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Trends in outpatient emergency department census during the COVID-19 pandemic at a California health system



### To the Editors,

We have read the article entitled: "Trends in outpatient emergency department visits during the COVID-19 pandemic at a large, urban, academic hospital system" by Giannouchos TV, Biskupiak J, Moss MJ, Brixner D, Andreyeva E, and Ukert B, published in the American Journal of Emergency Medicine, Volume 40, Page 20-26, February 2021 [1]. We would like to congratulate the authors for presenting such detailed data and analysis.

In this study, the University of Utah Health Emergency Department had a total of 30,276 outpatient Emergency Department (ED) visits in 2020 (January to August) and 32,937 outpatient ED visits in 2019 (January to August), a decrease of 8.1%. The authors noticed a significant decrease in outpatient ED visits in April (-30.4%) and from May to August (-12.8%) 2020 when compared to the same periods in 2019. The authors attributed this drop to patients' concerns about contracting COVID-19 leading them to defer less urgent medical needs. Interestingly, we have observed a similar trend in our hospital system.

AHMC HealthSystem (AHMC) is a network of 10 community hospitals in California, predominantly serving Southern California. We retrieved total and outpatient ED visits from January 2019 to January 2021 using electronic health record data from six hospitals located in greater Los Angeles and Orange Counties representing approximately 1,400 hospital beds and 3,000 affiliated physicians. Our outpatient ED visits were defined as visits to the ED by patients who were discharged within one day. Total ED visits numbered 127,278 in 2020 and 173,780 in 2019, among which 104,450 (82.1%) in 2020 and 145,726 (83.9%) in 2019 were outpatient ED visits. A 28.3% decline in outpatient ED visits from 2019 to 2020 was noted in AHMC compared to the 8.1% decline seen at the University of Utah Health Emergency Department. Appendix A describes comparable characteristics of the data presented in the University of Utah Health Emergency Department and AHMC HealthSystem.

Fig. 1 represents AHMC's monthly outpatient ED visits in 2020 compared to 2019. This comparison is similar to the data presented by Giannouchos et al. (2021). In AHMC, we observed two major discrepancies in outpatient ED visits when conducting same-period comparison. In April 2020, AHMC had 5497 outpatient ED visits, a drastic decrease (-54.7%) compared to April 2019 (12,146 outpatient ED visits), which may be attributed to the start of the COVID-19 pandemic in mid-March 2020. In January 2021, AHMC reported 5940 outpatient ED visits, representing a second drastic drop (-56.6%) when compared to January 2020 (13,690 outpatient ED visits), correlating to the resurgence of COVID-19 seen during the Christmas and New Year holidays at the end of 2020 [2,3].

The differences in yearly decline in outpatient ED visits in AHMC (28.3%) compared to the University of Utah Health Emergency Department (8.1%) could be explained by the differences in the population which the hospitals serve. Community hospital EDs such as those at AHMC tend to serve less medically complex patients compared to University level hospitals [4,5]. As the referenced article suggests the decrease may also be due to patient reluctance to visit hospitals during a pandemic, especially for non-urgent conditions [1,6-8]. Our data further reinforces these findings and provides insight into patient behavior in

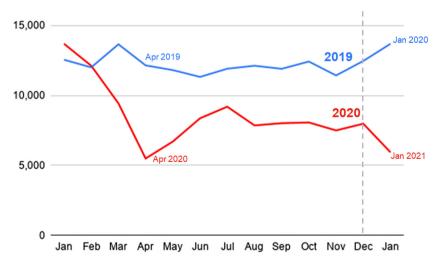


Fig. 1. AHMC's trends in monthly outpatient ED visits in 2020 versus 2019.

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seeking emergency medical treatment during a pandemic. We hope hospital administrators can utilize this to develop future strategies during times of crisis to educate patients about the importance of not delaying needed emergency care.

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The authors have nothing to disclose.

## **Previous presentation**

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## Appendix

**Appendix A.** Comparable characteristics of the health system in the study of Giannouchos et al. (2021) and AHMC HeathSystem as of 2021<sup>1</sup>

	University of Utah Health Emergency Department	AHMC HealthSystem
Geographic coverage Outpatient ED visits	Utah, Nevada, Wyoming, Idaho, and western Colorado 30,276 in 2020 and 32,937 in 2019 <sup>*</sup>	Los Angeles and Orange Counties, California 104,450 in 2020 and 145,726 in 2019
Data collection period	January 2019 to August 2020	January 2019 to January 2021
Health Insurance	48.2% Private, 22.0% Medicaid, 17.8% Medicare, and 12.0% Out-of-pocket/Other	67.2% Managed Care, 18.9% Medicare, 9.8% Medicaid, and 4.1% Private/Other*

\* AHMC data were included from all patients from all inpatient admissions, Emergency Department, and outpatient.

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Nick Kwan M.D.

Alhambra Hospital Medical Center Emergency Department, 100 S Raymond Ave, Alhambra, CA 91801, USA

Steve Giordano D.N.P., E.N.P., F.N.P. Emergency Medical Management Associates, 260 E Holt Ave, Pomona, CA 91767, USA

Ching-Hsiu Ketty Chiu D.D.S., M.S. AHMC HealthSystem COVID-19 Team, 500 E Main St, Alhambra, CA 91801, USA \*Corresponding author at: AHMC HealthSystem COVID-19 Team, AHMC Healthcare, 500 E Main Street, Alhambra, CA 91801-3961, USA. E-mail address: Wen-Ta.Chiu@ahmchealth.com

> Chia-Hsing Yeh M.P.H AHMC HealthSystem COVID-19 Team, 500 E Main St, Alhambra, CA 91801, USA

John Chon M.D. Greater El Monte Community Hospital, 1701 Santa Anita Ave, South El Monte, CA 91733, USA

Wen-Hsiang Teng M.S. AHMC HealthSystem COVID-19 Team, 500 E Main St, Alhambra, CA 91801, USA

Su-Yen Wu D.N.P., R.N.C. AHMC HealthSystem COVID-19 Team, 500 E Main St, Alhambra, CA 91801, USA

Stanley Toy M.D. -AHMC HealthSystem COVID-19 Team, Greater El Monte Community Hospital, 1701 Santa Anita Ave, South El Monte, CA 91733, USA

Wen-Ta Chiu M.D., Dr. PH AHMC HealthSystem, 500 E Main St, Alhambra, CA 91801, USA Taipei Medical University, 250 Wu-Hsing Street, Taipei City 110, Taiwan

> Jonathan Wu M.D., Ph.D. AHMC HealthSystem, 500 E Main St, Alhambra, CA 91801, USA