



# 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

**October 19, 2020**

# Summary

October 19, 2020				
	Statewide		Maricopa	
	Reported Today	Cumulative	Reported Today	Cumulative
Cases	748	231,897	560	150,280
PCR Tests	8,762	1,639,785	5582	965,612
% Positive	8.5%	14.1%	10.0%	11.7%
Hospitalizations	8	20,648	6	12,906
Deaths	3	5,830	2	3,512

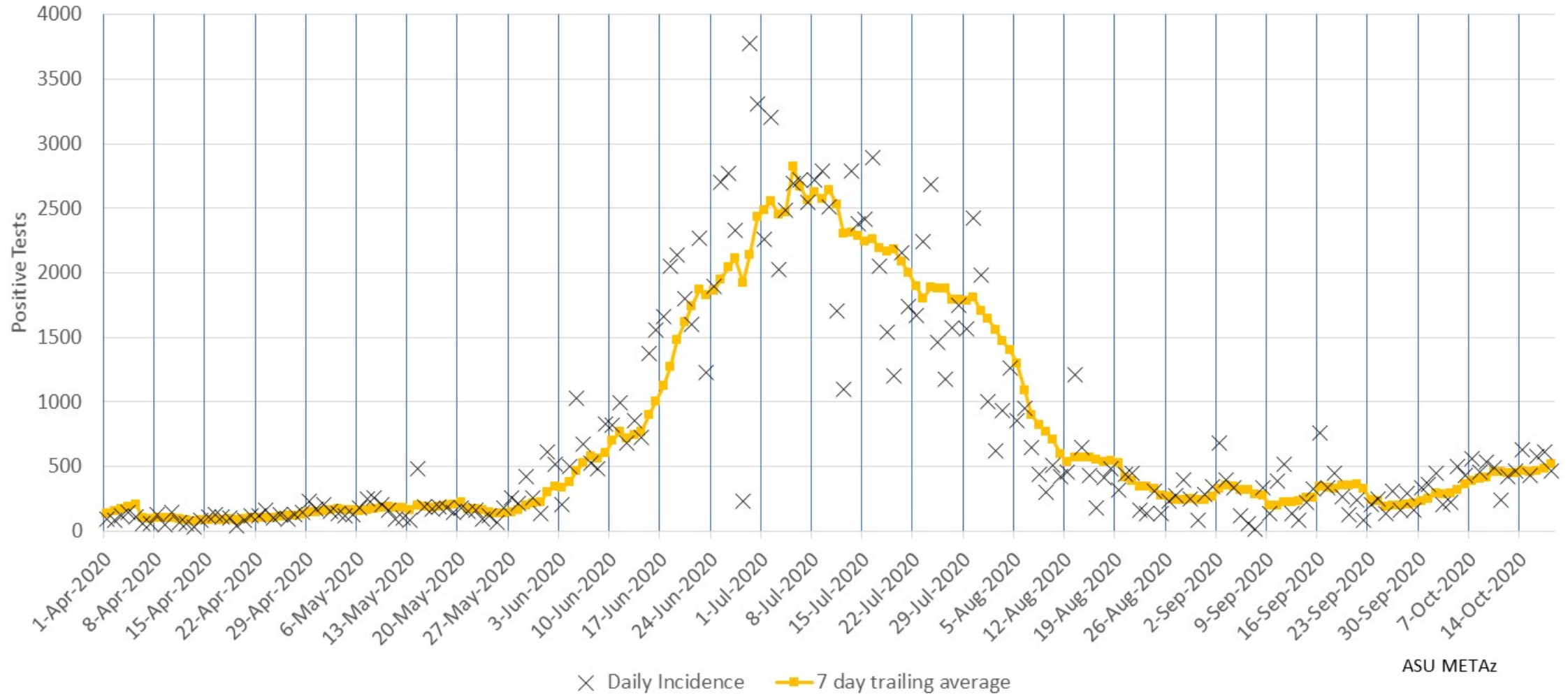
*All data pulled from azdhs.gov. Numbers may not match Maricopa county data.*

- Today's statewide case count is 748, with 560 cases (75%) in Maricopa County, more concentrated than population distribution. The 7-day average for reported cases has been steadily increasing since September 30 and is now 835.
- The demonstrated epi curve continues to increase in Maricopa County and statewide. Case counts continue to rise and remain consistent with rates in mid-June. We note that the slope of the upward trajectory now appears less steep than at the onset of exponential growth in June.
- Percent positivity statewide is 8.5%. Maricopa county positivity is 10.0%, with low testing on both levels. Significantly more testing is needed to characterize the extent of the current outbreak and community transmission.
- ED visits appear to be rising, along with a continued upward trend in ICU and inpatient beds. ICU bed usage appears to be rising at a faster proportional rate than general ward bed usage. There is no indication that hospital resources are at imminent risk of becoming overwhelmed.

# Maricopa County Analysis

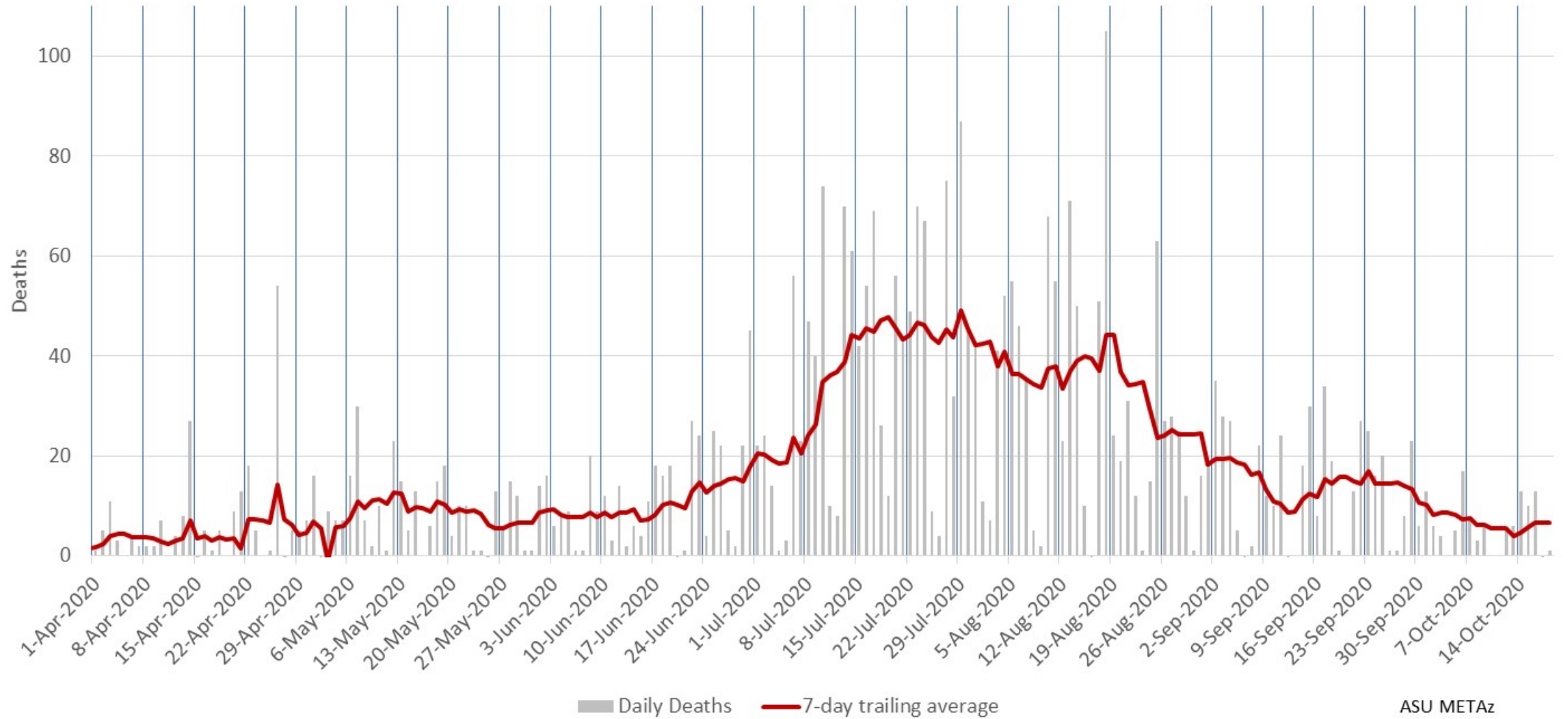


### Maricopa County Daily COVID-19 Positive Tests Results Reported (confirmed incidence)



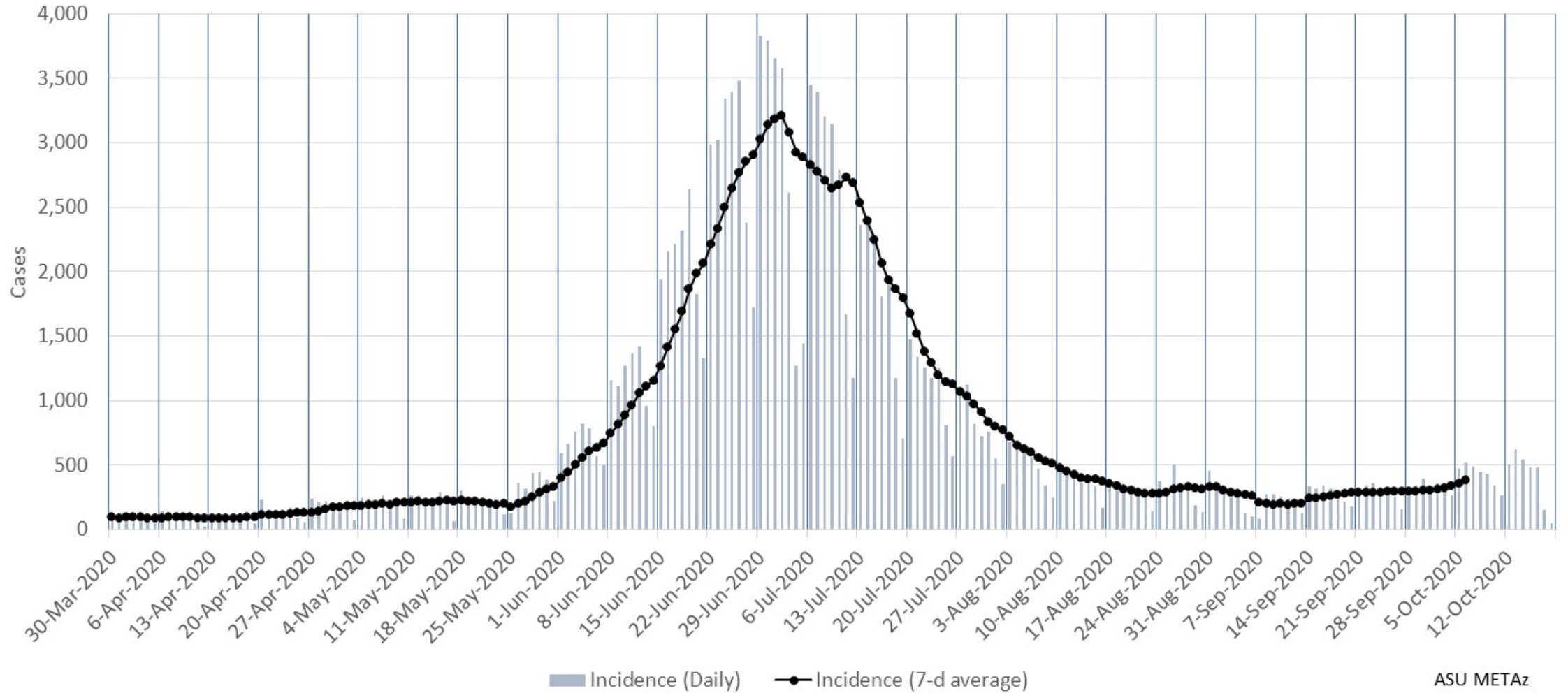
ASU METAz

### Maricopa County Daily COVID-19 Deaths (by date of reporting)



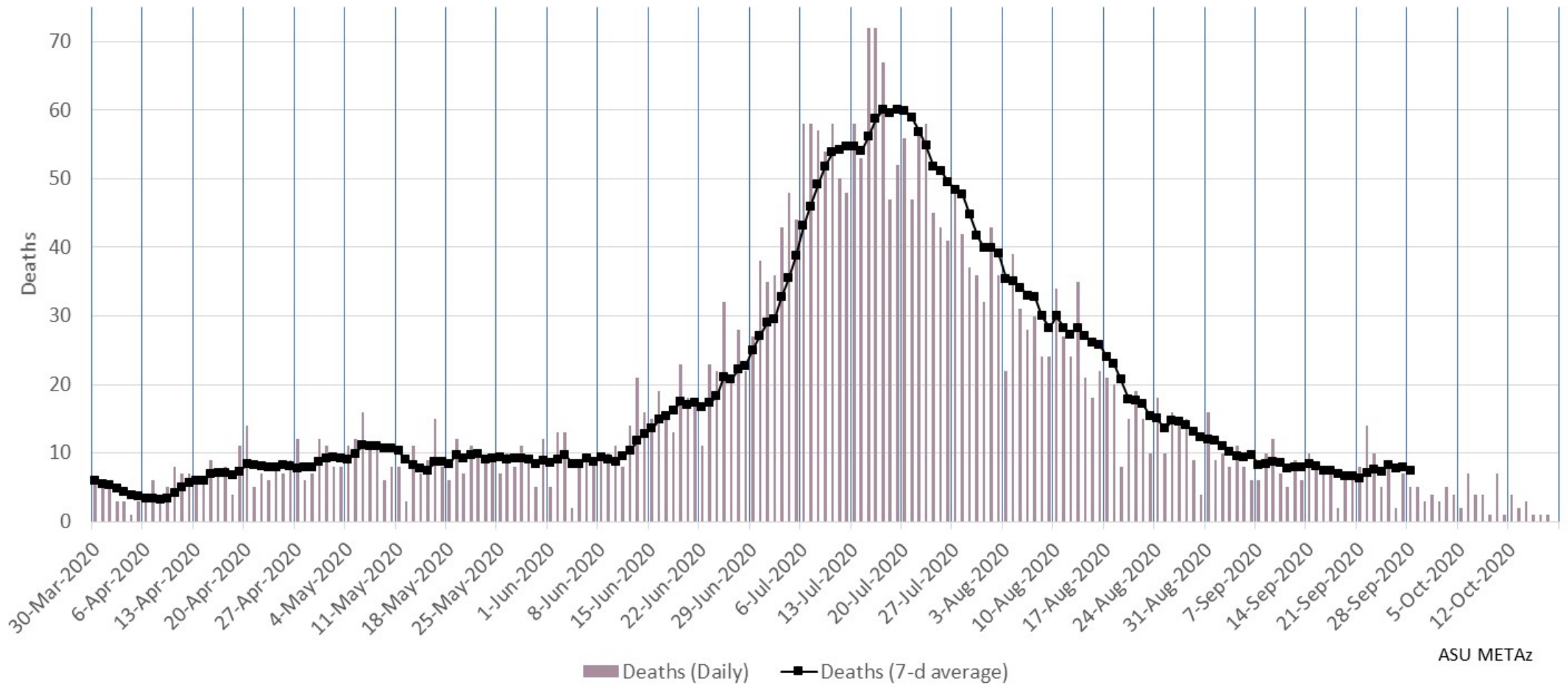
ASU METAz

### Maricopa County Daily COVID-19 Cases by Date of Sample Collection (Epi Curve)



ASU METAz

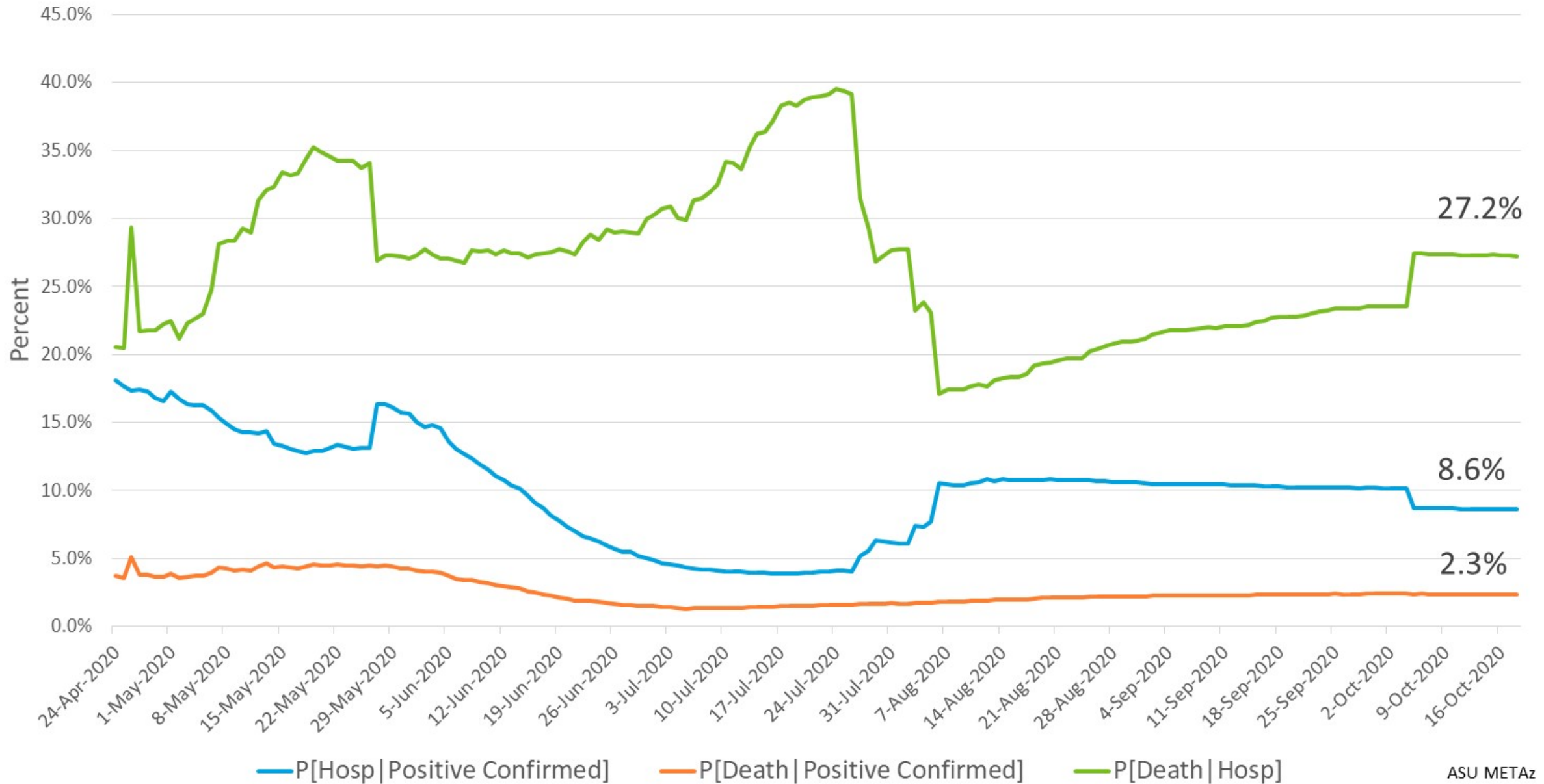
Maricopa County Daily COVID-19 Deaths by Date of Death  
(Epi Curve)



ASU METAz



# Maricopa County Case Fatality and Hospitalization Rates





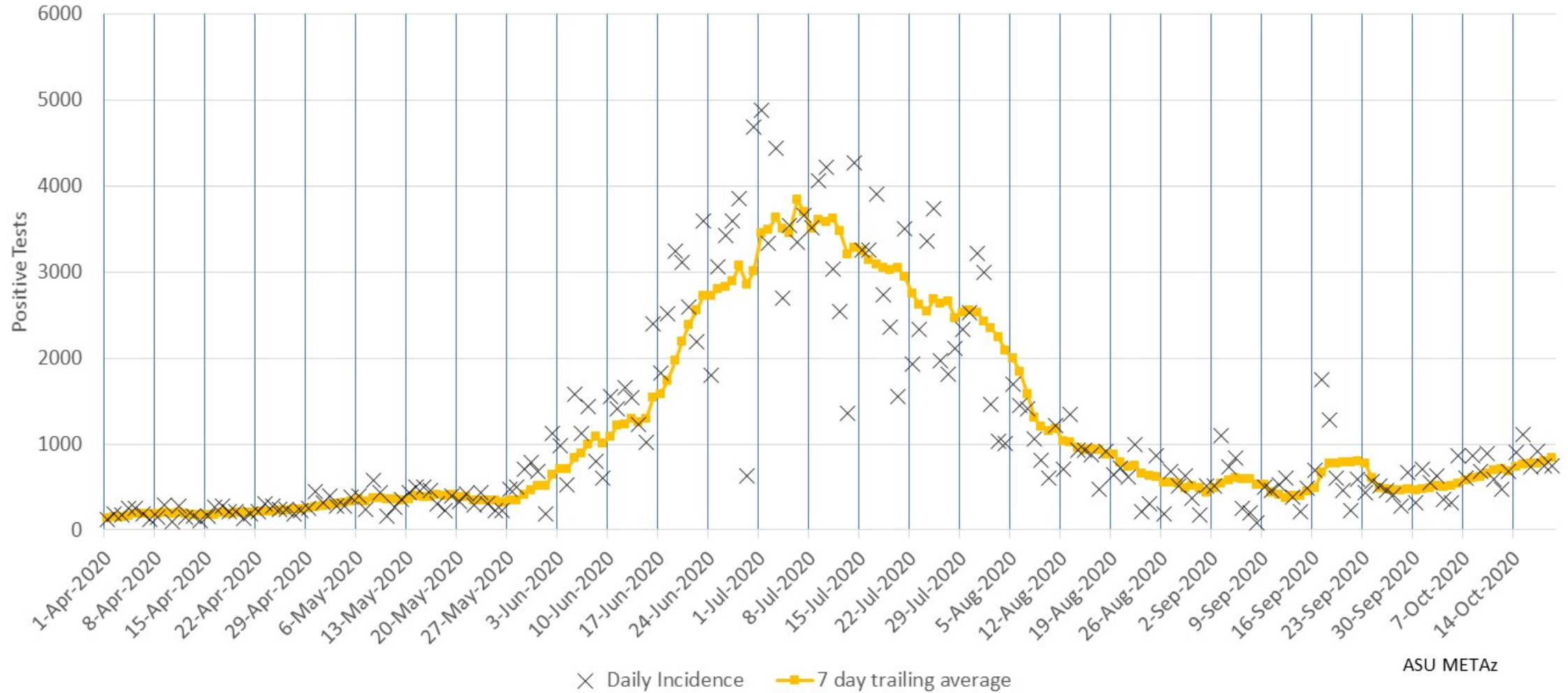
# Arizona Statewide Analysis



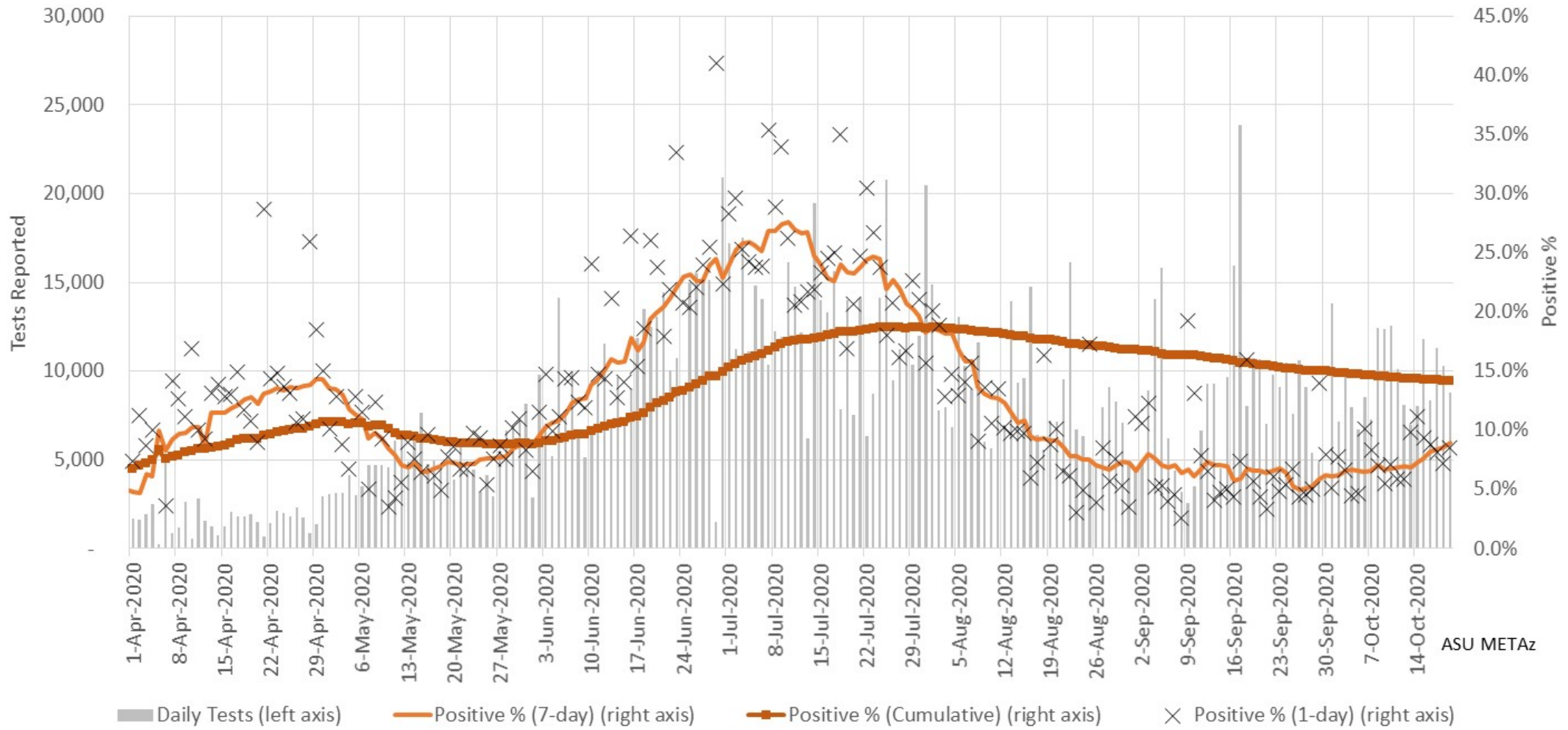
# Epidemiology



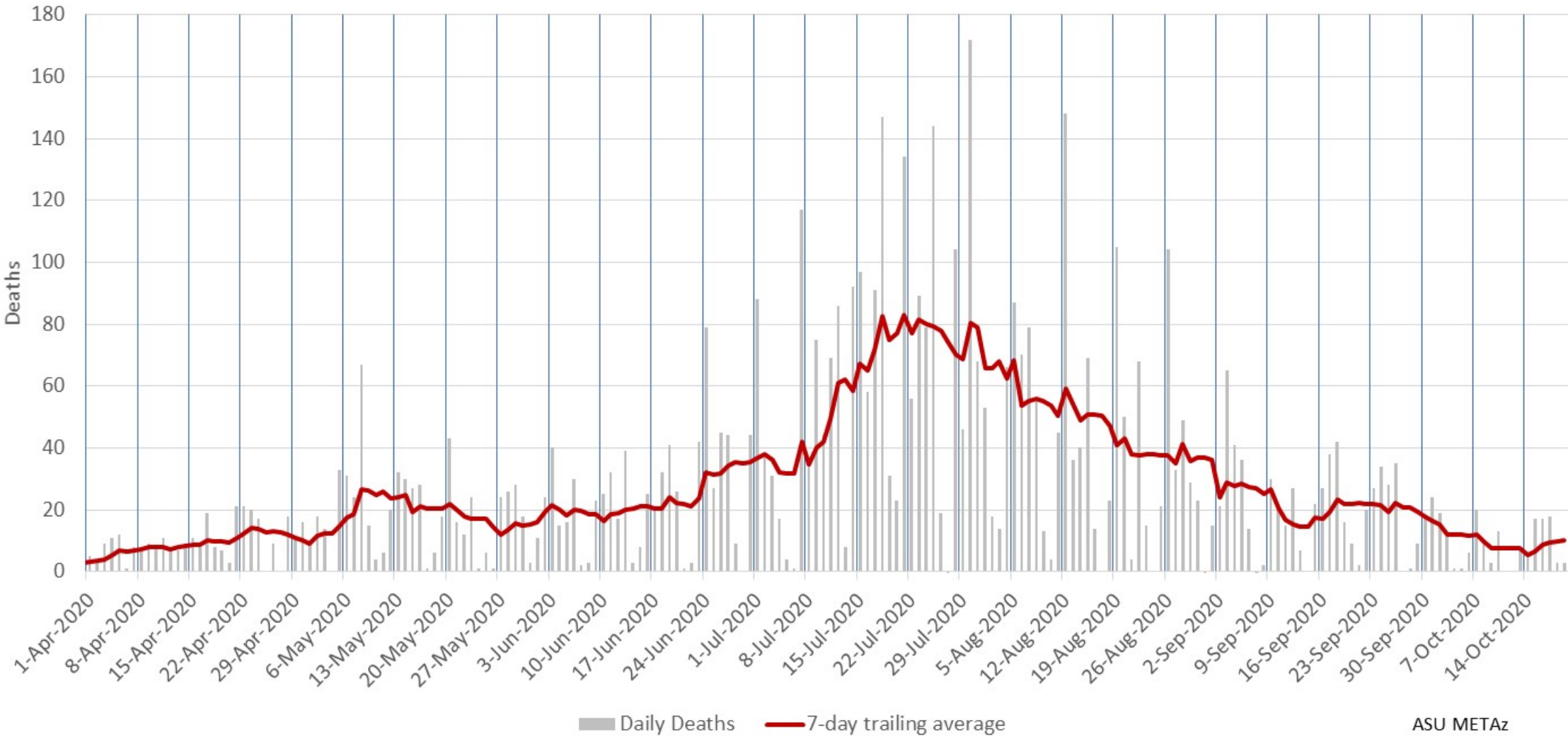
### Arizona Statewide Daily COVID-19 Positive Tests Results Reported (confirmed incidence)



### Arizona Statewide Rolling weekly positive COVID-19 test rate

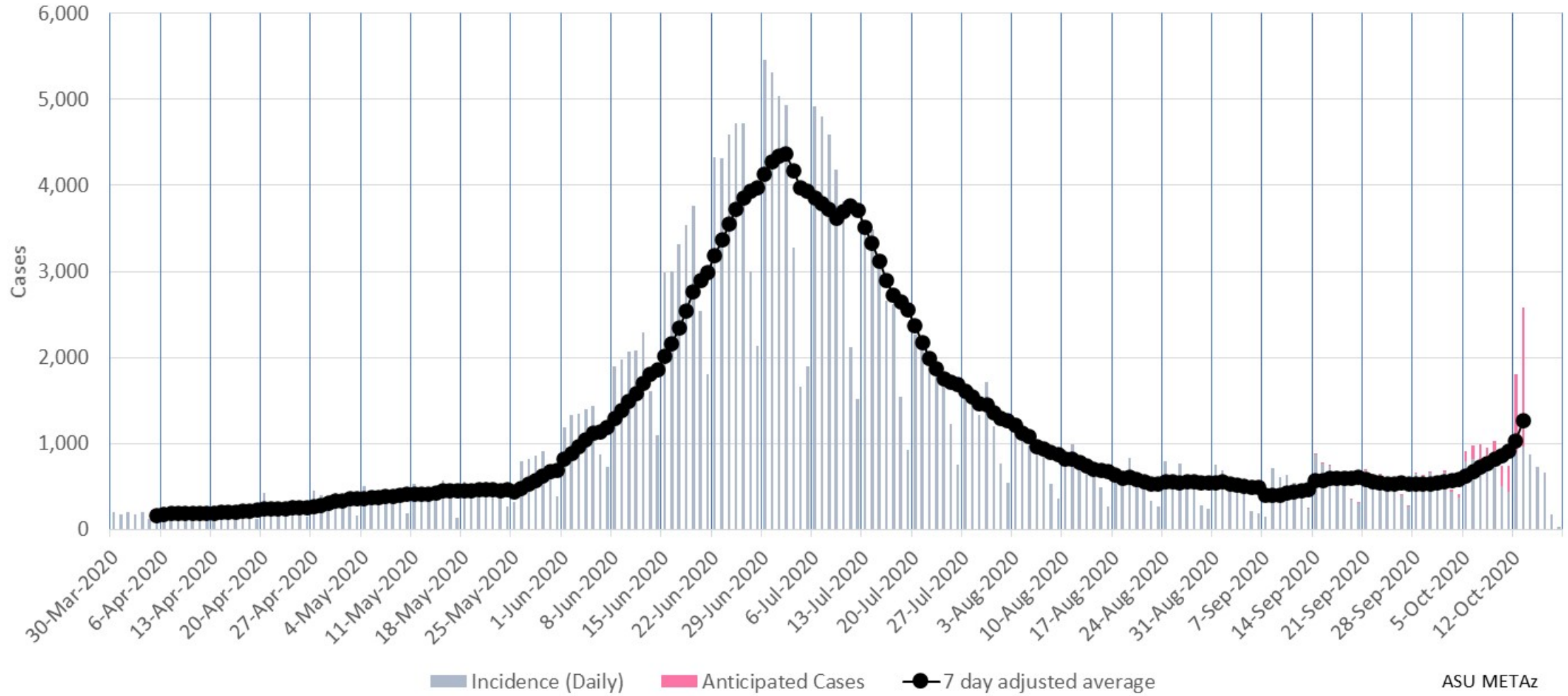


### Arizona Statewide Daily COVID-19 Deaths (by date of reporting)



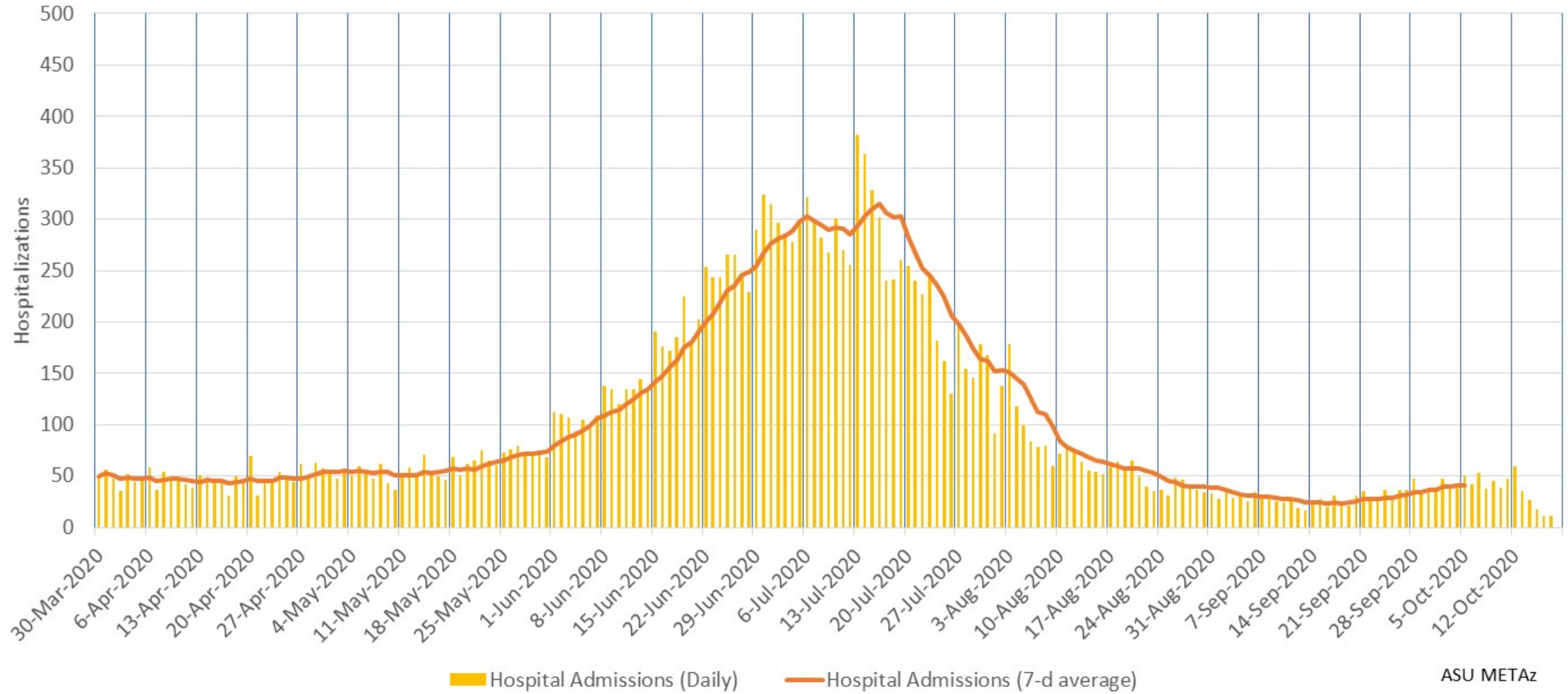
ASU METaz

### Arizona Statewide Daily COVID-19 Cases by Date of Sample Collection (Epi Curve)



ASU METAz

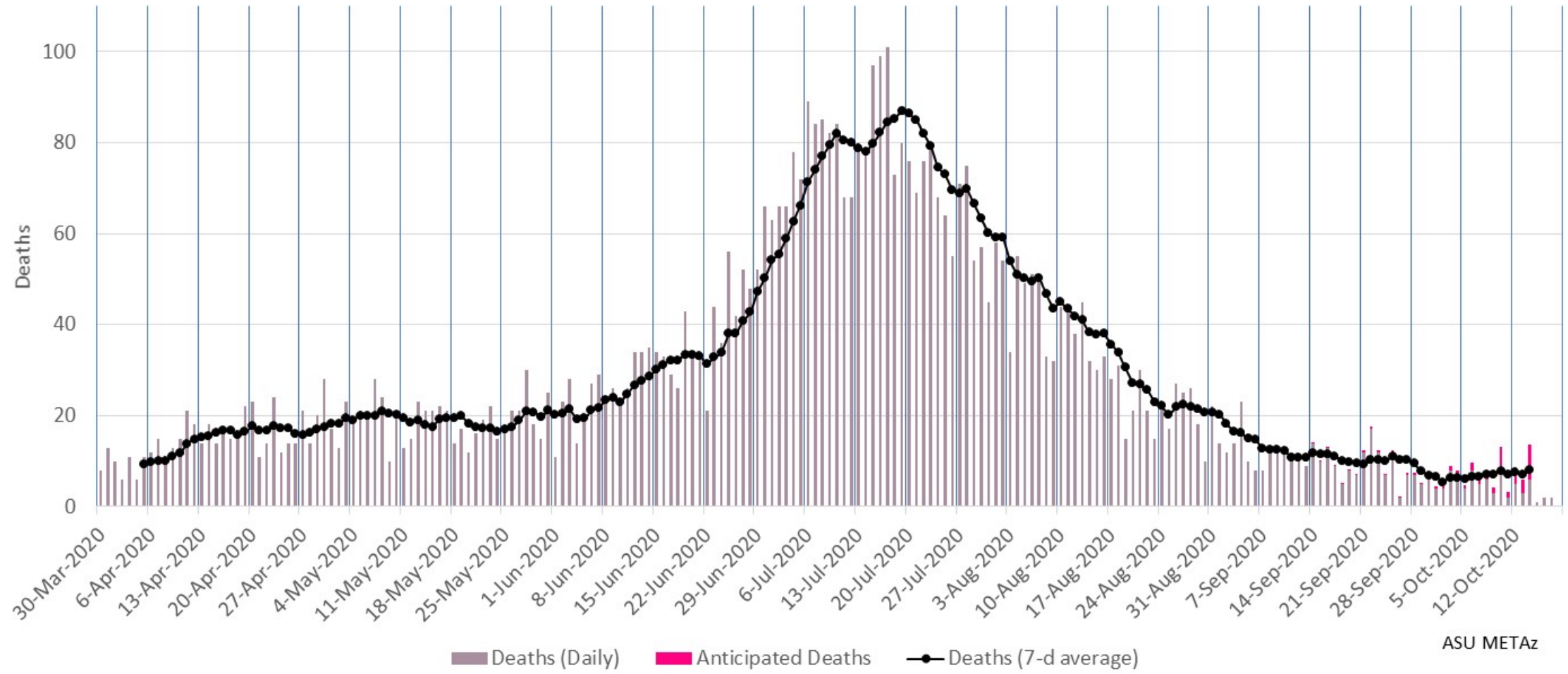
## Arizona Statewide Daily COVID-19 Hospitalizations by Date of Hospitalization (Epi Curve)



ASU METAz

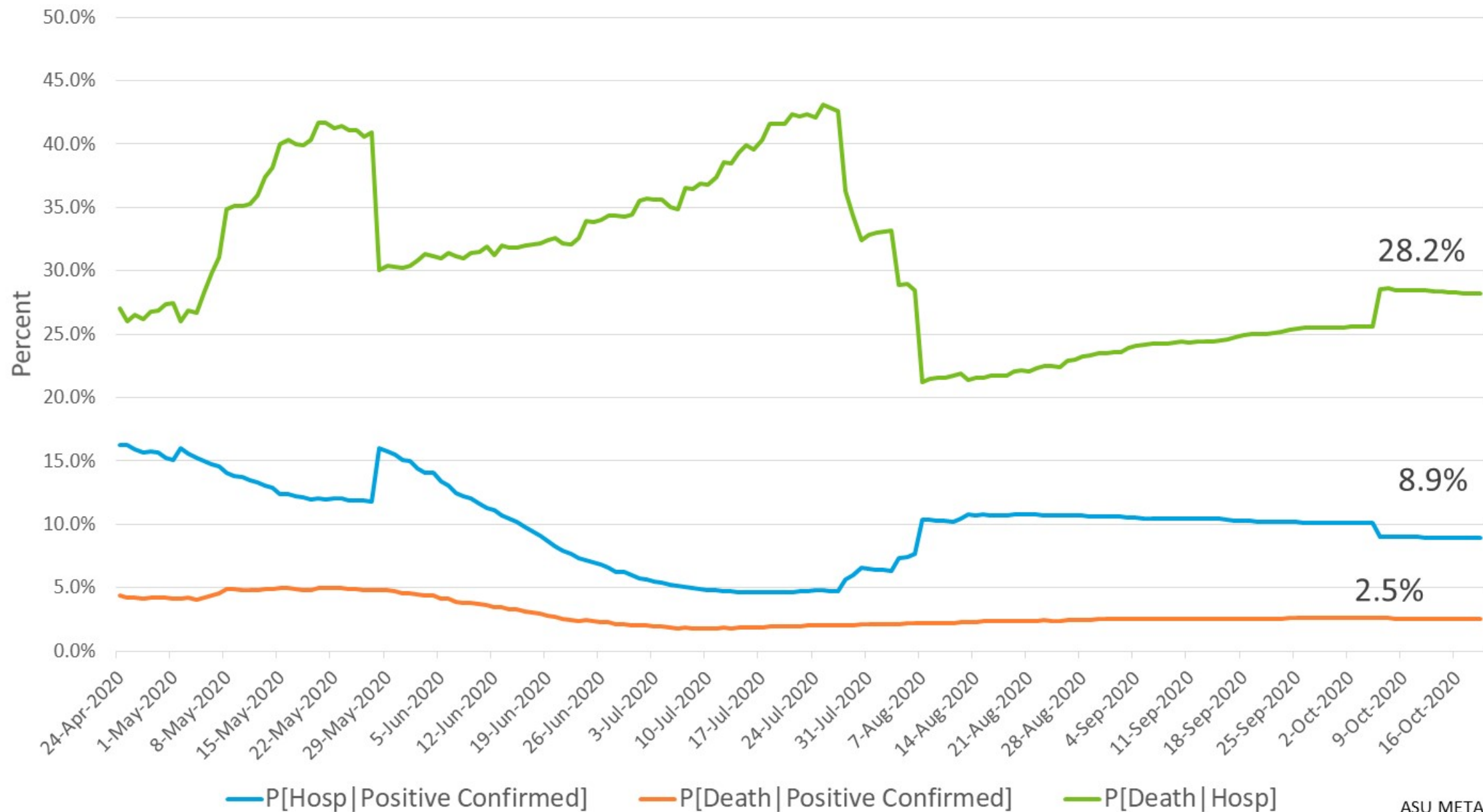


### Arizona Statewide Daily COVID-19 Deaths by Date of Death (Epi Curve)



ASU METAz

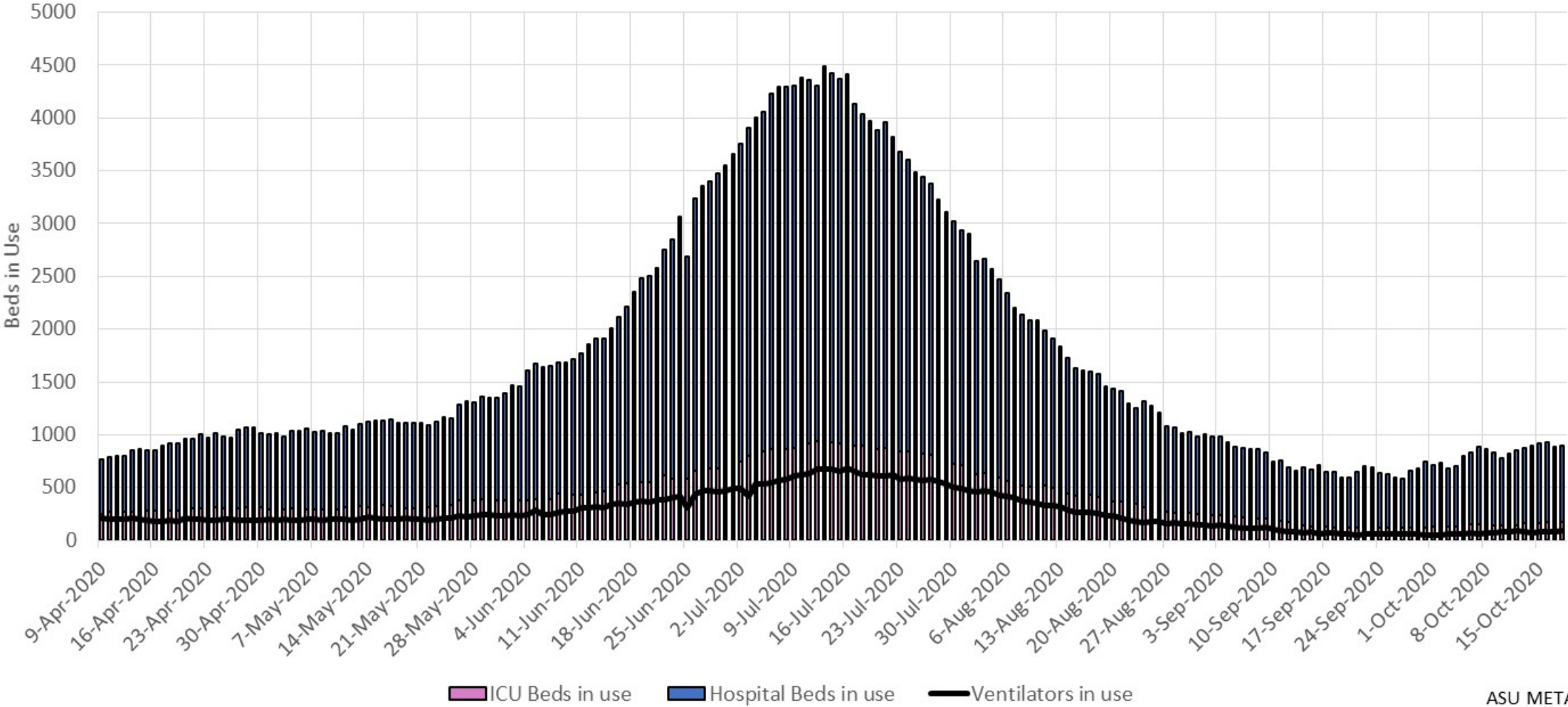
# Arizona Statewide Case Fatality and Hospitalization Rates



# Hospital Usage

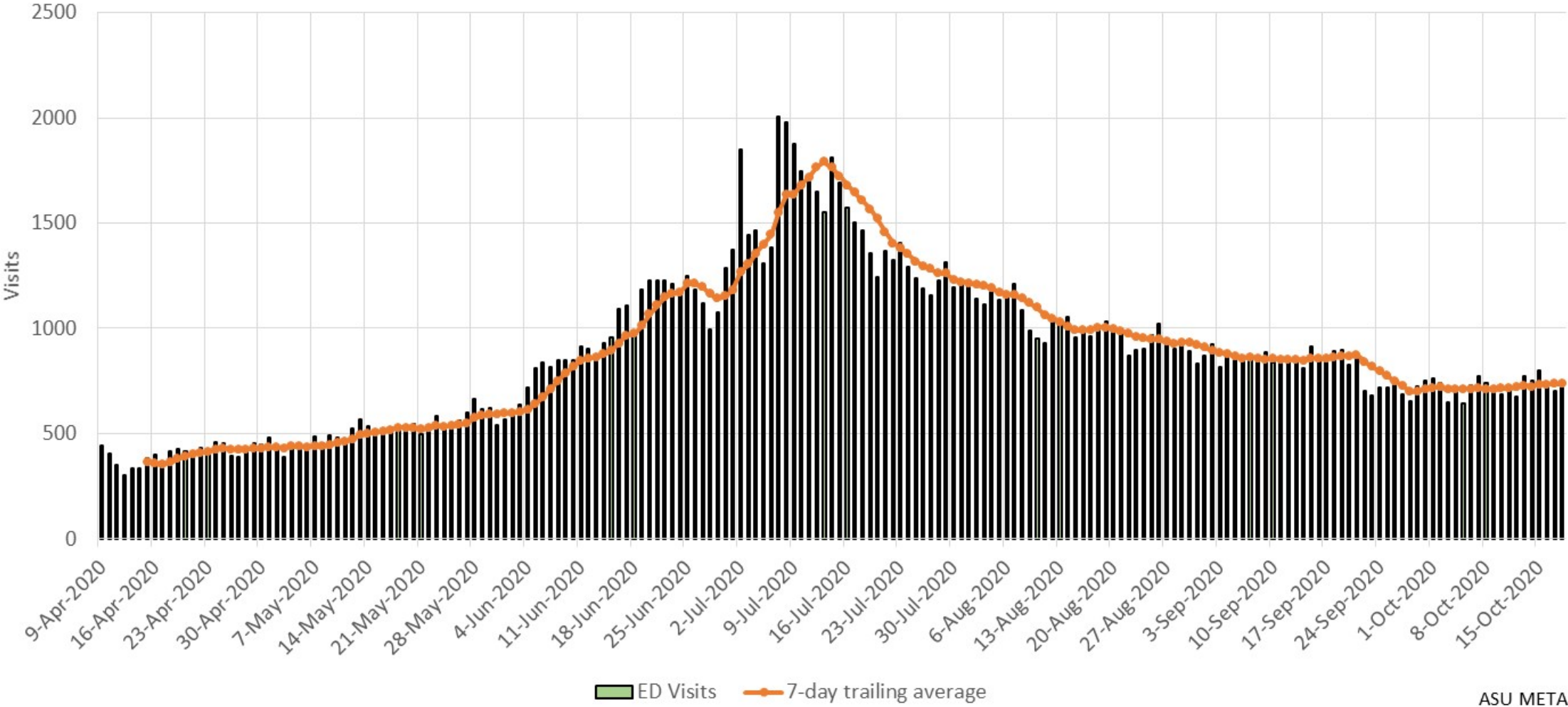


# Arizona Statewide COVID-19 Hospital Resource Utilization



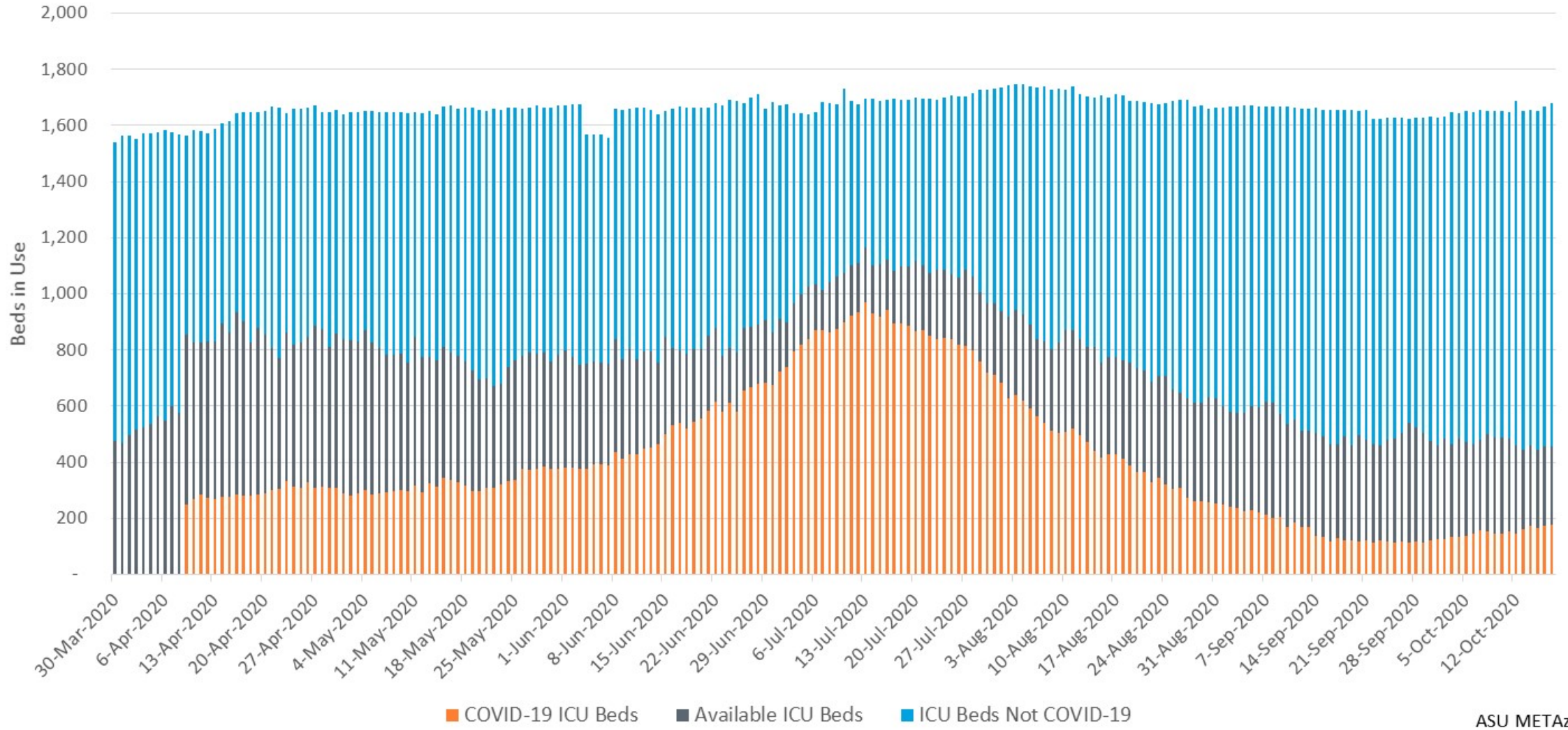
ASU METAz

### Arizona Statewide COVID-19 Emergency Department Visits



ASU METAz

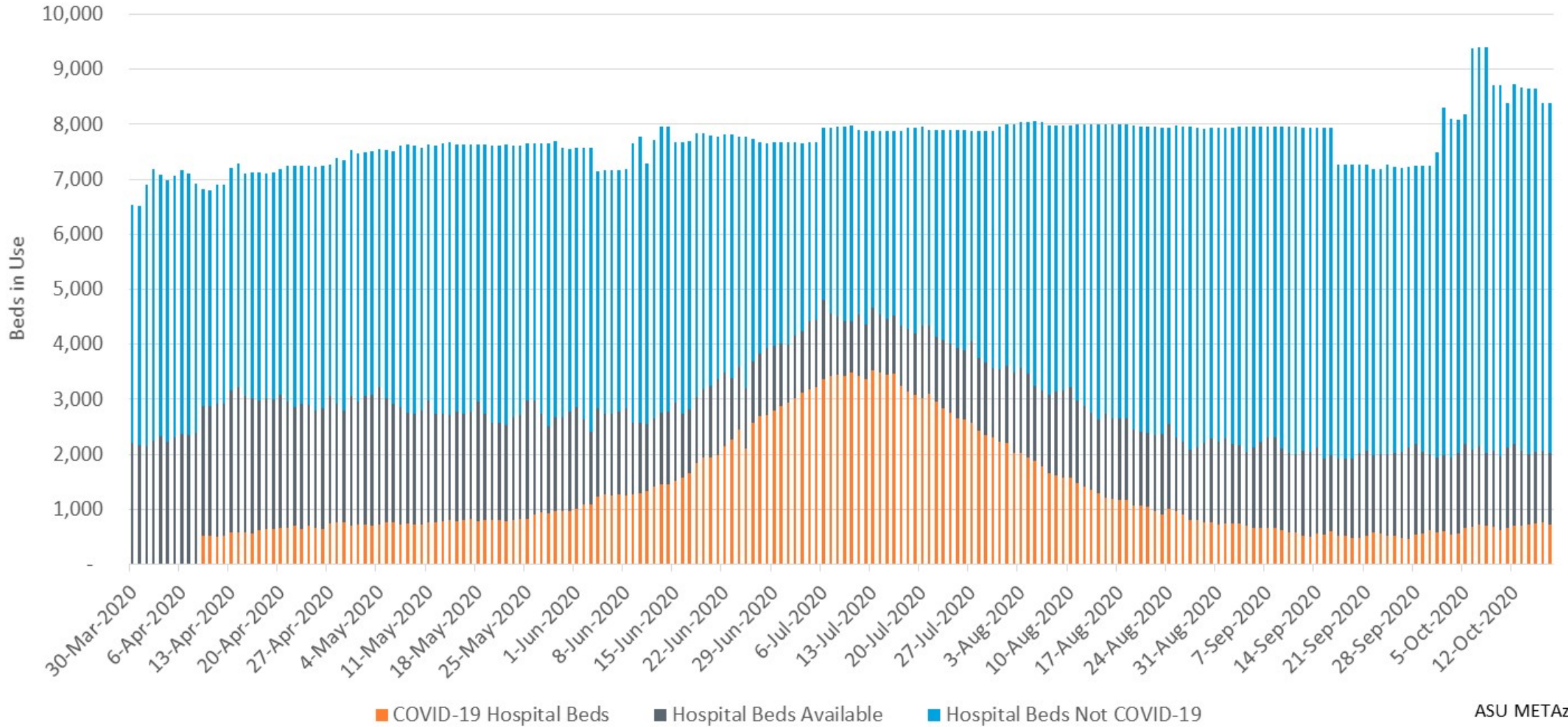
# Arizona Statewide ICU Bed Usage



ASU METAz



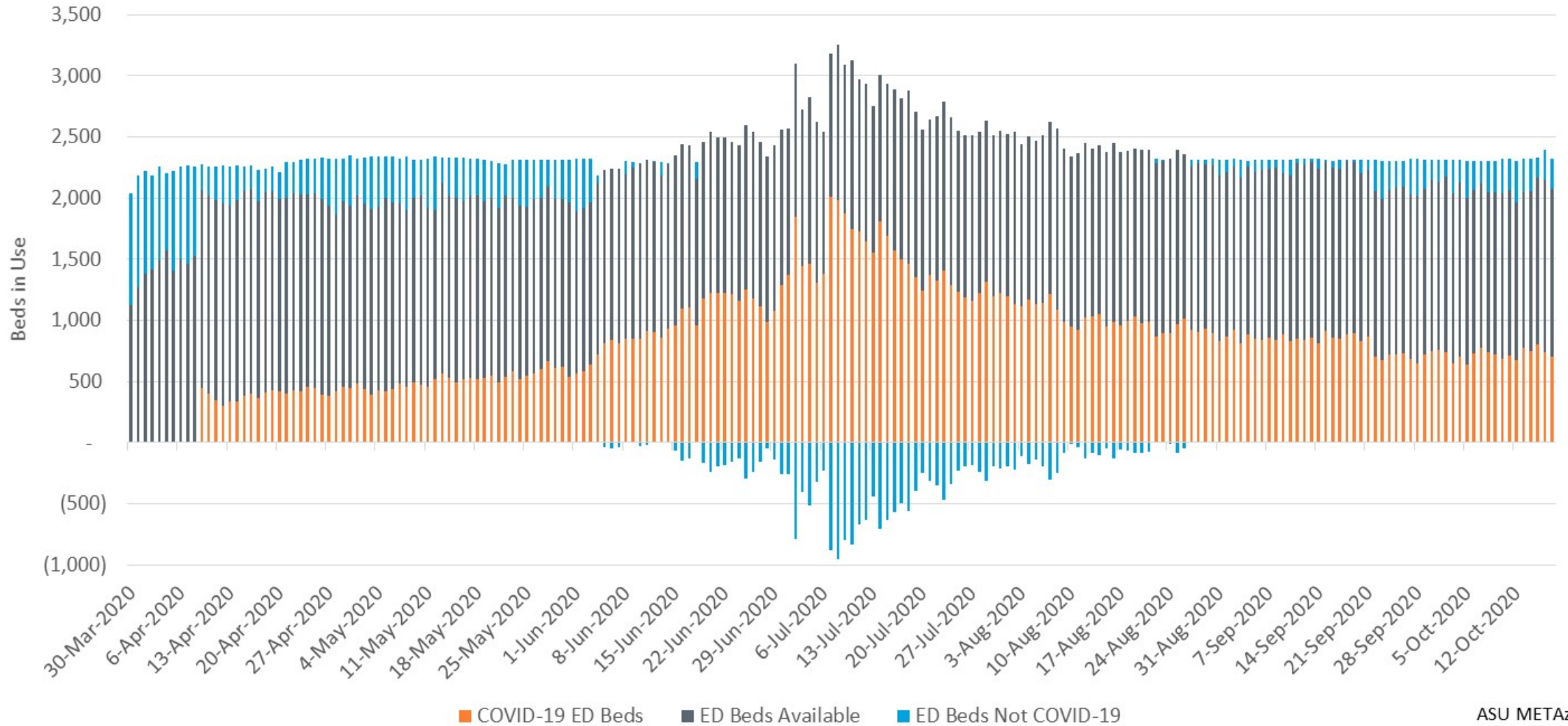
### Arizona Statewide Inpatient Bed Usage



ASU METAz



### Arizona Statewide ED Bed Usage



ASU METAz

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