NYS Health Connector

Emergency Department Visits in New York State Dashboard

Overview

Office of Quality and Patient Safety
Division of Information and Statistics

Last Reviewed: March 2022

NEW YORK STATE | Department of Health | All Payer Database

Introduction

Every year in New York State, over 4 million people make approximately 7 million visits to hospital emergency departments (ED) that do not result in a hospital stay. Looking at the primary reason for these ED visits shows that many could have been dealt with in a different, less costly primary or preventive caresetting.

The visualizations in this dashboard contain high-level summaries of how often people visit the ED, what kinds of conditions they are seeking treatment for, and how the number of ED visits differs across counties state-wide. The dashboard also includes calculations that estimate whether an ED visit for certain conditions could have been avoided with adequate access to care, care coordination, or patient monitoring.

While it is not possible to eliminate every ED visit that could have been treated in a different setting, New York State can move closer to achieving the triple aim of better care, higher quality, and lower costs by reducing just a fraction of these visits. Tracking rates of ED visits can help identify the conditions and regions where resources may be targeted to improve patient outcomes and quality of care provided, increase primary and preventive care access, and reduce costs.

Accessibility

For any individual(s) who cannot access the visualizations or data on New York State Health Connector dashboards, please contact the Office of Health Services Quality and Analytics (OHSQA) All Payer Database team at NYSAPD@health.ny.gov and staff will assist in sending alternative materials.

Dashboard Data Sources and Methods

Data comes from the New York State Statewide Planning and Research Cooperative (SPARCS) hospital discharge data for 2018 and 2019; for more information or questions about this data, please contact nysapd@health.ny.gov.

Statewide Planning and Research Cooperative System (SPARCS)

SPARCS is a comprehensive all payer data reporting system established in 1979 as a result of cooperation between the health care industry and government. Initially created to collect information on discharges from hospitals, SPARCS currently collects patient level detail on patient characteristics, diagnoses and treatments, services, and charges for every hospital discharge, ambulatory surgery and emergency department visit in New York State. For more information about SPARCS data, visit: https://www.health.ny.gov/statistics/sparcs/.

ED visits were identified from SPARCS outpatient discharge records with a revenue code (Uniform Bill: UB-04 format) indicating ED care:

Revenue Code	Description
0450	Emergency Room
0451	Emergency Medical Treatment and Labor Act (EMTALA) Emergency Medical Screening Services
0452	ER Beyond EMTALA Screening
0456	Urgent Care
0459	Other Emergency Room Care

Only 'treat and release' ED visits or visits that resulted in a transfer to a different health care facility are included in the ED statistics. ED visits that resulted in an inpatient stay in the same facility are reported as part of that inpatient stay and not as a separate ED visit.

Emergency Department Visit: An ED visit is defined as a visit that did not result in a hospital inpatient admission. It is important to note that every time a person visited the ED, even if it was more than once over the course of a day, it is counted as a distinct visit and is used to classify ED users with multiple annual visits.

Total Annual Visits: Total Annual Visits is the number of ED visits by a unique patient in a year.

Primary Payer: Primary Payer indicates the payer which is principally responsible for the cost of the visit and is expected to pay all or a portion of the patient's bill. A visit may also have been paid by another payer. Please note that the "Self-Pay" category means no payment from an organization/agency/program/private payer was listed. The "Other" category means other government payers (Federal/State/Local); Department of Corrections; Managed Care – unspecified; or Miscellaneous/Other.

Primary Diagnosis: The primary diagnosis is the condition medical professionals deemed to be the chief reason a person was treated in the ED.

New York University (NYU) Classification of ED Use

The ED Categories described in the dashboards 'How often did people visit the emergency department in 2019?' and 'Why did people visit the emergency department in 2019?' are based on the NYU algorithm for classifying ED use.

For more information, visit: https://wagner.nyu.edu/faculty/billings/nyued-background#.

The algorithm classifies ED use into four categories:

Non-Emergent: Immediate medical care was not required within 12 hours.

Emergent- Primary Care Treatable: Treatment was required within 12 hours, but care could have been provided effectively and safely in a primary care setting.

Emergent - Avoidable: ED care was required based on the complaint or procedures performed/resources used, but the emergent nature of the condition was potentially preventable/avoidable if timely and effective ambulatory care had been received during the episode of illness (e.g., the flare-ups of asthma, diabetes, congestive heart failure, etc.).

Emergent – Not Avoidable: ED care was required, and ambulatory care treatment could not have prevented the condition (e.g., trauma, appendicitis, myocardial infarction, etc.).

Mental Health Related; Injury Related; Alcohol/Substance Abuse Related and Unclassified: The NYU algorithm separately classifies ED primary diagnoses related to mental health, injury, and alcohol/substance abuse. These primary diagnoses are not given a probability of being emergent.

Clinical Classification Software (CCS) for Diagnoses

The primary diagnosis categories displayed in 'Why did people visit the emergency department in 2019?' are based on the CCS for ICD-10-CM. The CCS for ICD-10-CM is one in a group of databases and software tools developed as part of the Healthcare Cost and Utilization Project (HCUP), a Federal-State-Industry partnership sponsored by the Agency for Healthcare Research and Quality (AHRQ). The software is a diagnosis and procedure categorization scheme based on the *International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM)*. It aggregates over 70,000 ICD-10-CM diagnosis codes into a smaller number of clinically meaningful categories that can be more useful for presenting descriptive statistics than individual diagnosis codes.

For more information, visit: https://www.hcup-us.ahrq.gov/tools_software.jsp

Population Data Files

Population metrics used for the 'Where did people visit the emergency department in 2019?' are derived from Claritas New York State small-area population data. Discharges for which patient data indicated an unknown or out-of-state county of residency were excluded from county-level and statewide population rates due to a lack of population denominator.

De-identification

The New York State Department of Health adheres to all applicable federal and state rules, regulations and standards for the de-identification of protected health information. To ensure the published data is de-identified, a team of the statistical analysts engaged in an expert determination process. The expert determination method is recognized by the U.S. Department of Health & Human Services as one of two methods approved for achieving de-identification in accordance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule.

For more information on deidentification methods, visit: https://www.hhs.gov/hipaa/for-professionals/privacy/specialtopics/de-identification/index.html#_edn1.

Limitations

The ED visits represented here only include visits to hospital-based emergency departments. Visits to stand-alone emergency departments are not included.

SPARCS represents pre-adjudicated hospital claims reported to NYS DOH, prior to payment for a visit being finalized. This means that the Primary Payer indicated on these claims may not represent the payer that ultimately paid the majority share of the visit costs.

Total annual counts are determined through linking visits with the same unique patient identifiers. A small number of patients may be misclassified in either way: as a unique patient or as multiple patients.

The methodology of NYU Algorithm categorizes populations, not visits, and is not intended to determine whether individual visits are emergent or non-emergent. The algorithm assigns a *set* of probabilities representing each emergent/non-emergent NYU Category to each visit based on the primary diagnosis. When visits are stratified (by Total Annual Visits, for example) the weighted mean of the probabilities in each NYU Category are used to estimate the proportion of visits that are emergent or non-emergent in each stratum.

Standards of care may also have changed in the time since the NYU Algorithm was developed and how certain diagnosis are classified as emergent/non-emergent may vary from current medical practice.

Contact Information

For more information or questions about this data, please contact nysapd@health.ny.gov.