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Sepsis Care Improvement Initiative

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Sepsis Summit | Albany, NY | June 25, 2025

SEPSIS CARE IMPROVEMENT INITIATIVE

An initiative of the New York State (NYS) Department of Health, the NYS Sepsis Care Improvement Initiative works with hospitals and partners across the state to achieve the following goals:

- Improve early detection of severe sepsis and septic shock
- Initiate timely interventions and treatment
- Reduce overall mortality, or death, from sepsis

SEPSIS CARE IMPROVEMENT INITIATIVE CONTINUED

Beginning in 2014, 10 NYCRR 405.2 and 405.4 (“Rory’s Regulation”) require general hospitals to:

- Develop and maintain protocols for the early recognition and treatment of patients with severe sepsis and septic shock,
- Ensure that staff are trained in the protocols, and
- Report data to the New York State Department of Health for:
 - Development of risk-adjusted mortality rates
 - Annual public report
 - Internal quality improvement

Goals:

- To reduce sepsis mortality in hospitals by 50%
- Use data to inform quality improvement in hospitals

SEPSIS CARE IMPROVEMENT INITIATIVE ACTIONS

- Clinical Case Data Collection
 - Up to 2019: severe sepsis and septic shock; chart reviews
 - 2021 to 2023: severe sepsis, septic shock, and COVID-19; electronic data abstraction
 - 2024 to present: severe sepsis and septic shock; electronic data abstraction
- Annual Public Reporting – includes statewide and hospital-level data
- Quarterly Reporting to Hospitals – includes hospital-level data with statewide benchmarks

SEPSIS CARE IMPROVEMENT INITIATIVE ACTIONS (CONT)

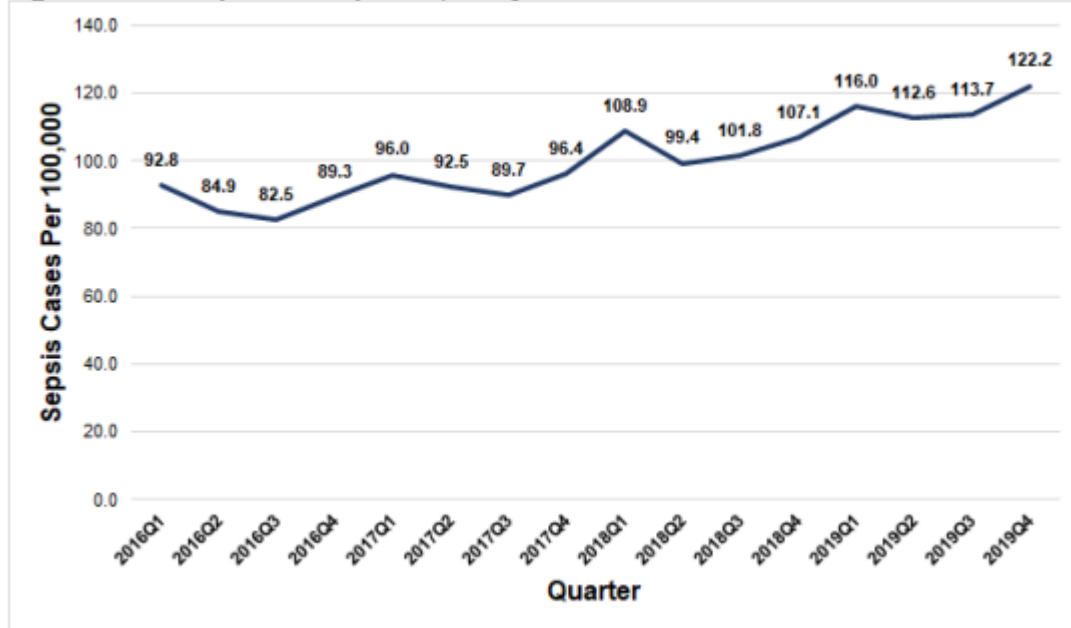
- Sepsis Advisory Group
- Coding Collaborative Group
- Research – internal and external
- Quality Improvement

OUTCOME MEASURES IN PUBLIC REPORT

- Adult in-hospital mortality rate
- Pediatric in-hospital mortality rate
- Adult risk-adjusted mortality rates (RAMR) based on yearly model
 - Includes patients who died within 30 days following arrival or presentation of severe sepsis and septic shock (with exclusions)
 - Accounts for patient demographic factors, sepsis severity, and chronic conditions
 - Adjustment is necessary to compare rates across hospitals

SEVERE SEPSIS/SEPTIC SHOCK INCIDENCE RATES 2016-2019

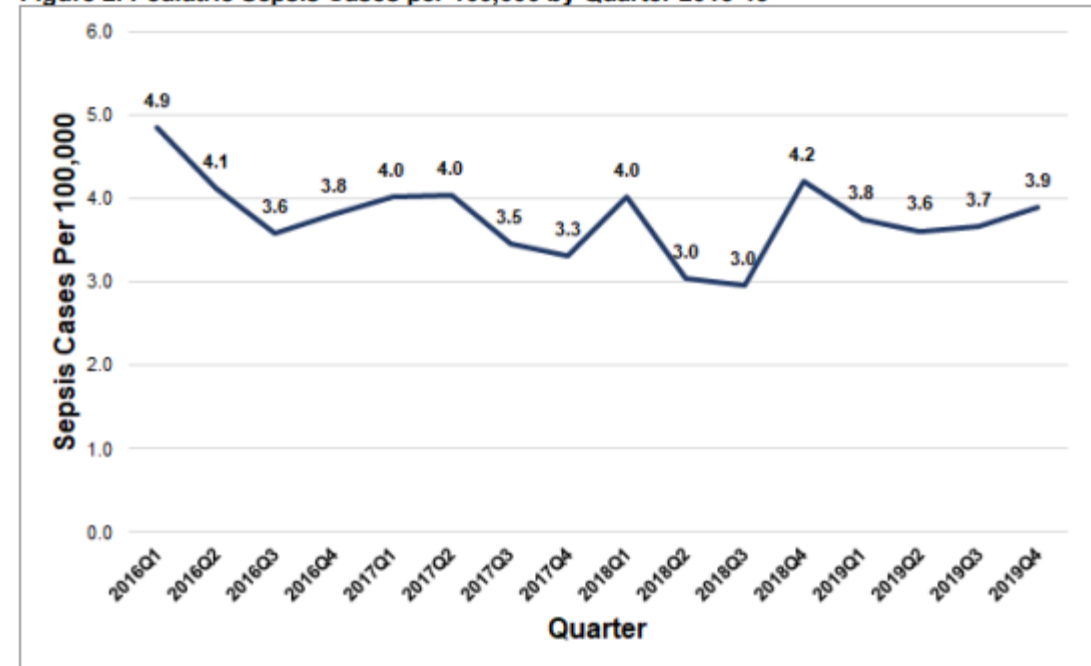
Figure 1. Adult Sepsis Cases per 100,000 by Quarter 2016-19



2019 Adult (total cases): 73,050

2019 Pediatric (total cases): 624

Figure 2. Pediatric Sepsis Cases per 100,000 by Quarter 2016-19



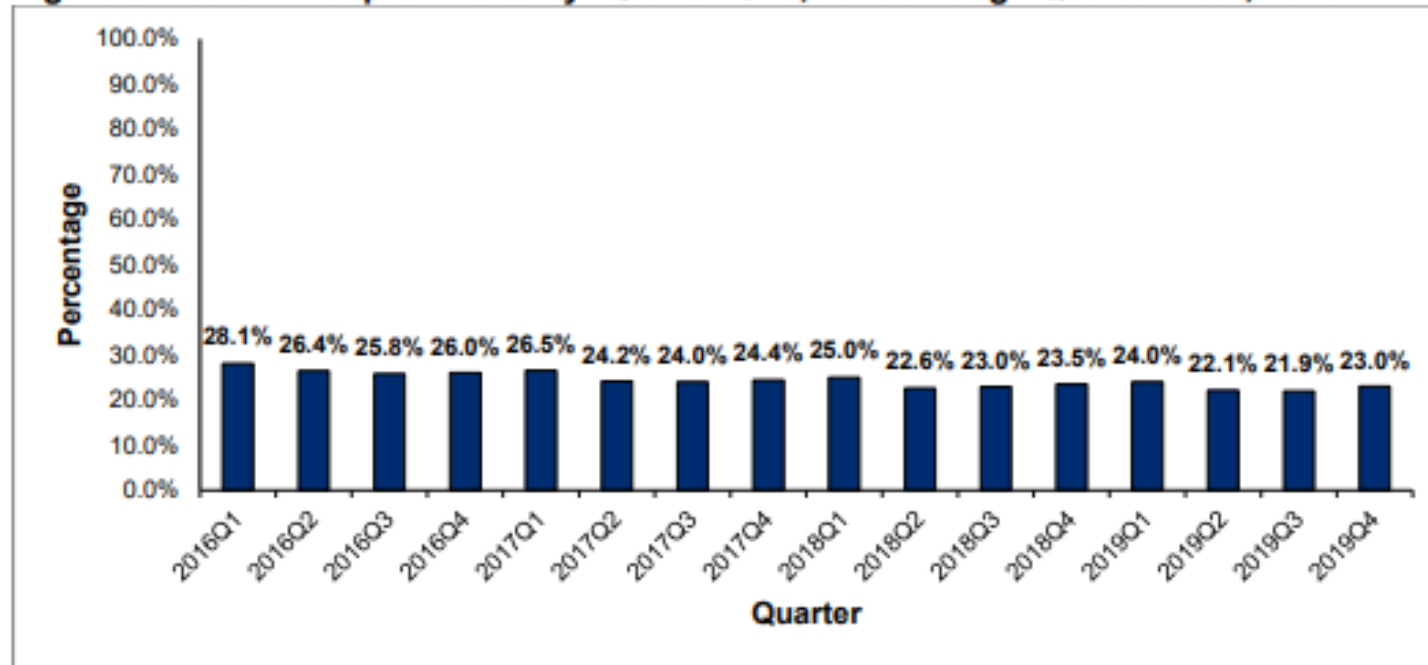
[2019_sepsis_care_improvement_initiative.pdf](#)



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IN-HOSPITAL MORTALITY FOR PATIENTS WITH SEVERE SEPSIS/SEPTIC SHOCK: ADULTS 2016-2019

Figure 8. Adult In-Hospital Mortality: Quarter One, 2016 through Quarter Four, 2019



2014 Q2 = 30.2%

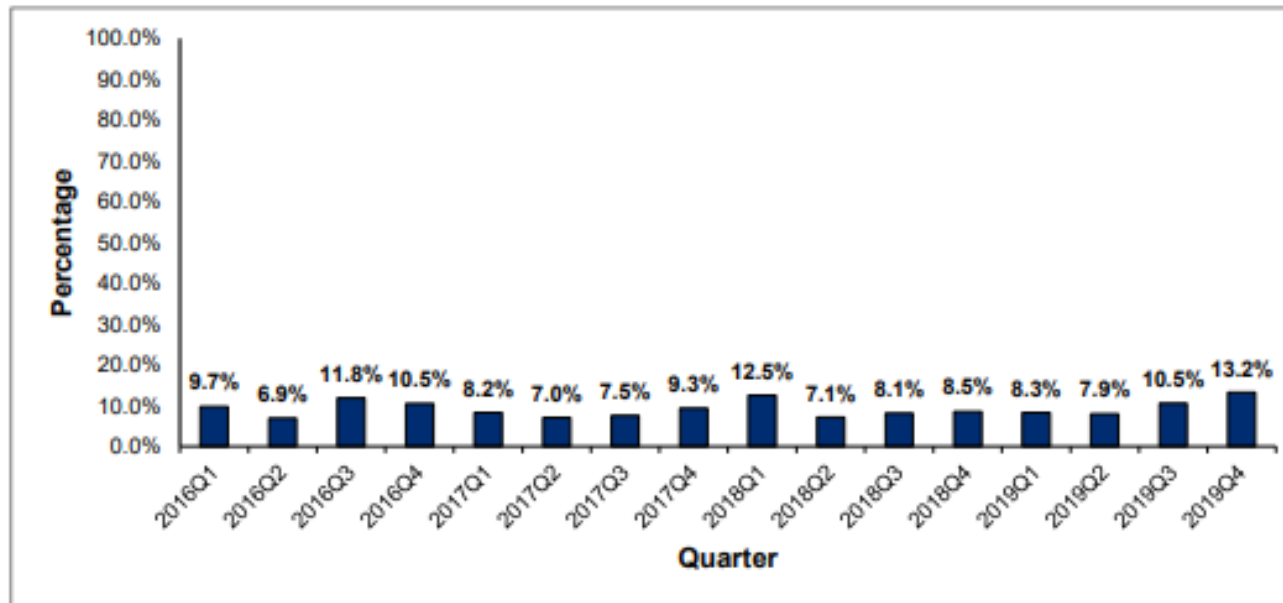


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[2019 sepsis care improvement initiative.pdf](#)

IN-HOSPITAL MORTALITY FOR PATIENTS WITH SEVERE SEPSIS/SEPTIC SHOCK: PEDIATRIC 2016-2019

Figure 9. Pediatric In-Hospital Mortality: Quarter One, 2016 through Quarter Four, 2019



2014 range = 6.8%-11.5%



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[2019 sepsis care improvement initiative.pdf](#)

SEPSIS PUBLIC REPORT, 2021

Sepsis Public Reports

[Sepsis Overview](#)[NYS Sepsis Care Improvement Initiative and NYS Regulations](#)[Data Collection](#)[Public Reports](#)[Data Requests](#)

The New York State (NYS) reports on the Sepsis Care Improvement Initiative build on the NYS Department of Health's long history of data driven quality improvement activities and its mission to protect, improve and promote the health, productivity and well-being of all New Yorkers. The reports detail data collection on adult and pediatric cases of severe sepsis and septic shock, sepsis quality measures and outcomes on which hospitals are compared and statewide trends for key quality measures and outcomes.

2021 Report on Sepsis Care Improvement Initiative

Notice: This report has been updated as of February 25, 2025. This includes updates to the risk-adjusted 30-day mortality model cohort, a clarification of the transfer exclusion in the risk-adjusted mortality methodology, and a modification of the categorization of Race/Ethnicity groups. This update impacts report pages displaying case volume or in-hospital mortality by Race/Ethnicity, 30-Day Risk-Adjusted Mortality (including model coefficients and hospital level risk-adjusted rates), and risk adjustment methodology. The supplemental PDF 'Adult Severe Sepsis/Septic Shock without COVID-19 Risk-Adjusted 30-Day Mortality Rates (RAMR) Per 100 Cases and 95% Confidence Interval (CI) by Hospital, 2021' has also been updated to reflect the revised rates.

- [2021 Report User Guide \(Updated February 2025\) \(PDF\)](#)
- [Adult Severe Sepsis/Septic Shock without COVID-19 Risk-Adjusted 30-Day Mortality Rates \(RAMR\) Per 100 Cases and 95% Confidence Interval \(CI\) by Hospital, 2021 \(Updated February 2025\) \(PDF\)](#)



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New York State Report on Sepsis Care Improvement Initiative 2021

[Introduction](#)[Technical Notes
and Terms](#)[Total Event Counts
by Hospitalization
Characteristics](#)[Total Case Counts
and In-Hospital
Mortality Rates by
Patient
Demographics](#)[NYS Resident Case
Counts and
In-Hospital Mortality
Rates by Patient
County](#)[NYS Resident Case
Counts and
Population Rates by
Patient
Demographics](#)[NYS Resident Case
Counts and
Population Rates by
Patient County](#)[NYS Resident
Risk-Adjusted
30-Day Mortality
Rates by Hospital](#)[Risk-Adjusted 30-
Day Mortality Rate
Methodology](#)

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<https://www.health.ny.gov/diseases/conditions/sepsis/reports.htm>

ADULT AND PEDIATRIC CASE COUNTS, 2021

Severe Sepsis/Septic Shock Patient Demographics, 2021

Select Metric to View

- ☒ Case Counts
☐ In-Hospital Mortality Rates Per 100 Cases

Select Population Group

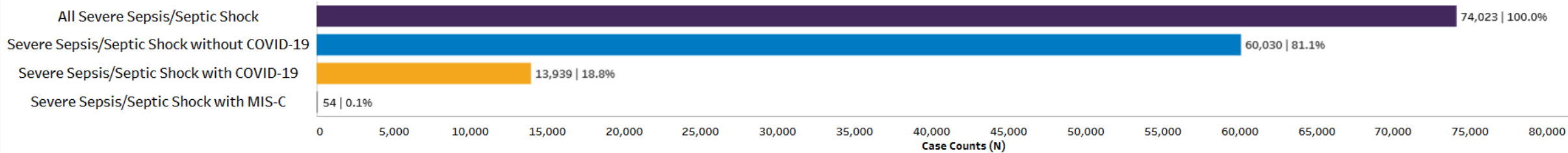
- ☐ Adult
☐ Pediatric
☒ Adult and Pediatric

Select Cohort

- ☒ All Severe Sepsis/Septic Shock
☐ Severe Sepsis/Septic Shock without COVID-19
☐ Severe Sepsis/Septic Shock with COVID-19
☐ Severe Sepsis/Septic Shock with MIS-C

Includes severe sepsis/septic shock cases in NYS hospitals regardless of patient residence.

Adult and Pediatric Case Counts by Cohort



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ADULT IN-HOSPITAL MORTALITY RATES, 2021

Severe Sepsis/Septic Shock Patient Demographics, 2021

Select Metric to View

- ☐ Case Counts
- ☒ In-Hospital Mortality Rates Per 100 Cases

Select Population Group

- ☒ Adult
- ☐ Pediatric
- ☐ Adult and Pediatric

Select Cohort

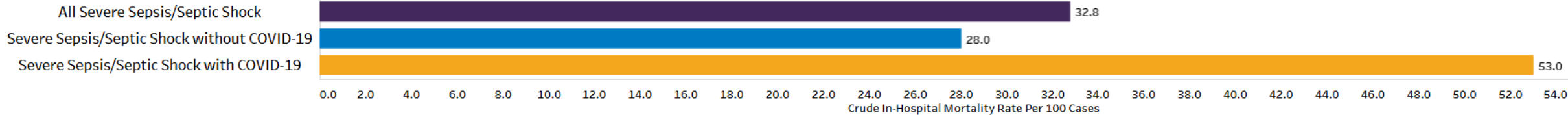
- ☒ All Severe Sepsis/Septic Shock
- ☐ Severe Sepsis/Septic Shock without COVID-19
- ☐ Severe Sepsis/Septic Shock with COVID-19

In-Hospital Mortality Rates Legend

-  Crude In-Hospital Mortality Rate Per 100 Cases
-  Age-Adjusted In-Hospital Mortality Rate Per 100 Cases

Includes severe sepsis/septic shock cases in NYS hospitals regardless of patient residence.

Adult In-Hospital Mortality Rates Per 100 Cases by Cohort



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PEDIATRIC IN-HOSPITAL MORTALITY RATES, 2021

Severe Sepsis/Septic Shock Patient Demographics, 2021

Select Metric to View

- ☐ Case Counts
☒ In-Hospital Mortality Rates Per 100 Cases

Select Population Group

- ☐ Adult
☒ Pediatric
☐ Adult and Pediatric

Select Cohort

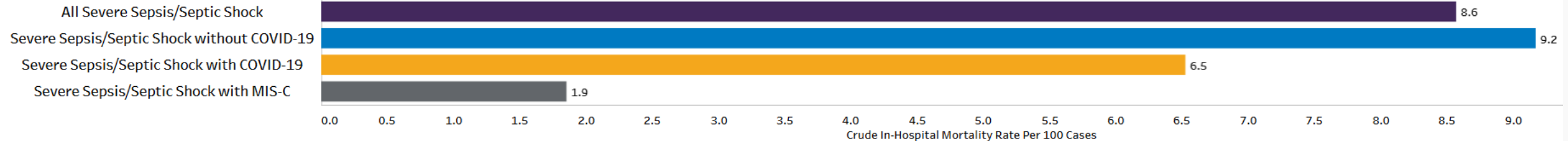
- ☒ All Severe Sepsis/Septic Shock
☐ Severe Sepsis/Septic Shock without COVID-19
☐ Severe Sepsis/Septic Shock with COVID-19
☐ Severe Sepsis/Septic Shock with MIS-C

In-Hospital Mortality Rates Legend

- Crude In-Hospital Mortality Rate Per 100 Cases
■ Age-Adjusted In-Hospital Mortality Rate Per 100 Cases

Includes severe sepsis/septic shock cases in NYS hospitals regardless of patient residence.

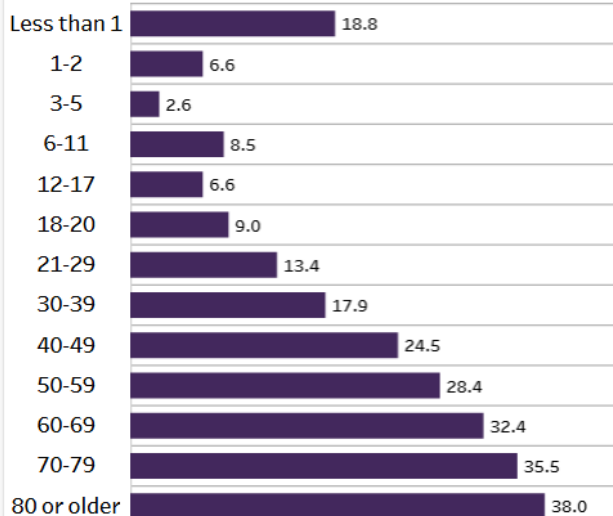
Pediatric In-Hospital Mortality Rates Per 100 Cases by Cohort



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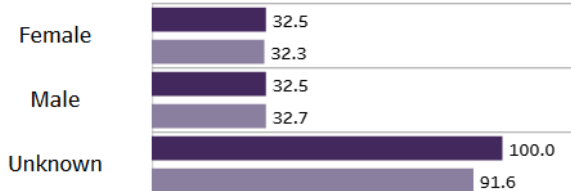
ADULT AND PEDIATRIC IN-HOSPITAL MORTALITY RATES BY PATIENT DEMOGRAPHICS, 2021

Adult and Pediatric
All Severe Sepsis/Septic Shock
In-Hospital Mortality Rates Per 100 Cases
by Age Group (years)

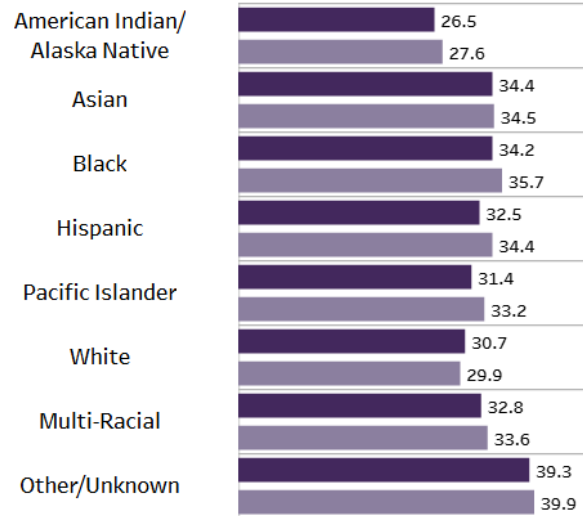


Age-adjusted in-hospital mortality rates by age group are not shown.

Adult and Pediatric
All Severe Sepsis/Septic Shock
In-Hospital Mortality Rates Per 100 Cases
by Sex

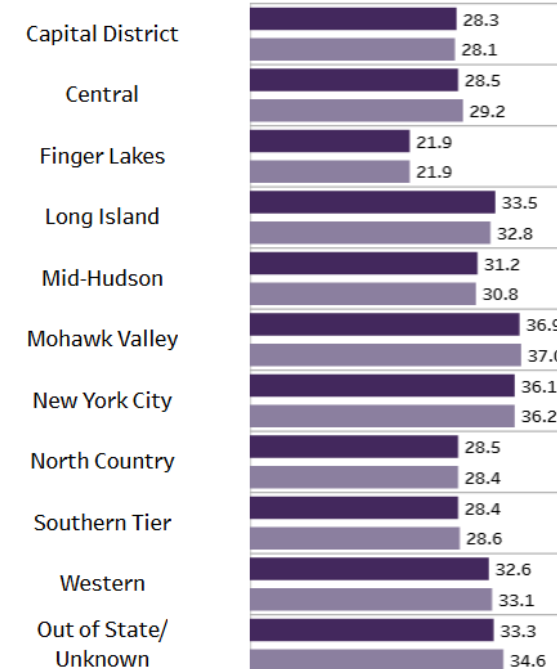


Adult and Pediatric
All Severe Sepsis/Septic Shock
In-Hospital Mortality Rates Per 100 Cases
by Race/Ethnicity



With the exception of Hispanic, Race/Ethnicity categories include both Non-Hispanic and Unknown Ethnicity.

Adult and Pediatric
All Severe Sepsis/Septic Shock
In-Hospital Mortality Rates Per 100 Cases
by Patient Economic Region



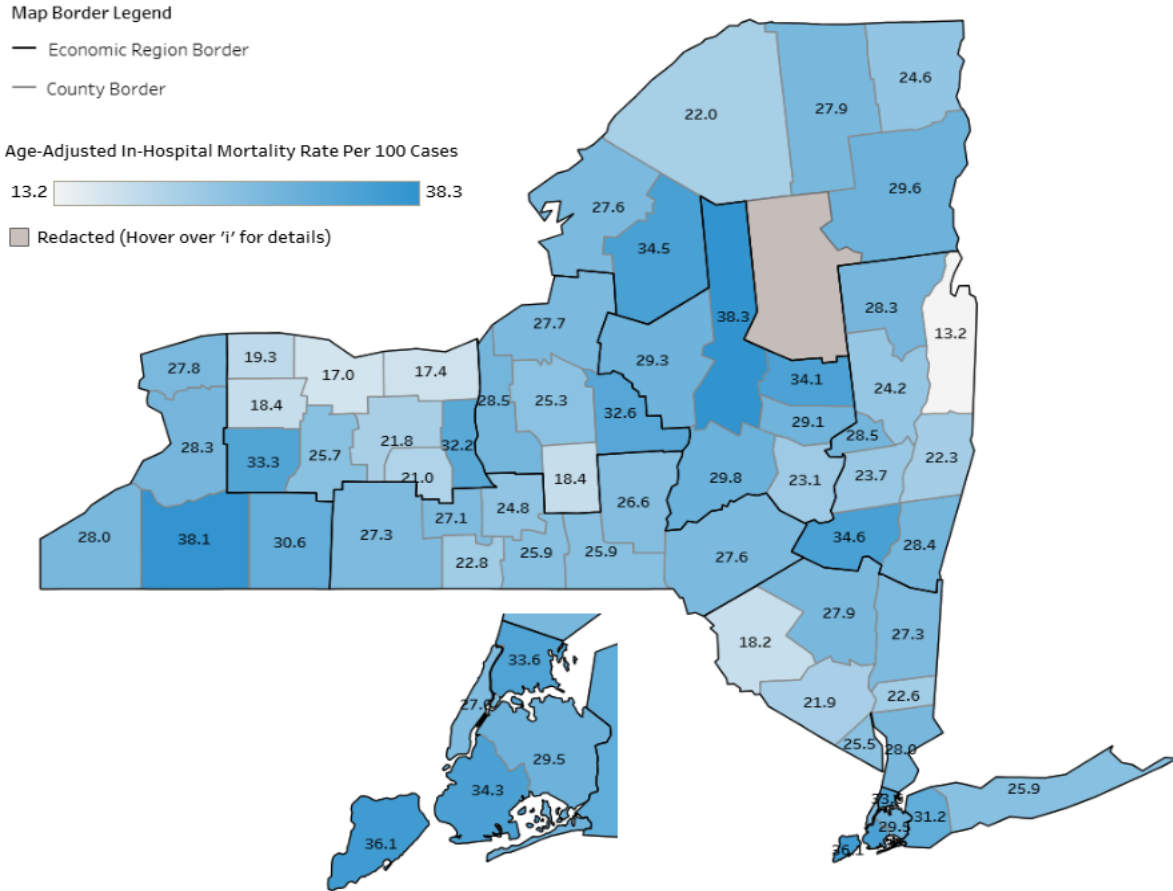
[Click here to view New York State counties by Economic Region in the Technical Notes and Terms.](#)

In-Hospital Mortality Rates Legend

- Crude In-Hospital Mortality Rate Per 100 Cases
- Age-Adjusted In-Hospital Mortality Rate Per 100 Cases

ADULT SEVERE SEPSIS/SEPTIC SHOCK WITHOUT COVID-19, IN-HOSPITAL MORTALITY RATES, 2021

Adult Severe Sepsis/Septic Shock without COVID-19
Age-Adjusted In-Hospital Mortality Rate Per 100 Cases
 by Patient County of Residence



ADULT AND PEDIATRIC EVENT COUNTS, 2021

Severe Sepsis/Septic Shock Hospitalization Characteristics, 2021

Select Population Group

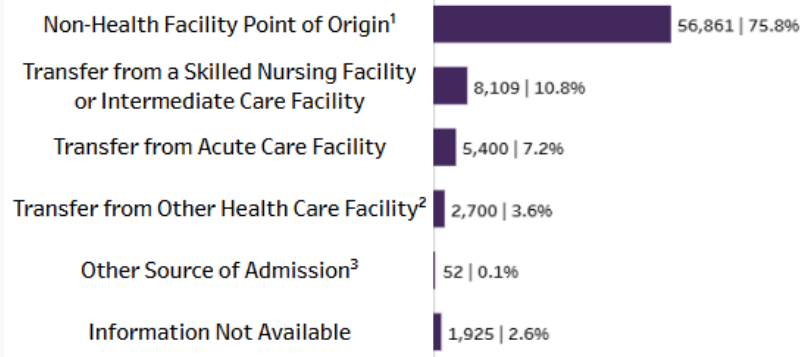
- ☐ Adult
☐ Pediatric
☒ Adult and Pediatric

Select Cohort

- ☒ All Severe Sepsis/Septic Shock
☐ Severe Sepsis/Septic Shock without COVID-19
☐ Severe Sepsis/Septic Shock with COVID-19
☐ Severe Sepsis/Septic Shock with MIS-C

Includes severe sepsis/septic shock events in NYS hospitals regardless of patient residence.

Adult and Pediatric All Severe Sepsis/Septic Shock Event Counts by Source of Admission

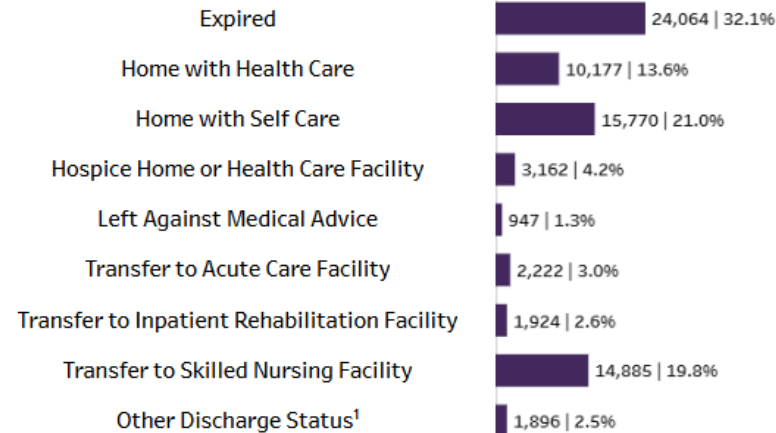


¹ Non-Health Facility Point of Origin includes Home and Assisted Living Facility

² Transfer from Other Health Care Facility includes: Clinic, Ambulatory Surgery Center, Another Health Care Facility

³ Other Source of Admission includes Court/Law Enforcement and Transfer from Hospice

Adult and Pediatric All Severe Sepsis/Septic Shock Event Counts by Discharge Status



¹ Other Discharge Status includes Admitted as Inpatient and Transfer to Other Health Care Facility

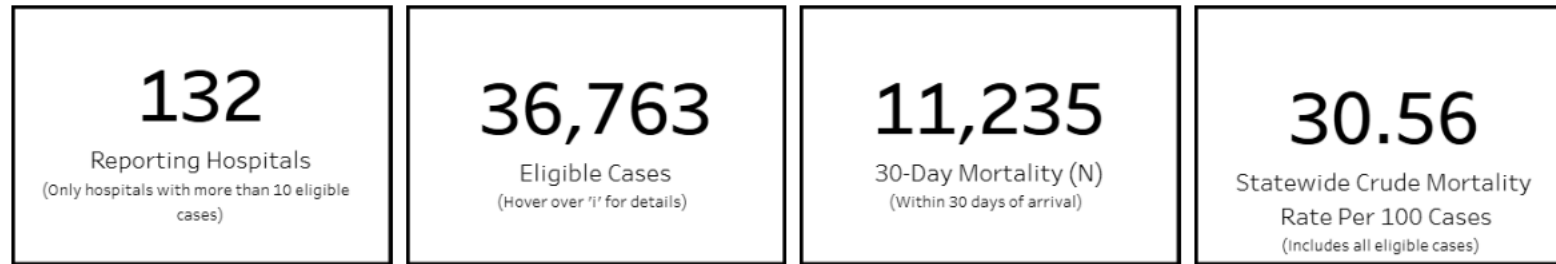


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RISK-ADJUSTED 30-DAY MORTALITY RATES, 2021

There may be risk factors, such as some medical comorbidities and social determinants of health, that were not accounted for in the risk adjustment which may have impacted the estimated rates.

Severe Sepsis/Septic Shock Risk-Adjusted 30-Day Mortality Rates by Hospital, 2021



Only cases of adult severe sepsis/septic shock without COVID-19 for NYS residents are included in the risk adjustment model. Hover over 'i' for details on exclusions for risk adjustment.

Select Permanent Facility Identifier (PFI) (All)	Select Hospital Name (All)	Select County (All)	Select Economic Region (All)	Click here to view New York State counties by Economic Region in the Technical Notes and Terms.
Sort Field Risk-Adjusted Mortality Rate	Sort Order Ascending	Performance Relative to Statewide Average * Lower SMR/RAMR indicates better performance Statistically Worse Not Statistically Different Statistically Better		

Eligible cases for risk adjustment include adult (age 21 or older) severe sepsis/septic shock without COVID-19 cases that were discharged in 2021, excluding:

- hospital arrivals/admissions prior to December 2, 2020
- cases from hospitals that submitted incomplete data
- severe sepsis/septic shock cases identified after hospital admission
- sepsis readmissions (prior sepsis admission within 30 days)
- transfers in from another acute care hospital
- transfers out to another acute care hospital within 30 days of admission
- admissions from hospice
- cases for out of state residents
- patients born prior to 1905
- cases with exclusions as described in the Technical Notes



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RISK-ADJUSTED 30-DAY MORTALITY RATES, 2021

Adult Severe Sepsis/Septic Shock without COVID-19 Risk-Adjusted 30-Day Mortality Rates (RAMR) per 100 Cases and 95% Confidence Interval (CI) by Hospital, 2021 (updated February 2025)

Permanent Facility Identifier (IFI)	Hospital Name	Hospital Case Count (N)	Risk-Adjusted Mortality Rate Per 100 Cases (95% CI)	Performance Relative to Statewide Average	
001117	Northern Westchester Hospital	316	20.78 (16.73-23.49)	Statistically Better	
001463	NYU Langone Hospitals	335	22.45 (19.03-25.05)	Statistically Better	
000541	North Shore University Hospital	640	23.65 (20.99-25.93)	Statistically Better	
001438	Bellevue Hospital Center	150	23.97 (19.00-27.46)	Statistically Better	
000218	Sisters of Charity Hospital	152	24.02 (18.64-27.86)	Statistically Better	
001464	New York-Presbyterian Hospital - Columbia Presbyterian Center	561	24.64 (21.88-27.05)	Statistically Better	
001453	Memorial Hospital for Cancer and Allied Diseases	334	24.65 (21.41-27.09)	Statistically Better	
000943	St Catherine of Siena Hospital	477	24.90 (21.64-27.83)	Statistically Better	
000511	NYU Langone Hospital Long Island	442	25.03 (21.75-27.80)	Statistically Better	
001439	Mount Sinai Beth Israel	330	25.45 (21.67-29.04)	Statistically Better	
001456	Mount Sinai Hospital	820	25.88 (22.97-28.99)	Statistically Better	
001168	Montefiore Medical Center-Wakefield Hospital	367	25.93 (22.63-28.73)	Statistically Better	
000628	UPSTATE University Hospital at Community General	185	26.19 (20.80-31.21)	Not Statistically Different	
000192	Northern Dutchess Hospital	31	26.39 (21.28-29.29)	Statistically Better	
001028	Newark-Wayne Community Hospital	217	26.59 (21.65-31.26)	Not Statistically Different	
001740	Staten Island University Hosp-North	515	26.79 (24.11-29.24)	Statistically Better	
000818	Saratoga Hospital	295	26.97 (22.62-31.21)	Not Statistically Different	
001304	NYU Langone Hospital-Brooklyn	355	27.20 (23.60-30.30)	Statistically Better	
000896	St. Charles Hospital	120	27.23 (22.01-31.55)	Not Statistically Different	
001626	Elmhurst Hospital Center	417	27.23 (23.64-30.54)	Statistically Better	
001186	North Central Bronx Hospital	93	27.40 (21.61-32.18)	Not Statistically Different	
003058	Montefiore Med Center - Jack D Weiler Hosp of A Einstein College Div	722	27.46 (25.00-29.58)	Statistically Better	
000594	St Luke's Cornwall Hospital/Henough	114	27.45 (22.74-31.50)	Not Statistically Different	
001630	Long Island Jewish Medical Center	454	27.57 (24.43-30.40)	Statistically Better	
003975	New York Presbyterian Hospital - Allen Hospital	257	27.74 (24.60-30.36)	Statistically Better	
000527	Mount Sinai South Nassau	522	27.75 (25.04-30.32)	Statistically Better	
000413	Strong Memorial Hospital	1,212	27.76 (25.18-30.35)	Statistically Better	
000490	Glen Cove Hospital	154	27.81 (23.47-31.41)	Not Statistically Different	
000895	John T Mather Memorial Hospital of Port Jefferson New York Inc	259	27.86 (24.05-31.52)	Not Statistically Different	
001458	New York-Presbyterian Hospital - New York Weill Cornell Center	330	27.86 (24.94-30.45)	Statistically Better	
000551	St. Joseph Hospital	147	27.96 (24.01-31.07)	Not Statistically Different	
001005	Glens Falls Hospital	237	27.98 (23.56-32.63)	Not Statistically Different	
000913	Huntington Hospital	361	28.05 (24.71-31.24)	Not Statistically Different	
000574	Niagara Falls Memorial Medical Center	25	28.07 (23.09-31.78)	Not Statistically Different	
001637	New York - Presbyterian/Queens	1,234	28.54 (25.99-31.03)	Not Statistically Different	
001445	Harlem Hospital Center	167	28.54 (24.16-32.75)	Not Statistically Different	
000246	Stony Brook University Hospital	602	28.54 (25.75-31.50)	Not Statistically Different	
000165	O'Connor Hospital	12	28.61 (24.89-30.91)	Not Statistically Different	
001098	St. Joseph's Medical Center	39	28.64 (23.75-32.70)	Not Statistically Different	
001633	Queens Hospital Center	199	28.71 (24.79-32.45)	Not Statistically Different	
000815	Canton-Potsdam Hospital	116	28.80 (23.12-34.45)	Not Statistically Different	
001305	Maimonides Medical Center	541	28.83 (26.06-31.58)	Not Statistically Different	
001324	Mount Sinai Brooklyn	318	29.06 (25.57-32.61)	Not Statistically Different	
001169	Montefiore Medical Center - Henry B Lury Moses Div	509	29.09 (25.97-31.90)	Not Statistically Different	
001454	Metropolitan Hospital Center	59	29.12 (23.36-34.90)	Not Statistically Different	
000739	A.O. Fox Memorial Hospital	53	29.13 (23.43-34.42)	Not Statistically Different	
000550	Syosset Hospital	48	29.15 (24.40-33.28)	Not Statistically Different	
000891	Stony Brook Eastern Long Island Hospital	11	29.27 (25.79-34.51)	Not Statistically Different	
001450	Lenox Hill Hospital	517	29.28 (26.04-32.52)	Not Statistically Different	
000563	St. Francis Hospital & Heart Center	227	29.32 (25.65-32.76)	Not Statistically Different	
000324	Adirondack Medical Center-Saranac Lake Site	36	29.34 (23.68-35.01)	Not Statistically Different	
000678	F.F. Thompson Hospital	202	29.40 (24.48-34.80)	Not Statistically Different	
000103	UPMC Chautauque at WCA	76	29.41 (24.20-34.33)	Not Statistically Different	
001738	Richmond University Medical Center	232	29.45 (25.83-33.13)	Not Statistically Different	
000001	Albany Medical Center Hospital	426	29.49 (26.12-32.70)	Not Statistically Different	
000513	Mercy Hospital	85	29.55 (25.34-33.49)	Not Statistically Different	
000990	HealthAlliance Hospital-Broadway Campus	107	29.58 (24.88-34.41)	Not Statistically Different	
001466	Mount Sinai West	353	29.65 (26.46-33.57)	Not Statistically Different	
000704	St Anthony Community Hospital	50	29.65 (24.09-35.33)	Not Statistically Different	
000779	Good Samaritan Hospital of Suffern	313	29.73 (25.84-33.70)	Not Statistically Different	
000718	Medina Memorial Hospital	21	29.80 (24.51-36.12)	Not Statistically Different	
001294	Coney Island Hospital	366	29.80 (26.68-32.66)	Not Statistically Different	
000924	South Shore University Hospital	265	29.80 (26.18-33.30)	Not Statistically Different	
000411	Rochester General Hospital	1,053	29.89 (26.65-33.13)	Not Statistically Different	
000583	Mount St. Mary's Hospital and Health Center	153	29.89 (24.57-35.52)	Not Statistically Different	
000699	Garnet Health Medical Center	581	30.04 (26.57-33.55)	Not Statistically Different	

Statewide Average: 30.56

Performance Relative to Statewide Average
 * Lower SMR/RAMR indicates better performance
 ■ Statistically Better
 ■ Not Statistically Different
 ■ Statistically Worse

Risk-Adjusted 30-Day Mortality Rate Per 100 Cases (95% CI)



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