

COVID Epidemiology Situation Update

Tim Lant, PhD, MAS, Heather Ross PhD, DNP, ANP-BC, Anna Muldoon, MPH, Samantha Sokol, Esma Gel, PhD, and Megan Jehn, PhD

December 28, 2020



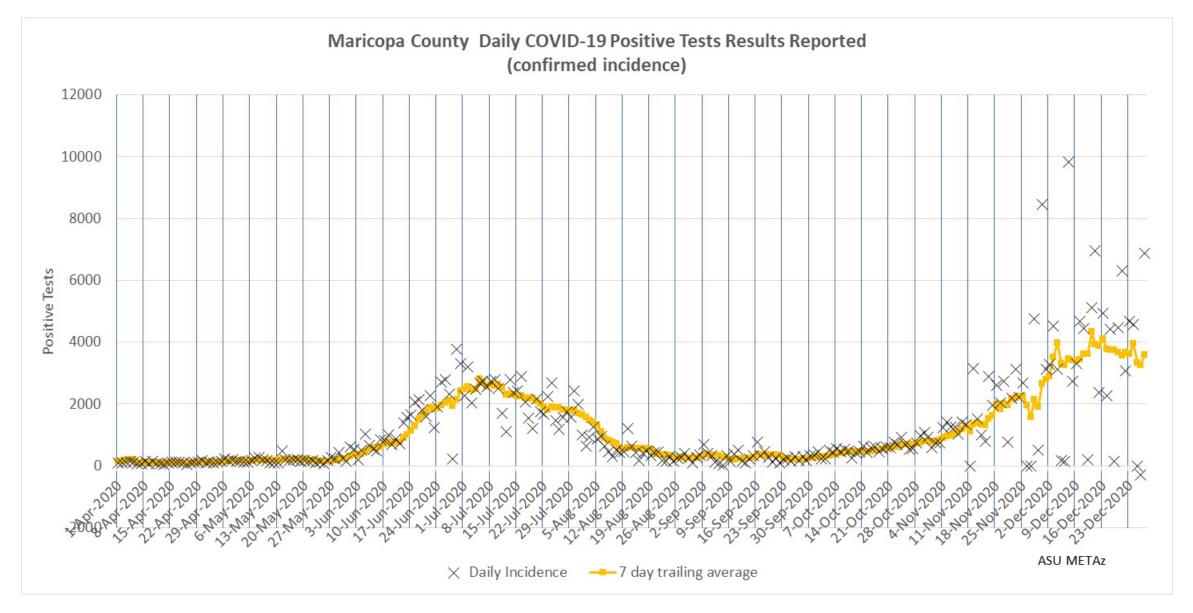
December 28, 2020				
	Statewide		Maricopa	
	Reported Today	Cumulative	Reported Today	Cumulative
Cases	10,086	504,423	7,030	309,737
PCR Tests	7,269	2,782,755	<mark>4,</mark> 593	1,646,664
% Positive	138.8%	18.1%	153.1%	13.1%
Hospitalizations	240	35,630	182	21,954
Deaths	42	<mark>8,4</mark> 69	41	4,948
All data pulled from azdhs.gov. Numbers may not match Maricopa county data.				

- Today's statewide case count is 10,086 with 7,030 cases (70%) in Maricopa County, higher than population distribution. The 7-day average for reported cases is now 6,154. More cases were reported today than diagnostic tests, giving today's positive percentage of 138.8%, likely due to reporting lags over the holidays.
- The epi curve appears to have plateaued in Maricopa County and statewide at a level higher than the previous wave in Arizona. Peak cases by incident date is 8,252 on 12/14.
- Due to significant irregularities in ADHS data reporting patterns, 7-day average positivity is more reliable than day-to-day positivity. 7-day average positivity has remained above 30% for more than 3 weeks, indicating sustained uncontrolled spread.
- Hospital utilization continues to increase. Bed usage for COVID-19 is 52% of inpatient beds (highest number of COVID-occupied beds at any point during the pandemic) and 57% of ICU beds statewide. ICU beds in use (1,007) have exceed the last peak. Current hospital utilization is 90% for inpatient beds and 91% for ICU beds including COVID and non-COVID utilization. Hospitals statewide are experiencing extreme shortages with many facilities on divert status.
- Declining hospital admission rates as a percentage of confirmed cases is a concerning marker of severe system overload.

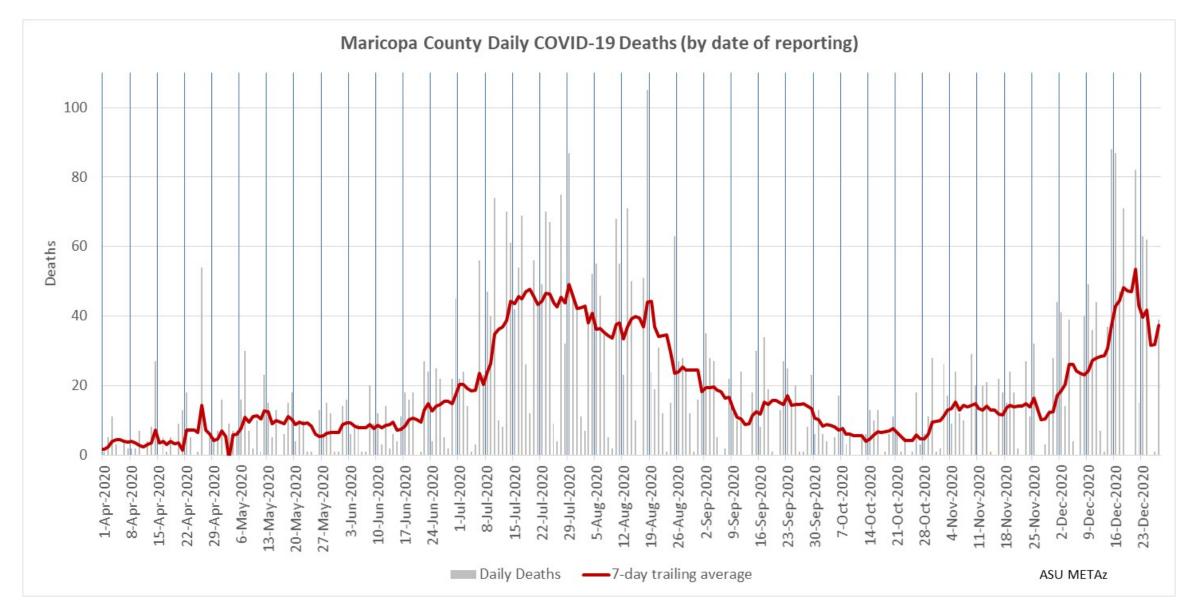
Maricopa County Analysis



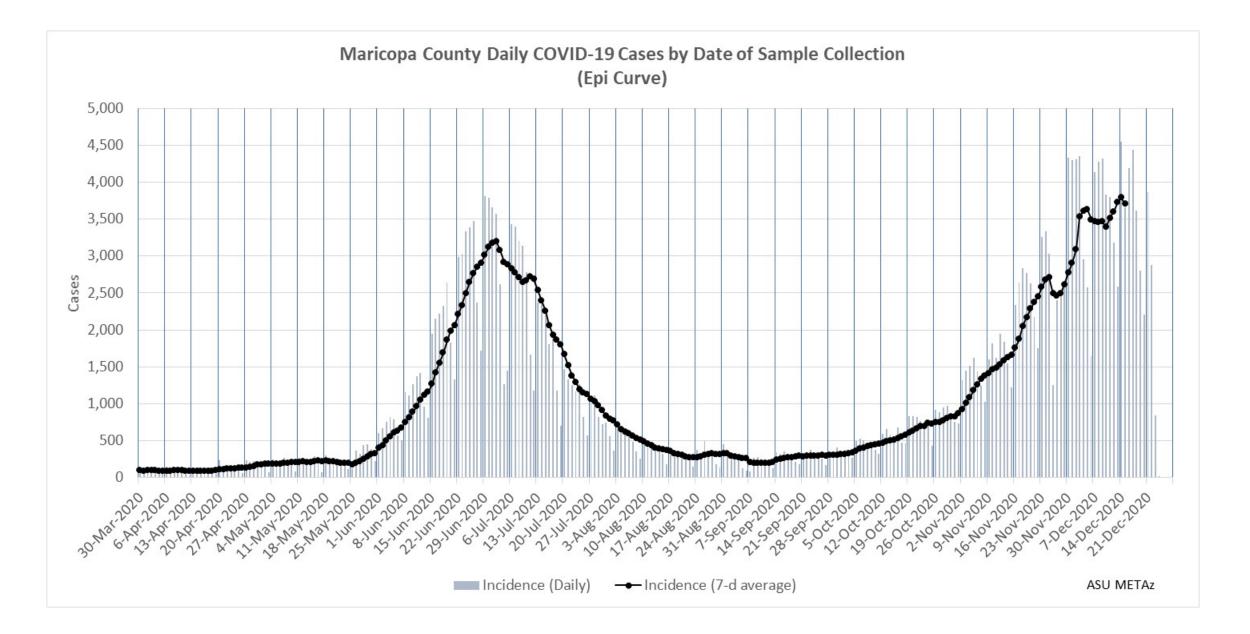
opyright © 2020 Arizona Board of Regents

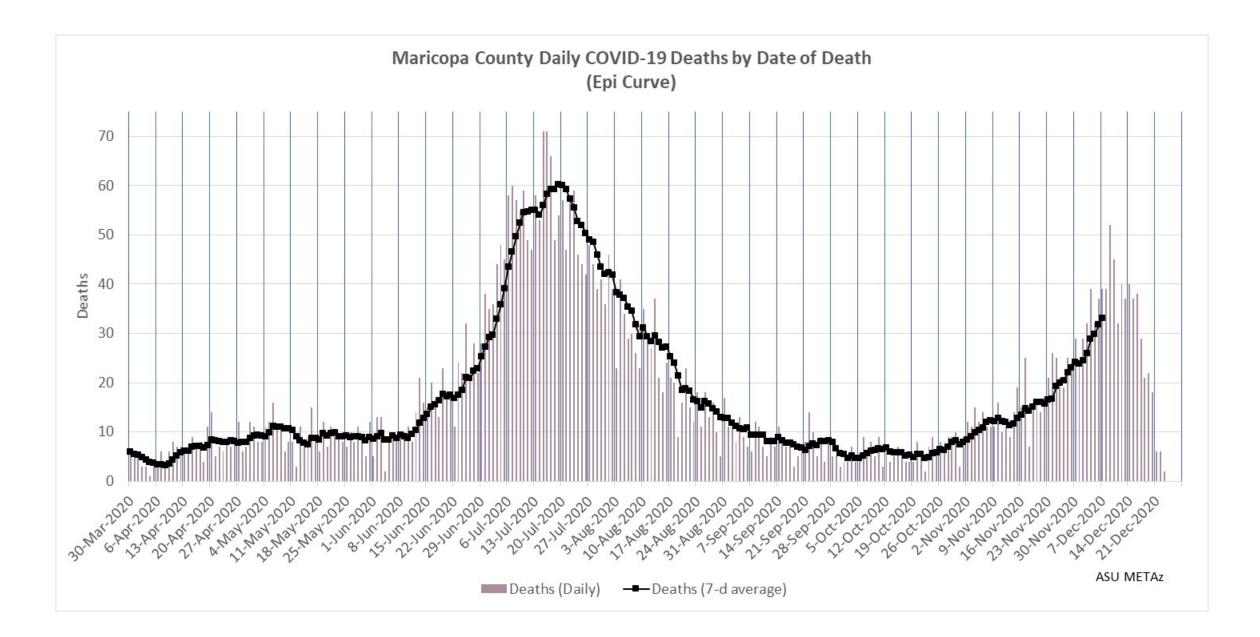


Due to the holiday, 2 days of data were held (Nov 26 & 27) and reported on Nov 28.



Due to the holiday, 2 days of data were held (Nov 26 & 27) and reported on Nov 28.





Arizona Statewide Analysis

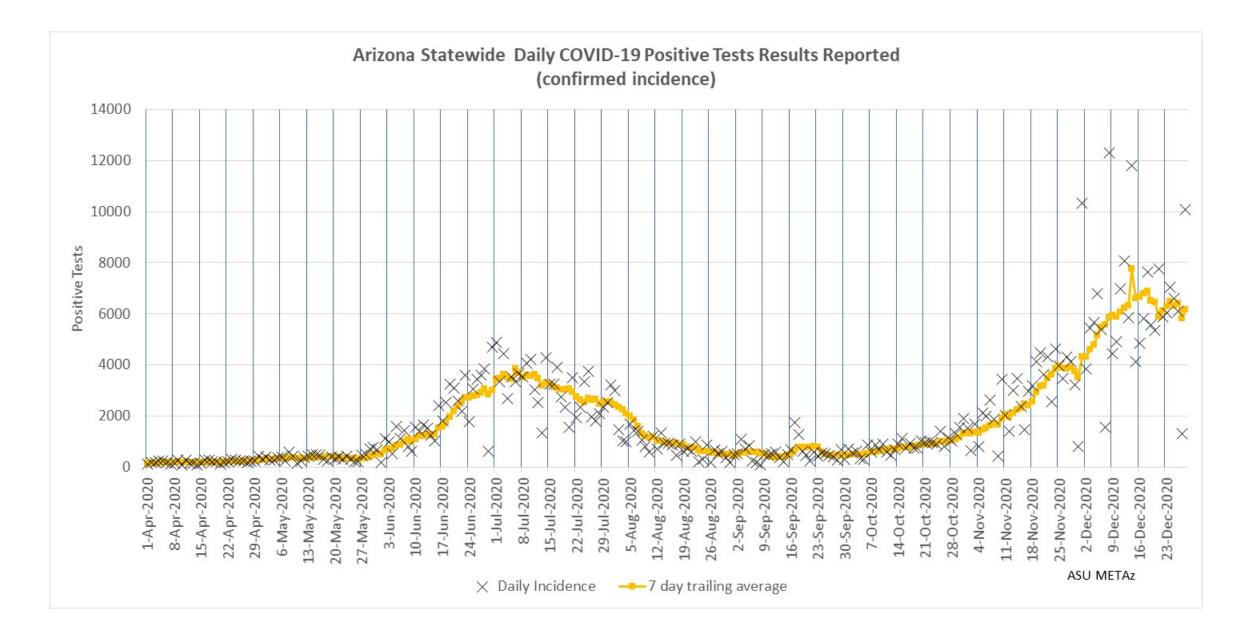


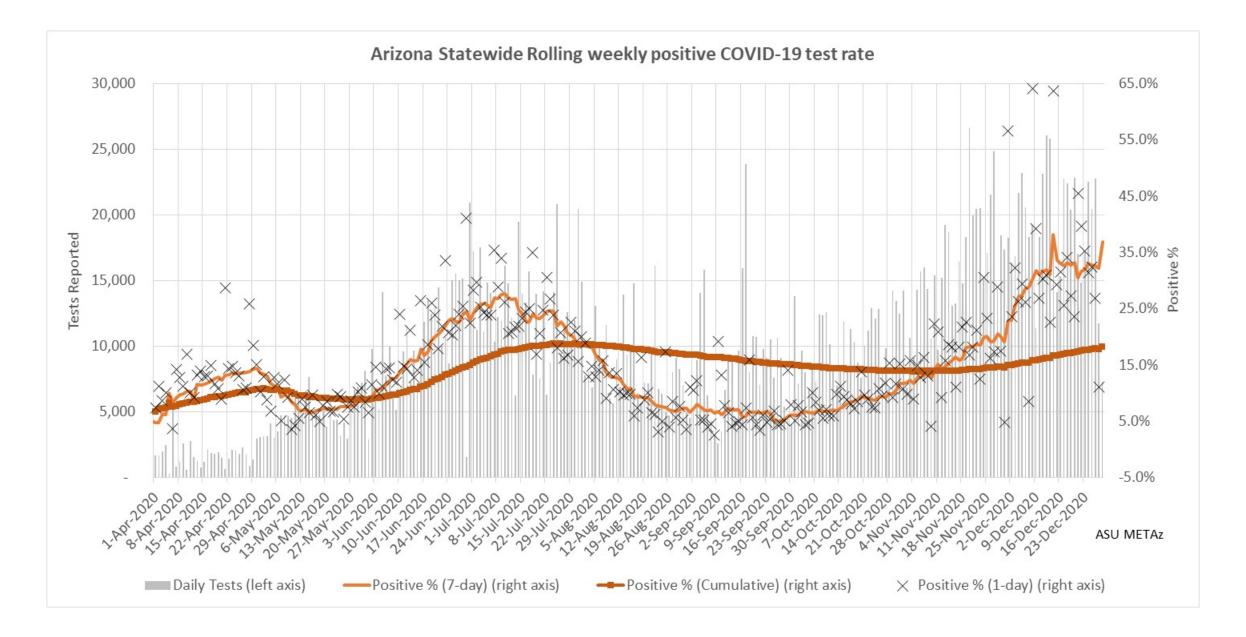
opyright © 2020 Arizona Board of Regents

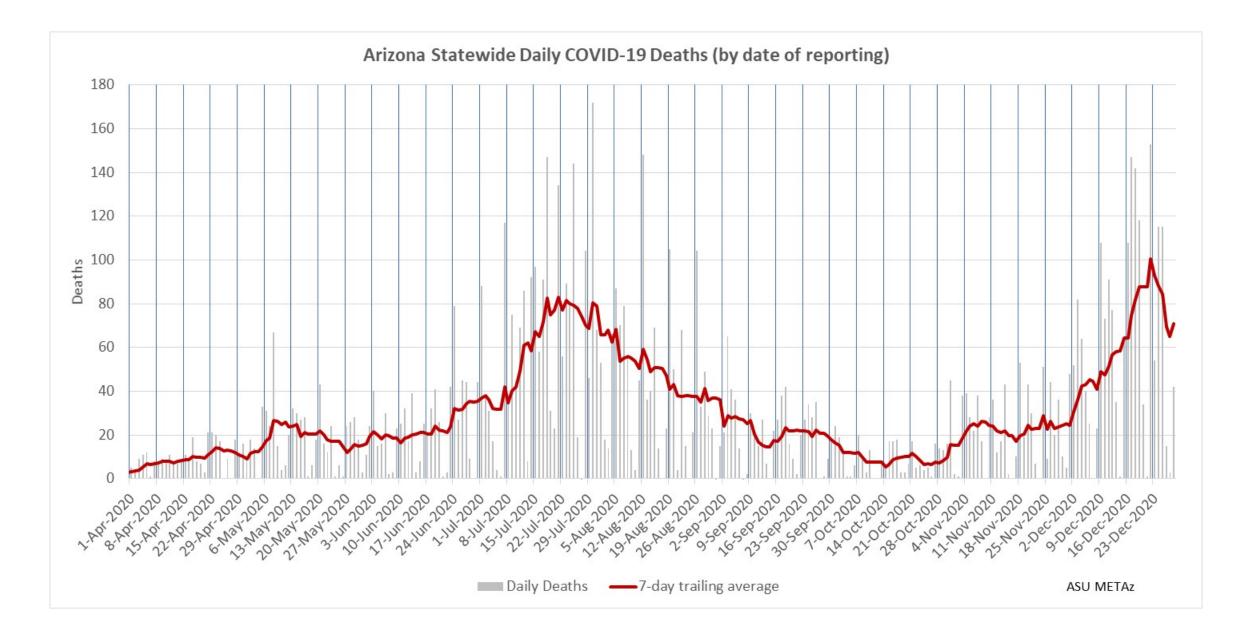
Epidemiology

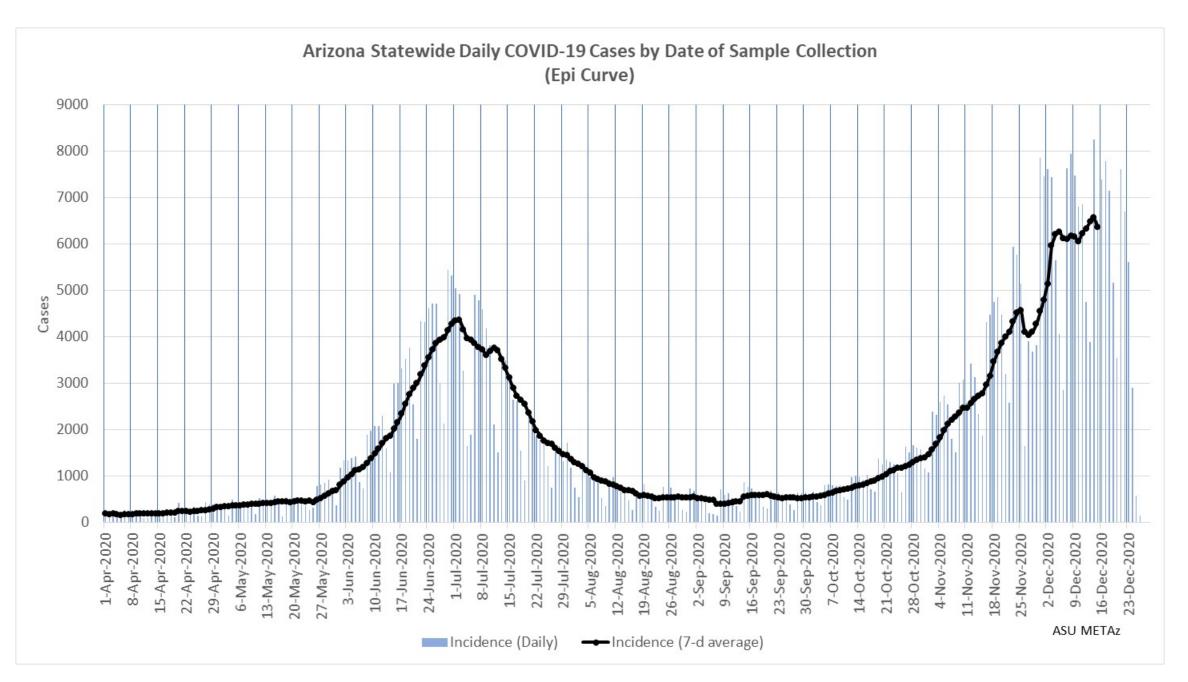


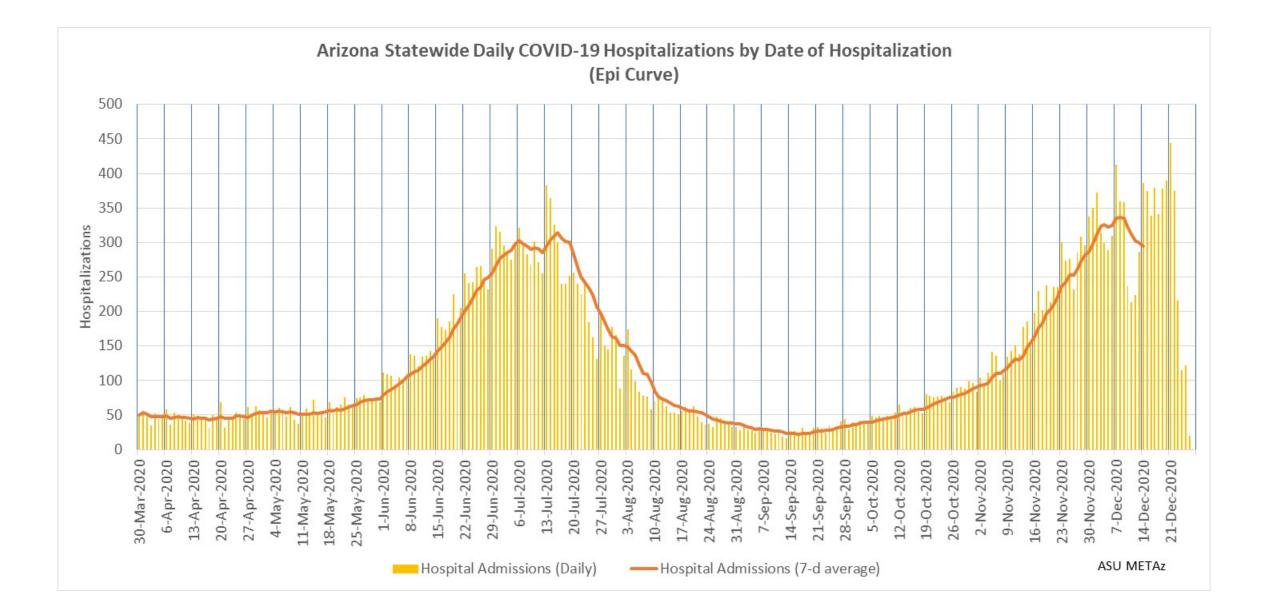
Copyright © 2020 Arizona Board of Regents.

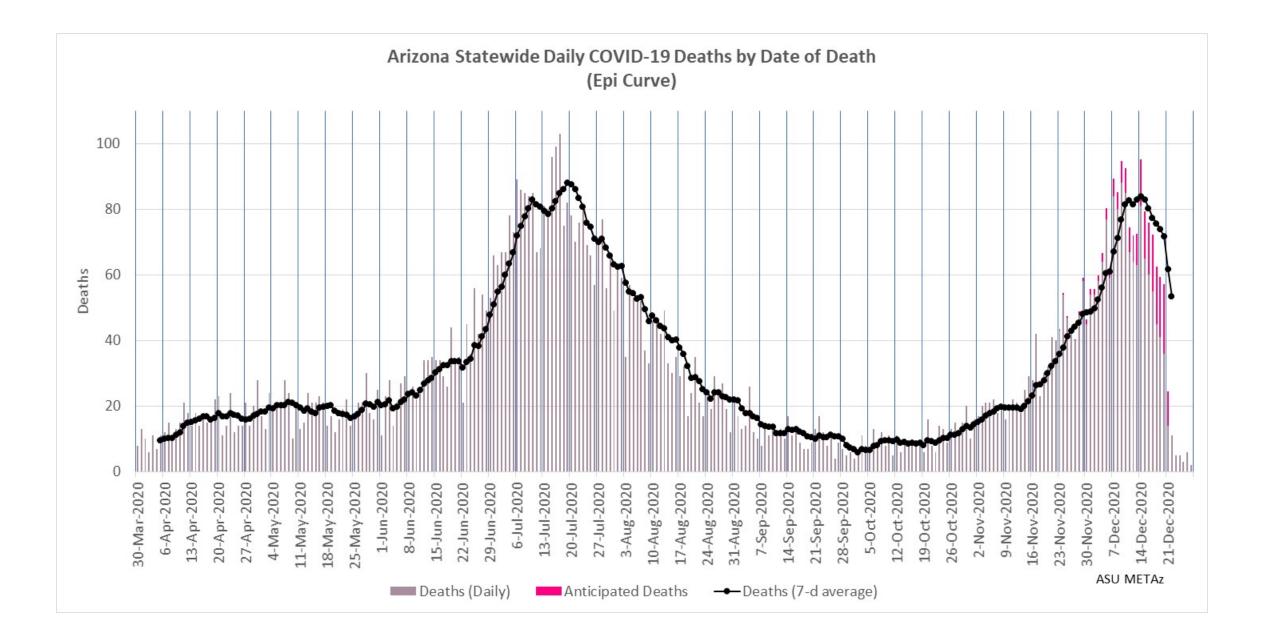


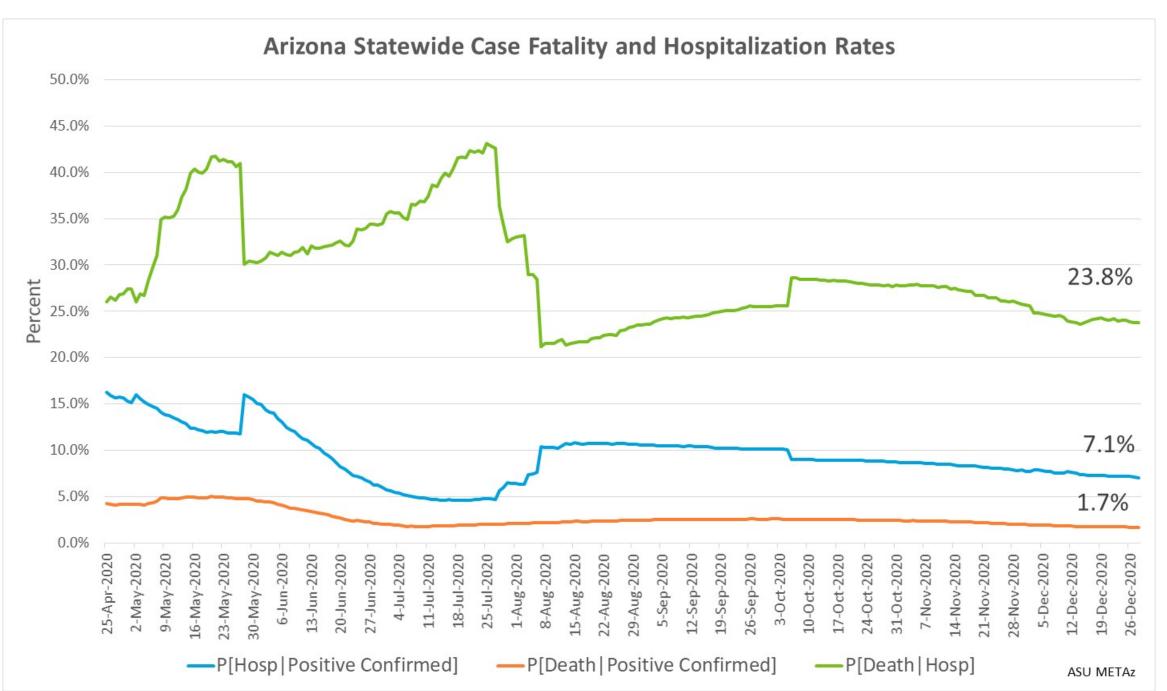








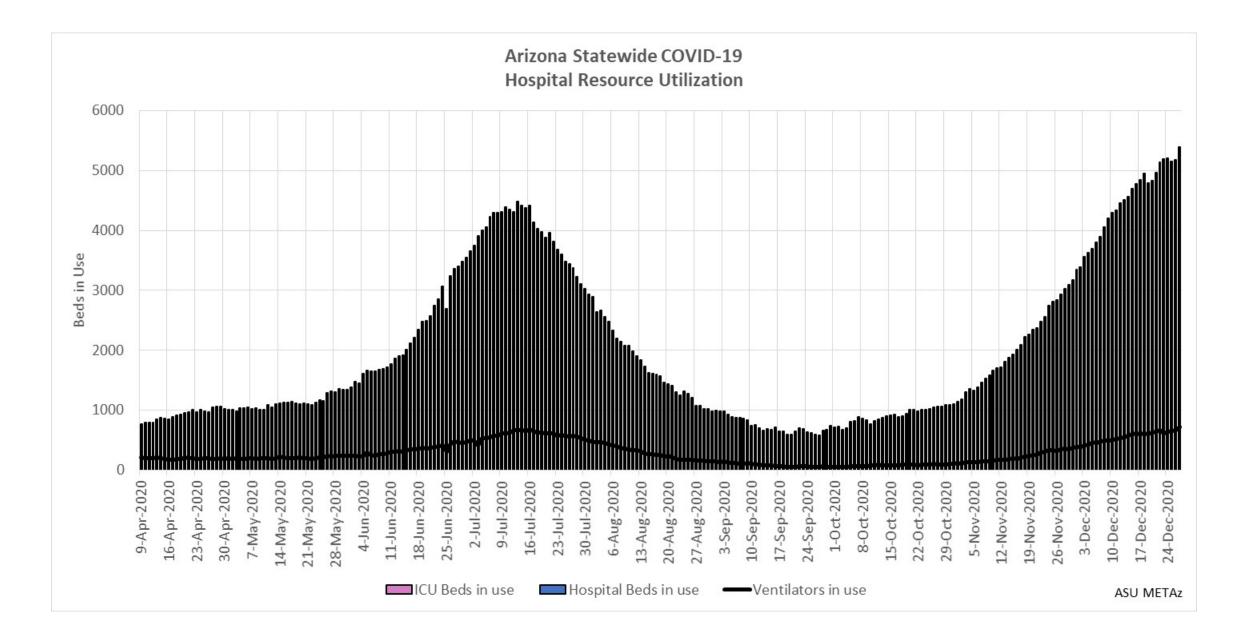


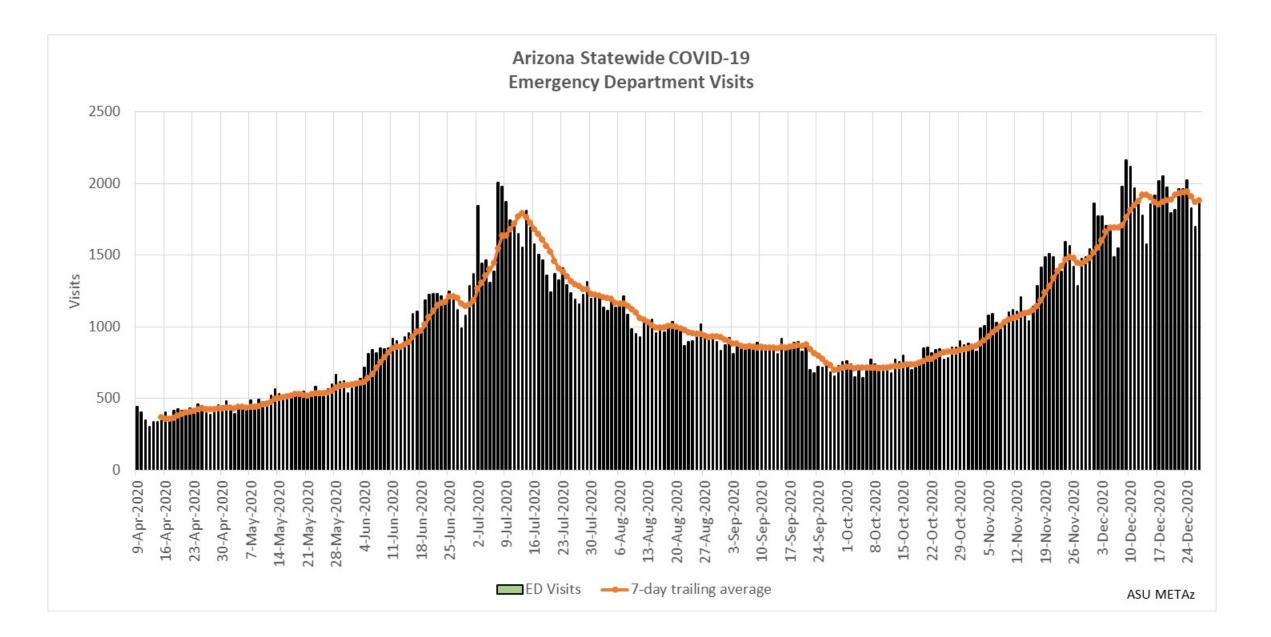


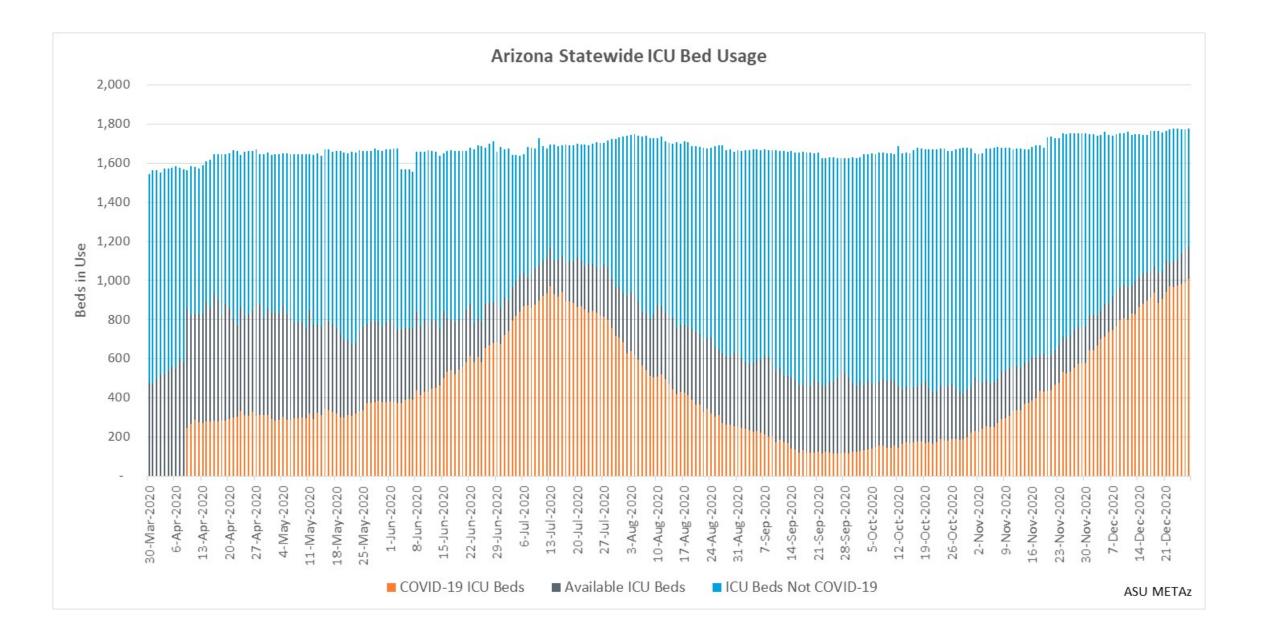
Hospital Usage

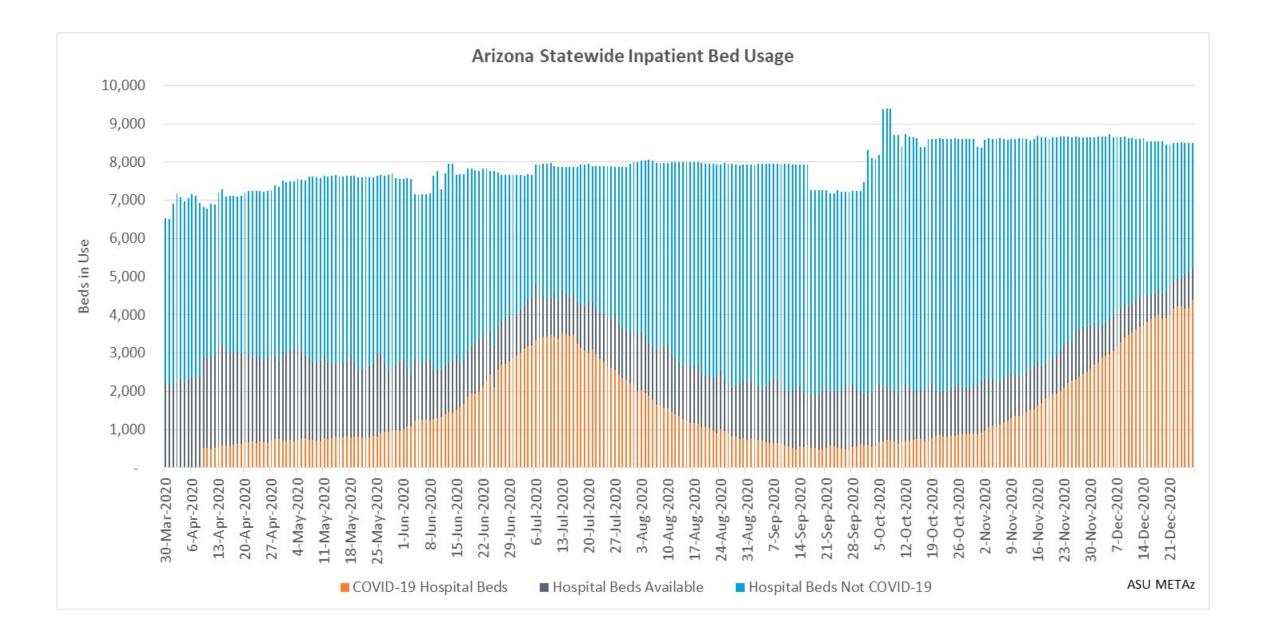


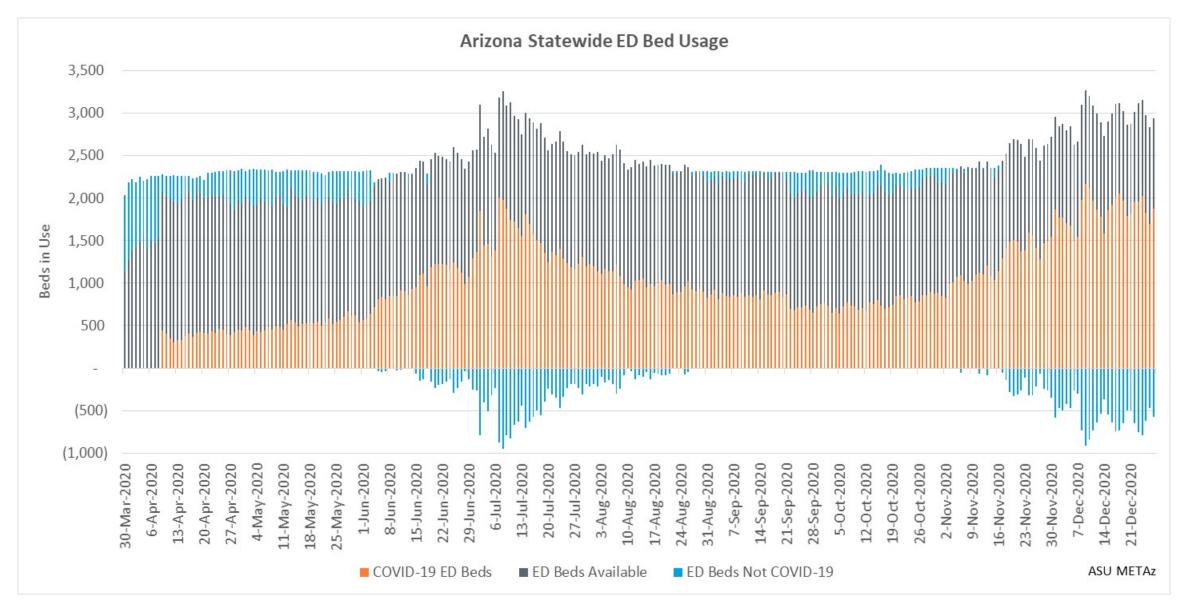
opyright © 2020 Arizona Board of Regents.











Where blue bars are below zero, COVID ED patients exceeded total reported ED bed usage