

# Trends in Emergency Department Use Among University Students



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### Introduction

While access to timely healthcare advice and management is critical for the health and safety of college-age students, there is little published data regarding the use of Emergency Departments (ED) in this population and the specific reasons why students utilize the ED. This poster describes data collected from ED visits amongst students who presented to the ED and self-identified as being a student or had Student Health and Wellness (SHW) listed as their PCP over an almost 1.5 year time frame (Oct. 2018 – Aug. 2020) at a large, public university.

### **Objective**

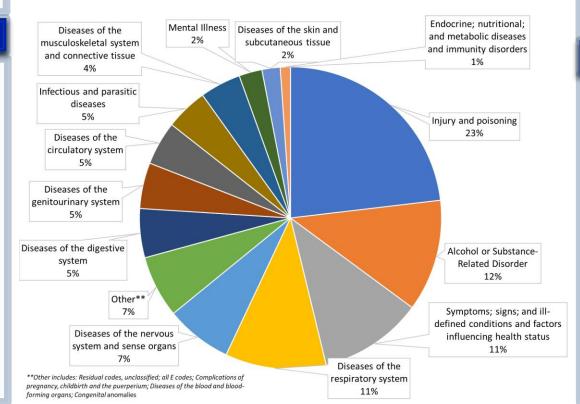
The objective of this study was to examine the clinical history (ICD10 codes) and demographic data (gender, race/ethnicities and academic status) of all University of Virginia (UVA) students presenting to the UVA Emergency Department from Oct. 2018 to Aug. 2020.

## Methodology

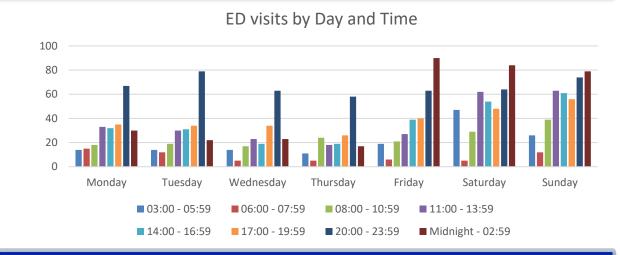
- The SHW care manager receives notification of a student presenting to the ED. Clinical information is transcribed into a template in the SHW electronic medical record (EMR).
- The template data was linked to student administrative data (race/ethnicity, academic status) and deidentified for analysis.
- P ICD10 codes were grouped into categories following the Agency of Healthcare Research and Quality's (AHRQ) Clinical Classifications Software (CCS).
  - ICD10 codes related to alcohol and substance use related disorders were extracted as a special category of interest.
- All ICD10 codes for a visit were included; however duplicate CCS groups per visit were counted once.

#### Distinct Students Utilizing the **Percent of students** Percent of Overall presenting to ED Student Population\* **Emergency Department** Count **Total ED visits** 1984 **Total distinct students** 1645 24,639 Gender Female 840 51.06% 56.50% Male 805 48.94% 43.50% Race/Ethnicity 170 10.33% 11.70% Asian 125 6.20% Black or African American 7.60% Hispanic 125 7.60% 6.00% 74 4.50% 4.10% Multi-Race 128 7.78% 9.50% Non-Resident Alien 57.50% White 955 58.05% Other/Unknown 68 4.90% 4.13% **Academic Status** Undergraduate 1367 83.10% 68.10% 275 16.72% 31.90% Graduate Other/Unknown 3 0.18%

### Figure 1: Proportion of All ED visit ICD10 codes by CCS categories



### Results



### **Results Discussion**

- Between Oct. 2018 Aug. 2020, 1,984 student ED visits were recorded among 1,645 distinct students.
- More undergraduate students presented to the ED (83.1%) than the total percentage of undergraduates within the student population (68.1%).
- 12% of all ED visits by students are related to alcohol use.
- The majority of ED visits happen during non-business hours: between 8 pm and 3 am on weekdays and on weekends.

### **Conclusion and Discussion**

- To address ED visits related to alcohol use, Medical Services and the ED both implemented a screening process for alcohol misuse. In addition, the SHW Office of Health Promotion expanded their wellness program.
- Graduate students may have increased awareness of when to present for emergency care. They may also have their own PCP (not at SHW).
- This data is likely an underestimate of the total ED visits by students; students admitted to the hospital from the ED and those presenting to a non-University affiliated ED in town are not captured.
- Future directions: to ensure awareness of all students seen in the ED, a process is being finalized for a notification of students admitted to the hospital from the ED. SHW staff members also hope to partner with the non-affiliated ED in town to obtain notes from student visits to ensure proper follow-up and to get a more complete picture of the trends of ED use amongst students.

<sup>\*</sup>Based on Fall 2018 University data