Hawaii Drug Overdose Surveillance & Epidemiology (DOSE)

Statewide Annual Report | Calendar Year 2021 (Jan – Dec)

Overdose Data to Action (OD2A) is a program administered by the **Centers for Disease Control and Prevention (CDC)** that supports state, territorial, county, and local health departments to acquire more comprehensive and timely data on overdose morbidity and mortality. The goal of the program is to improve opioid overdose surveillance, reporting, and dissemination efforts through innovation to better inform preventive and early intervention methods. This annual report is comprised of information on overdose within the state of Hawaii based on emergency department (ED) and hospitalization data from the Laulima Data Alliance, a nonprofit subsidiary of the Healthcare Association of Hawaii.

KEY FINDINGS:

- **Opioid-involved emergency department (ED) visits (21%) exceeded** that of **stimulant-involved ED visits (+3%)** in CY 2021.
- **Stimulant-involved hospitalizations (40%) exceeded** that of **opioid-involved hospitalizations (+18%)** in CY 2021.
- **Monthly rates for All Drug-related ED visits (per 10,000 ED visits)** marginally **increased overall (+1.03%)** in CY 2021.
- Annual percent difference in monthly rates for **opioid-involved ED visits** steadily **increased between CYs 2020 and 2021** with the **greatest percent changes occurring between August 2020/2021 (+55.56%) & December 2020/2021 (+69.23%)**.
- Demographically, **All Drug-related ED visits in CY 2021 were mostly male and between the ages of 35 – 55+ years**.
- There was a notable **increase (from n ≤ 11 to n=22)** in **All Drug-related ED visits** in the **0 – 14 age group** in August 2021.
- **Monthly rates for All Drug-related hospitalizations** steadily **decreased overall (-133%)** in CY 2021.
- **Of All Drug-related hospitalizations**, the mean percentage of **stimulant-involved visits (40%) was double that of opioid-involved hospital visits (18%)**.
- **Opioid-involved hospitalizations** (out of All Drug-related hospitalizations) were **highest in April 2021, September 2021, and November 2021 (30%, 32%, and 30% respectively)**, with a **minimum percentage of 10% in July 2021** and **mean percentage of 18%** for the entirety of CY 2021.

Figure 1. Number of ED Visits vs All Drug, Opioid, and Stimulant-involved ED Visits in Hawaii, CY 2021

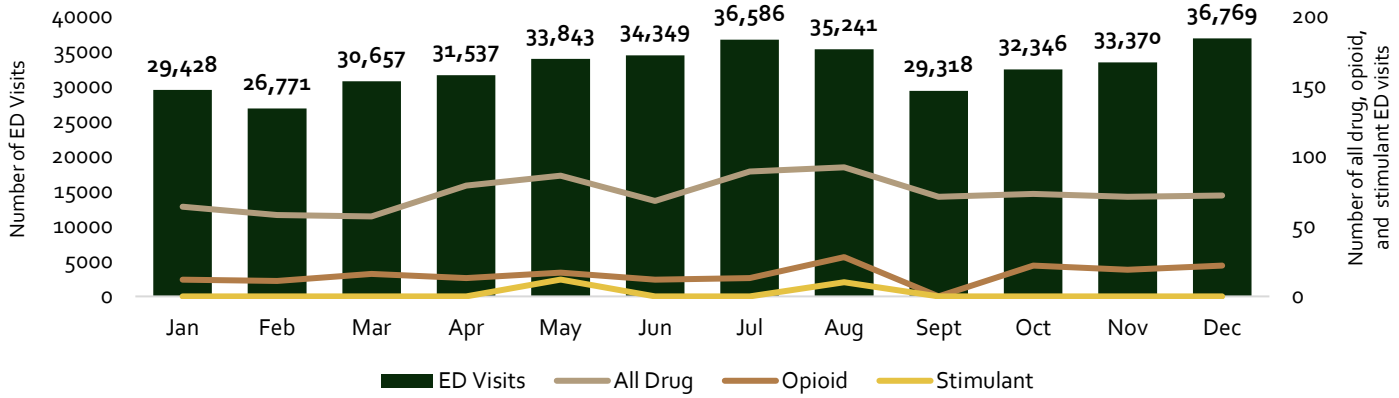

Figure 1*. The number of opioid-involved ED visits exceeds that of stimulant-involved ED visits. Note: y-axes are scaled differently—with a 40k max and zero minimum to capture the number of ED visits in CY 2021 and 200 max and zero minimum to capture all drug, opioid, and stimulant-involved ED visits in CY 2021.*

Data Sources: Laulima Data Alliance, a non-profit subsidiary of the Healthcare Association of Hawaii (HAH) that maintains hospitalization and emergency department (ED) data for all hospitals across the state of Hawaii. Data is collected on a quarterly basis and includes all drug, all opioid, heroin, and all stimulant overdoses stratified by month, county, sex and age group.
Case Definitions: Please see 'Technical Guidance for the Drug Overdose Surveillance and Epidemiology (DOSE) System; Section: Syndromic Surveillance Definitions ' – Link Here .
Analysis: ED and Hospital cases ≤11 are suppressed for any variable and not included. Rate calculations for each time period is per 10,000 ED or Hospital visits.
Limitations: The syndromic surveillance data provided by Laulima Data Alliance is not available real-time and is collected and analyzed on a quarterly basis. Not all overdoses make it to the ED, which can contribute to an underestimation of the total overdose burden across the state of Hawaii.

Figure 2. Monthly Rates for All Drug-related ED Visits in Hawaii, CY 2021 (per 10,000 ED visits)

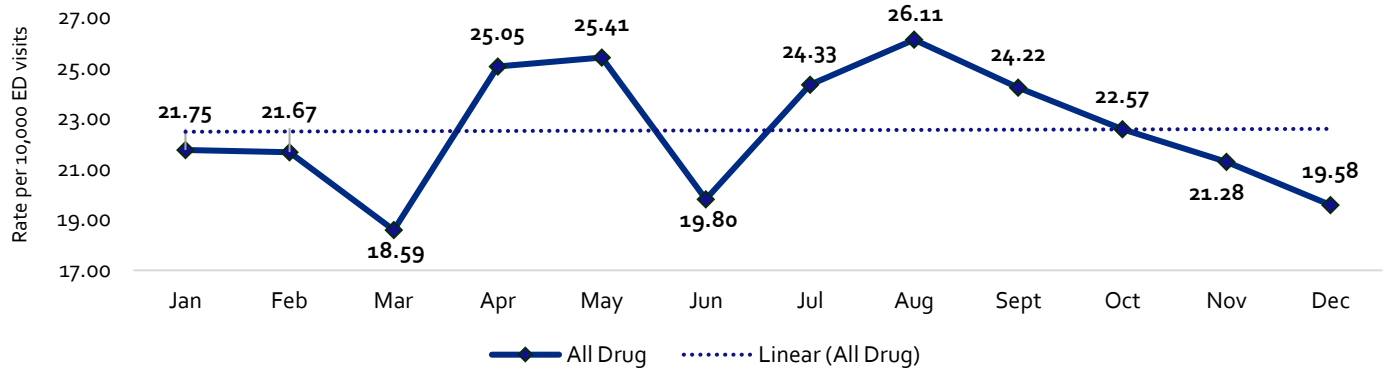

Figure 2. *Monthly rates for all drug-related ED visits declined from January to Mar (Qtr. 1), rose from March to May (Qtr. 2), declined again from May to June (Qtr. 2) to steady decline from Aug to December 2021 (in Qtrs. 3 and 4). August 2021 saw a max peak in all drug-related ED visits with rates for all drug-related ED visits marginally increasing overall in CY 2021. Note: monthly rates for opioid, heroin, and stimulant-involved ED visits not captured due to the suppression of rates & counts ≤ 11.*

Figure 3. Annual Percent (%) Difference in Monthly Rates for Opioid-involved ED Visits, CY 2020 vs. 2021 (per 10,000 ED visits)

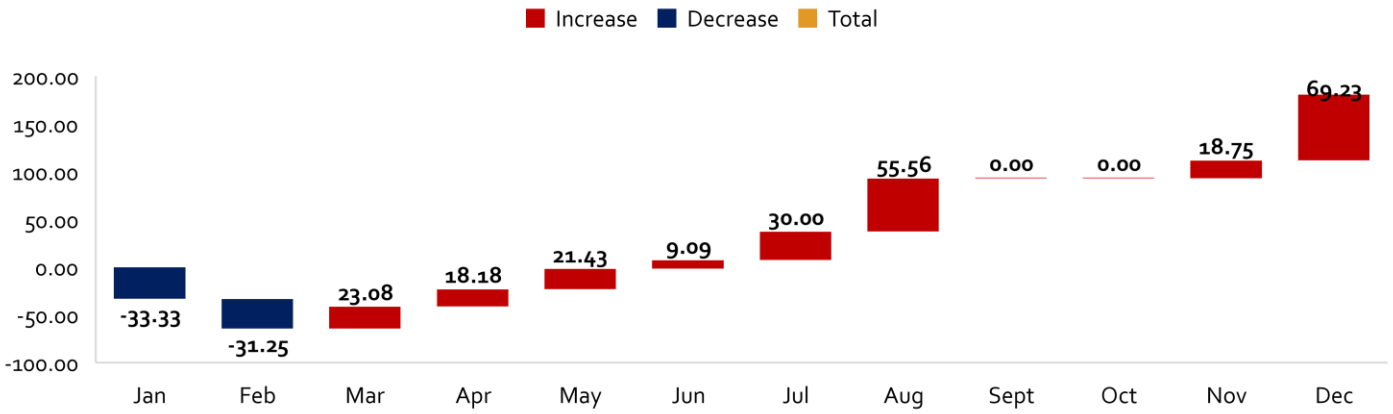

Figure 3*. The annual percent difference in monthly rates from CY 2020 and CY 2021 for opioid-involved ED visits declined from January to February (Qtr. 1) and rose from March to August and November to December (Qtr. 2) with the greatest monthly rate increase in opioid-involved ED visits occuring between December 2020 and 2021.*

Figure 4. Number of All Drug-related ED Visits in Hawaii by Gender, CY 2021 (n = 880)

Male	473	54%
Female	407	46%
Total	**880**	**100%**

Figure 4*. Males accounted for 54% (n=473) of all drug-related ED visits while females comprised the remaining 46% (n=407) visits in CY 2021.*

Figure 5. All Drug-related ED Visits in Hawaii by Age Group, CY 2021*

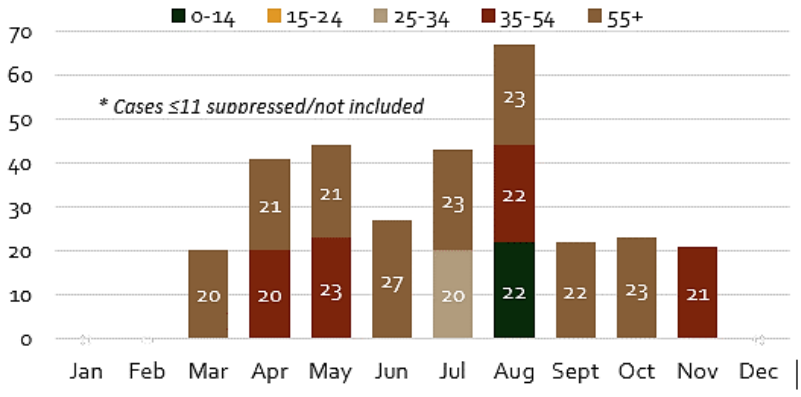

Figure 5*. All drug-related ED visits were highest among the 55+ age group between March and October 2021 followed by all ED visits in 35-54 age group. All drug-related ED visits for ages 0-24 were suppressed, as cases for these age groups ≤ 11 per month.*

Figure 7. Number of Hospital Visits vs All Drug, Opioid, and Stimulant-involved Hospitalizations in Hawaii, CY 2021

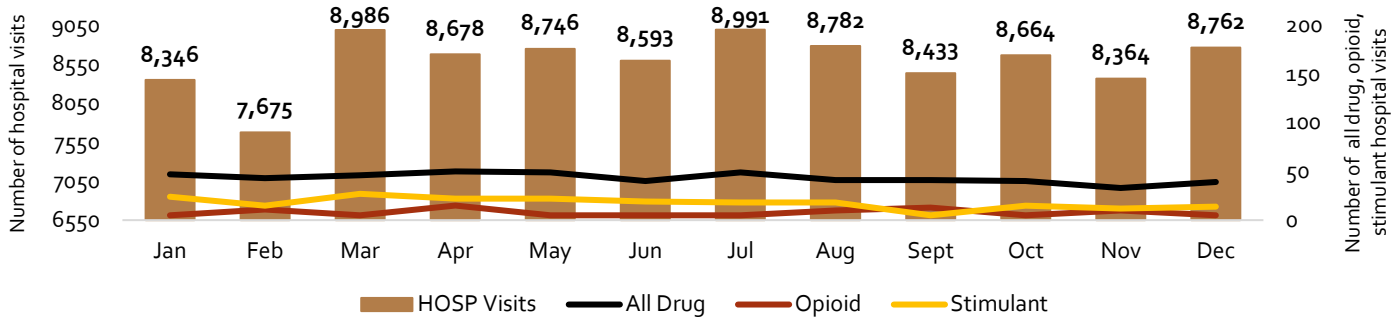

Figure 7. *The number of stimulant-involved hospitalizations exceeds that of opioid-involved hospitalizations. Note: y-axes are scaled differently—with a 9.05k max and 6.55k minimum to capture the number of hospitalizations in CY 2021 and 200 max and zero minimum to capture all drug, opioid, and stimulant-involved hospitalizations in CY 2021.*

Figure 8. Monthly Rates for All Drug-related Hospitalizations in Hawaii, CY 2021 (per 10,000 Hospitalizations)

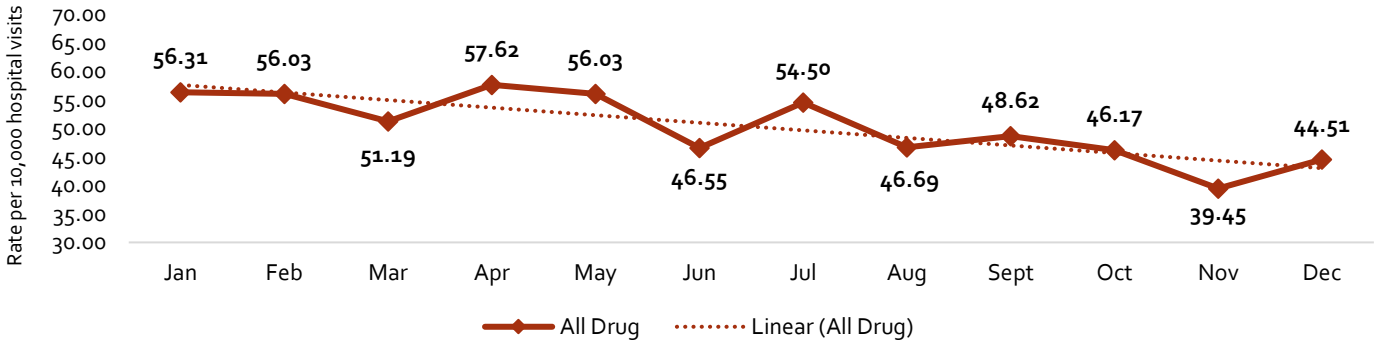

Figure 8. *Monthly rates for all drug-related hospitalizations increased from December 2020 to January 2021 (+16.56%) and increased with the greatest margin between June and July 2021 (+17.80%). April 2021 saw a max peak in all drug-related hospitalizations with rates for all drug-related hospitalizations decreasing overall in CY 2021.*

Figure 9. Number of All Drug-related Hospitalizations in Hawaii by Gender, CY 2021 (n = 518)

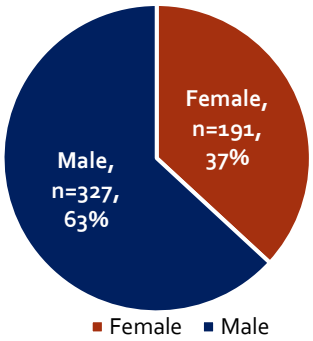

Figure 9. *Males accounted for 63% (n=327) of all drug-related hospitalizations while females comprised the remaining 37% (n=191) hospitalizations in CY 2021.*

Figure 10. Annual Percent (%) Difference in Monthly Rates for All Drug -related Hospital Visits, CY 2020 vs. 2021 (per 10,000 Hospital visits)

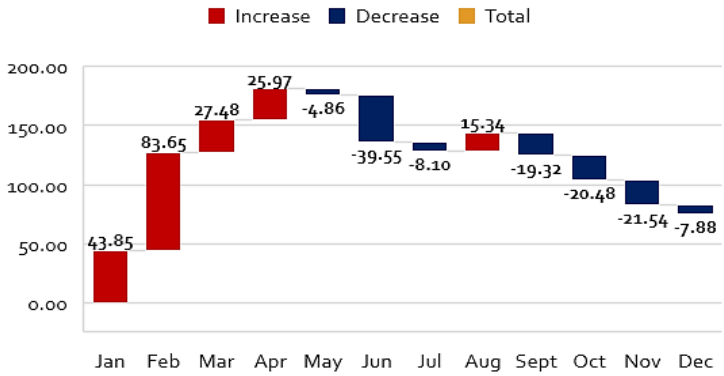

Figure 10. *The annual percent difference in monthly rates from CY 2020 & CY 2021 for all drug-related hospitalizations increased from January to April (Qtrs. 1&2), increased in August with a decrease in all drug-related hospitalizations September & December (CY'20-CY'21).*

Direct questions and commentary to Hawaii OD2A CDC Foundation Epidemiologist, Valencia Waller, MSc at valencia.waller.NSW@doh.hawaii.gov.

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