

Challenge sepsis.
Change lives.



Improving Pediatric Sepsis Outcomes Collaborative Progress Report for Children's Hospital & Medical Center

Participating in IPSO since January 2020

IPSO Primary Points of Contact from Omaha CH

Carol Beare Amber Marquiss Kimberly Peterson

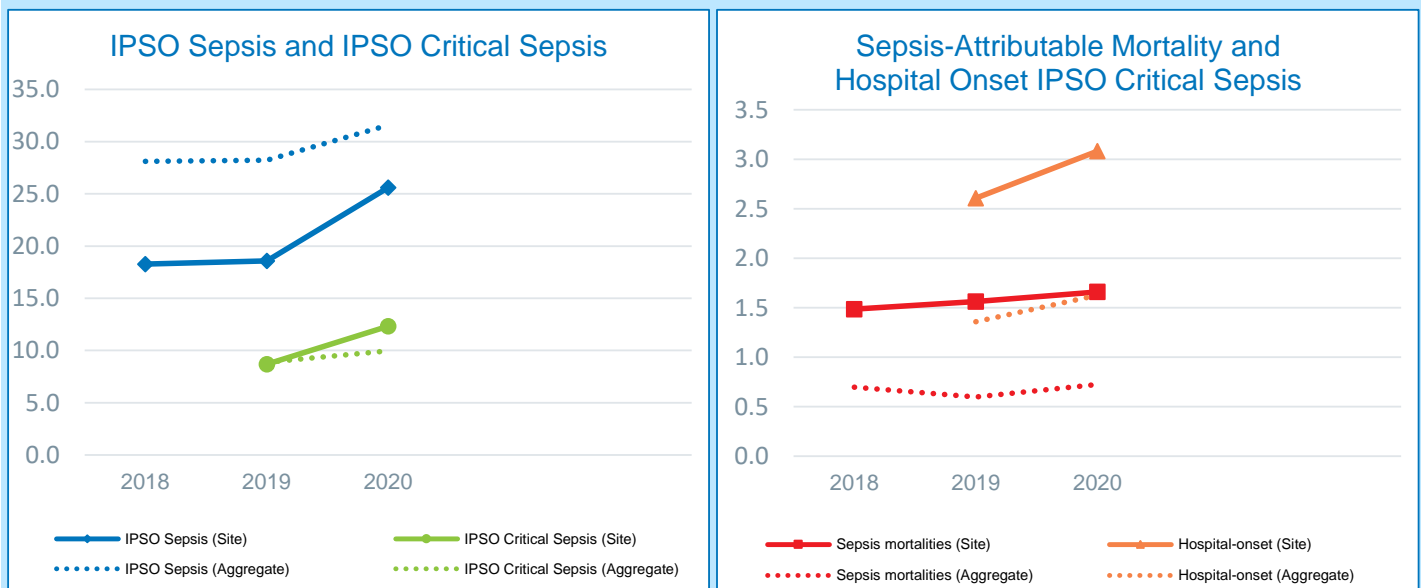
The Impact of Sepsis on Children

Data for January 2018 to December 2020

Omaha CH	2019	2020		
Cases of IPSO Sepsis	107	108		
Cases of IPSO Critical Sepsis	50	52		
Estimated cost of IPSO Critical Sepsis	\$3.2 - 4.3 M	\$3.3 - 4.4 M		
Sepsis-attributable mortalities	9	7		
Cases of hospital-onset IPSO Critical Sepsis	15	13		
Estimated cost of hospital-onset IPSO Critical Sepsis	\$0.9 - 1.3 M	\$0.8 - 1.1 M		
Cases of IPSO Suspected Infection	631	592		

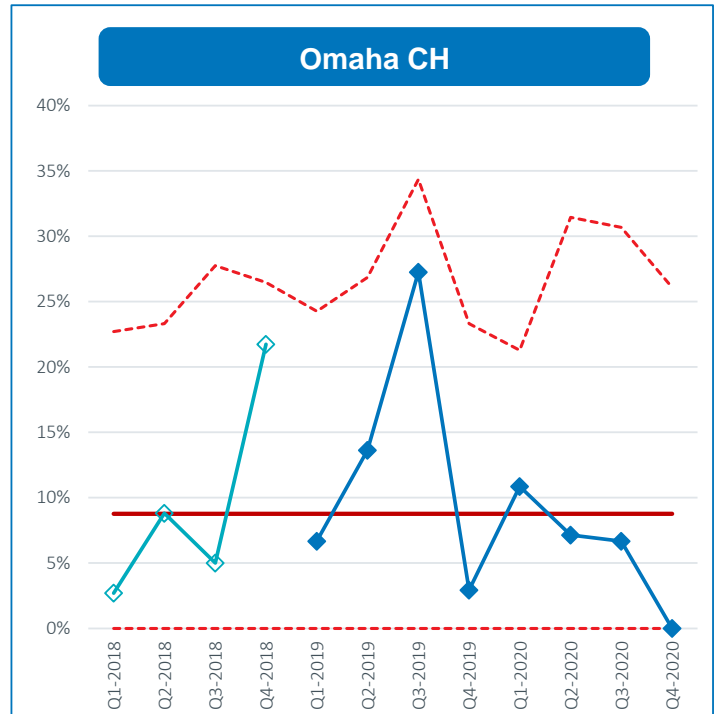
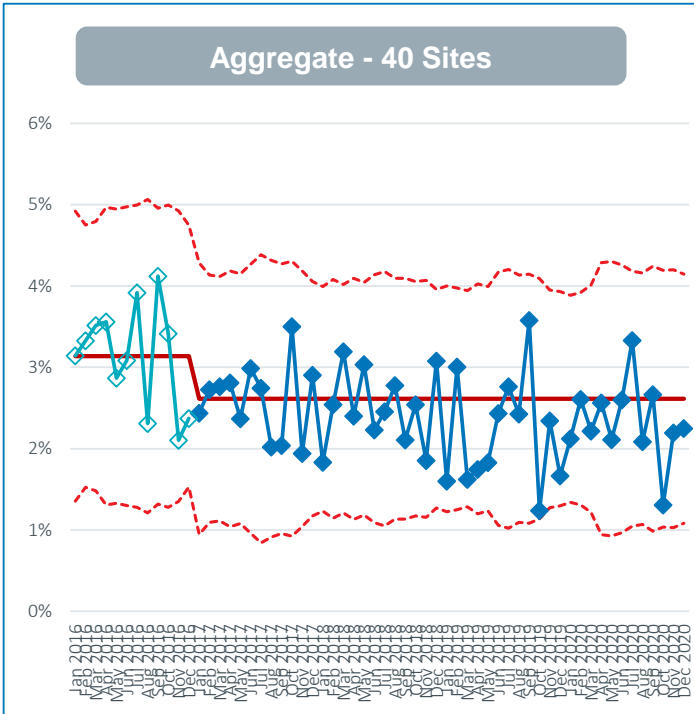
Severe sepsis/septic shock estimated cost per episode = \$65,000 - \$85,000 multiplied by the number of IPSO Critical Sepsis episodes.

Cases per 1,000 Hospital Admissions



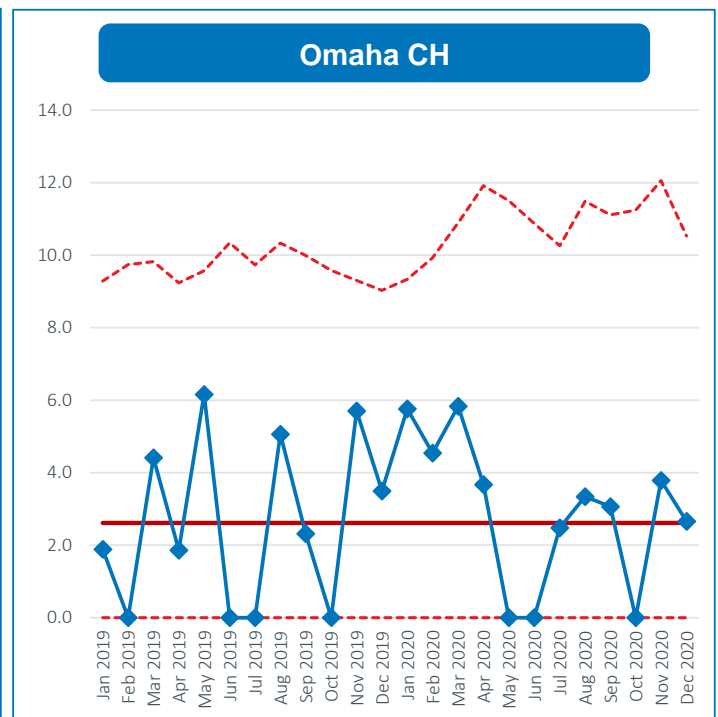
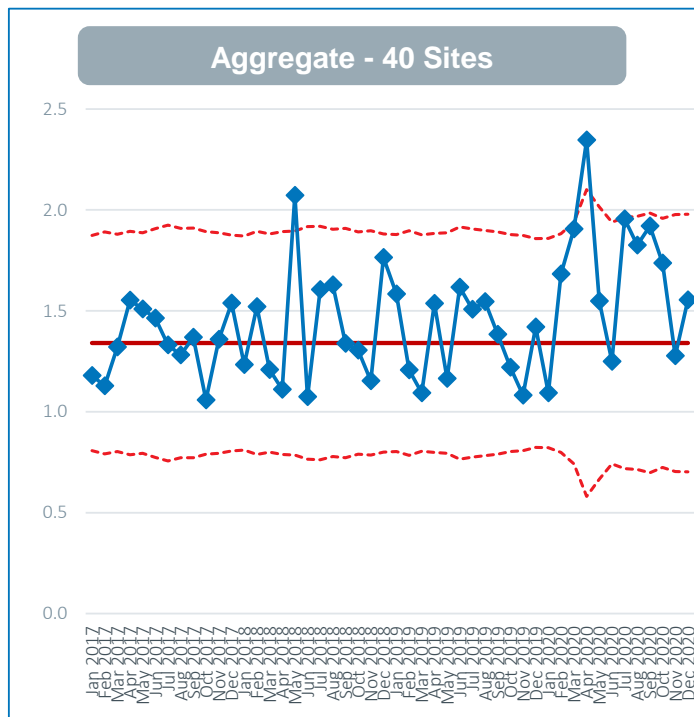
Reduced admissions resulting from the COVID-19 pandemic have inflated the cases per 1,000 admissions numbers, making it difficult to interpret these data. As admissions return to normal levels, the data will offer more reliable comparisons over time.

Sepsis Mortality at Day 30



Percent of IPSO Sepsis episodes where patient died and death was attributable to sepsis. Numerator: Count of sepsis-attributable deaths through Day 30. Denominator: Count of IPSO Sepsis episodes.

Hospital Onset IPSO Critical Sepsis



Numerator: Count of IPSO Critical Sepsis episodes where onset of sepsis was more than 12 hours after arrival.
Denominator: Hospital admissions/1000

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Omaha CH Progress on 5 Key Processes and Overall Compliance

	IPSO Goal		Aggregate - 40 Sites			Omaha CH			
	Desired Direction	Target	Jan 2019- Dec 2019	Jan 2020- Dec 2020	Direction	Jan 2019- Dec 2019	Jan 2020- Dec 2020	Direction	Change
Screen Activations	↑	85%	51%	54%	↑	13%	20%	↑	Increasing in desired direction.
Huddle Activations	↑	85%	28%	40%	↑	7%	4%	↓	Decreasing in undesired direction.
Order Set Utilization	↑	85%	42%	41%	↓	7%	18%	↑	Increasing in desired direction.
Time to First Bolus (min)	↓	20	41	43	↑	85	48	↓	Decreasing in desired direction.
Time to First Antibiotic (min)	↓	60	101	108	↑	102	102	■ ■ ■	No change.
Overall Bundle Compliance	↑	85%	28%	40%	↑	16%	26%	↑	Increasing in desired direction.

Omaha CH Progress Implementing 5 Key Processes by Care Setting

	Screen Activations	Huddle Activations	Order Set Utilization	Time to First Bolus	Time to First Antibiotic
ED	●	●	●	○	○
PICU	●	●	●	○	○
General Care	●	●	●	○	○
Hem Onc	●	●	●	○	○
Legend	Performing Consistently ●	Performing Inconsistently ●	Testing ●	Planning ●	Not Started ○
<i>Progress based on survey response submitted on January 11, 2021. Additional progress may have been made since the survey.</i>					

Significant Improvement in IPSO Quality Measures

Congratulations! Your hospital has achieved statistically significant improvement in the following IPSO quality measures since January 2020.

- IPSO Sepsis patients have fewer days in the ICU.

IPSO Manuscript Authorship

All IPSO sites who have submitted data have the opportunity to name a collaborative investigator, as appropriate, for all collaborative-initiated manuscripts. Three IPSO manuscripts have been published since 2020. Contributors from Omaha CH are noted below where applicable.

Scott HF, et al. Evaluating Pediatric Sepsis Definitions Designed for Electronic Health Record Extraction and Multicenter Quality Improvement. Crit Care Med. 2020 Oct;48(10):e916-e926.
doi: 10.1097/CCM.0000000000004505. PMID: 32931197.

(Not Eligible)

Larsen GY, et al. Development of a Quality Improvement Learning Collaborative to Improve Pediatric Sepsis Outcomes. Pediatrics Jan 2021, 147 (1) e20201434;
DOI: 10.1542/peds.2020-1434

(Not Eligible)

Paul R, et al. Metric Development for the Multicenter Improving Pediatric Sepsis Outcomes (IPSO) Collaborative. Pediatrics Apr 2021, e2020017889;
DOI: 10.1542/peds.2020-017889

(Not Eligible)

2020-21 Collaborative Presentations by Omaha CH

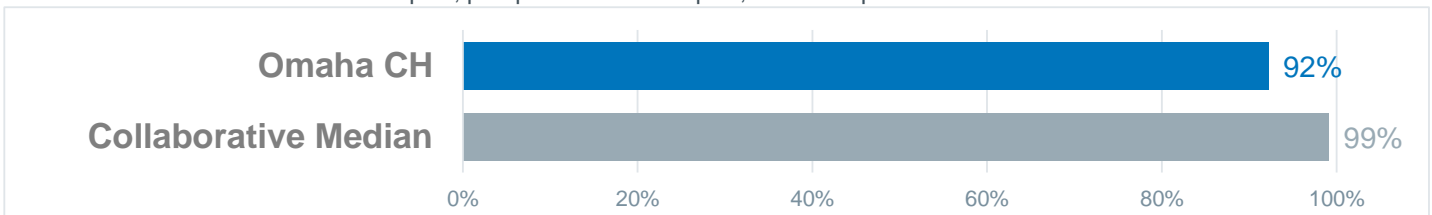
Individuals from Omaha CH presented at IPSO workshops and webinars in 2020 and 2021.

Russell McCulloh CHA Webcast (Sep 2020) - Leveraging Technology and Telehealth to Improve Sepsis Care for Children

Bridget Norton IPSO Collaborative Workshop (Dec 2020) - Plenary

Data Submission Progress

Number of months baseline IPSO Sepsis, prospective IPSO Sepsis, IPSO Suspected Infection data submitted / months due.



Your site's data is currently included in aggregate reports. Inclusion in aggregate requires that IPSO Sepsis data submission is no more than 3 months behind with no data quality concerns.

Omaha CH Participation Highlights

At the December IPSO Workshop, Dr. Bridget Norton presented a plenary session titled, "Cognitive Bias & Sepsis: One Team's Story." This presentation received the highest possible marks on the workshop evaluations.

Children's Hospital & Medical Center (CHMC) has successfully implemented their Inpatient Sepsis Order Set. Order set usage is shown to result in more timely delivery of fluids and antibiotics.

CHMC has been a strong collaborator through the above contributions, and also through active participation in web-based activities such as webinars and problem-solving sessions. Others have learned from your team and been encouraged.

CHMC is one of the top performers in IPSO for its inclusion of physicians and nurses from all key care settings, pharmacy, infection prevention/control, lab, respiratory therapy, and family advisor, quality experts, and data/informatics experts (analyst, data entry, data collector, IT).

CHMC has been successful in the ongoing, on-time submission of prospective data.