

# Enhancing Capacity: Reengineering Fall and Fall Injury Programs: Infrastructure, Capacity and Sustainability

Compass, Telligen, IPRO and Alliant

Joint Hospital Quality Improvement Contract (HQIC) Learning and Action Network

June 27, 2023

## We will get started shortly!

# Collaborating to Support your Quality Improvement Efforts



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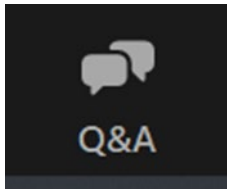


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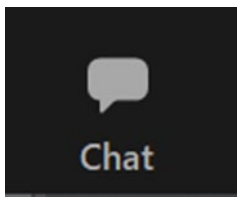
# Housekeeping

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- Lines have been muted upon entry to reduce background noise
- We encourage you to ask questions for the presenter(s) throughout the event using the Q&A feature



- Please direct technical needs and questions to the Chat Box



- This event is being recorded

# Agenda

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- Welcome and Introductions
- Enhancing Capacity: Reengineering Fall and Fall Injury Programs: Infrastructure, Capacity and Sustainability
- Q&A
- Tools and Resources
- Upcoming Events

# Presenter



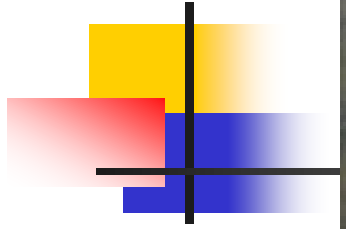
**Patricia A. Quigley, PhD, APRN, CRRN,  
FAAN, FAANP, FARN**  
*Nurse Consultant, LLC*



# Objectives

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- Integrate program evaluation and implementation science
- Discuss essential elements and guidelines for fall and injury prevention programs
- Examine expected fall and fall injury program attributes
- Identify opportunities to enhance fall and fall with injury prevention program infrastructure, capacity and how to sustain improvements





# National Guidelines: Shifting

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- Reduce Individual Fall and Injury Risk Factors (Individualized Care)
- Integrate Injury Risk /History on Admission
- Implement Universal Injury Reduction Strategies
- Implement Population-Specific Fall Injury Reduction Intervention
- Reduce Harm from Falls





# Sept 28, 2015: The Joint Commission (TJC) #55 Sentinel Alert: Preventing Falls and Fall Injuries

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- Lead efforts to raise awareness of the need to **prevent falls resulting in injury**
- Establish an **interdisciplinary falls injury prevention team** or evaluate the membership of the team in place
- Use a standardized, validated tool to identify risk factors for falls, assess fall and injury risk factors
- Develop an individualized plan of care **based on identified fall and injury risks**, and implement interventions specific to a patient, population or setting



# Program Evaluation Process

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- Process by which individuals work together to improve systems and processes with the intention to improve outcomes.\*

\*Committee on Assessing the System for Protecting Human Research Participants.  
*Responsible Research: A Systems Approach to Protecting Research Participants.*  
Washington, D.C.: The National Academies Press: 2002.



# Program Effectiveness: Fall Prevention

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- ▶ Organizational Level: expert interdisciplinary all team, population-specific fall prevention, leadership, environmental safety, safe patient equipment, post fall huddles
- ▶ Unit Level: education, communication-handoff, universal and population-based fall-prevention approaches
- ▶ Patient Level: exercise, medication modification, orthostasis management, assistive mobility aides



# Program Effectiveness: Protection from Serious Injury

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- Organizational Level: available helmets, hip protectors, floor mats, height adjustable beds; elimination of sharp edges
- Staff Level: education, adherence, communication-handoff includes risk for injury
- Patient Level: adherence with hip protector use, helmet use, etc.



# Evaluations Methods

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- Prevalence Studies
- Formative and Summative Evaluation Methods
  - Type of Falls
  - Severity of Injury
    - How are you assessing for injury? Duration? Extent of Injury?
  - Repeat Falls
  - Survival Analysis
  - Annotated Run Charts



## Reconsider Overall Falls as Outcome

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- If focus on falls, measure **preventable** falls
- Otherwise, measure effectiveness of interventions to **mitigate or eliminate fall risk factors** (remember Oliver article, recommendation 2 and 3): Number (and type) of modifiable fall risk factors modified or eliminated upon discharge.



## Nationally Adopted Interventions to Reduce Preventable Falls and Fall-related Injuries

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- Identify and address each patient's specific fall and injury risk factors (Lelaurin & Shorr, 2019)
- Integrate new systems and devices (webcams, video telesitter technology) that better predict and prevent falls than bed alarms (Lelaurin, et al; Quigley, et al, 2019)
- System-based interventions work: Toileting (i.e. wake em, take em; timed toileting; assist in and out of bed) (Resnick & Boltz, 2019)



## Nationally Adopted Interventions to Reduce Preventable Falls and Fall-related Injuries

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- Interventions to increase physical activity (motivate and engage patients in activity) increase function and mobility (Resnick & Boltz, 2019)
- Function-focused care – increases physical activity (Resnick & Boltz)
- Frequent medical review minimizes the effects of treatments (ACE units; Acute Care for Elders) (Resnick & Boltz)





## So... let's get STARTED!

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The Evidence supports **Opportunities** to enhance fall and fall with injury prevention program infrastructure

- What will you do to *Change Practice*?

That's **Implementation Science**

- Focus on Risk Factors
- Focus on Preventing Injury
- Learn from Falls
- Partner with Patients and Family Members



## Focus on Identifying Risk Factors and Activating Interventions to Address Each Risk Factor

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- Medication Review
- Urinary catheter or IV discontinuation ASAP
- Mobility aids and assistance with walking
- Scheduled toileting
- Appropriate footwear
- More frequent rounding
- Patient engagement in identifying risks, consequences of a fall and needed safety interventions



## Focus on Identifying Risk Factors and Activating Interventions to Address Each Risk Factor

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- Identify high risk or vulnerable populations to conduct a multifactorial assessment
  - Patients admitted for a fall
  - High risk for injury – A,B,C,S
  - Known faller
- Complete 65 and older, pre-mobility admission mobility assessment
- Capture known faller status to EMR banner



## Focus on Preventing Injuries from Falls

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- Use A,B,C,S to screen for populations at injury risk
- Use floor mats, hip protectors, helmets
- Assess and mitigate unsafe environmental hazards: thresholds, sharp edges, hard surfaces, water on floors



## Focus on Learning From and Preventing UNASSISTED Falls

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- Establish criteria for toileting supervision: arms length, foot in the door, help staff stay on task
- Provide more frequent, purposeful rounding for patients high risk for fall or injury
- Schedule toileting for patients needing assistance ambulating to the toilet. Toilet before pain meds, at bedtime. "I have the time"



## Partner with Family Members in the Safety of their Loved One

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- Assure family attendance in bedside handoffs
- Structure family education with teach back
- Use teach back for fall safety
- Provide structured education by a designated staff



## Opportunities to enhance fall and fall with injury prevention program infrastructure and capacity

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- Select a Model
- Set Goals
- Conduct Baseline Assessment
- Identify Gap between what is expected and what exists in practice
- Prioritize opportunities for improvement
- Develop a Strategic Plan
- Develop Implementation Plan
- Determine Feasibility: Continue or Terminate
- To continue, develop strategies for sustainability and enculturation
- Celebrate Success



## Let's Look at Opportunities

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- See the Organizational Assessment Tool
- Find 3 Opportunities





## Set Goals

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- Reduce Preventable Falls by 50% in 1 year
  - Accidental
  - Anticipated Physiological Falls
- Reduce Fall Related Injuries by 60% in 1 year
- 100% completion of post fall huddles in 4 months



# Align Interventions to Goals

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- Reduce Preventable Falls
  - Accidental Falls
  - Anticipated Physiological Falls
- Reduce Injurious Falls



# Preparation Phase

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- Assess effectiveness of current team and change membership and/or leadership to bring fresh ideas
- Reinvent the team if needed.
- Select Unit Based Champions for local accountability
- Safe Environment Checks and Opportunity to catch hazards; clutter rounds
- Determine Data to be collected and data collection and analysis tools

And much more.....



## Data is Essential

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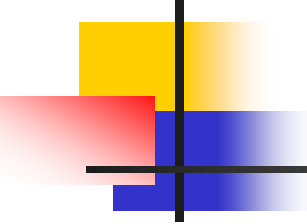
- Use trended data to dispel myths or confirm theories about who is falling, when, where and why
- Identify fall characteristics to identify who is falling, environmental and patient factors contributing. Use this data to inform tests of change.
- Drill down on unwitnessed falls.
- Share trended data with leadership, staff, pts and visitors.



## Accidental Falls Due to Falls from Low Beds

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- Structure Goal: Develop a Safe Bed Program (Height Adjustable Beds, Safe Exit Side, Concave Mattresses)
- Outcome Goal: Reduce Bed-related Patient Falls by 70 % on rehab unit within 1 year
- Set up your Task Force/Work Group



## Anticipated Physiological Falls due to Postural Hypotension

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- Structural Goal: Implement a Postural Hypotension Program (P&P, EMR Templates; pt assessment and care management) by 5 months
- Outcome Goal: Reduce falls due to OH by 80% in 1 year
- Set up your Task Force/Work Group



## Reduce Injurious Falls from Bed

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- Structure Goal: Implement a Floor Mat Program (product selection, pilot test, P&P Development, EMR Template, Staff Education, Patient Education) by 6 months
- Outcome Goal: Within 1 year, 90% of patients who fall from beds will fall on a floor mat
- Set up your Task Force/Work Group



## Implement the Post Fall Huddle

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- Structure Goal: PFH Processes implemented in P&P, education program, and QI
- Outcome Goal: Within 4 months, 100% of patients who fall from beds will fall on a floor mat
- Set up your Task Force





Create action plan while sharing with peers on how to overcome barriers and achieve successes.

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- Develop 3 Opportunities for Your Action

# Falls Strategic Plan: Integration Timeline

| <i>Last Updated Aug 2021</i>                                | Sept 19 | Oct 19 | Nov 19 | Dec 19 | Jan 20 | Feb 20 | Mar 20 | Apr 20 | May 20 | Jun 20 |
|---|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Pre-Design Phase (~ 1 month)</b>                         |         |        |        |        |        |        |        |        |        |        |
| Task Force Co-Chairs meet, develop initial plans            |         |        |        |        |        |        |        |        |        |        |
| Create integrated Charter, measures, & communications       |         |        |        |        |        |        |        |        |        |        |
| <b>Design Phase (~ 2 months)</b>                            |         |        |        |        |        |        |        |        |        |        |
| Assess interventions, resources, & requirements             |         |        |        |        |        |        |        |        |        |        |
| <b><i>Falls Collaborative Kickoff 2-10-2022 2pm EST</i></b> |         |        |        |        |        |        |        |        |        |        |
| <b>Implementation Phase (~ 4 months)</b>                    |         |        |        |        |        |        |        |        |        |        |
| Monthly integrated Collaborative meetings                   |         |        |        |        |        |        |        |        |        |        |
| TF Co-Chairs begin to implement selected interventions      |         |        |        |        |        |        |        |        |        |        |
| <b>Sustain &amp; Improve</b>                                |         |        |        |        |        |        |        |        |        |        |
| Transition active work, ready for next implementation cycle |         |        |        |        |        |        |        |        |        |        |





# Measuring the Change

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- Patient focus?
- Aim?
- Find a measure that captures that change?
  - How to measure process changes?
  - How to measure outcomes?
  - Chart review, Medical tests, interviews, behavioral change, questionnaire, phone calls.



## Align Interventions to Goals

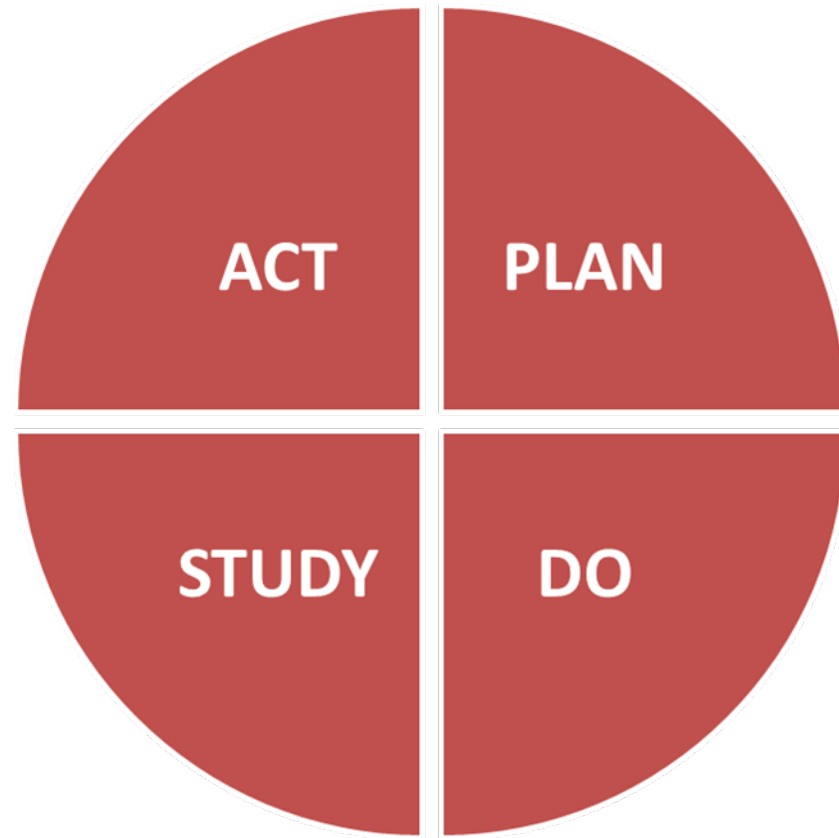
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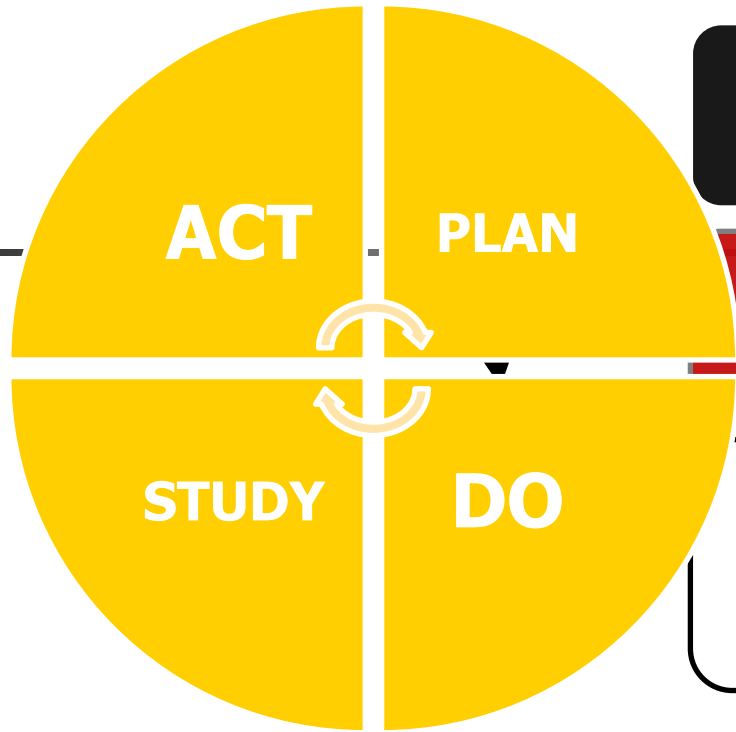
- Reduce Preventable Falls
  - Accidental Falls
  - Anticipated Physiological Falls
- Reduce Injurious Falls



# PDSA CYCLE

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**What are we trying to accomplish?**

**How will we know that a change is an improvement?**

**What change can we make that will result in improvement?**

**A Model  
for Improvement**

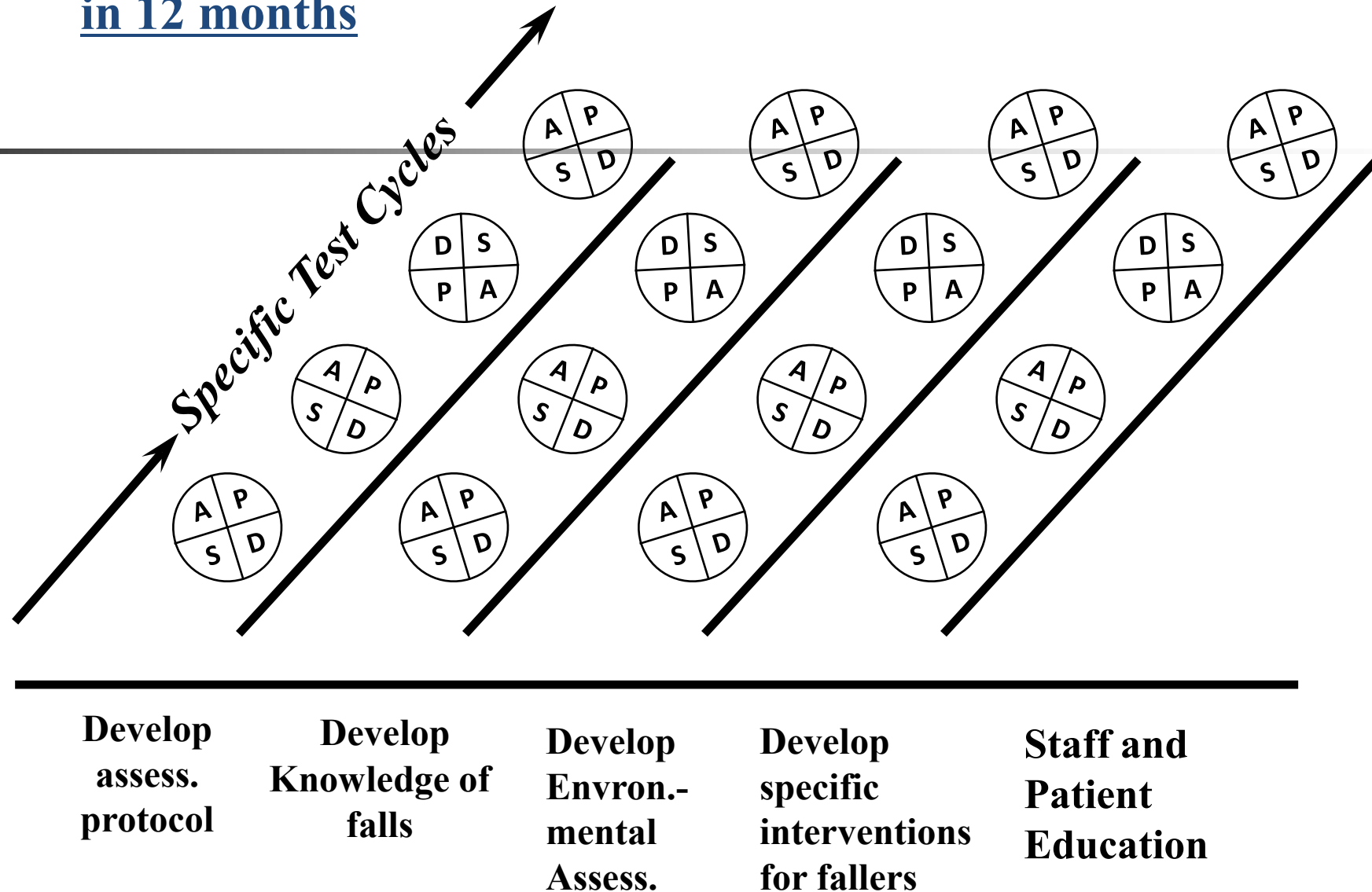


# Testing on a Small Scale

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- Have others that have some knowledge about the change review and comment on its feasibility.
- Test the change on the members of the team that helped developed it before introducing the change to others.
- Conduct the test in one facility or office in the organization, or with one patient.
- Conduct the test over a short time period.
- Test the change on a small group of volunteers.

# Overall Aim: Decrease Preventable Falls Rate by 50% in 12 months







# Examples of Process Measures

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## Percentage of:

- Patients at risk for falls and fall related injuries with interventions in place
- Patients  $\geq 65$  with orthostatic hypotension (OH) assessed before ambulation
- Observation, chart review



# Outcome Measures

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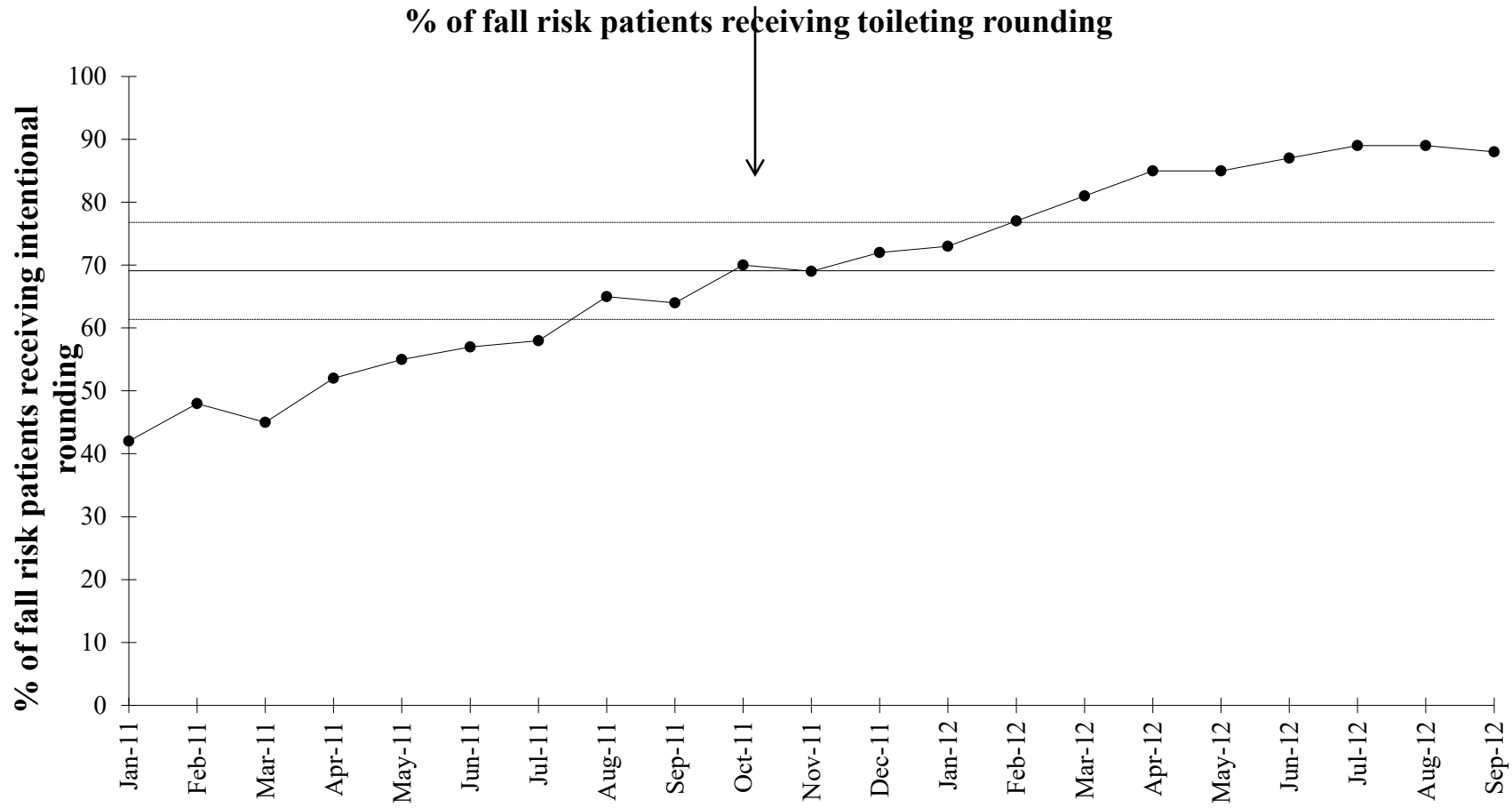


Major  
Injury Rate

Preventable  
Fall Rate

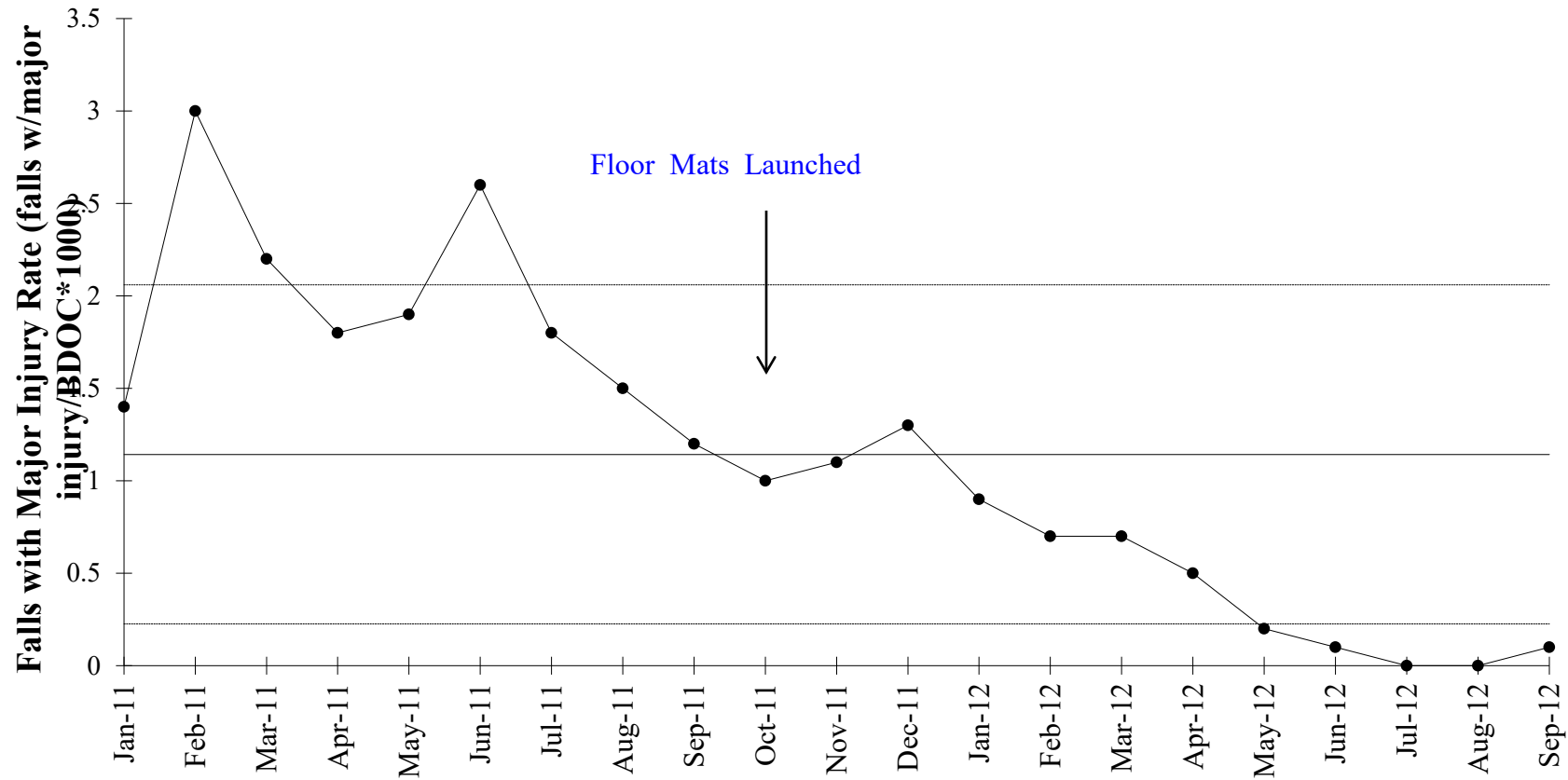
Balancing  
Measures

# Example of **Process** run chart



# Example of a **Outcome** Run Chart

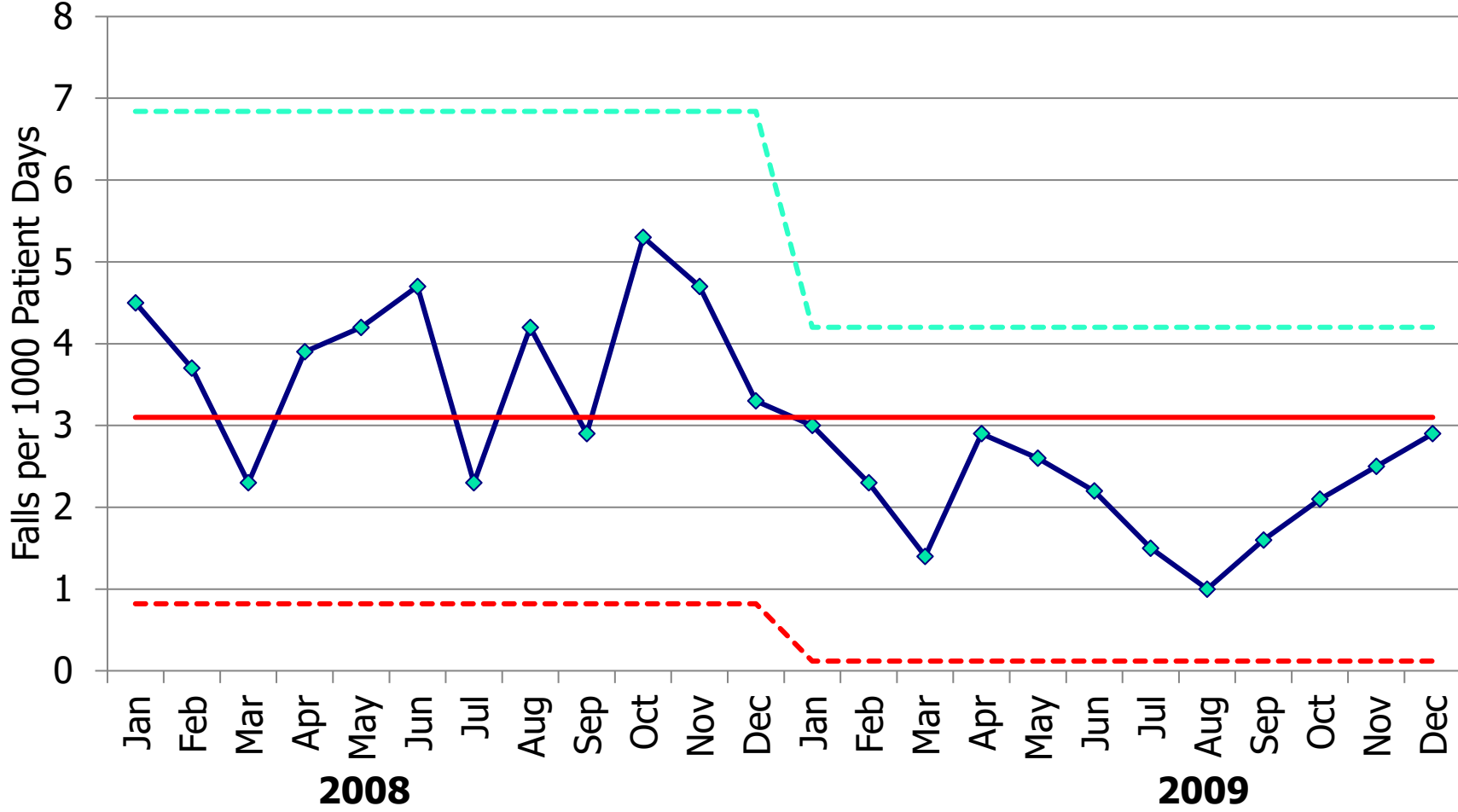
Rate of Falls with Major Injury (#falls with major injury/BDOC\*1000)



# Falls per 1000 Patient Days

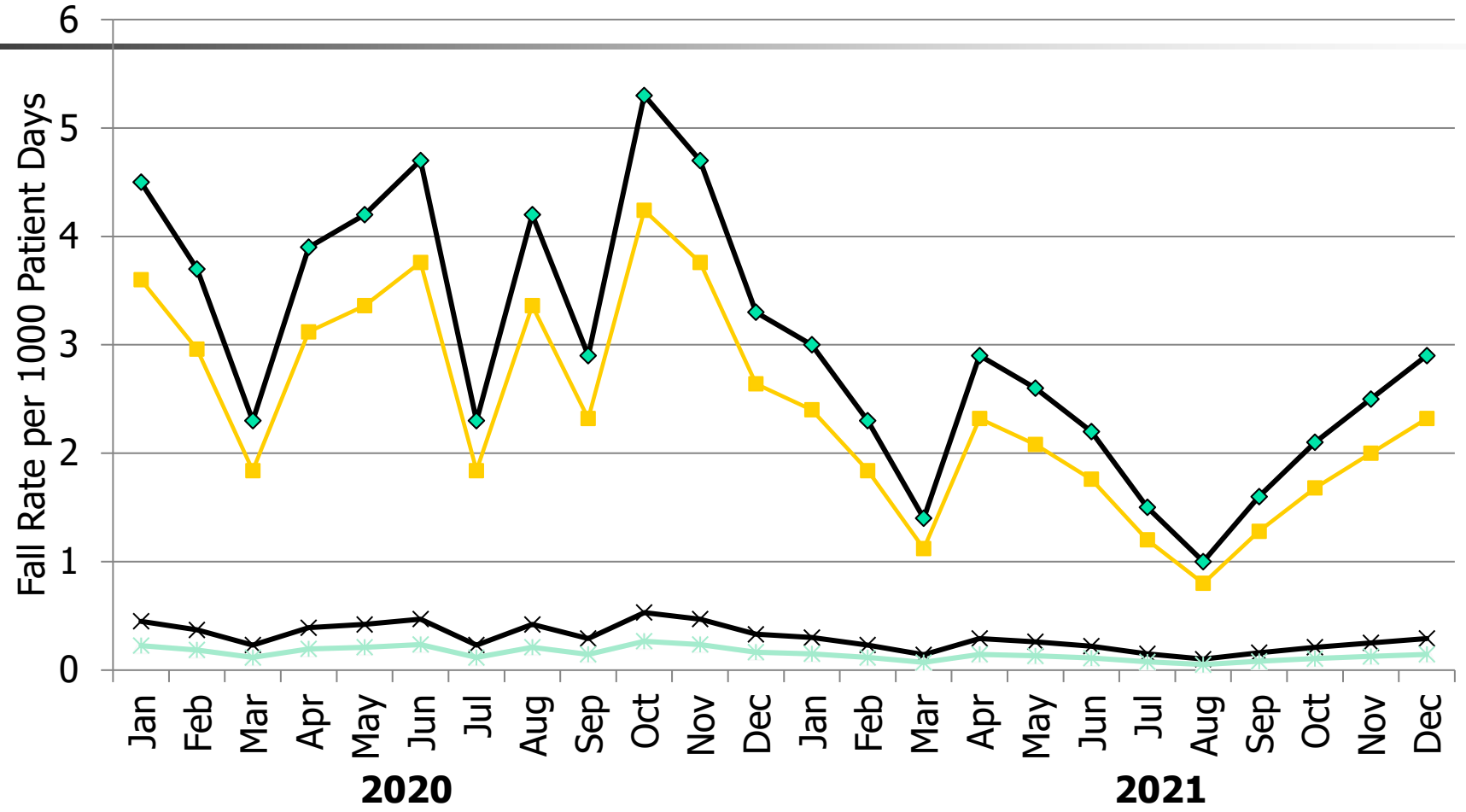


Fall Rate      UCL      LCL      National Mean



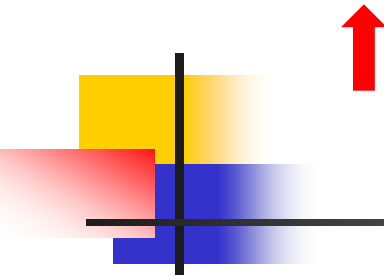
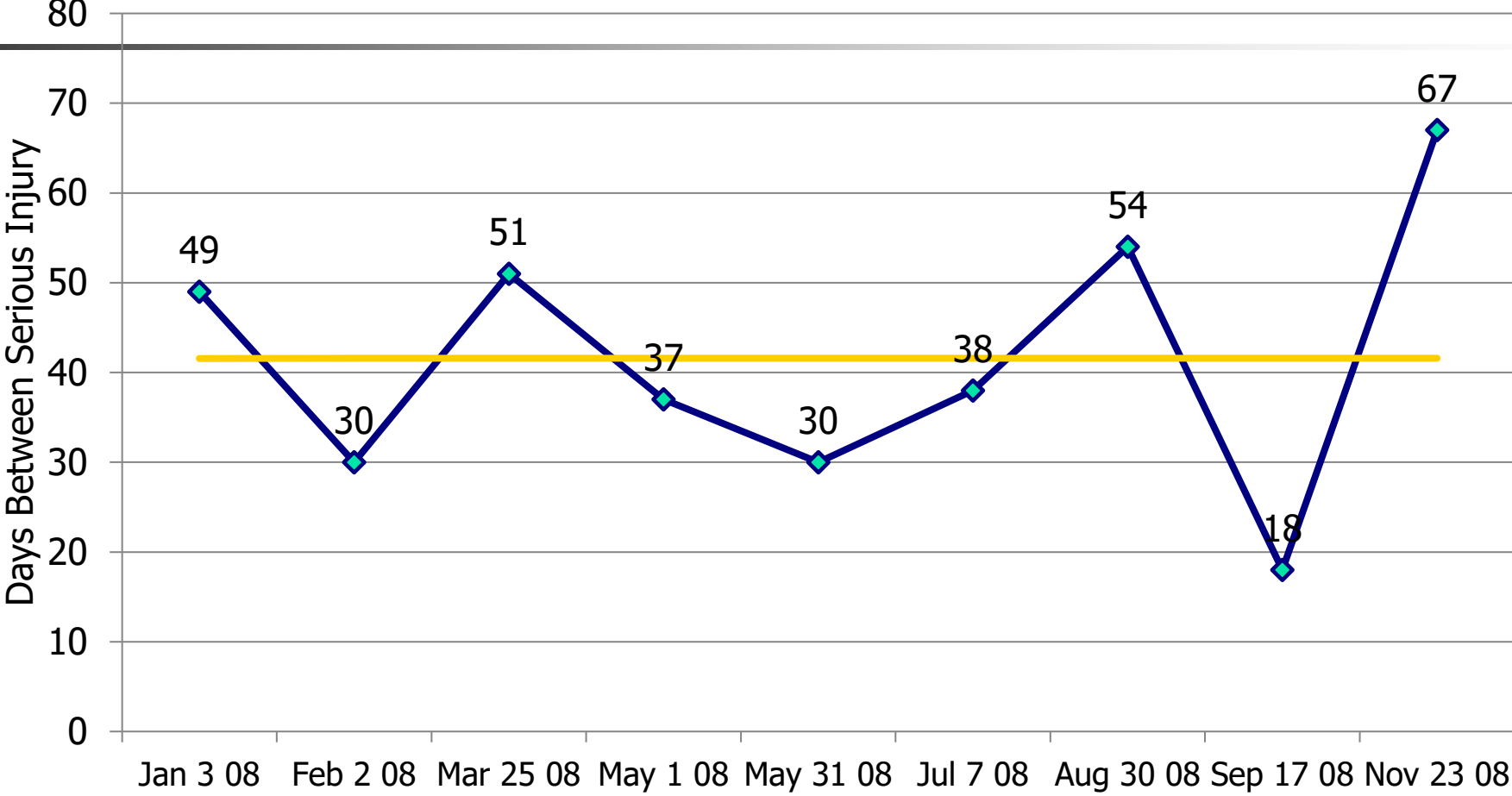
# Fall Rate by Type of Fall per 1000 Patient Days

◆ Fall Rate    ■ Anticipated Falls    ▲ Unanticipated Falls    × Accidental Falls    \* Intentional Falls



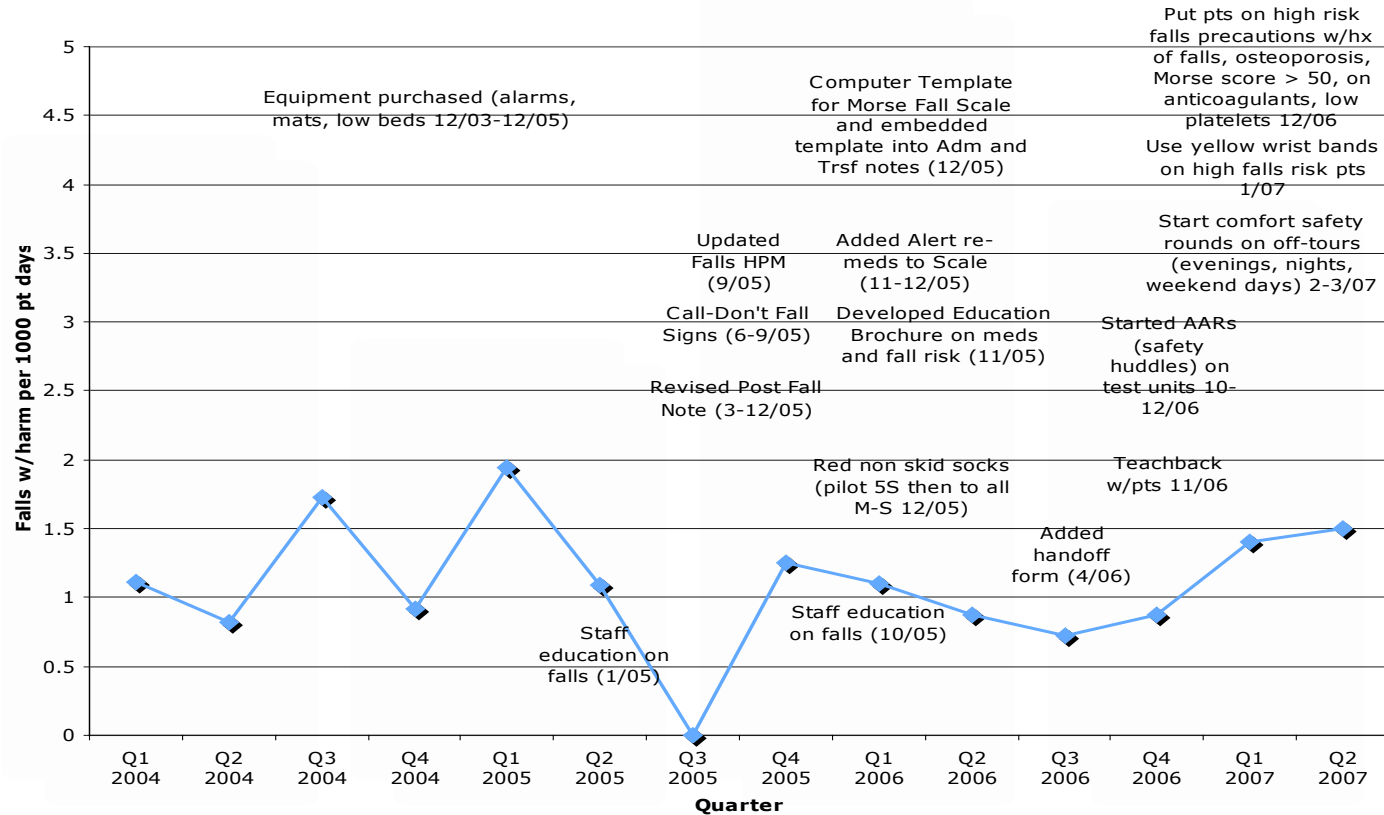
# Days Between Serious Injury

◆ Days Between Serious Injury      — Average



# Annotated Run Chart

**JAH VAMC Med-Surg Falls with Harm by Quarter per 1000 pt days**  
 (Includes all harm categories: Minimal, Moderate, Major & Death)



Put pts on high risk falls precautions w/hx of falls, osteoporosis, Morse score > 50, on anticoagulants, low platelets 12/06

Use yellow wrist bands on high falls risk pts 1/07

Start comfort safety rounds on off-tours (evenings, nights, weekend days) 2-3/07

Computer Template for Morse Fall Scale and embedded template into Adm and Trsf notes (12/05)

Equipment purchased (alarms, mats, low beds 12/03-12/05)

Updated Falls HPM (9/05)

Added Alert re-meds to Scale (11-12/05)

Call-Don't Fall Signs (6-9/05)

Developed Education Brochure on meds and fall risk (11/05)

Started AARs (safety huddles) on test units 10-12/06

Revised Post Fall Note (3-12/05)

Teachback w/pts 11/06

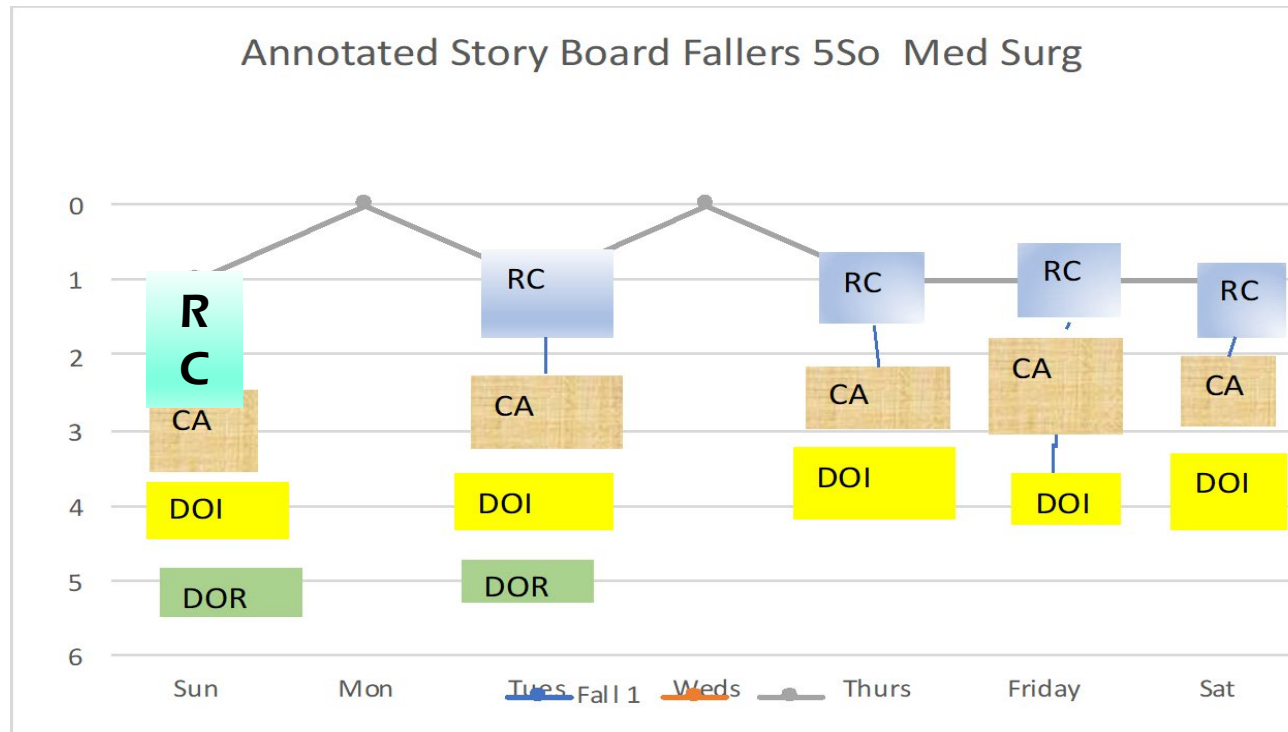
Added handoff form (4/06)

Staff education on falls (10/05)

Staff education on falls (1/05)



# My Unit Story Board



**RC: Root Cause; CA: Corrective Action; DOI: Date of Implementation; DOR: Date of Resolution**



# Fall Injury Prevention Committee: Action Oriented toward Goals

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- Plan agenda based on Strategic Plan
- **Think Quarterly Workflow, Analysis and Support**
- Meetings Month 1 and 2: Work on the task forces
- Meeting Month 3 of the Quarter: Task Force Chairs report on Progress; Evaluate Strategic Plan



# Keep Thinking *Out of the Box!*

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- Leadership: Culture of Safety
- Fall Rounds
- Signage
- Frequency of Fall Risk Screening
- Measurements of Effectiveness



# Thank You and Please Share More!

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- Thank you for attending, be a Champion for Change, and keep me posted – I am here for you!
- [pquigley1@tampabay.rr.com](mailto:pquigley1@tampabay.rr.com)





# References

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**Clinics in Geriatric Medicine, May 2019** (Link)

**Optimizing Function and Physical Activity in Hospitalized Older Adults to Prevent Functional Decline and Falls**

- Barbara Resnick, Marie Boltz, p237–251

**Preventing Falls in Hospitalized Patients: State of the Science**

- Jennifer H. LeLaurin, Ronald I. Shorr, p273–283

**Outcomes of Patient-Engaged Video Surveillance on Falls and Other Adverse Events**

- Patricia A. Quigley, Lisbeth Votruba, Jill Kaminski, p253–263

**AHA HRET 2018: Falls Change Package – Preventing Harm from Injuries from Falls and Immobility** (Link)

# Interactive Discussion

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- Any suggestions on how to manage falls in the behavioral population who are on a lot of high risk falls medications ?
- Any work and/or thoughts on toileting associated falls? What about toilet seat sensor alarms?
- Best way to avoid alarm fatigue?
- Does anyone have examples of a falls dashboard they'd be willing to share?
- Ideas to reduce falls in outpatient departments and visitor falls?
- Is placing cameras in each patient's room for closer observation something that is being done to prevent falls?

# Tools and Resources

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- [Injurious Fall Prevention Assessment Tool \(Link\)](#)
- Fall TIPS Program
  - [Videos \(Link\)](#)
  - [Patient Centered Prevention Toolkit \(Link\)](#)
- [Center for Disease Control's \(CDC\) STEADI Program \(Link\)](#)
- [Infographic: Opioids and Fall Risks in the Older Adult \(Link\)](#)
- [Article: Special Committee on Aging United States Senate Falls Report \(Link\)](#)
- [Factsheet: Facing The Facts About Falls in Hospitals \(Link\)](#)

# Register for the Next HQIC Collaborative Event!

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## How to Rebuild, Reengage and Reenergize Your Patient and Family Advisory Council (PFAC)

*July 25, 2023, from 12:00-12:30 PM (CT)*

[Register](#) (Link)



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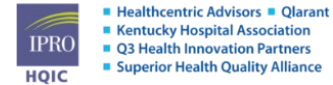


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# Thank you for joining us today!

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We value your input!

*Please complete the brief evaluation after exiting the event*

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