

Data: how to find it and what to do with it

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MHA IP Bootcamp 2024

February 6, 2024

Disclosure of Conflicts of Interest

- Barbara DeBaun, MSN, RN, CIC is a clinical consultant to:
 - Magnolia Medical
 - SplashBlocker



Data, data, and more data

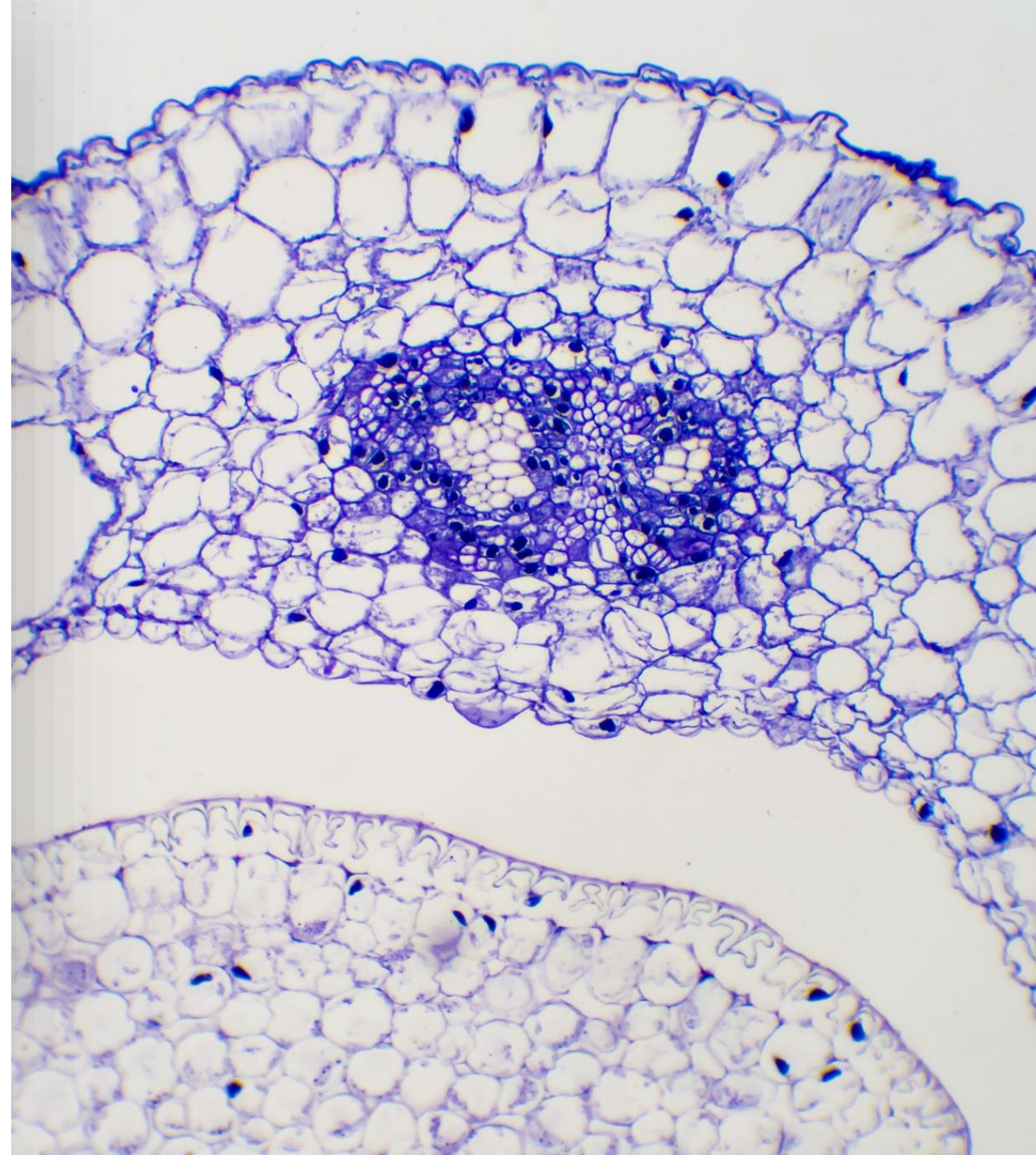
183.102

154.178

245.5

Examples of Outcome Data

- CAUTI
- CLABSI
- CDI
- SSI
- MRSA Bloodstream Infection
- Hospital-onset Bacteremia



Examples of Process Data

- Hand Hygiene Compliance
- Device days
- Two-person foley insertion
- White board data
- Urinalysis reflex to culture
- Normothermia for surgery patients
- Antimicrobial prophylaxis timing/dosage for surgery patients



Why do we
collect data?



Two reasons

- How else will you know that the change(s) you made resulted in improvement?

Improvement

- Used for learning


Reporting

- Used to judge


- *“In God we trust; all others must bring data.”*

- W. Edwards
Deming



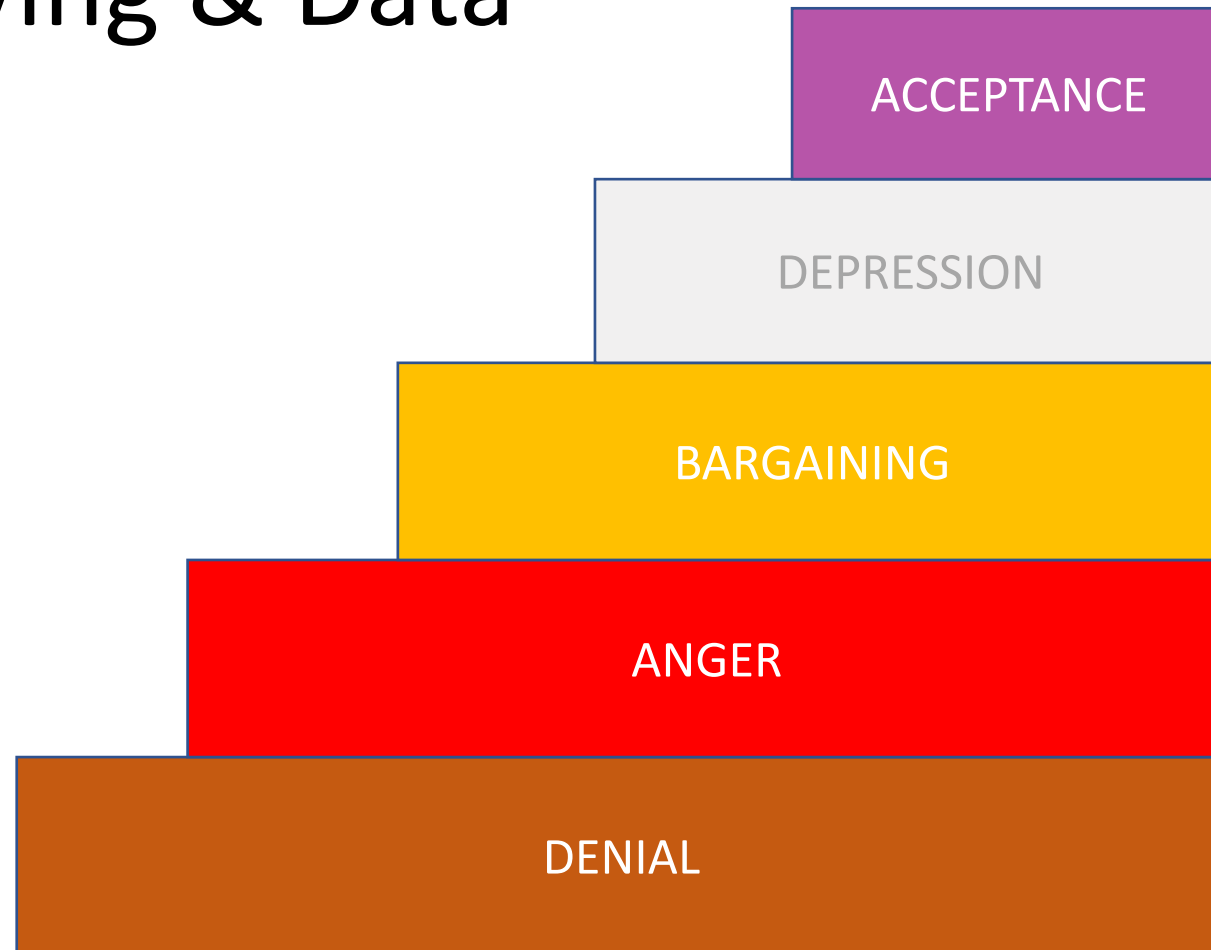
A collection of white spheres of varying sizes is scattered on a green surface. One large orange sphere is positioned in the upper right background. The text is centered over the scene.

Are you collecting any data that is not being analyzed or acted upon?

A close-up, high-angle shot of a watch face. The watch has a white dial with black hour markers and hands. The watch case is dark, possibly black or dark grey. The background is dark and out of focus. A white horizontal bar is overlaid across the middle of the image, containing the text.

How to be more efficient by minimizing data burden

On Death, Dying & Data



Data Collection



- Who collects the data?
- How do they do it?
- Does everyone do it the same way?

Think outside of the box

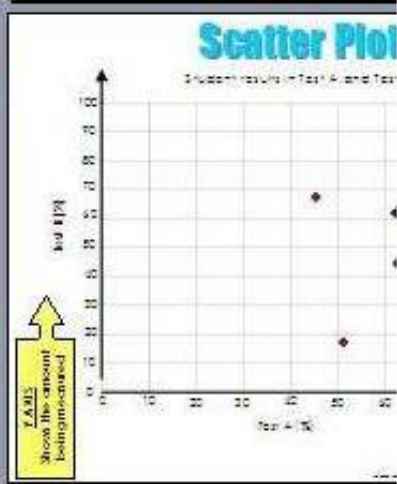
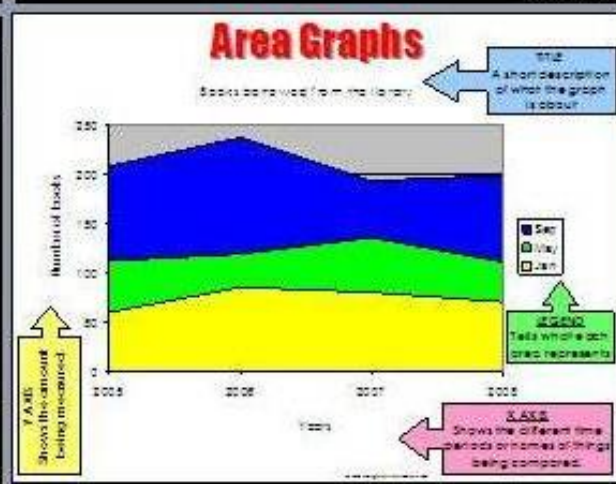
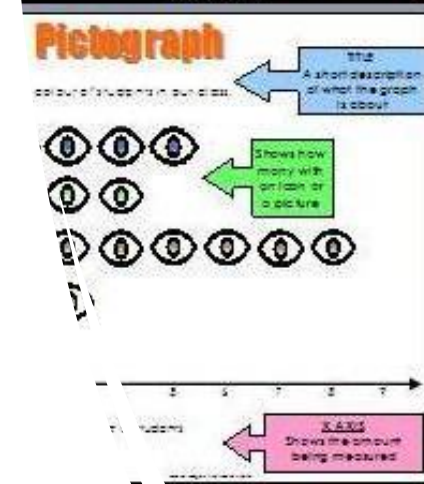
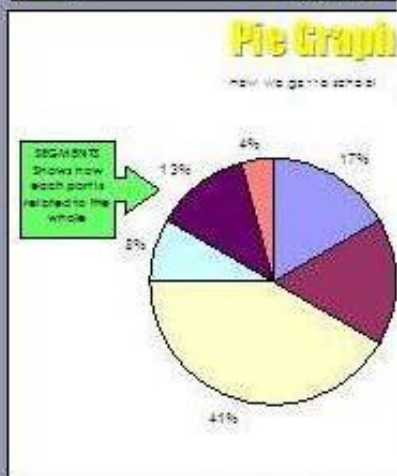
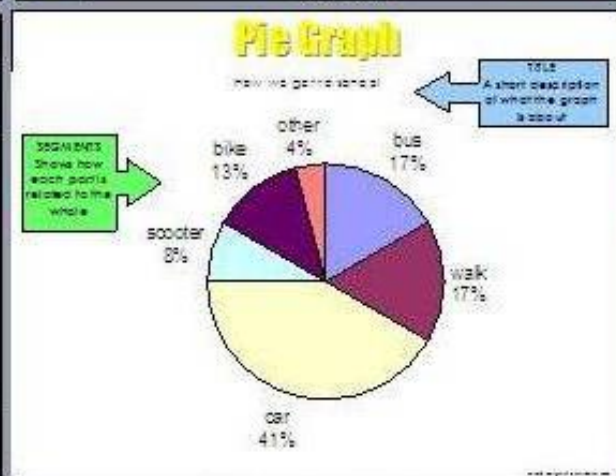
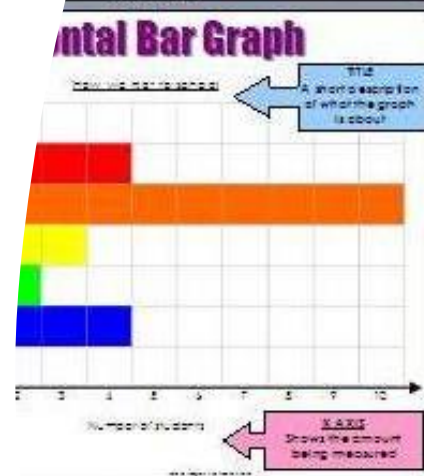
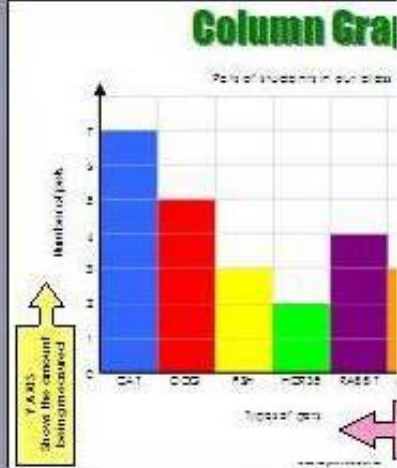
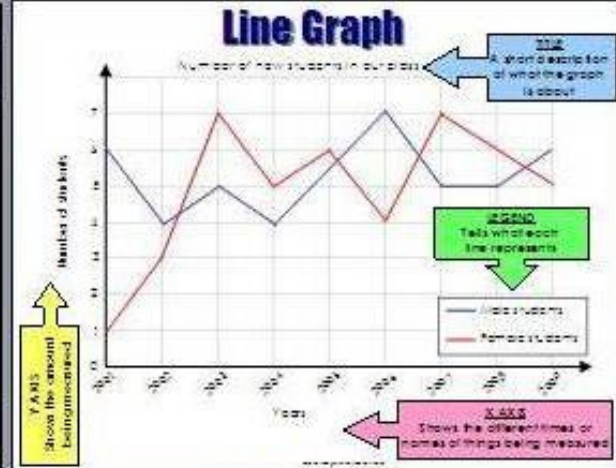


Data analysis

- Rate
- Ratio
- Number
- Days between



Data Display



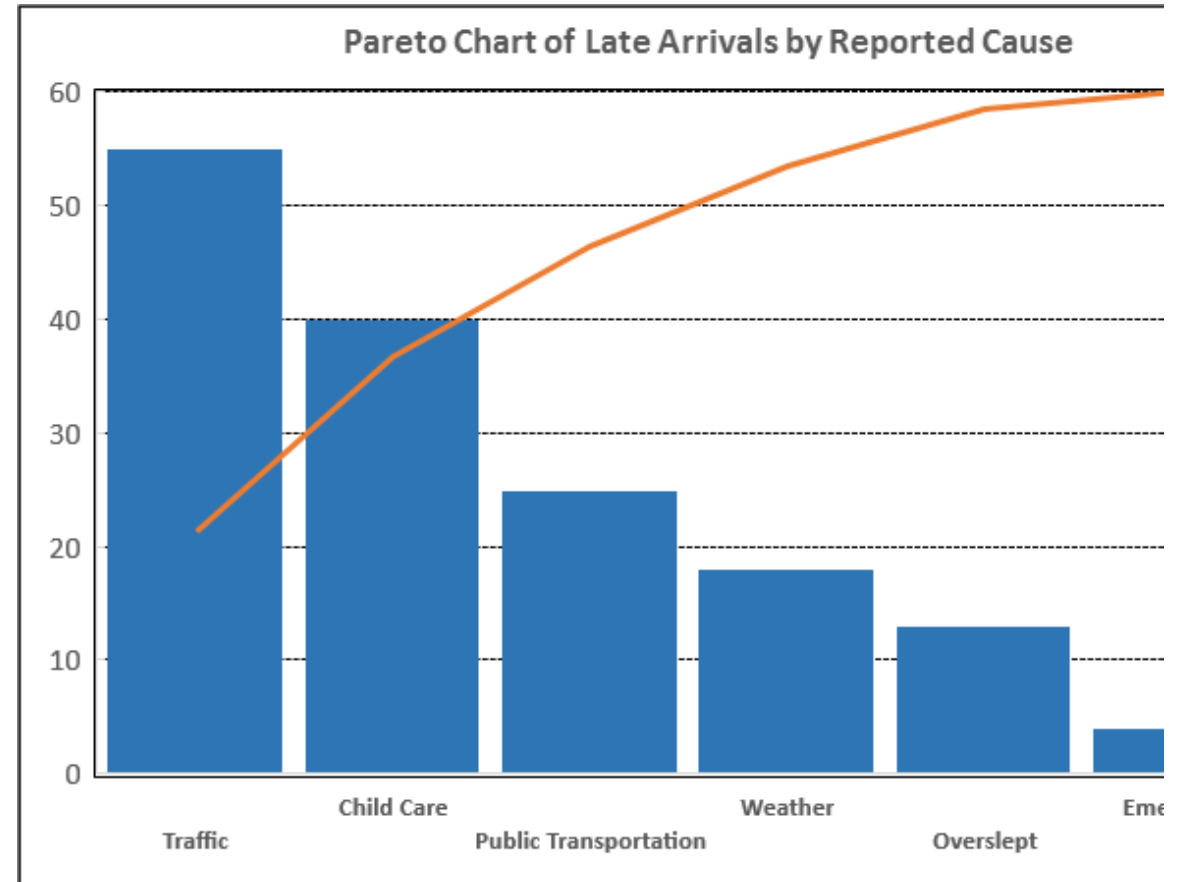
Data Display and Analysis

- How do you want to tell your story?
- Who are you going to tell your story to?



Pareto Chart

- A Pareto chart is a bar graph. The lengths of the bars represent frequency or cost (time or money) and are arranged with longest bars on the left and the shortest to the right. In this way the chart visually depicts which situations are more significant.

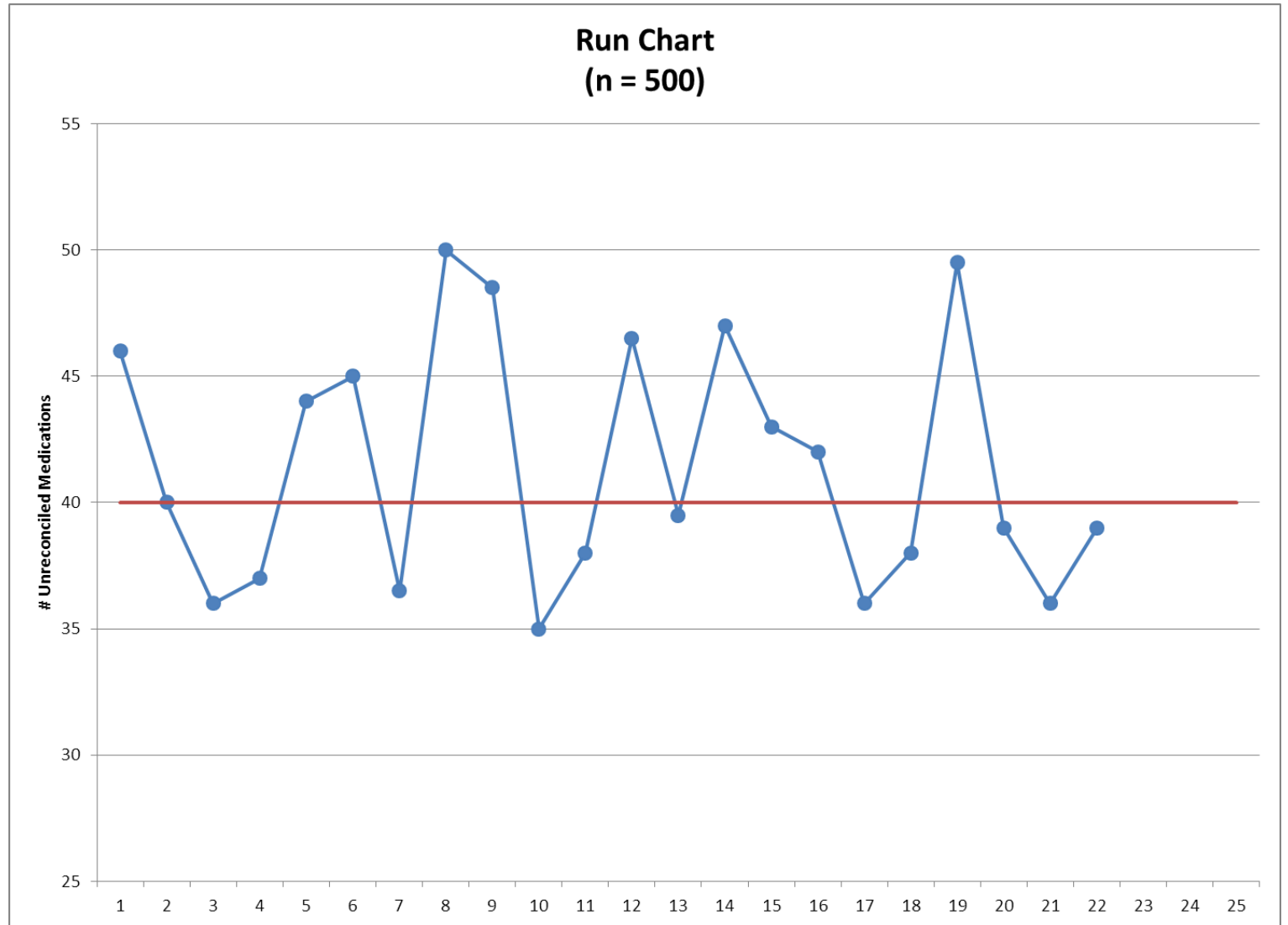


Group Discussion

- When we experience an uptick of an HAI in a month or quarter, we typically:
 - 1. See an urgent need to do something new/different
 - 2. Wait to see how things go
 - 3. Evaluate to determine if a special cause might explain the uptick

Run Chart

Run charts show individual data points in chronological order.



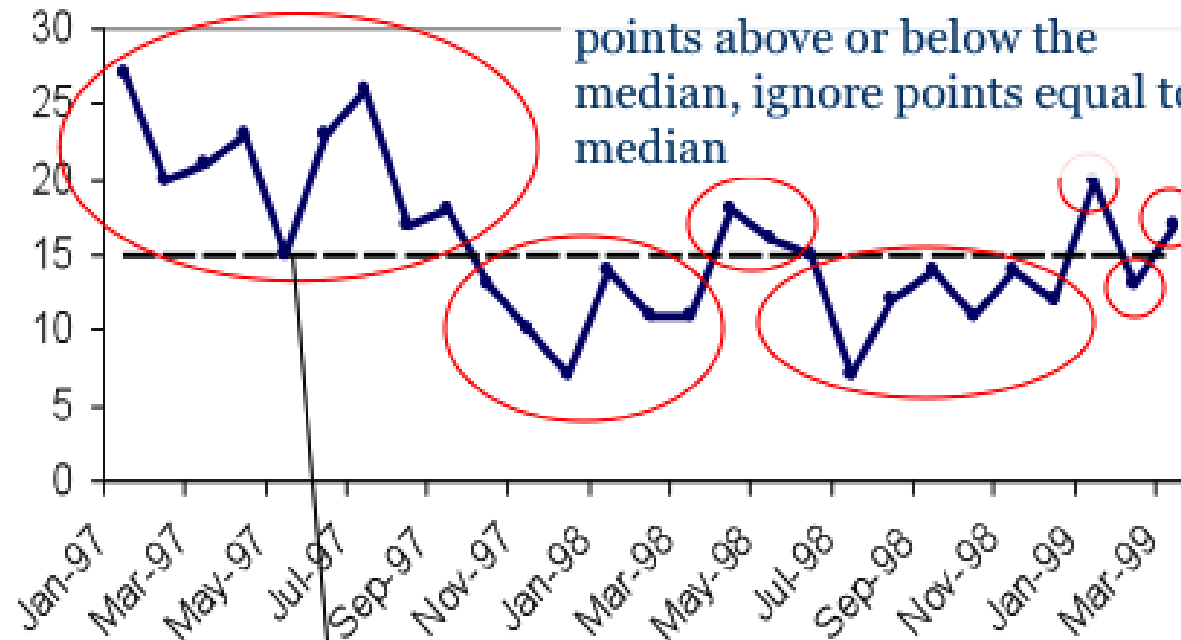
The run chart: a simple analytical tool for learning from variation in healthcare processes

Rocco J Perla,¹ Lloyd P Provost,² Sandy K Murray³

BMJ Qual Saf 2011;**20**:46–51. doi:10.1136/bmjqs.2009.037895

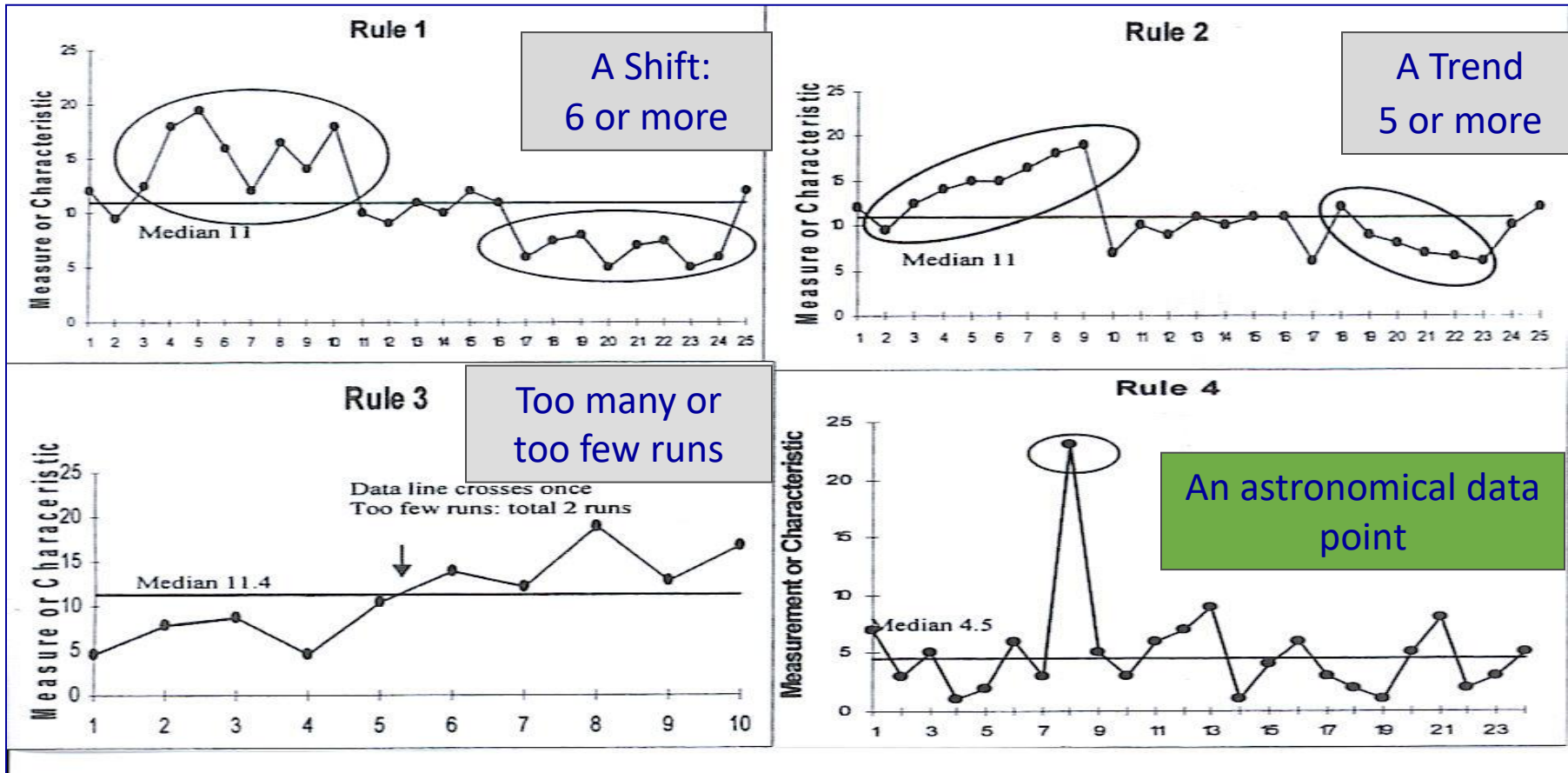
Counting Runs

Run = series consecutive points above or below the median, ignore points equal to median

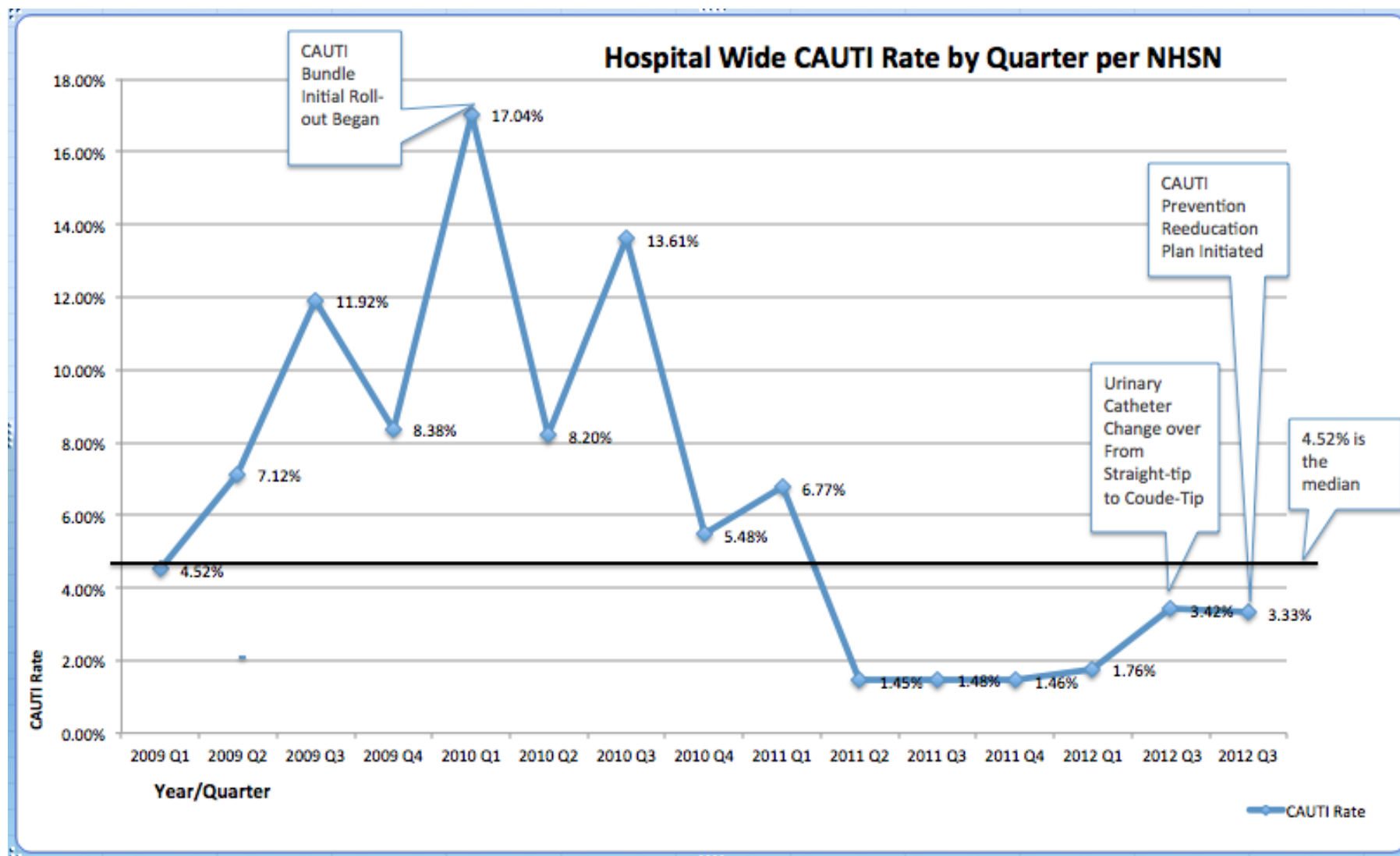


This point is on the center line - IGNORE

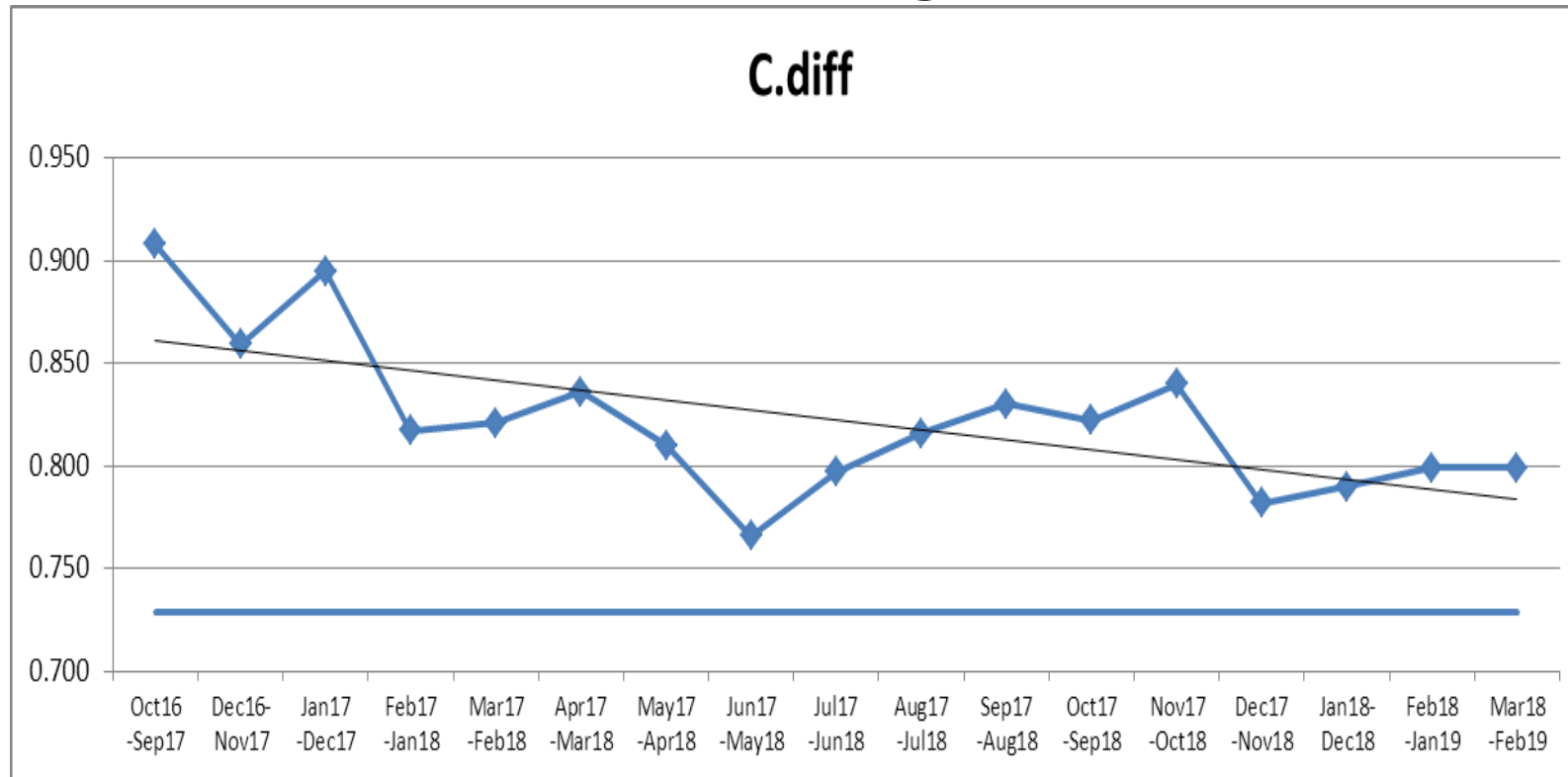
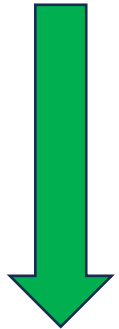
Run Chart Rules



Annotated line/run chart



Use arrows to indicate which direction you want the data to go



Rolling 12-months Oct '16 – Feb '19

< 1 means fewer infections than predicted per CDC

FY2019 Internal improvement goal 0.729

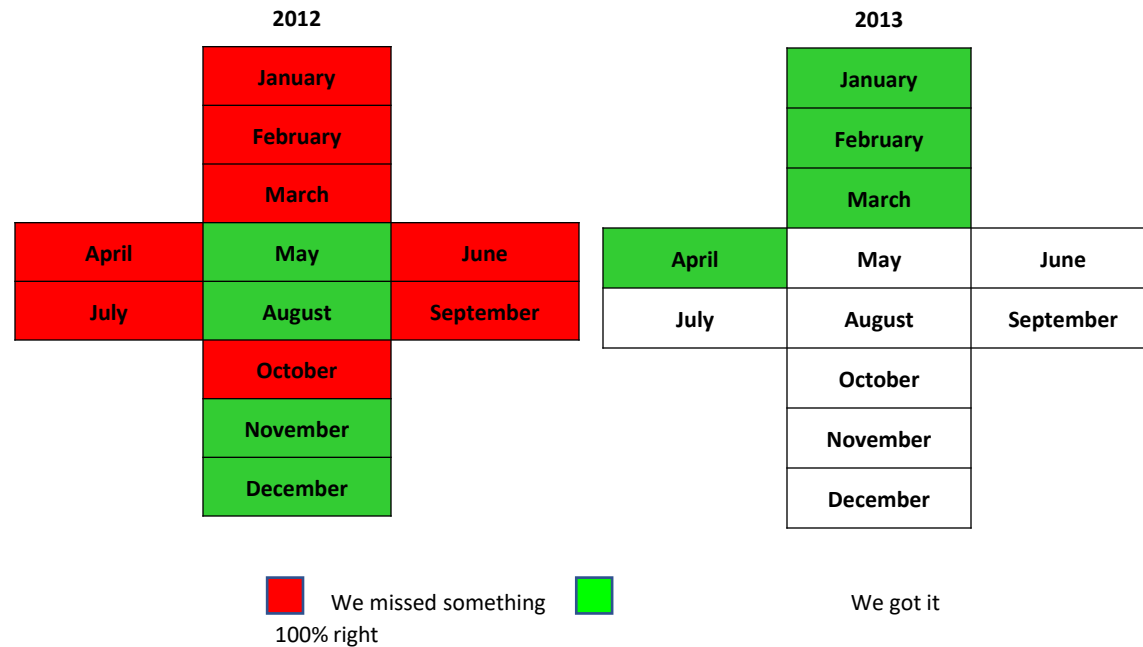
Data Display

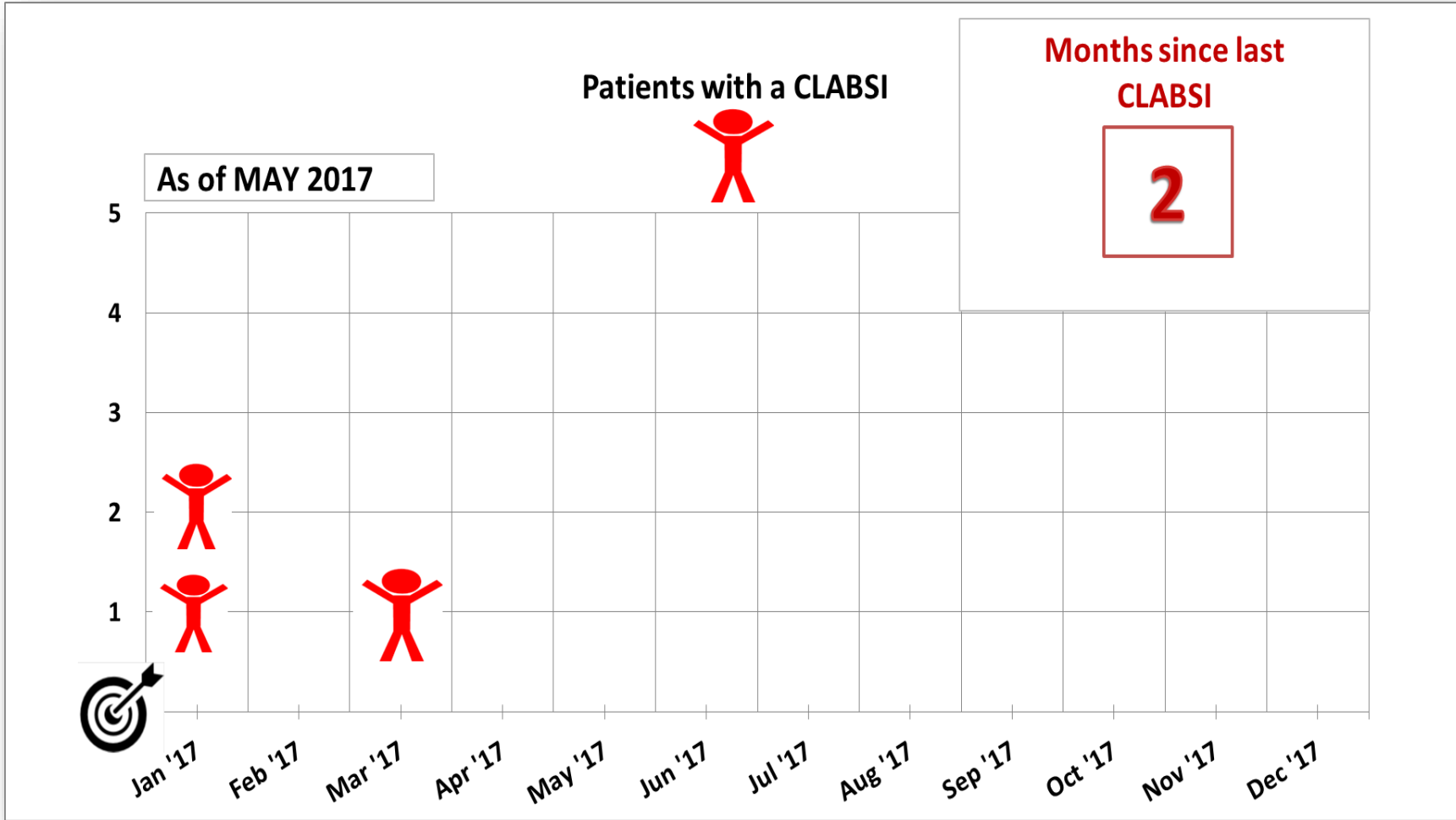


Days or Months
since event



Connecting to the Core with Data







Central Line-Associate Bloodstream Infections



Months since last
CLABSI

21

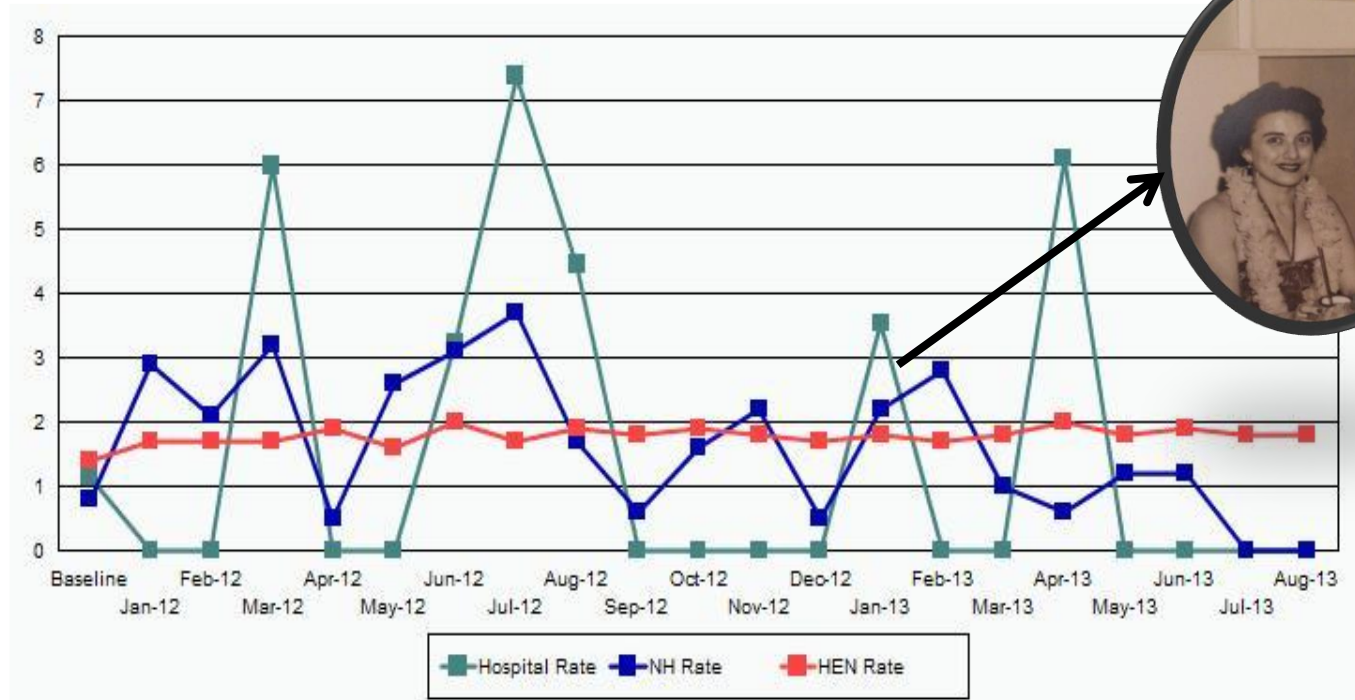
CLABSIs - Regional NICU

Zero is the target every *time* for every *baby*!

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	2019 FYTD
< 750 g	0	0	0	0	0	0	0	0					0
751 - 1000 g	0	0	0	0	0	0	0	0					0
1001 - 1500 g	0	0	0	0	0	0	0	0					0
1501 - 2500 g	0	0	0	0	0	0	0	0					0
> 2500 g	0	0	0	0	0	0	0	0					0
Totals	0	0	0	0	0	0	0	0					0



It's not a
rate: it's a
human
being



Courtesy of Martha Leighton; Eliot Hospital, Manchester, NH



Make success and
failure visible



Three Tips for Success

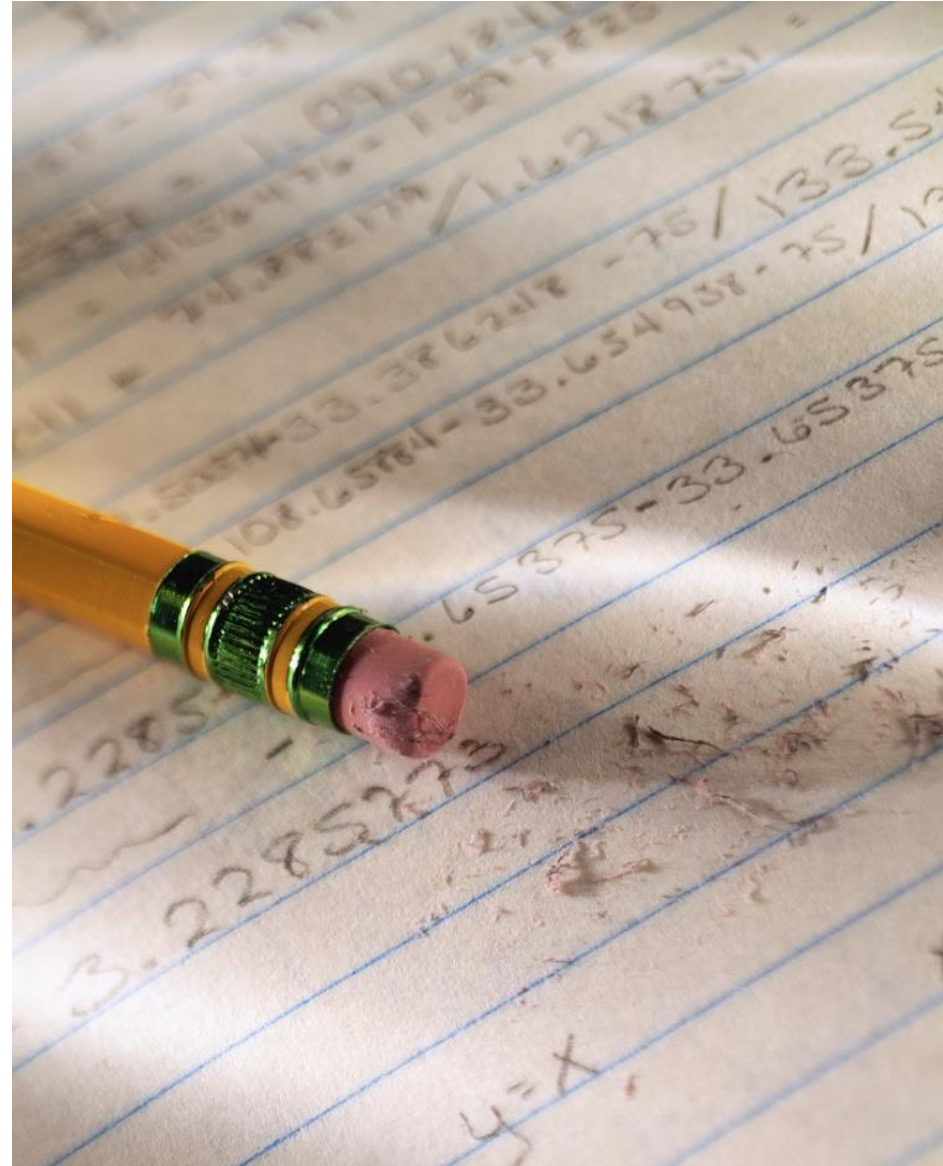
One size does not fit all



Know Your Audience



Check for Accuracy



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