



Department  
of Health

# Sepsis Collaborative Meeting

DECEMBER 4<sup>TH</sup>, 2024

# AGENDA

- Welcome and Introduction
- 2021 New York State Report on the Sepsis Care Improvement Initiative
  - Overview
  - Data Considerations
  - Demonstration
- Questions and Answers

# 2021 NEW YORK STATE REPORT ON THE SEPSIS CARE IMPROVEMENT INITIATIVE

## Overview:

- This is the first NYSDOH sepsis report published using data collected from hospitals using electronic abstraction (i.e. billing and EHR data)
- This is the first NYSDOH sepsis report issued since the COVID-19 Pandemic. As a reminder:
  - Reporting was suspended in 2020
  - 2021 represents the first full calendar year of the COVID-19 Pandemic in NYS
- This report contains data on patients who had severe sepsis/septic shock with and without COVID-19. This report does not include patients who only had severe COVID-19 or MIS-C.



# DATA CONSIDERATIONS



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# 2021 NEW YORK STATE REPORT ON THE SEPSIS CARE IMPROVEMENT INITIATIVE

**The 2021 Public Report should not be directly compared to prior years' reports:**

- This report only includes hospital encounters with ICD-10-CM codes for severe sepsis or septic shock among the 25 diagnoses submitted with the encounter
- COVID-19 impact on case volume and mortality rates

**Pediatric counts, incidence, and mortality rates should be interpreted with caution:**

- Severe sepsis/septic shock that occurred during a birth hospitalization is not reported

# 2021 NEW YORK STATE REPORT ON THE SEPSIS CARE IMPROVEMENT INITIATIVE

- The 2021 Public Report includes all reported Severe Sepsis/Septic Shock events, both with and without COVID-19
- Statewide volume, incidence, and mortality rates is reported for four cohorts
  - Severe Sepsis/Septic Shock without COVID-19
  - Severe Sepsis/Septic Shock with COVID-19
  - Severe Sepsis/Septic Shock with MIS-C (Pediatric Only)
  - All Severe Sepsis/Septic Shock
- Risk adjusted mortality does not include Severe Sepsis/Septic Shock Cases with COVID-19

# 2021 NEW YORK STATE REPORT ON THE SEPSIS CARE IMPROVEMENT INITIATIVE

The 2021 Public Report includes two different units of analysis:

## 1. Event:

- An individual hospital encounter with a reported diagnosis of severe sepsis or septic shock
- Used in describing hospitalization characteristics of severe sepsis/septic shock

## 2. Case:

- A single instance of severe sepsis/septic shock, even if reported across more than one hospital (i.e., transfers).
- Used in describing patient demographics, incidence rates, and risk adjusted mortality



# 2021 NEW YORK STATE REPORT ON THE SEPSIS CARE IMPROVEMENT INITIATIVE

- **Risk Adjusted Mortality: What is the same?**
  - **Objective:** Estimate the probability of mortality in patients with severe sepsis or septic shock based on demographics, comorbidities, severity of illness and other risk factors
  - **Estimation Methodology:** Multivariable mixed effect logistic regression model
  - **Output:** Hospital-level Risk Adjusted Mortality Rates (RAMR)
  - **Exclusions:**
    - Transfers
    - Out-of-State Patients
    - Sepsis Readmissions (Prior Sepsis Admission Within 30days)
    - Admissions from hospice
    - Patients born prior to 1905
    - Hospital arrivals prior to Dec 2, 2020





# 2021 NEW YORK STATE REPORT ON THE SEPSIS CARE IMPROVEMENT INITIATIVE

- **Risk Adjusted Mortality: What is different?**
  - **Population:** *Adult (21+)* Severe Sepsis and Septic Shock *present on admission* cases identified and submitted to the Department
  - **Outcome:** All Cause 30-day *post-arrival* mortality
  - **Exclusions:**
    - Severe Sepsis/Septic Shock Cases with COVID-19
    - Severe Sepsis/Septic Shock not Present on Admission
    - Facilities submitting partial data

# DEMONSTRATION



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# QUESTIONS?



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