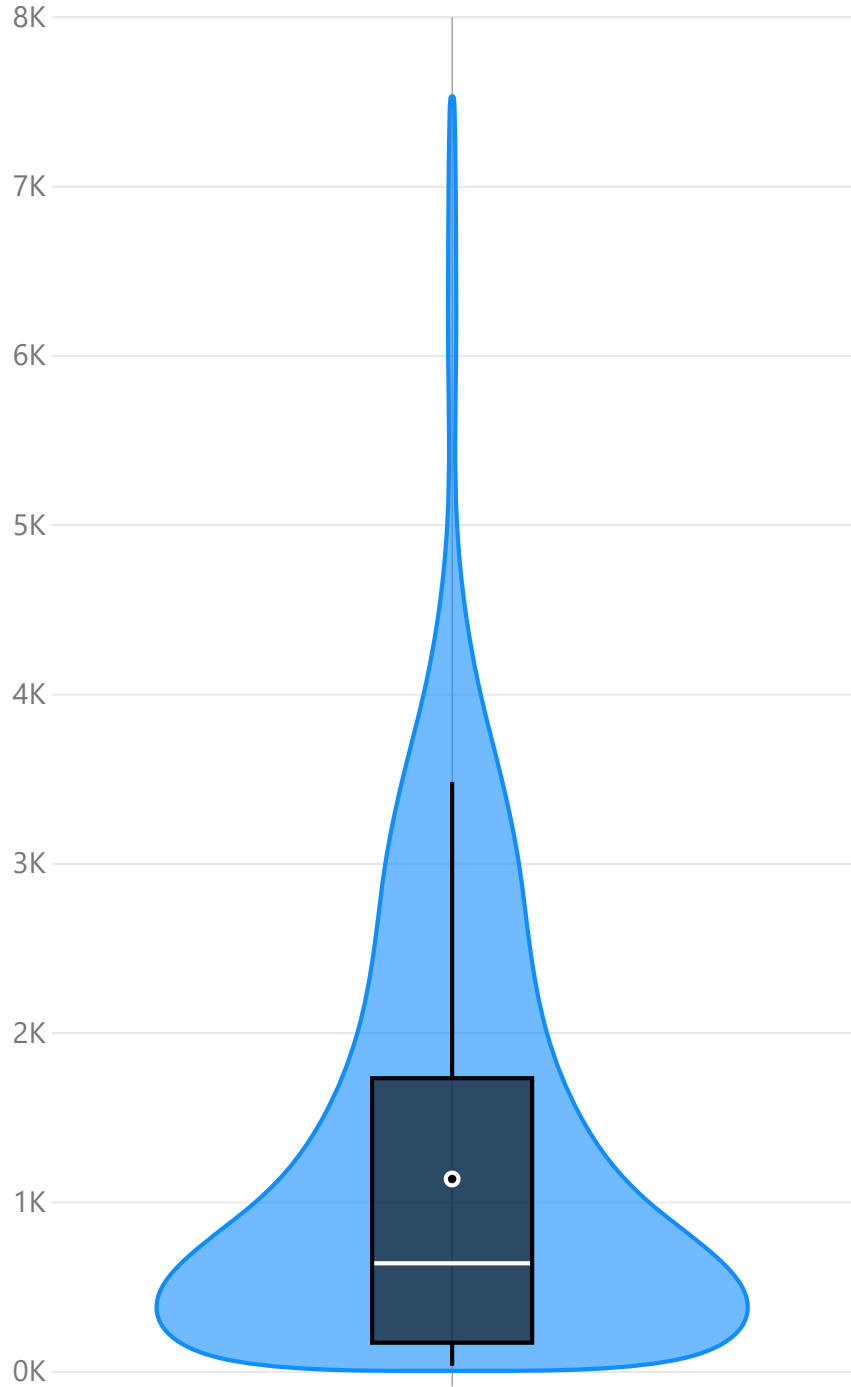
Percent Positive Daily (Daily basis)



Increase in percent of Positive Test results corresponds with the increase of cases.

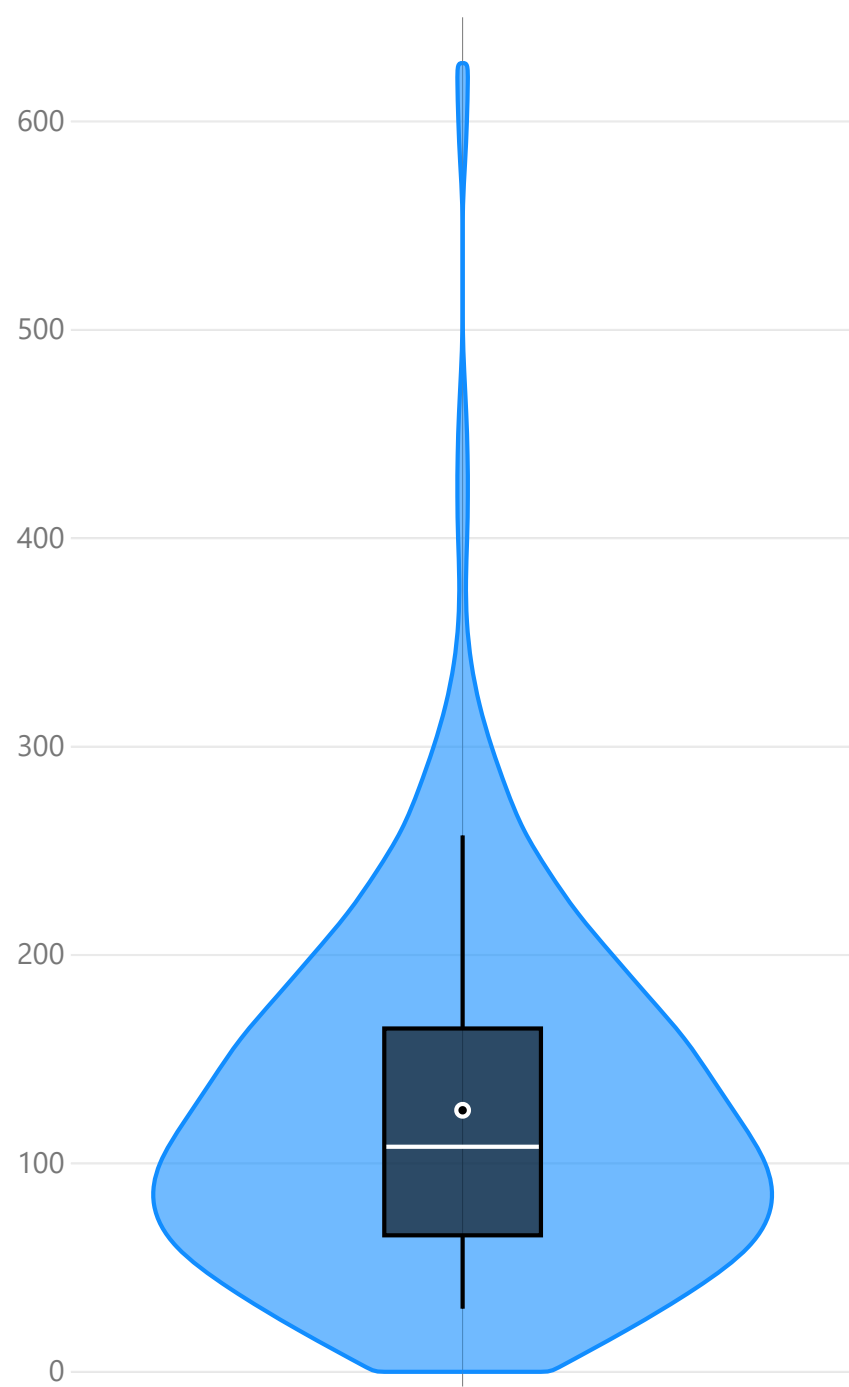
Cured Daily

◆ Cured Daily ▣ Median Value ○ Mean Value



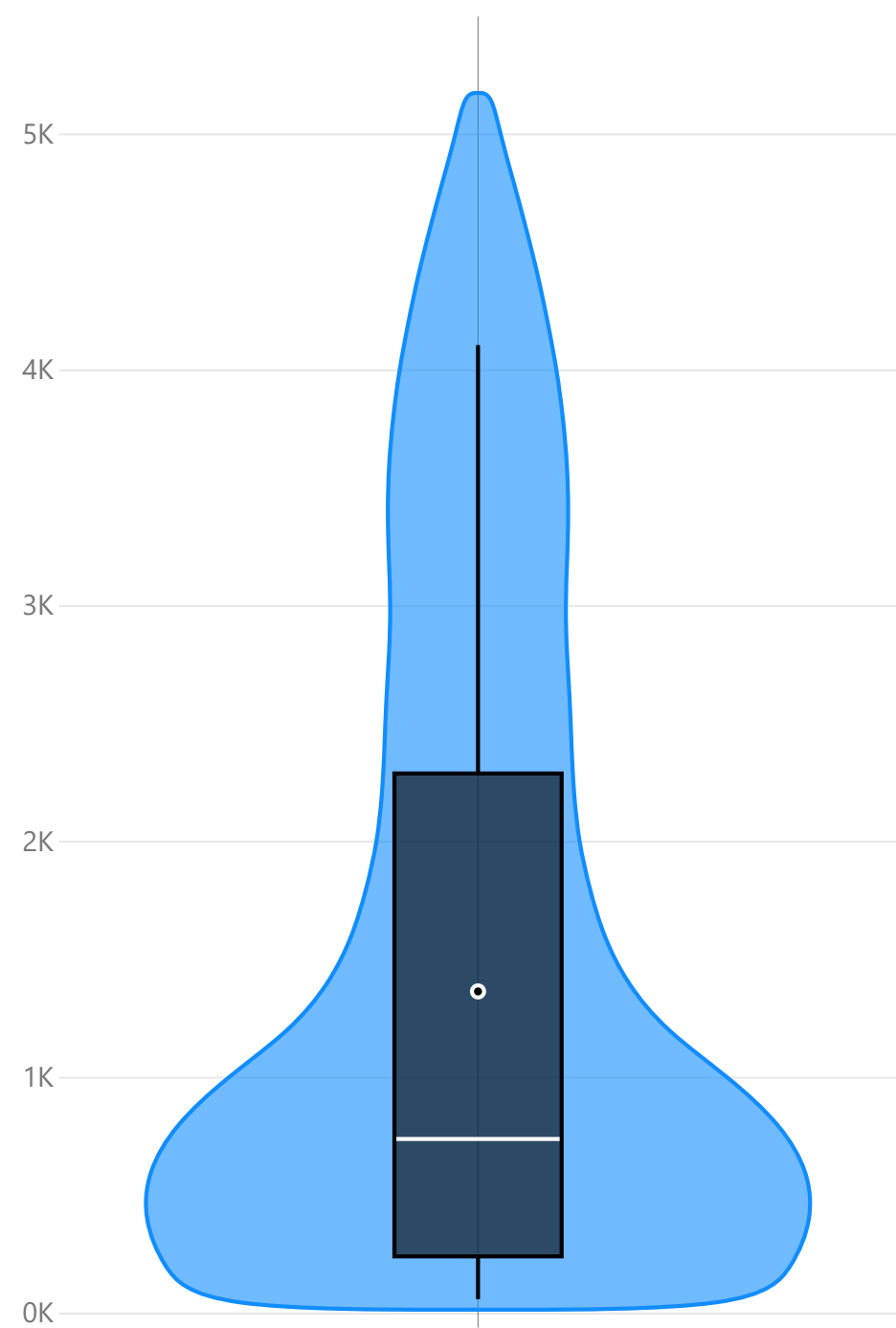
Deceased Daily

◆ Deceased Daily ▣ Median Value ○ Mean Value



New Cases Daily

◆ New Cases Daily ▣ Median Value ○ Mean Value



Descriptive Statistics by Region and Daily Cases

Region	Mean	Median	Standard Deviation
Благоевград	54,47	29	57,70
Бургас	80,64	35	103,98
Варна	90,70	35	109,84
Велико Търново	27,27	10	37,42
Видин	8,12	3	14,74
Враца	30,10	12	36,77
Габрово	19,48	7	29,87
Добрич	22,60	12	27,38
Кърджали	12,99	6	16,05
Кюстендил	26,56	13	30,49
Ловеч	16,20	7	20,71
Монтана	17,89	6	24,80
Пазарджик	32,99	19	34,09
Перник	23,36	10	27,78
Плевен	39,40	21	46,56
Пловдив	106,44	43	125,51
Разград	10,95	5	13,36
Русе	40,78	13	55,08
Силистра	17,48	5	26,30
Сливен	30,58	17	33,60
Смолян	13,85	7	16,51
София	39,02	16	46,71
София (столица)	323,18	140	379,77
Стара Загора	51,58	19	68,46
Търговище	11,02	4	14,50
Хасково	28,96	10	35,67
Шумен	28,80	11	35,62
Ямбол	20,04	8	26,27

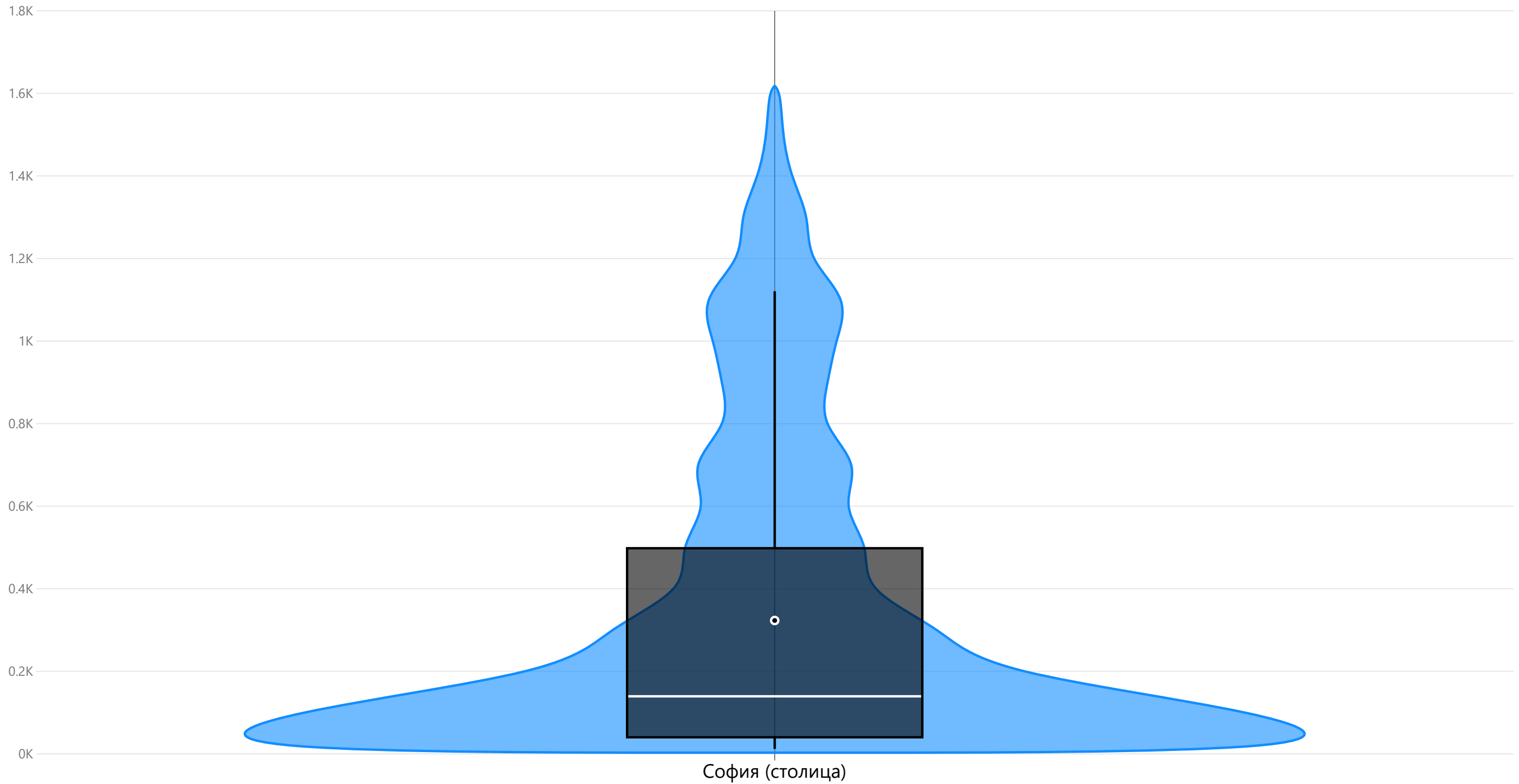
Distribution of daily cases seem to vary from one region to another.

Still in some regions, the distribution looks similar.

Using k-means, the regions are grouped in 4 clusters in the following pages.

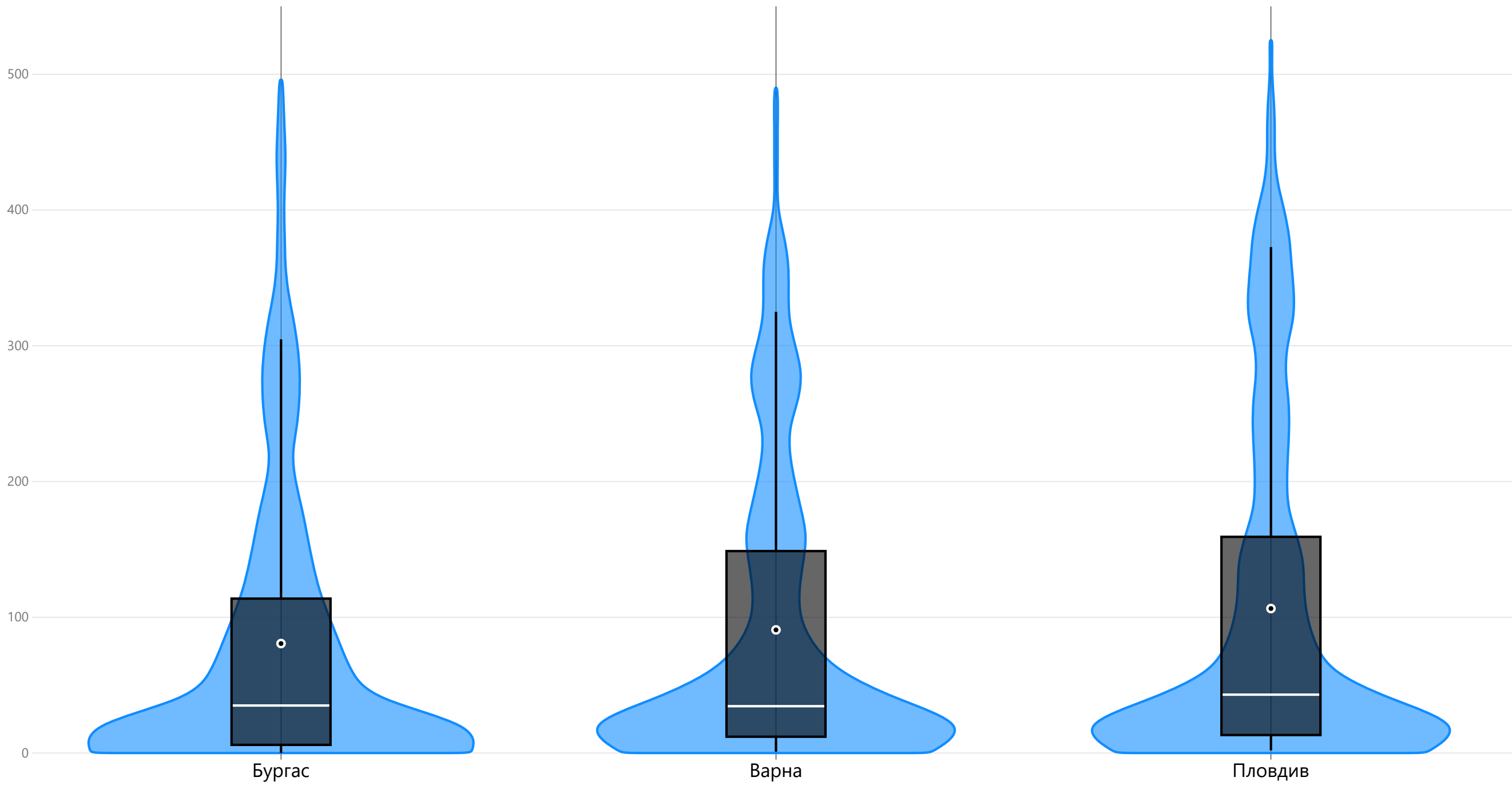
Cluster 1 (Daily Cases by Date and Region)

◆ Daily Cases ▬ Median Value ○ Mean Value



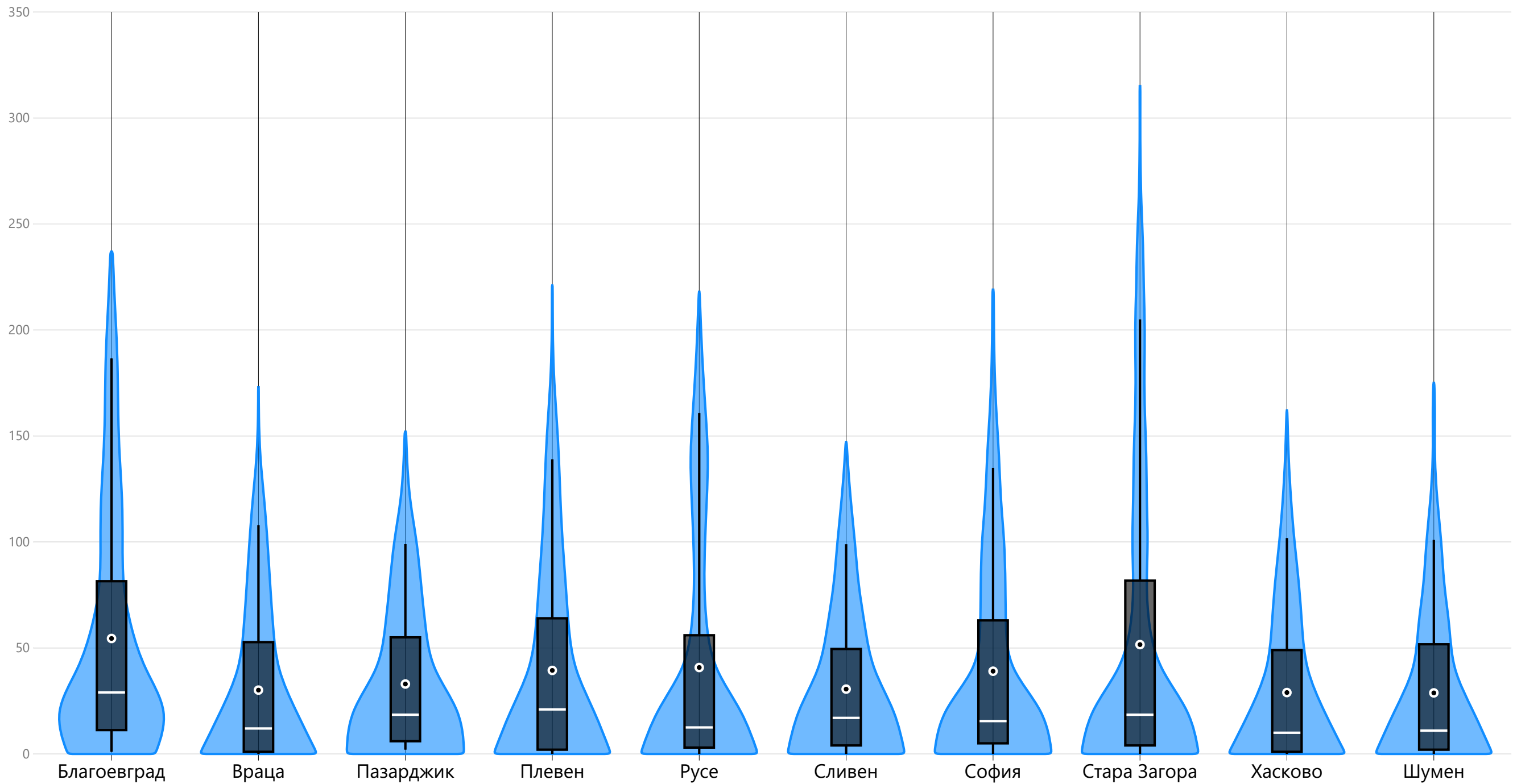
Cluster 2 (Daily Cases by Date and Region)

◆ Daily Cases ▬ Median Value ○ Mean Value

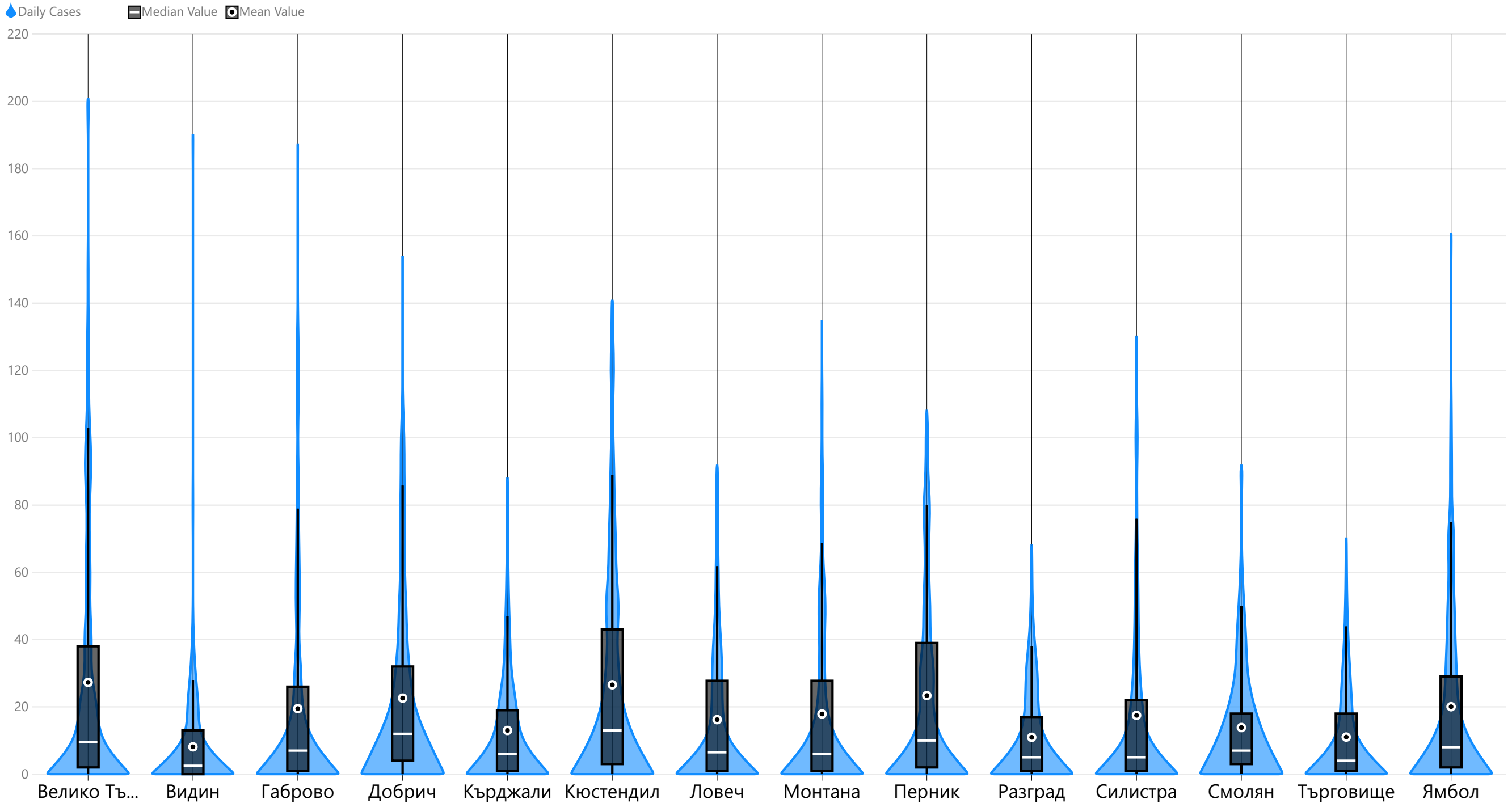


Cluster 3 (Daily Cases by Date and Region)

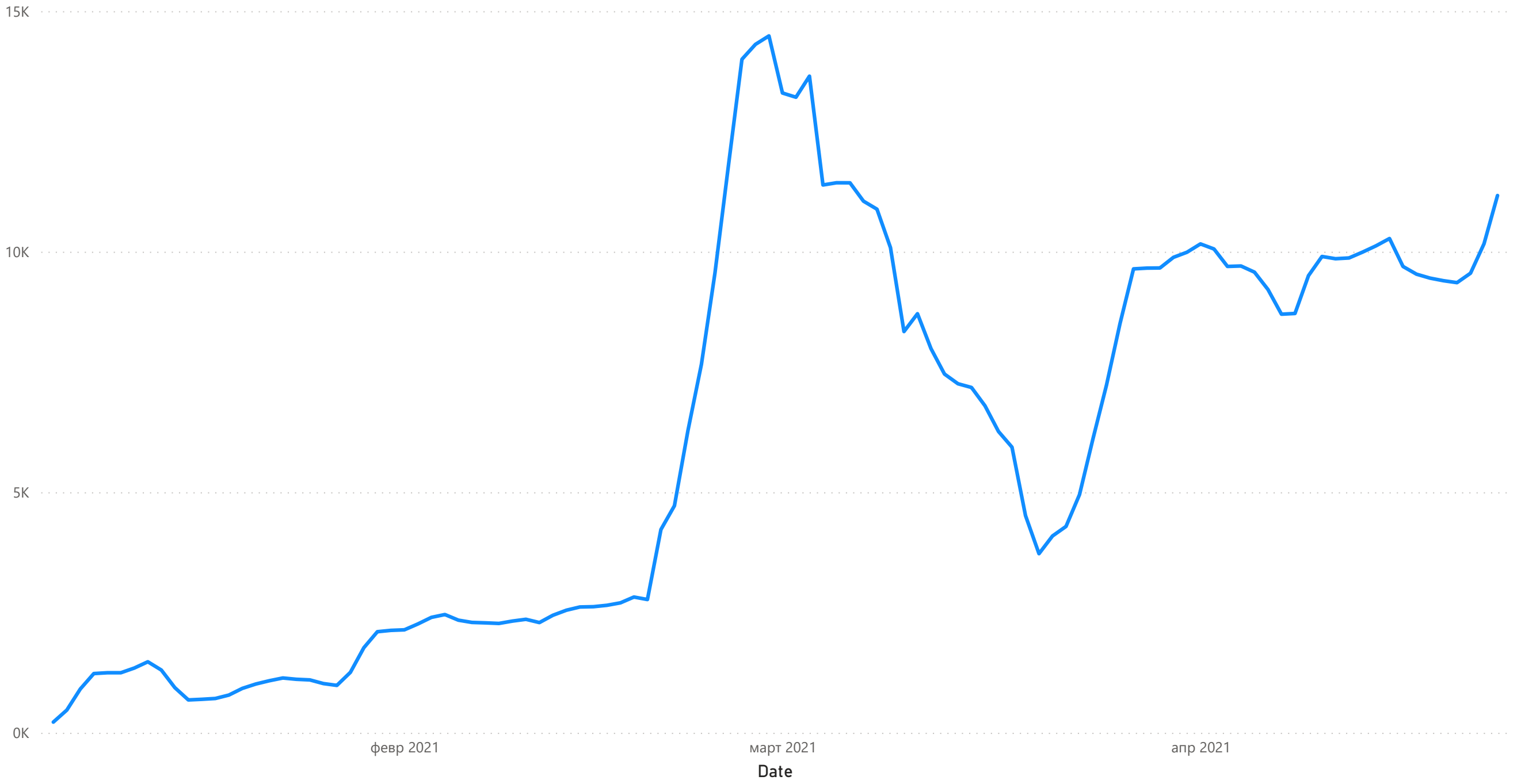
◆ Daily Cases ▬ Median Value ○ Mean Value



Cluster 4 (Daily Cases by Date and Region)

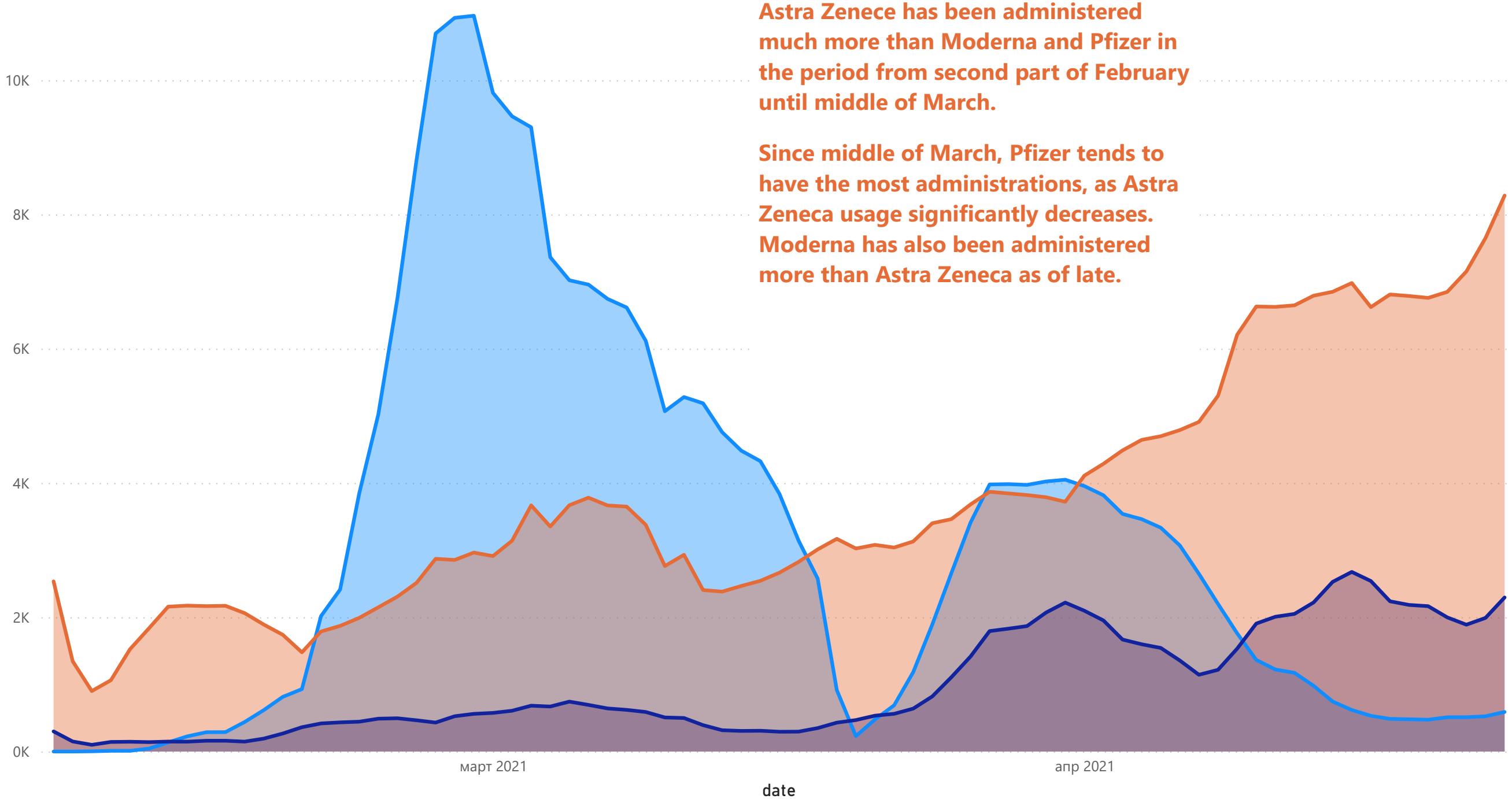


Rolling Avg 7-day Vaccine doses by Date



Astra Zeneca, Moderna and Pfizer doses by date (7-day moving average)

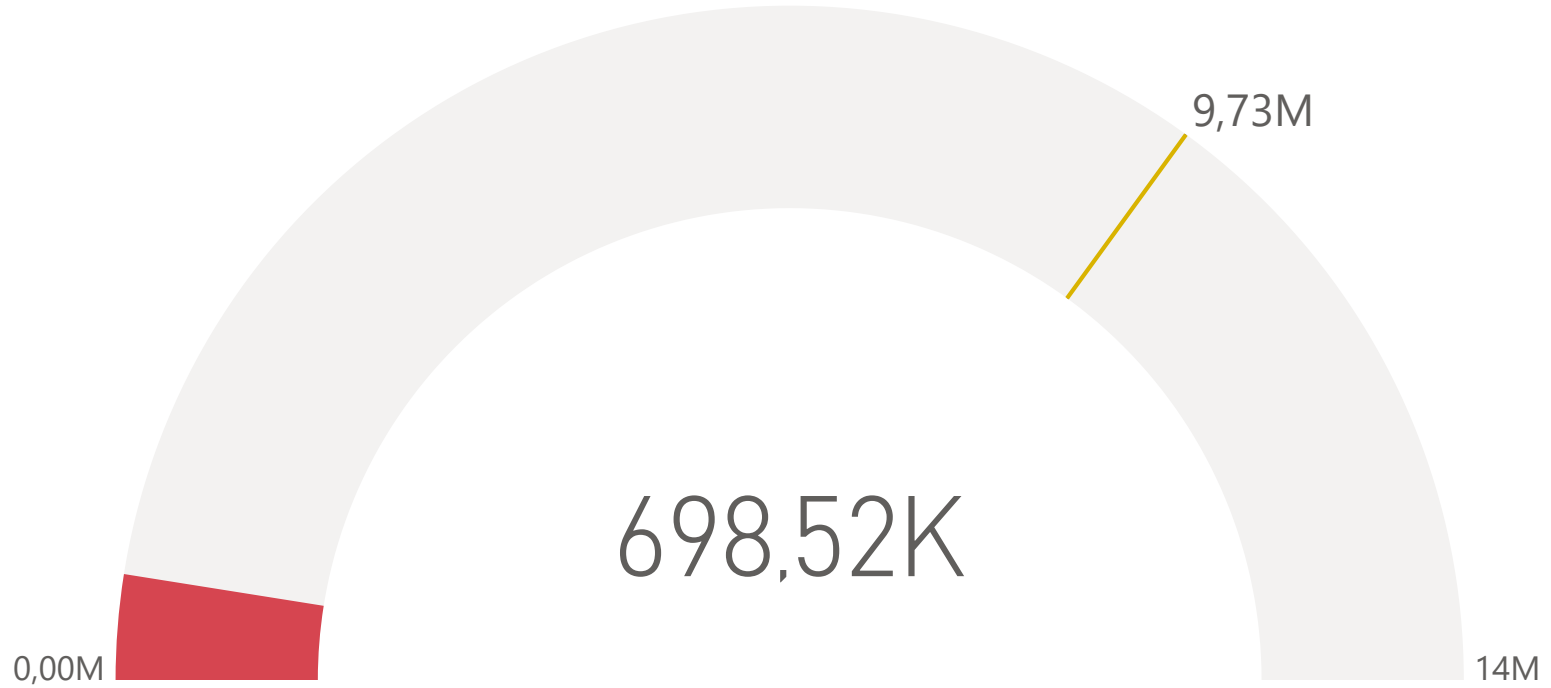
● AstraZeneca ● Moderna ● Pfizer



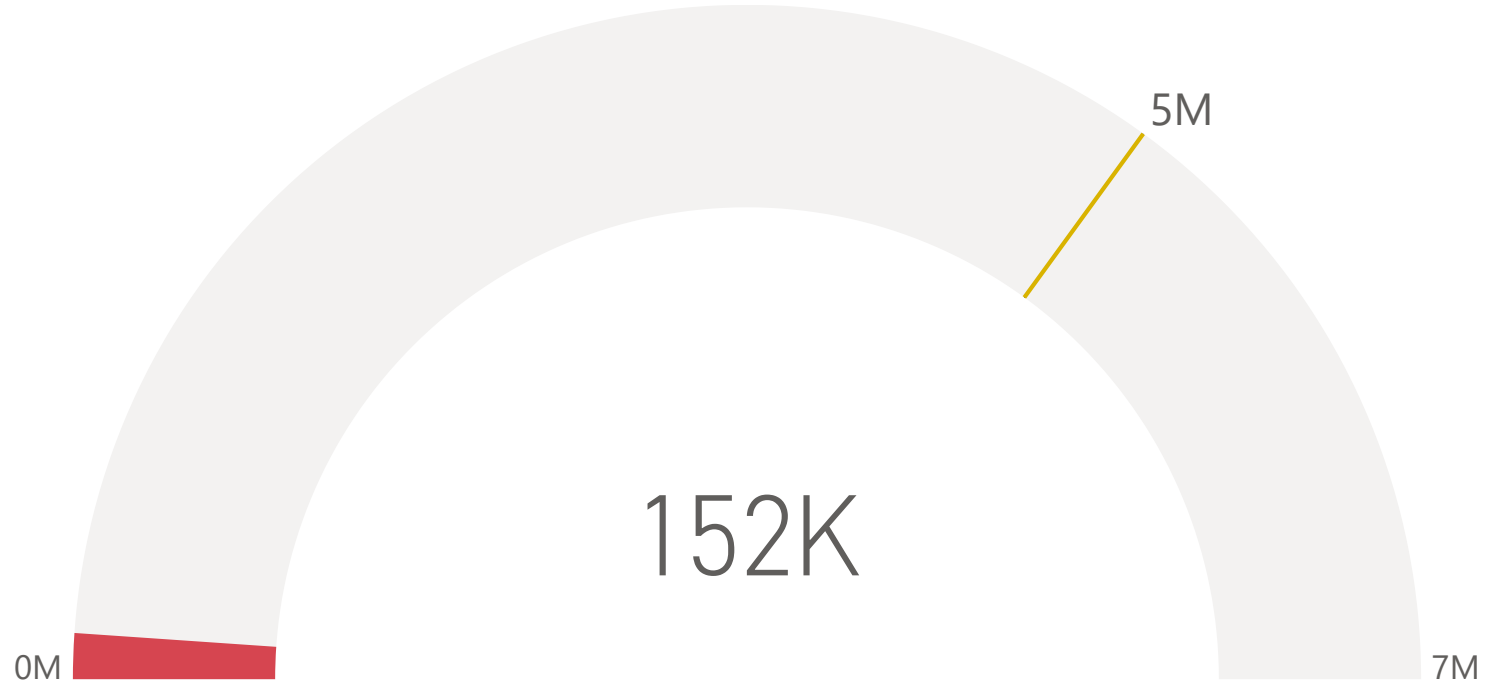
Astra Zenece has been administered much more than Moderna and Pfizer in the period from second part of February until middle of March.

Since middle of March, Pfizer tends to have the most administrations, as Astra Zeneca usage significantly decreases. Moderna has also been administered more than Astra Zeneca as of late.

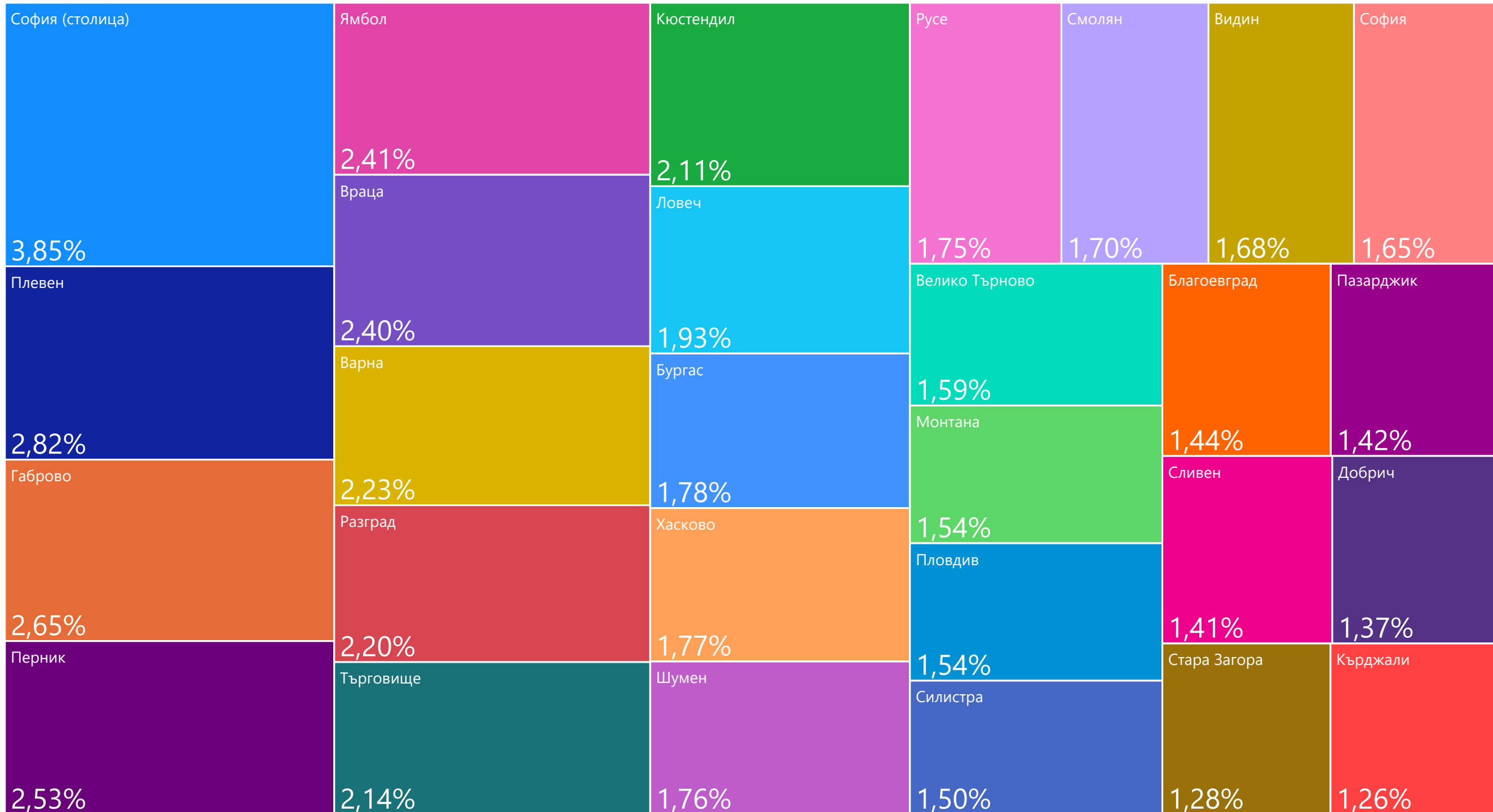
Total Vaccine Doses



Number of People with Two Doses



Percent Region Population with Second Dose



Sources

1. <https://data.egov.bg/>
2. <https://coronavirus.bg/>
3. <https://www.nsi.bg/>
4. <https://github.com/svilens/covid-bulgaria>
5. <https://covid19bg.github.io/>