

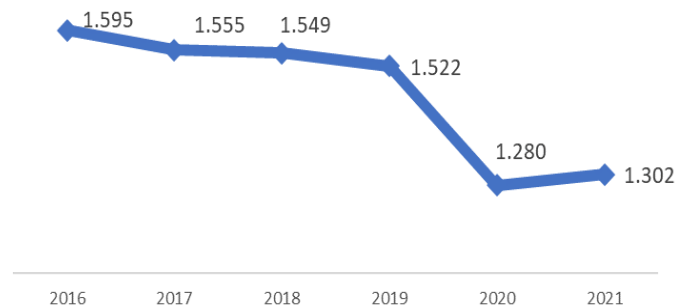
EMERGENCY ROOM UTILIZATION IN CONNECTICUT: FFY 2016-2021

Hospital emergency rooms or departments (ED) are a critical component of Connecticut’s health care system. In addition to treating emerging and life threatening health conditions, EDs also serve as a safety net for many, especially those that are uninsured or have low-incomes, who may not have access to other low-cost outpatient or primary care alternatives.¹ The state’s twenty-seven acute care hospitals and five satellite EDs provide twenty-four hours a day, seven days a week emergency care to Connecticut residents and others from out-of-state.² This brief utilizes data for hospital fiscal year (FFY)³ 2016 through 2021 for a statewide analysis of ED use in Connecticut.⁴

ED use declined overtime

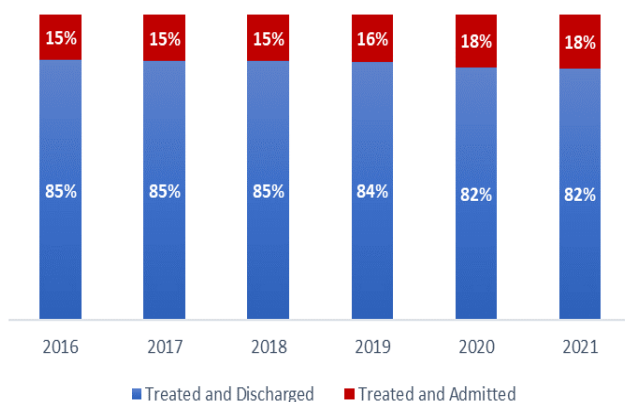
In the last six years, ED utilization in Connecticut has declined by about 15% from nearly 1.6 million in 2016 to about 1.3 million visits in 2021 (Fig. 1). Majority of the decline occurred in 2020 when there was a precipitous drop (16%) attributable to the COVID pandemic. This was followed by a 2% increase in visits in 2021, but utilization remained below pre-COVID levels. Utilization dropped from 449 per 1,000 CT residents in 2016 to 364 per 1,000 in 2021.

FIG 1: STATEWIDE ED VISITS (in Millions)



Most ED visits resulted in a discharge to home

FIG 2: ED VISIT TYPE



Most people who visit the ED are discharged to home the same day after treatment or were ED non-admits (Fig. 2). Between 2016 and 2021, about one in five emergency room visits resulted in an inpatient admission. While the share of ED visits resulting in hospitalizations increased overtime, the actual volume declined through 2020, grew by 4% in 2021 from 2020, but remained lower than the pre-2020 volumes.

¹ Burke, Guenevere Burke and Paradise, Julia. (2015, February 10). Safety-Net Emergency Departments: A Look at Current Experiences and Challenges. <https://www.kff.org/medicaid/issue-brief/safety-net-emergency-departments-a-look-at-current-experiences-and-challenges/>

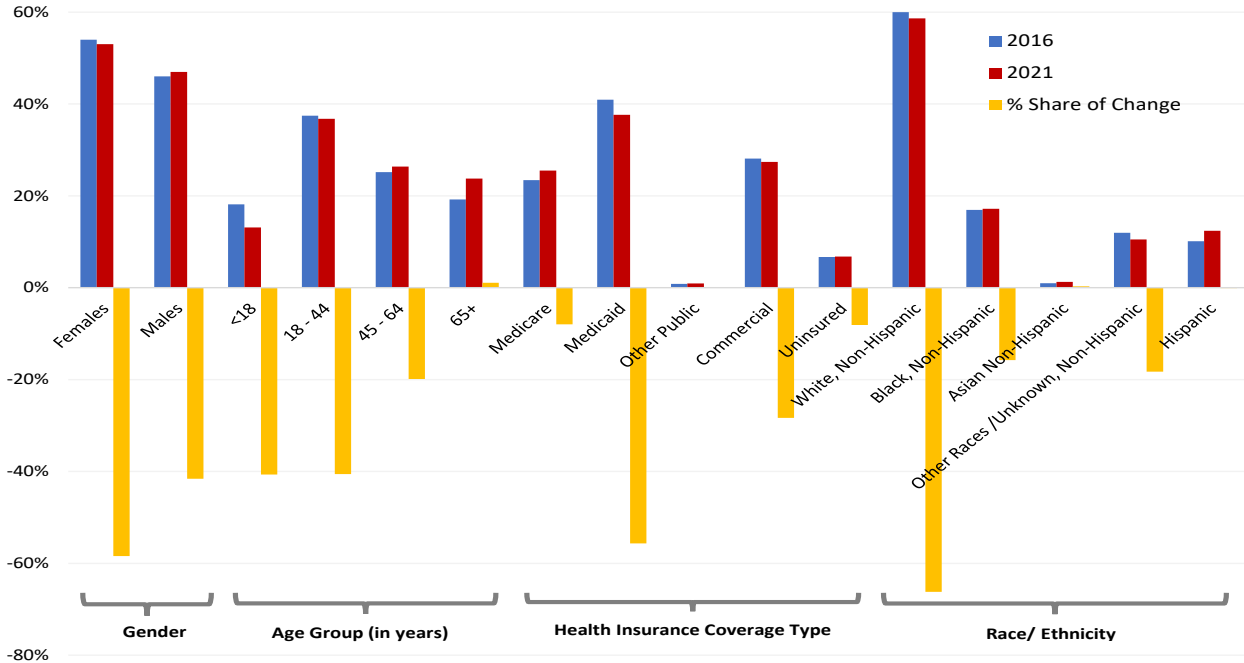
² The federal Emergency Medical Treatment and Labor Act of 1986 (EMTALA) requires hospitals to screen, stabilize and treat any emergency department patient within the hospital’s capability or appropriately transfer to another hospital for treatment, regardless of the individual’s ability to pay for the service.

³ Hospital fiscal year runs from October 1 of one year through September 30 of the following year.

⁴ All data utilized in this analysis are sourced from the Connecticut Hospital Association (CHA) Chime, Inc. Emergency Department Database, and the U.S. Census Bureau.

More females, adults 18 to 44 years old, White non-Hispanics, and Medicaid recipients visited the ED than their cohorts

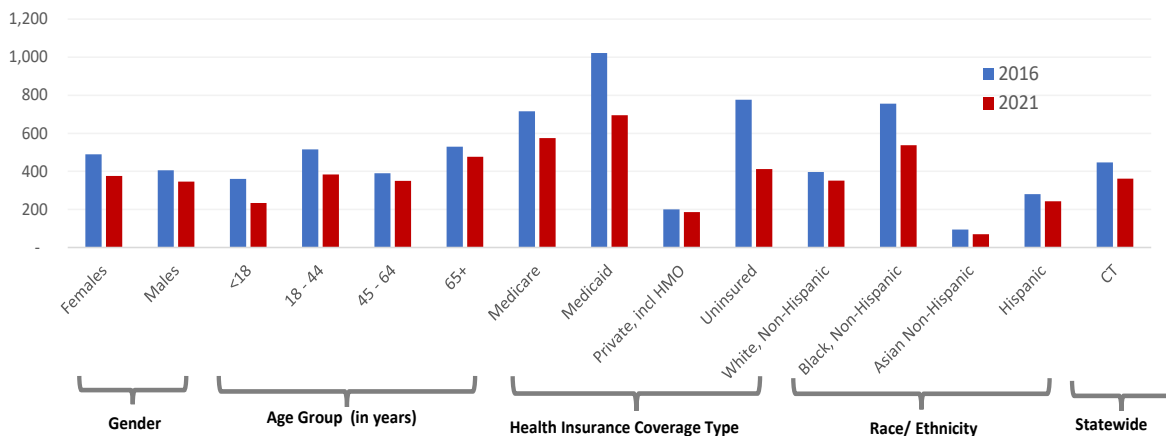
FIG 3: ED PATIENTS DEMOGRAPHICS & PERCENT SHARE OF CHANGE BETWEEN FY 2016 AND FY 2021



Over one-half of ED patients were female; three in five were White non-Hispanic; nearly two-thirds had Medicaid or Medicare coverage; and three in five were adults between ages 18 and 64 years old (Fig 3). While almost all demographic groups experienced a reduction in ED visits in the six-year period, White Non-Hispanic (-66%), female (-58%), Medicaid (-56%) and adult (-41%) patients accounted for most of the decline.

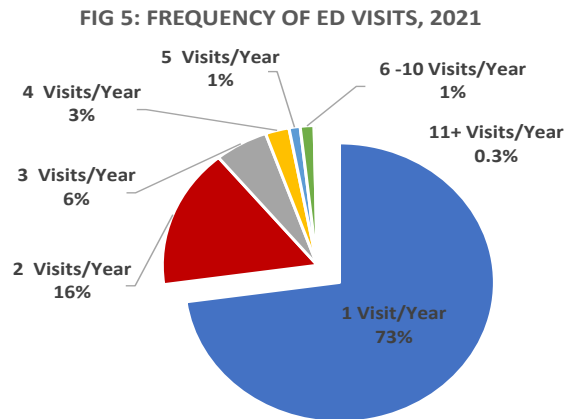
Despite the decline in utilization, Medicaid and Medicare recipients, the uninsured, Black Non-Hispanics, and adults between ages 18 and 44 years old, continued to be more likely than their peers, to visit the ED (Fig 4).

FIG 4: ED PATIENTS DEMOGRAPHICS UTILIZATION PER 1,000: FY 2016 AND FY 2021



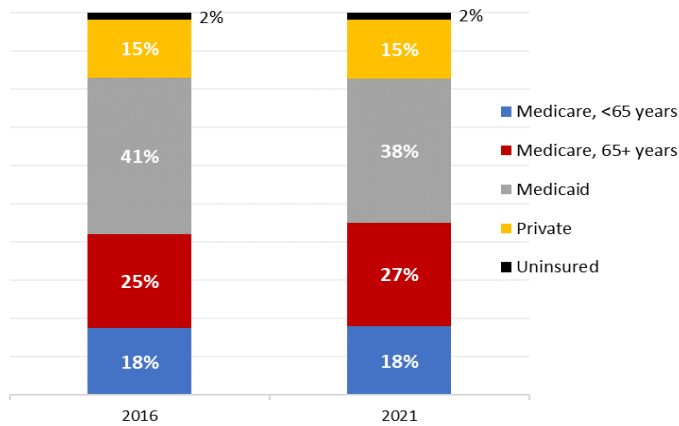
Most ED users visited the ED once a year

In 2021, nearly 850,000 individuals visited the ED, the majority (89%) of whom made one (73%) or two (16%) visits. The remaining made three or more visits (Fig. 5). About 2,700 individuals (or 0.3% of the total) visited the ED over 10 times in 2021.



ED super users' visits declined but remain significant

FIG 6: SUPER USERS* BY PRIMARY INSURANCE COVERAGE: 2016 vs. 2021



* The U.S. Agency for Healthcare Research and Quality defines super users in a year as private pay patients, aged 1-64 years with four or ED visits; Medicaid or Medicare patients, aged 1-64 years with 6 or more ED visits; or Medicare patients, aged 65 years old with six or more visits.

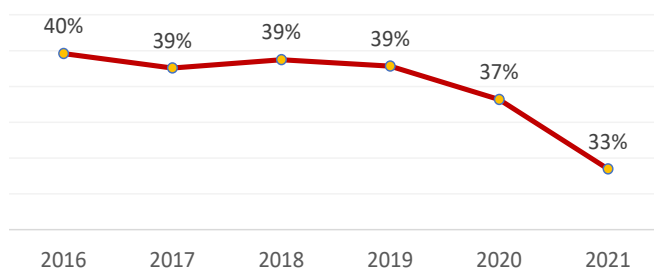
In 2021, most ED super users, defined by number of visits by primary insurance coverage and age cohort, were covered by Medicare (45%) or Medicaid (38%) (Fig. 6).

The number and share of ED visits by super users, declined (30%) from over 277,000 (17%) in 2016 to about 197,000 (15%) in 2021.

ED super user visits for each insurance coverage type declined between 2016 and 2021, however Medicaid covered visits had the most significant drop in volume and the largest share (56%) of the overall reduction in visits.

Potentially avoidable ED visits declined but remain significant

FIG 7: PERCENT SHARE OF AVOIDABLE* ED VISITS: FY 2016 - FY 2021



Includes treated and discharged (nonadmits) visits classified, by the Johnson et al patched New York University (NYU) Emergency Room Algorithm, as non-emergent, emergent/primary care treatable or emergent ED care needed preventable or avoidable.

The share of potentially avoidable ED visits, categorized as visits that may have been avoided with low-cost timely primary or community-based care, declined seven percentage points in the six-year period, mostly in the last two years (Fig 6), partly due to the COVID-19 pandemic and stay-at-home restrictions.

The demographic groups that accounted for the most significant share of avoidable ED visits compared to their peers were women (58%), White Non-Hispanics, (53%), Medicaid recipients (46%), adults aged 18-44 years (40%). ED super users accounted for 15% of avoidable ED visits.

COVID-19 was the top primary reason for an ED visit in 2021

TABLE 1: TOP TEN PRIMARY REASONS FOR ED VISITS, FY2021

ICD10- CM Code	ICD 10 Code Description	# of Visits	Percent of Total
U071	COVID-19	42,280	3%
R0789	Other chest pain	26,173	2%
R079	Chest pain, unspecified	19,488	1%
R519	Headache, unspecified	17,487	1%
N390	Urinary tract infection, site not specified	16,411	1%
A419	Sepsis, unspecified organism	15,812	1%
M545	Low back pain	15,803	1%
R42	Dizziness and giddiness	13,324	1%
S0990XA	Unspecified injury of head, initial encount	13,175	1%
R109	Unspecified abdominal pain	12,721	1%
Total Top Ten Primary Reasons		192,674	15%

CT residents sought ED care for various conditions. In 2021, COVID-19 diagnosis was the top primary reason for ED visits (Table 1).

Chest pain (other and unspecified) was the most common reason for ED visits in 2020 and 2021.

The privately insured (25%) and Medicaid recipients (25%) accounted for one-half of ED non-admits' visits with COVID-19 as the primary diagnosis.

Patients diagnosed with COVID-19 in the ED were 6% of inpatient hospitalizations.

The top reasons for six or more ED visits in 2021 were for chest pain, alcohol intoxication, COVID-19, and abdominal pain. The top ten reasons for avoidable ED visits accounted for nearly one-quarter of all ED visits and the top four conditions were urinary tract Infection, chest pain, low back pain, and dizziness and giddiness.

Summary

ED use declined in Connecticut, mostly from the COVID pandemic. Most ED users tended to be discharged to home the same day after treatment. ED users are mostly adult, female, White Non-Hispanic, on Medicare or Medicaid recipients. However, relative to their population sizes in the state, Medicaid recipients, the uninsured, Black Non-Hispanics and adults aged between 18 and 44 years, were more likely than their peers to utilize ED services. Despite the declining use, a significant proportion of ED visits may have been avoided through timely appropriate outpatient care from providers such as a doctor's office, urgent care center or federally qualified health center (FQHC) or a reduction in visits for super users. Avoidable ED use has also been determined to be due to patients' misperception of the severity of their illness and/or who are then directed by their primary care doctor to the ED.

ED visits are a costly alternative to timely appropriate care in alternative lower-cost settings. Recommended methods to reduce avoidable ED use include identifying the drivers, characterizing frequent users, and determining areas for cost reduction. The mitigating strategies include increasing access, patient education on appropriate use, interventions for complex patients, and investments in and time for short-term and long-term solutions.⁴



For questions contact: HSP@ct.gov additional ED utilization data is available in the ED Dashboard
For more about the OHS check: <https://portal.ct.gov/OHS>

⁵ Population Health Advisor Advisory Board. (2017, February) Reducing Avoidable Emergency Department Use. <https://www.advisory.com/-/media/project/advisoryboard/advisory/topics/throughput-and-length-of-stay/toolkit/how-to-direct-patients-to-the-most-appropriate-site-of-care/Reducing-Avoidable-Emergency-Department-Use.pdf>