2022-2023 Data Support COL Educational Offering #3

Using Data for QI: Interpreting Variation and Trends in Lower-Volume Facilities

Wednesday
February 3, 2023
3:00 – 4:30PM EST

AIM

ALLIANCE FOR INNOVATION ON MATERNAL HEALTH

The Alliance for Innovation on Maternal Health is a national, cross-sector commitment designed to support best practices that make birth safer, improve maternal health outcomes, and save lives.

You can find more information at saferbirth.org.

This program is supported by a cooperative agreement with the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number UC4MC28042, Alliance for Innovation on Maternal Health. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Before We Get Started

- You are **muted** upon entry to the call.
- **You will have the ability to unmute** yourself during Q&A times.
- We encourage participants to **remain muted** to reduce background noise.
- If you are experiencing technical difficulties, please chat an AIM staff member or **email aimdatasupport@acog.org**

This presentation will be recorded.

Both the slides and recording will be available on the AIM Data Resources Webpage and shared in the follow-up newsletter.

Agenda

1. Welcome
2. Upcoming Data COL Events and Additional Supporting Resources
3. Speaker Presentation: Brant Oliver; Daisy Goodman
4. Questions
5. Closing

Meet the National AIM Data Team

Isabel Taylor
Data Program Supervisor

Inderveer Saini
Program Data Analyst

Rekha Karki
Program Data Analyst

David Laflamme
Epidemiology Contractor

Upcoming Data COL Events and Additional Resources

Office Hours Opportunity

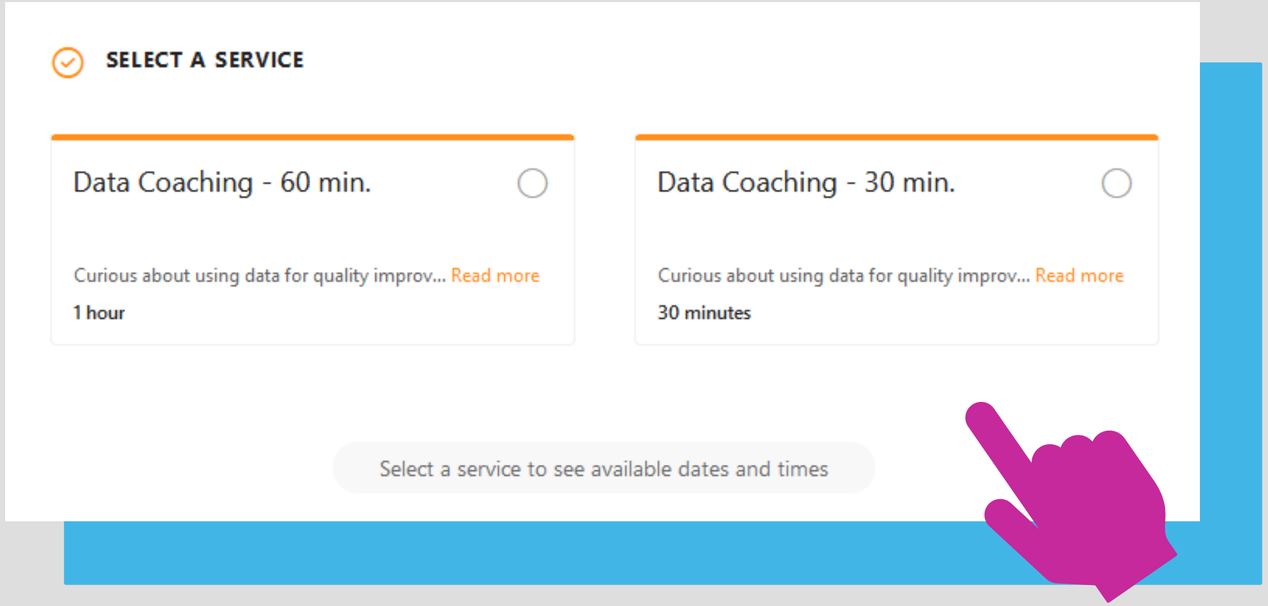
Questions?
Sign up for Office Hour with
Daisy Goodman

February 8, 2023
2:00PM-3:30PM (EST)

Register at saferbirth.org/aim-data/resources/
Click Resource Type and Select 2023 Data Support COL

Data Coaching

- Have broader questions about using data for quality improvement and AIM data processes? **Sign up for data coaching!**
- Available to state, jurisdiction, and hospital teams
- Available December 2022 through August 2023



Register at saferbirth.org/aim-data/resources/
Click Resource Type and Select 2023 Data Support COL

Supplemental Funding Opportunity

- AIM has dedicated supplemental funding available to support data and reporting projects.

- Supplemental funding for data and reporting projects can be submitted via a project narrative through AIM's *Supplemental Funding Form*.

Only states and entities with an executed subaward agreement with ACOG are eligible for COL supplemental funding.

Upcoming Educational Offerings

Register at saferbirth.org under Resources > Events

Educational Offering #4

Making Data-Driven QI Sustainable: Leveraging the Electronic Medical Record

March 8, 2023
3:00PM-4:30PM

Educational Offering #5

Leveraging Multiple Data Types for Improvement: Chart Abstraction and Multidisciplinary Case Review for Inpatient QI

April 6, 2023
2:00PM-3:30PM (EST)

Faculty

Daisy Goodman DNP, MPH, CNM, CARN-AP
Assistant Professor of Obstetrics and Gynecology at the Geisel School of Medicine

Brant Oliver, PhD, MS, MPH, FNP-BC, PMHNP-BC
Associate Professor, The Dartmouth Institute of Health Policy and Clinical Practice

Using Data for QI: Interpreting Variation and Trends in Lower-Volume Facilities

Daisy Goodman, DNP, MPH, CNM, CARN-AP
Brant Oliver, PhD, MS, MPH, FNP-BC, PMHNP-BC

AIM Data Community of Learning Meeting
February 03, 2023

About the faculty

- Brant Oliver, PhD, MS, MPH, FNP-BC, PMHNP-BC, is Associate Professor at the Dartmouth Institute and Geisel School of Medicine at Dartmouth, System Vice President for Care Experience at Dartmouth Health in New Hampshire, and national core faculty and curriculum lead for improvement measurement for the VA National Quality Scholars fellowship program (VAQS). He directs the Chronic Health Improvement Research program (CHIRP) at Dartmouth and is PI of multicenter improvement and implementation research collaborates for complex, chronic, costly (3C) conditions including multiple sclerosis. He has worked as a methodologist, investigator, CoI or PI on large scale initiatives with the Cystic Fibrosis Foundation, Crohn's & Colitis Foundation, the Multiple Sclerosis Association of America, and CVS, including international work in Canada, UK, Sweden, and Australia.

- Daisy Goodman, DNP, MPH, CNM, CARN-AP, is an Assistant Professor of Obstetrics and Gynecology and Community and Family Medicine at the Geisel School of Medicine at Dartmouth, a practicing nurse midwife and researcher. Goodman completed a fellowship with the VAQS Program in 2015, and taught healthcare improvement methods at the Dartmouth Institute from 2015-2021. She co-leads New Hampshire's AIM program, directs two HRSA funded initiatives to improve access to high quality reproductive healthcare for people with SUD, and leads clinical improvement work implementing social determinants of health screening for birthing people at Dartmouth Health.

Disclosures

- The faculty have no real or perceived financial conflicts of interest to disclose.

- Dr. Oliver has received research grant funding for investigator-initiated research in multiple sclerosis population health improvement and implementation science from Biogen, Novartis, and EMD Serono and serves in a limited consulting role for Kaplan at Point of Care for development of continuing medical education programs in shared decision making for chronic illness populations.

- Dr. Goodman has no financial disclosures. She has received funding from Point32 as principal investigator to lead evaluation of universal social determinants of health screening in obstetric care at Dartmouth Health. She also serves as clinical lead for New Hampshire's AIM program.

Acknowledgments

- The Dartmouth Institute for Health Policy & Clinical Practice (TDI) MPH program: PH117 and PH126 faculty
- Department of Veterans Affairs National Quality Scholars Program (VAQS): Methods & Analysis faculty
- Colleagues and Patient Partners at Dartmouth Health, working every day to improve care and outcomes

Learning Objectives

After attending this session, participants will be able to:

1. **Describe the utility of SPC to assess performance and inform improvement in lower volume settings**
2. **Interpret a statistical process control chart (SPC)**
    - Select appropriate SPC charts based on data characteristics
    - Create and interpret SPC charts for continuous and proportions data
    - Apply SPC interpretation to clinical improvement scenarios to inform intelligent action.
3. **Explore analytic approaches to rare events**

Agenda

1- Introduction to SPC & Variable SPC

2- Attribute SPC

3- Fixing & Splitting Limits

4- Using SPC to analyze rare and infrequent events

Challenges And Opportunities Associated With Learning From Data In Low Volume Settings

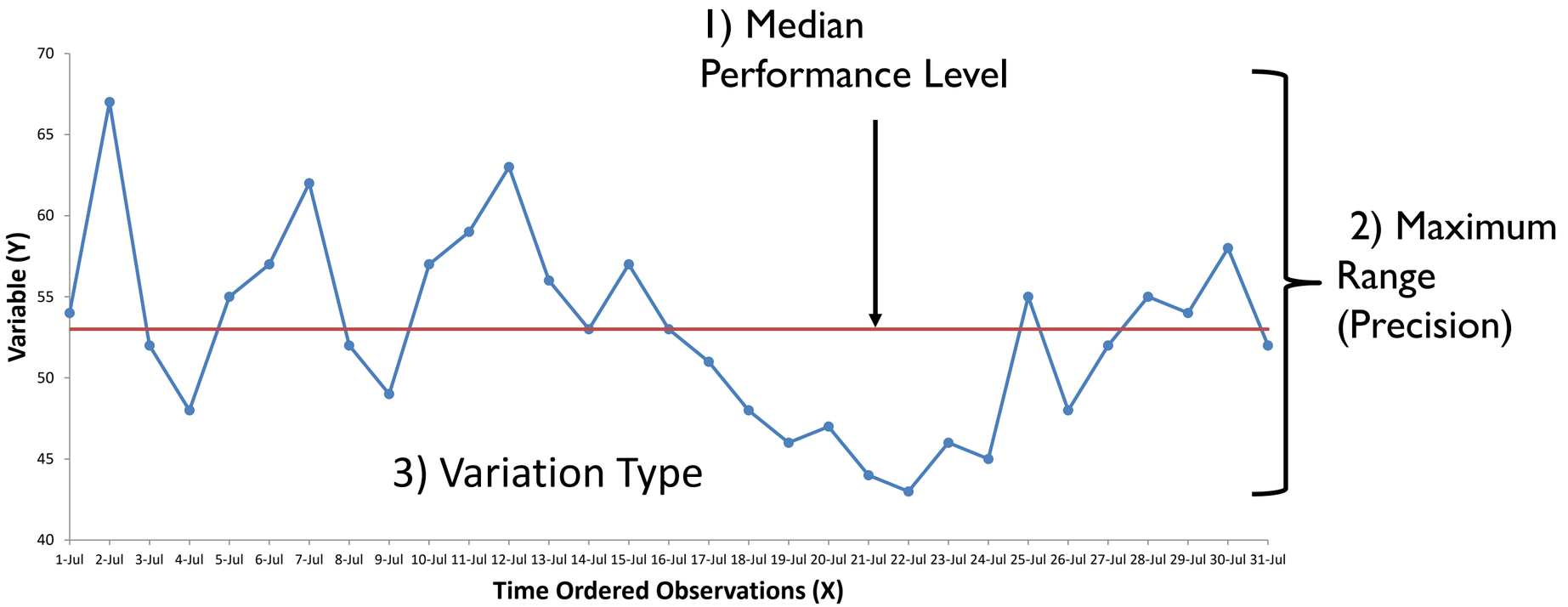
- Small numbers and wide spacing of events preclude meaningful analysis of change using traditional statistical methods
- **Statistical Process Control (SPC)** can reach statistical capability much sooner than inferential stats, **allowing teams to make statistically based decisions based on smaller numbers**
- Small/low resourced sites can use data faster to inform improvement in real time
- SPC methodology is available for analyzing rare events

Part 1

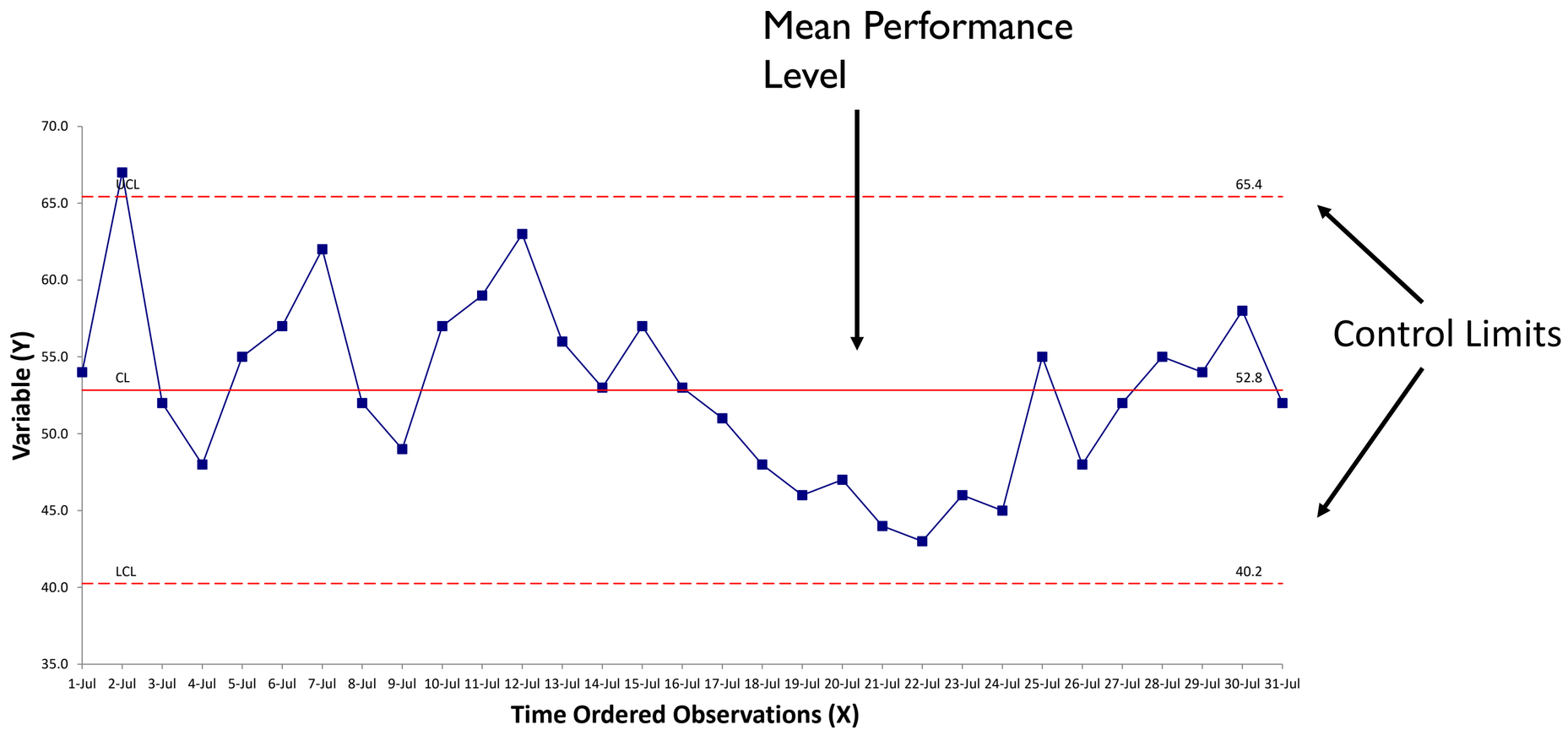
Introduction to SPC and Variable Data SPC:

XmR Charts

Run Chart Review: "The 3 Elements"

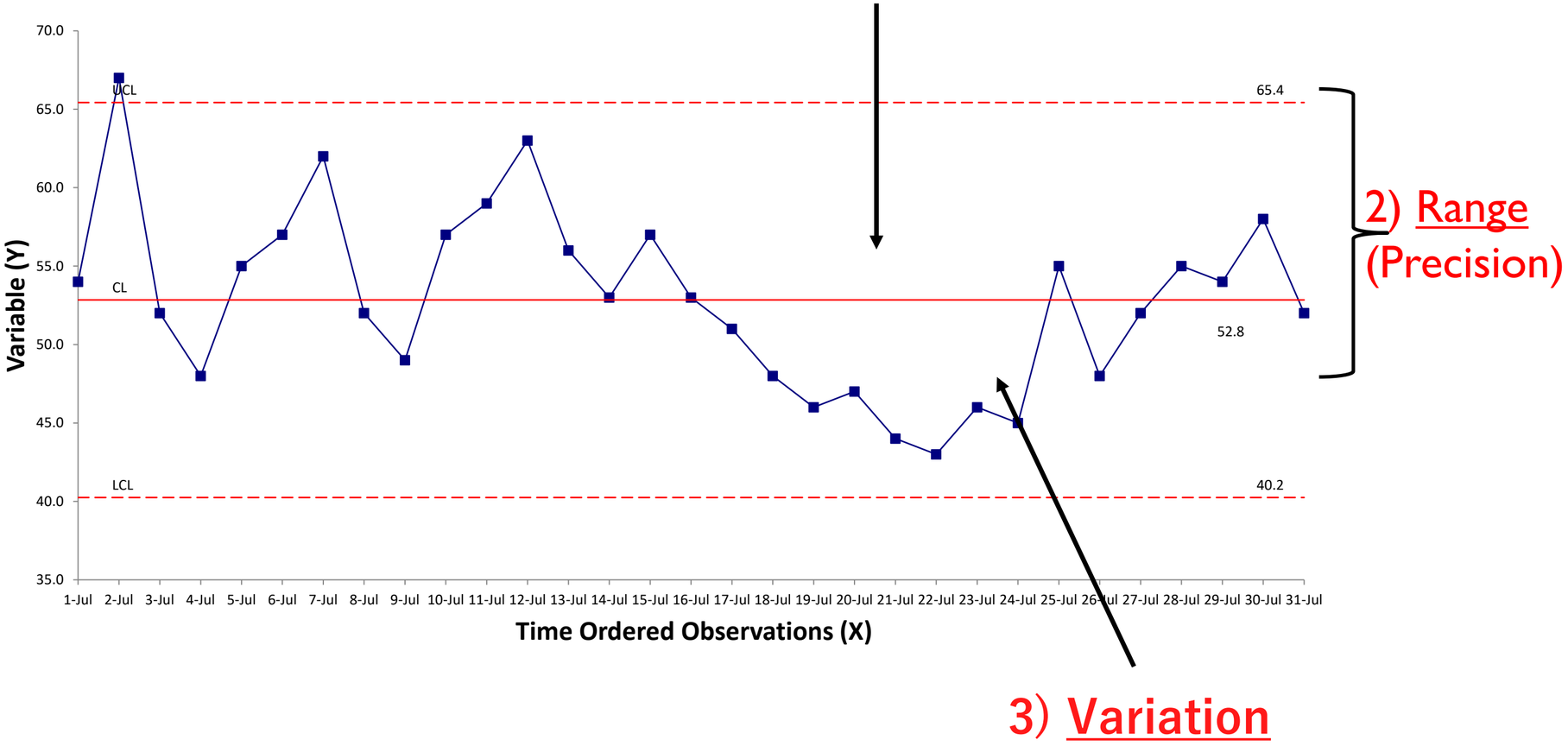


Statistical Process Control (SPC)Basics



SPC Analysis: The "Big Three"

1) **Mean** Performance Level

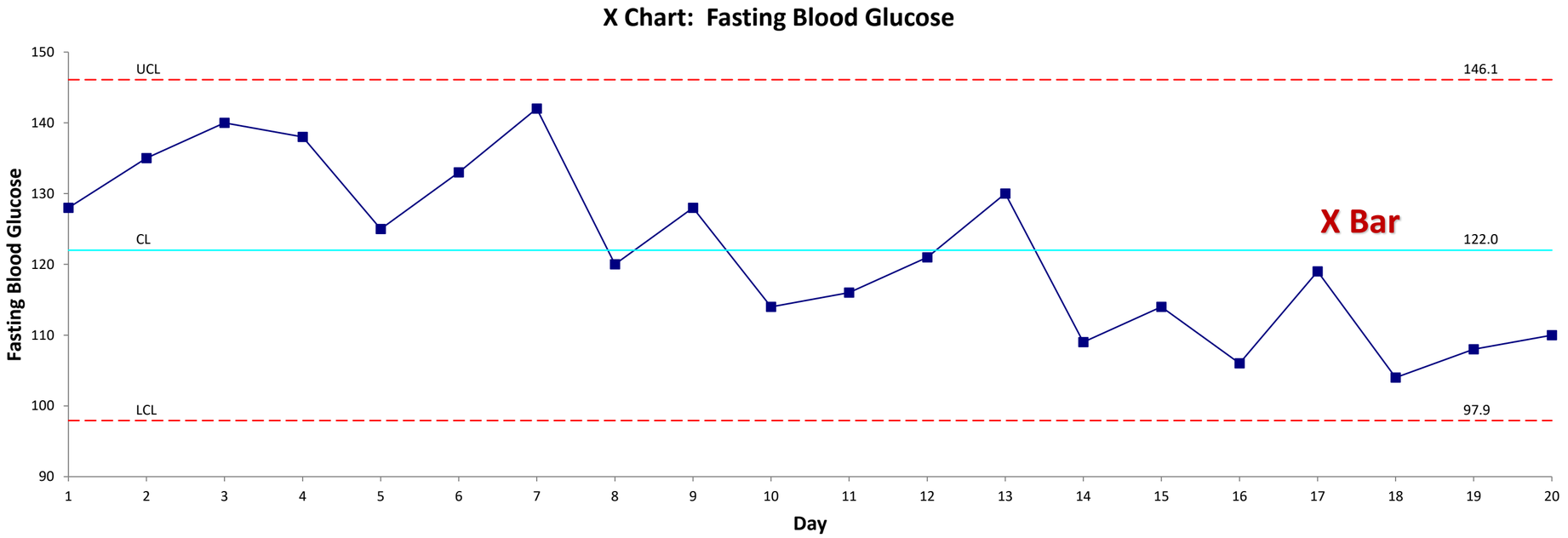


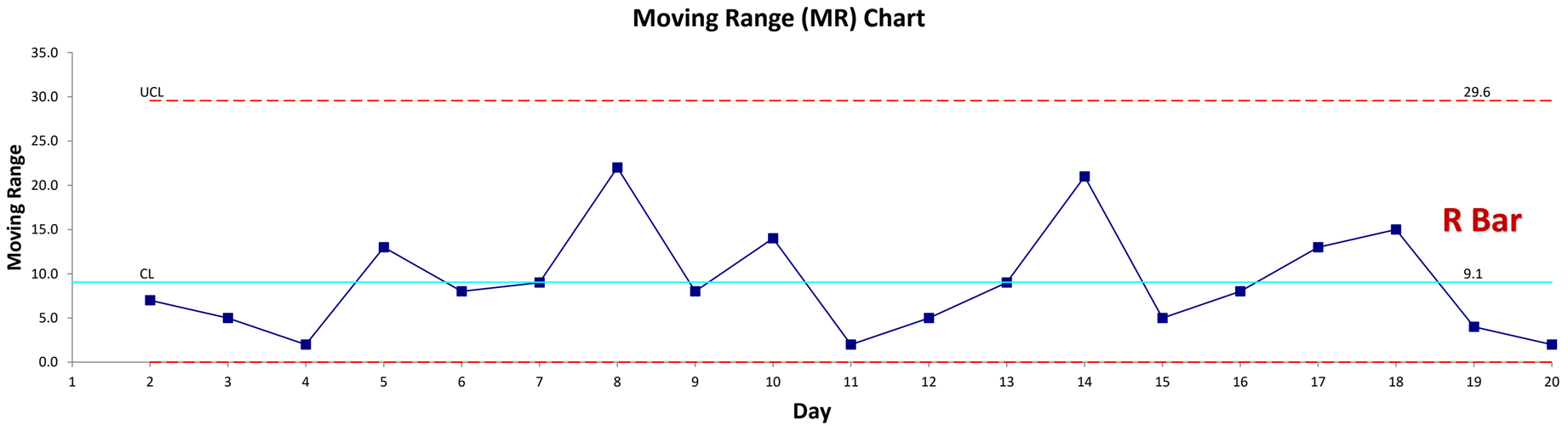
2) Range (Precision)

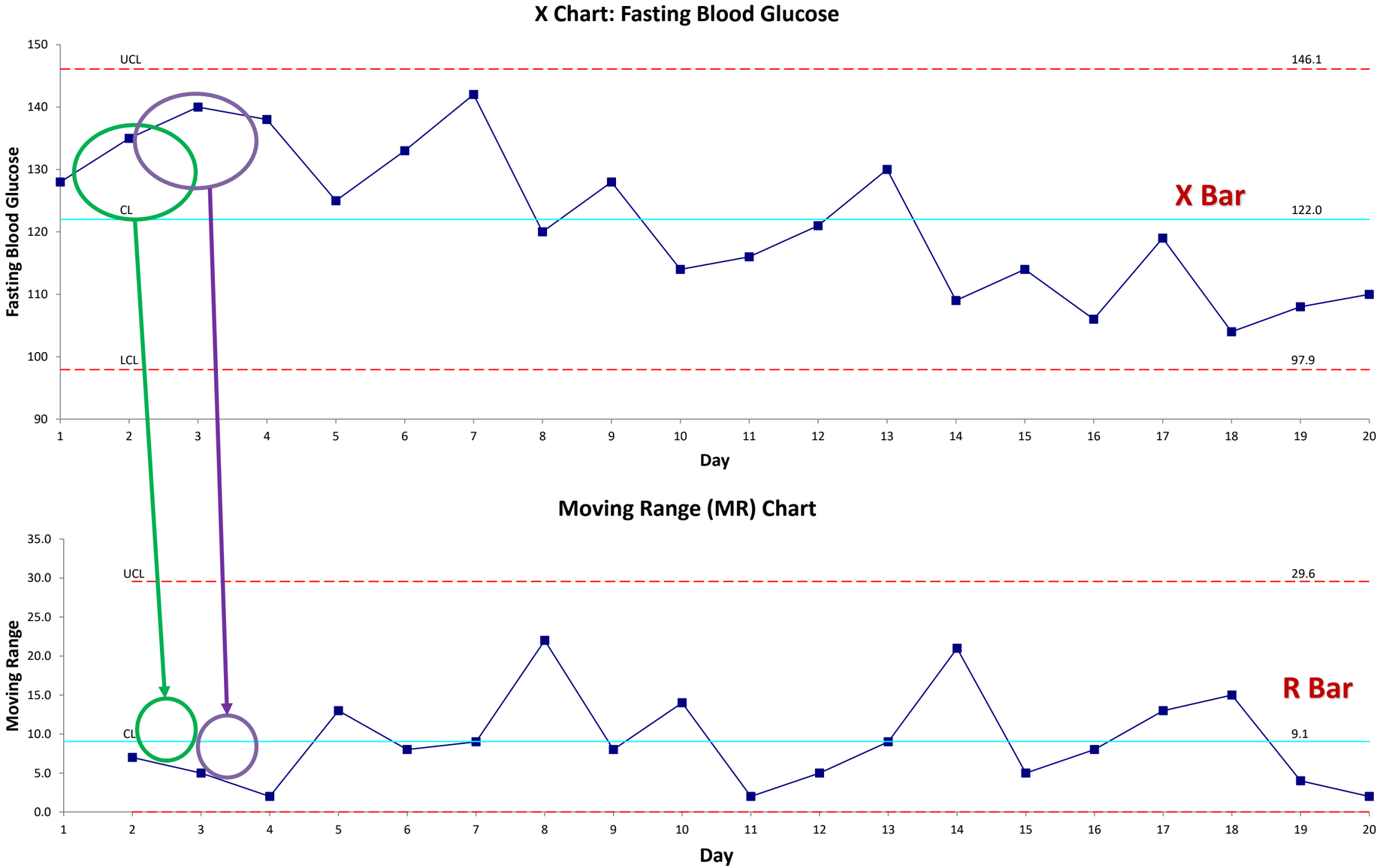
3) Variation

Using SPC for Variable Data

	XmR ("I Chart")	X Bar S
Observations per time point	N=1	N >10 (or N>1)
Points	Individual values	Subgroup averages
Center Line (CL) in "upper chart"	Average of all individual values	Average of all subgroup averages
Upper Control Limit	CL + 2.66 * (average moving range)	CL+ A_3 * (average standard deviation)
Lower Control Limit	CL- 2.66 * (average moving range)	CL- A_3 * (average standard deviation)
Center line in "lower chart"	Average moving range (absolute value)	Average standard deviation
"Lower chart" control limits	Upper only	Upper and lower


X Chart: Fasting Blood Glucose
Fasting Blood Glucose
150
140
130
120
110
100
90
UCL
146.1
CL
122.0
LCL
97.9
X Bar
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Day


Moving Range (MR) Chart
Moving Range
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
UCL
29.6
CL
9.1
R Bar
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Day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Moving Range
35.0
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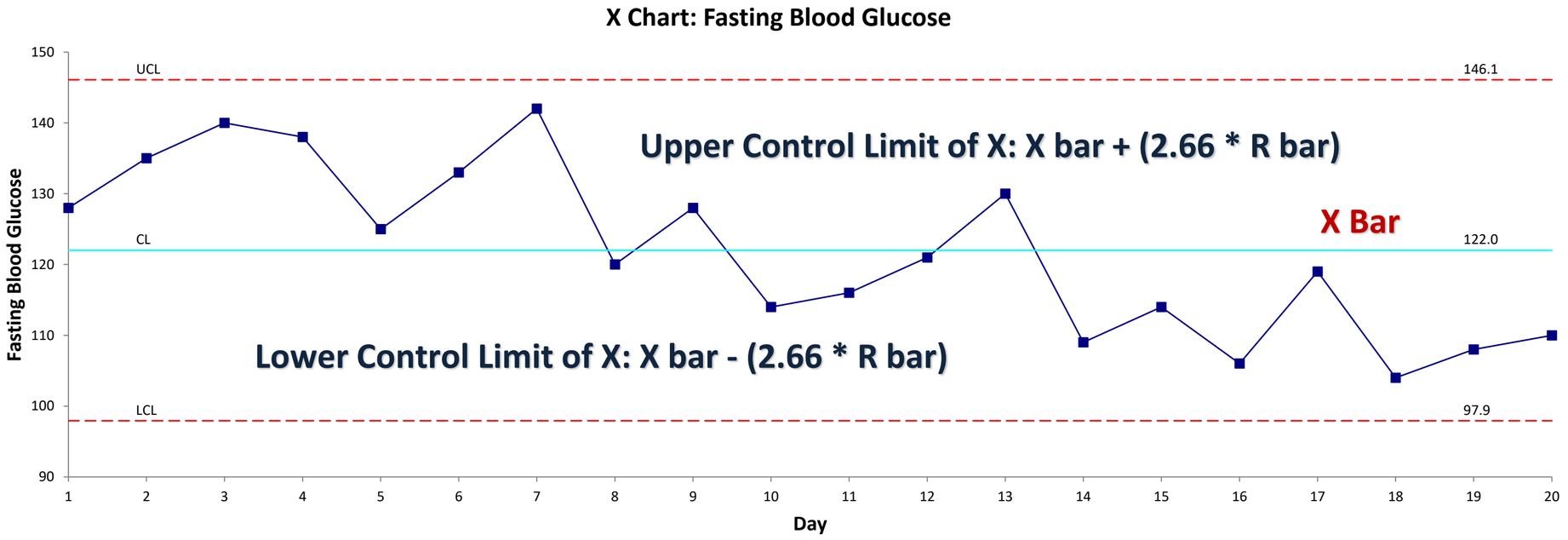
R Bar
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Day


X Chart: Fasting Blood Glucose
Fasting Blood Glucose
Day
UCL
CL
LCL
146.1
122.0
97.9
Upper Control Limit of X: X bar + (2.66 * R bar)
Lower Control Limit of X: X bar - (2.66 * R bar)
X Bar
150
140
130
120
110
100
90
1
2
3
4
5
6
7
8
9
10
11
12
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14
15
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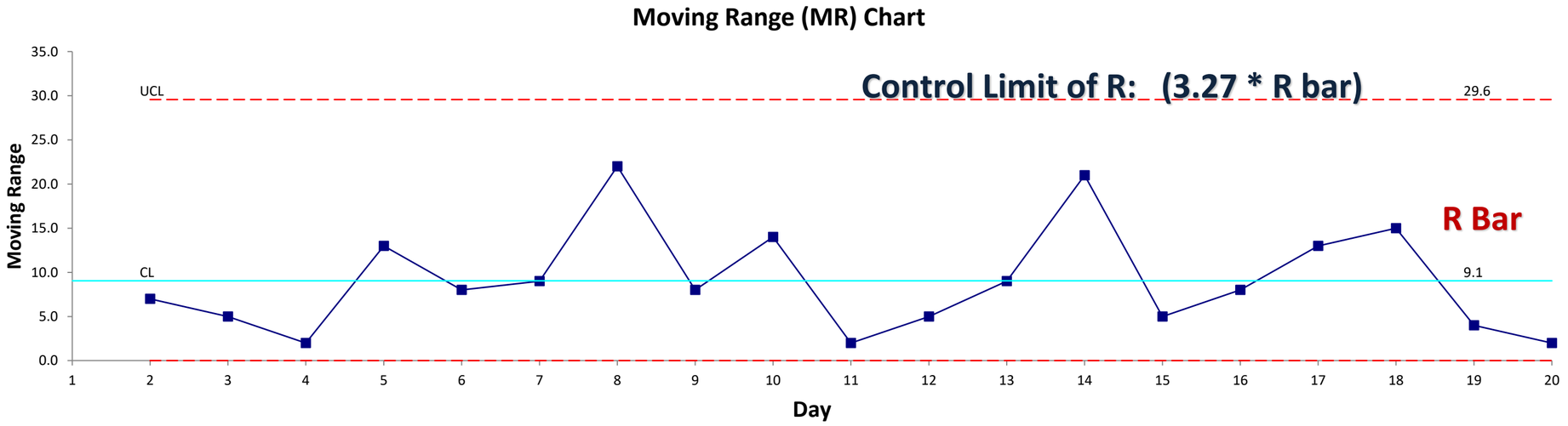
17
18
19
20


Moving Range (MR) Chart
Moving Range
Day
UCL
CL
29.6
9.1
Control Limit of R: (3.27 * R bar)
R Bar
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
1
2
3
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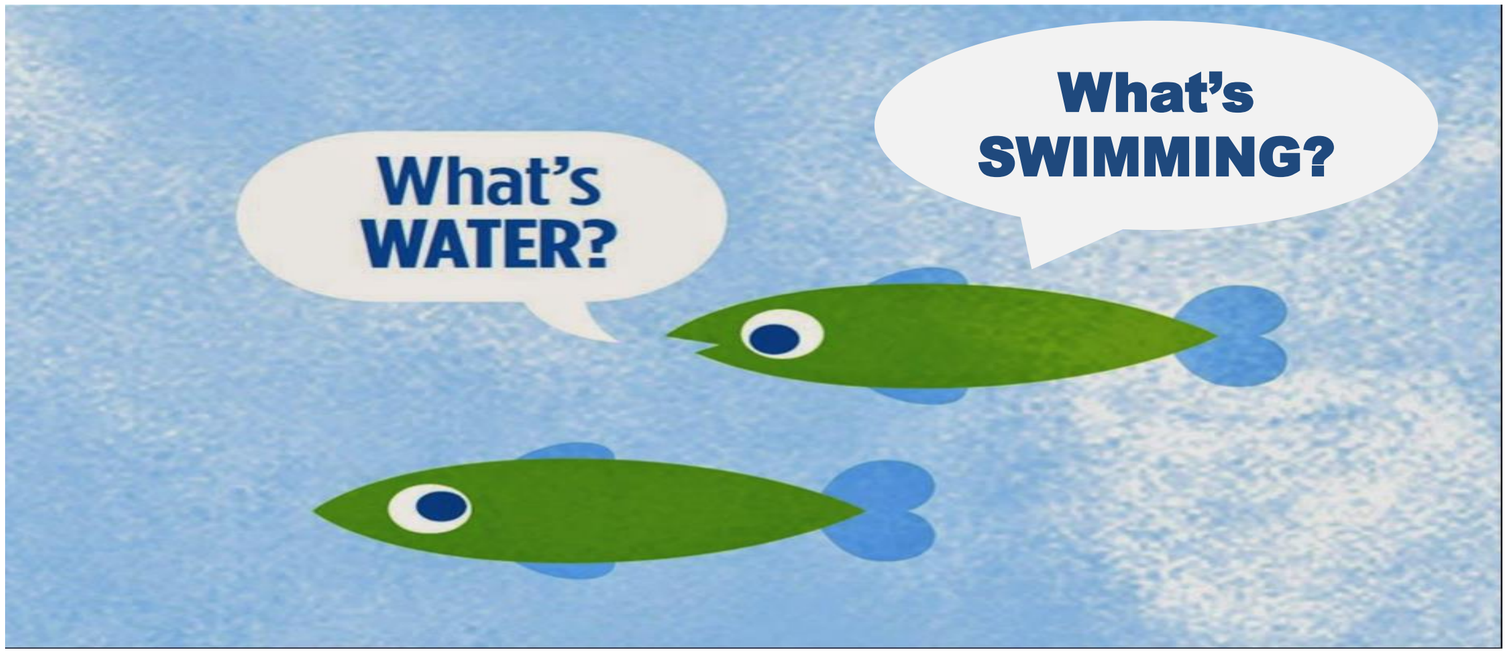
20

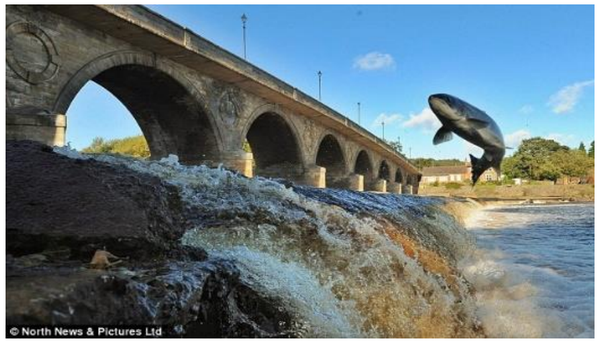
Using SPC To Understand The Impact Of Context In Improvement Work



Context Impacts Both Performance and Outcomes

Sometimes interventions to improve care work …and sometimes they don't

1



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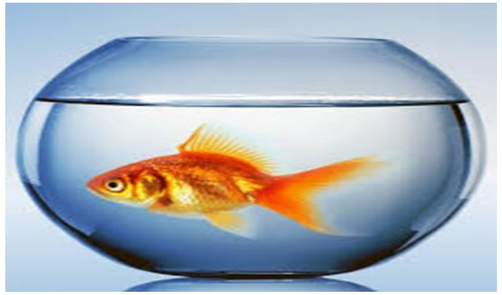
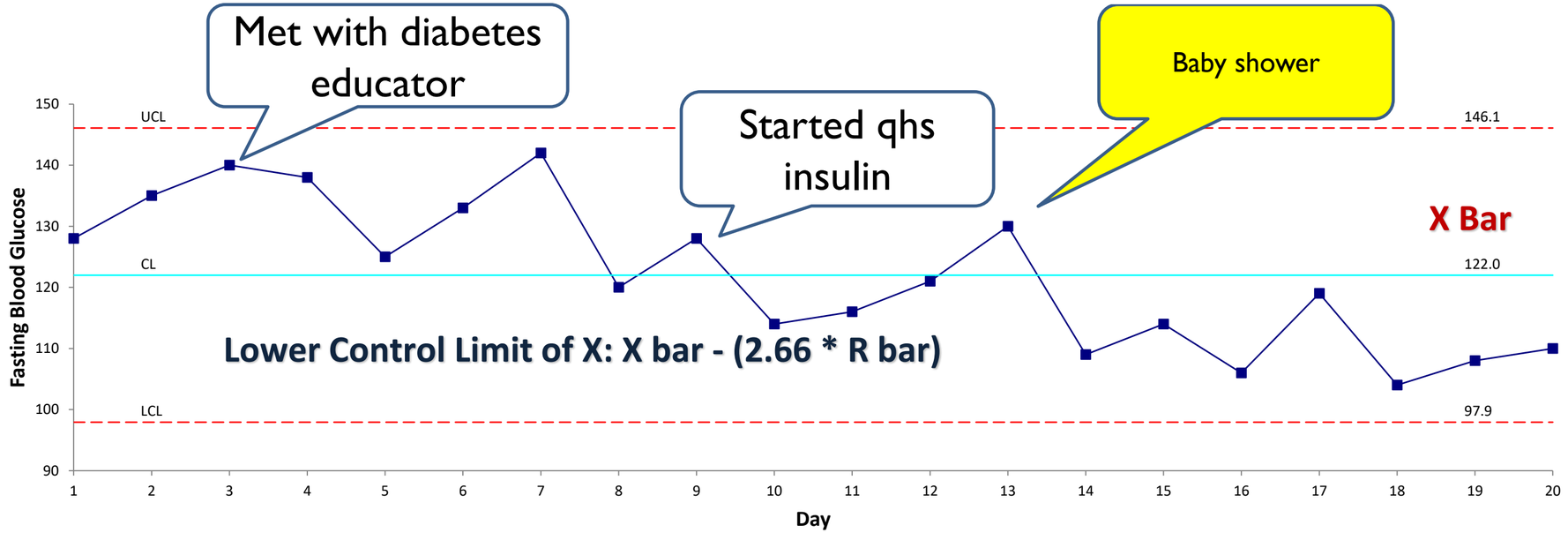


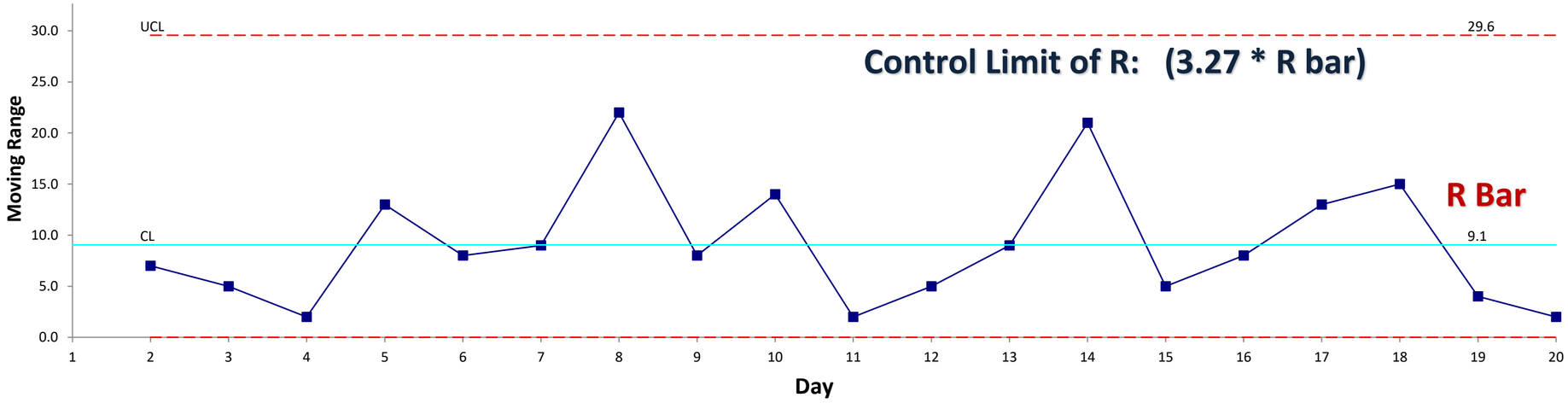
3

4

5

Fasting Blood Glucose: GDMA2





Types of Variation

Common Cause (Random)

Variation caused by chance causes, by random variation in the system, resulting from many small factors.

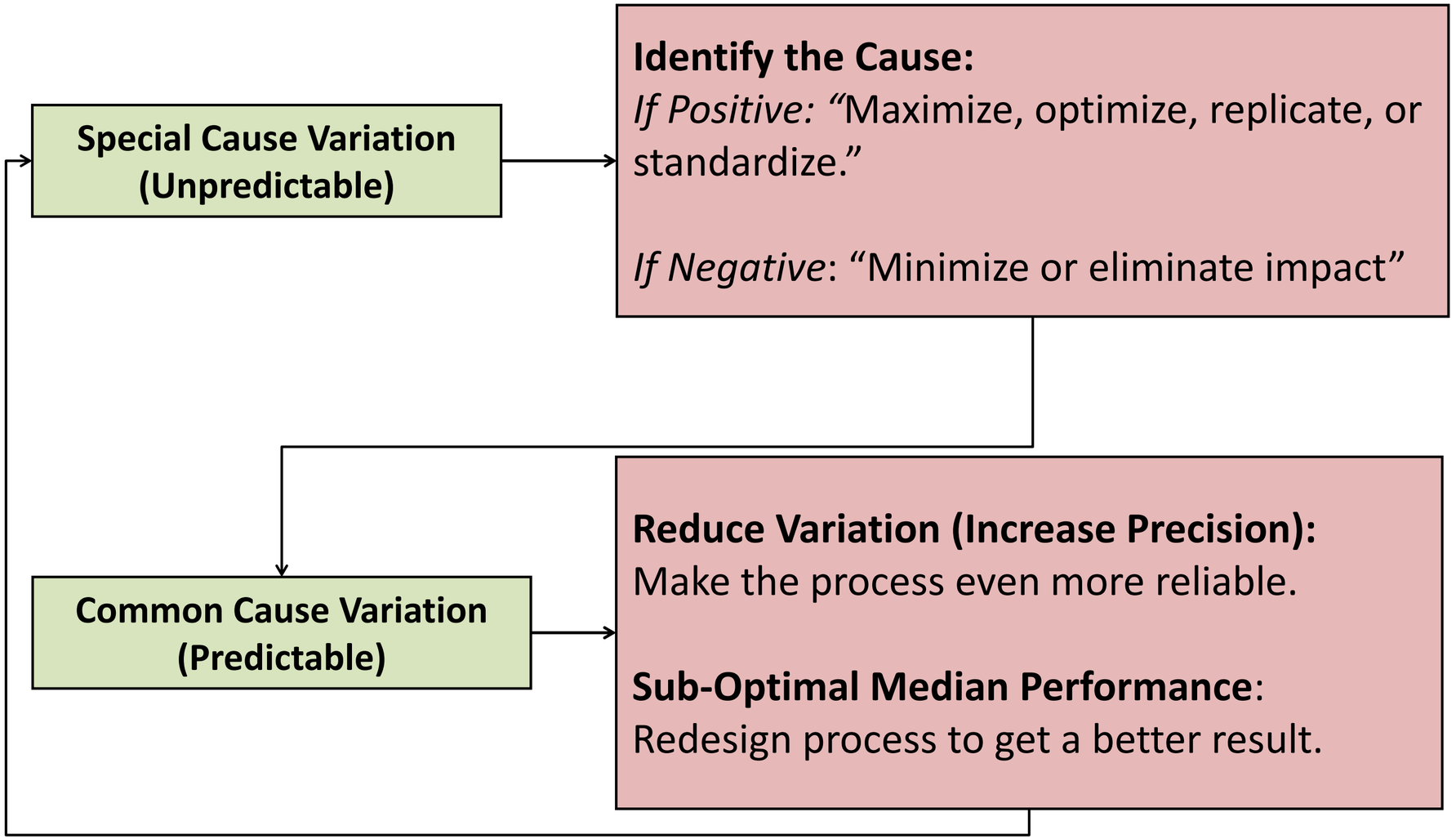
Example: Variation in work commute due to traffic lights, pedestrian traffic, parking issues.

Special Cause (Non-Random)

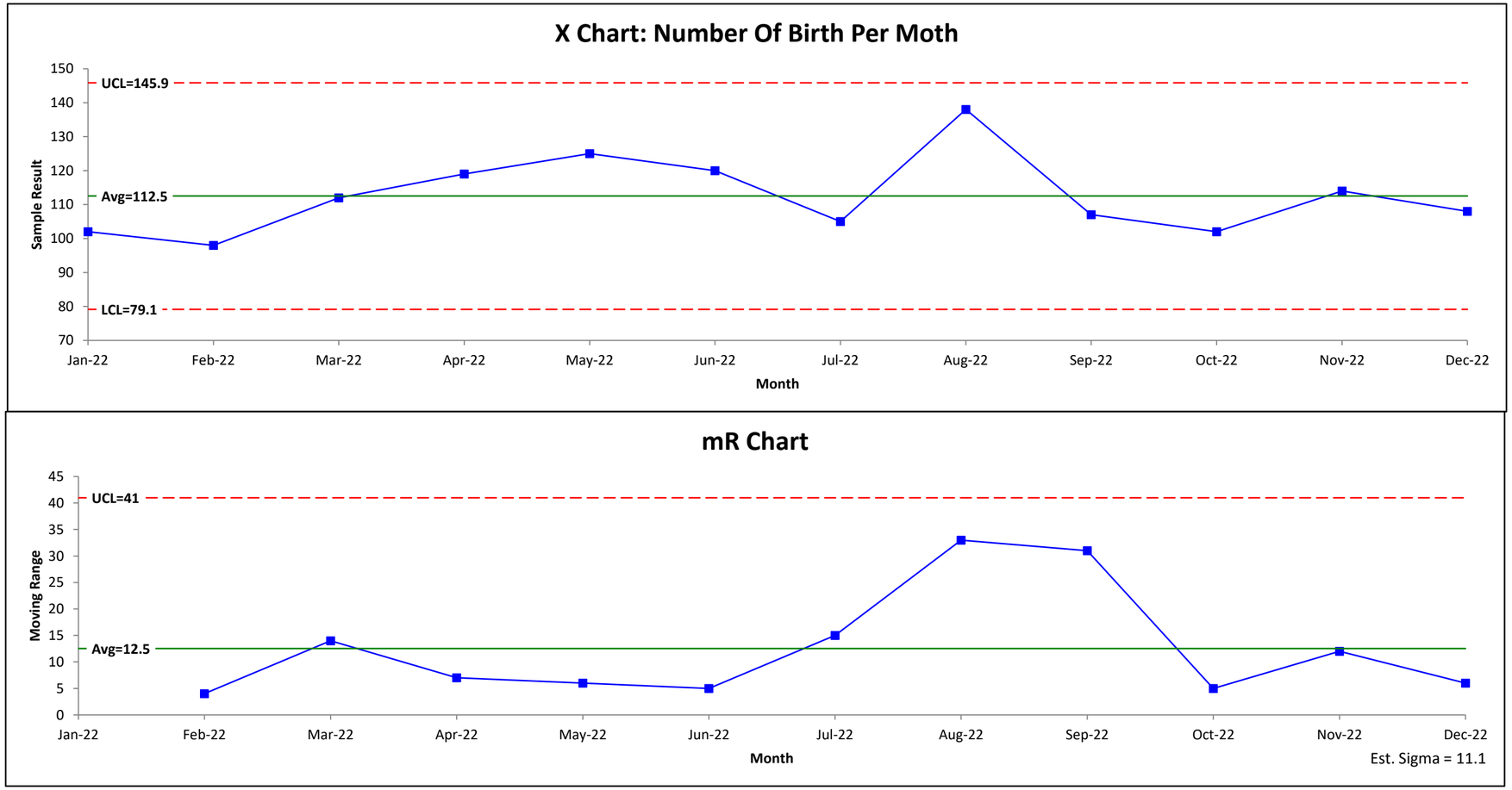
Variation caused by special circumstances or assignable causes not inherent to the system.

Example: Variation in work commute impacted by flat tire, road closure, heavy frost/ice.

Responding to Variation



Monthly Deliveries (Count)



IHI Special Cause Detection Rules: Run Chart vs. SPC

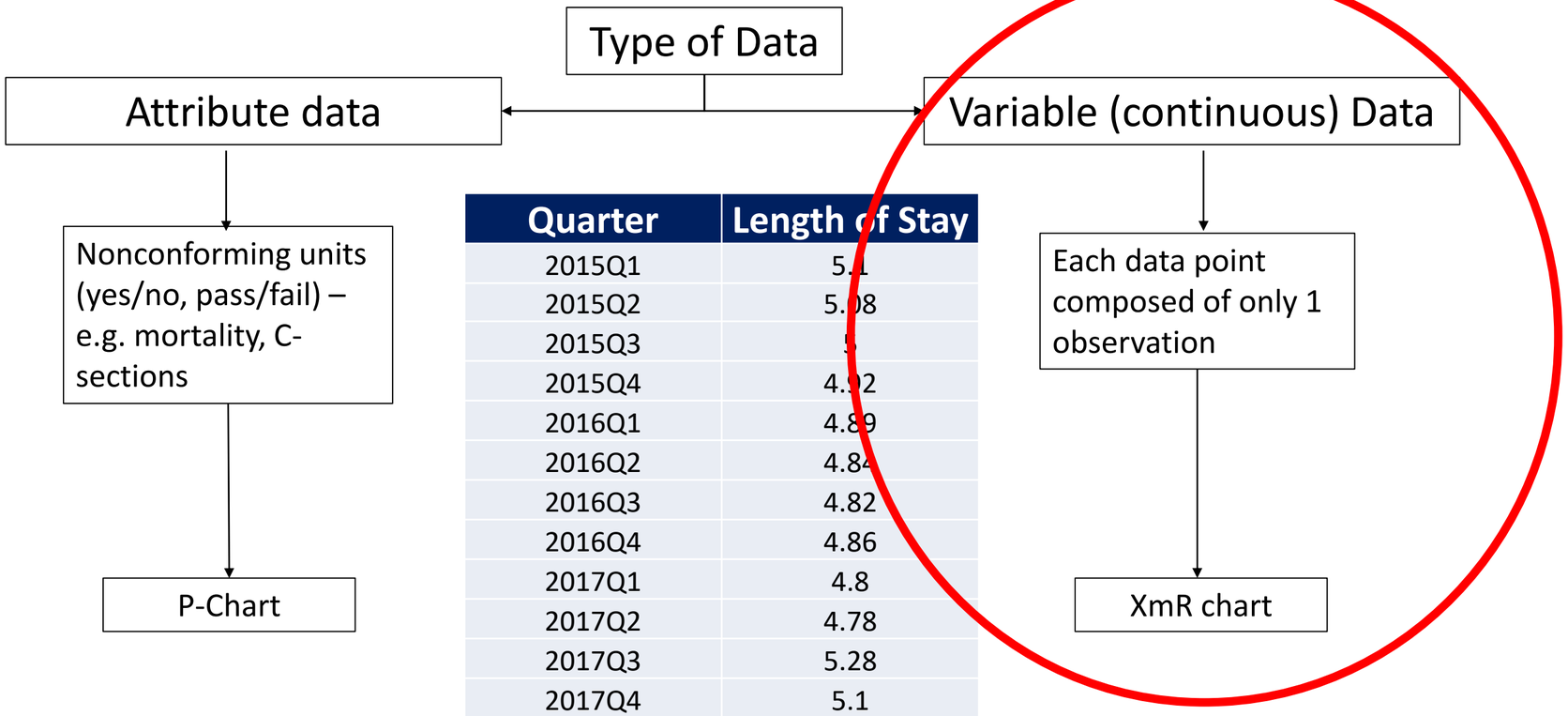
Run Chart

- Shift – 6 or more consecutive points all above or all below the median
- Trend - 5 or more consecutive points all going up or all going down
- Runs – too many or too few runs

Statistical Process Control

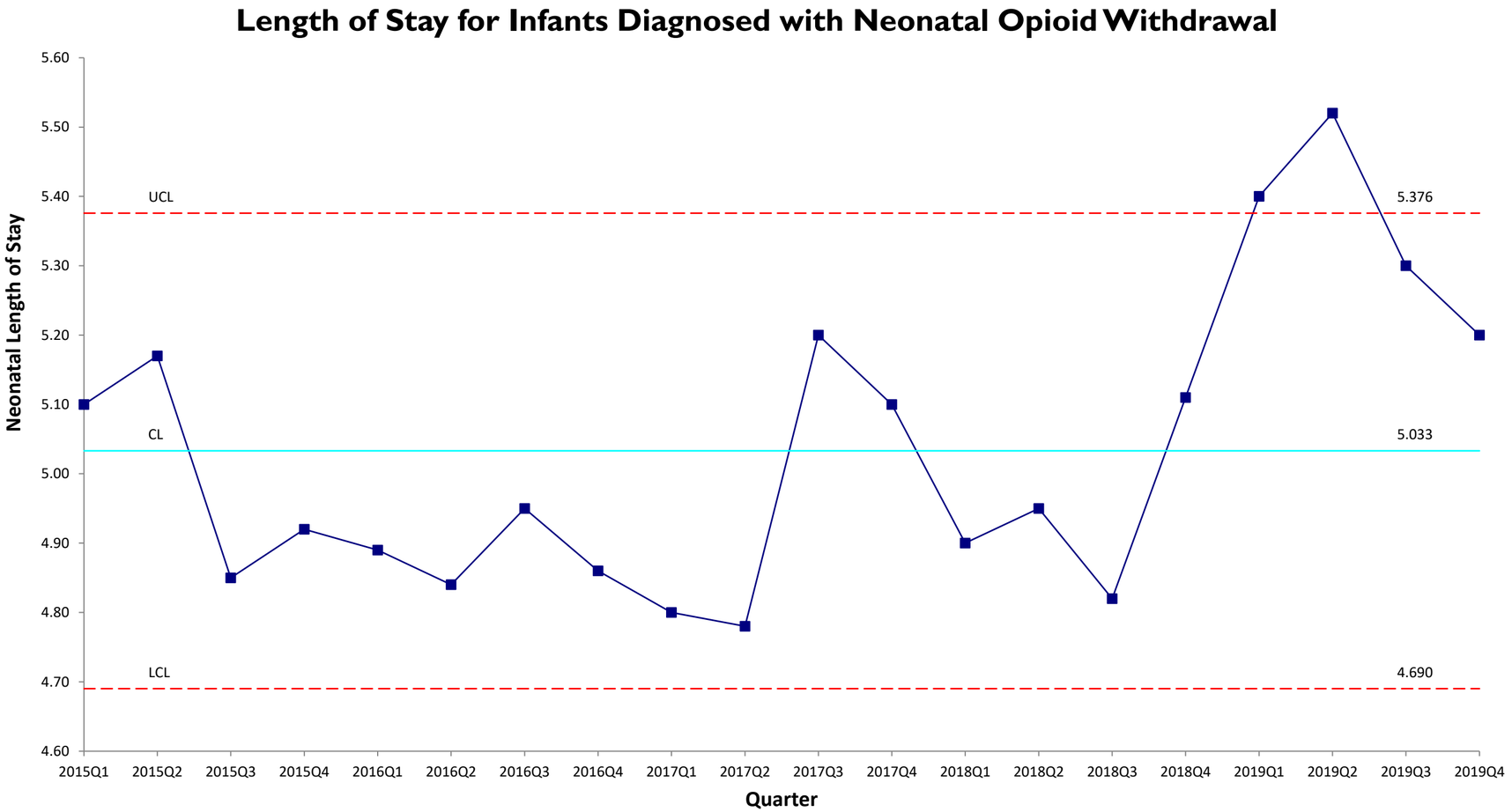
- Shift – 8 or more consecutive points all above or below the mean
- Trend – 6 or more consecutive points all going up or all going down
- Control Limits – 1 point outside the upper or lower control limits

Choosing a Control Chart

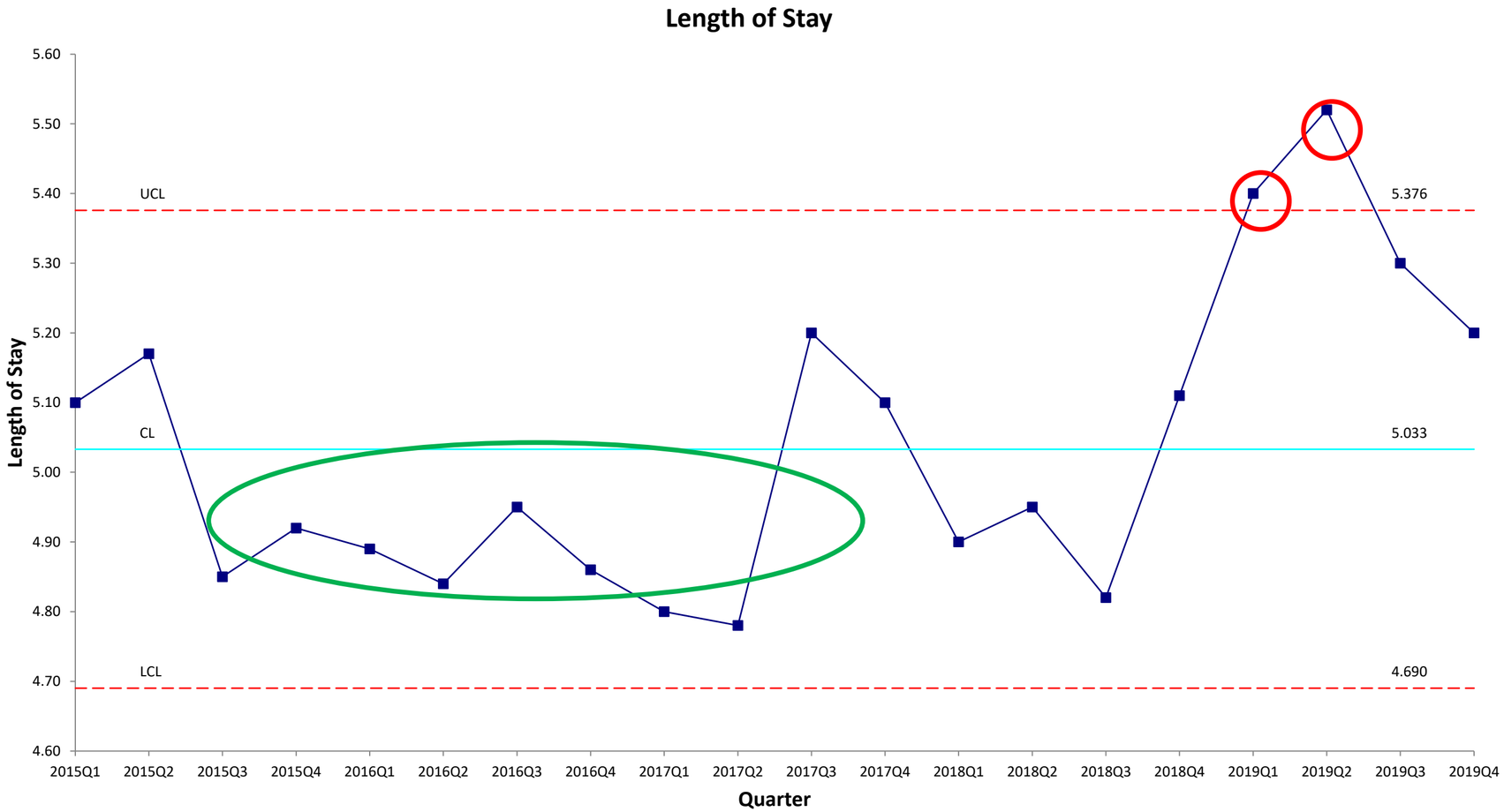


Quarter	Length of Stay
2015Q1	5.1
2015Q2	5.08
2015Q3	5
2015Q4	4.92
2016Q1	4.89
2016Q2	4.84
2016Q3	4.82
2016Q4	4.86
2017Q1	4.8
2017Q2	4.78
2017Q3	5.28
2017Q4	5.1
2018Q1	4.9
2018Q2	4.95
2018Q3	4.82
2018Q4	5.11
2019Q1	5.38
2019Q2	5.52
2019Q3	5.3
2019Q4	5.2

Poll: How many special cause signals are there?



Special Cause Signals

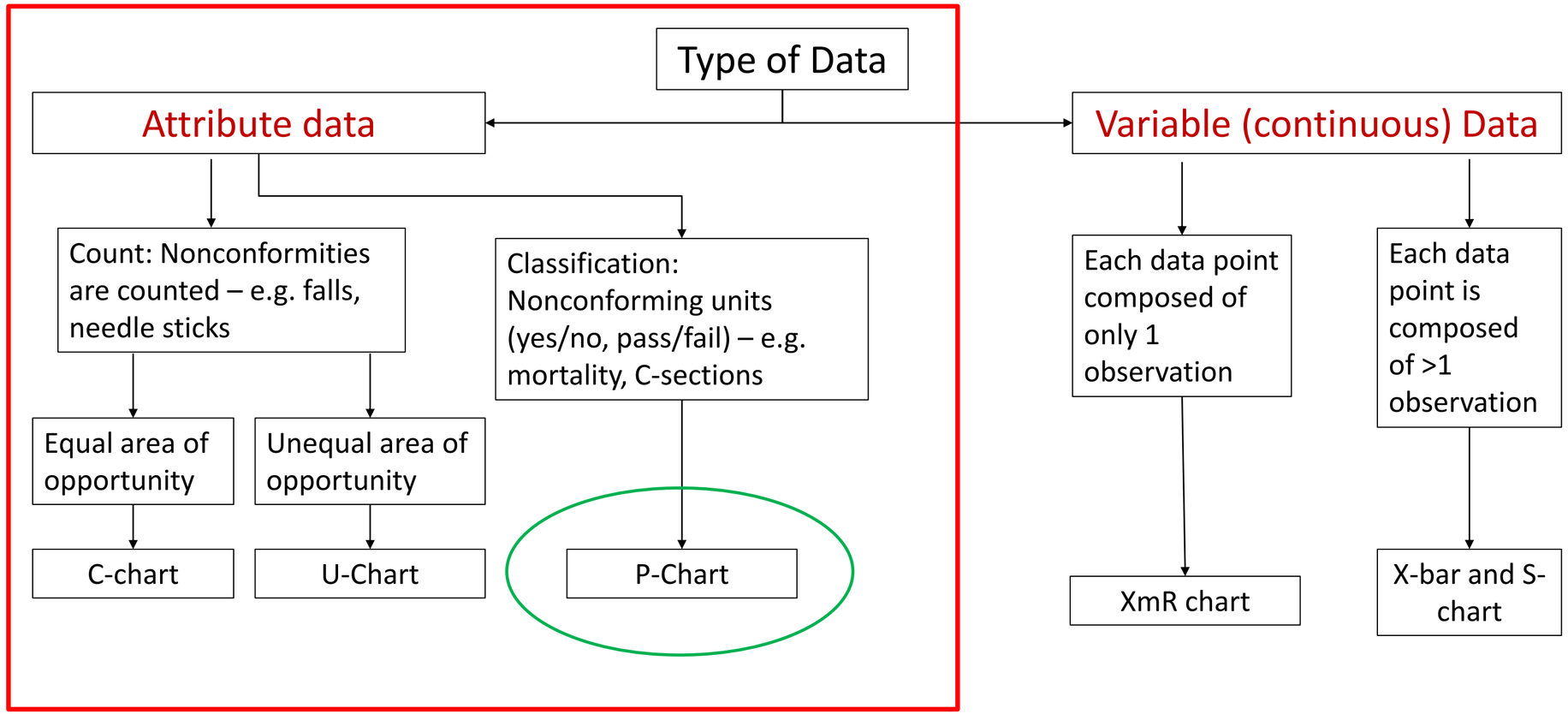


Part 2

Attribute Data SPC:

p Charts

Choosing a SPC Chart



Common Perinatal Quality Metrics and Possible Chart Types

XmR

Number of deliveries per month

Number of cesarean deliveries per month (or quarter)

Number of unit safety drills each quarter

Number of staff completing competency training each year

Number of C-sections performed each week

G chart (infrequent events)

Most SMM (ex: cesarean hysterectomy)

P chart

C-section among NTSV birthing people

% of patients screened for SUD

% of patients who had a postpartum visit

% of patients with pre-eclampsia who experienced SMM

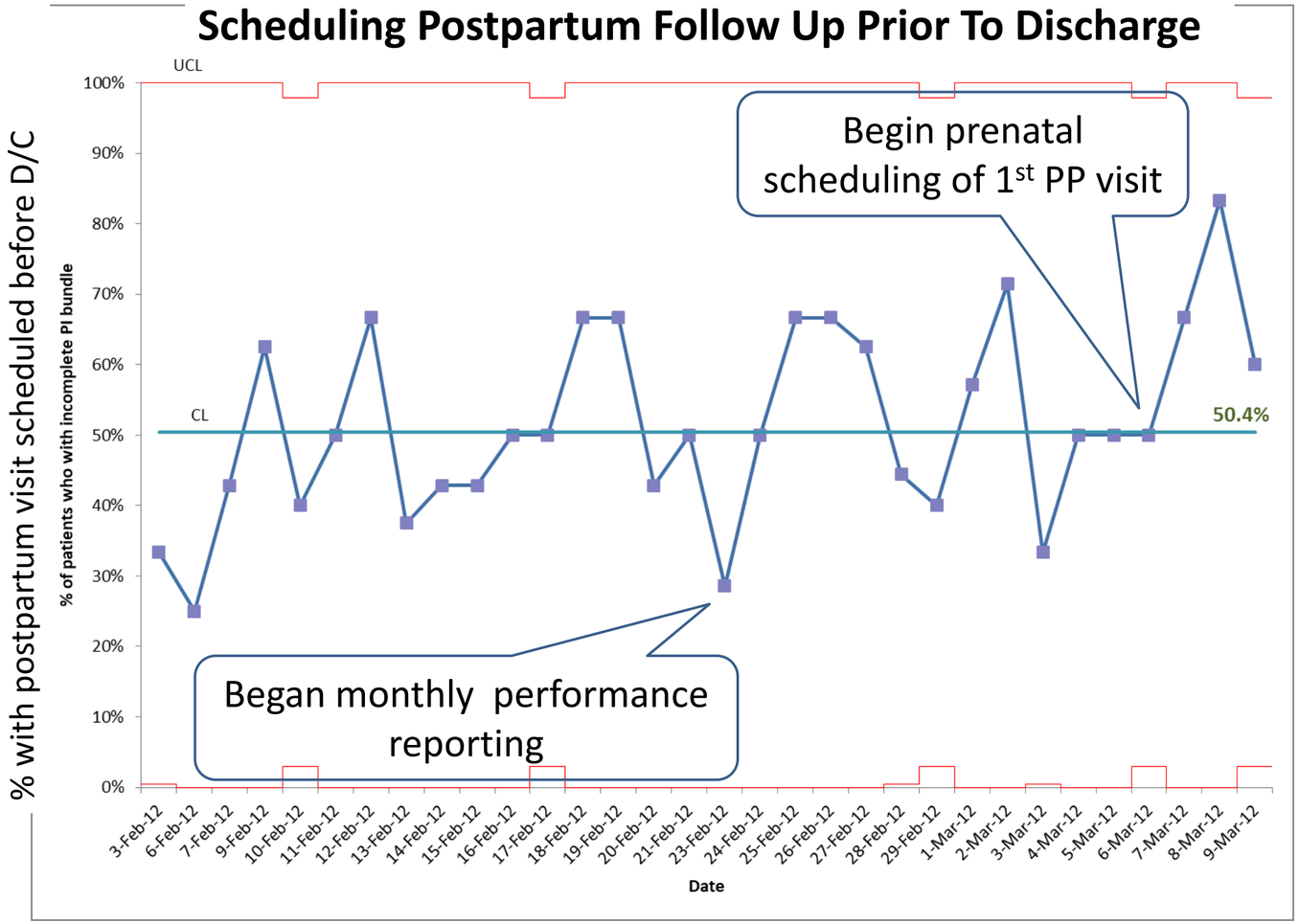
% of staff completing competency training

P- (Proportions) Chart Assumptions

- Binomial: Each unit can be classified into only two categories (yes/no).
- The occurrence of either of the attributes is independent of the attributes of other units.
- It is impossible for the numerator to exceed the denominator (proportion cannot exceed 100%).

p Chart

Date	Number of patients who did not have a postpartum visit scheduled	Total patients discharged
3-Feb-12	3	9
6-Feb-12	2	8
7-Feb-12	3	7
9-Feb-12	5	8
10-Feb-12	4	10
11-Feb-12	4	8
12-Feb-12	4	6
13-Feb-12	3	8
14-Feb-12	3	7
15-Feb-12	3	7
16-Feb-12	3	6
17-Feb-12	5	10
18-Feb-12	4	6
19-Feb-12	4	6
20-Feb-12	3	7
21-Feb-12	3	6
23-Feb-12	2	7
24-Feb-12	4	8
25-Feb-12	4	6
26-Feb-12	4	6
27-Feb-12	5	8
28-Feb-12	4	9
29-Feb-12	4	10
1-Mar-12	4	7
2-Mar-12	5	7
3-Mar-12	3	9
4-Mar-12	3	6
5-Mar-12	3	6
6-Mar-12	5	10
7-Mar-12	4	6
8-Mar-12	5	6
9-Mar-12	6	10

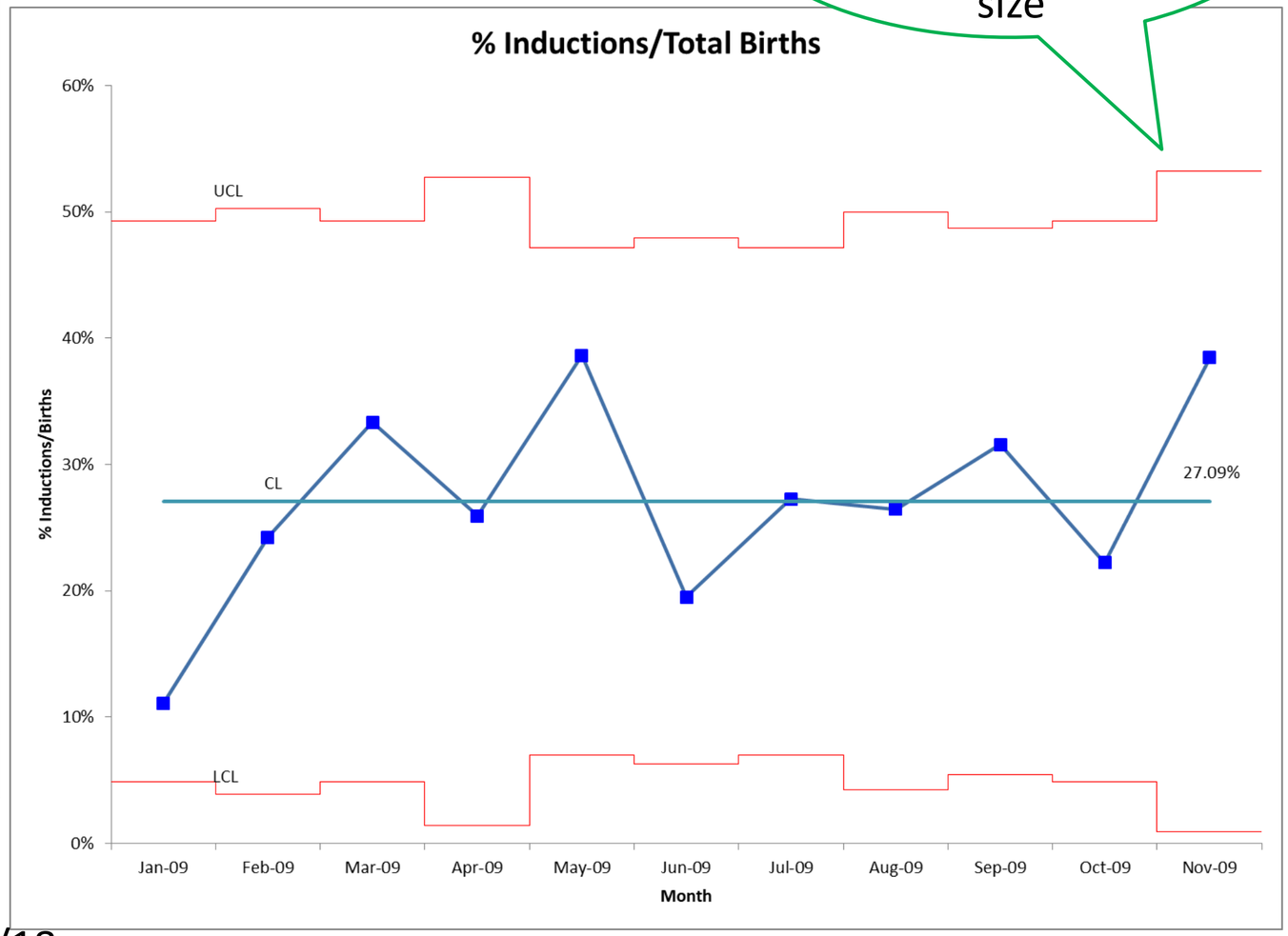


Min Max/Range: 6-10/4

p chart

Note how the control limits fluctuate based on the denominator size

Month	Induction	Monthly Vaginal Births
Jan-09	4	36
Feb-09	8	33
Mar-09	12	36
Apr-09	7	27
May-09	17	44
Jun-09	8	41
Jul-09	12	44
Aug-09	9	34
Sep-09	12	38
Oct-09	8	36
Nov-09	10	26



Min-Max/Range: 26-44/18

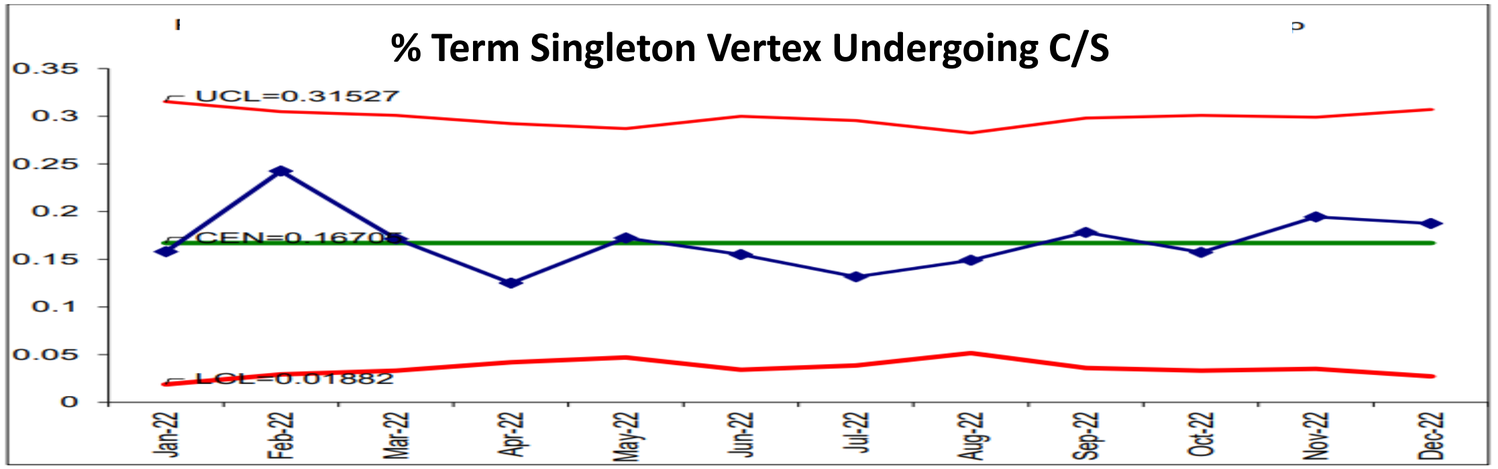
IHI Special Cause Rules for SPC: Same for p Charts as for XmR Charts

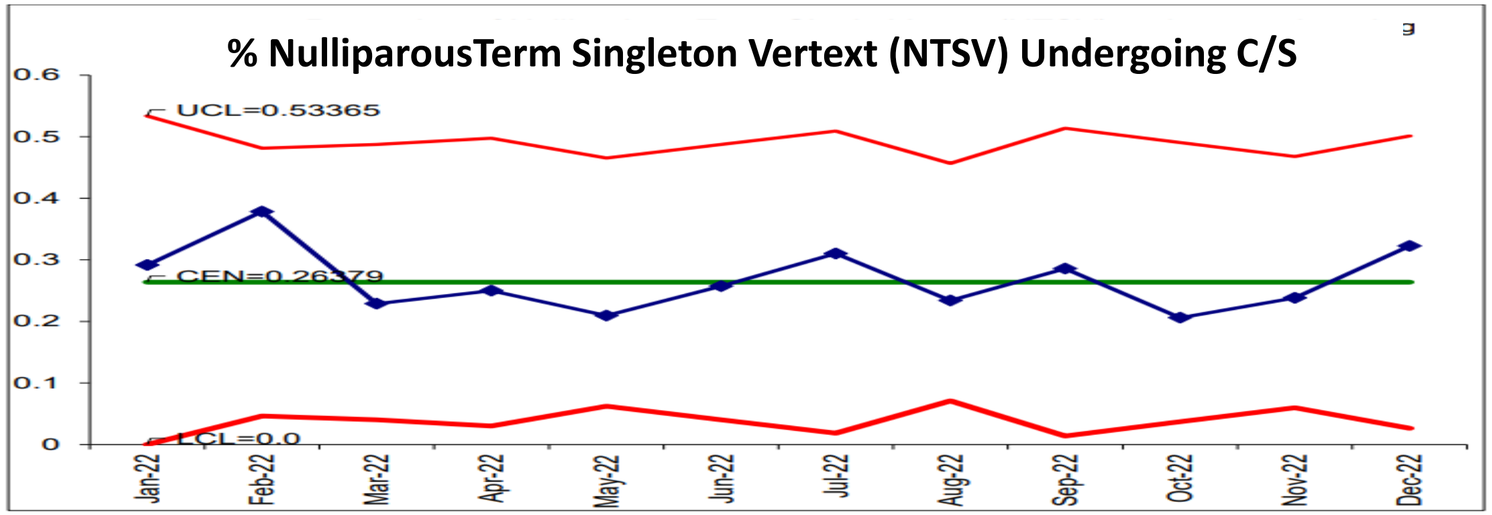
- **Shift** – 8 or more consecutive points all above or below the mean

- **Trend** – 6 or more consecutive points all going up or all going down

- **Control Limits** – 1 point outside the upper or lower control limits

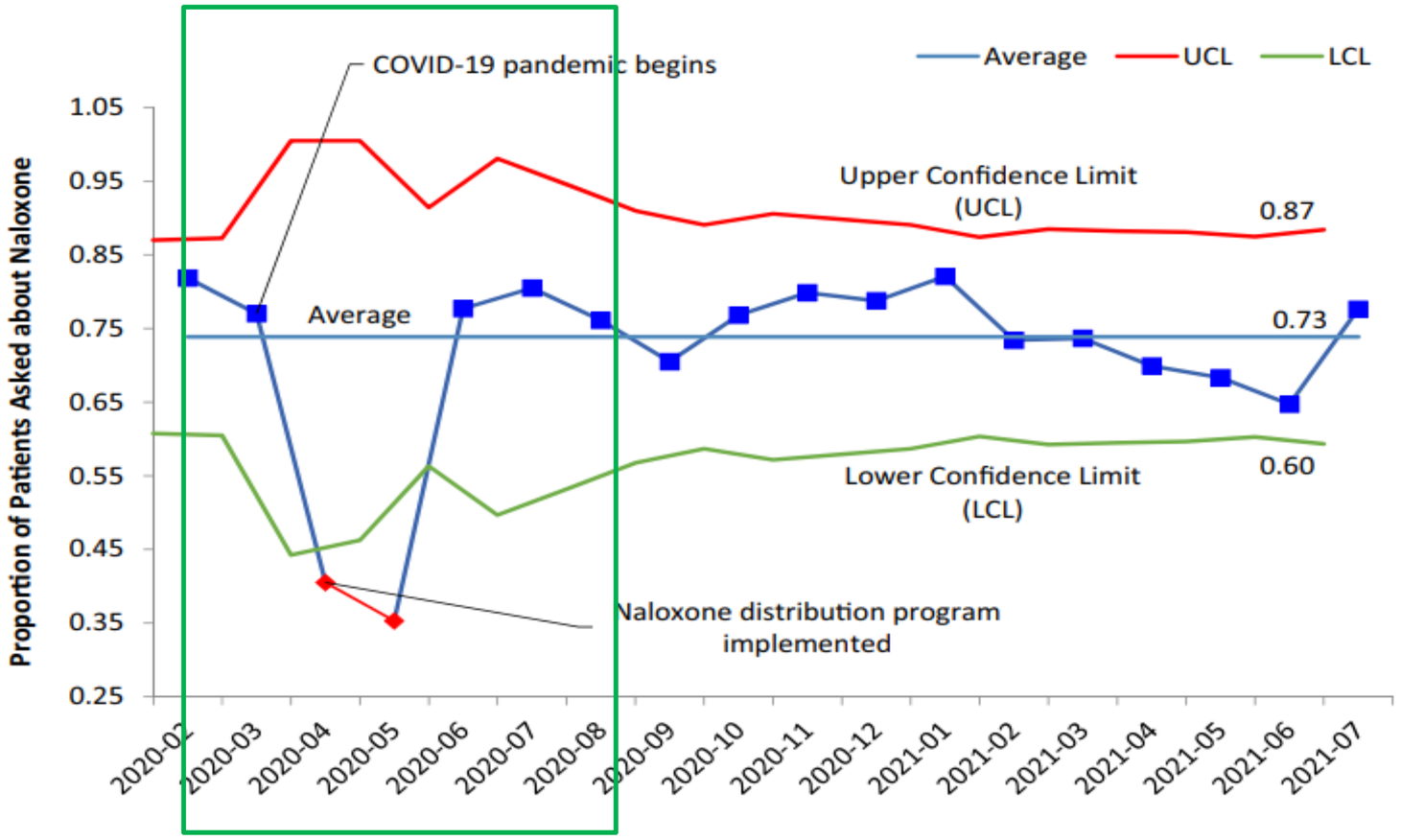
p-Chart: Cesarean Delivery Rates





Source: Ella Damiano, MD (with permission)

Asking About Naloxone At First Prenatal Visit: Pandemic Impact



Duska, MK, Goodman, D. Implementation of a prenatal naloxone distribution program to decrease maternal mortality from opioid overdose. *Maternal Child Health Journal* 2021.

Part 3

Fixing & Splitting Control Limits

Fixing and Splitting Limits Algorithm

Start with a standard "*un-split*" SPC analysis

1. *Do I have a stable baseline?*
2. *Do I have a known exposure?*
3. *Do I need to maximize sensitivity to detect special cause variation compared to a set baseline?*

1. *Is there sustained special cause variation present?*
2. *Is there context knowledge suggesting presence of >1 process?*
3. *Do I want/need to prioritize the assessment of new system characteristics and sustainability?*

Fix Limits

Split Limits

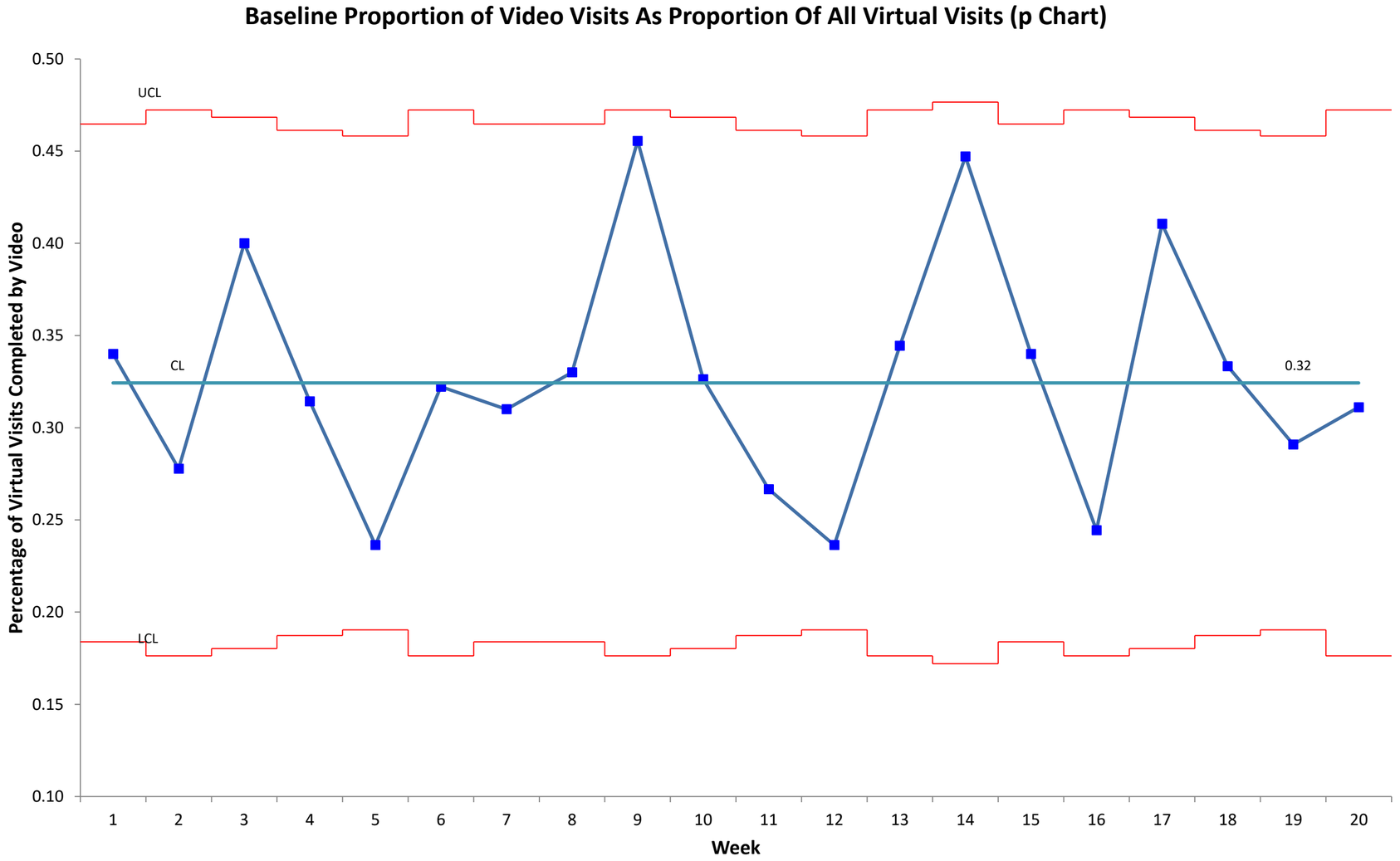
Fixed Limit Analysis

- Sets (“fixes”) the center line at an established baseline (pre-exposure) level.
- Requires a baseline that is in statistical control and known chronology of baseline and exposure (intervention) periods.
- Increases sensitivity to detect special cause variation post-exposure, compared to baseline.

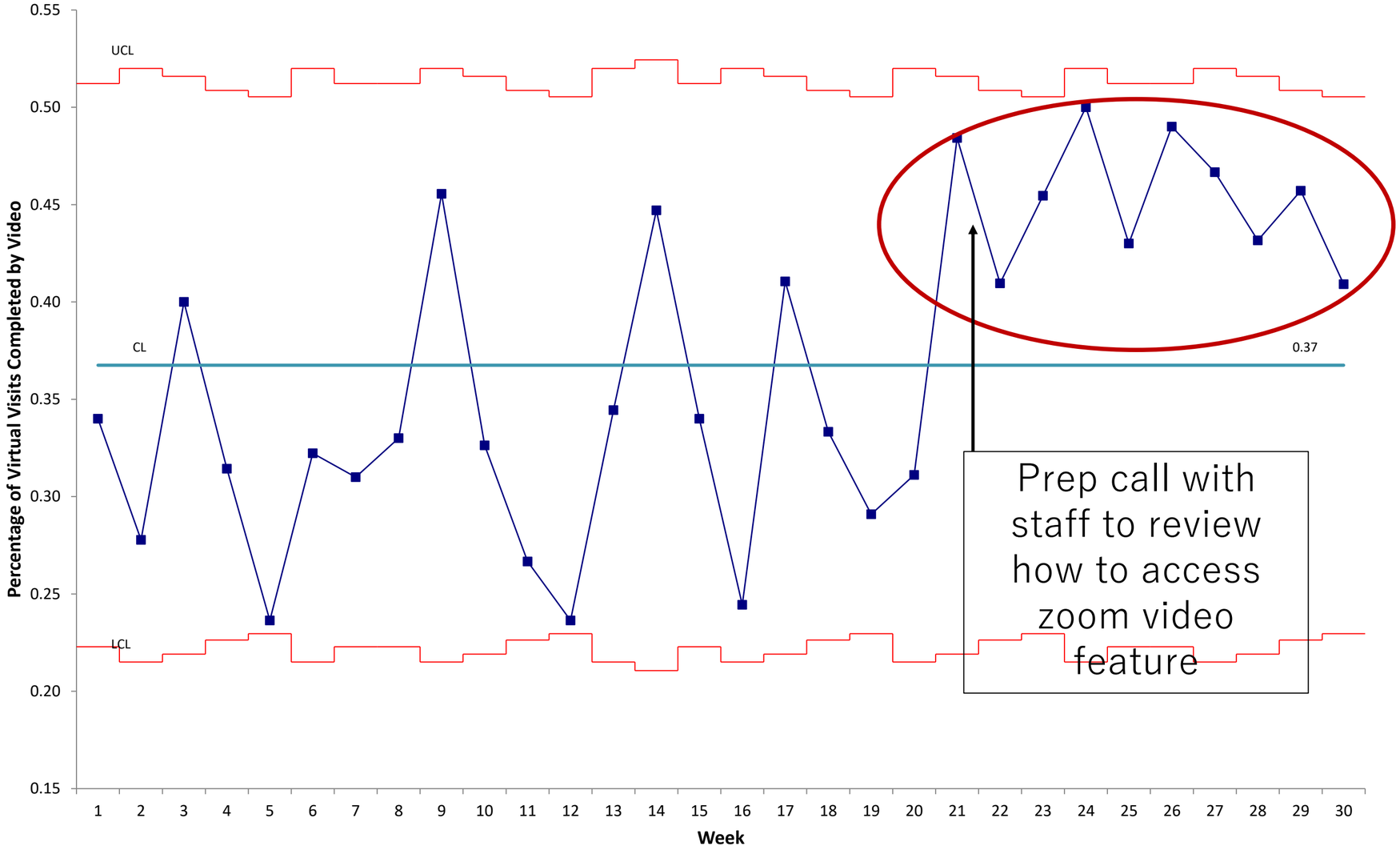
What are SPC Criteria for a “stable baseline” ?

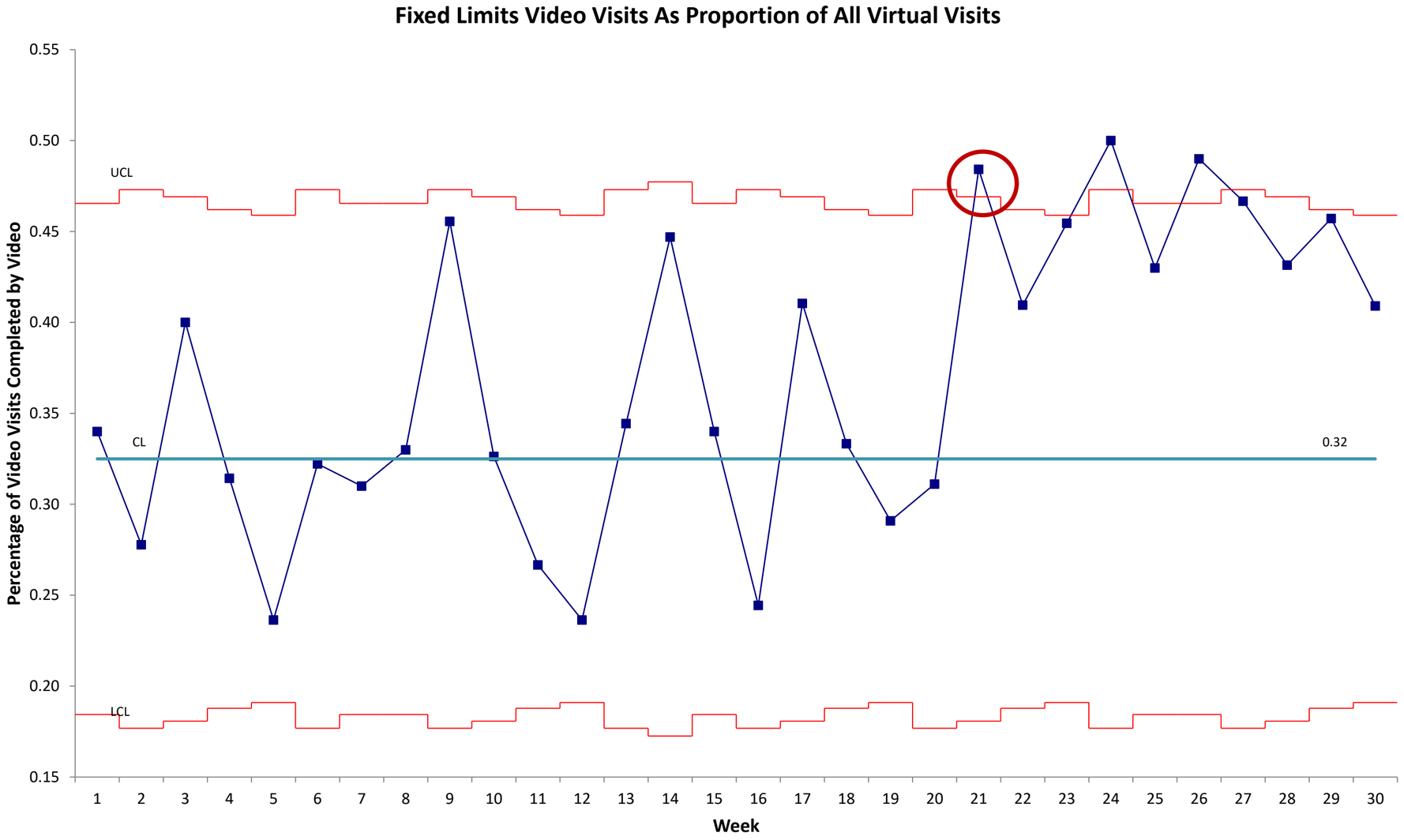
1. At least 12-15 observations (acceptable Type II error) - ideal to have 20 points (Provost text recommendation, less Type II error)

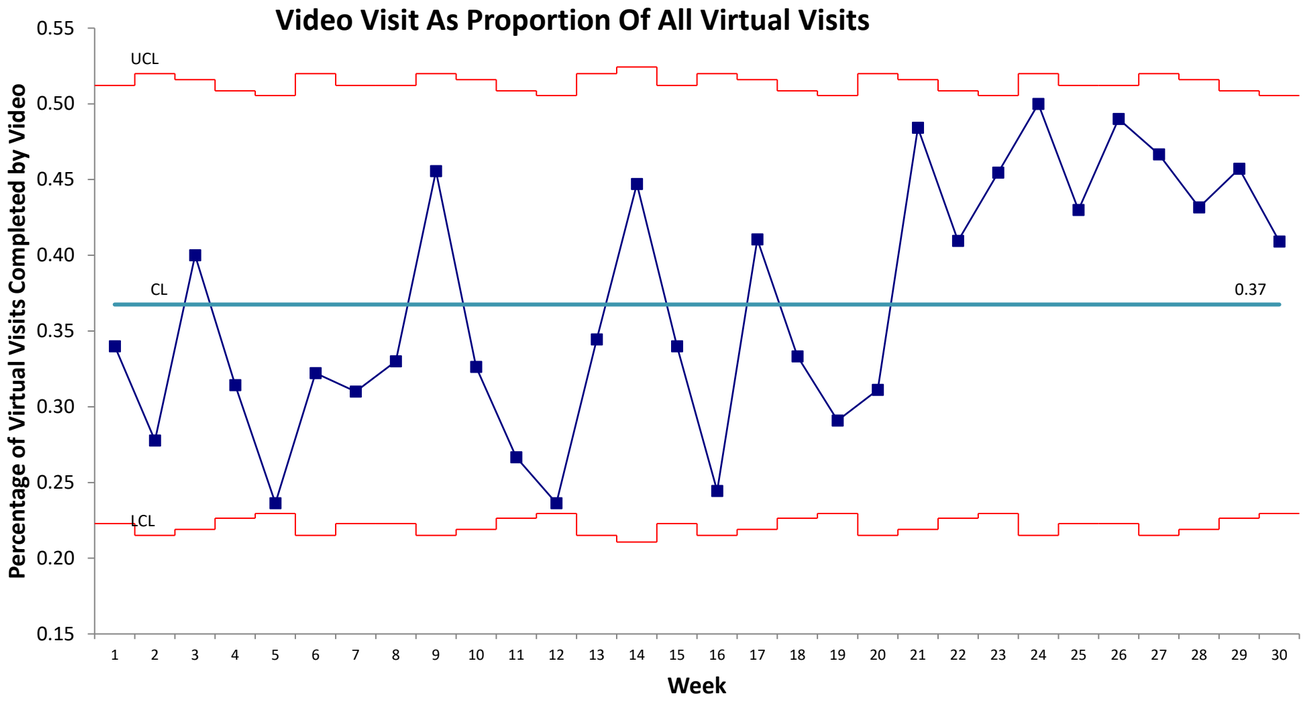
2. Process is in statistical control (common cause variation)


Baseline Proportion of Video Visits As Proportion Of All Virtual Visits (p Chart)
Percentage of Virtual Visits Completed by Video
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
UCL
CL
0.32
LCL
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Week

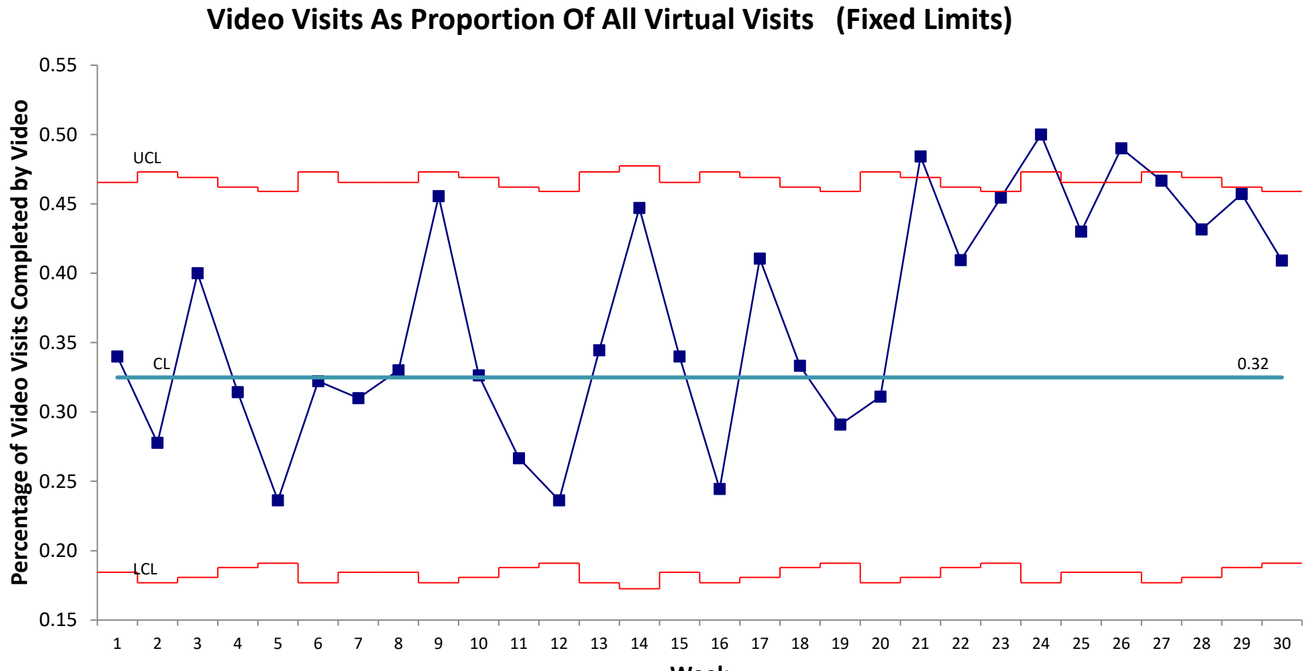
Video Visits As Proportion of All Virtual Visits (cont'd)




Fixed Limits Video Visits As Proportion of All Virtual Visits
Percentage of Video Visits Completed by Video
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
UCL
CL
0.32
LCL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Week



Special Cause Signal: Day 29



Special Cause Signal: Day 21

Split Limits Analysis

- Splits the analysis (process) into two (or more) separate analyses (processes).

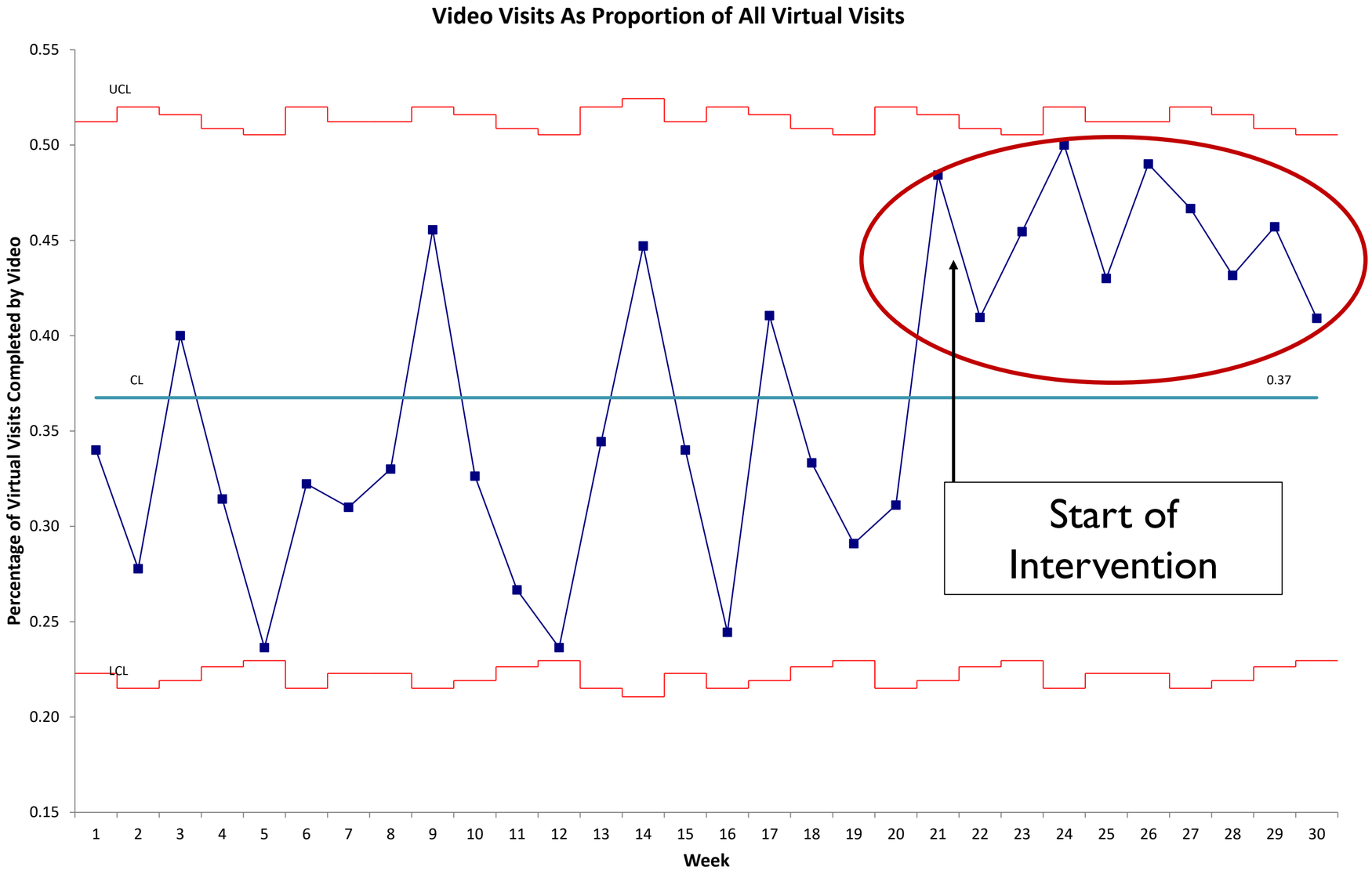
- Each process has its own interpretation and variation characteristics.

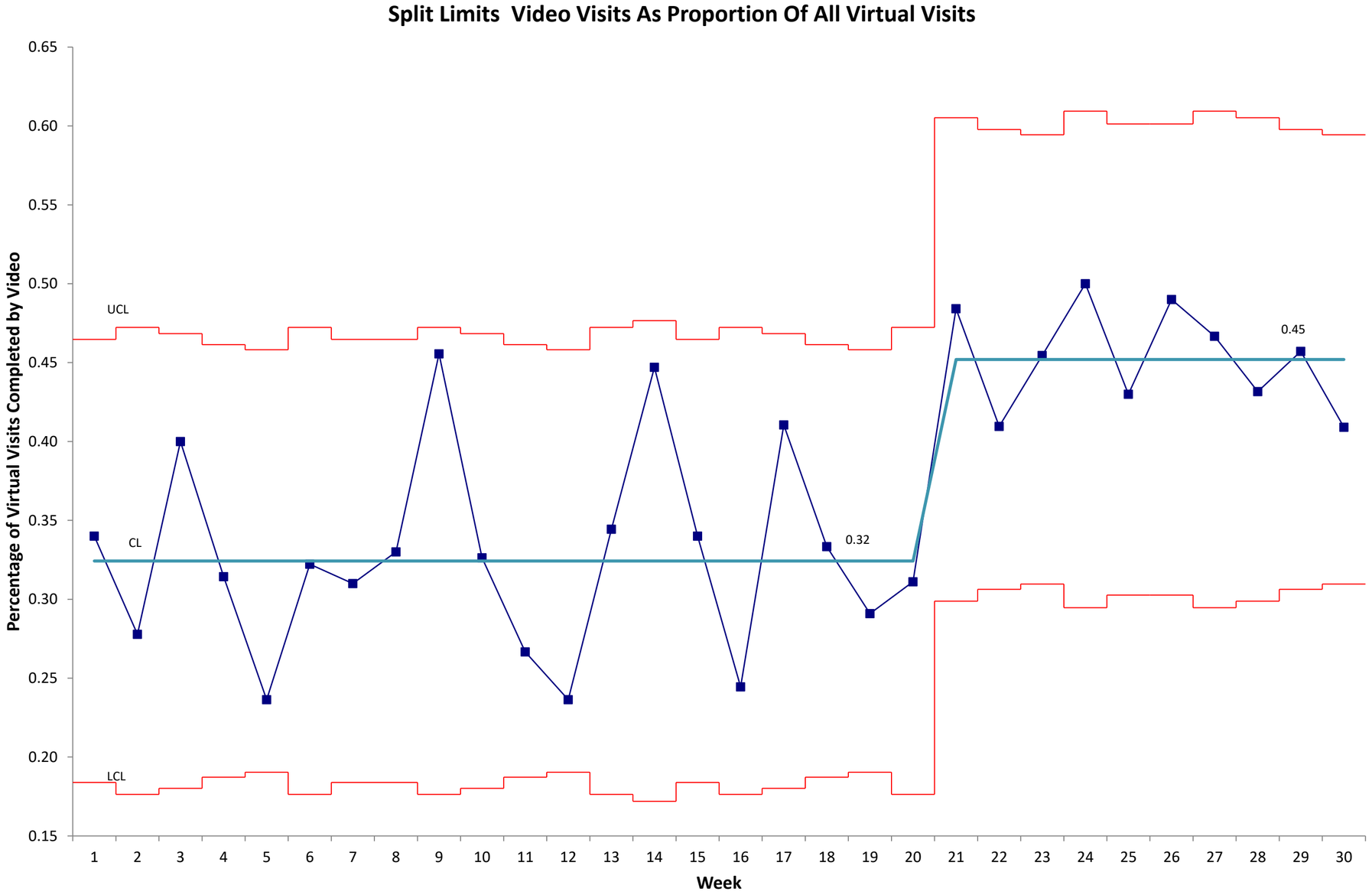
- Uses: To assess the characteristics of a new process post observed special cause variation, to compare pre-/post, to assess for stability and sustainability of new process/improvement.

When do you split?

- *Empirical rationale:* based on observed via sustained special cause variation (shifts, trends).

- *Pragmatic rationale:* based on context, understanding timing of interventions and on multiple processes.


Video Visits As Proportion of All Virtual Visits
Percentage of Virtual Visits Completed by Video
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
UCL
CL
0.37
LCL
Start of Intervention
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Week


Split Limits Video Visits As Proportion Of All Virtual Visits
Percentage of Virtual Visits Completed by Video
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
UCL
CL
LCL
0.32
0.45
1
2
3
4
5
6
7
8
9
10
11
12
13
14
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16
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18
19
20
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22
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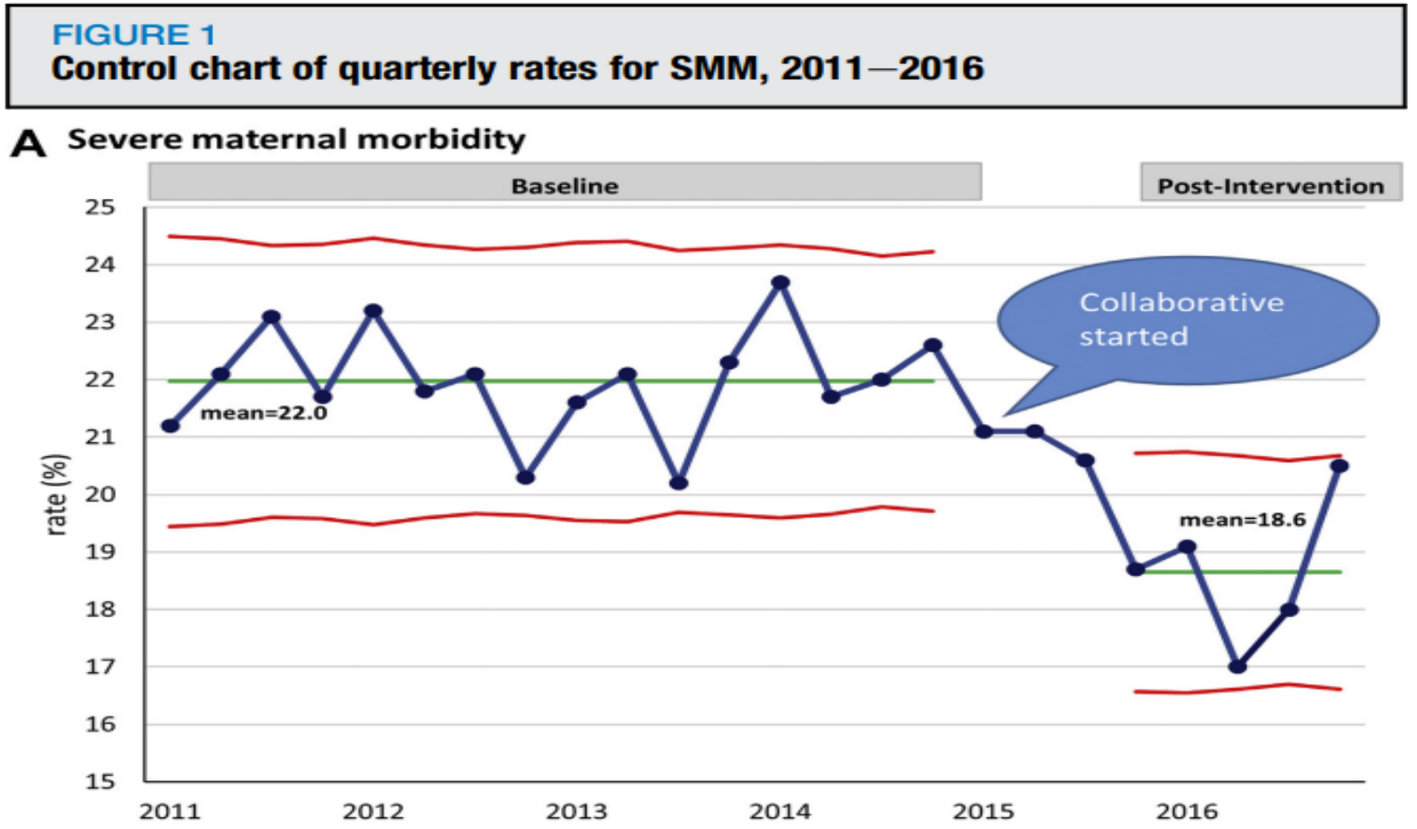
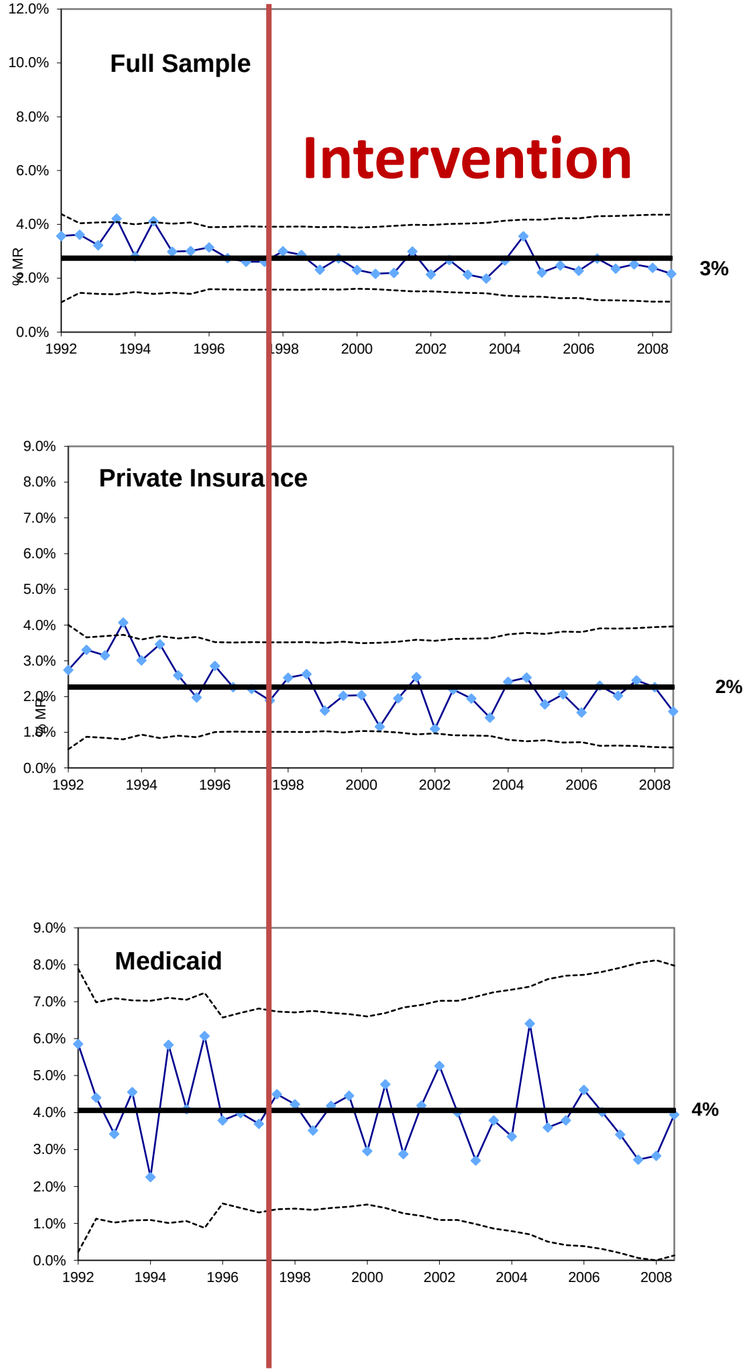
24
25
26
27
28
29
30
Week

Ex: Reducing SMM



Main EK, Chang S-C, Dhurjati R, et al. Reduction in racial disparities in severe maternal morbidity from hemorrhage in a large-scale quality improvement collaborative. *Am J Obstet Gynecol* 2020;223:123.e1-14.

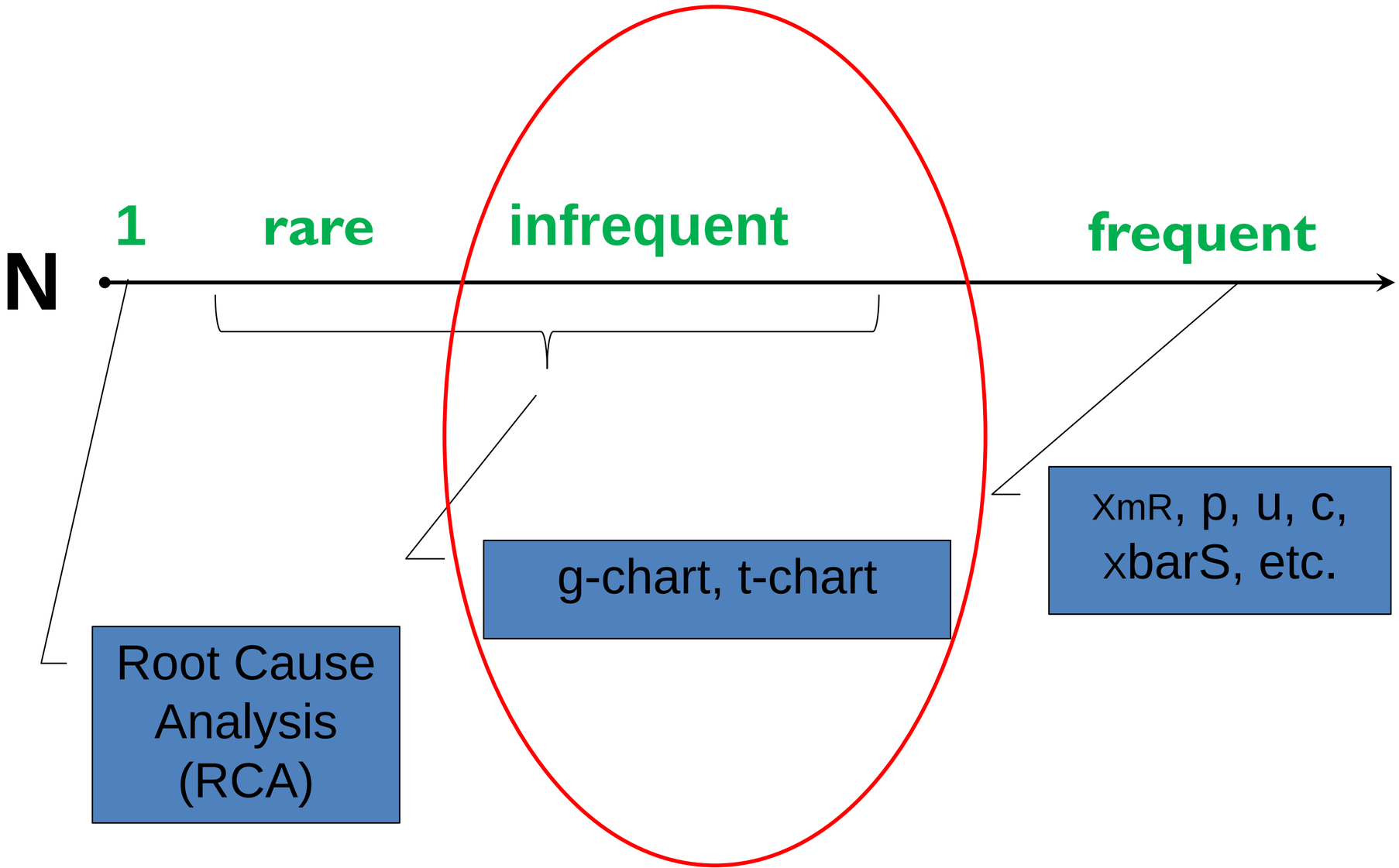


Comparing Differences In Outcomes By Payer Using SPC

Part 4

USING SPC FOR ANALYZING RARE AND INFREQUENT EVENTS

Rare Events Analysis



Rare Events SPC

- ***g Chart*: “occurrences (units) between events”**

  e.g.- “how many procedures between adverse events?”

- ***t Chart*: “time between events”**

  e.g. – “how many patient days between falls?”

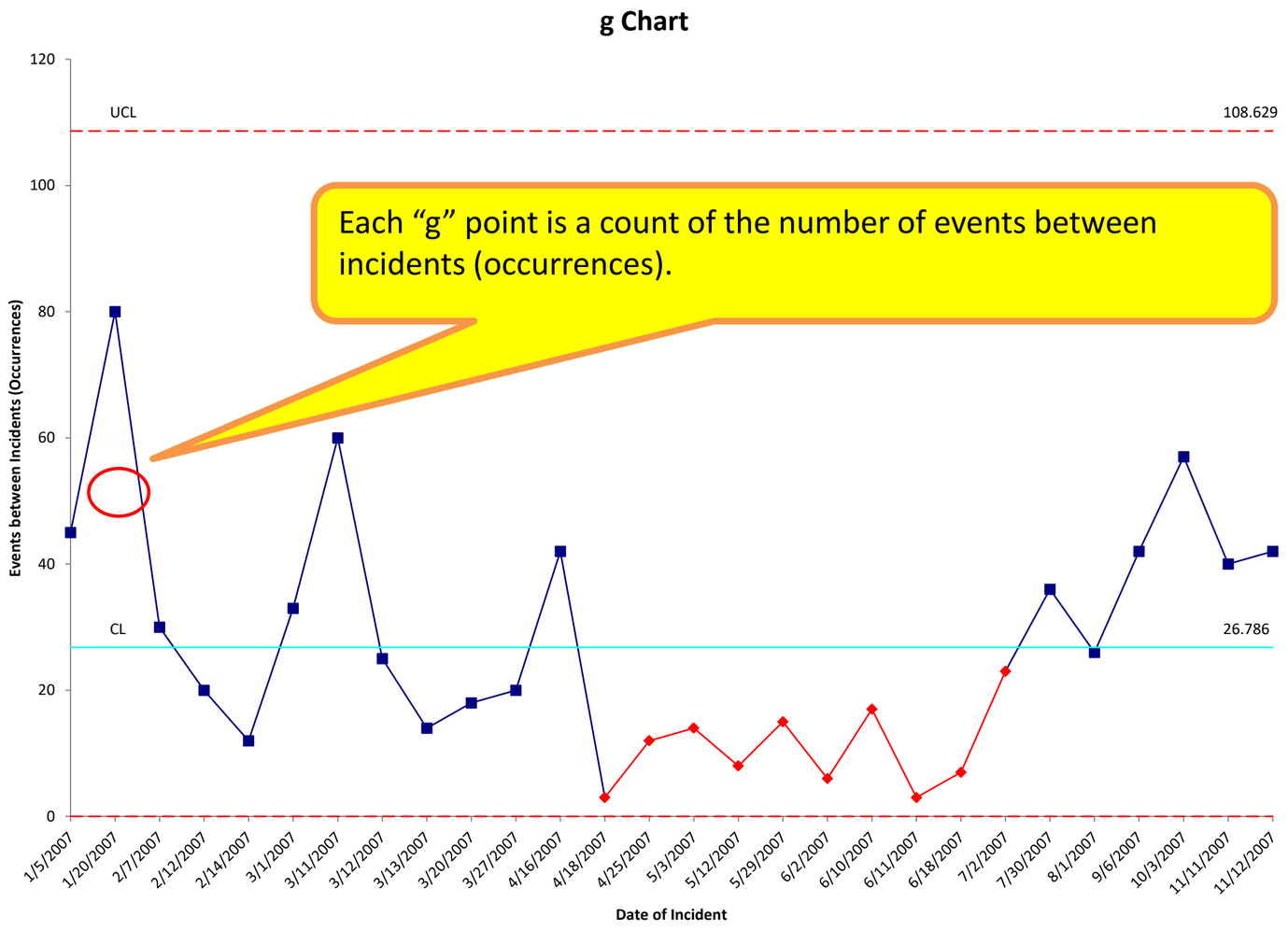
When to use Rare Events SPC

- When standard SPC analyses (e.g. XmR, p, etc.) look funky (not enough frequency)…
  - too many zero values (very low event rate)
  - "sawtooth" patterns

- When you are most interested in "spans between events rather than event frequencies or proportions"

g Chart Basics

Date of incident	Events (units) since last incident
1/5/2007	45
1/20/2007	80
2/7/2007	30
2/12/2007	20
2/14/2007	12
3/1/2007	33
3/11/2007	60
3/12/2007	25
3/13/2007	14
3/20/2007	18
3/27/2007	20
4/16/2007	42
4/18/2007	3
4/25/2007	12
5/3/2007	14
5/12/2007	8
5/29/2007	15
6/2/2007	6
6/10/2007	17
6/11/2007	3
6/18/2007	7
7/2/2007	23
7/30/2007	36
8/1/2007	26
9/6/2007	42
10/3/2007	57
11/11/2007	40
11/12/2007	42



Date of incident	Events (units) since last incident
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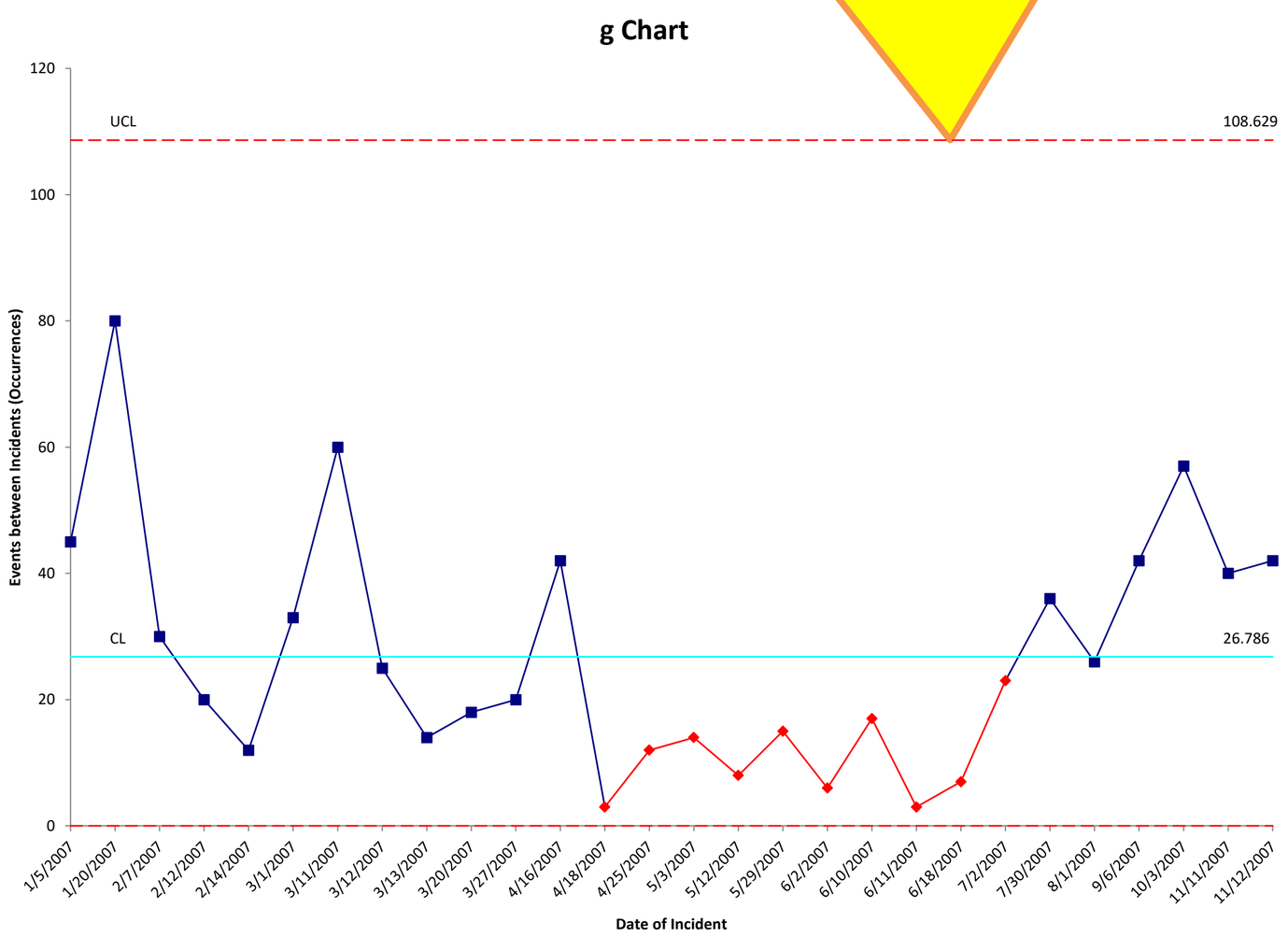
2/14/2007	12
3/1/2007	33
3/11/2007	60
3/12/2007	25
3/13/2007	14
3/20/2007	18
3/27/2007	20
4/16/2007	42
4/18/2007	3
4/25/2007	12
5/3/2007	14
5/12/2007	8
5/29/2007	15
6/2/2007	6
6/10/2007	17
6/11/2007	3
6/18/2007	7
7/2/2007	23
7/30/2007	36
8/1/2007	26
9/6/2007	42
10/3/2007	57
11/11/2007	40
11/12/2007	42

g Charts only have an upper control limit (as there cannot be negative numbers of events or units between incidences). The upper control limit is approximately 4 times the average of all g values or 5.7 times the center line (CL). This is to protect against outlier effects in infrequent event rate samples, i.e. protect against inflated Type I error and tampering risk…



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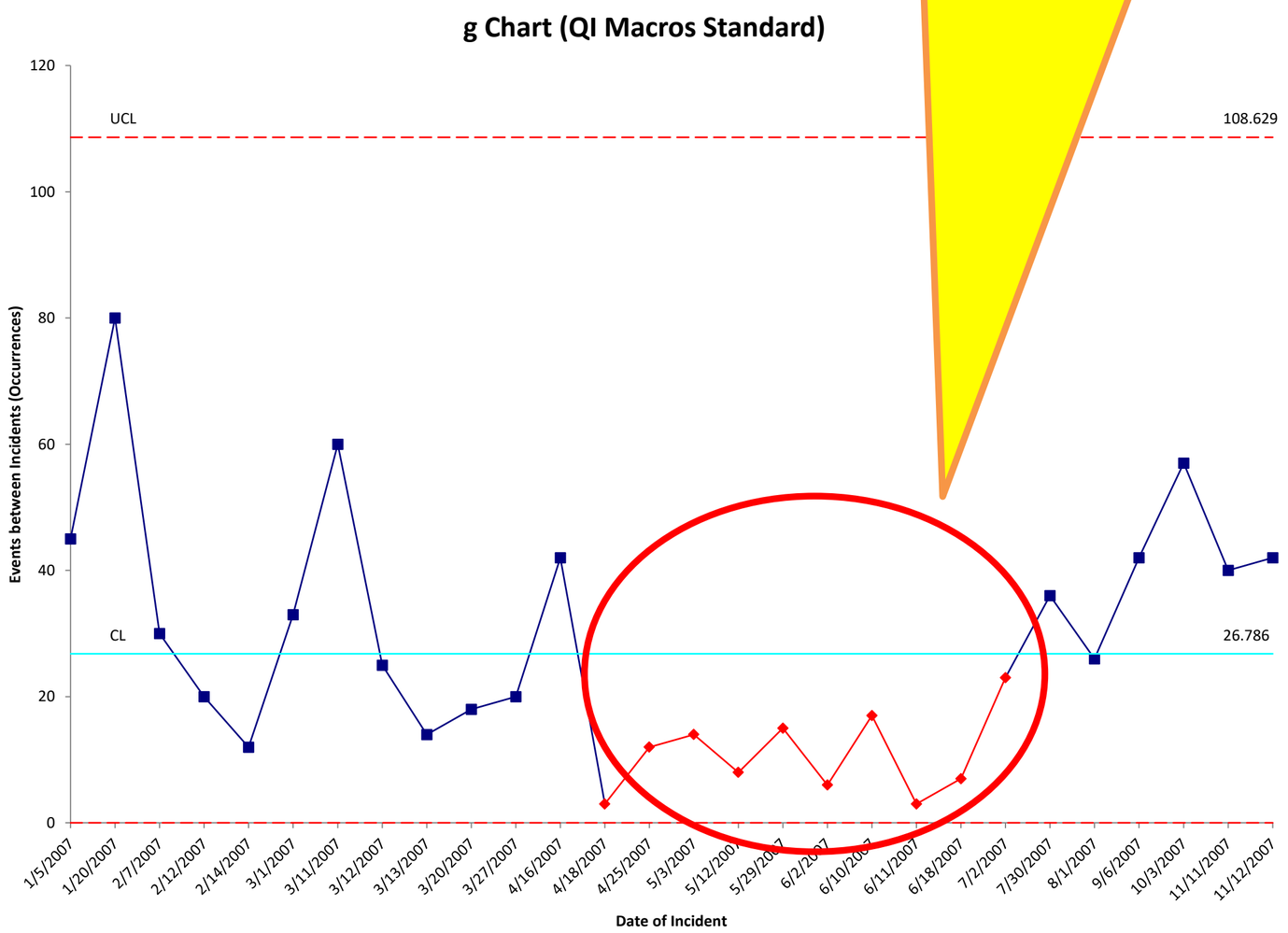
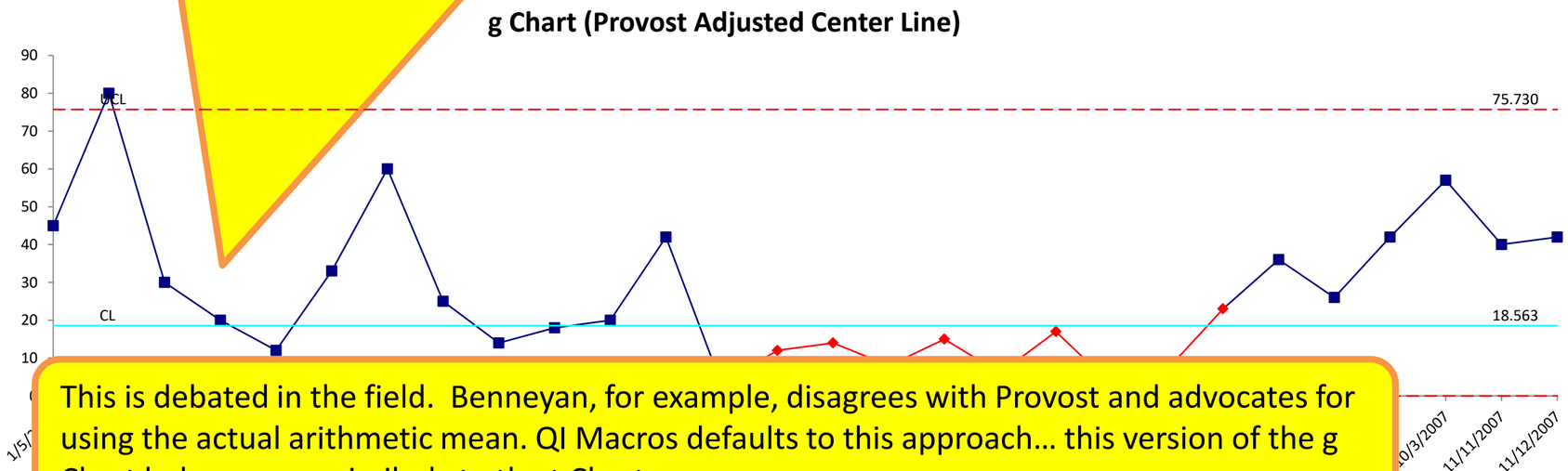
3/1/2007	33
3/11/2007	60
3/12/2007	25
3/13/2007	14
3/20/2007	18
3/27/2007	20
4/16/2007	42
4/18/2007	3
4/25/2007	12
5/3/2007	14
5/12/2007	8
5/29/2007	15
6/2/2007	6
6/10/2007	17
6/11/2007	3
6/18/2007	7
7/2/2007	23
7/30/2007	36
8/1/2007	26
9/6/2007	42
10/3/2007	57
11/11/2007	40
11/12/2007	42

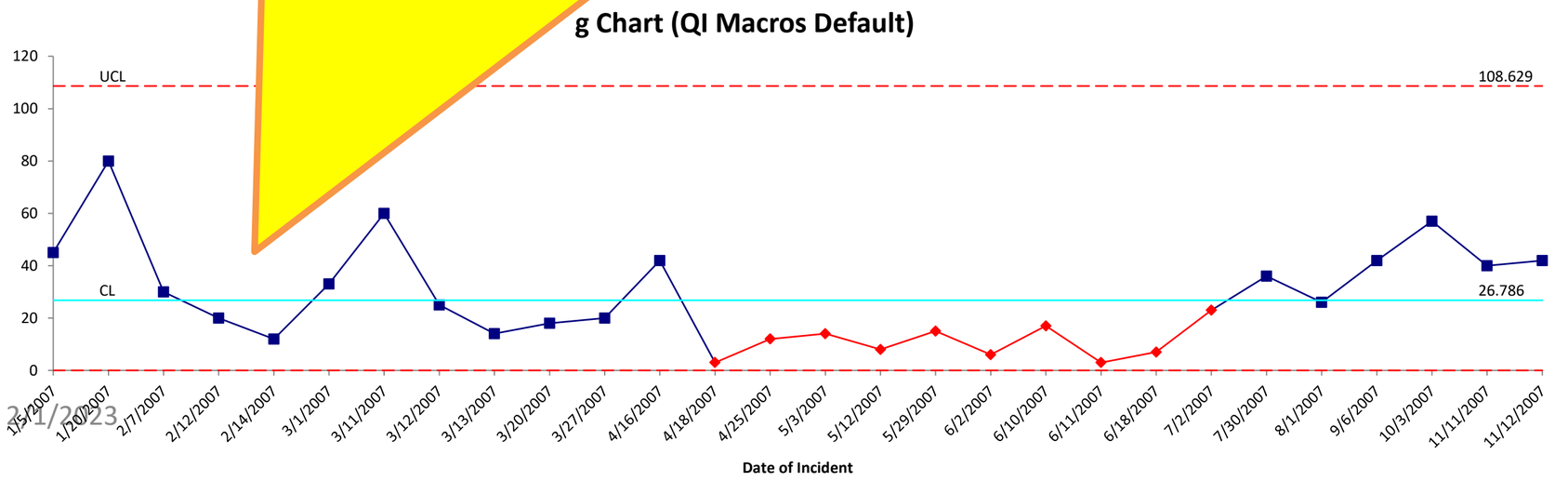
The typical special cause signals (shifts, trends, points outside of the control limits) can be used for g charts.



Because g Charts assume a geometric distribution, Provost argues that the center line should be adjusted to reflect the theoretical median of a geometric distribution >> CL = 0.693 * average of all g values, using a 0.693 adjustment (the theoretical median of a geometric distribution). This affects the control limit calculation substantially…

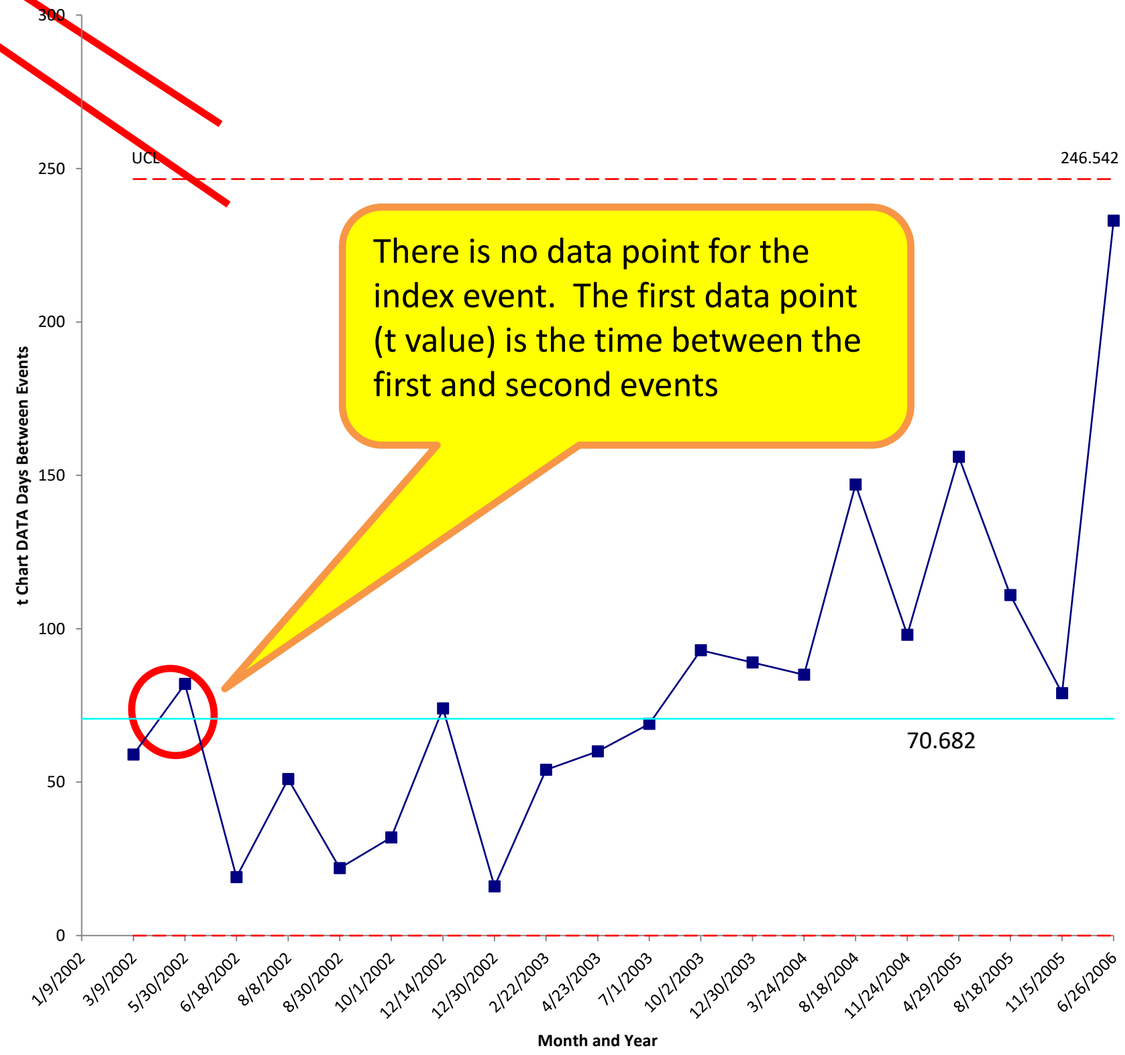


This is debated in the field. Benneyan, for example, disagrees with Provost and advocates for using the actual arithmetic mean. QI Macros defaults to this approach… this version of the g Chart behaves very similarly to the t Chart…



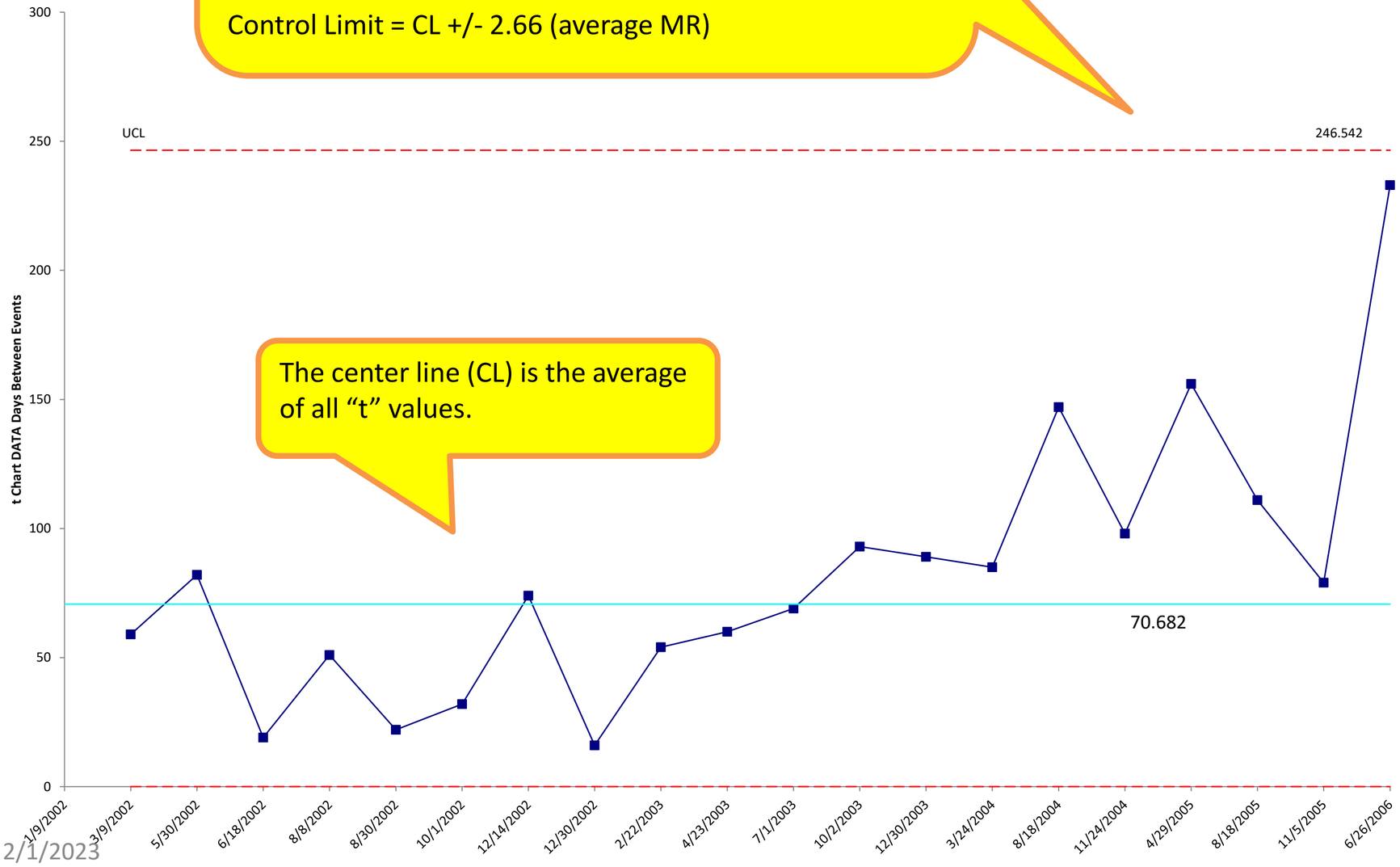
t Chart Basics

Event or Occurrence	Date of Event	Days Between Events
1	1/9/2002	
2	3/9/2002	59
3	5/30/2002	82
4	6/18/2002	19
5	8/8/2002	51
6	8/30/2002	22
7	10/1/2002	32
8	12/14/2002	74
9	12/30/2002	16
10	2/22/2003	54
11	4/23/2003	60
12	7/1/2003	69
13	10/2/2003	93
14	12/30/2003	89
15	3/24/2004	85
16	8/18/2004	147
17	11/24/2004	98
18	4/29/2005	156
19	8/18/2005	111
20	11/5/2005	79
21	6/26/2006	233



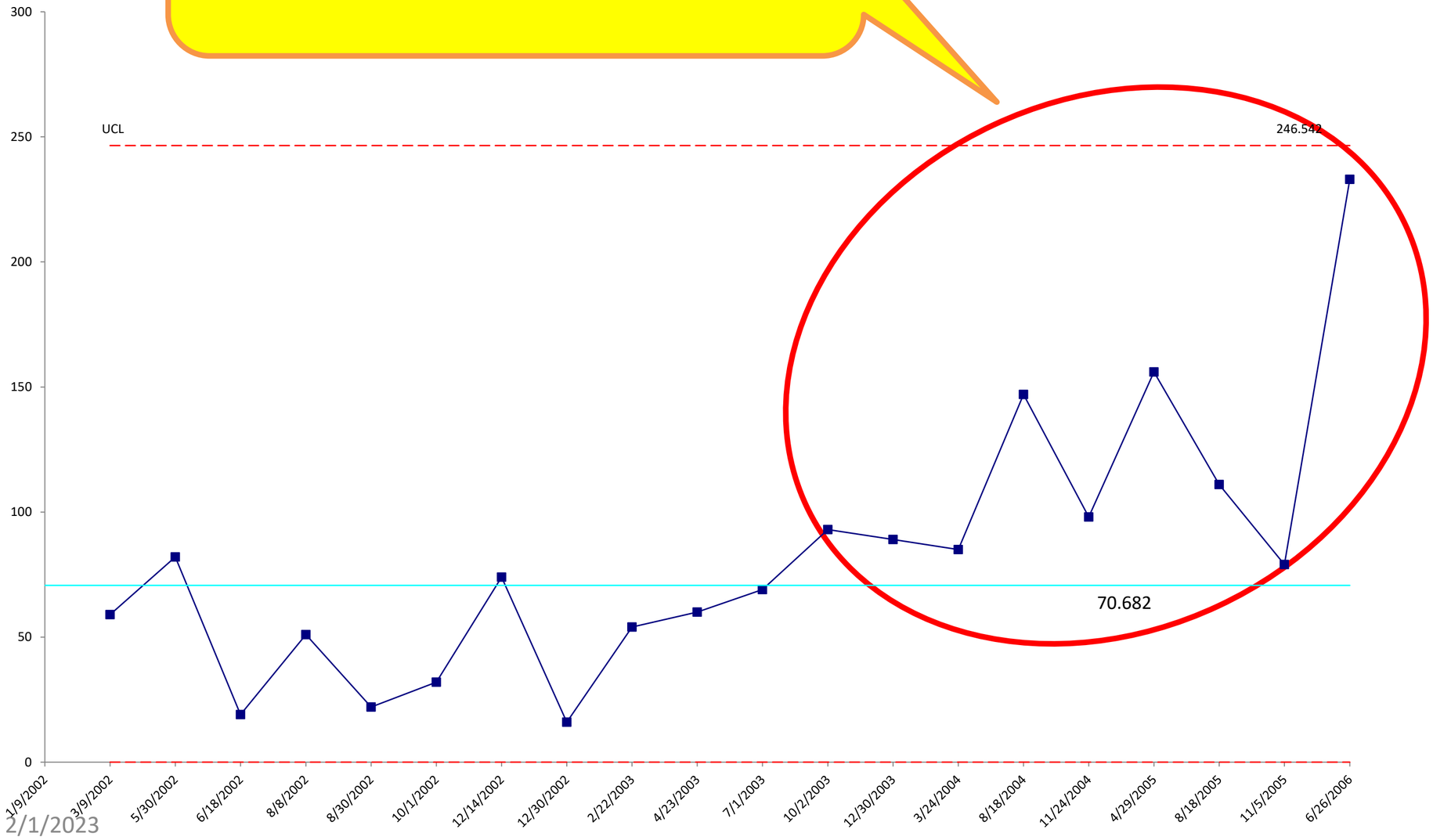
The t chart assumes a transformed exponential distribution and has upper and lower control limits that are calculated in a “XmR Chart-like” way based on the average moving range of the absolute value differences in sequential t values (+/- 3 sigma deviations from the CL).

Control Limit = CL +/- 2.66 (average MR)



The center line (CL) is the average of all “t” values.

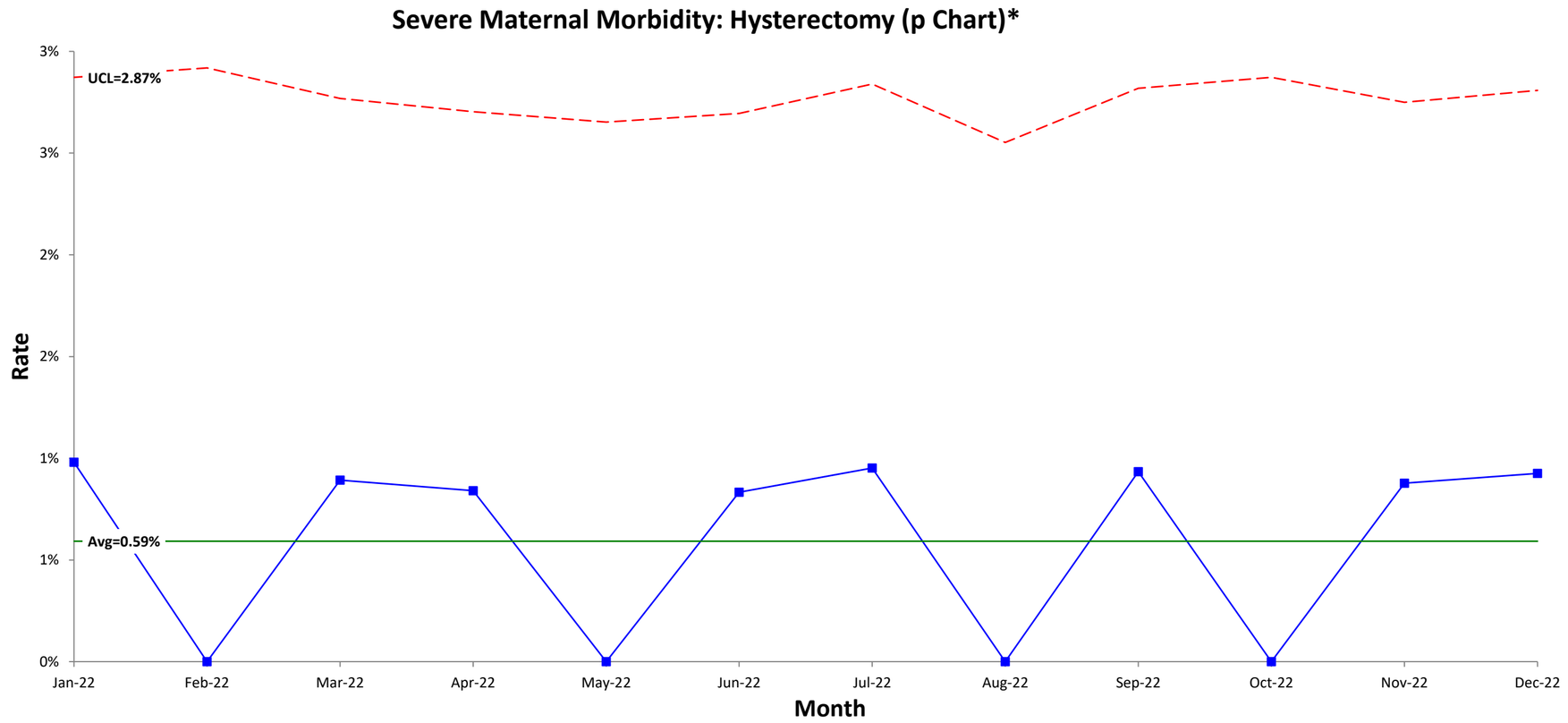
The t chart allows for all of the basic special cause signals (shifts, trends, and points outside of the control limits), although the “strongest” signal is one or more points outside of the control limits. A shift is identified here.



Signs that the event rate that is ***too frequent*** for a rare events SPC analysis…

- A *rapidly decreasing* time to event or occurrences to event interval.
- *"In the Basement"* -- Interval approaching zero.
- *Remember that event rate (frequency) increases as the interval (time to event or occurrence to event) decreases…*

Challenges Of SPC For Low Frequency Events



*SMM indicator: 0UT90ZZ, 0UT94ZZ, 0UT97ZZ, 0UT98ZZ, 0UT9FZZ

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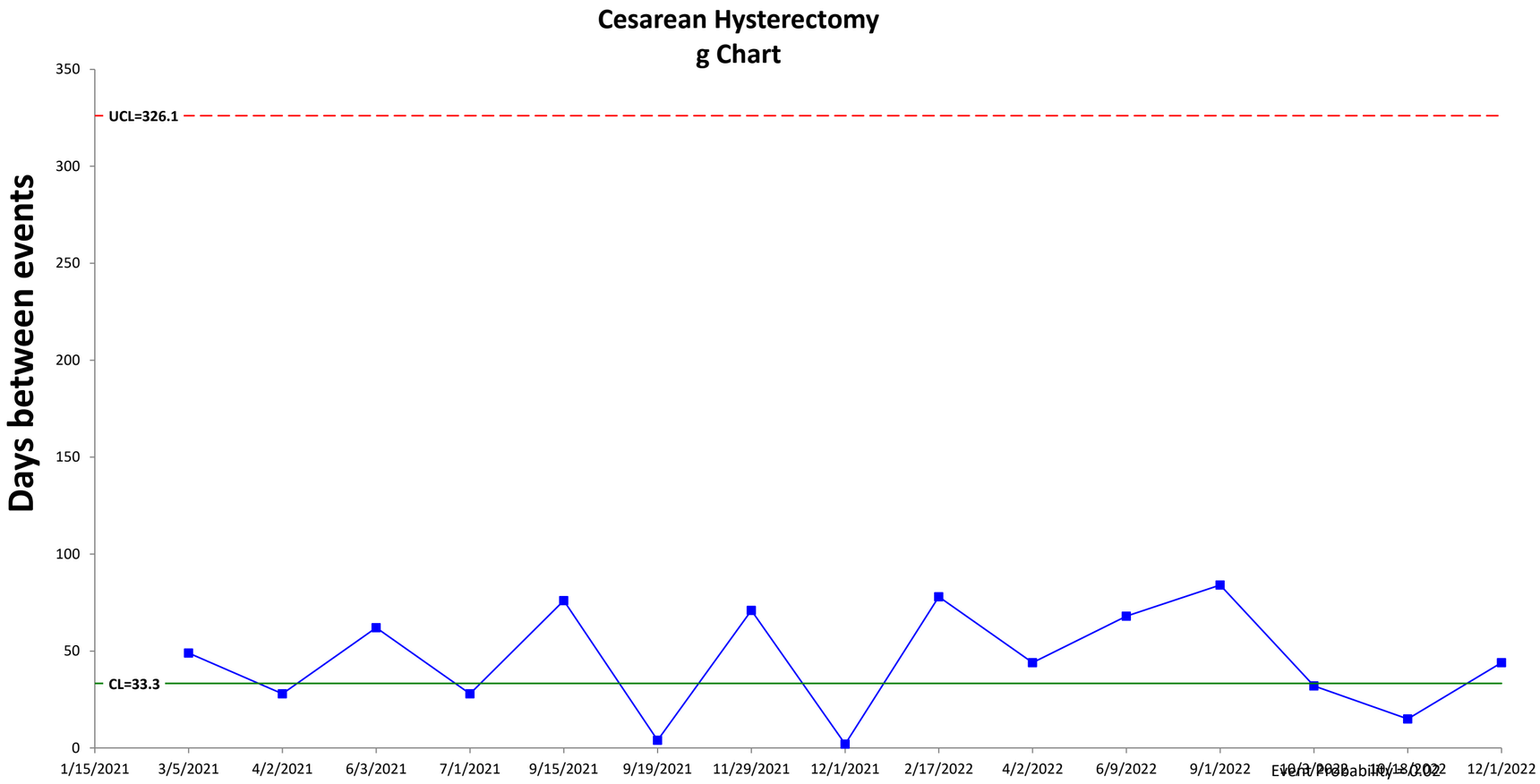
Established 1999

Severe Maternal Morbidity: Hysterectomy*



*SMM indicator: 0UT90ZZ, 0UT94ZZ, 0UT97ZZ, 0UT98ZZ, 0UT9FZZ

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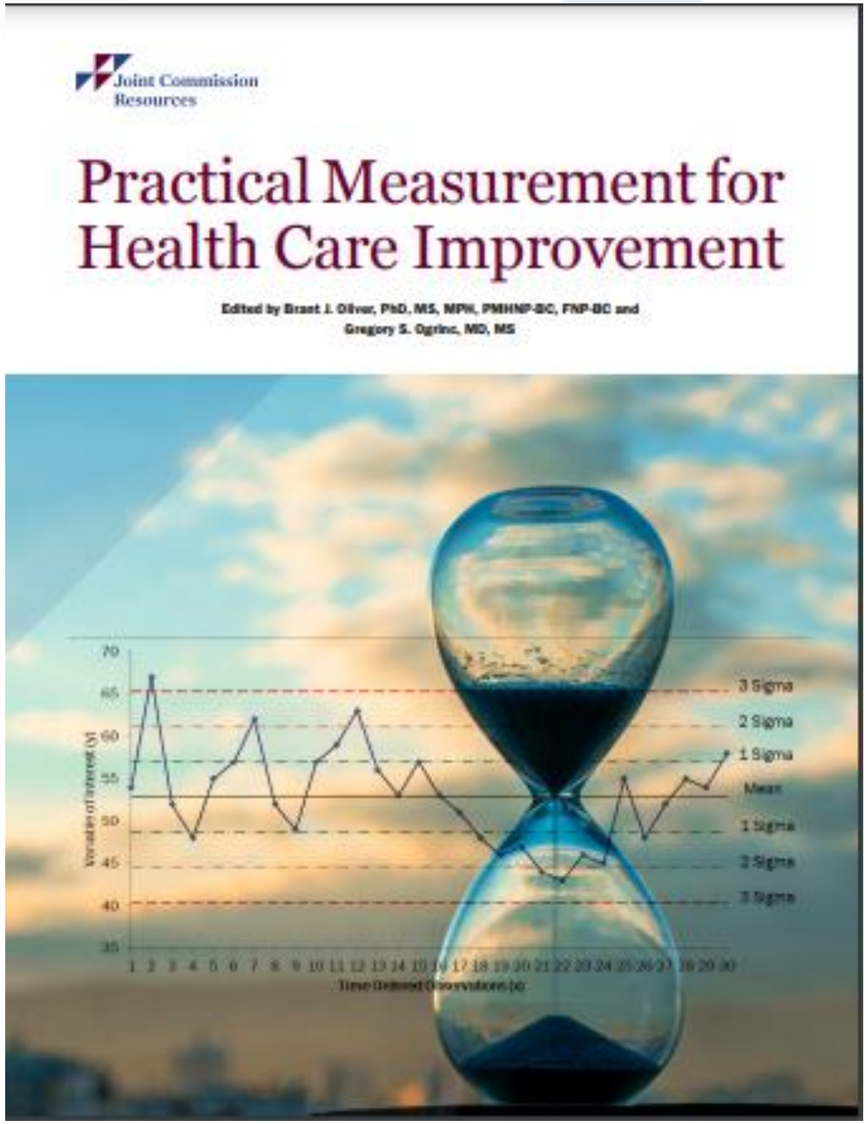
Summary

SPC is a powerful tool for analyzing the success of maternal health interventions

- Can be utilized to track implementation success as well as outcomes
- Annotation can be helpful to understand barriers and facilitators of change

Variables and approach can be tailored to a specific audience

Visualizing change (or lack of change) over time is an important motivator for implementation



New Publication!

Practical Measurement for Health Care Improvement
Oliver BJ & Ogrinc G, Editors

Available from Joint Commission Resources Bookstore: https://store.jcrinc.com/practical-measurement-for-health-care-improvement/

- XmR Charts- Chapter 6
- p Charts- Charter 7
- Rare Events SPC- Chapter 8

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Resources

VAQS Methods & Analysis SPC Videos (open-access via You Tube):

- Intro to SPC
- Attribute data SPC
- Variable data SPC
- Fixing & Splitting Control Limits
- Rare Events SPC

Articles: Perla et al.(run charts); Bennyan (SPC); Thor et al. (SPC)

Textbooks: Oliver & Ogrinc, *Practical Measurement for Healthcare Improvement*; Provost & Murray, *The Healthcare Data Guide* (2nd Ed.)

Educational Opportunities: VAQS fellowship, The Dartmouth Institute

VAQS Special Interest Group: ECHO type format, contact Dr. Oliver if interested in visiting or presenting a case!

Questions: daisy.j.goodman@hitchcock.org; brant.j.oliver@dartmouth.edu

Questions?

Thank you!

The recording will be emailed to all attendees once ready

Any questions about this COL or the series can be sent to aimdatasupport@acog.org

Be sure to complete the evaluation survey! It will pop up in your browser as you exit the session

Remember to register for upcoming educational offerings!