



COVID Epidemiology Situation Update

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September 18, 2020

Summary

September 18, 2020				
	Statewide		Maricopa	
	Reported Today	Cumulative	Reported Today	Cumulative
Cases	1,282	212,942	194	139,245
PCR Tests	8,038	1,358,154	3,906	816,114
% Positive	15.9%	16.9%	5.0%	13.0%
Hospitalizations	44	21,865	25	14,340
Deaths	42	5,451	35	3,245

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

- Statewide case count (1281) is high compared to recent weeks. This number includes 466 cases reported before Sept 1, possibly from the state's new inclusion of antigen testing, as well as back-corrected case removals. 955 cases were reported since Sept 1.
- The statewide 7-day trailing average has increased to 665. The epi curve continues to rise.
- Maricopa County made major adjustments to the epidemiological curve today, reporting 2226 case additions (1009 from Sept 14-16) and removing 1891, including 605 cases on July 30 alone.
- Percent positivity is significantly higher statewide today (15.9%), possibly related to back-reporting of positive antigen tests.
- Percent positivity in Maricopa County is 5%, indicating better testing volumes than statewide.
- ED utilization is stable at rates similar to mid-June.
- Hospital fatality rates continue to rise in the setting of stable inpatient hospital utilization (similar volumes to early April). Overall case fatality rates also continue to rise slowly.

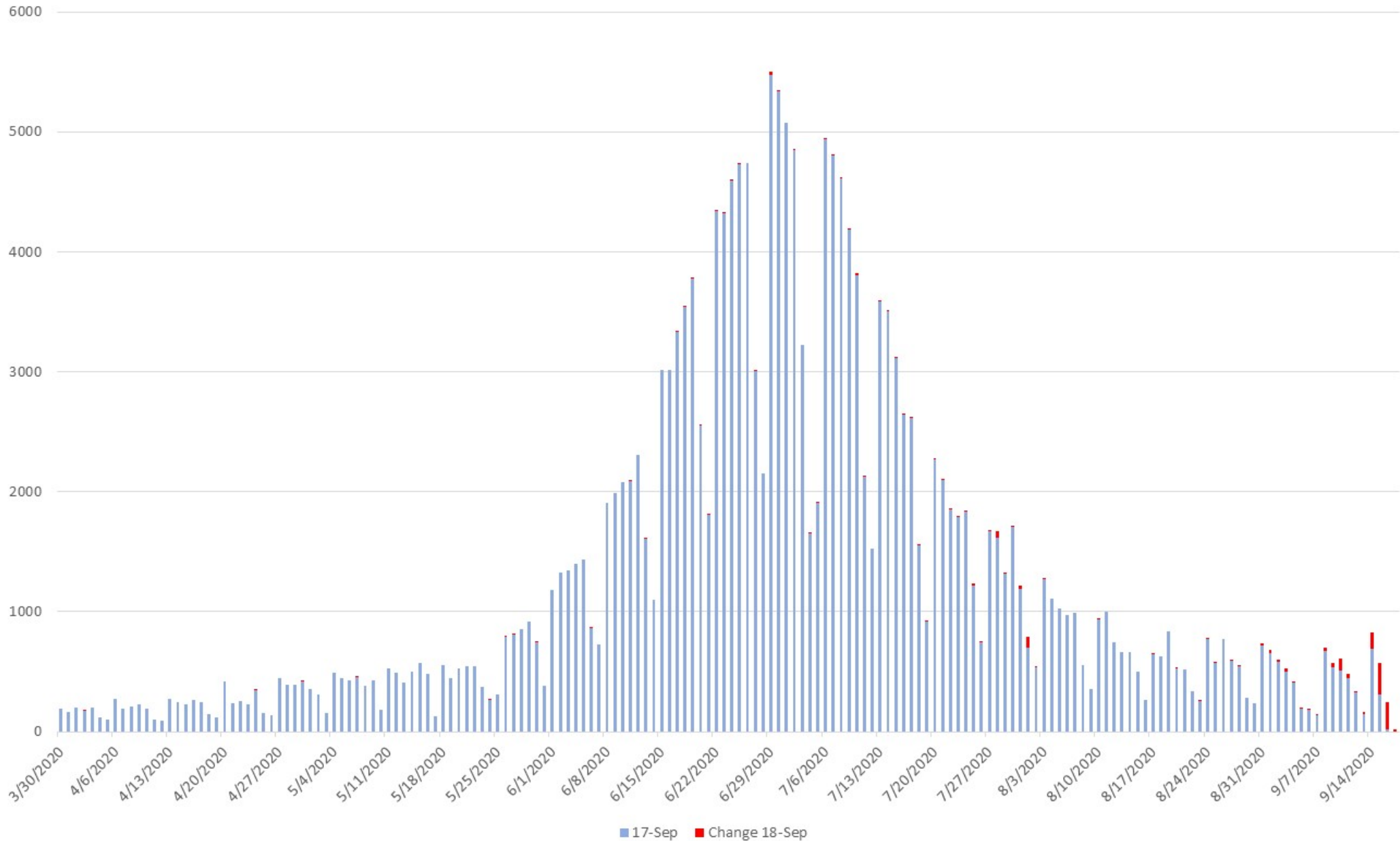
Antigen Testing in Arizona

- This week (9/17) ADHS announced that the state will begin including antigen testing in case counts. 577 antigen tests were added to the epidemiological curve on 9/17; ADHS reported that these were primarily from Pima County. ADHS stated there will be more additions in coming days.
- As the data become available, we will provide more detailed analysis of the impact of antigen testing on the epi curves for Arizona and Maricopa County.
- Currently, ADHS does not differentiate antigen testing from PCR testing in diagnostic case reporting. We are investigating whether we can access these differential data to provide a more complete picture.
- Antigen tests are rapid, point-of-care diagnostics. They are generally less sensitive than PCR testing (84.0%-97.6% compared to RT-PCR) with similar specificity to PCR testing, but return results much more quickly (i.e. 15-30 minutes).
- The first antigen tests received FDA emergency use authorization (EUA) in August. PCR is still considered the gold standard for COVID-19 diagnostic testing.
- ADHS press release: <https://directorsblog.health.azdhs.gov/covid-19-antigen-tests/>
- CDC Guidance on Antigen Testing: <https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html>

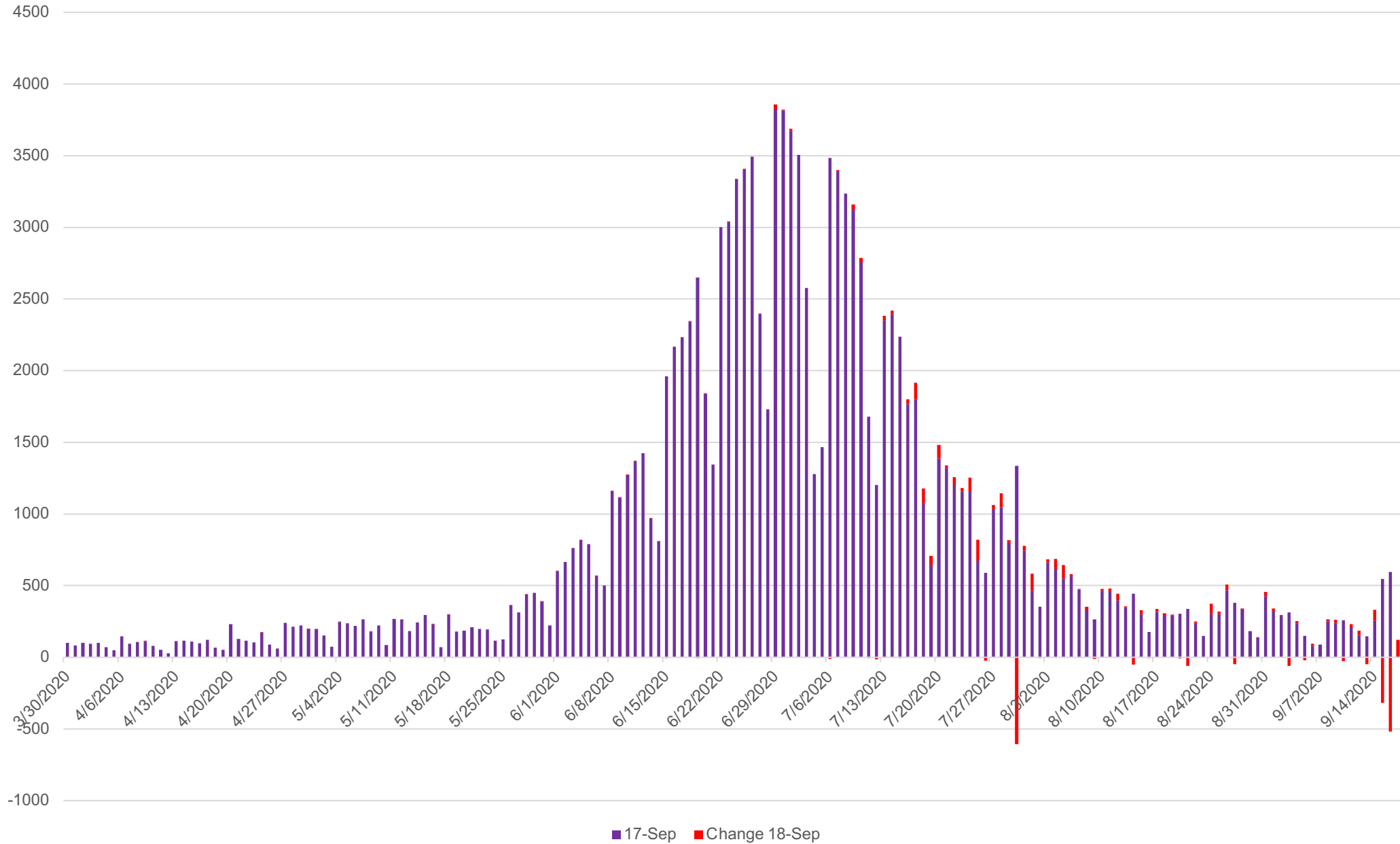
Case Addition Analysis



Cases Added Sept 18



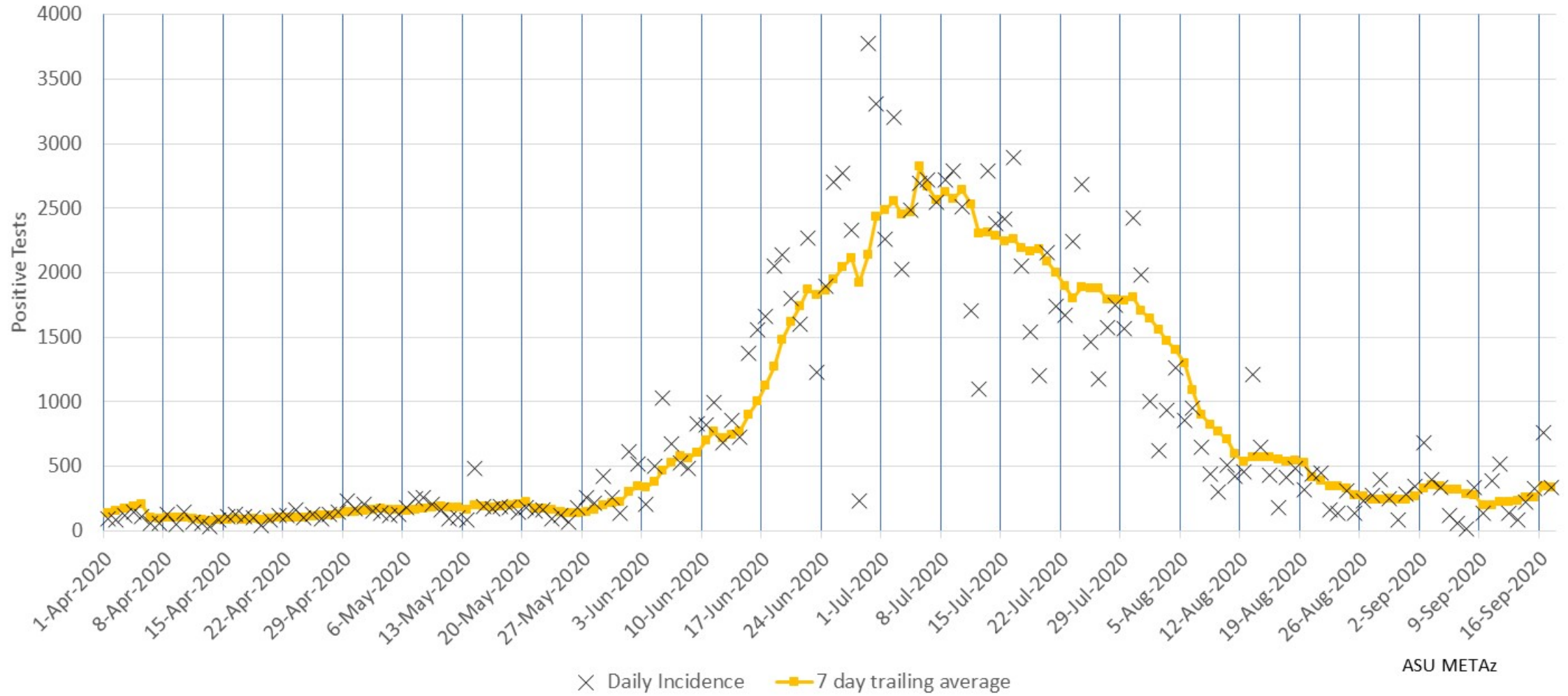
Case Change Sept 18



Maricopa County Analysis

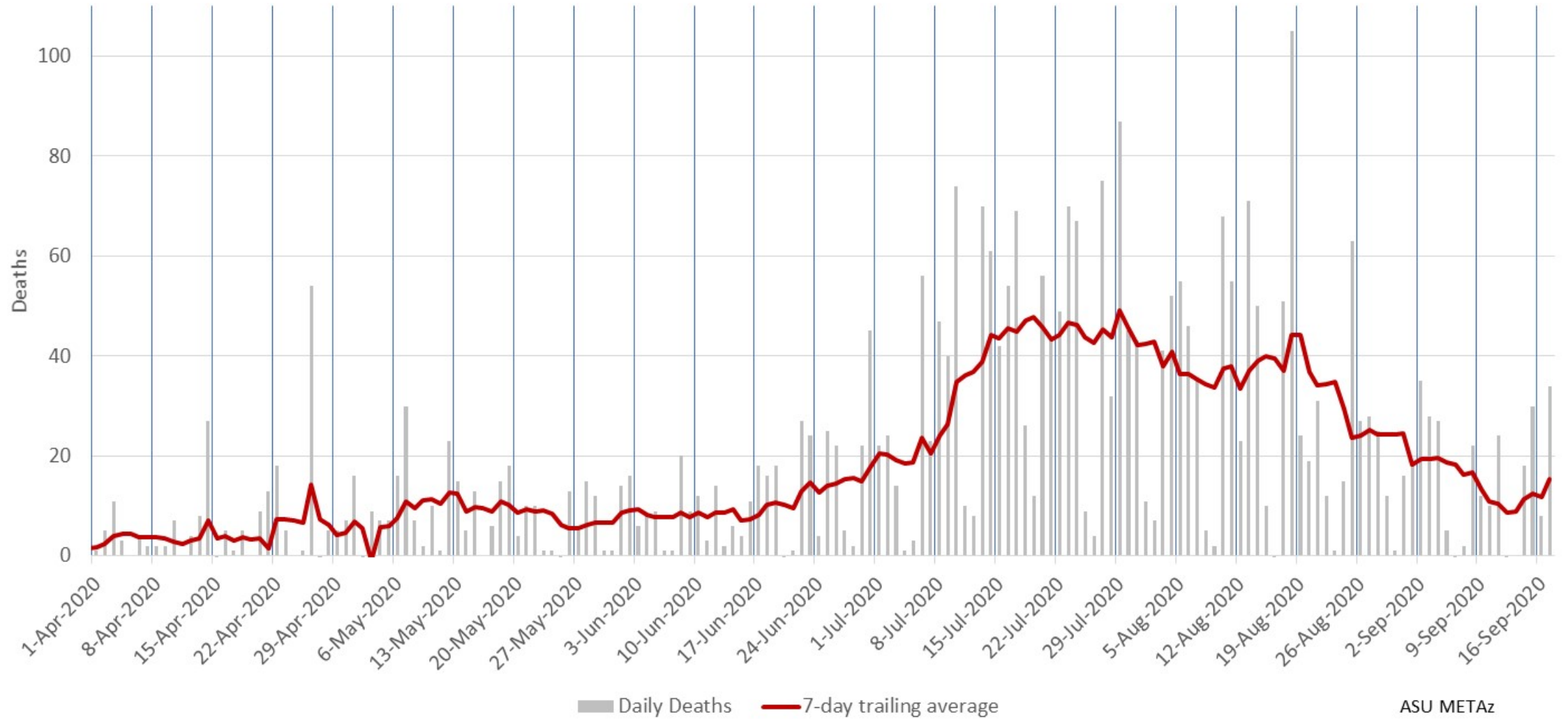


Maricopa County Daily COVID-19 Positive Tests Results Reported (confirmed incidence)



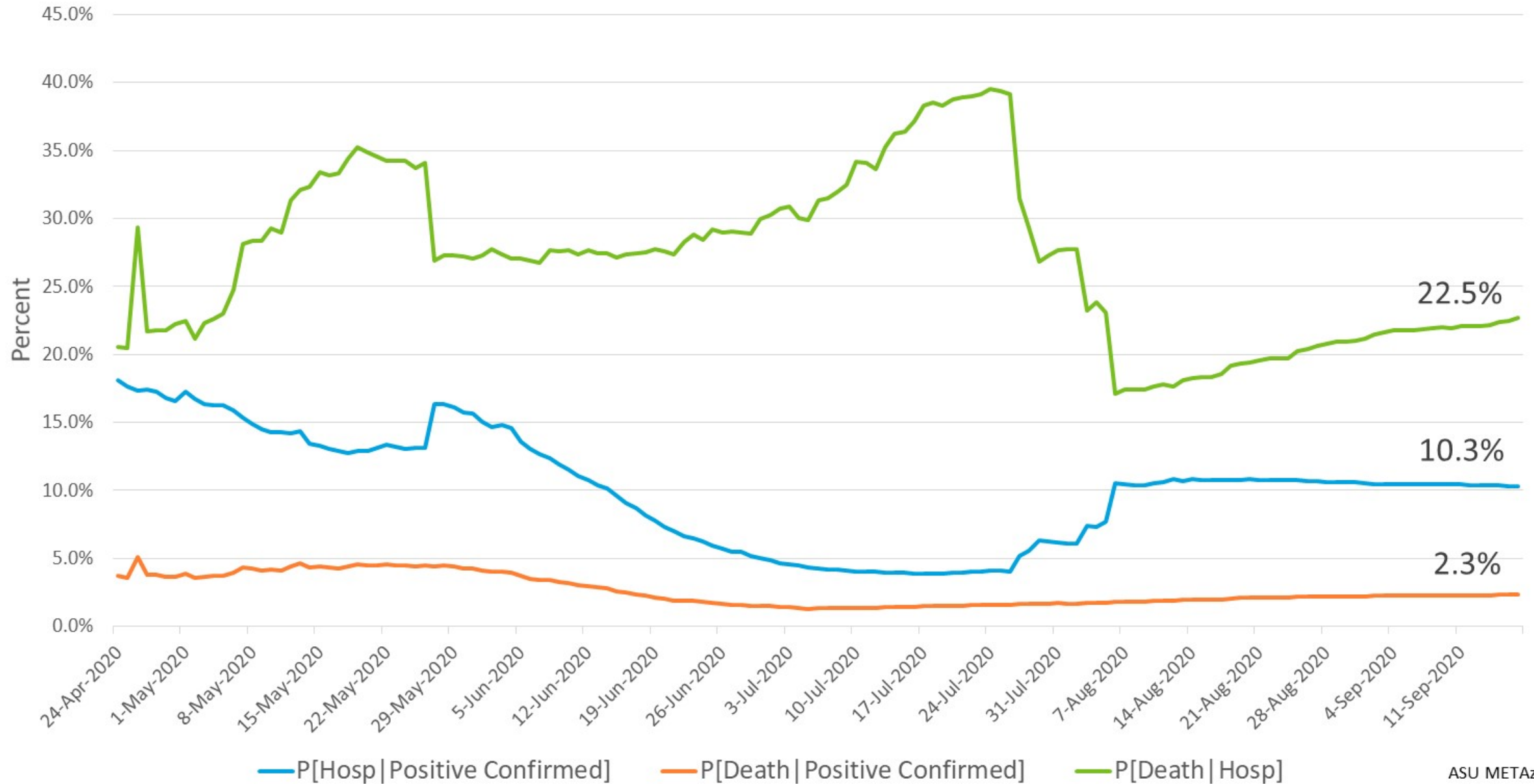
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Maricopa County Daily COVID-19 Deaths (by date of reporting)

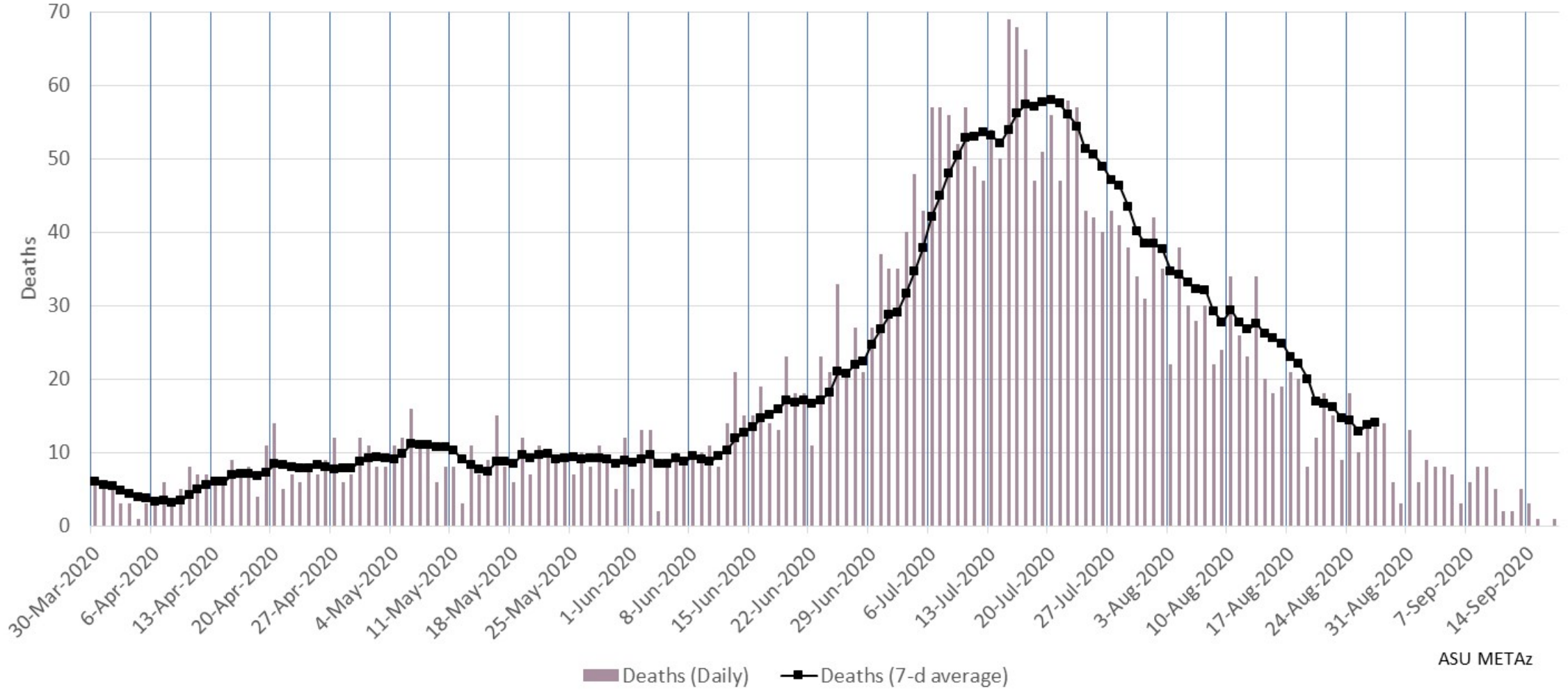


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Maricopa County Case Fatality and Hospitalization Rates

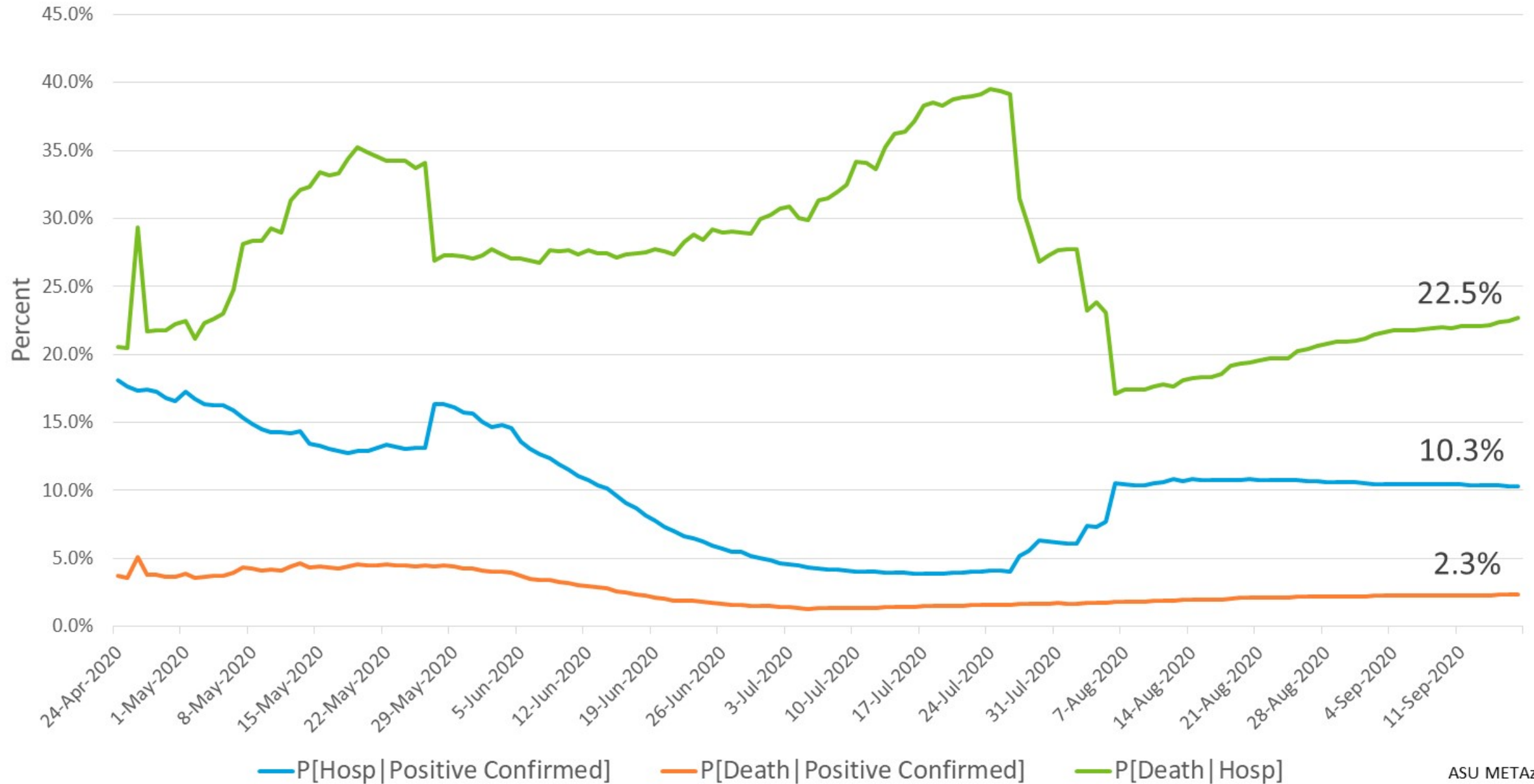


Maricopa County Daily COVID-19 Deaths by Date of Death (Epi Curve)



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Maricopa County Case Fatality and Hospitalization Rates



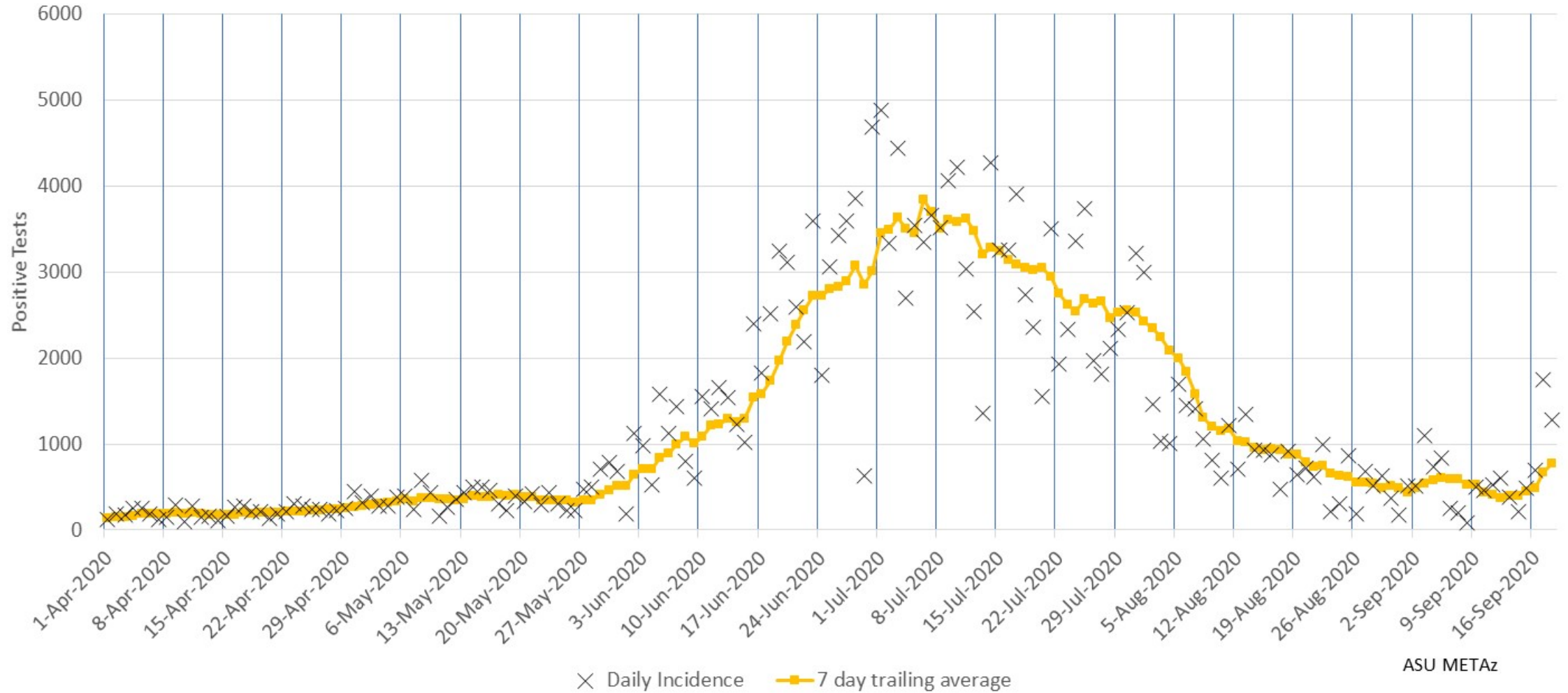
Arizona Statewide Analysis



Epidemiology

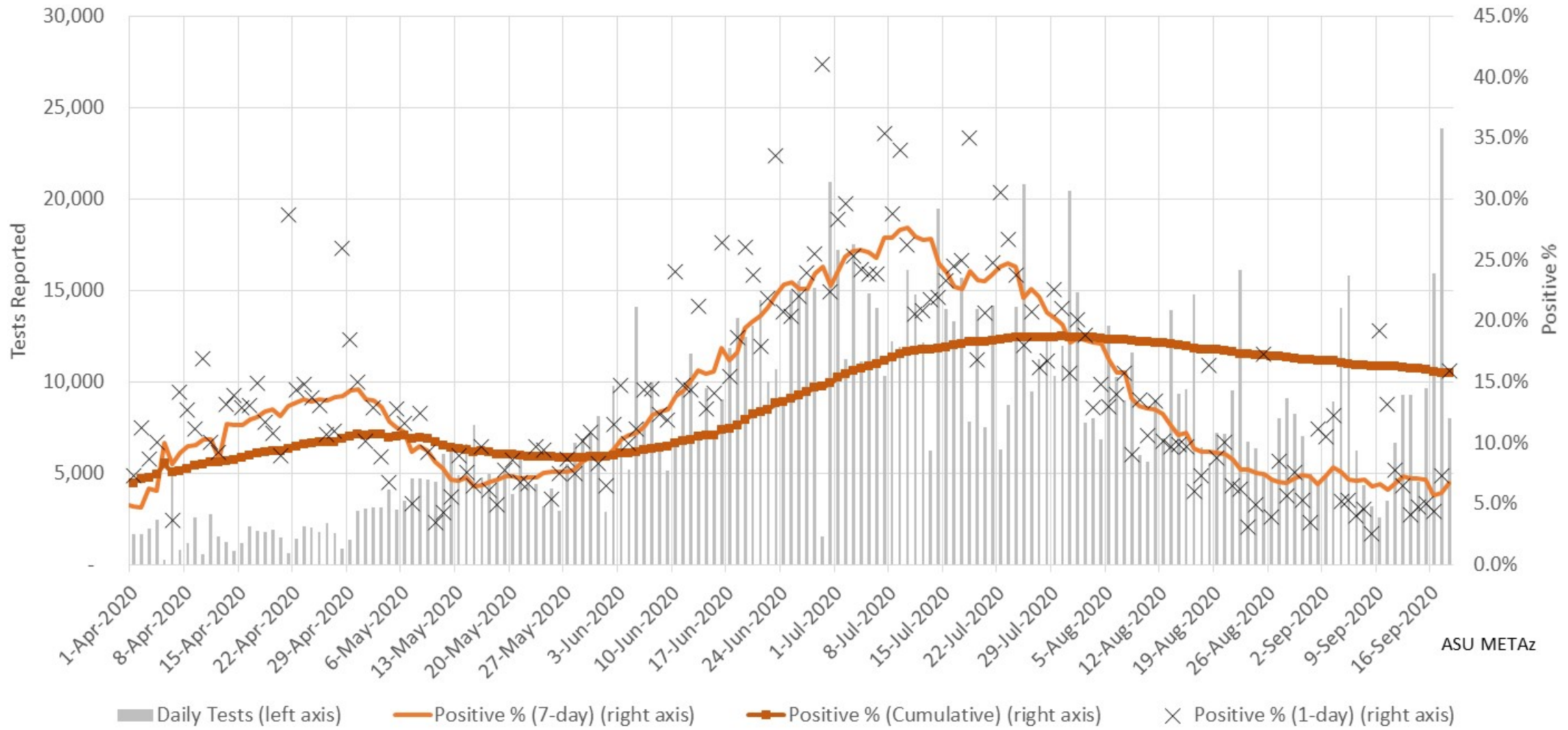


Arizona Statewide Daily COVID-19 Positive Tests Results Reported (confirmed incidence)



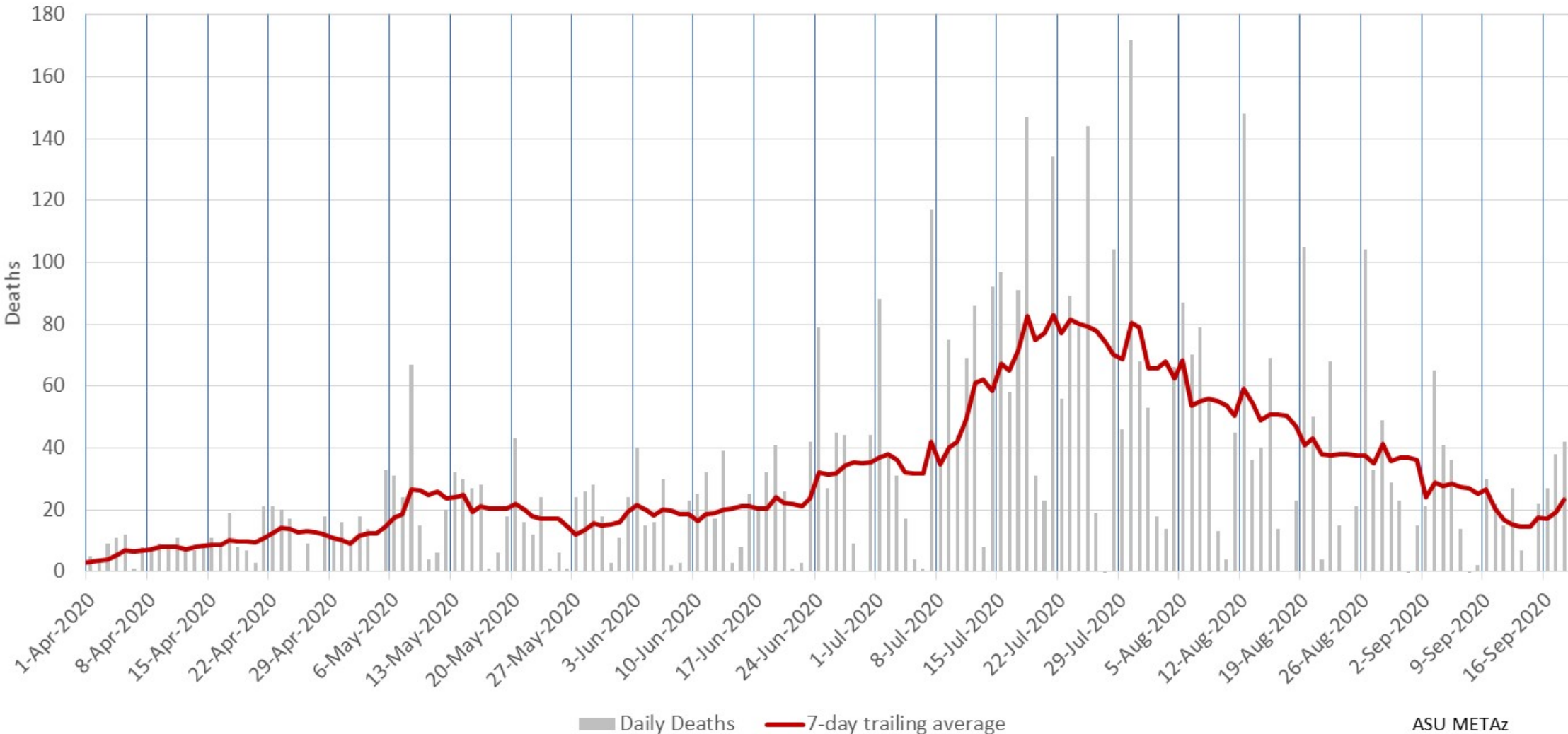
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Arizona Statewide Rolling weekly positive COVID-19 test rate



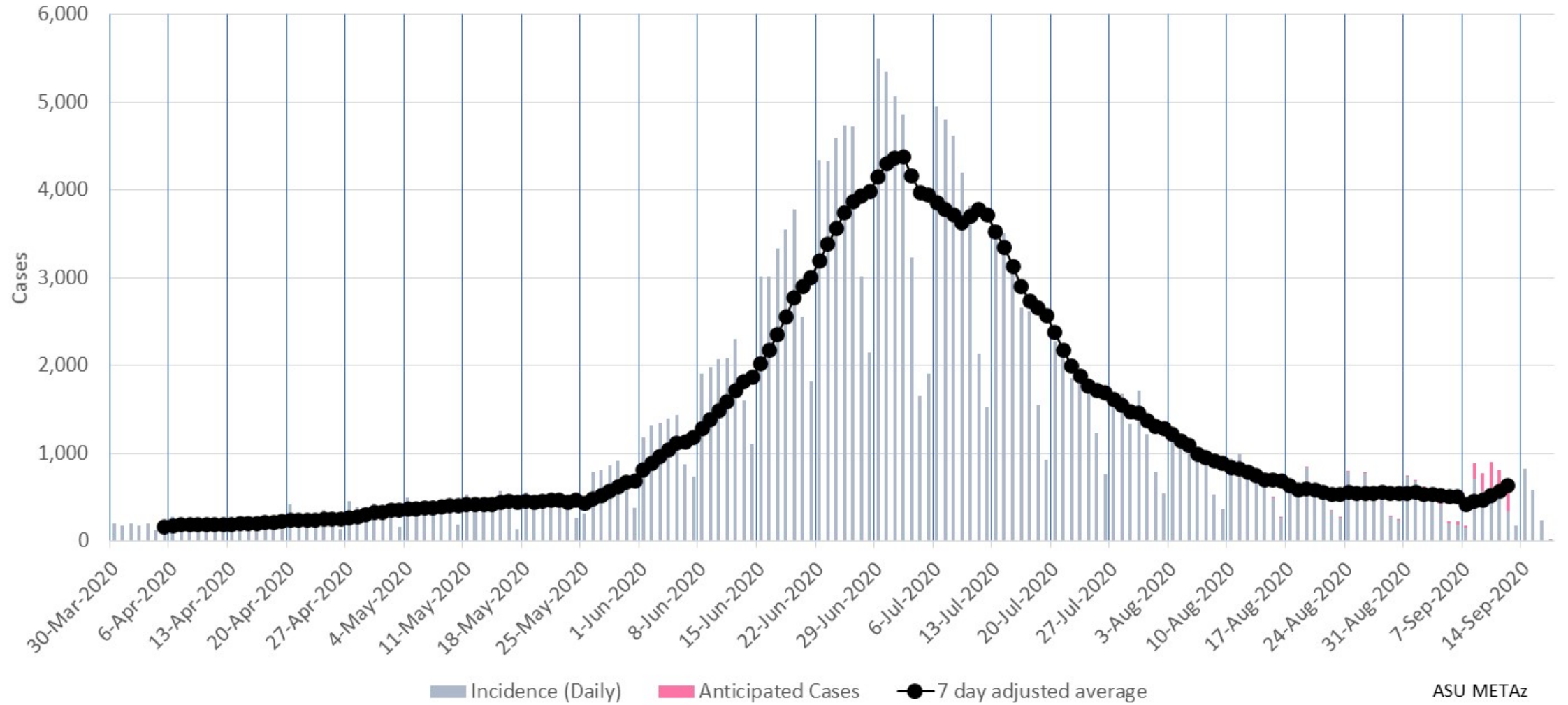
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Arizona Statewide Daily COVID-19 Deaths (by date of reporting)



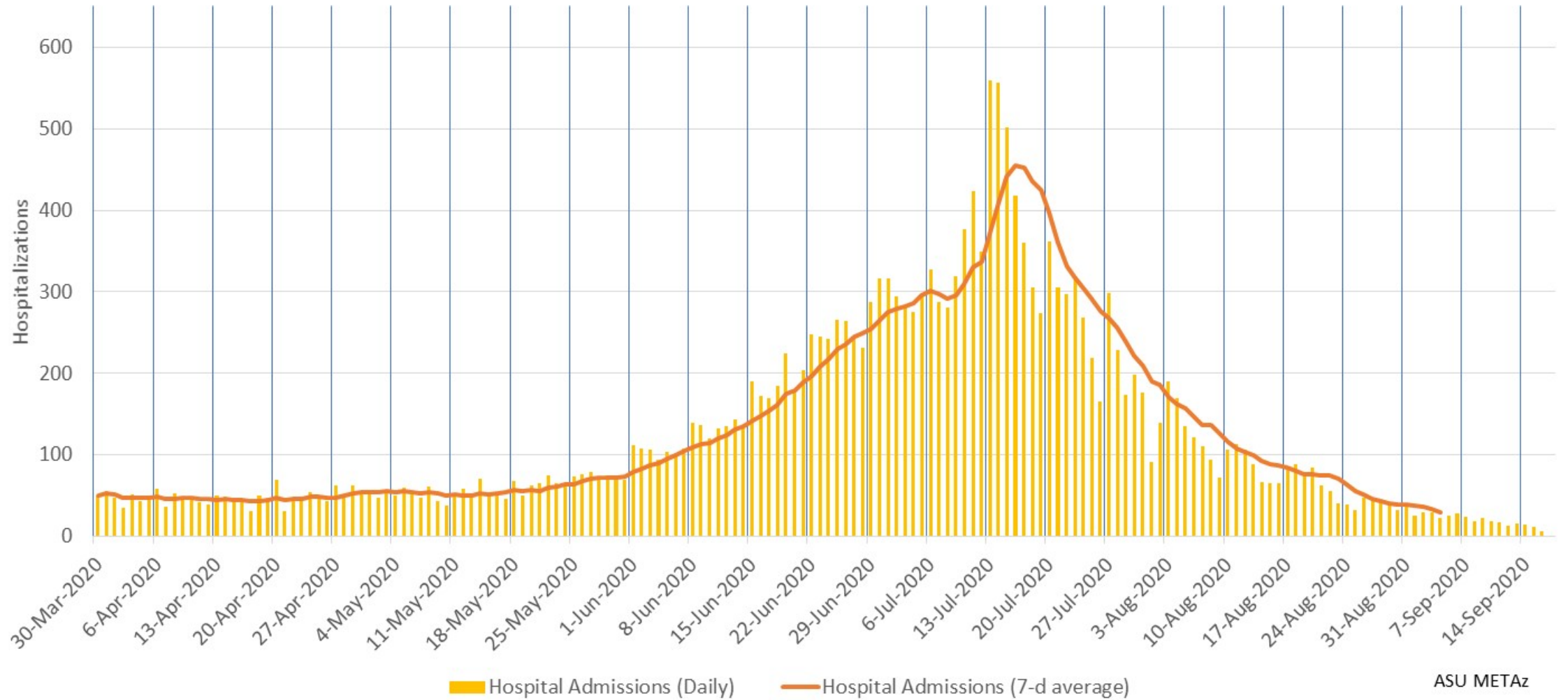
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Arizona Statewide Daily COVID-19 Cases by Date of Sample Collection (Epi Curve)



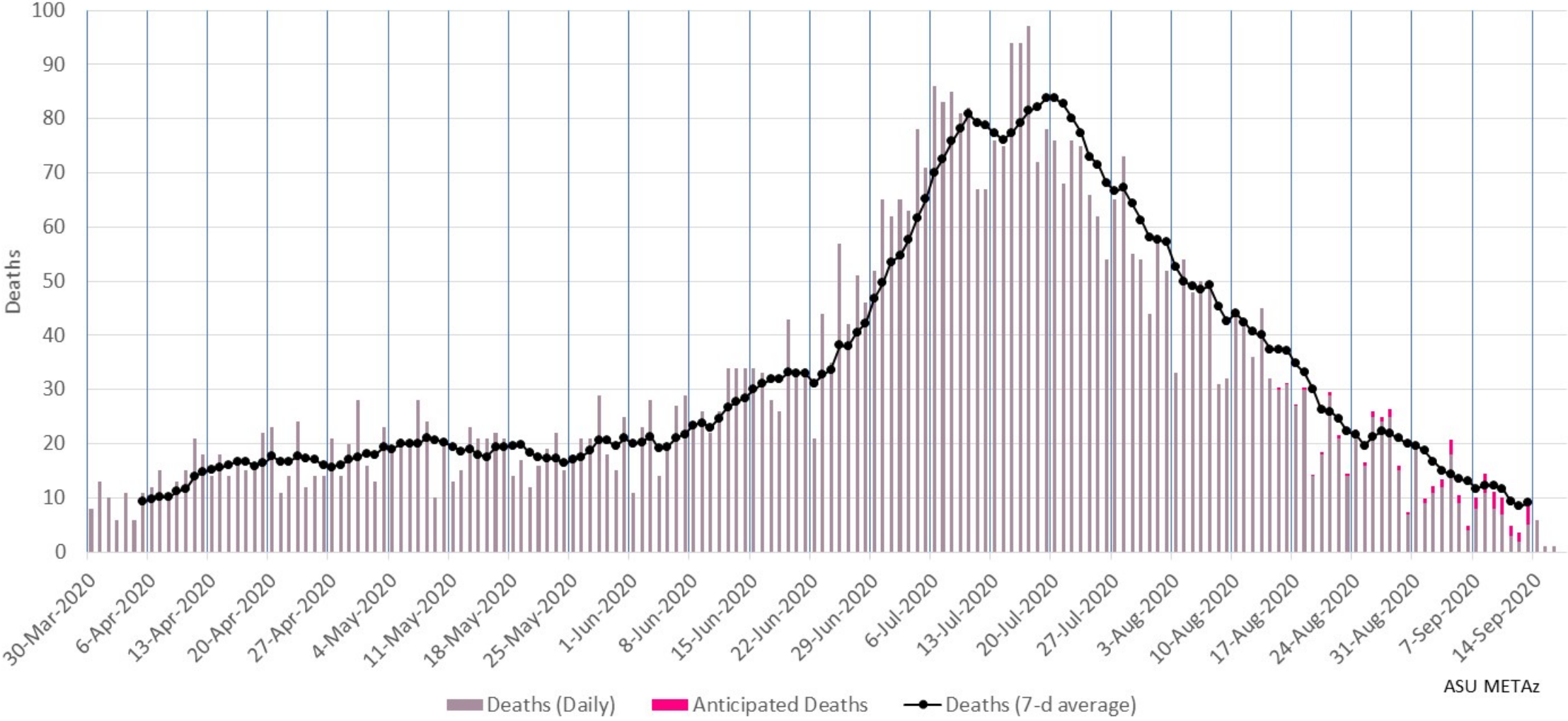
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Arizona Statewide Daily COVID-19 Hospitalizations by Date of Hospitalization (Epi Curve)



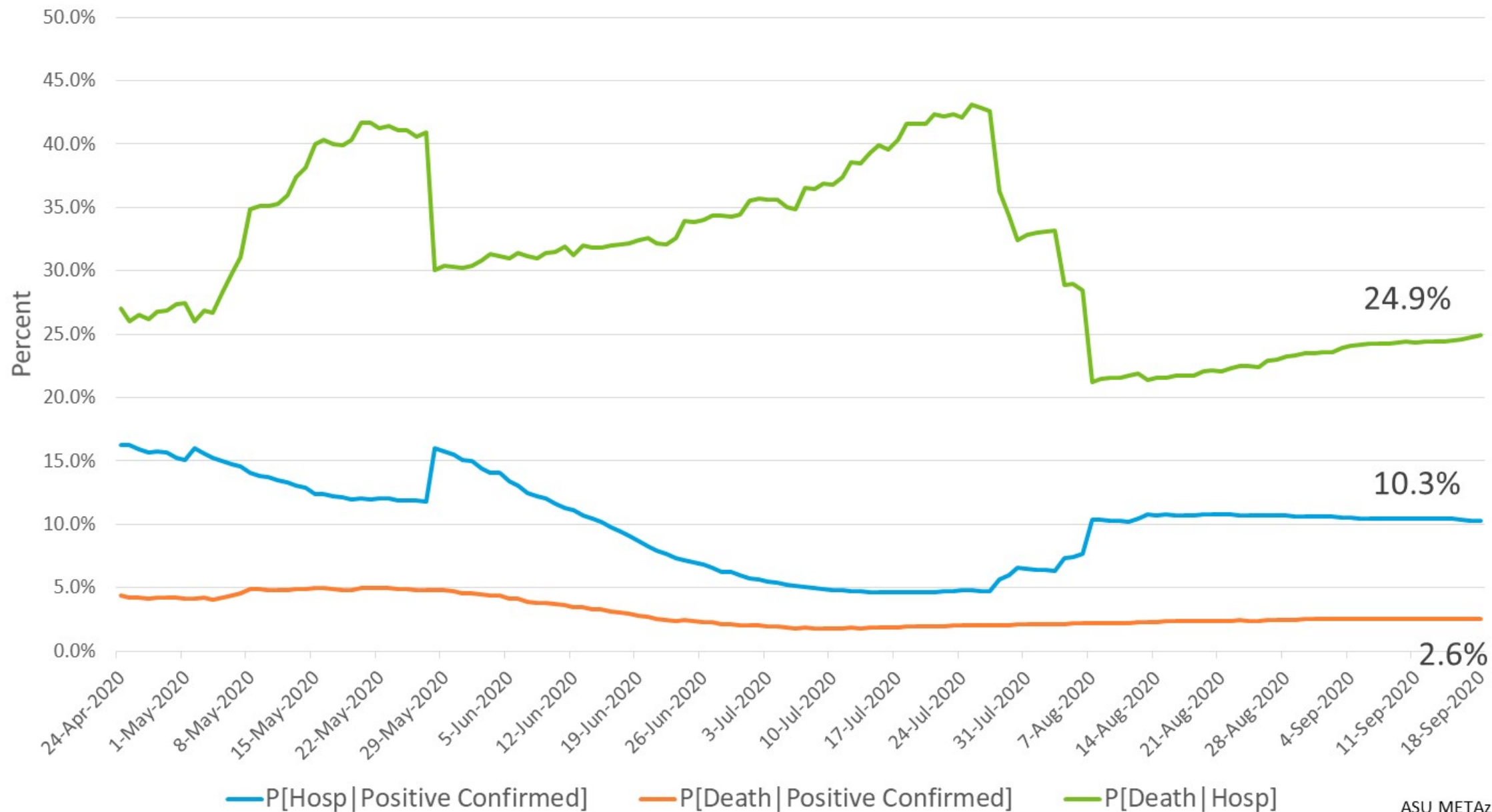
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Arizona Statewide Daily COVID-19 Deaths by Date of Death (Epi Curve)



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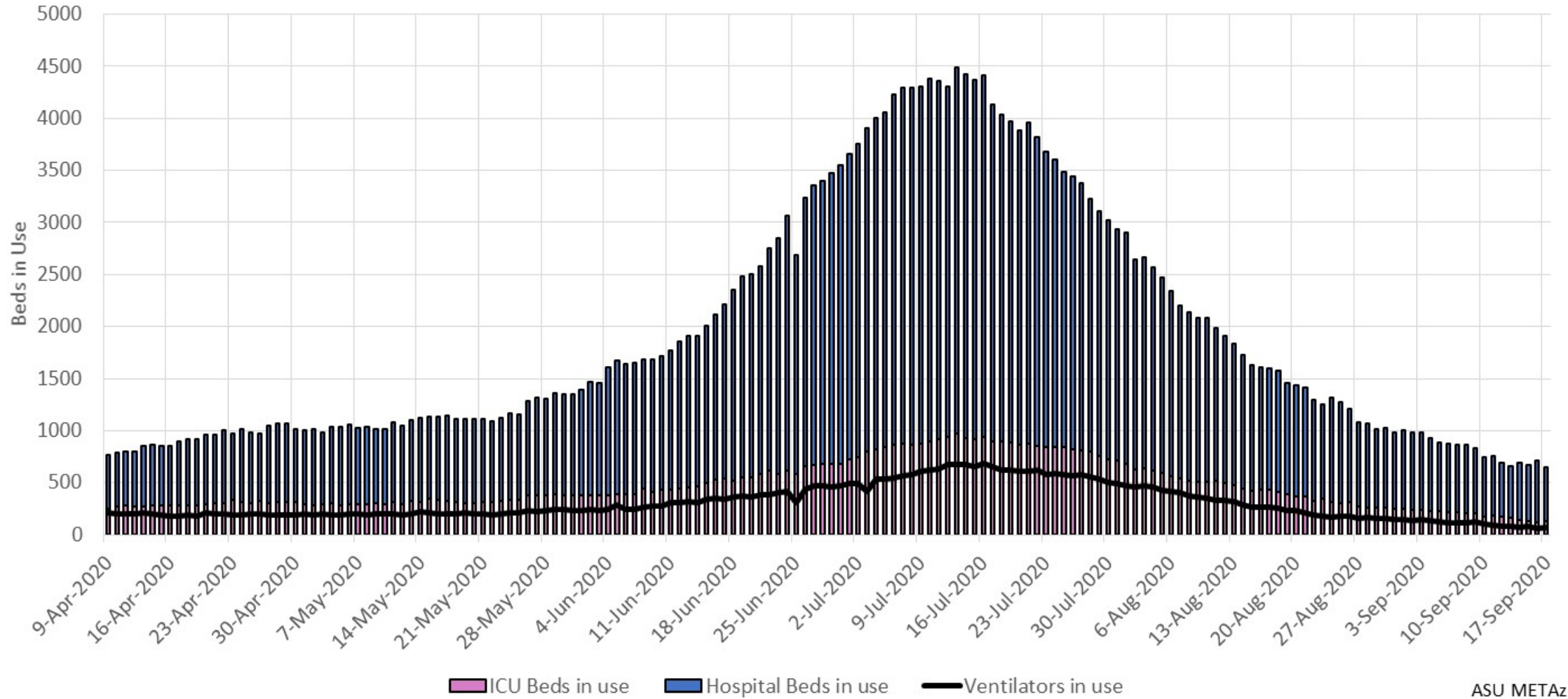
Arizona Statewide Case Fatality and Hospitalization Rates



Hospital Usage

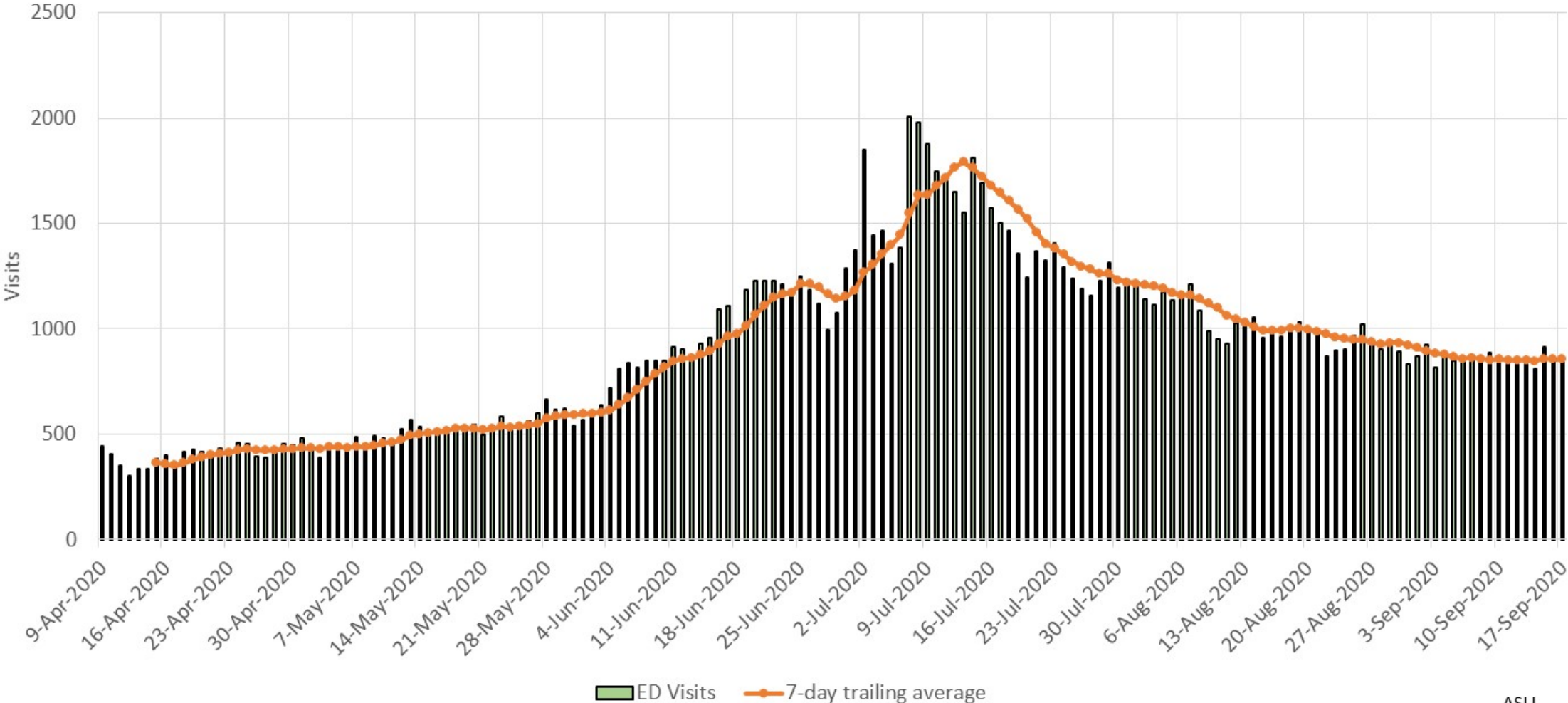


Arizona Statewide COVID-19 Hospital Resource Utilization



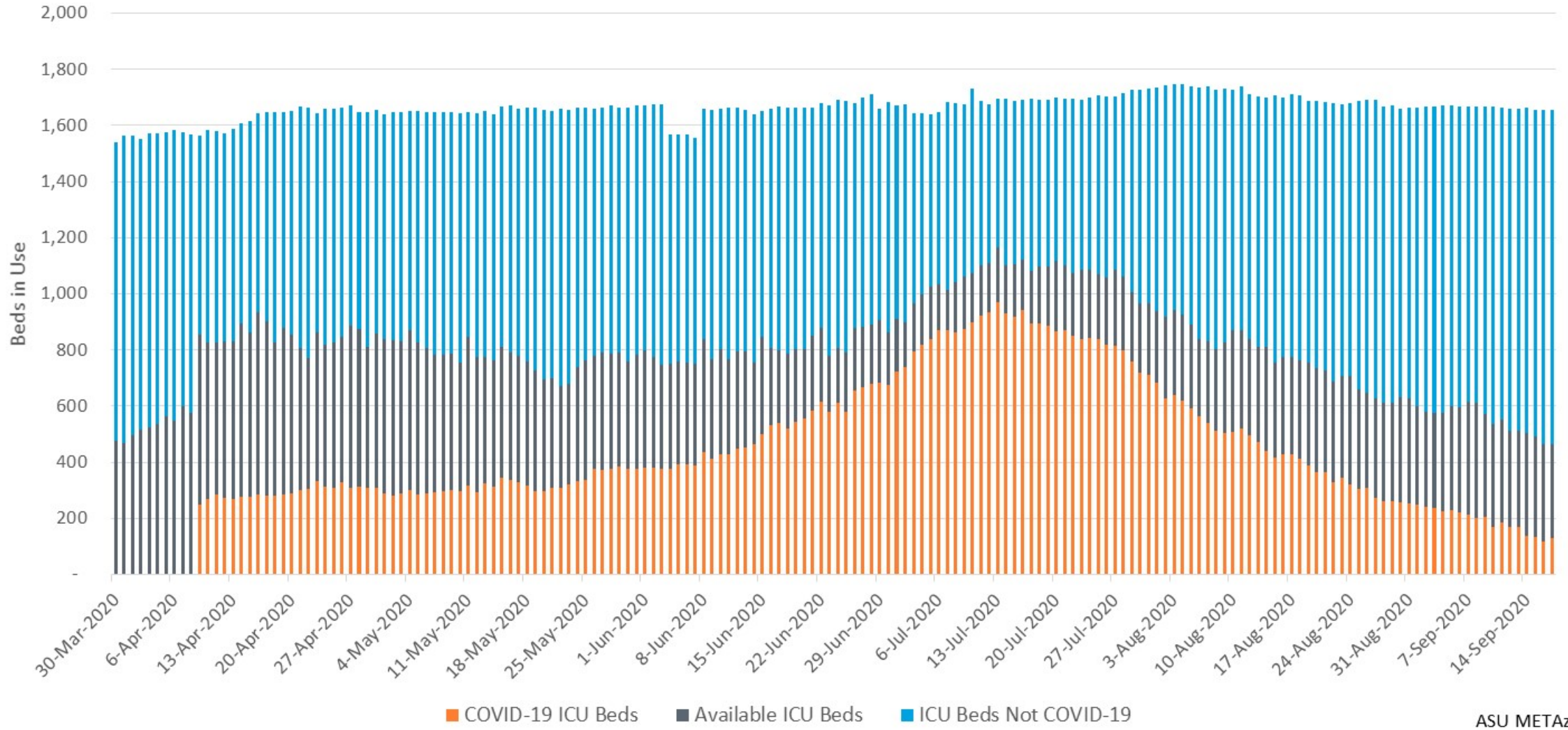
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Arizona Statewide COVID-19 Emergency Department Visits



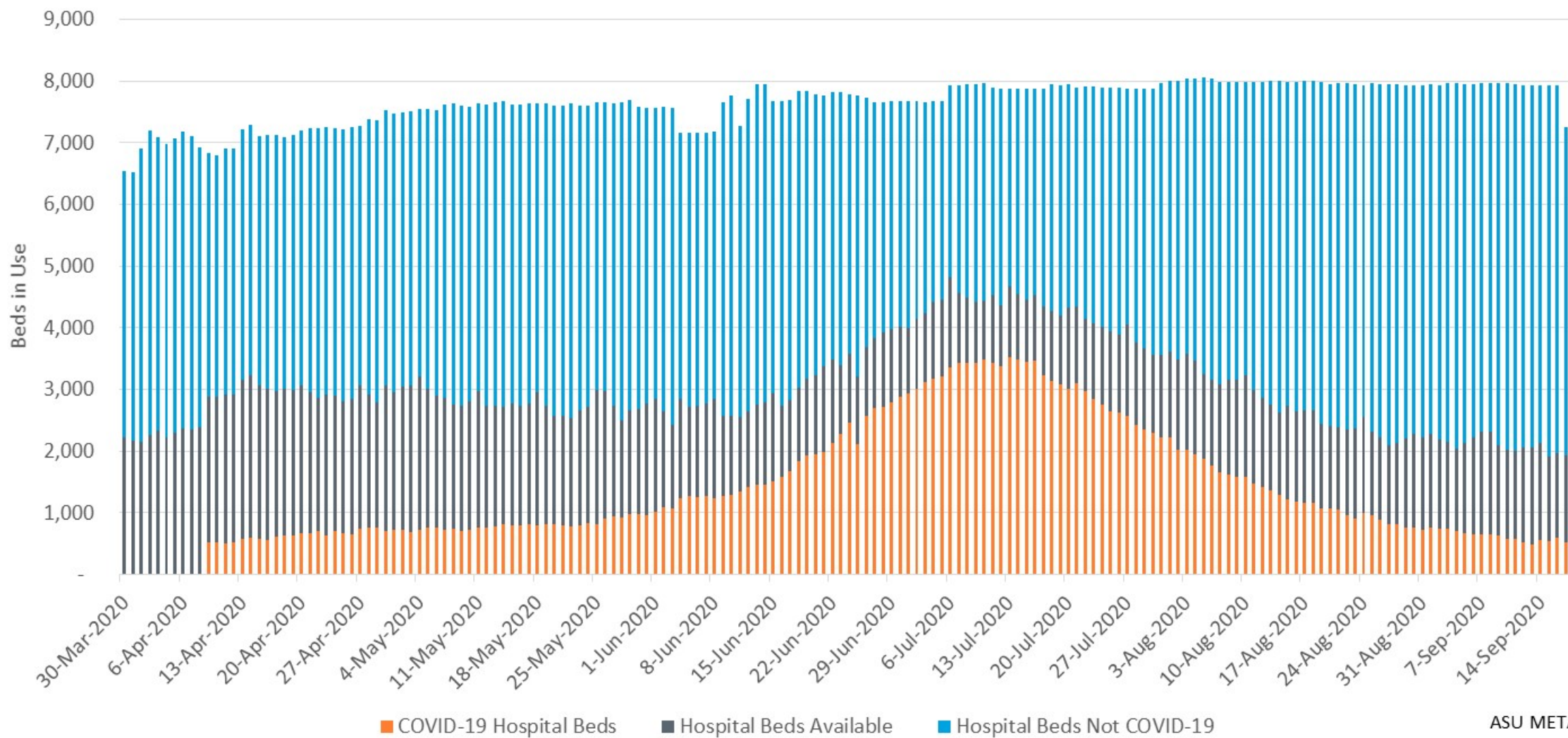
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Arizona Statewide ICU Bed Usage



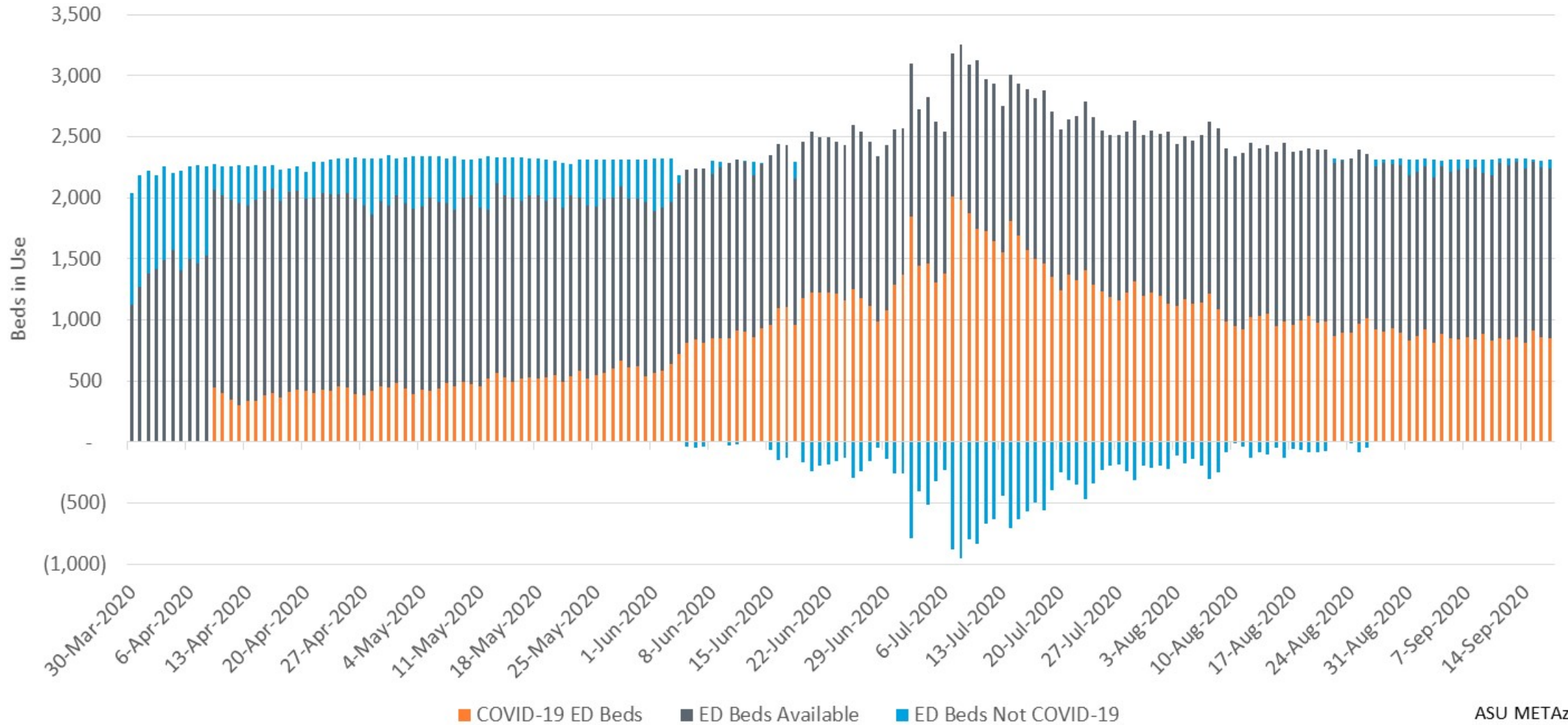
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Arizona Statewide Inpatient Bed Usage



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Arizona Statewide ED Bed Usage



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