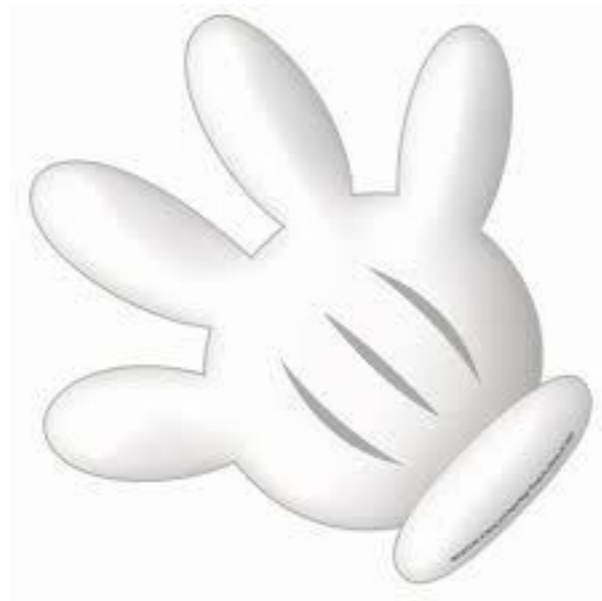


Listen to your Process

Moving beyond the stop lights



How many times?

Performance To Sales

FacilityName Brantford

KPI In PowerBI Table!!

Month Year TY Sales LY Sales Bud Sales Fcst Sales KPI Fcst Bud Pct FCST Sales Score

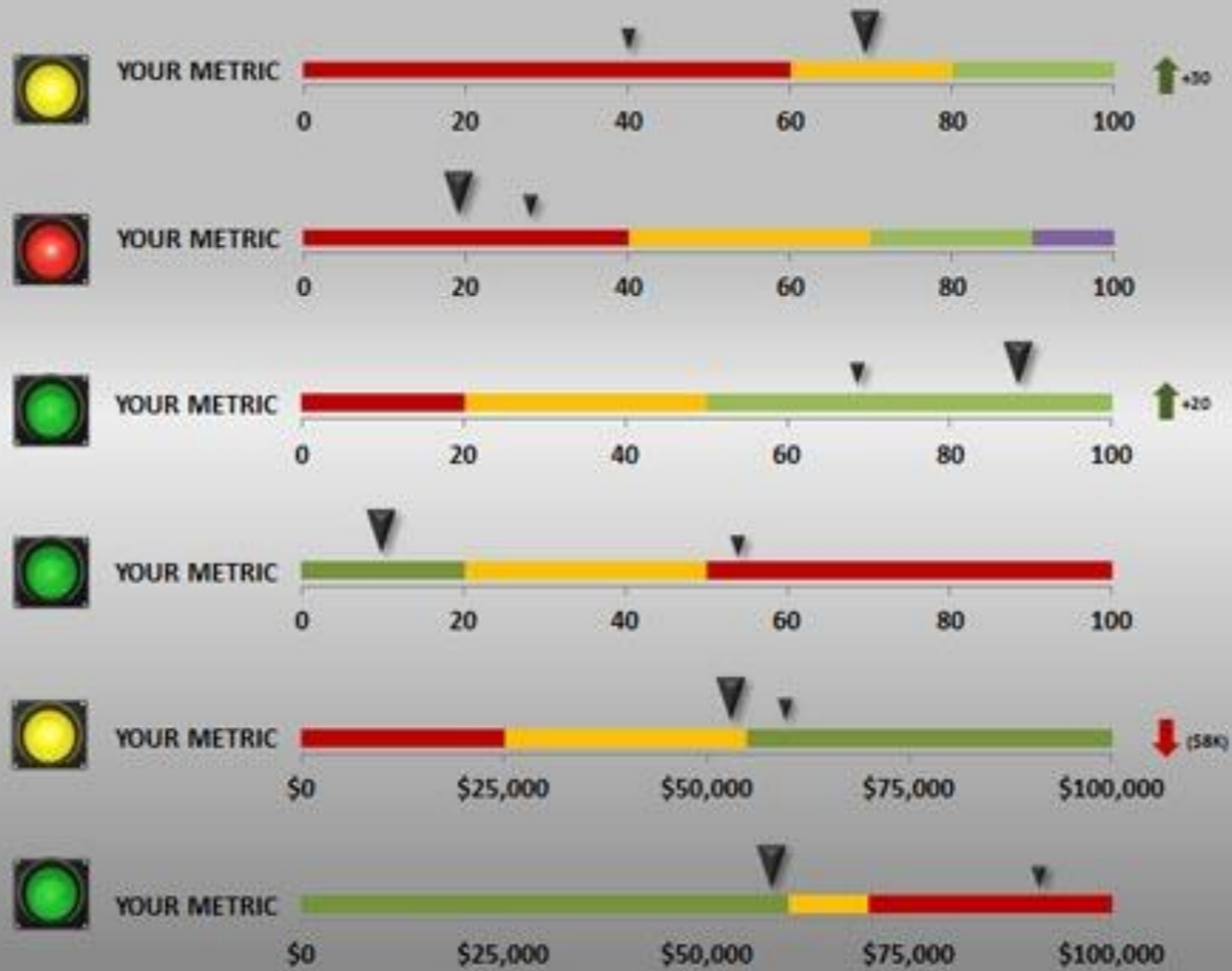
Month Year	TY Sales	LY Sales	Bud Sales	Fcst Sales	KPI	Fcst Bud Pct	FCST Sales Score
Jan 2018	2,461	2,135	2,512	2,461	◆	98.0%	2
Feb 2018	1,957	2,165	2,547	1,957	◆	76.8%	3
Mar 2018	1,851	1,159	1,363	1,851	◆	135.8%	1
Apr 2018	2,163	963	1,133	2,163	◆	190.9%	1
May 2018	1,136	2,165	2,547	1,136	◆	44.6%	3
Jun 2018	1,114	2,447	2,879	1,114	◆	38.7%	3
Jul 2018		1,550	1,824	1,619	◆	88.8%	3
Aug 2018		2,151	2,531	921	◆	36.4%	3
Sep 2018		1,023	1,204	2,537	◆	210.7%	1
Oct 2018		1,683	1,980	1,727	◆	87.2%	3
Nov 2018		1,220	1,435	1,168	◆	81.4%	3
Dec 2018		1,953	2,298	2,831	◆	123.2%	1
Total	10,682	20,614	24,253	21,485	◆	88.6%	3

Or this?

Global	Global	Risks	Timing	Budget	HR	Infra
Project 1						
Project 2						
Project 3						
Project 4						
Project 5						
Project 6						

525 × 284

DATADRIVEN ADJUSTABLE LINEAR GRAPHS



The linear lines are PowerPoint graphs and can be changed using PowerPoint's Chart Tools.

Or this?

What do you do?

- **Do you try and figure root cause the reason for each red light?**
- **Do you change the process based on the cause?**
- **How much time and effort in meetings?**



Wait!

Stop

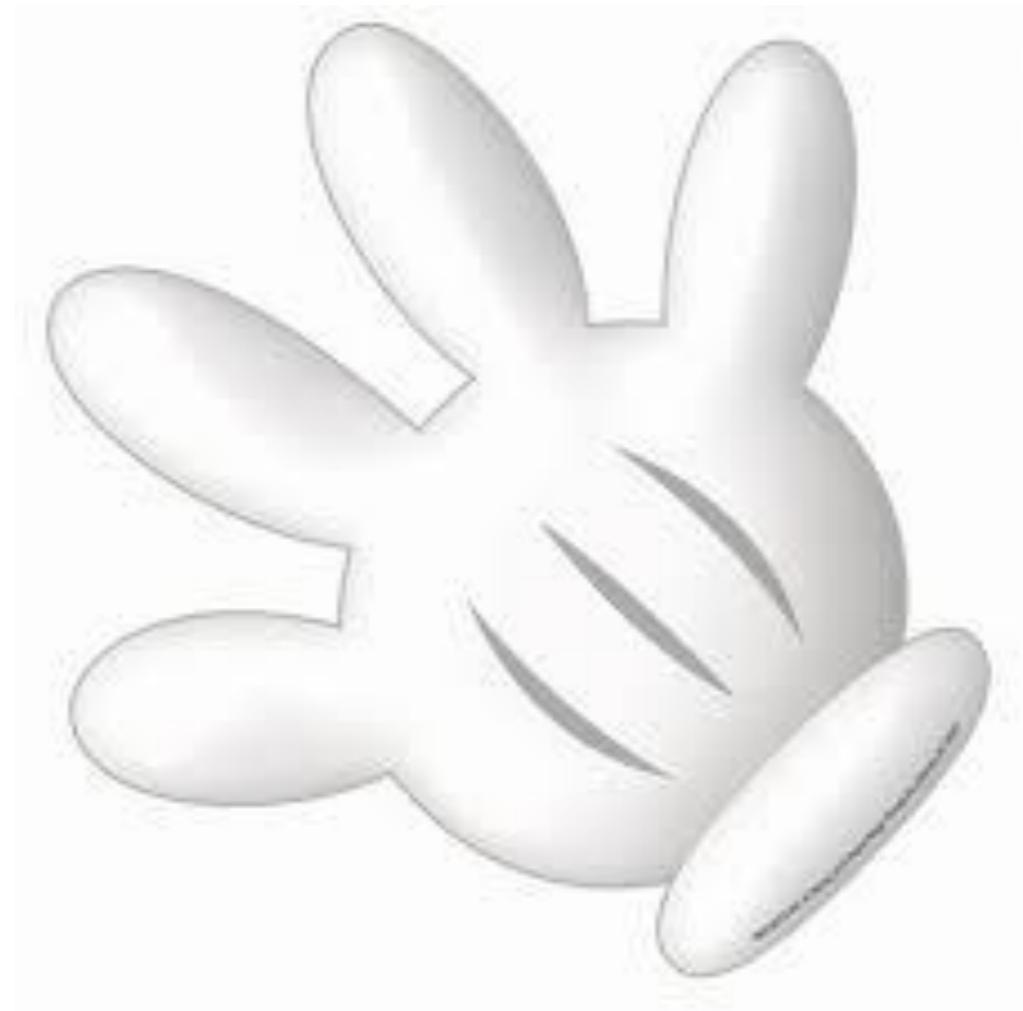
Look

Listen



All work is process

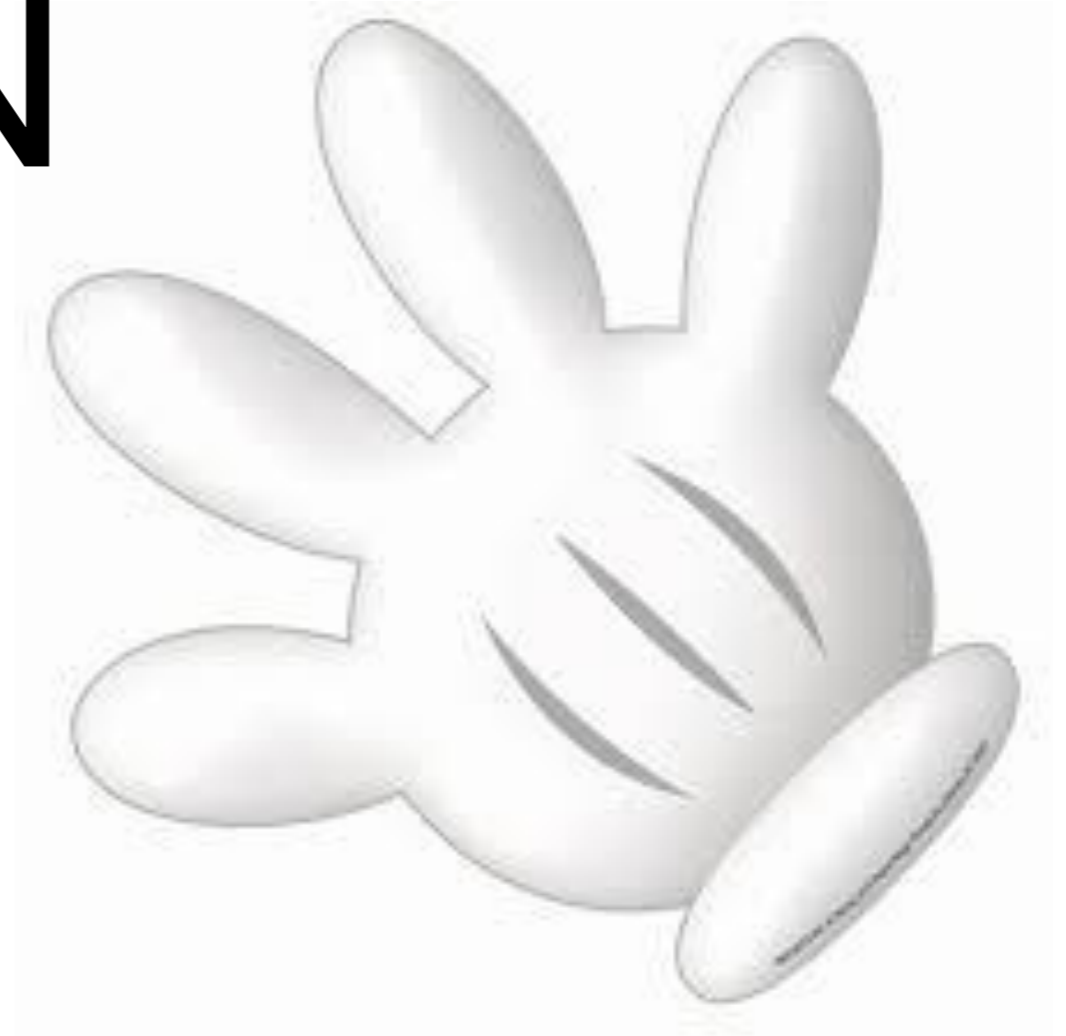
- Tasks
- Resources
- Time



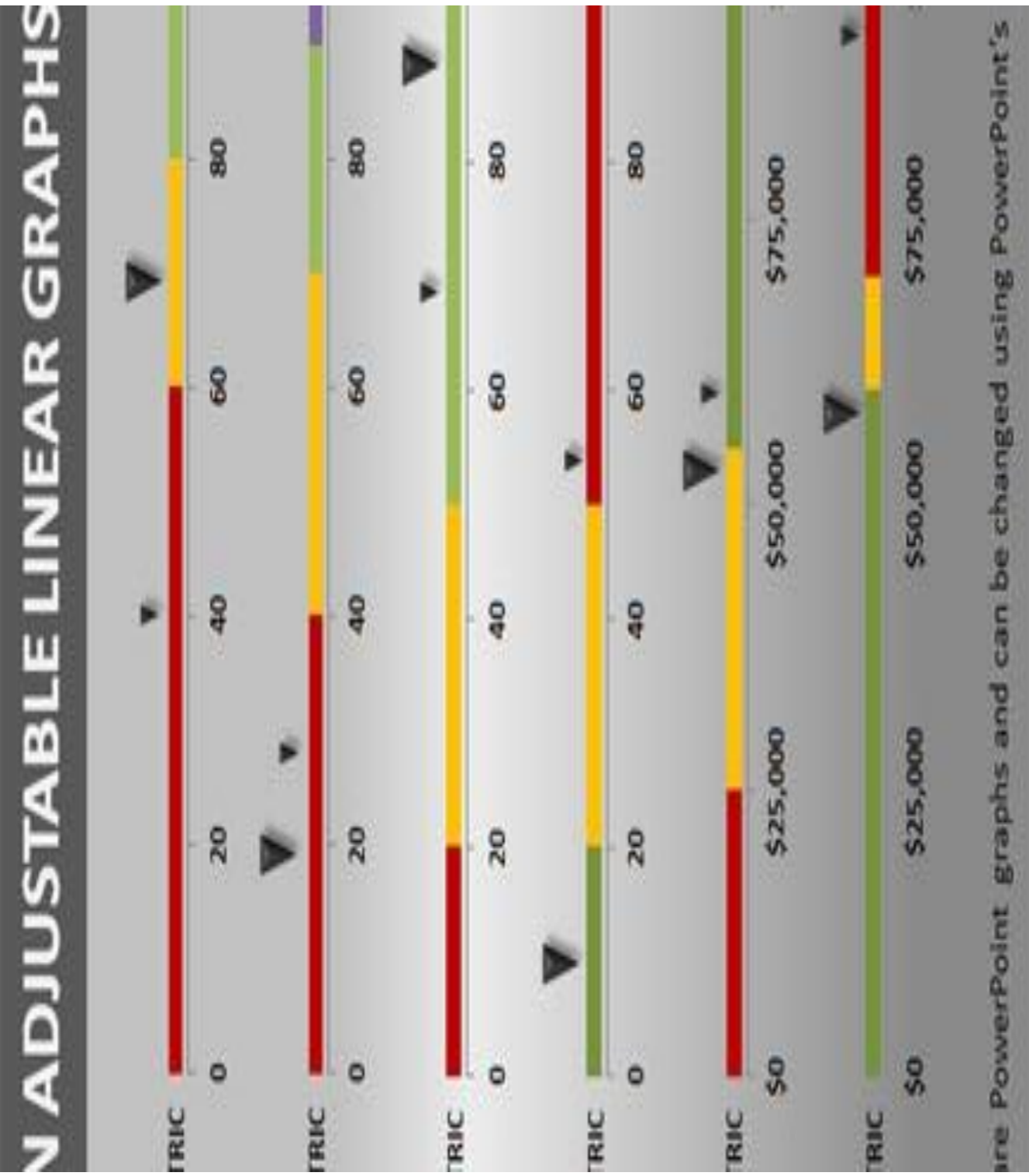
VARIATION

Not every cycle is exactly the same.

Why?



Where's the context?



Time	Flow Station Location Road Name	Flow Station Location Description	Flow Reading Value	Flow Station Location Direction	Traffic
5/13/2015 7:26:22 PM	520	Midspan	1	EB	Green
5/13/2015 7:48:22 PM	520	Midspan	1	EB	Green
5/13/2015 8:01:22 PM	520	Midspan	3	EB	Red
5/13/2015 8:05:22 PM	520	Midspan	3	EB	Red
5/13/2015 8:07:22 PM	520	Midspan	5	EB	Black
5/13/2015 8:08:22 PM	520	Midspan	3	EB	Red
5/13/2015 8:13:22 PM	520	Midspan	5	EB	Black
5/13/2015 8:21:22 PM	520	Midspan	3	EB	Red
5/13/2015 8:27:22 PM	520	Midspan	4	EB	Black
5/13/2015 8:40:22 PM	520	Midspan	3	EB	Red
5/13/2015 8:42:22 PM	520	Midspan	2	EB	Yellow
5/13/2015 8:53:22 PM	520	Midspan	1	EB	Green

Performance To Sales

FacilityName Brantford
 Month Year TY Sales LY Sales Bud Sales Fcs Sales

KPI In P

Jan 2018	2,461	2,135	2,512	2,461
Feb 2018	1,957	2,165	2,547	1,957
Mar 2018	1,851	1,159	1,363	1,851
Apr 2018	2,163	963	1,133	2,163
May 2018	1,136	2,165	2,547	1,136
Jun 2018	1,114	2,447	2,879	1,114
Jul 2018		1,550	1,824	1,619
Aug 2018		2,151	2,531	921
Sep 2018		1,023	1,204	2,537
Oct 2018		1,683	1,980	1,727
Nov 2018		1,220	1,435	1,168
Dec 2018		1,953	2,298	2,831
Total	10,682	20,614	24,253	21,485

Let the Statistics Talk

Common Variance

**Special Case
Variance**



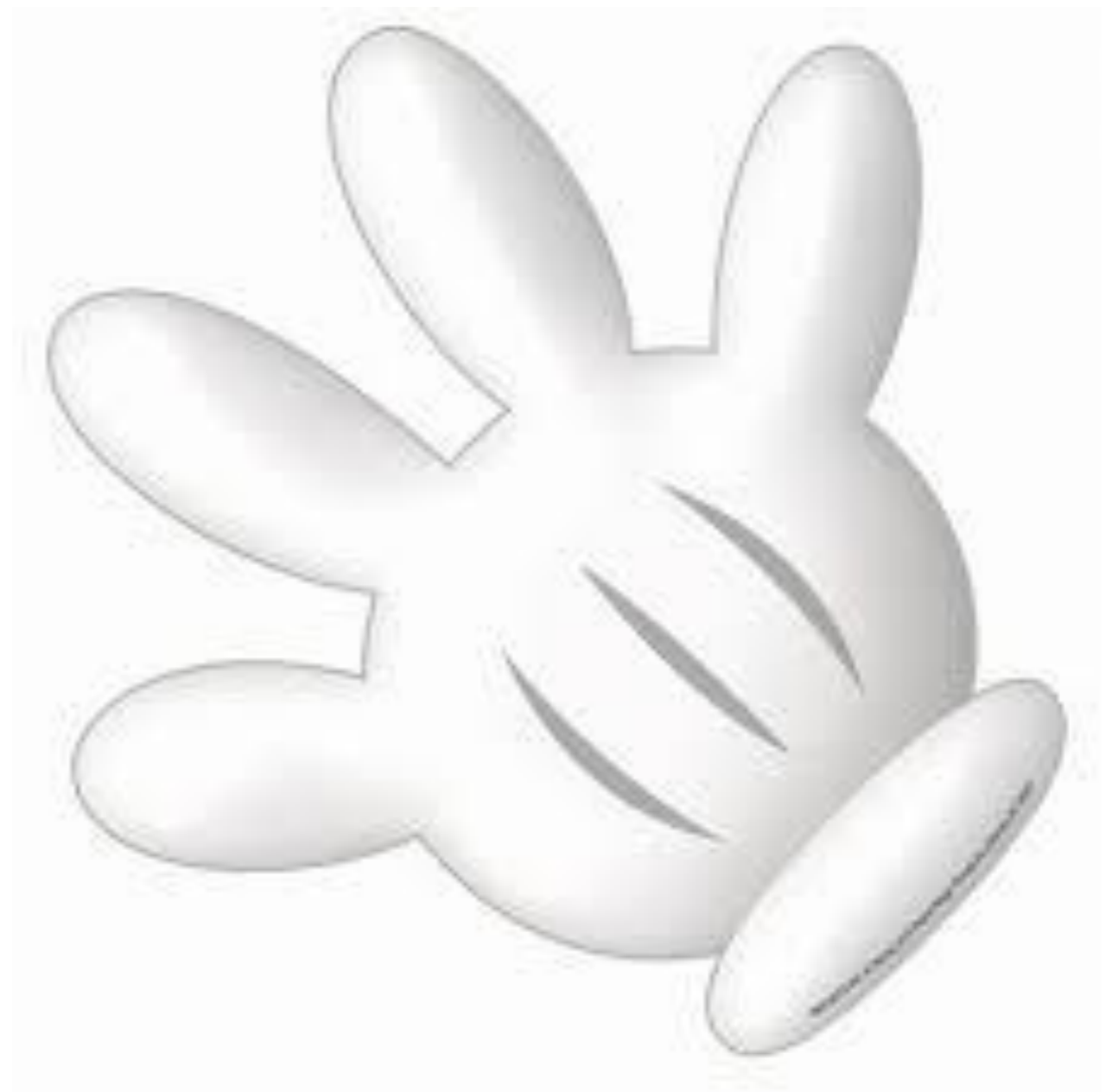


We'll Use Excel

Lets see what our data might be saying to us.

All you need fits on your fingers!

- **3.14 Limit Factor**
- **3.865 2 Point Factor**
- **Trends of 6**
- **Clumps of 8**



File Home Insert Page Layout Formulas Data View Review Add-ins Developer PowerPivot

Clipboard: Paste, Cut, Copy, Format Painter

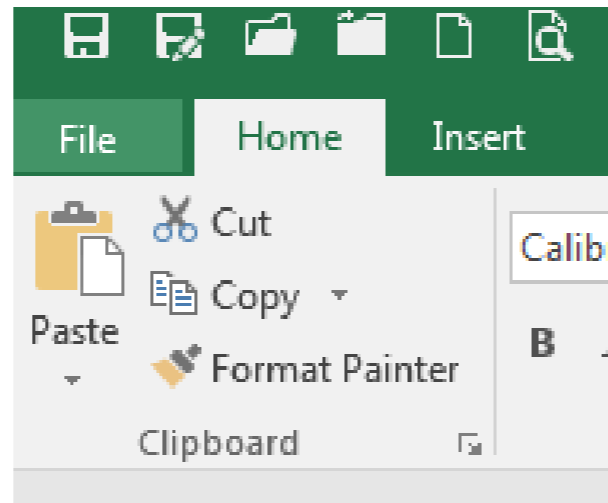
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Alignment: Left, Center, Right, Indent, Decrease Indent, Increase Indent, Wrap Text, Merge & Center

Number: General, \$, %, ' (Thousands Separator)

D531

	A	B	C	D	E	F	G	H	
1	Date	Time	BG	Meal	Medicine	Medicine Details	Exercised	Carbs	Comments
2	4/23/2019	7:09	128mg/dL	Night	Pre-Medicine				
3	4/22/2019	7:05	115mg/dL	Night	Pre-Medicine				
4	4/19/2019	6:53	131mg/dL	Night	Pre-Medicine				
5	4/18/2019	6:46	122mg/dL	Night	Pre-Medicine				
6	4/12/2019	17:52	94mg/dL	Pre-Lunch	Pre-Medicine				
7	4/12/2019	7:33	129mg/dL	Night	Pre-Medicine				
8	4/11/2019	6:38	85mg/dL	Night	Pre-Medicine				
9	4/10/2019	7:57	110mg/dL	Night	Pre-Medicine				
10	4/9/2019	7:16	109mg/dL	Night	Pre-Medicine				
11	4/8/2019	7:41	82mg/dL	Night	Pre-Medicine				
12	4/6/2019	8:13	79mg/dL	Night	Pre-Medicine				
13	4/5/2019	7:08	95mg/dL	Night	Pre-Medicine				



C120

	A	B
1	Date	Reading
2	4/23/2019	128
3	4/22/2019	115
4	4/19/2019	131
5	4/18/2019	122
6	4/12/2019	94
7	4/12/2019	129
8	4/11/2019	85
9	4/10/2019	110
10	4/9/2019	109
11	4/8/2019	82
12	4/6/2019	79
13	4/5/2019	95
14	4/4/2019	96
15	4/4/2019	102
16	4/3/2019	141
17	4/2/2019	96

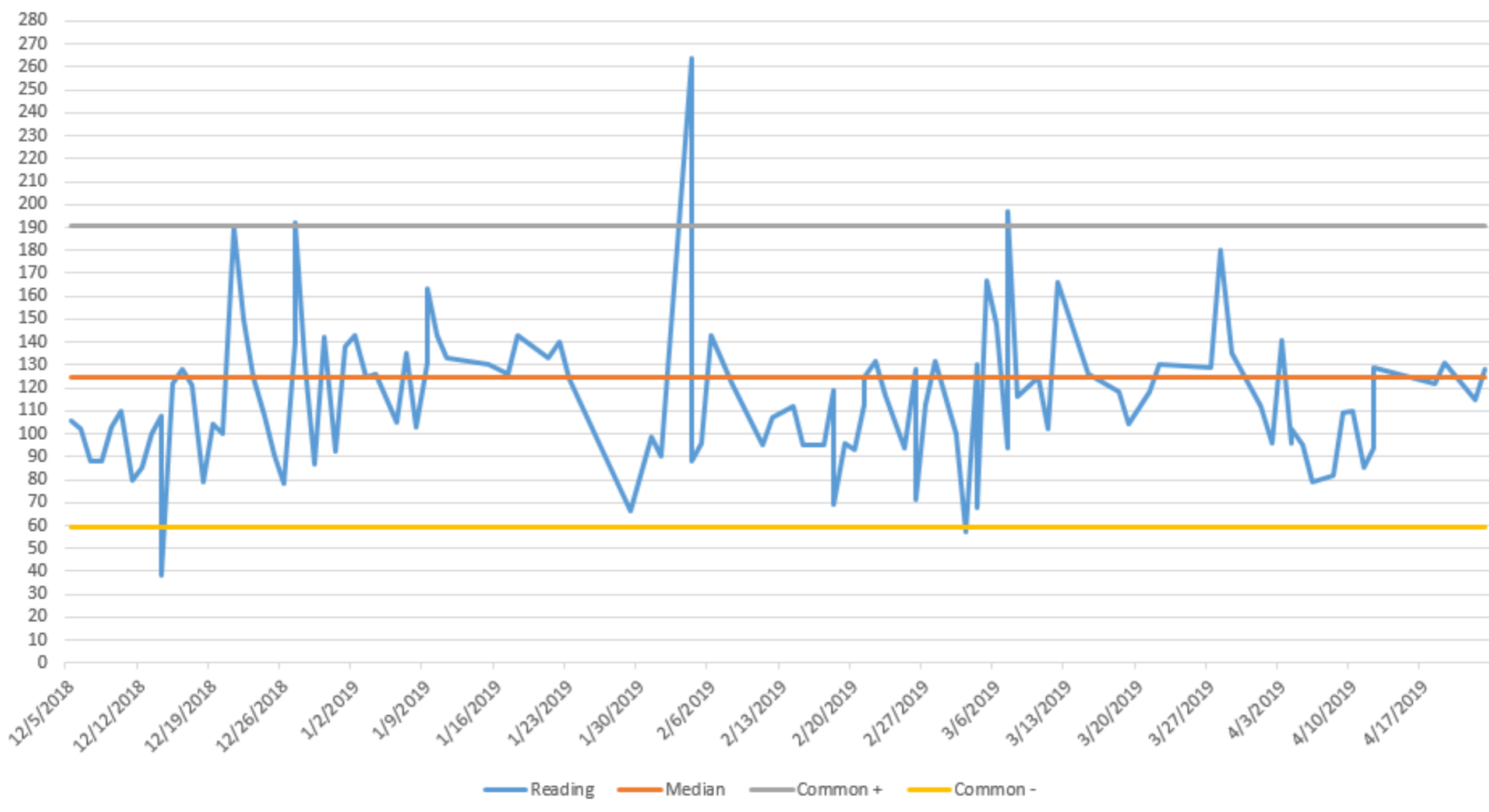
	A	B	C	D	E
1					
2		Median			
3		125	=MEDIAN(Table134[Reading])		
4					
5					
6	Date ▼	Reading ▼			
7	4/23/2019	128			
8	4/22/2019	115			
9	4/19/2019	131			
10	4/18/2019	122			
11	4/12/2019	94			
12	4/12/2019	129			
13	4/11/2019	85			
14	4/10/2019	110			
15	4/9/2019	109			
16	4/8/2019	82			

	A	B	C	D	E	F	G
1							
2		Median					
3		125					
4							
5							
6	Date	Reading	Moving Range				
7	4/23/2019	128	0				
8	4/22/2019	115	13		=ABS(B7-[@Reading])		
9	4/19/2019	131	16				
10	4/18/2019	122	9				
11	4/12/2019	94	28				
12	4/12/2019	129	35				
13	4/11/2019	85	44				
14	4/10/2019	110	25				
15	4/9/2019	109	1				
16	4/8/2019	82	27				
17	4/6/2019	79	3				

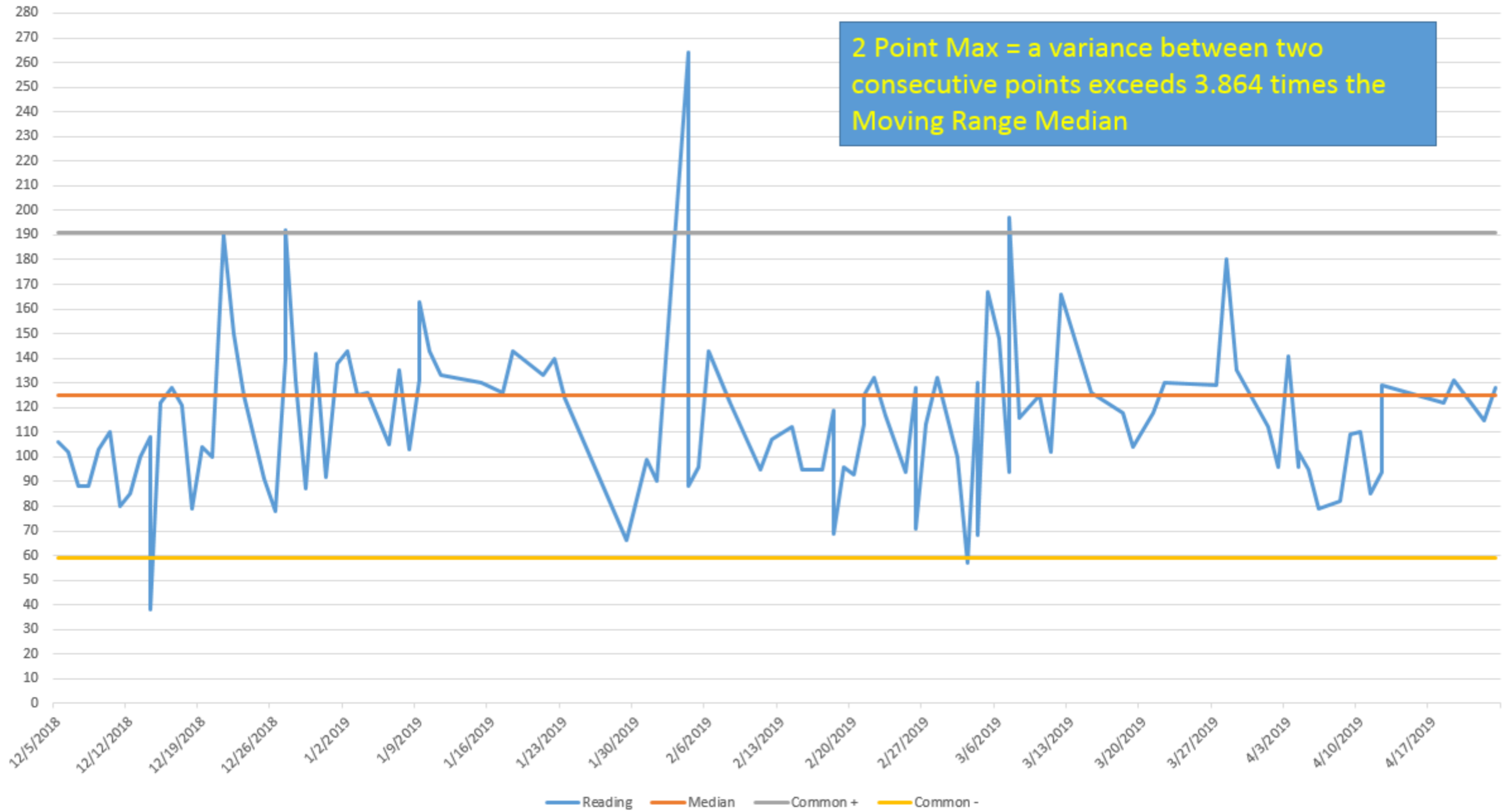
	A	B	C	D	E	F	G
1							
2		Median	Moving Range	Median			
3		125	21	=MEDIAN(Table135[Moving Range])			
4							
5							
6	Date	Reading	Moving Rang				
238	5/2/2018	131	59				
239	5/1/2018	154	23				
240	4/30/2018	204	50				
241	4/27/2018	151	53				
242	4/26/2018	155	4				
243	4/25/2018	144	11				
244	4/24/2018	171	27				
245	4/23/2018	182	11				
246	4/20/2018	118	64				
247	4/18/2018	259	141				

1			
2	Process Median		125
3			
4	Moving Range Median		21
5	Common Cause Range = 3.14 times MR Median		65.94
6			
7	Upper Common Range = Process Median + Common Cause Range		190.94
8	Lower Common Range = Process Median - Common Cause Range		59.06
9			
10	Two Point Max Change = 3.865 times MR Median		81.165
11			

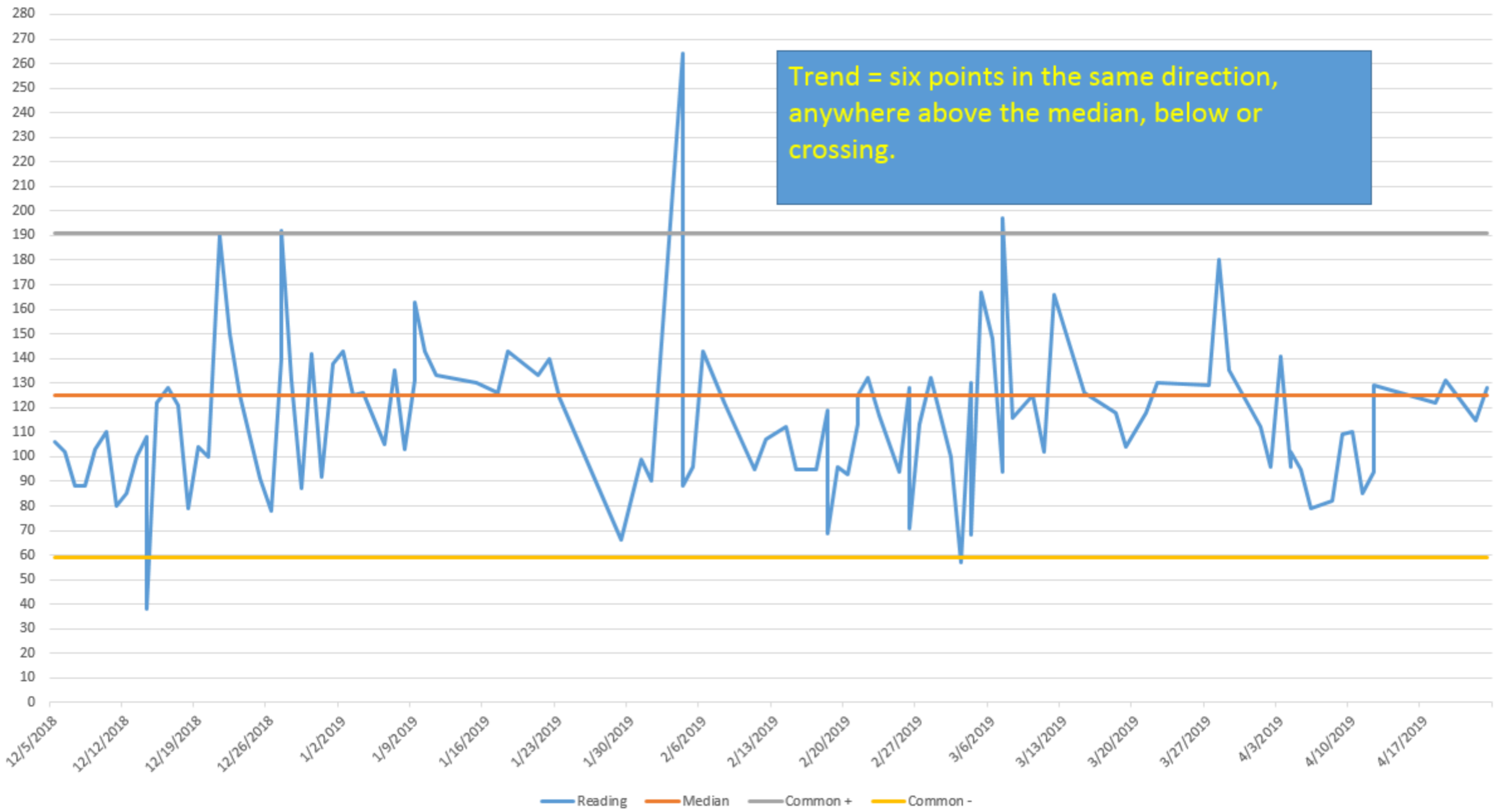
Glucose Readings Dec 18 to Apr 19



Glucose Readings Dec 18 to Apr 19



Glucose Readings Dec 18 to Apr 19



HOSPITALS + PHYSICIANS + PAYERS



LEADERSHIP+

Healthcare Redesign

Quality/Cost

Technology

Strate

Infographics

Tools

Multimedia

Blog

Physician Resource

Q&A: Variation Analysis as a Tool to Improve Value

By Nick Hut Mar 26, 2019



Two leaders with Providence St. Joseph Health describe the systematic approach their organization developed to improve the value of the care it delivers. Among the keys: integrating cost and outcomes data and effectively communicating findings throughout the organization.

It will help

Yesterday's HFMA Daily Article



Just a Taste

Think if everyone looked at data this way