Using Data To Tell Your Falls Story

June 13, 2024

Presented by:
Lynn Wilson, MS, Amy Daly, LNHA, CPHQ, Julie Clark, BS, LPTA and Danyce Seney, RN, CPHQ

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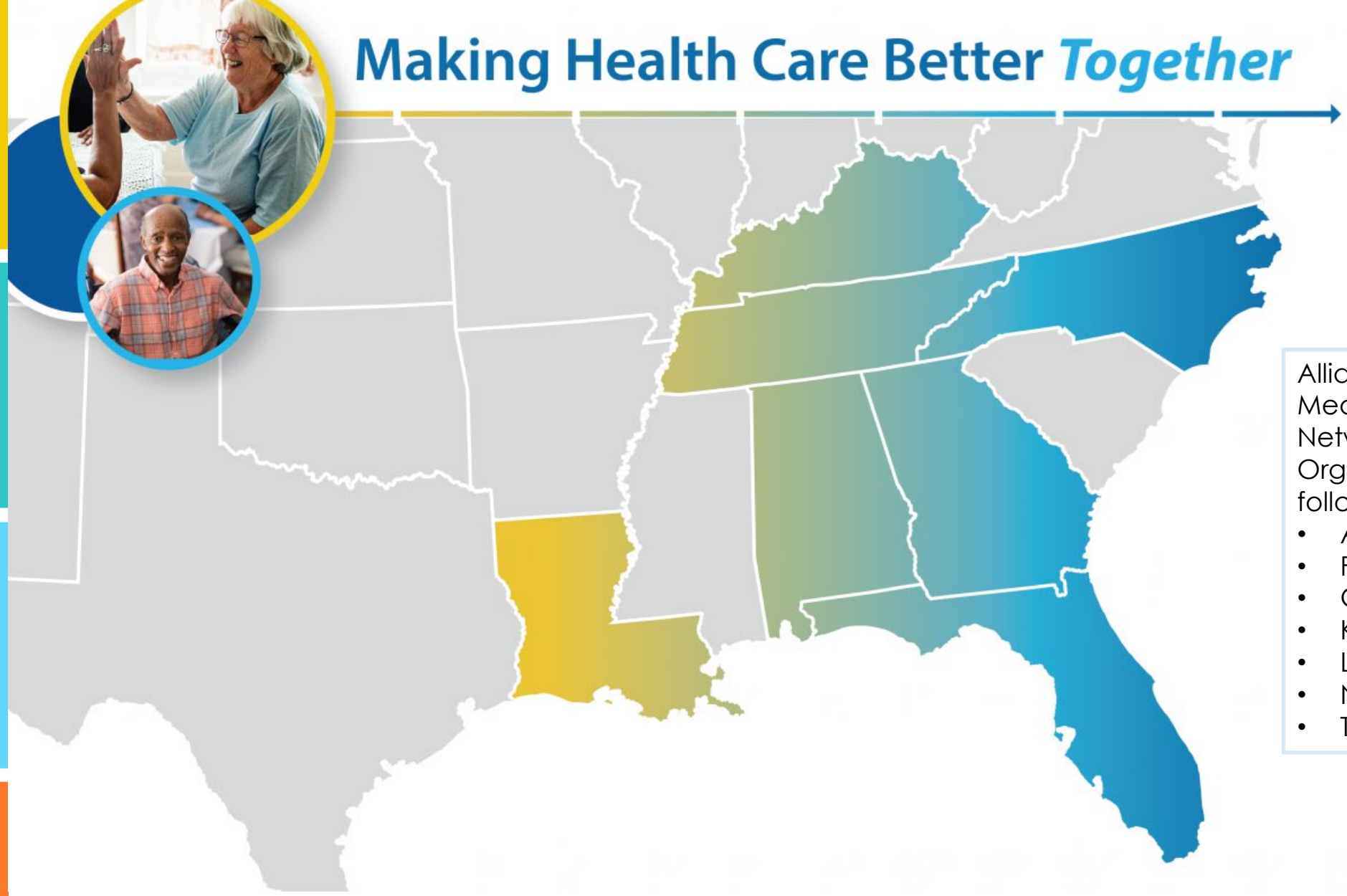

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- Alabama
- Florida
- Georgia
- Kentucky
- Louisiana
- North Carolina
- Tennessee

Alliant Health Solutions, QIN-QIO

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The IPRO QIN-QIO

The IPRO QIN-QIO

- A federally-funded Medicare Quality Innovation Network-Quality Improvement Organization (QIN-QIO) in contract with the Centers for Medicare & Medicaid Services (CMS)
- 12 regional CMS QIN-QIOs nationally

IPRO:
New York, New Jersey, and Ohio

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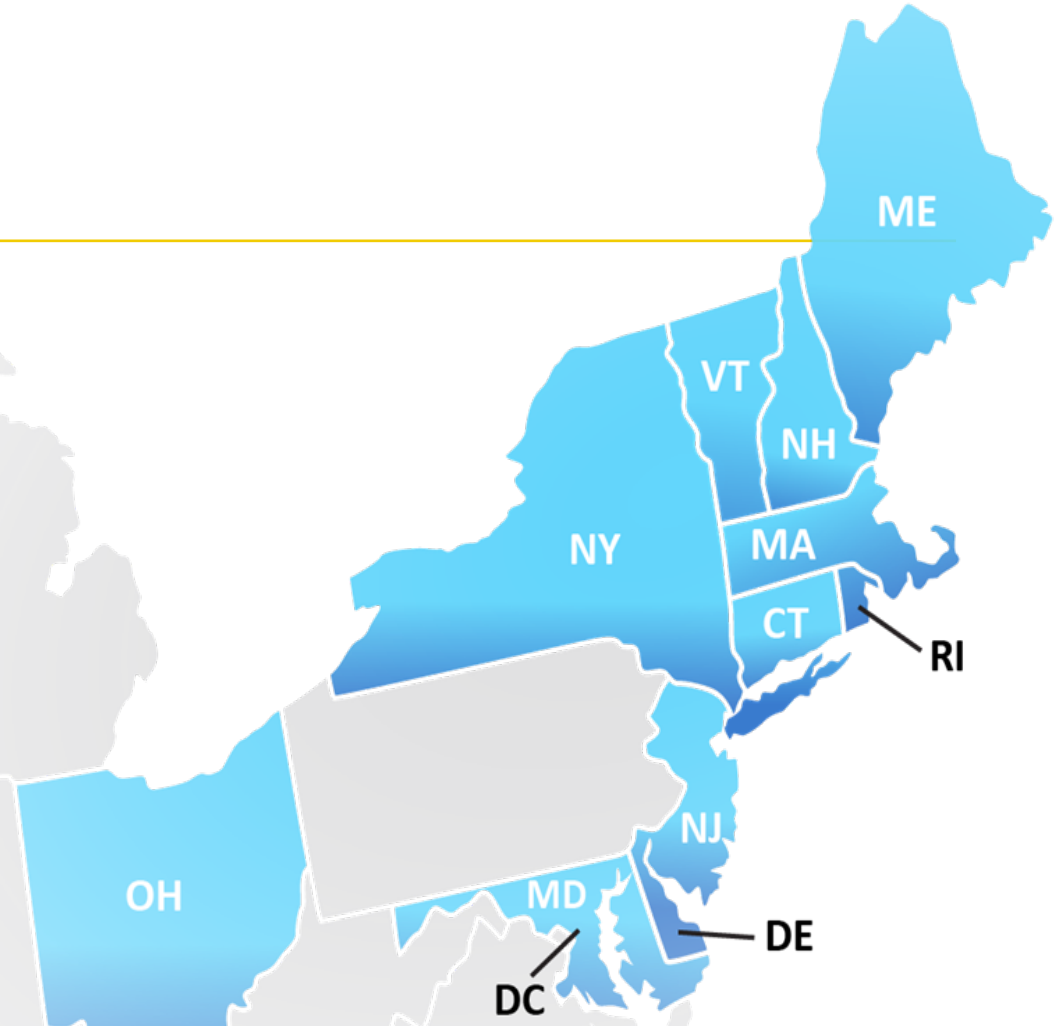
Maryland, Delaware, and the District of Columbia



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Lynn Wilson, MS

SENIOR QUALITY IMPROVEMENT SPECIALIST

Lynn has more than 30 years of experience with regulatory agencies for community mental health centers and nursing homes and is a nationally recognized QI leader in long-term care, behavioral health and hospice and palliative care settings. Under her leadership, behavioral health and end-of-life care practice innovations generated through frontline staff quality improvement processes have been recognized as national best practices.

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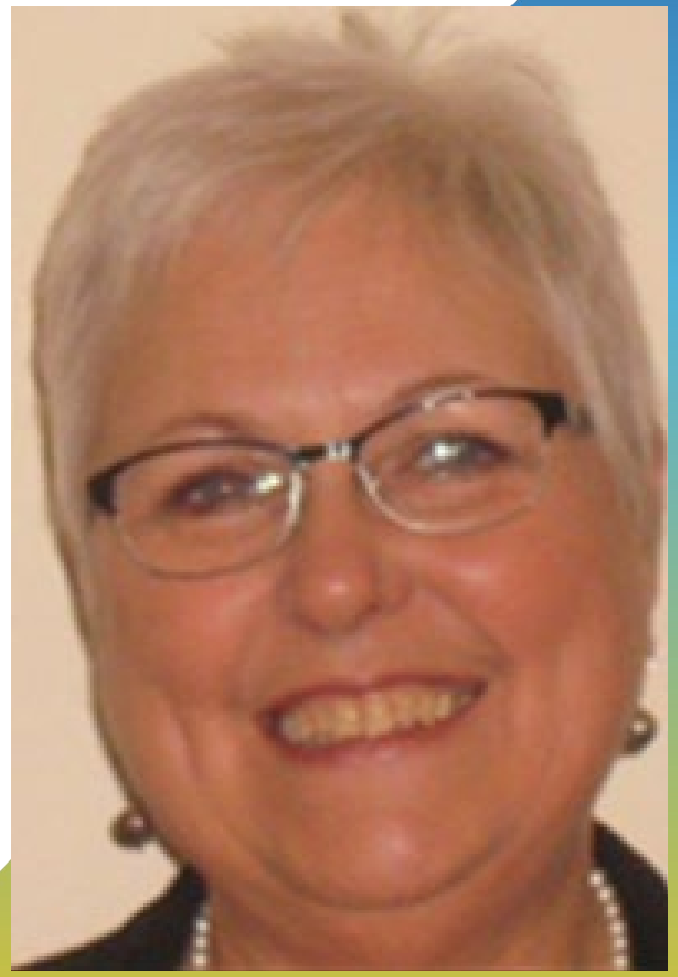

Amy Daly, MA, LNHA, CPHQ

SENIOR QUALITY IMPROVEMENT SPECIALIST

Amy is a licensed nursing home administrator with over 20 years of leadership and long-term care management experience. In addition to her work as a vice president of long-term care and facility administrator, she has served on the boards of the Genesee Health Facilities Association (as treasurer and education committee member) and the Genesee Health Facilities Foundation. She serves as a New York State Department of Health Informal Dispute Resolution (IDR) panel member and has been an adjunct clinical instructor of dental hygiene at Monroe Community College. Amy has a master's degree in health promotion and a bachelor's in health sciences.

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Julie Clark, BS, LPTA

TN STATE QUALITY MANAGER

Julie is a licensed physical therapist assistant with more than eight years of experience in managing rehab departments while treating patients in long-term care, hospital, outpatient, home health, and inpatient hospital settings. She has a bachelor's degree in health care leadership. Julie has served as a state quality improvement manager in Tennessee since 2012, collaborating with long-term care, hospitals, community coalitions, families, and Medicare beneficiaries as they work to make health care better. Julie's areas of expertise include geriatric seating and positioning, QAPI, NHSN, MDS quality measure review, falls reductions, community coalition development and process improvement in varied topics, including infection control, vaccines and COVID-19.

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Danyce Seney, RN, BSN, IP, RAC-CTA, CPHQ

QUALITY IMPROVEMENT SPECIALIST

Danyce Seney is a quality improvement specialist and registered nurse with certifications in Lean, Infection Control Preventionist and Educator for Adult Learners.

Danyce supports skilled nursing facilities in utilizing a quality improvement framework to implement evidence-based interventions and strategies to improve patient safety, immunization rates and reduce avoidable readmissions.

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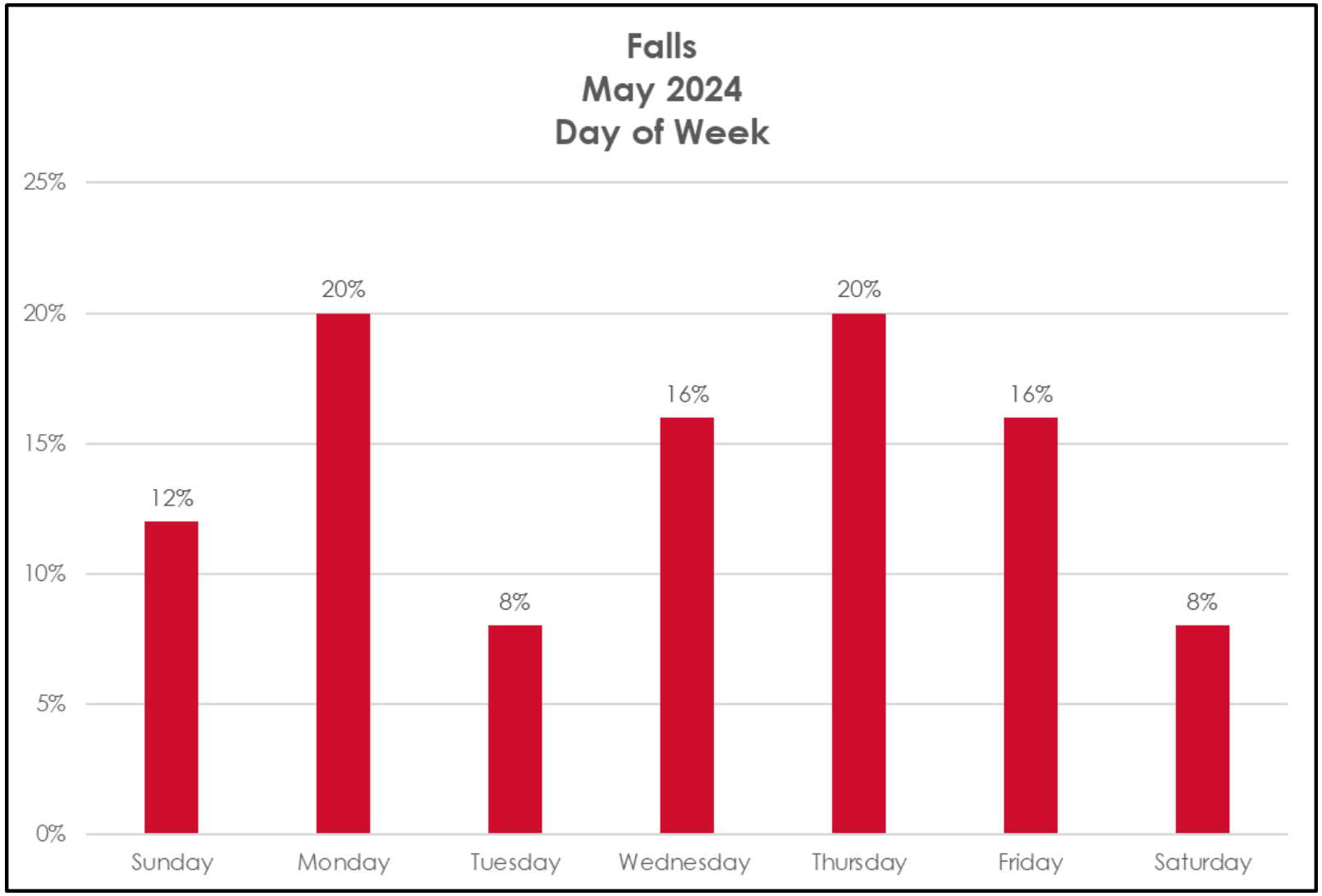
Learning Objectives

- Learn how to use and talk about a fall tracker tool.
- Identify key sources of fall data.
- Learn why using the fall rate is important.

Agenda

- Icebreaker
- Data
- Use Tomorrow

Questions?


Falls
May 2024
Day of Week
25%
20%
15%
10%
5%
0%
12%
20%
8%
16%
20%
16%
8%
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday

Falls From a Facility Assessment Perspective

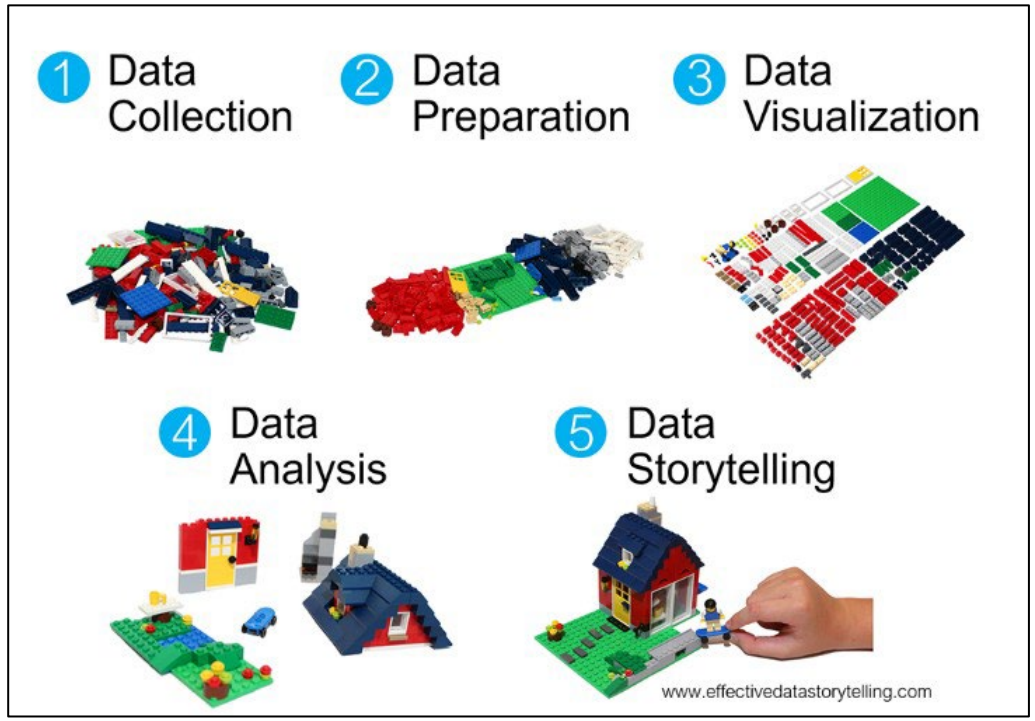
Inputs:

- Residents, Resident Representatives, Family Members
- Nursing Home Leadership
- Governing Body
- Medical Director
- Direct Care Staff

The POWER of DATA

Today, we're embarking on an exploration into the world of data—how we capture it, mold it, and make it tell its stories.

- **Data is more than just numbers and charts; it's the backbone of informed decision-making and innovation.**
- To kick off our journey, let's ponder a quote that highlights the transformative power of data:



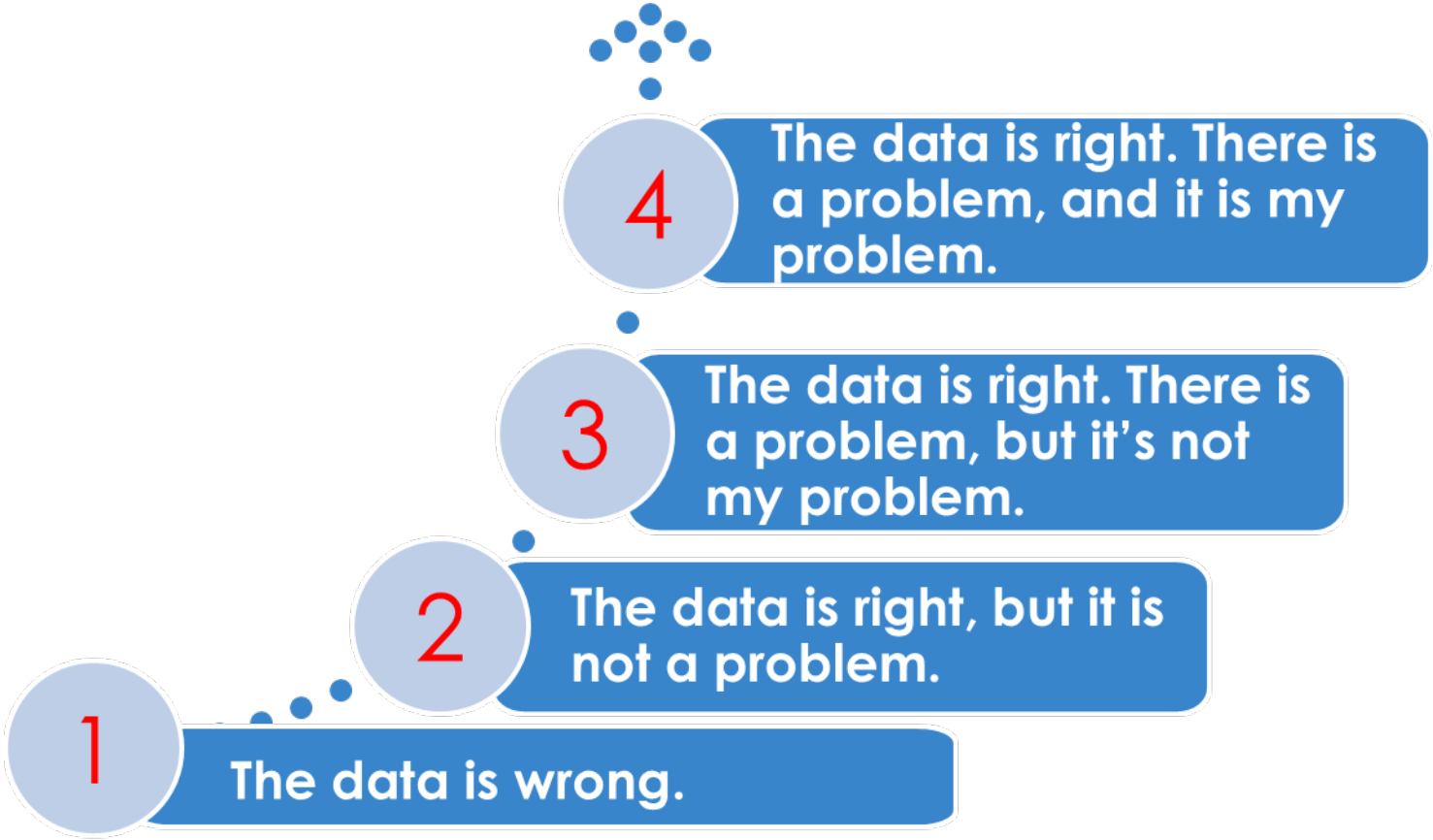
Data doesn't just support what we know; it often reveals the unexpected, guiding us toward more strategic decisions and innovative solutions.

"Without data, you're just another person with an opinion." – W. Edwards Deming

Youth Creativity, Innovation & Sustainable Leadership » Blog Archive » LinkedIn: The Lego Data Story (stanford.edu)
https://www.effectivedatastorytelling.com/post/a-deeper-dive-into-lego-bricks-and-data-stories

1 Data Collection

Falls Data Collection and Stages of Data Acceptance



https://jamboard.google.com/d/1qFT-1EEYBQQxHsFNCrwqSYMUNZ2SmPDYMHNZatXOMOY/edit?usp=sharing

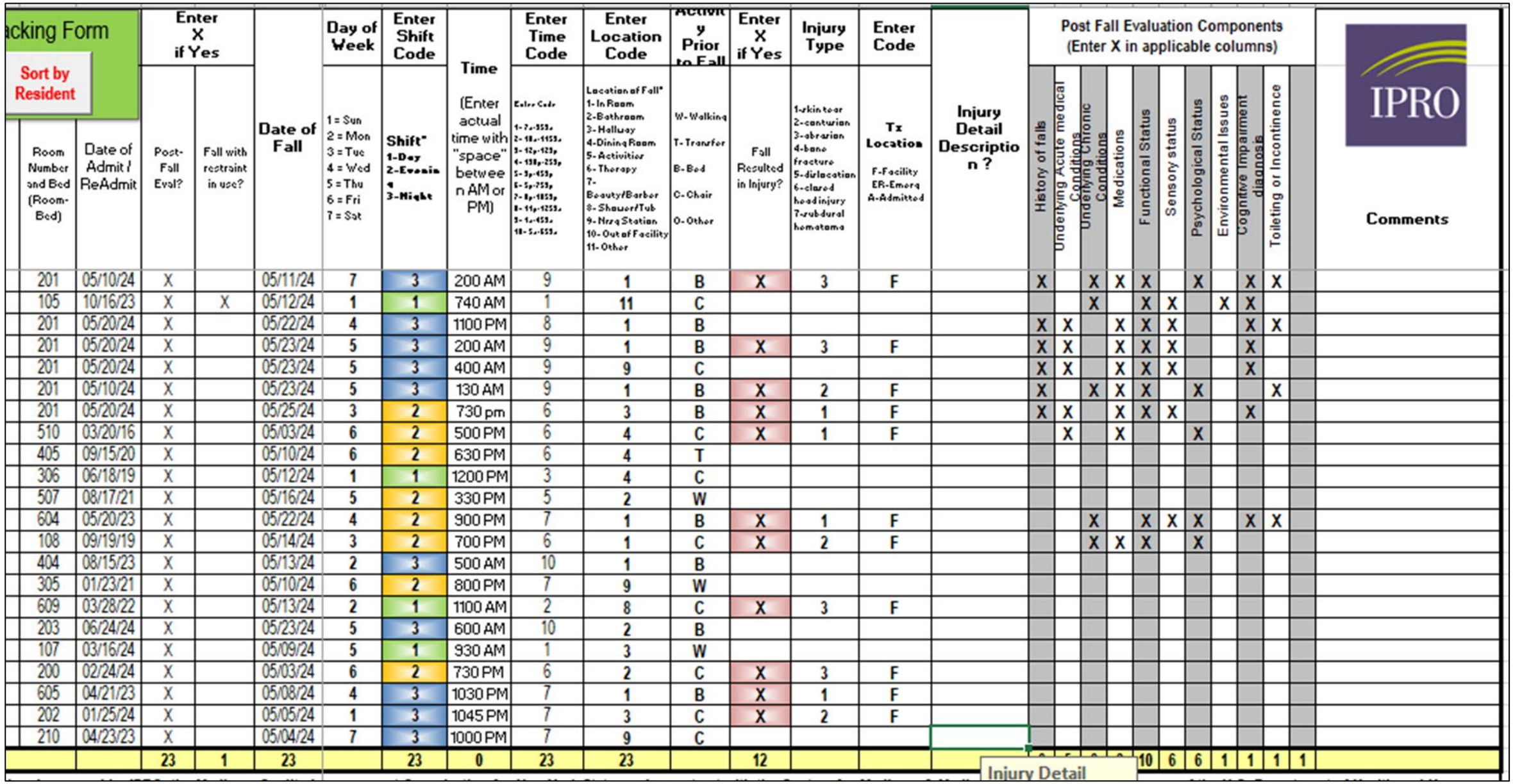
Source: https://www.ahrq.gov/patient-safety/settings/hospital/fall-prevention/toolkit/measure-fall-rates.html

2 Data Preparation

3 Data Visualization

Data Collection and Preparation

Resident	Unit	Date of Fall	Post-Fall Eval Complete	Day of Wee	Shift	9=1a-459a 10=5a-659a	Location Code	Activity Prior to Fall	Fall resulted in Injury	Injury Type	Treatment Location
	North	7/11/2023	Yes	Tues	2	7:00 AM	Room	Bed	Yes	SkinTear	
	West	7/19/2023	Yes	Wed	1	12:00 PM	Room	Wheelchair	No	NA	
	West	7/21/2023	Yes	Fri	1	12:00 PM	Room	Wheelchair	No	NA	
	West	7/25/2023	Yes	Tues	3	5:00 AM	Room	Bed	Yes	Fracture	
	North	7/25/2023	Yes	Tues	2	5:00 PM	Room	Bed	No	NA	
	North	7/17/2023	Yes	Mon	1	12:00 PM	Room	Bed	No	NA	
	West	7/25/2023	Yes	Tues	1	7:00 AM	Room	Other	Yes	SkinTear	
	North	7/10/2023	Yes	Mon	3	5:00 AM	Room	Wheelchair	No	NA	
	North	8/5/2023	Yes	Sat	3	3:00 PM	Room	Bed	No	NA	
	West	8/29/2023	Yes	Tues	1	8:00 PM	Room	Bed	No	NA	
	North	8/16/2023	Yes	Sun	2	8:00 PM	Room	Bed	No	NA	
	North	8/28/2023	Yes	Mon	3	5:00 AM	Room	Bed	No	NA	
	North	8/16/2023	Yes	Sun	1	12:00 PM	Hallway	Wheelchair	No	Other	
	North	8/25/2023	Yes	Fri	3	1:00 AM	Bathroom	Transfer	Yes	SkinTear	
	West	8/12/2023	Yes	Sat	1	7:00 AM	Bathroom	Walking	No	NA	
	West	8/5/2023	Yes	Sun	3	11:00 PM	Room	Bed	No	NA	
	West	8/5/2023	Yes	Sun	2	8:00 PM	Room	Bed	No	NA	
	West	8/5/2023	Yes	Sun	2	3:00 PM	Room	Bed	No	NA	



acking Form

Sort by Resident

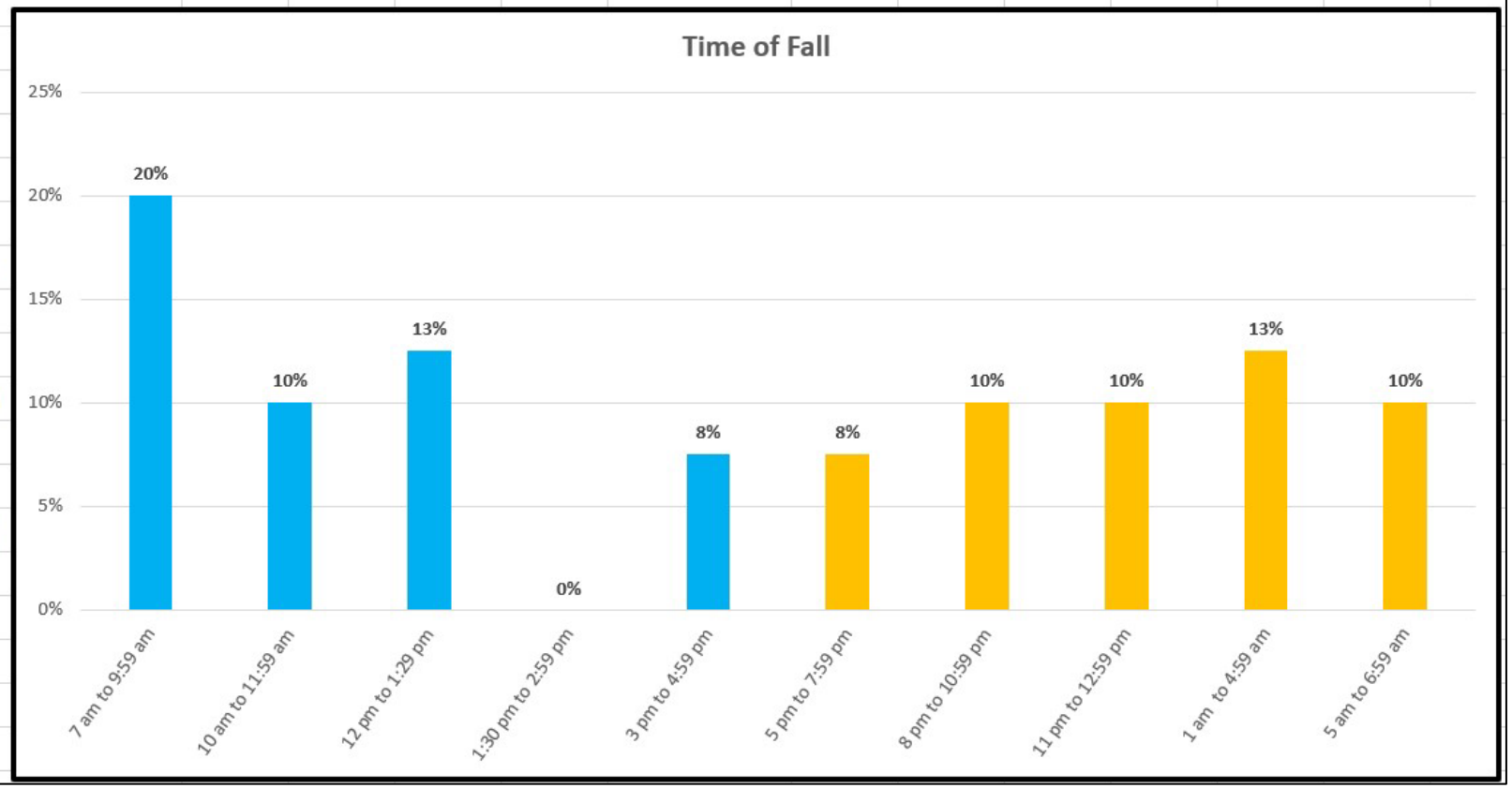
Room Number and Bed (Room-Bed)	Date of Admit / ReAdmit	Enter X if Yes: Post-Fall Eval?	Enter X if Yes: Fall with restraint in use?	Date of Fall	Day of Week (1 = Sun 2 = Mon 3 = Tue 4 = Wed 5 = Thu 6 = Fri 7 = Sat)	Enter Shift Code (Shift* 1-Day 2-Evening 3-Night)	Time (Enter actual time with "space" between AM or PM)	Enter Time Code	Enter Location Code (Location of Fall* 1- In Room 2-Bathroom 3- Hallway 4-Dining Room 5- Activities 6- Therapy 7- Beauty/Barber 8- Shower/Tub 9- Nrsg Station 10- Out of Facility 11- Other)	Activity Prior to Fall (W- Walking T- Transfer B- Bed C- Chair O- Other)	Enter X if Yes: Fall Resulted in Injury?	Injury Type (1-skin tear 2-contusion 3-abrasion 4-bone fracture 5-dislocation 6-closed head injury 7-subdural hematoma)	Enter Code: Tx Location (F-Facility ER-Emerg A-Admitted)	Injury Detail Description ?	Post Fall Evaluation Components (Enter X in applicable columns): History of falls	Underlying Acute medical Conditions	Underlying Chronic Conditions	Medications	Functional Status	Sensory status	Psychological Status	Environmental Issues	Cognitive Impairment diagnosis	Toileting or Incontinence		Comments
201	05/10/24	X		05/11/24	7	3	200 AM	9	1	B	X	3	F		X		X	X	X		X		X	X		
105	10/16/23	X	X	05/12/24	1	1	740 AM	1	11	C							X		X	X		X	X			
201	05/20/24	X		05/22/24	4	3	1100 PM	8	1	B					X	X		X	X	X			X	X		
201	05/20/24	X		05/23/24	5	3	200 AM	9	1	B	X	3	F		X	X		X	X	X			X			
201	05/20/24	X		05/23/24	5	3	400 AM	9	9	C					X	X		X	X	X			X			
201	05/10/24	X		05/23/24	5	3	130 AM	9	1	B	X	2	F		X		X	X	X		X			X		
201	05/20/24	X		05/25/24	3	2	730 pm	6	3	B	X	1	F		X	X		X	X	X			X			
510	03/20/16	X		05/03/24	6	2	500 PM	6	4	C	X	1	F			X		X			X					
405	09/15/20	X		05/10/24	6	2	630 PM	6	4	T																
306	06/18/19	X		05/12/24	1	1	1200 PM	3	4	C																
507	08/17/21	X		05/16/24	5	2	330 PM	5	2	W																
604	05/20/23	X		05/22/24	4	2	900 PM	7	1	B	X	1	F				X		X	X	X		X	X		
108	09/19/19	X		05/14/24	3	2	700 PM	6	1	C	X	2	F				X	X	X		X					
404	08/15/23	X		05/13/24	2	3	500 AM	10	1	B																
305	01/23/21	X		05/10/24	6	2	800 PM	7	9	W																
609	03/28/22	X		05/13/24	2	1	1100 AM	2	8	C	X	3	F													
203	06/24/24	X		05/23/24	5	3	600 AM	10	2	B																
107	03/16/24	X		05/09/24	5	1	930 AM	1	3	W																
200	02/24/24	X		05/03/24	6	2	730 PM	6	2	C	X	3	F													
605	04/21/23	X		05/08/24	4	3	1030 PM	7	1	B	X	1	F													
202	01/25/24	X		05/05/24	1	3	1045 PM	7	3	C	X	2	F													
210	04/23/23	X		05/04/24	7	3	1000 PM	7	9	C																
		23	1	23		23	0	23	23		12								10	6	6	1	1	1	1	

Injury Detail

IPRO

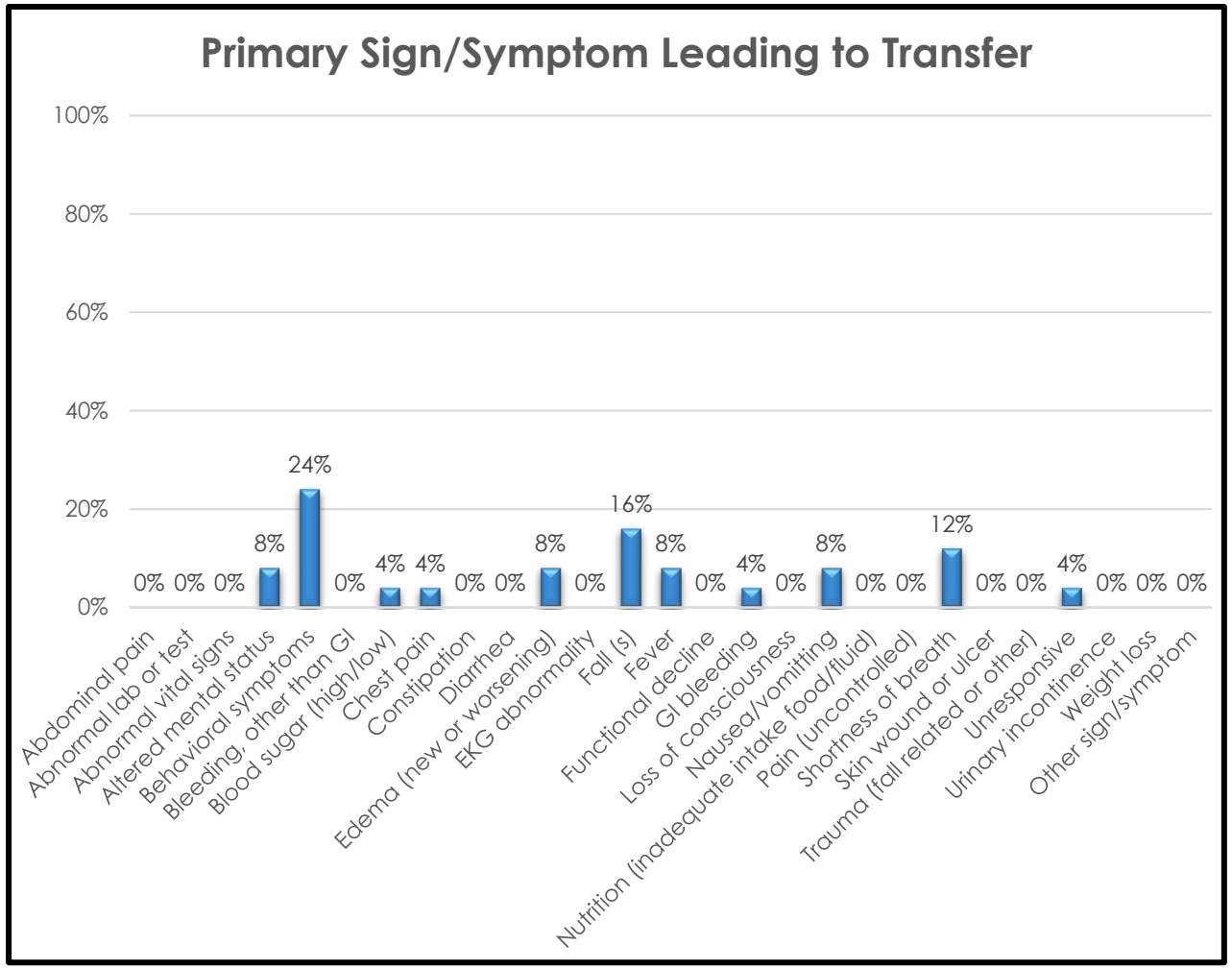
Data Visualization

Time of Fall Statistical Summary				
Time Span	#	% of Total		
7 am to 9:59 am	8	20%		
10 am to 11:59 am	4	10%		
12 pm to 1:29 pm	5	13%		
1:30 pm to 2:59 pm	0	0%	Total	17
3 pm to 4:59 pm	3	8%		
5 pm to 7:59 pm	3	8%		
8 pm to 10:59 pm	4	10%	Total	10
11 pm to 12:59 pm	4	10%		
1 am to 4:59 am	5	13%		
5 am to 6:59 am	4	10%	Total	13
	40	100%		



Visualization

Primary sign/symptom leading to transfer		
Symptom	**#**	**%**
Abdominal pain	0	0%
Abnormal lab or test	0	0%
Abnormal vital signs	0	0%
Altered mental status	2	8%
Behavioral symptoms	6	24%
Bleeding, other than GI	0	0%
Blood sugar (high/low)	1	4%
Chest pain	1	4%
Constipation	0	0%
Diarrhea	0	0%
Edema (new or worsening)	2	8%
EKG abnormality	0	0%
Fall (s)	4	16%
Fever	2	8%
Functional decline	0	0%
GI bleeding	1	4%
Loss of consciousness	0	0%
Nausea/vomitting	2	8%
Nutrition (inadequate intake food/fluid)	0	0%
Pain (uncontrolled)	0	0%
Shortness of breath	3	12%
Skin wound or ulcer	0	0%
Trauma (fall related or other)	0	0%
Unresponsive	1	4%
Urinary incontinence	0	0%
Weight loss	0	0%
Other sign/symptom	0	0%
Total	25	100%

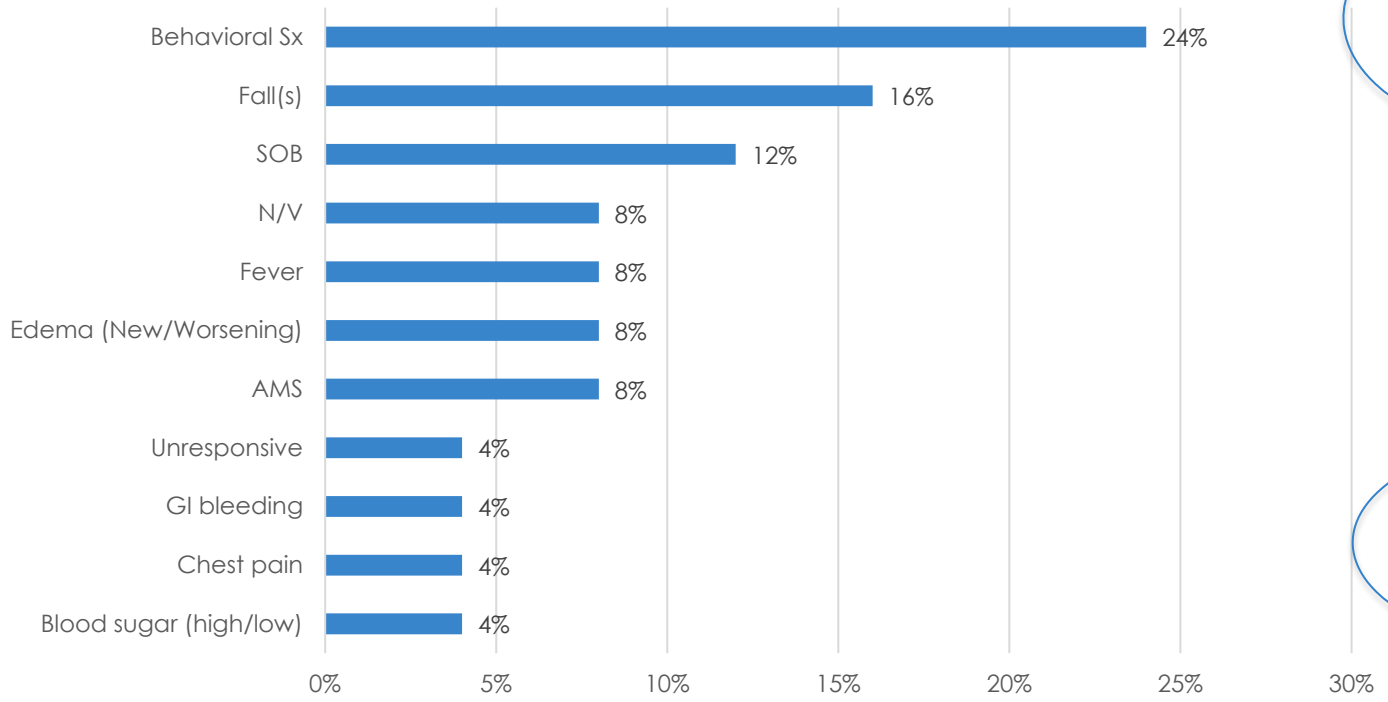


SS Hospital Readmissions

Goal: 11% Rehospitalization rate for SS Residents. (*Less is desired.*)

Summary: In May 2024, **25 short-stay residents were rehospitalized** following admission. The total readmission rate for SS residents in May was 16%. The rate is 2% higher than April 2024. Our YTD SS Readmission rate is 17.5%, 6.5% higher than goal.

Primary Sign/Symptom Leading to Unplanned Transfer
May 2024



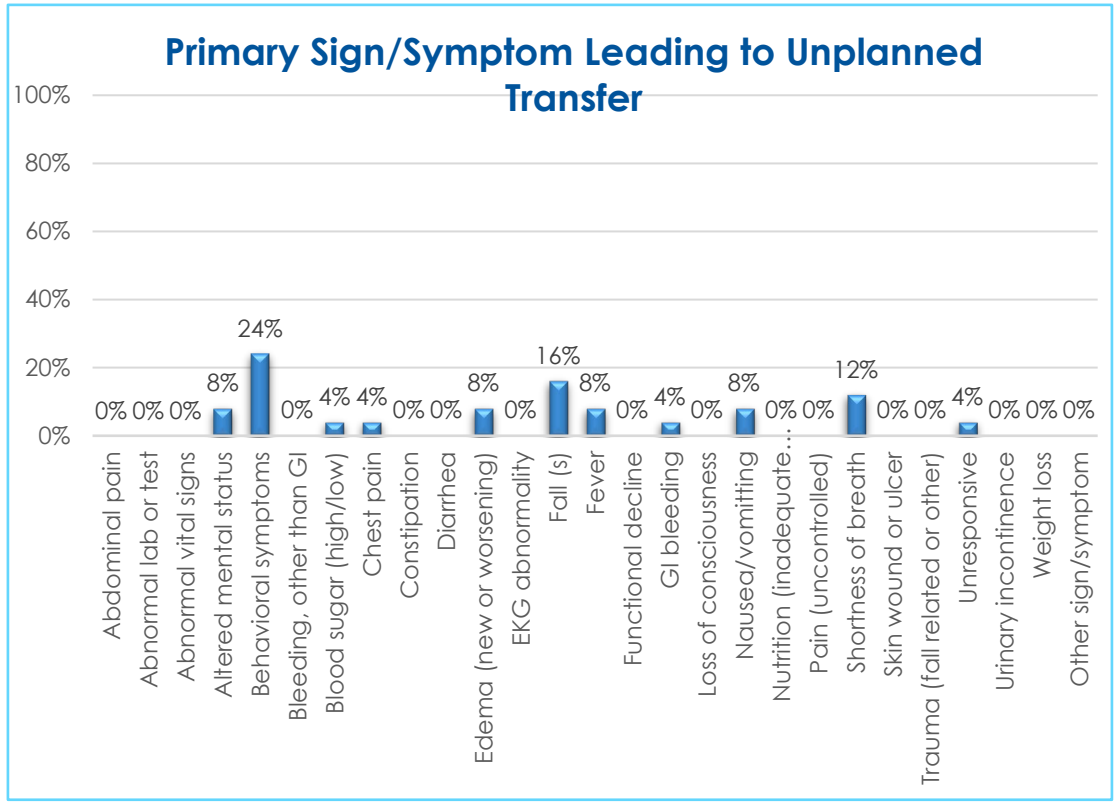
MEASURE INFORMATION & DISCUSSION DIRECTION

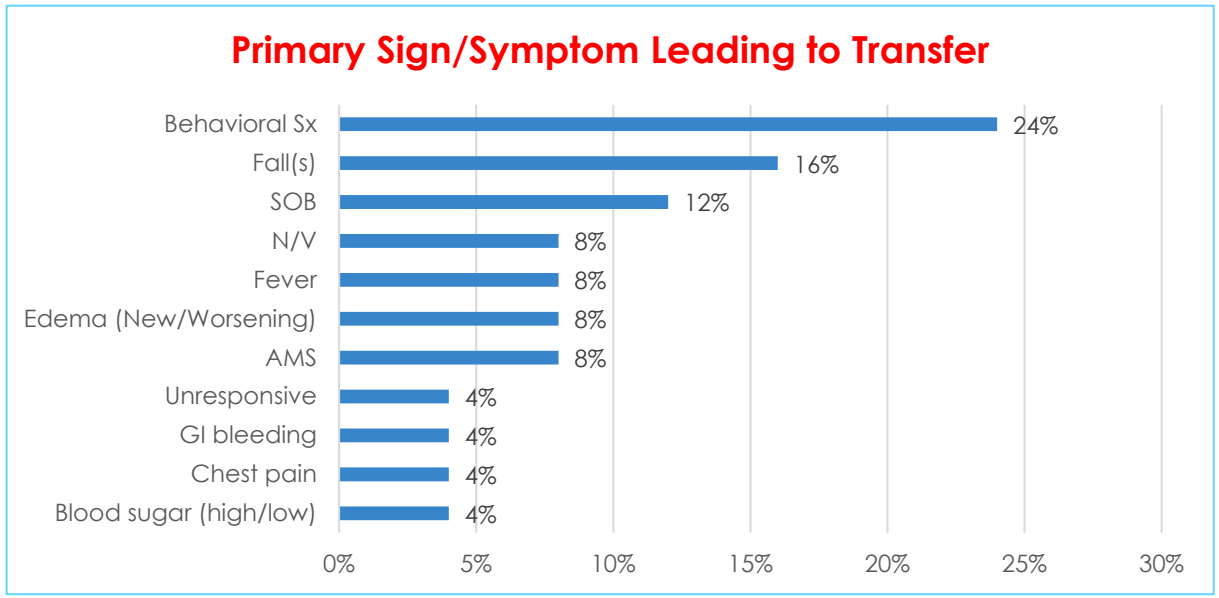
TRANSPARENCY INFORMATION

S/Sx	%	#
Behavioral Sx	24%	6
Fall(s)	16%	4
SOB	12%	3
AMS	8%	2
Edema (New/Worsening)	8%	2
Fever	8%	2
N/V	8%	2
Blood sugar (high/low)	4%	1
Chest pain	4%	1
GI bleeding	4%	1
Unresponsive	4%	1
ABN pain	0%	0
ABN vital	0%	0
ABNI lab/test	0%	0
Bleeding, non GI	0%	0
Constipation	0%	0
Diarrhea	0%	0
EKG (Abnormality)	0%	0
Functional decline	0%	0
Loss of consciousness	0%	0
Nutrition	0%	0
Other	0%	0
Pain uncontrolled	0%	0
Skin wound/ulcer	0%	0
Trauma (fall or other)	0%	0
UTI	0%	0
Wt loss	0%	0
Total	100	25

Note: Data source: X report in EHR. Report covers 5/1/24 – 5/31/24. Report run on 6/12/24.

Tale of Two Charts





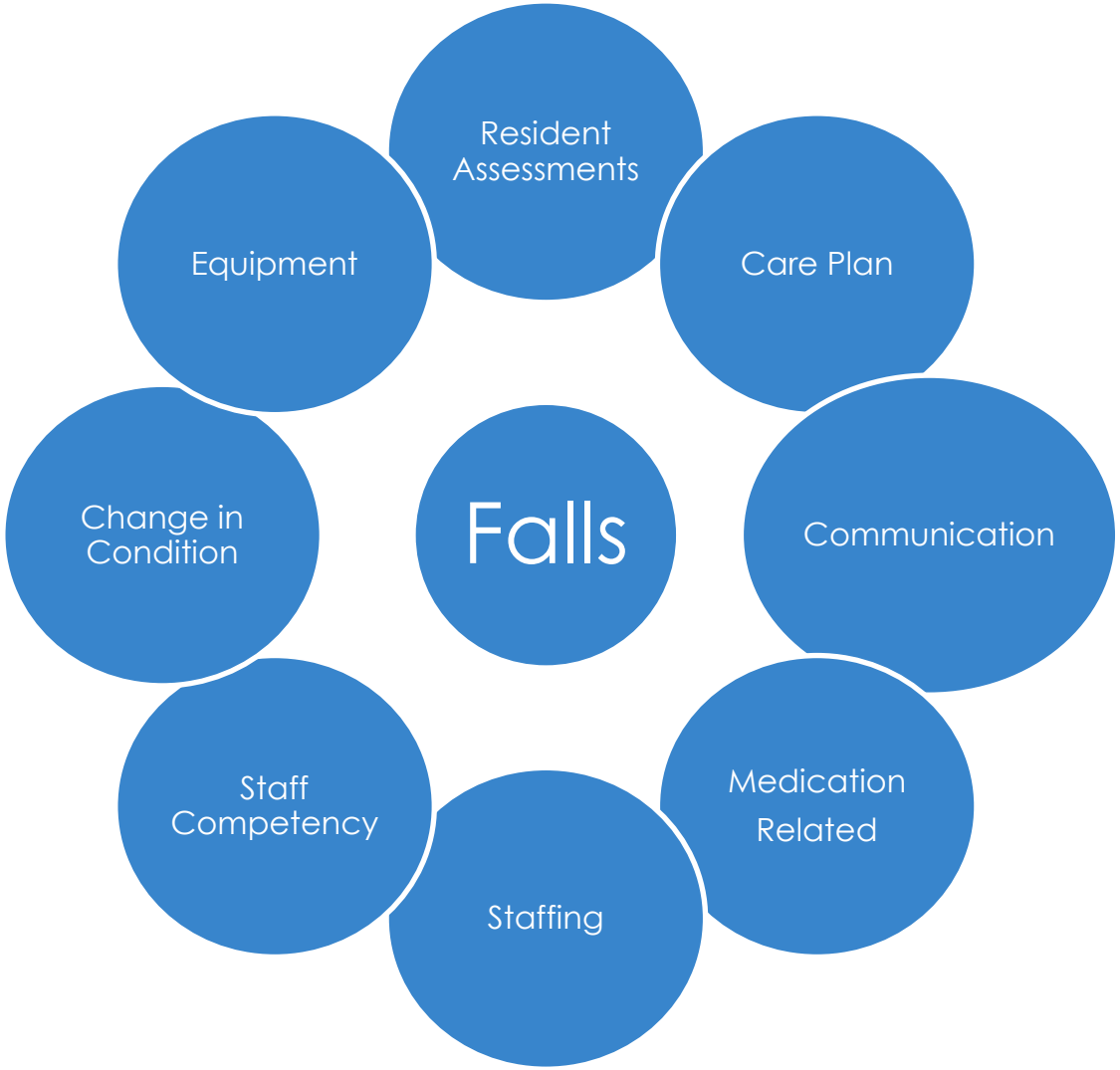
What is Data-to-Ink ratio?

The Data-to-Ink ratio refers to the concept of ***optimizing the amount of ink utilized to represent data*** as opposed to the quantity of ink devoted to the presentation of the visualization itself.

Ideal visuals ought to be comprised solely of Data-Ink. Eliminate non-Data-Ink wherever feasible to prevent unnecessary distractions during the data presentation. The idea is to avert the viewer's focus from inconsequential components.

Edward Tufte's Six Principles of Graphical Integrity | LinkedIn

Falls From a Facility Assessment Perspective



Inputs:

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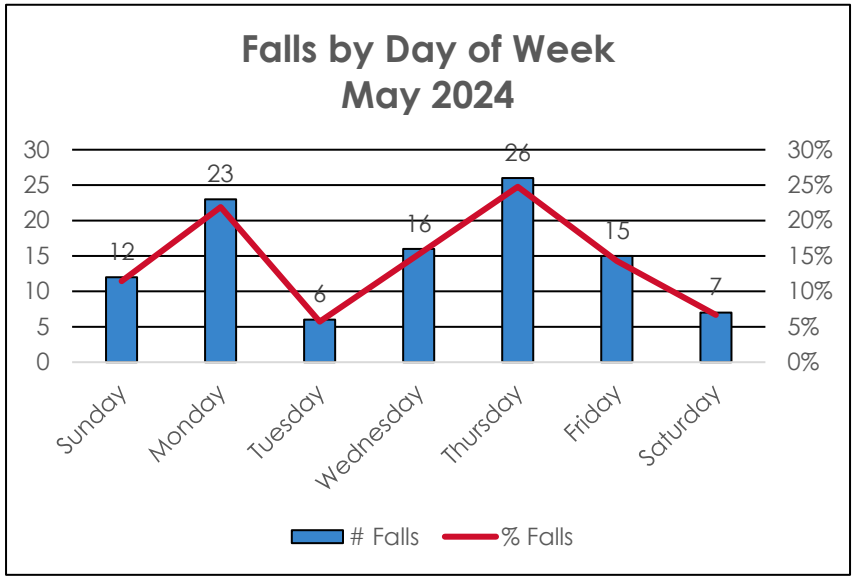
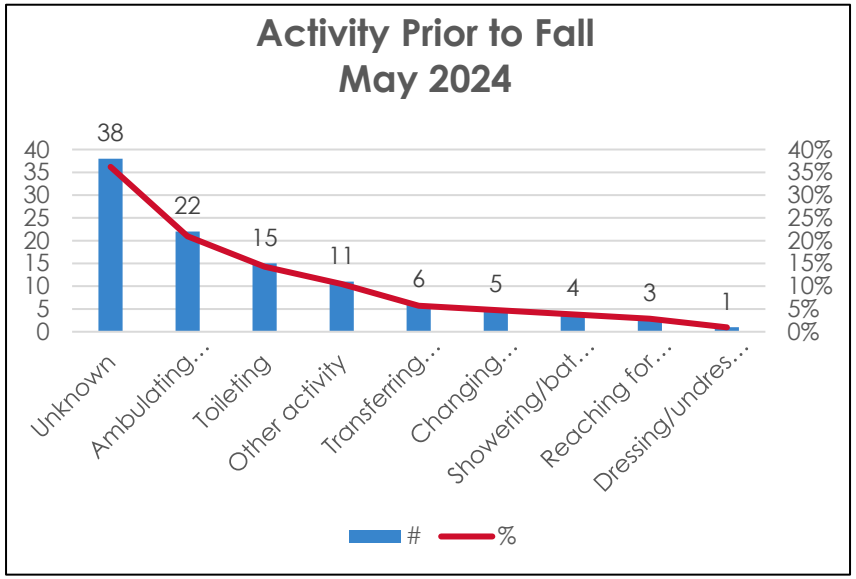
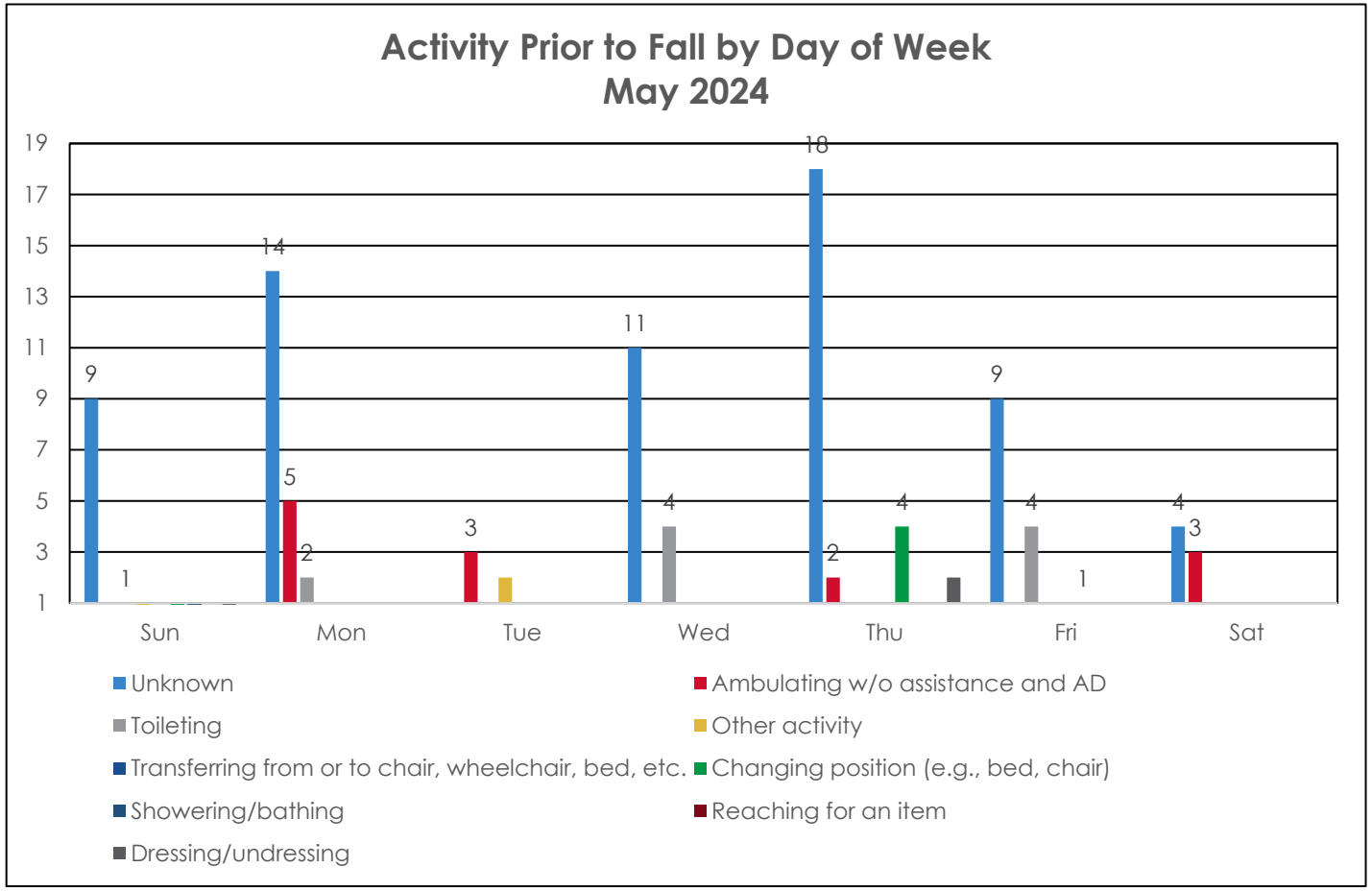
- Nursing Home Leadership
- Governing Body
- Medical Director
- Direct Care Staff

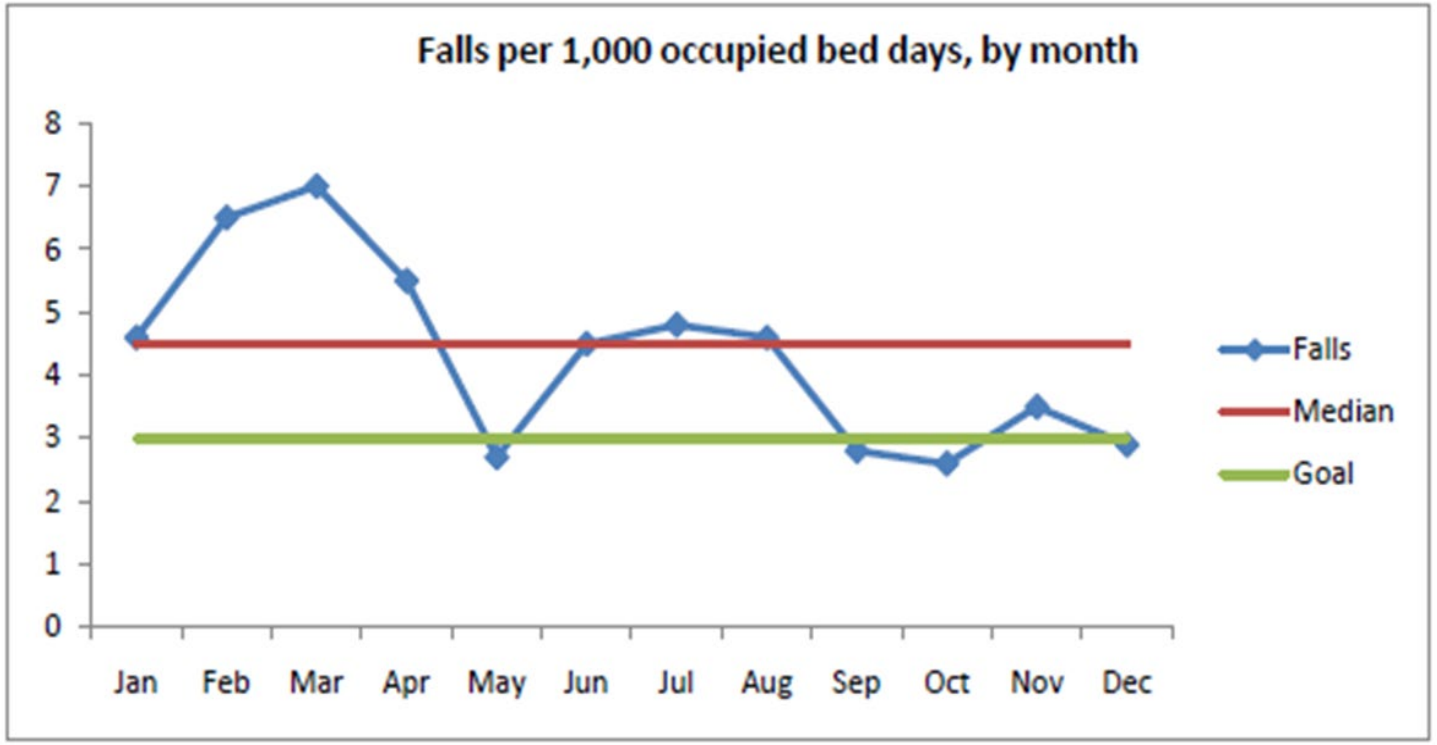

Falls by Day of Week
May 2024
30
25
20
15
10
5
0
30%
25%
20%
15%
10%
5%
0%
12
23
6
16
26
15
7
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Falls
% Falls


Activity Prior to Fall
May 2024
40
35
30
25
20
15
10
5
0
40%
35%
30%
25%
20%
15%
10%
5%
0%
38
22
15
11
6
5
4
3
1
Unknown
Ambulating...
Toileting
Other activity
Transferring...
Changing...
Showering/bat...
Reaching for...
Dressing/undres...
#
%


Activity Prior to Fall by Day of Week
May 2024
19
17
15
13
11
9
7
5
3
1
9
1
14
5
2
3
11
4
18
2
4
9
4
1
4
3
Sun
Mon
Tue
Wed
Thu
Fri
Sat
Unknown
Ambulating w/o assistance and AD
Toileting
Other activity
Transferring from or to chair, wheelchair, bed, etc.
Changing position (e.g., bed, chair)
Showering/bathing
Reaching for an item
Dressing/undressing


4
Data
Analysis

Falls Rate



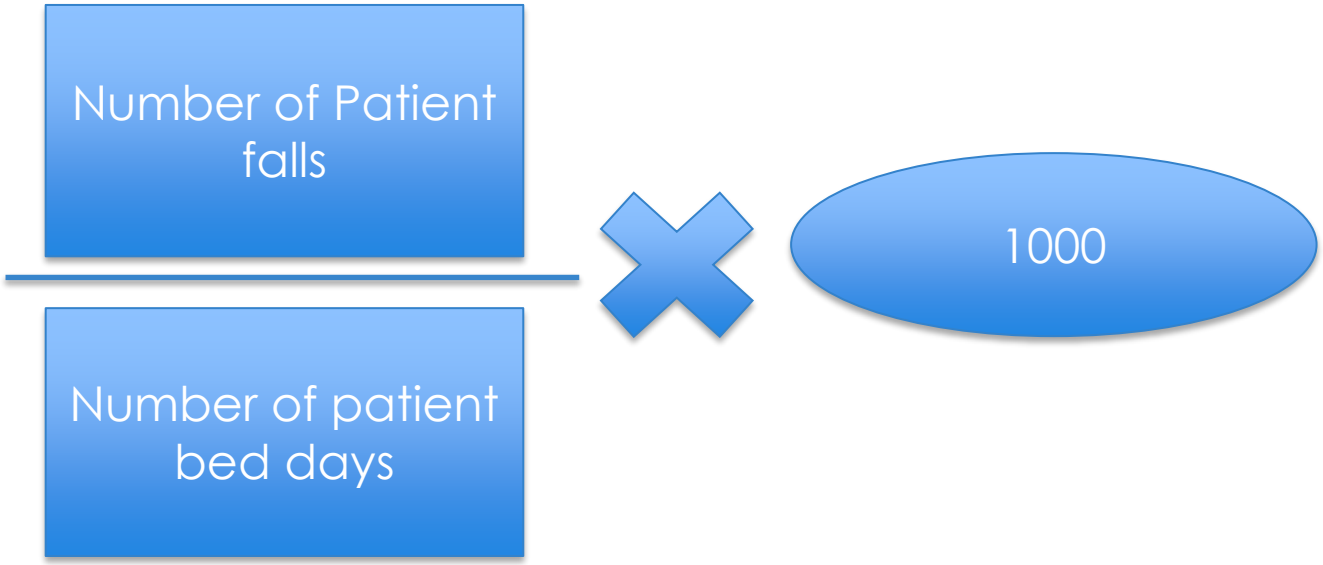
Why rate per 1000 patient days matters:

Raw data connects us to the impact on a patient, whereas a falls ratio is more useful for analysis.

Ratio minimizes confusion from variation in the data that may result in changes in volume rather than changes in key measures.

A run chart like the one above can be created using a template available at no cost after free registration at the Institute for Healthcare Improvement Website: Run Chart Tool | Institute for Healthcare Improvement (ihi.org)

Falls Rate Formula



Total Falls	40
Total Census Days	2345
Falls Rate	17.06

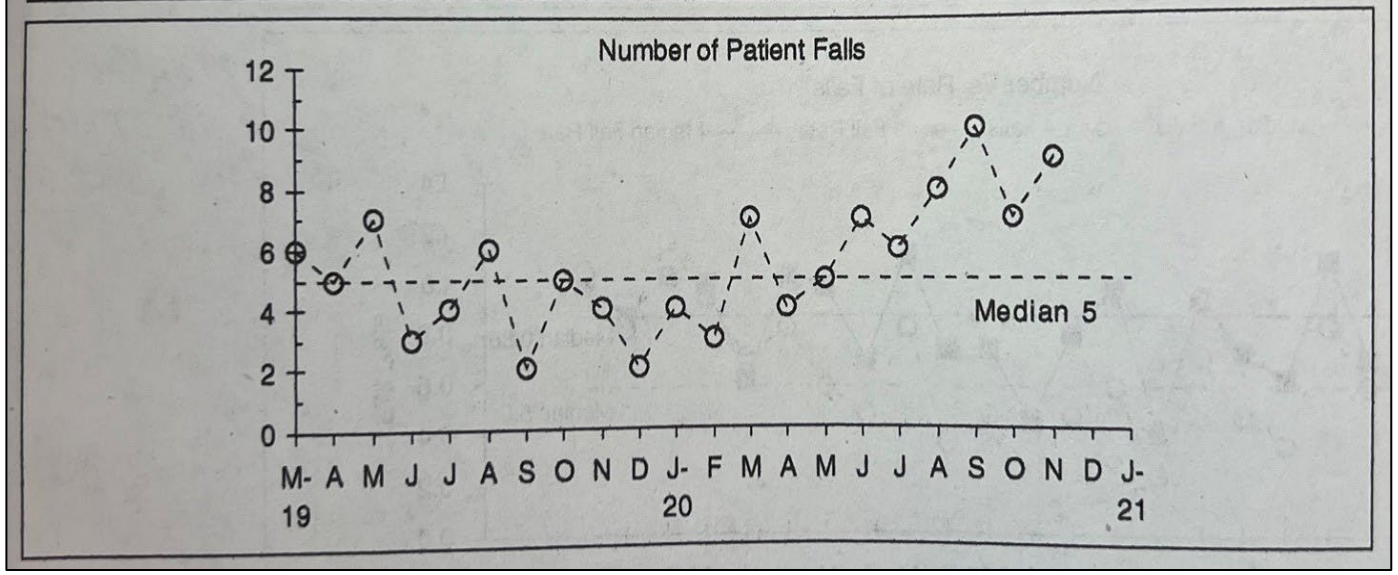
Table 2.16 Data for Rate of Falls.

Month	# Falls	# Occ Bed Days	Fall Rate	Month	# Falls	# Occ Bed Days	Fall Rate
M-19	6	612	0.980	J-20	4	549	0.729
A	5	719	0.695	F	3	412	0.728
M	7	655	1.069	M	7	632	1.108
J	3	497	0.604	A	4	589	0.679
J	4	553	0.723	M	5	508	0.984
A	6	649	0.924	J	7	679	1.031
S	2	502	0.398	J	6	982	0.611
O	5	514	0.973	A	8	802	0.998
N	4	507	0.789	S	10	978	1.022
D	2	443	0.451	O	7	812	0.862
				N	9	917	0.981

Table 2.15 Number of Falls

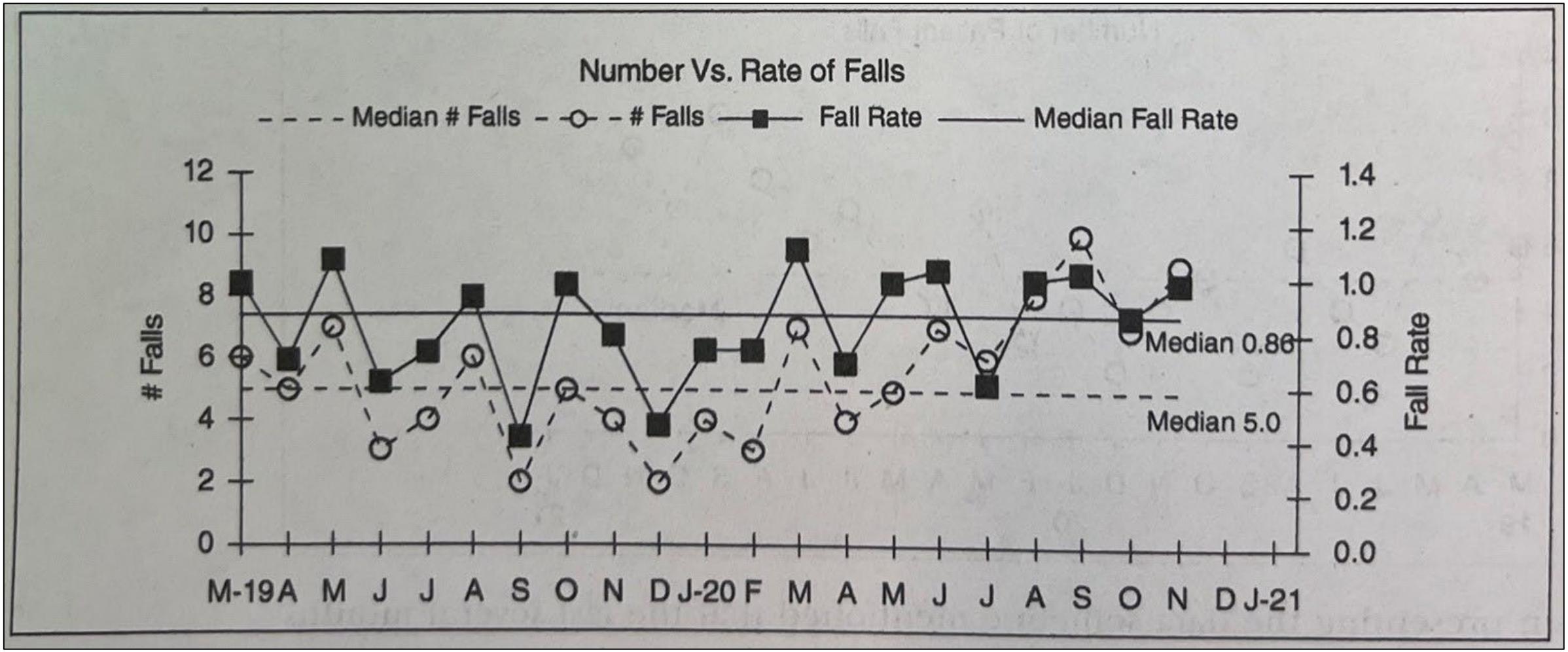
Month	M-19	A	M	J	J	A	S	O	N	D	J-20	F	M	A	M	J	J	A	S	O	N
# Falls	6	5	7	3	4	6	2	5	4	2	4	3	7	4	5	7	6	8	10	7	9

FIGURE 2.20 Run Chart of Number of Falls



Provost, L. P., & Murray, S. K. (2022). *The Health Care Data Guide Learning from data for improvement*. John Wiley & Sons, Incorporated.

Average = calculated by adding all the individual values and dividing by the total number of values
Median = calculated by taking the middle value
Median = often more meaningful because it accounts for outliers because it isn't influenced by the extremes.



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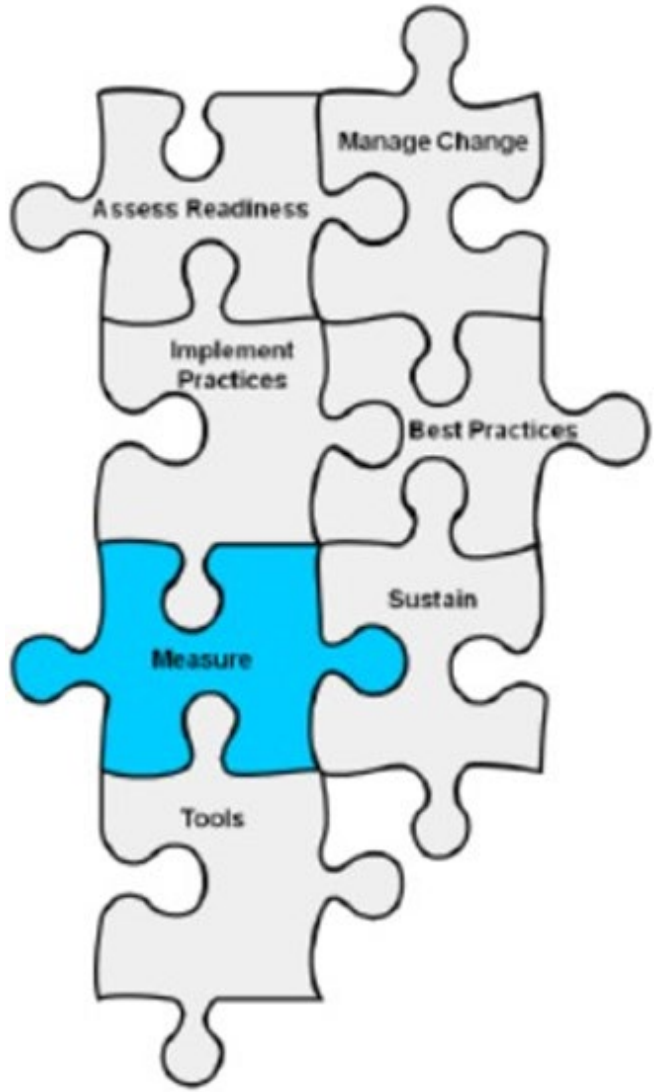
"Data will never tell you the solution, but it will tell you where you need to focus your attention."

Forid Alom, East London NHS Foundation Trust (ELFT)



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5
Data
Storytelling
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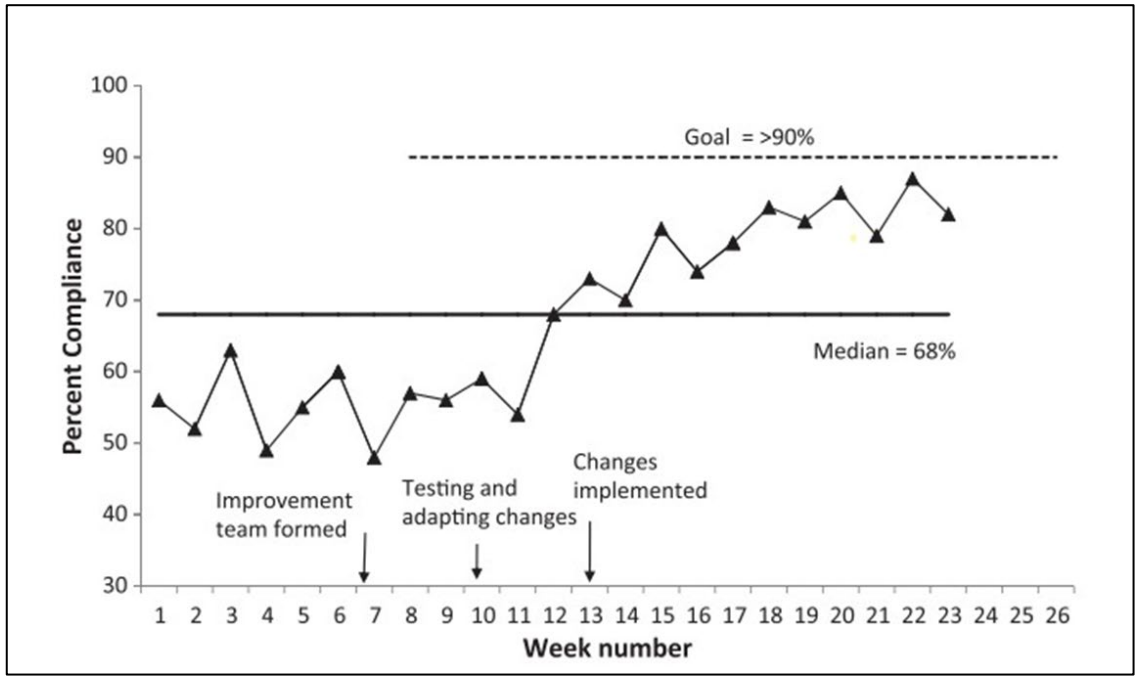
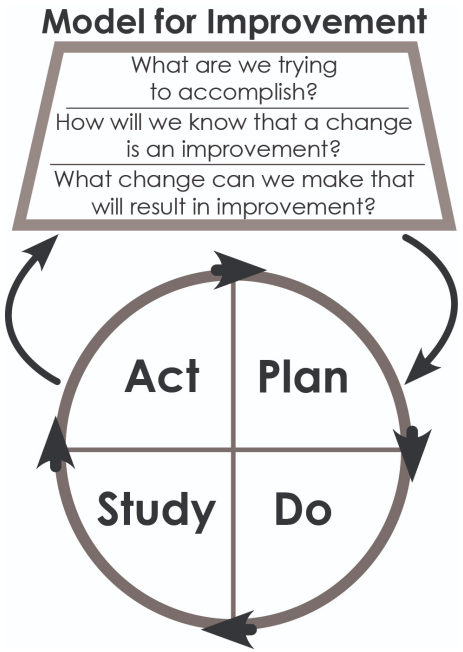
Identify QI Opportunity and Plan Tests of Change





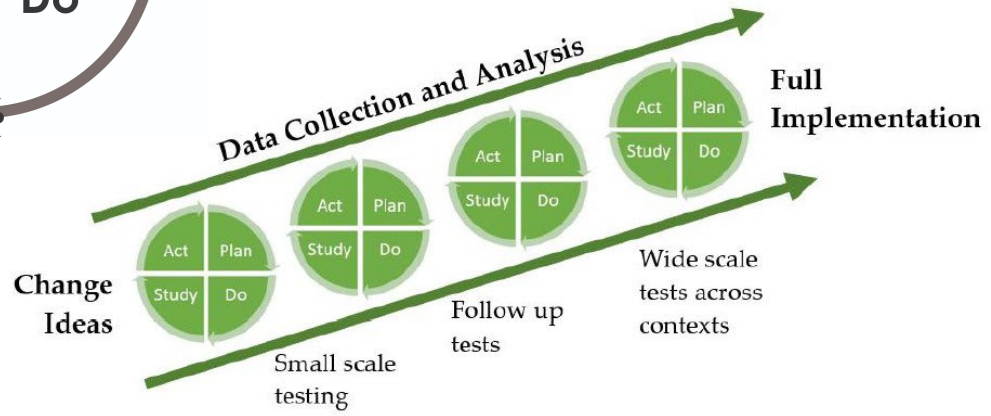
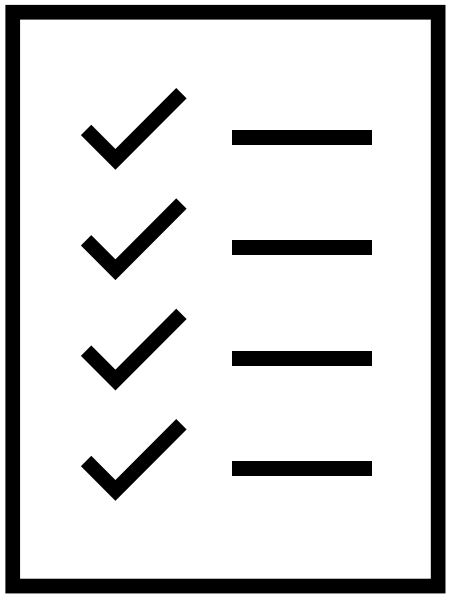


Image source: https://www.med.unc.edu/neurosurgery/wp-content/uploads/sites/460/2018/10/The-run-chart-a-simple-analytical-tool.pdf

Use Tomorrow ….

- Identify one indicator for a deeper dive
- Determine what reports are currently available in your EHR and/or tracking tool
- Reach out to your QIO for Falls Tracker and ongoing mentoring support



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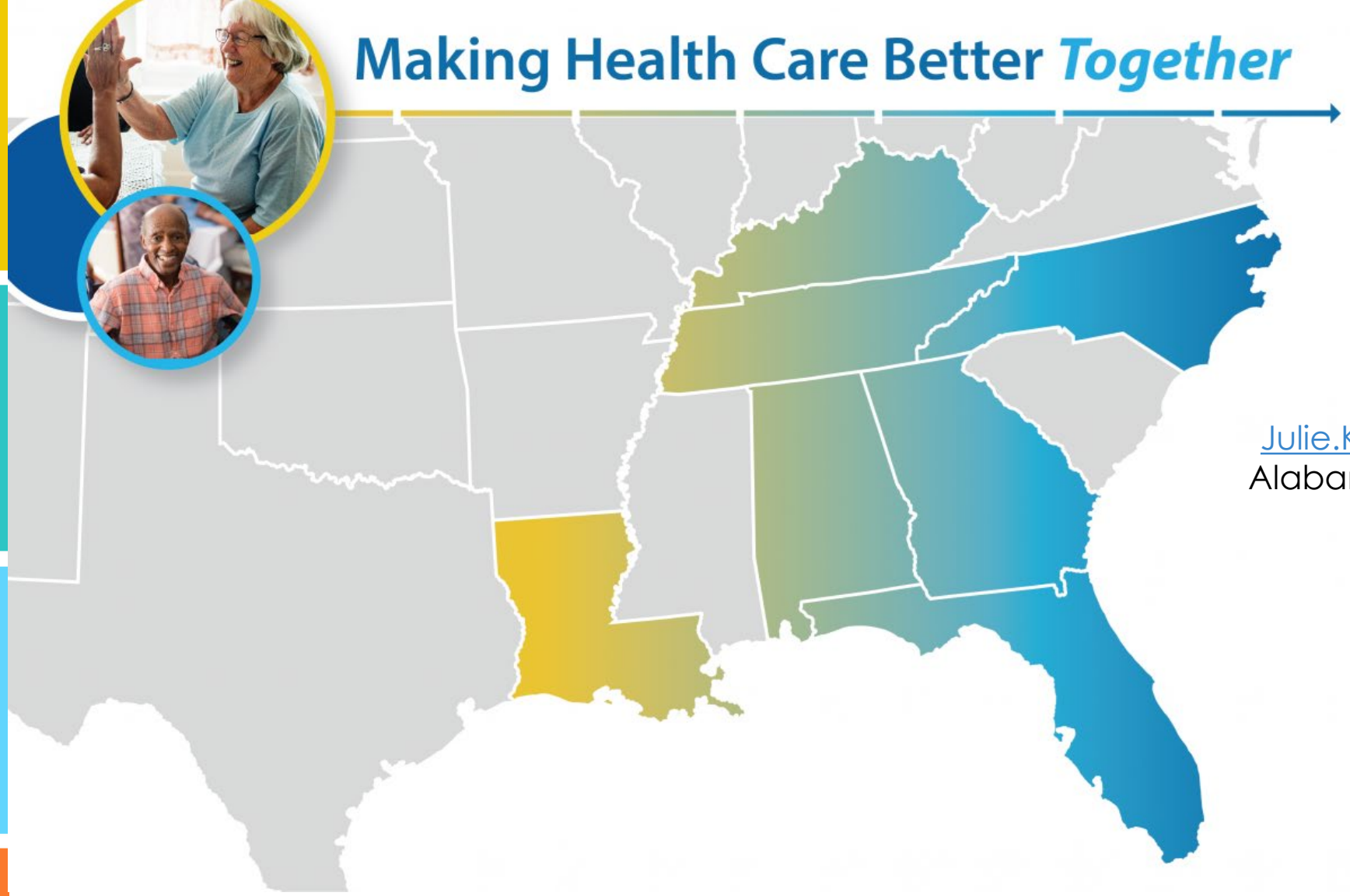
Questions?



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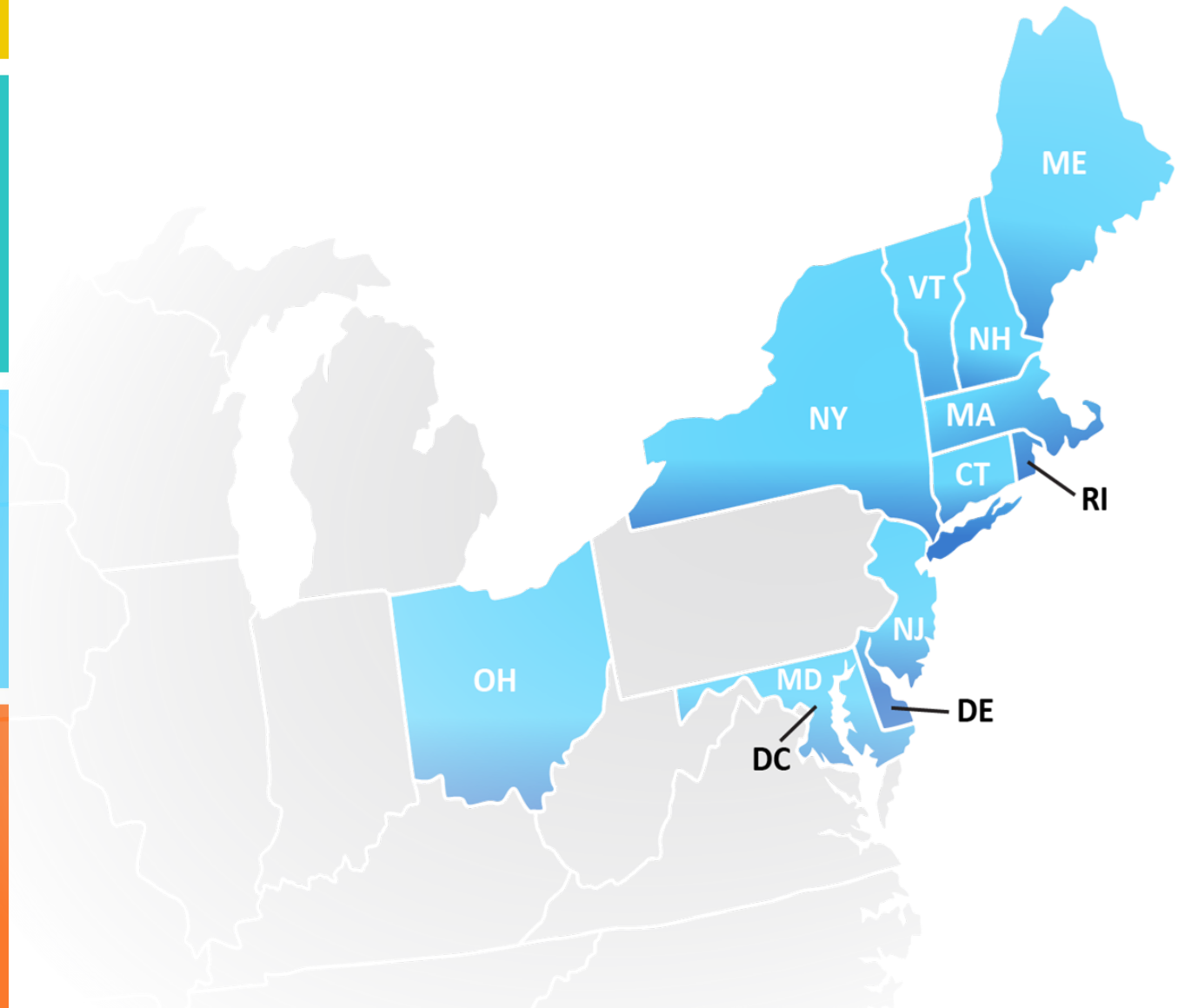

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