From Data to Direction: Elevating Sepsis Programs

2026 DFWHC Sepsis Conference- Expanded Educational Edition

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Objectives

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1. Differentiate among types of metrics used in program evaluation

2. Describe key elements of a well-defined, actionable program metric

3. Explain how data can be used to drive purposeful program improvement

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Nothing to Disclose.

Our goal is to improve sepsis care.

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"Direction matters more than speed"
Richard L. Evans

You cannot fix or measure everything simultaneously.

Metrics drive your decisions.

Program metrics are established definitions of success.

We are not here to turn a dashboard green.



Improving a metric is not the goal. A metric is a tool to reach the goal. **The goal is improving care.**

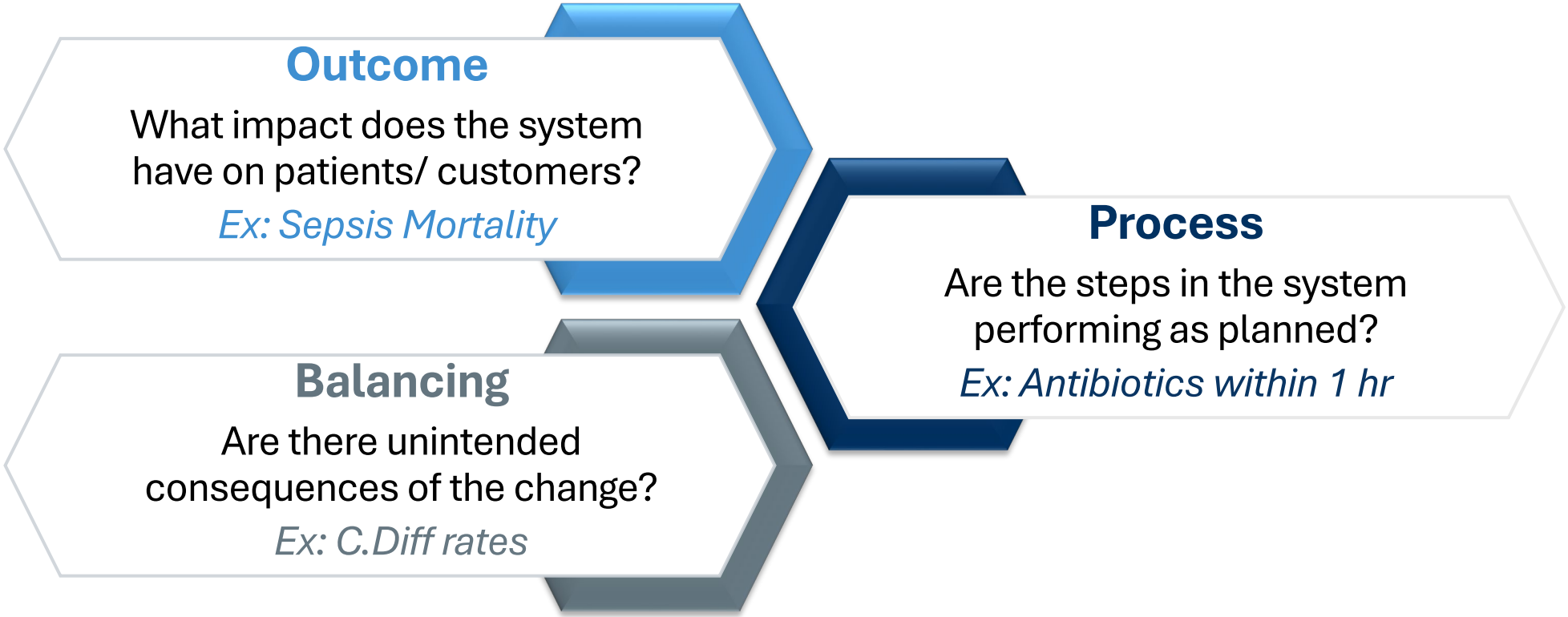
Program metrics can be classified in different ways.



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The Institute for Healthcare Improvement (IHI) recognizes three types of metrics.

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Every improvement is a change. Not every change is an improvement. Balancing measures help you tell the difference.

(Institute for Healthcare Improvement [IHI], n.d.)

The Joint Commission (TJC) has a clinical approach to measure classification.

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Administrative/Financial

Organizational performance and resource management

Clinical

Quality and safety of care delivery



Health Outcomes

Impact on patient health and function

Patient Experience

Patient perceptions and satisfaction with care

A balanced scorecard looks beyond a single metric.

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Financial

- Cost and Resource management
- Organizational sustainability
- Value of care

Customer

- Patient and family experience
- Patient outcomes
- Care engagement



Internal Processes

- Efficiency
- Standardization
- Quality and Safety

Learning and Growth

- Staff engagement
- Education and training
- Innovation

You cannot determine the **health of a program** from one metric.

Listen to the voices.

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Voice of the Business

What does the organization need?

Voice of the Process

What is actually happening? What is the process actually capable of delivering?





A **balanced** scorecard prevents you from listening to one voice so loudly that you stop hearing the others



Voice of the Customer

What matters to the patient/family and people receiving the service?

Voice of the Employee

What do the people doing the work know that the data doesn't tell us



The voice of the employee is indispensable.

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DEFINE	MEASURE	ANALYZE	IMPROVE	CONTROL
				
Identify: • Problems • Unmet needs • Barriers leadership may not recognize	Reveal: • How work *actually* happens • Undocumented steps • Necessary workarounds	Expose: • Root causes behind performance gaps • Unintended variation • Steps that add burden without benefit	Help develop feasible solutions that fit real-world workflows	Provide early warning when: • Changes fail • barriers emerge • Old practices return



Frontline insight **transforms** performance data into actionable improvement.

An actionable metric begins with a clear definition.



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Operationally define the metric.

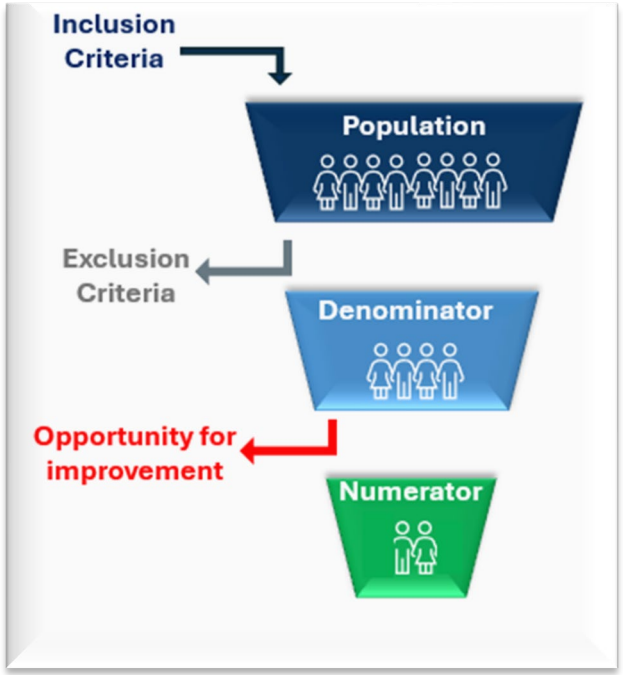
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Inclusion Criteria

Patients discharged with any severity of sepsis

Exclusion Criteria

- <18 years of age
- ED discharges
- Hospice care during bundle window
- Refusal of care



Opportunities for Improvement

Blood cultures
Lactic acid (initial)
Antibiotics
Sepsis fluid bolus
Trend lactic acid
Evaluate for persistent hypotension
Reperfusion assessment by provider
Start vasopressors

Recognition
Treatment
Documentation

The wrong denominator hinders your impact.

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Two examples discussed during live presentation.

Example: Sepsis Readmissions

- **Time frame:** 30 days vs 90 days?
- **Cause**: All cause vs only sepsis related?
- **Type:** Planned vs unplanned
- **Exclusions:** Patients expired during index visit/ initial hospitalization
  - Including patients who could not possibly be readmitted *artificially increases the denominator* and lowers the reported readmission rate.

Example: Program Denominator ≠ SEP-1 Denominator

- Does your denominator reflect everyone your program intends to serve?
- Are we catching sepsis before progression to organ dysfunction?
- **I challenge you to review your data:**
  - Review maternal patients with any infection
  - Examine screening findings, clinical indicators, and opportunities for earlier recognition.
  - Determine whether your current program measures capture these patients.
  - ***If you identify gaps, reach out and let's make a change!***



Before we can use data to make decisions, we need to be able to **trust** what those numbers represent.

A metric can be perfectly calculated and still be useless.

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Importance | **Scientific Acceptability** | **Feasibility** | **Usability/use**

Example: Order set utilization as a metric

- It might help us understand whether staff are using the tools we've developed.
- Does order set use guarantee:
  - That every appropriate order was placed?
  - SEP-1 compliance?
  - That the patient received appropriate care?

No

If using order set utilization as an indicator of care quality, ask: Does this actually measure what we think it's measuring?



Before acting on a metric, confirm that it measures what you intend to improve.

(National Quality Forum [NQF], 2021)

Why do you think this is happening?

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Performance Metrics

- ↑ SEP-1 bundle compliance
- ↓ Arrival to IV Antibiotic Administration minutes

Outcome Metrics

- ↓ Sepsis LOS
- ↓ Sepsis Readmissions
- ↑ Septic shock not present on arrival mortality rate

Septic Shock nPOA Mortality Rate:

$$\frac{\text{\# of patients with septic shock not POA that expired}}{\text{\# of patients with septic shock not POA}}$$

- Improved sepsis care may reduce progression to septic shock, resulting in a smaller denominator.
- Patients who do progress to septic shock may represent a higher-acuity population and therefore have a greater risk of mortality.





Before concluding that care has worsened, investigate changes in the population and the measure itself.

Data drives purposeful program improvement.

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Stop collecting data just because you can

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Data connects what we **intend to achieve** with what we **actually accomplish**.

Let the process speak.

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Performance Snapshot

87%

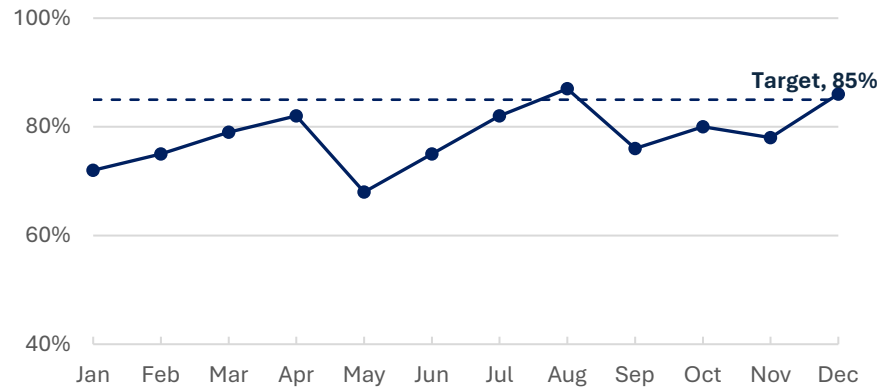
August
Meets target

76%

September
Below target

Are we meeting the goal?

Process Performance Over Time

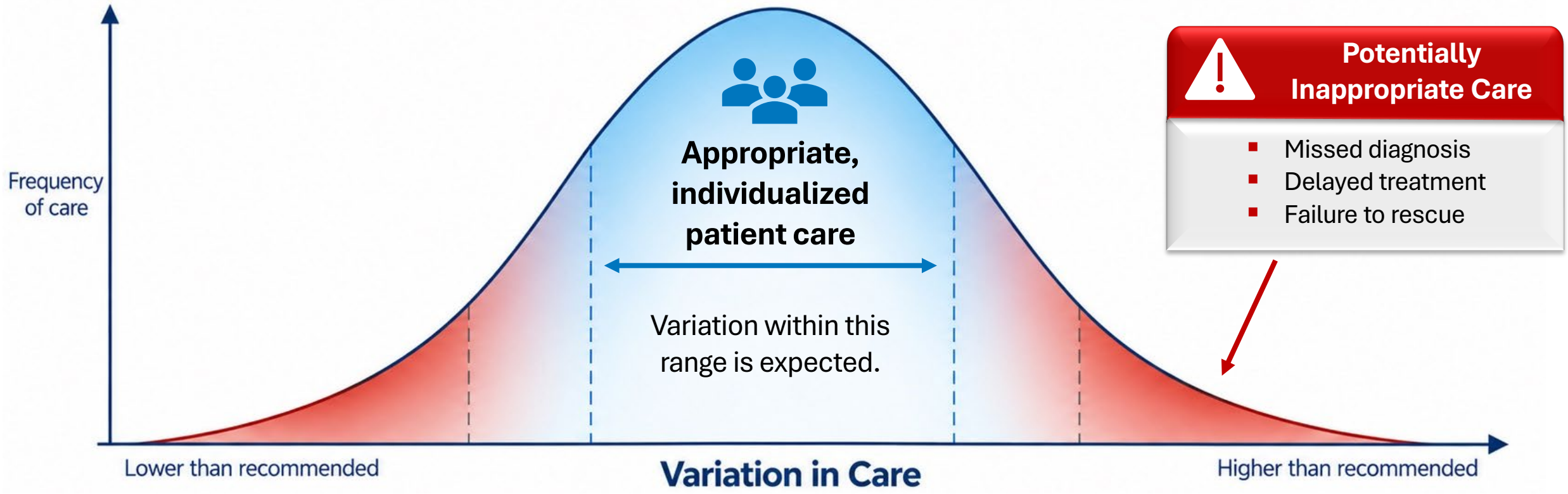


Is the process improving, declining, or remaining stable?

A snapshot tells you whether you met target. A trend helps you understand process performance.

Not all variation is unwanted variation.

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Reduce unwanted variation while **preserving clinical judgement** and **appropriate, individualized care.**

TJC certification provides a framework, not a destination.

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Certification is not the trophy at the end of the work.

What are you doing?

Why are you doing it?

How do you know it's working?

What are you going to do about what you've learned?



Certification provides the structure for improvement. What we learn, change, and sustain determines its value.

A metric is not the outcome.

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Improving care and improving compliance are not necessarily the same thing.

Broad sepsis performance-improvement Programs (2015)

Systematic review and meta-analysis of 50 observational studies, 434,447 patients. Examined broader sepsis performance improvement programs. Associated with substantially increased bundle compliance and reduced mortality. Heterogeneity was high and the evidence was observational.

(Damiani et al., 2015)

SEP-1 compliance and mortality (2025)

4,403 references screened, 17 studies included. Specifically examined SEP-1 bundle compliance and implementation in relation to mortality. No moderate- or high-level evidence that SEP-1 compliance or implementation was associated with reduced mortality. All studies observational, none with low risk of bias.

(Ford et al., 2025)



A metric is not the outcome. A compliance score is not the patient. A dashboard is not a program.

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Without purpose, data are just numbers.

Without measurement, improvement is just an assumption.

Metrics connect our intention to our impact.

A compliance score is not the patient. A dashboard is not a program.

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