

**Acute Stroke (Principal Diagnosis)
Inpatient Discharges for New York State
Residents 18 Years of Age and Older
SPARCS: Beginning 2017**

OVERVIEW

**New York State
Stroke Designation Program
Office of Health Services Quality and Analytics**

December 2025

General Description

New York State Stroke Designation Program

The New York State Department of Health's Stroke Designation Program is a voluntary program that began as a demonstration pilot program in 2002 in select areas of the state and later expanded to the entire state in 2004. Under this pre-regulation program, the Department only recognized hospitals with advanced capabilities to treat and support stroke patients as Primary Stroke Centers.

On March 20, 2019, the regulation 10 NYCRR 405.34 was adopted to allow the New York State Stroke Designation Program to transition to a three-tiered stroke system of care that recognizes the advanced capabilities of hospitals to treat stroke patients in a multi-tiered system. The goal of the Stroke Designation Program is to recognize and treat stroke patients as quickly as possible at the right place.

The Department will recognize and designate hospitals as:

1. Primary Stroke Centers: Capable of treating acute ischemic stroke with Intravenous (IV) thrombolytics and comprehensive supportive care.
2. Thrombectomy Capable Stroke Centers: Capable of treating large vessel occlusions with intracranial endovascular intervention in addition to meeting Primary Stroke Center requirements.
3. Comprehensive Stroke Centers: Capable of treating subarachnoid intracerebral hemorrhage with neurosurgical services in addition to meeting Primary Stroke and Thrombectomy Capable Stroke Center requirements.

More information about the New York Stroke Designation Program can be found on the Department's website at: <https://www.health.ny.gov/diseases/cardiovascular/stroke/designation>

Data Methodology

The stroke summary tables display statistics for acute stroke inpatient discharges identified in SPARCS. New York State non-residents, elective admissions, and patients under 18 years of age at admission were excluded. This summary can be used to view the number of acute stroke discharges for age, sex, race/ethnicity, stroke type, patient's Emergency Medical Services (EMS) region of residence¹ (refer to Table 1), patient's county of residence, and hospital stroke designation tier.

Prior to the implementation of the tiered Stroke Designation Program (10 NYCRR 405.34) in March 2019, all designated stroke centers were recognized by New York State as Primary Stroke Centers (refer to Table 2).

Inclusion Criteria

SPARCS Inpatient discharges with an ICD-10-CM principal diagnosis of stroke (refer to Table 3) as defined by the Joint Commission Specifications Manual.²

Exclusions Criteria

- Patients under 18 years of age
- Elective admissions
- New York State non-residents

SPARCS Data Collection Process

New York State's Statewide Planning and Research Cooperative System (SPARCS) is a comprehensive 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, outpatient services and emergency department visits in New York State.

The enabling legislation and regulations for SPARCS are located under Section 28.16 of the Public Health Law (PHL), Section 400.18 of Title 10 (Health) of the Official Compilation of Codes, Rules, and Regulations of the State of New York (NYCRR).

Article 28 hospital services, ambulatory surgery services, emergency department services or outpatient services are required to submit data to SPARCS. More information on how SPARCS data is collected may be found at the following direct link: <http://www.health.ny.gov/statistics/sparcs/>

Limitations of Use

1. The most recent year of data is provisional due to lag in reporting and should be interpreted with caution as data is subject to change.
2. Not all patients treated for acute stroke in an Article 28 hospital in New York State are included in the data. The data only includes patients with a principal diagnosis of stroke who had an inpatient stay at an

Article 28 hospital that reports to SPARCS.

3. SPARCS is a discharge dataset, and summaries are presented by year of discharge. In few instances, an admission could occur in one year, while the discharge would be counted in a subsequent year.

APPENDIX

Table 1
NYS Counties Used to Define EMS Region¹

| EMS Region | County |
|--------------------------|---|
| Adirondack-Appalachian | Delaware, Fulton, Hamilton, Montgomery, Otsego, Schoharie |
| Big Lakes | Genesee, Niagara, Orleans |
| Central | Cayuga, Cortland, Onondaga, Oswego, Tompkins |
| Chemung-Schuyler-Steuben | Chemung, Schuyler, Steuben |
| Finger Lakes | Ontario, Seneca, Wayne, Yates |
| Hudson Valley | Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster |
| Hudson-Mohawk | Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady |
| Midstate | Herkimer, Madison, Oneida |
| Monroe-Livingston | Livingston, Monroe |
| Mountain Lakes | Clinton, Essex, Franklin, Warren, Washington |
| Nassau | Nassau |
| New York City | Bronx, Kings, New York, Queens, Richmond |
| North Country | Jefferson, Lewis, St. Lawrence |
| Southwestern | Allegany, Cattaraugus, Chautauqua |
| Suffolk | Suffolk |
| Susquehanna | Broome, Chenango, Tioga |
| Westchester | Westchester |
| Wyoming-Erie | Erie, Wyoming |

Table 2
New York State Hospitals by Stroke Designation Tier as of December 31st of Specified Year

| Stroke Designation Tier | 2017 | | 2018 | | 2019 | | 2020 | | 2021 | | 2022 | | 2023 | | 2024 (Provisional) | |
|------------------------------------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|--------------------|--------|
| | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % |
| Primary Stroke Center | 119 | 68.8% | 119 | 68.8% | 110 | 64.7% | 108 | 63.2% | 99 | 58.9% | 89 | 52.4% | 83 | 47.2% | 83 | 48.5% |
| Thrombectomy Capable Stroke Center | 0 | 0.0% | 0 | 0.0% | *1 | 0.6% | 1 | 0.6% | 3 | 1.8% | 11 | 6.5% | 13 | 7.4% | 14 | 8.2% |
| Comprehensive Stroke Center | 0 | 0.0% | 0 | 0.0% | 10 | 5.9% | 13 | 7.6% | 19 | 11.3% | 22 | 12.9% | 25 | 14.2% | 25 | 14.6% |
| ** Not Designated | 54 | 31.2% | 54 | 31.2% | 49 | 28.8% | 49 | 28.7% | 47 | 28.0% | 48 | 28.2% | 55 | 31.3% | 49 | 28.7% |
| Total | 173 | 100.0% | 173 | 100.0% | 170 | 100.0% | 171 | 100.0% | 168 | 100.0% | 170 | 100.0% | 176 | 100.0% | 171 | 100.0% |

*Designated on 12/30/2019

** Hospitals that are not designated stroke centers that reported at least 1 acute stroke (principal diagnosis) inpatient discharge to SPARCS.

Notes:

- Prior to the implementation of the tiered stroke designation program (10 NYCRR 405.34) in March 2019, all designated stroke centers were recognized by New York State as Primary Stroke Centers.
- Designation tier is determined by the hospital's designation tier status on December 31st of the calendar year.

Table 3
ICD-10-CM Diagnosis Codes Used to Identify Stroke Types²

| Stroke Type | ICD-10-CM Diagnosis Codes |
|---------------------------------|---|
| Ischemic | I63.00, I63.011, I63.012, I63.013, I63.019, I63.02, I63.031, I63.032, I63.033, I63.039, I63.09, I63.10, I63.111, I63.112, I63.113, I63.119, I63.12, I63.131, I63.132, I63.133, I63.139, I63.19, I63.20, I63.211, I63.212, I63.213, I63.219, I63.22, I63.231, I63.232, I63.233, I63.239, I63.29, I63.30, I63.311, I63.312, I63.313, I63.319, I63.321, I63.322, I63.323, I63.329, I63.331, I63.332, I63.333, I63.339, I63.341, I63.342, I63.343, I63.349, I63.39, I63.40, I63.411, I63.412, I63.413, I63.419, I63.421, I63.422, I63.423, I63.429, I63.431, I63.432, I63.433, I63.439, I63.441, I63.442, I63.443, I63.449, I63.49, I63.50, I63.511, I63.512, I63.513, I63.519, I63.521, I63.522, I63.523, I63.529, I63.531, I63.532, I63.533, I63.539, I63.541, I63.542, I63.543, I63.549, I63.59, I63.6, I63.8, I63.81, I63.89, I63.9 |
| Intracerebral Hemorrhage | I61.0, I61.1, I61.2, I61.3, I61.4, I61.5, I61.6, I61.8, I61.9 |
| Subarachnoid Hemorrhage | I60.00, I60.01, I60.02, I60.10, I60.11, I60.12, I60.2, I60.30, I60.31, I60.32, I60.4, I60.50, I60.51, I60.52, I60.6, I60.7, I60.8, I60.9 |

References

1. Department of Health. Regional EMS Councils. (2024, November). <https://www.health.ny.gov/professionals/ems/regional.htm>
2. Specifications manual for Joint Commission National Quality Measures. Table Of Contents TJC (v2024A). (n.d.). <https://manual.jointcommission.org/releases/TJC2024A/>

Contact Information

New York State Department of Health
Office of Health Services Quality and Analytics
Empire State Plaza
Corning Tower, Room 1938
Albany, New York 12237

Phone: (518) 473-8144

Fax: (518) 486-3518

For data questions e-mail: SPARCS.submissions@health.ny.gov

For stroke designation questions e-mail: StrokeDesignation.Clinical@health.ny.gov