

Is Fear of Coronavirus Contamination Impacting Kentucky 911 Utilization?

A Cardiac Arrest/STEMI Incident Correlational Study

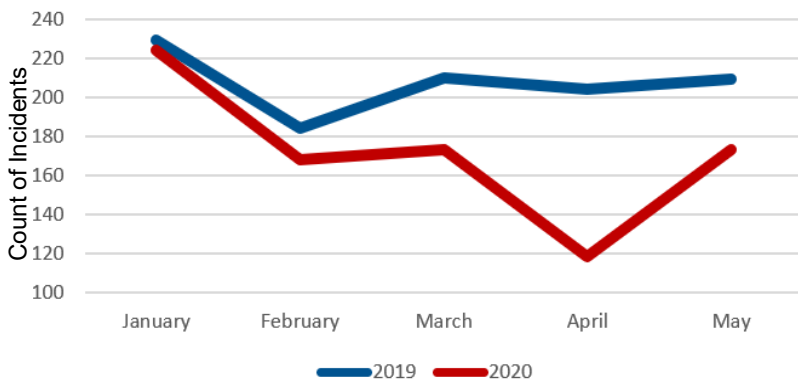


Kentucky's EMS run volume has experienced a notable decrease in comparison to 2019 EMS run volume. In 2020, EMS incidents have declined 11.63% (42,732 incidents) when compared to the previous year's statistics (*incidents occurring between January 1st - May 31st*). This report highlights Cardiac Arrest/STEMI Incidents and the presumed impact that the Coronavirus pandemic has played on potential patient 911 utilization.

The below data is representing the hypothesis that patients experiencing significant medical emergencies (in this case potential Cardiac Arrest/STEMI patients) are avoiding EMS utilization due to fear of Coronavirus contamination. Please note, that additional research is needed to prove this correlational study to be true.

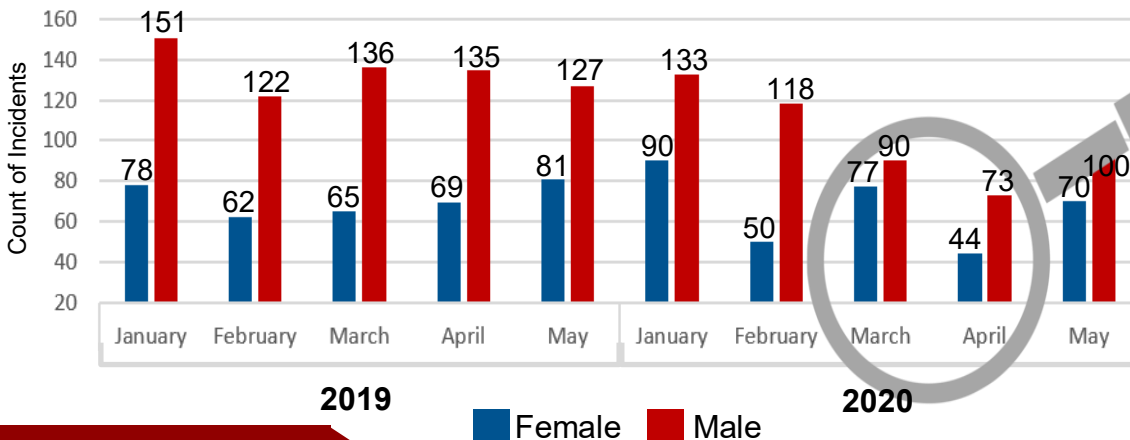
2019 vs. 2020

In 2020 (*incidents occurring between January 1st - May 31st*), suspected Cardiac Arrest/STEMI patient incidents were down 17% from 2019. At the height of the Coronavirus Pandemic fear (April), Cardiac Arrest/STEMI incidents were down a drastic 42% when compared to the same period in 2019.



Incident Month	Incident Year		% Difference
	2019	2020	
January	229	224	2.18%
February	184	168	8.7%
March	210	173	17.62%
April	204	118	42.16%
May	209	173	17.22%

Patient Gender: 2019 vs 2020 Incident Comparison



In March 2020, EMS Cardiac Arrest/STEMI incidents for Male patients was down 34% from 2019. The decline in Male patients continued into April, resulting in a drastic 46% decline compared to previous 2019 statistics. Meanwhile, Female incidents remained constant for March but took a downward spiral in April, resulting in a 36% decrease in EMS incidents from 2019.



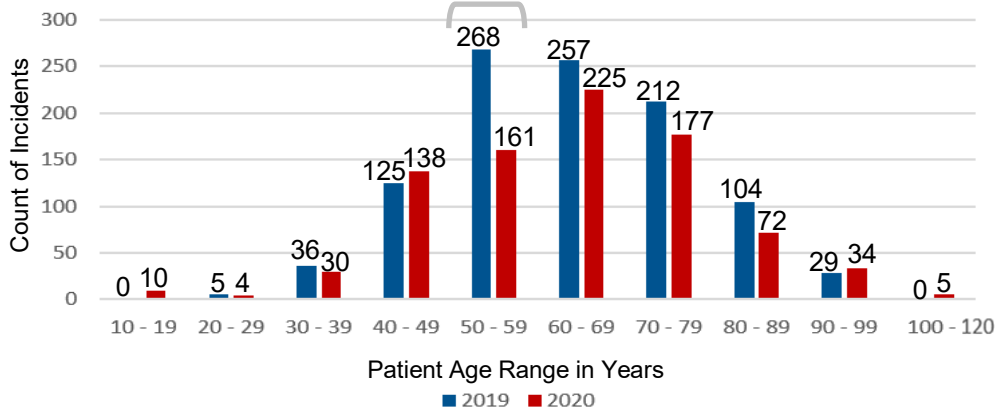
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Patient Age Range: 2019 vs 2020 Incident Comparison

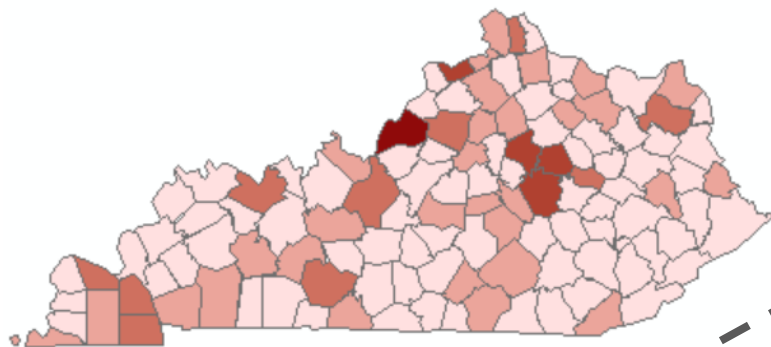
The largest disparity among calendar years 2019 & 2020 Cardiac Arrest/STEMI patients lies among those aged 50 - 59. After further analyzing patients within this age group, it's apparent that female patient encounters, for the majority, stayed constant among 2020 while their male counterparts avoided 911 resources. Male Cardiac Arrest/STEMI patients between the ages of 50 - 59 declined 51% during the peak of the Coronavirus pandemic.



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Patient County of Residence for April: 2019 vs 2020 Comparison

April 2019 Cardiac Arrest/STEMI Patient County of Residence

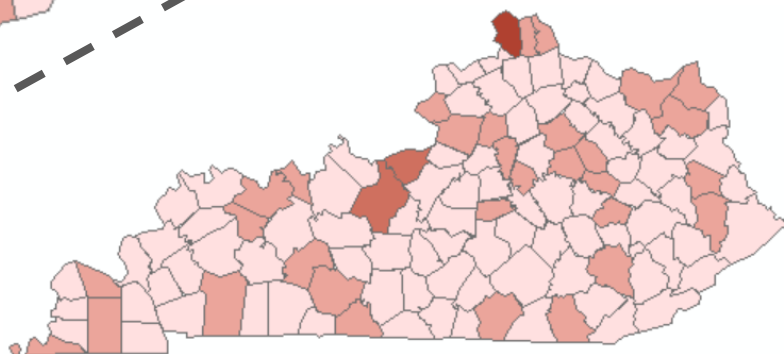
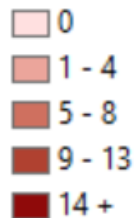


Top 10 Patient Residence Counties:

2019: Jefferson, Fayette, Madison, Carroll, Clark, Warren, Calloway, Hardin, Kenton, & McCracken.

2020: Jefferson, Boone, Hardin, Bullitt, Campbell, Carter, Clay, Oldham, Allen, & Christian.

Legend:
Count of Incidents



April 2020 Cardiac Arrest/STEMI Patient County of Residence

