OHIO HOSPITAL ASSOCIATION

IMPROVING PEDIATRIC SEPSIS OUTCOMES

August 16, 2023

SEPSIS WEBSITE

ohiohospitals.org/sepsis

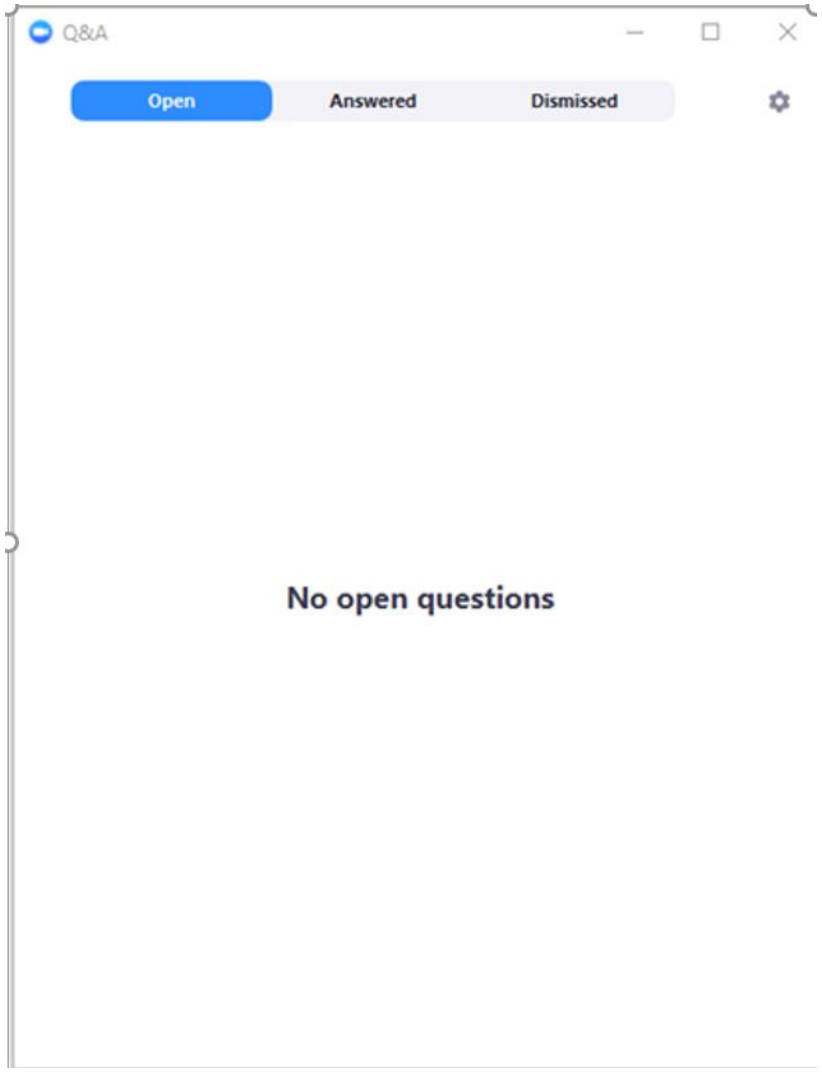
CONTINUING EDUCATION

- The link for the evaluation of today's program is: https://www.surveymonkey.com/r/Sepsis-August2023

- Please be sure to access the link, complete the evaluation form, and request your certificate. The evaluation process will remain open **two weeks** following the webcast. Your certificate will be emailed to you when the evaluation process closes after the 2-week process.

- If you have any questions, please contact Dorothy Frabott (Dorothy.Frabott@ohiohospitals.org)

SUBMITTING QUESTIONS



PRESENTER(S)

KALYN SEISLOVE, APRN-CNP
Pediatric Nurse Practitioner
Akron Childrens Hospital

AMY McHENRY, DNP, APRN-CNP
Pediatric Nurse Practitioner
Akron Childrens Hospital

Improving Pediatric Sepsis Outcomes at Akron Children's Hospital

Kalyn Seislove, MSN, CPNP-AC/PC, CCRN
Amy McHenry, DNP, CPNP-AC/PC, CCRN

Akron Children's Hospital

No financial disclosures

Objectives

- Discuss Akron Children's Hospital involvement in national IPSO collaborative to standardize and improve sepsis care for pediatric patients
- Highlight the implementation of IPSO recommendations
- Address the successes and barriers over the last four years
- At the completion of this program, the participant will describe strategies for improving sepsis care for pediatric patients using tools, resources, and best practices.

2022 Facts and Stats

TRANSPORTS

161
AIR BEAR TRANSPORTS

3,002
GROUND TRANSPORTS

222,407
SCHOOL HEALTH CLINIC VISITS

6,340
CHILDREN'S HOME CARE VISITS

AT-A-GLANCE

2
CHILDREN'S HOSPITALS

35
PEDIATRICIAN OFFICES

4
URGENT CARES

50
PRIMARY & SPECIALTY LOCATIONS

TOTAL VISITS

88,611
ER VISITS

547,359
PRIMARY CARE VISITS

1,268,162
TOTAL OUTPATIENT VISITS

30,574
URGENT CARE VISITS

16,945
SURGERIES

9,362
INPATIENT ADMISSIONS

2019

Teams
Data

2021

We're Back

2022

March
Go-live

Resources

COVID

February
Fire

2022

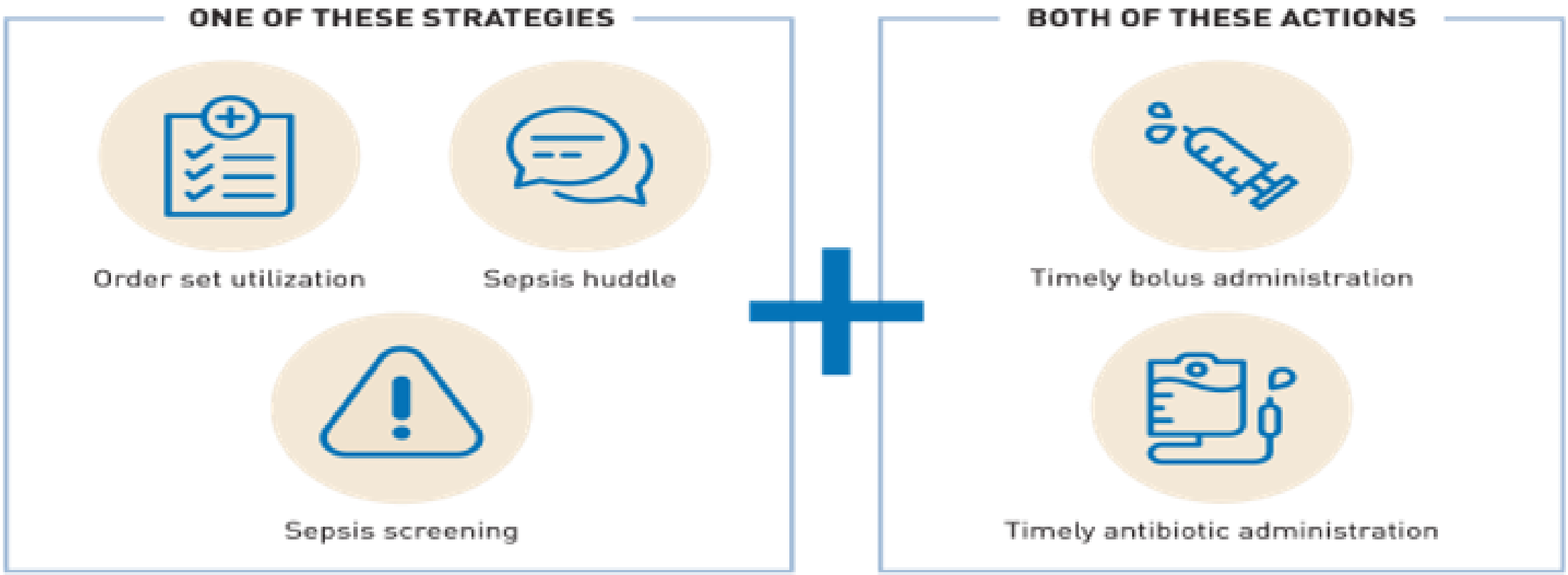
March
EPIC BPA Go-Live

2023

What is IPSO?

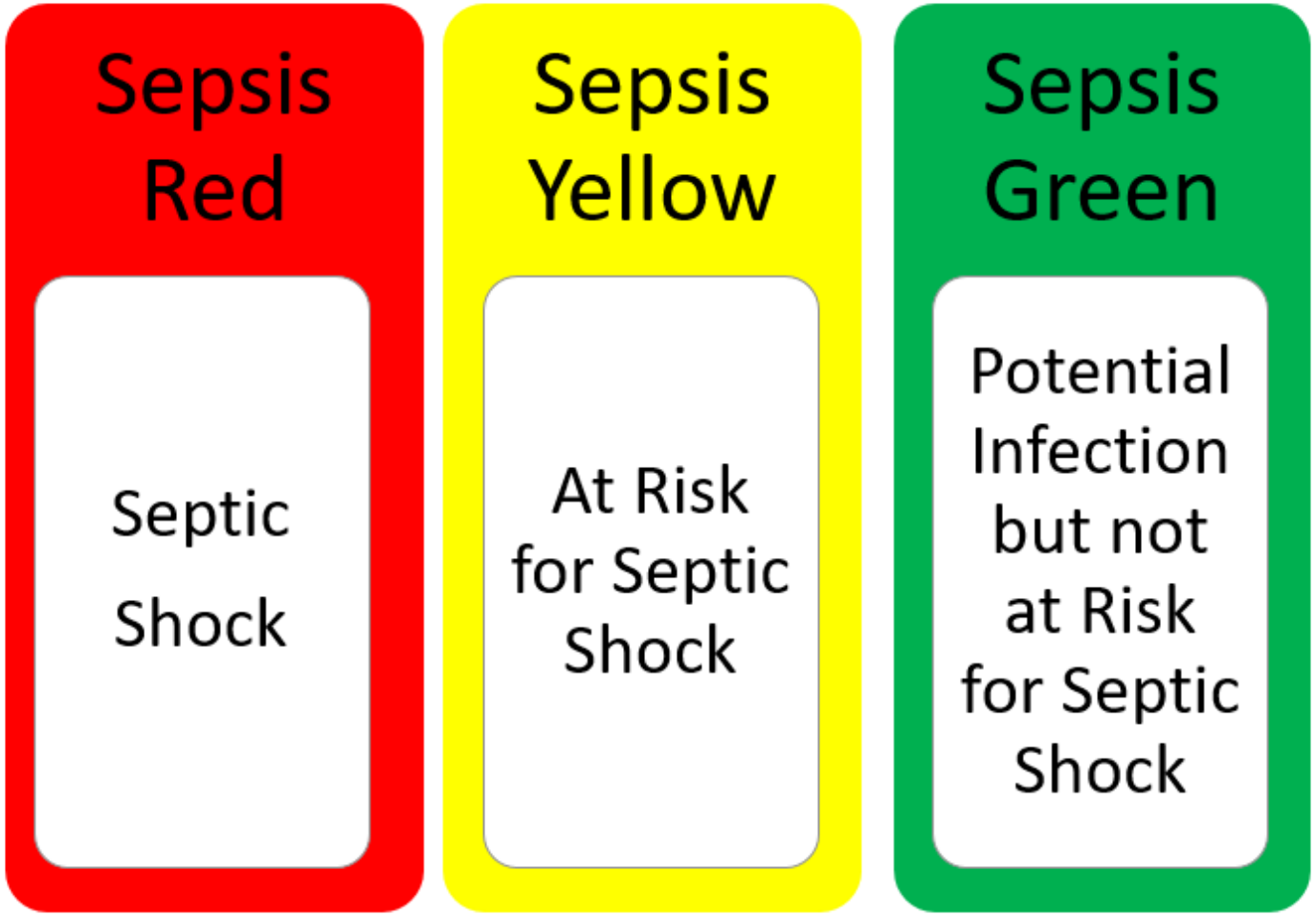
- Children's Hospital Association QI collaborative called Improving Pediatric Sepsis Outcomes
- IPSO Suspected Sepsis vs IPSO Critical Sepsis
- Decreased mortality with timely treatment

IPSO Recommended Key Metrics



Akron Children's Hospital

Akron Children's Common Language



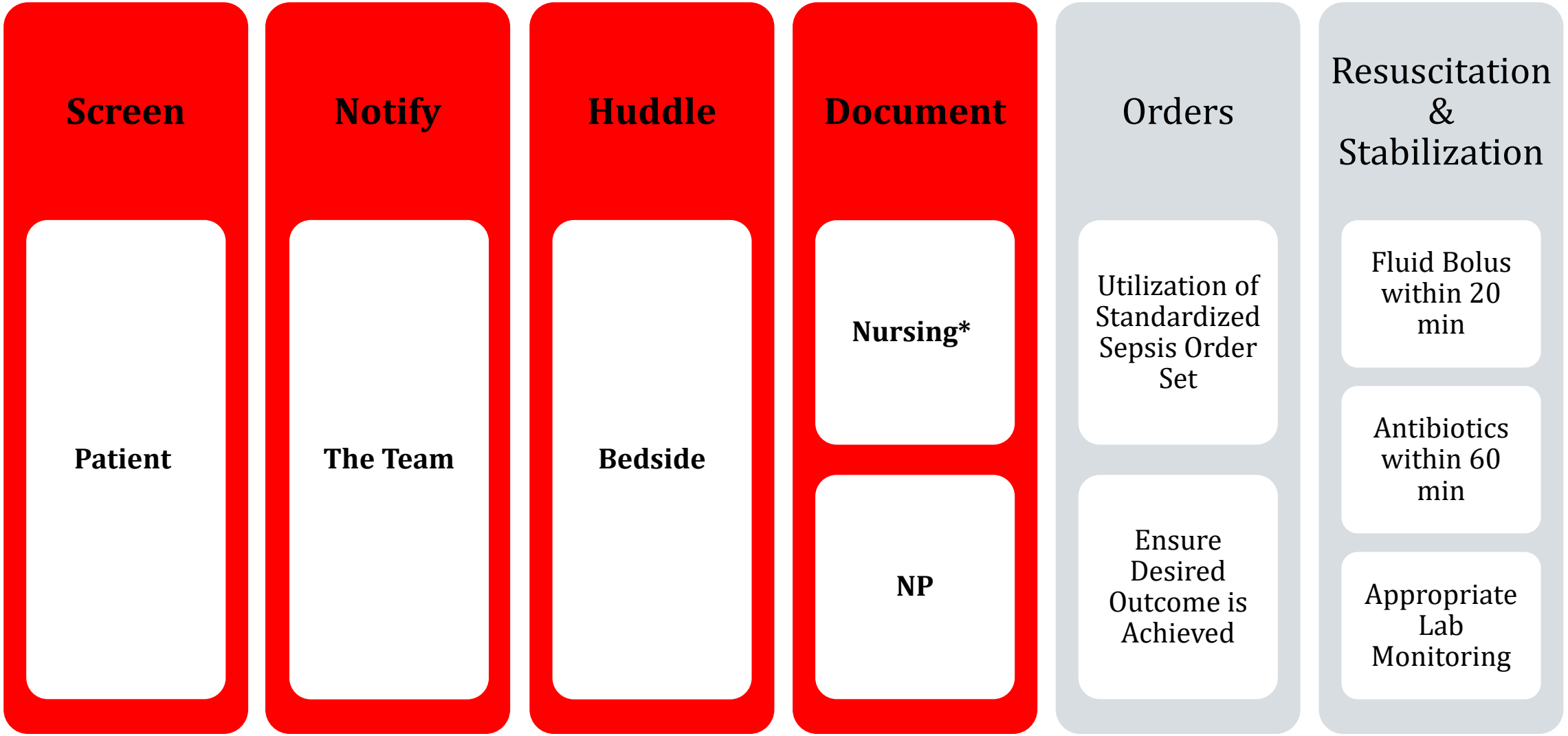
Akron Children's Hospital

How did we get staff on board?

- Multimodal education
- Engagement and Awareness Activities

Akron Children's Hospital

Sepsis Process Map



Sepsis Trigger Tool

Akron Children's Hospital

Literature review: PICU specific trigger tools

CHOP PICU trigger tool

- Sepsis Clinical Pathway – Emergency Department, Inpatient and PICU | Children's Hospital of Philadelphia (chop.edu)

KDD and PDSAs

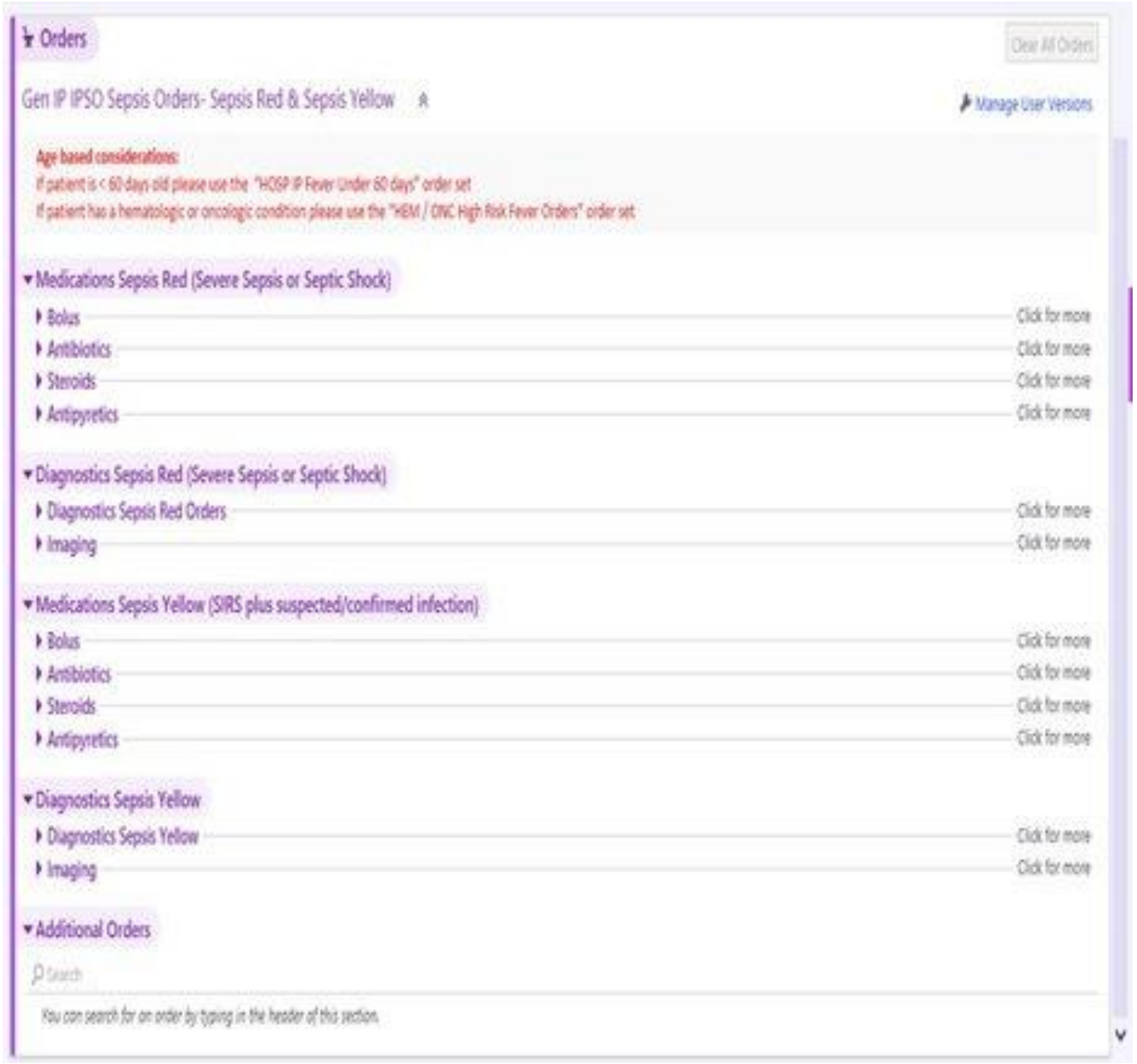
- Feedback from nursing and providers
- Interventions to improve sensitivity and specificity

Early Identification in the ED, Acute Care Floor and Hematology/Oncology Units

- Deterioration Index on Acute Care Floors
- Febrile Neutropenia Pathway in Hematology and Oncology Unit
- EPIC BPA in Emergency Department

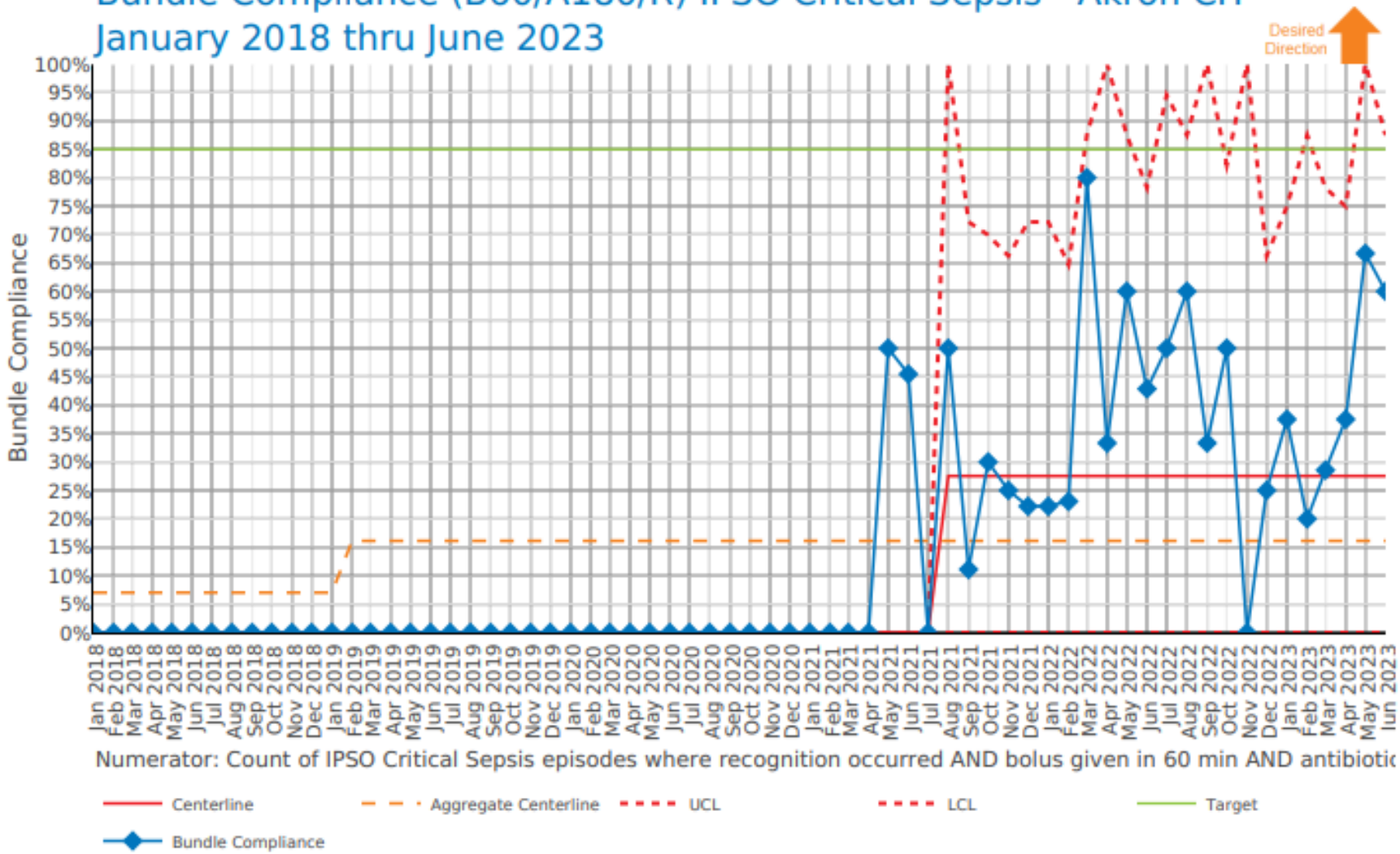
Akron Children's Hospital

Standardized Order Set



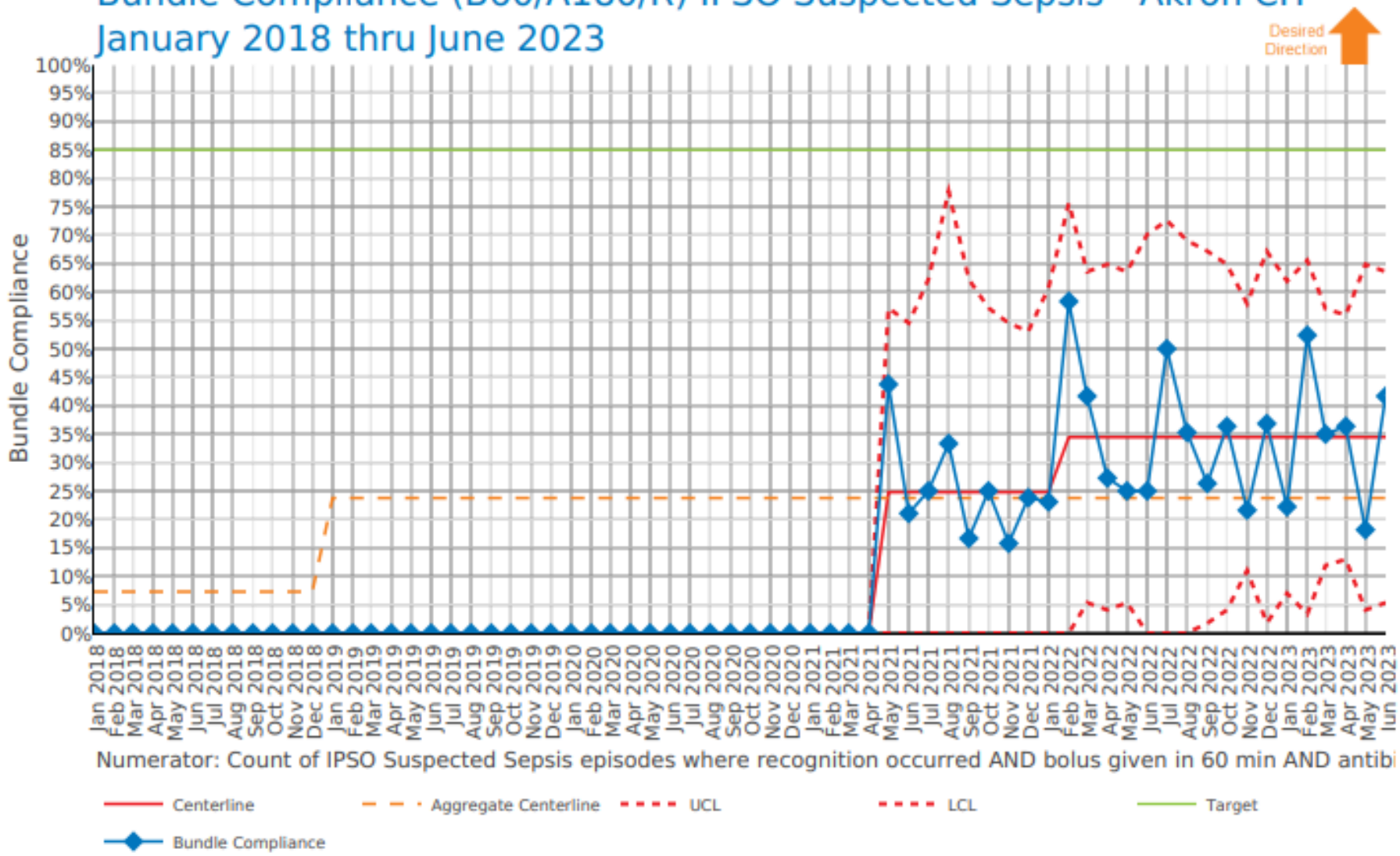
Akron Children's Hospital

Bundle Compliance (B60/A180/R) IPSO Critical Sepsis - Akron CH
January 2018 thru June 2023



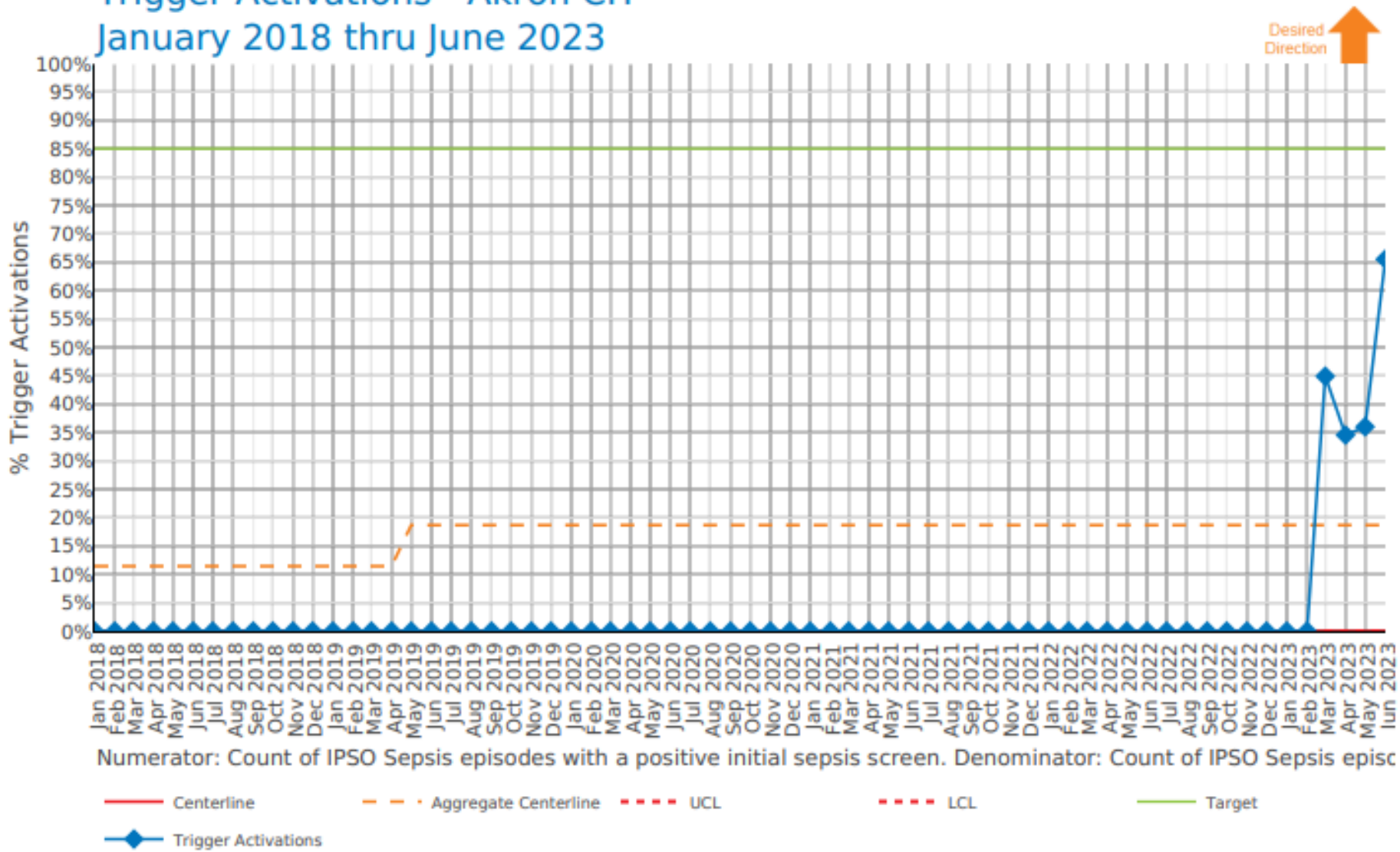
Akron Children's Hospital

Bundle Compliance (B60/A180/R) IPSO Suspected Sepsis - Akron CH
January 2018 thru June 2023



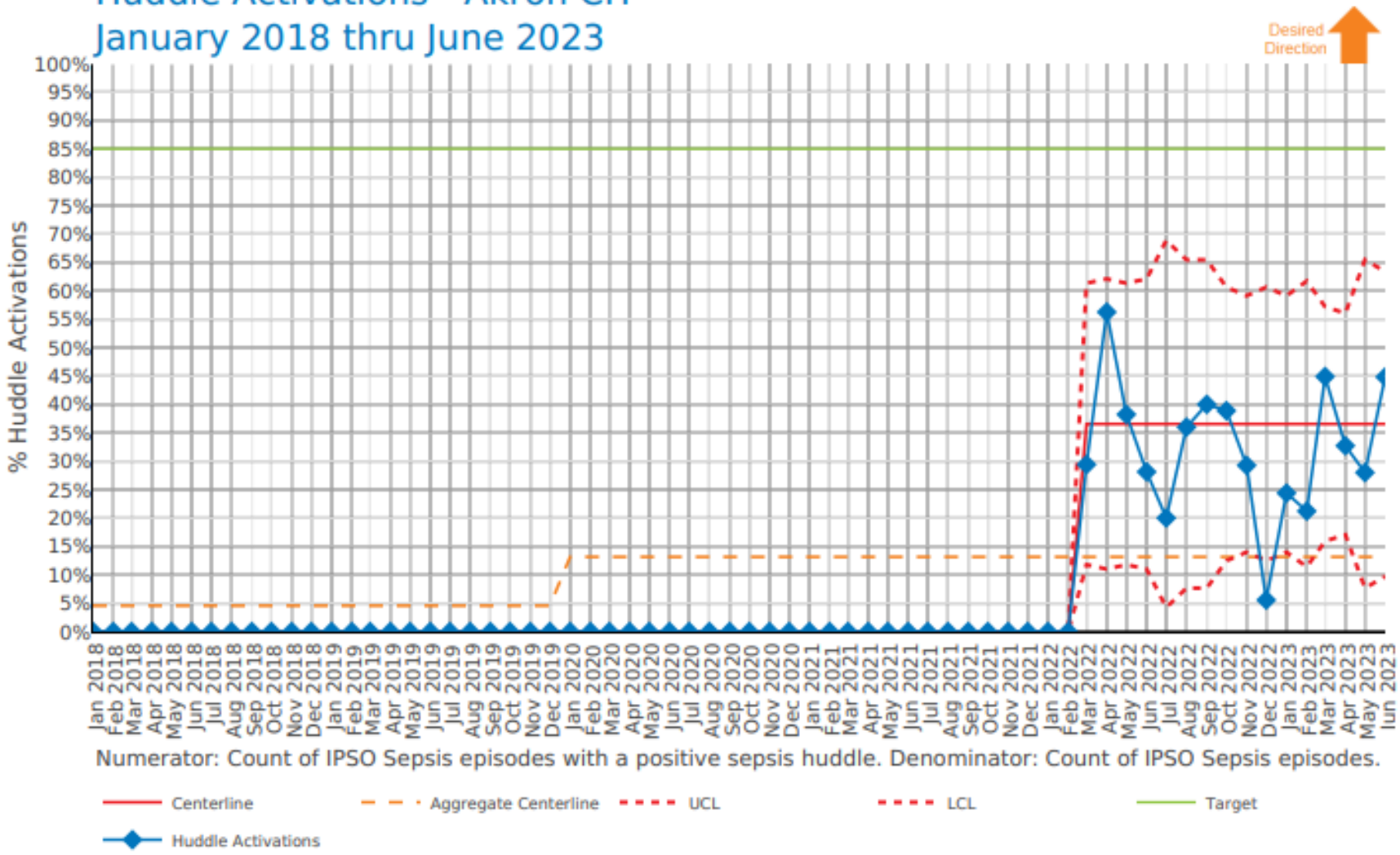
Akron Children's Hospital

Trigger Activations - Akron CH
January 2018 thru June 2023

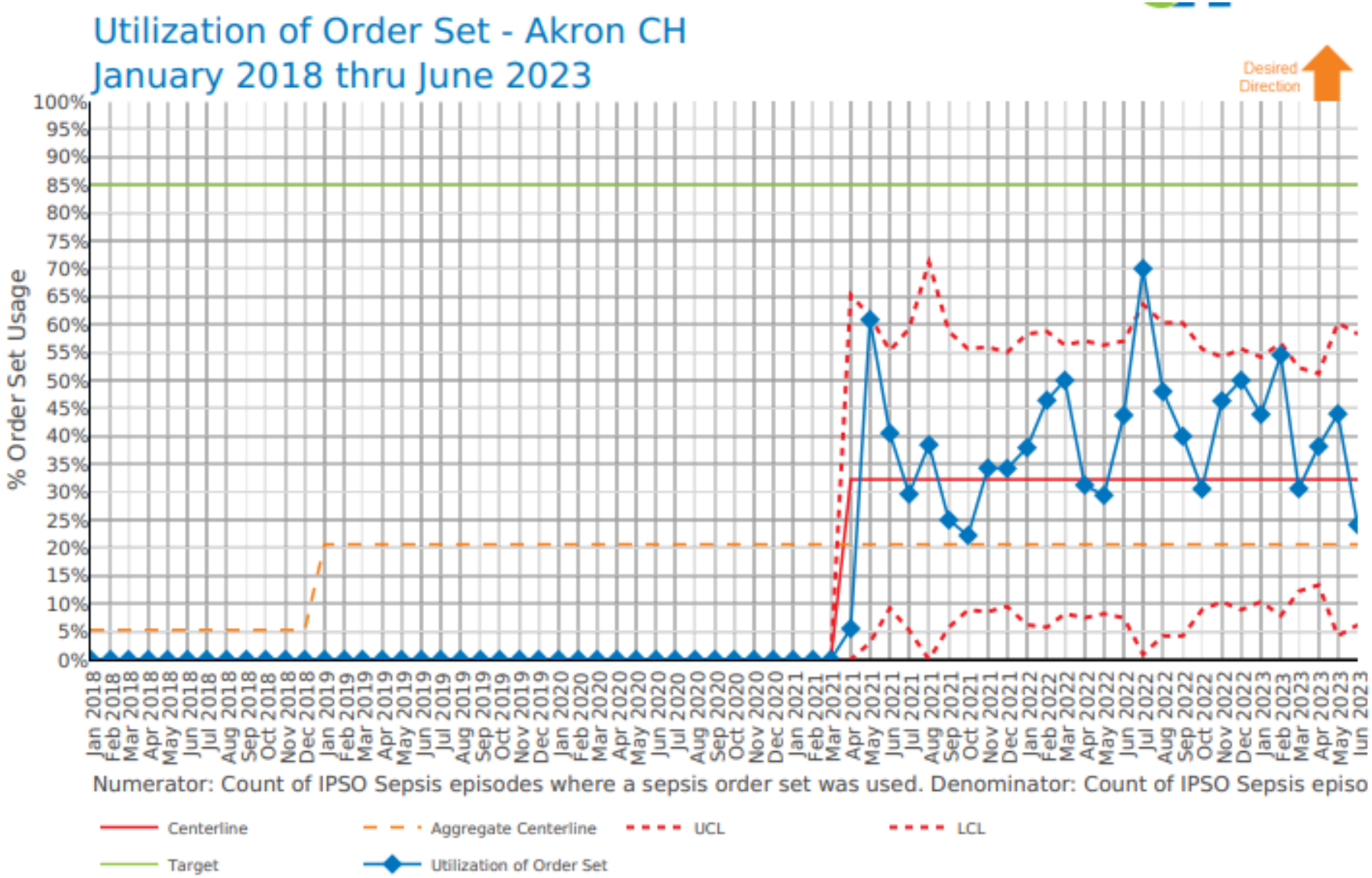


Akron Children's Hospital

Huddle Activations - Akron CH
January 2018 thru June 2023

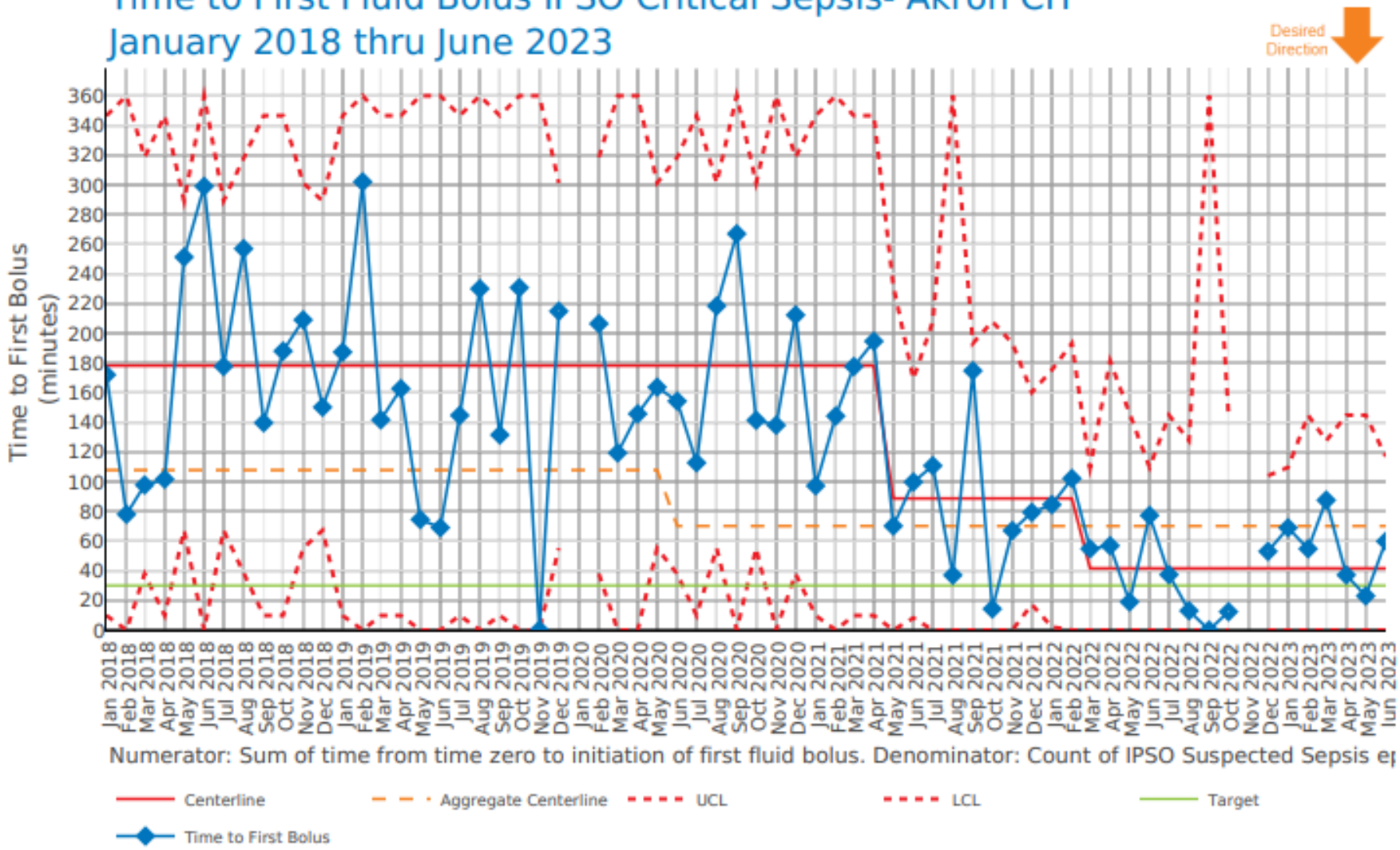


Akron Children's Hospital

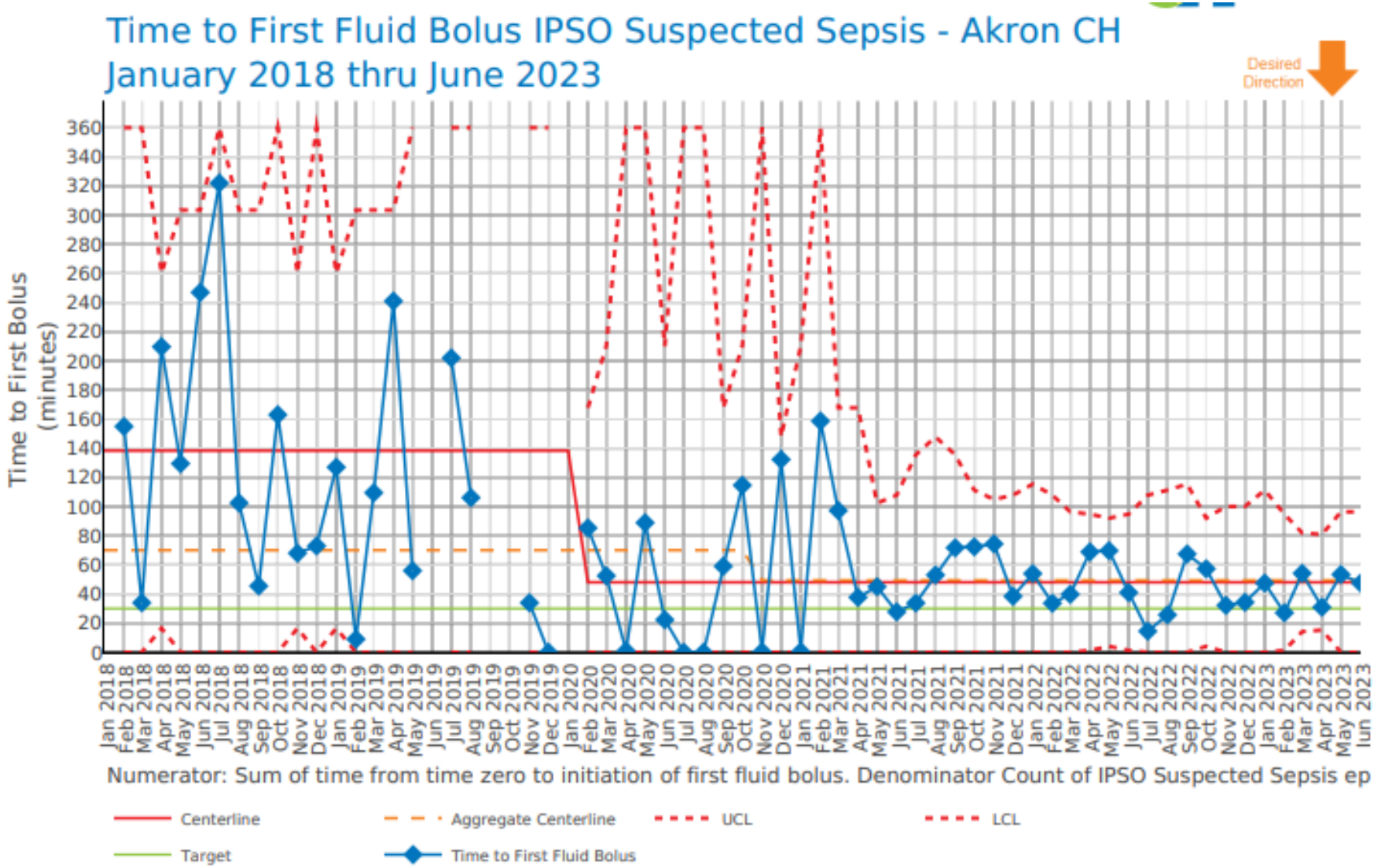


Akron Children's Hospital

Time to First Fluid Bolus IPSO Critical Sepsis- Akron CH
January 2018 thru June 2023

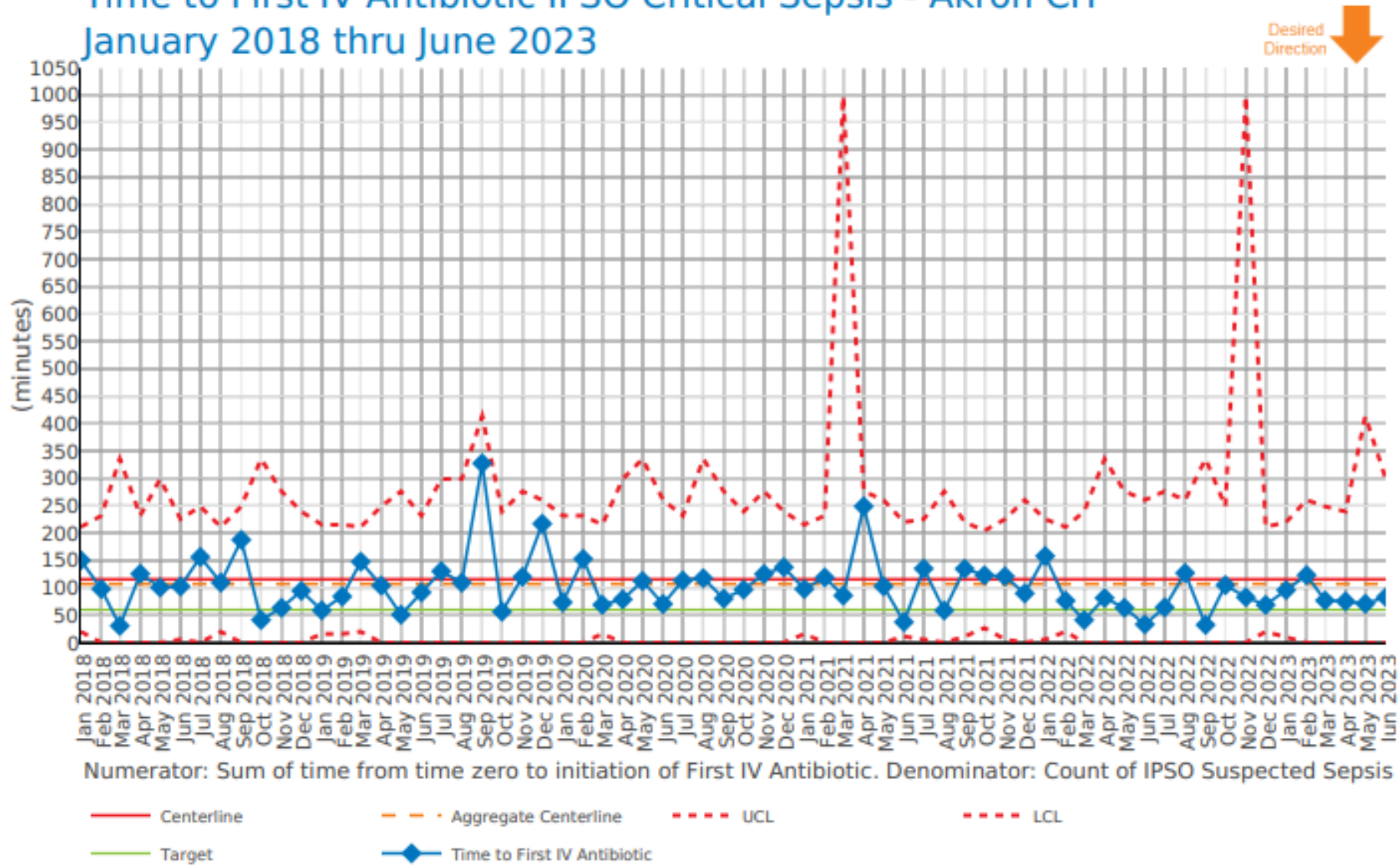


Akron Children's Hospital



Akron Children's Hospital

Time to First IV Antibiotic IPSO Critical Sepsis - Akron CH
January 2018 thru June 2023

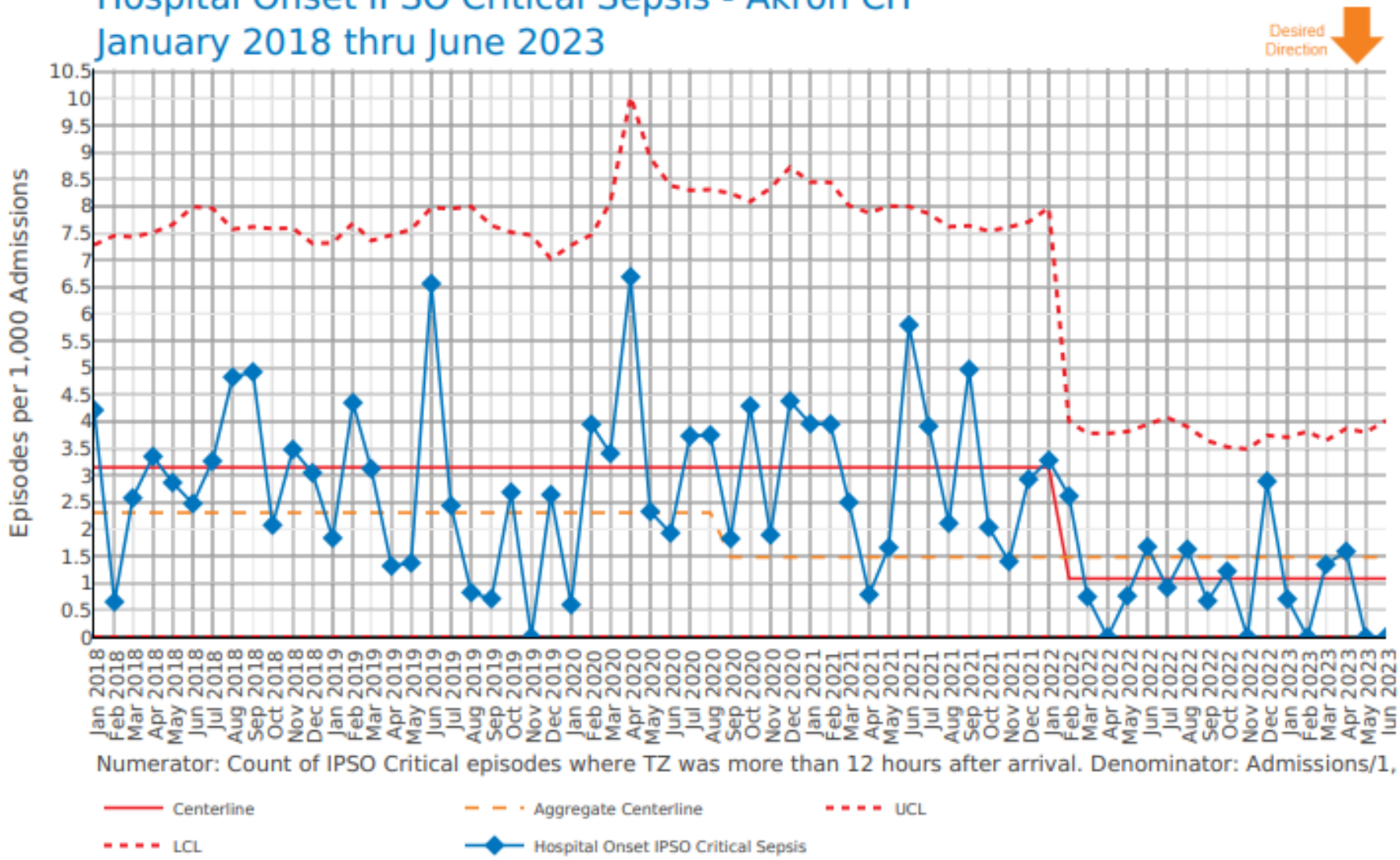


Numerator: Sum of time from time zero to initiation of First IV Antibiotic. Denominator: Count of IPSO Suspected Sepsis

Centerline
Aggregate Centerline
UCL
LCL
Target
Time to First IV Antibiotic

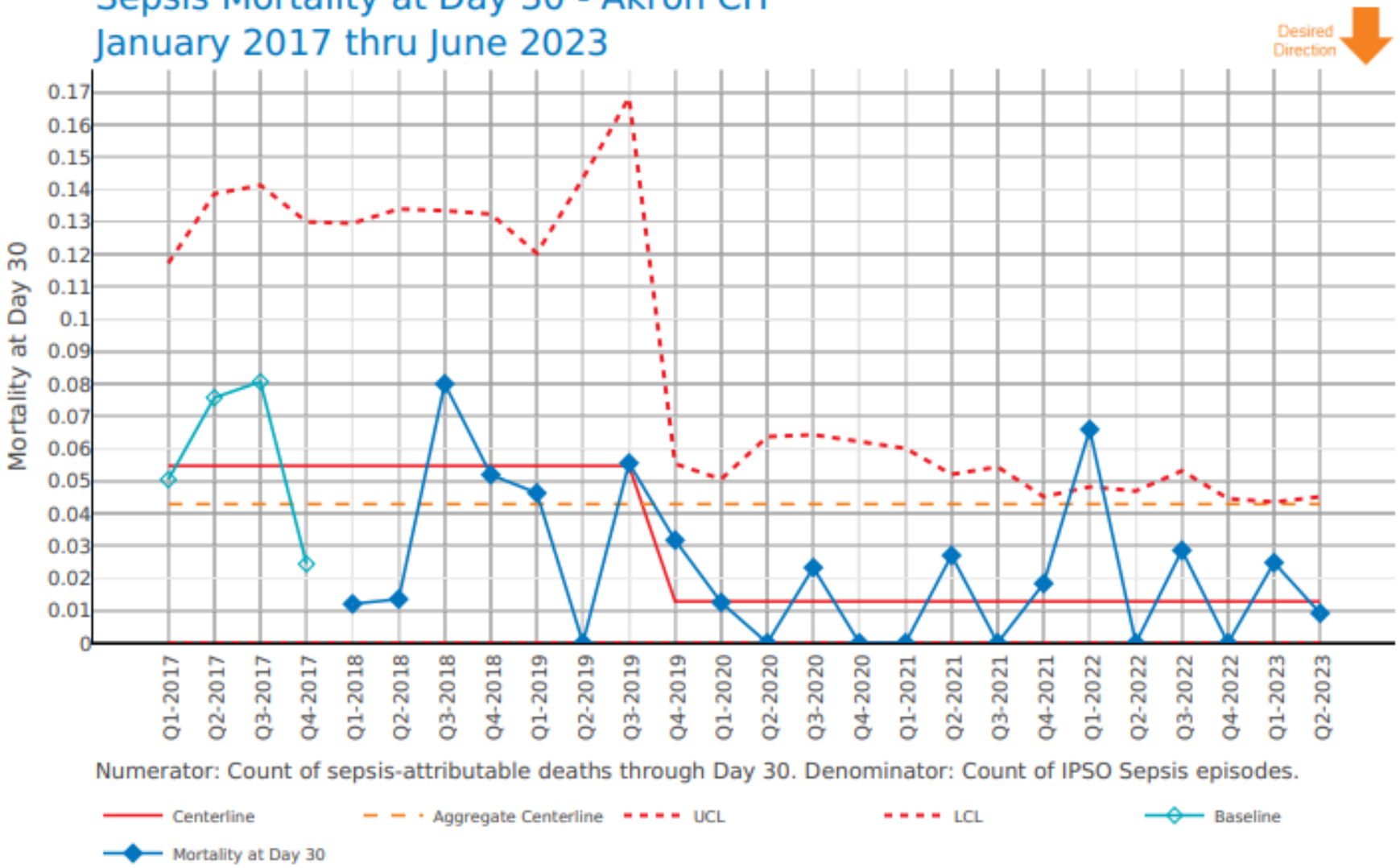
Akron Children's Hospital

Hospital Onset IPSO Critical Sepsis - Akron CH
January 2018 thru June 2023



Akron Children's Hospital

Sepsis Mortality at Day 30 - Akron CH
January 2017 thru June 2023



Akron Children's Hospital

This Photo by Unknown author is licensed under CC BY-ND.

Akron Children's Hospital

How do we sustain the momentum?

Focus on the WHY

Adapt and adopt new education and awareness based on priority needs and areas of improvement

Continue to speak SEPSIS

Akron Children's Hospital

References

- Eisenberg, M. A., & Balamuth, F. (2022). Pediatric Sepsis Screening in US Hospitals. *Pediatric Research,* 91, 351-358. https://doi.org/10.1038/s49310-021-01708-y.
- Paul R, Niedner M, Riggs R, et al. Bundled Care to Reduce Sepsis Mortality: The Improving Pediatric Sepsis Outcomes (IPSO) Collaborative. Pediatrics. 2023;152(2): e2022059938
- Sepsis Clinical Pathway – Emergency Department, Inpatient and PICU | Children's Hospital of Philadelphia (chop.edu)

Appendix

PICU SEPSIS TRIGGER TOOL identifies patients at risk for sepsis. Patients with sepsis have an infection which triggers an exaggerated immune response that causes inadequate tissue perfusion leading to organ dysfunction and failure. Hypotension is a late finding. **Early recognition and goal directed therapy improves patient outcomes.**

1

Either of these two conditions

2

Plus any one of these conditions

3

CALL A SEPSIS HUDDLE

EITHER OF THESE:	08/20	09/21	10/22	11/23	12/00	13/01	14/02	15/03	16/04	17/05	18/06	19/07
Temperature >38.5C or <36 C												
Tachycardia*or >10% baseline												
PLUS, ONE OF THESE:												
Mental Status Abnormality*												
Perfusion Abnormality*												
Hypotension*/Increasing inotropic support (>0.05 increase in 1 hour)												
Tachypnea*												
Urine output <0.5ml/kg/hr												
Additional Factors Present*												
SEPSIS HUDDLE COMPLETED:												

Documentation to be completed with ordered vital frequency

Date:

Circle:
AM or PM shift?
Sepsis Red/ Yellow/Green?

4

5

Place patient sticker here

Age	Respiratory rate	Tachycardia	Systolic BP	Diastolic BP	MAP
0-30 days	>65	>160	<75	<30	<45
1-12 months	>40	>140	<74	<35	<50
1-3 years	>30	>130	<76	<45	<55
3-6 years	>30	>110	<82	<50	<60
6-12 years	>25	>100	<94	<50	<65
12+ years	>25	>90	<94	<50	<65

Mental Status Abnormality	Anxiety, restlessness, agitation, irritability, inappropriate crying, drowsiness, confusion, lethargy, obtundation
Perfusion Abnormality	Cool extremities, delayed capillary refill (>3 seconds), diminished pulses, mottling or flushed, warm extremities, bounding pulses, flash capillary refill (<1 second)

Additional Factors Present	
Existing laboratory findings	Metabolic acidosis, elevated lactate, thrombocytopenia, coagulopathy, or elevated creatinine
Other factors	Other physical exam findings, including petechial and/or purpuric rash or erythroderma, requires change in temperature control management (actively cooling or warming)
High-risk conditions	<56 days of age, central line presence, invasive devices (ETT, Trach, EVD, PD Drain, Foley), immunocompromised (BMT, solid organ transplant, malignancy, asplenia/sickle cell disease), pre-existing neurologic dysfunction that limits mental status evaluation

OHA collaborates with member hospitals and health systems to ensure a healthy Ohio

James Guliano, MSN, RN, NPD-BC, NEA-BC, FACHE
Senior Vice President, Operations & Chief Clinical Officer
James.Guliano@ohiohospitals.org

Dorothy Frabott, BA, MBA
Manager, Administrative and Clinical Programs
Dorothy.Aldridge@ohiohospitals.org

Kelsey Brown, BSN, RN
Director, Clinical Support Services
Kelsey.Brown@ohiohospitals.org

Ohio Hospital Association
155 E. Broad St., Suite 301
Columbus, OH 43215-3640

T 614-221-7614
ohiohospitals.org

HelpingOhioHospitals
@OhioHospitals
www.youtube.com/user/OHA1915