A Multidisciplinary Approach to Falls Prevention

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Harborview Medical Center

- Harborview Medical Center is owned by King County, governed by the Harborview Board of Trustees, and managed under contract by the University of Washington

Harborview Medical Center

- **Licensed beds** **413**
- **Employees** **4,432**
- **Physicians** **1,216**
- **Admissions** **19,424**
- **ED visits** **65,515**
- **Clinic visits** **224,769**
- **Surgery cases** **13,455**

$187 million in charity care in 2010

WAMI Region

- Only Level I adult and pediatric trauma and burn center in region
  - Washington, Alaska, Montana and Idaho.

Mission Population

- Persons incarcerated in the King County Jail
- Mentally ill patients, particularly those treated involuntarily
- Persons with sexually transmitted diseases
- Substance abusers
- Indigents without third-party coverage
- Non-English speaking poor
- Trauma
- Burn treatment
- Specialized emergency care
- Victims of domestic violence
- Victims of sexual assault

Issue

- Falls are a leading cause of injury in hospitalized patients
- Has historically been a single discipline approach to prevention
- Fall Risk assessment tools are not good predictors of fall risk
  - Studies indicate clinical judgment is equivalent to tools – neither is predictive
    - Webster, Courtney, et al, Journal of Clinical Epidemiology, Feb 2009

NPSF/AHA Fellowship Project

- 12 month Patient Safety Leadership Fellowship
  - action learning project focused on multidisciplinary approach to falls prevention and reduction of harm from in hospital falls

Falls Taskforce

- Subset of hospital wide falls committee
  - MD - Geriatrician
  - Patient Safety Officer
  - Nurse Manager
  - Nurse Educator
  - Neurosciences Clinical Nurse Specialist
  - Pharmacist

Hypothesis

- A multidisciplinary falls assessment and intervention will reduce the incidence of falls and harm from falls in inpatients at high risk

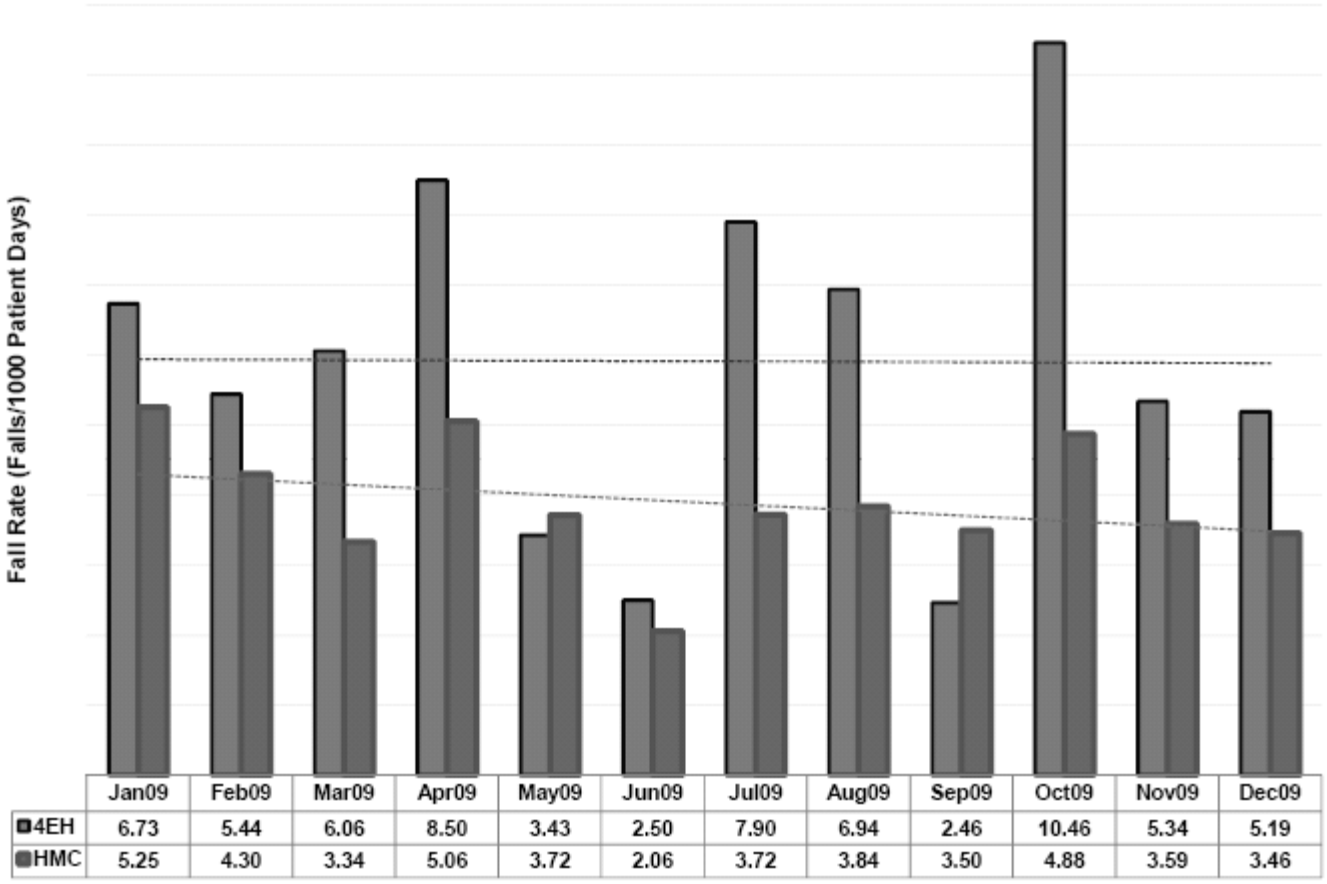
Pilot Program

- A six month pilot on a medicine/geriatric unit
  - All members of the healthcare team including patient and family
  - Focus:
    - Identify patients at risk for falls
    - Identify those patients at increased risk for harm if they did fall
    - Develop communication plan on fall risk

Clinical Objectives

- Decrease falls in CY 2011 by 20%
- Decrease incidence of repeat falls by 50%
- Decrease severe injuries from falls to < 1/month
- Develop a systematic approach to assessment and intervention
  - Involve all disciplines
  - Bundle
  - Lower threshold for identifying pts at risk
  - Involve family/patient

4EH: Fall Rates per 1000 Patient Days
CY 2009



	Jan09	Feb09	Mar09	Apr09	May09	Jun09	Jul09	Aug09	Sep09	Oct09	Nov09	Dec09
4EH	6.73	5.44	6.06	8.50	3.43	2.50	7.90	6.94	2.46	10.46	5.34	5.19
HMC	5.25	4.30	3.34	5.06	3.72	2.06	3.72	3.84	3.50	4.88	3.59	3.46

Implementation plan

- A multidisciplinary approach, using Team STEPPS concepts
  - Develop a “stop the line” mentality
- Build the belief among staff that injuries from falls can be eliminated
- Incorporate fall assessment discussion in daily rounds
- Develop an order form for patients at risk for falls
- Use small tests of change to understand what changes make a difference to reducing harm from falls and how to improve implementation before spreading to additional units
- Implement the Falls bundle for those patients identified at risk for falls
- Hourly rounding

Implementation plan

- Review medications for fall risk and adjust as indicated
- Develop a delirium prevention protocol
- Post falls data monthly on all care units – be transparent
- Consistently use a valid falls risk assessment tool and track compliance - MFS
- Consistently communicate individualized information about patients at risk for injury from falls to all caregivers and hospital staff
- Consistently communicate in handoffs those patients with a history of falls
- Monthly reviews of falls with staff

Education Plan

- Presented overview/issues and plan to multiple venues including:
  - Acute Care Council
  - Grand Rounds for Medicine
  - Organizational Improvement Committee
  - Patient Safety Committee
  - Patient Care Services
  - Medical Staff Meetings
  - Medical Executive Board
  - Online Education – all staff and physicians

Education Plan

- Intensive reviews for each fall
  - Reviewed each fall with the staff
  - M & M for falls with harm with medical staff
- Task force MD and PSO presented at resident meetings
- MD and pharmacist worked with pharmacy staff
- Rounding on unit during pilot
- Provided daily feedback to all staff
- Screen Savers on all terminals
- Educate all staff on visual cues

HMC CARES about Fall Prevention

***C**ommunicate fall risk to all providers*

Visual Fall Alerts Yellow armbands and blankets, Falling Stars & Fall Plan on white board, Discuss fall/ harm risk and prevention plan at hand-off.

***A**udible Alerts/**A**ssess Mobility*

Bed exit alarms or sitter select and assess ability to easily get out of bed/chair

***R**educe Harm/**R**eview Medications*

Low Beds, Floor Mats and increased observation ie chart in room, patient at front desk, sitter, consider revising medications

***E**ducate Patient and family/**E**valuate for Delirium*

Provide written and verbal information, use teach back, document fall prevention education in the detailed assessment, assess patient's level of awareness and screen for delirium.

***S**tandardize Intentional rounding*

Focus on the 4 P's: prompted toileting, positioning, pain & placement of items (call light & personal items such as eyeglasses)

To get involved or make suggestions about Fall Prevention initiatives

e-mail: fallhmc@uw.edu

Posey® fall prevention “yellow” products

- **Yellow blankets and socks now stocked in the acute care areas**

- **Yellow arm bands and other symbols can be used as alerts**

Falls Order Form

FALL PREVENTION ORDERS

INTERVENE ON MODIFIABLE FALL RISK FACTORS

Postural dizziness

☐ Check orthostatic vital signs x1

☐ Check HCT

☐ Out of bed with nursing assistance only

☐ Encourage po fluids

☐ Medication review and dose reduction or elimination (MD discuss with pharmacist as needed):

_____

Difficulty getting out of bed, OR history of prior falls

☐ Dangle at edge of bed qshift with nursing assistance

☐ OOB to chair for meals with nursing assistance

☐ Ambulate with nursing ____ times daily

☐ Vitamin D (cholecalciferol) 1,000 IU po once daily

☐ PT referral for ___muscle strengthening ___gait retraining ___assistive device (MD fill out Inpatient Rehab Consult Form H2464)

_____

Altered mental status (dementia, delirium)

☐ OOB to chair for meals

☐ Ambulate with nursing ____ times daily

☐ Schedule sleeping medication: Trazodone 25 mg po 2 hours prior to bedtime

☐ Medication review and dose reduction or elimination (MD discuss with pharmacist as needed):

_____

OBTAIN ADDITIONAL RECOMMENDATIONS ON REDUCING FALL RISK FOR PATIENTS AGED 65+

☐ Geriatric Medicine consult (MD call hot pager 540-4337)

ADDRESS RISK OF FALLING AT TIME OF TRANSFER BETWEEN CARE SETTINGS

☐ Refer to HMC Fall Prevention Clinic (call 206-744-5825; leave message if after-hours)

☐ Refer to HMC Physical Therapy Fall Prevention Program (MD fill out Outpatient Rehab Therapy Referral Form H1394)

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These guidelines are meant to provide staff with simple evidence-based steps that they can take to minimize fall risk in their patients.

Fall risk assessment (MORSE fall scale):
Nurses perform this scale every day, after fall event and if patient changes level of care (transfer from ICU to acute care or rehab).

Adhere to Universal Fall prevention guidelines for all patients:

- ◊ Keep bed in lowest position
- ◊ Keep equipment that patient may need within reach
- ◊ Ensure call light is within reach
- ◊ Ensure that patients access to eyeglasses, hearing aids, walker or cane
- ◊ Encourage non-skid footwear
- ◊ Maintain clutter free environment and alert staff of any spills.
- ◊ If patient is newly admitted to unit or post-op or post procedure, regardless of fall risk place bed alarm for 24 hours.

Conduct hourly routine comfort and safety rounds (intentional rounding):

1) prompted toileting
2) assess and treat pain
3) reposition
4) check for environmental hazards
5) place items within easy reach (call light, phone, sensory aids, water/food)

Apply fall prevention plan checklist to anyone with a Morse Fall risk score >50 or:

- ◊ A report of falls at home in the admission assessment or previous fall in hospital (current or prior admission)
- ◊ Known or suspected dementia or evidence of confusion and/or delirium (disoriented, somnolent, agitated or day/night reversal)
- ◊ Craniectomy (no cranial bone)
- ◊ Bowel or bladder incontinence
- ◊ Known sensory impairment (vision or hearing difficulties)
- ◊ In ETOH or drug withdrawal
- ◊ Currently on therapeutic anti-coagulation or at high risk for a bleed (renal or liver failure)

Transparency

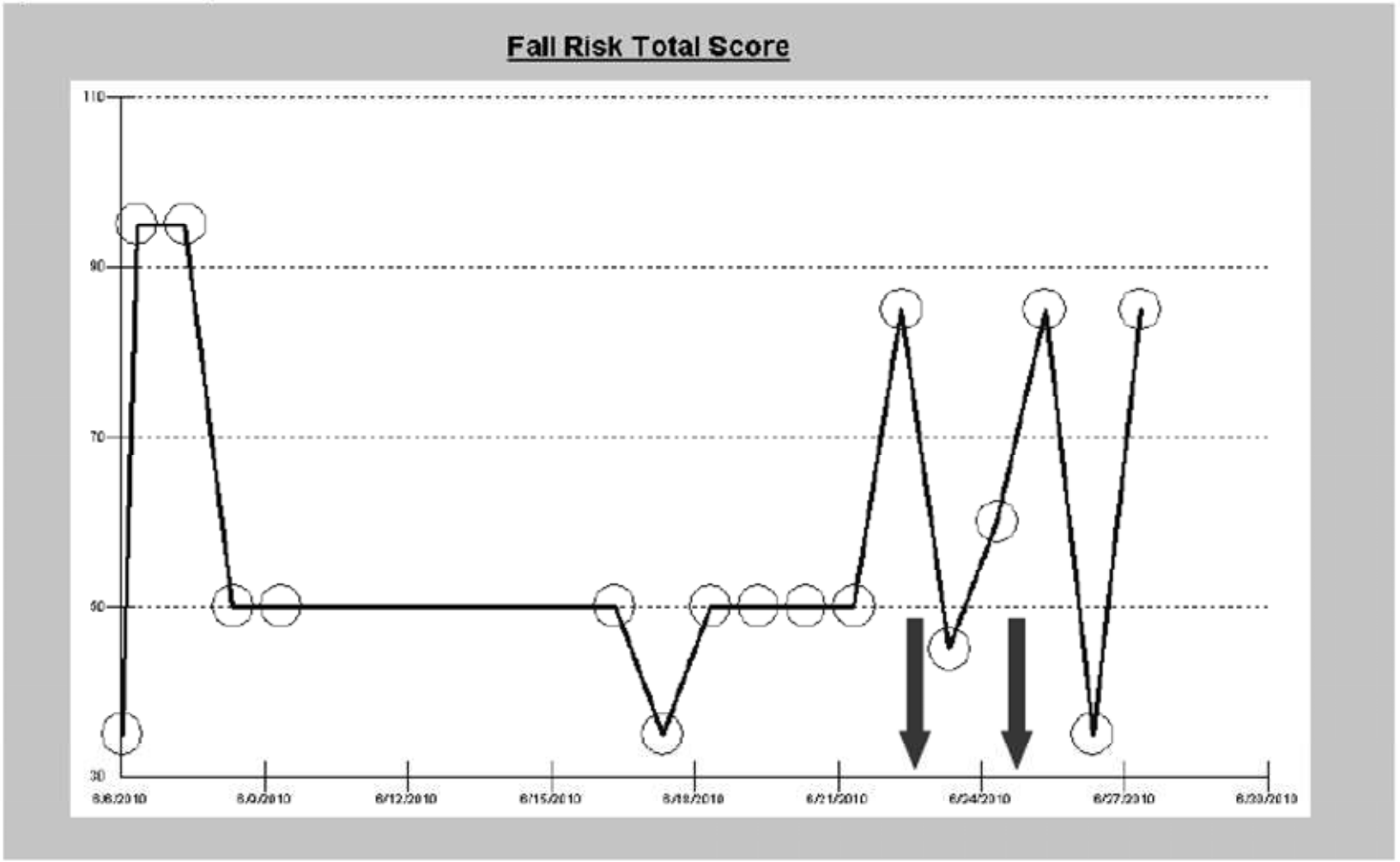
- Tied to annual evaluations for managers
- Dashboard shows fall rates by unit and by service
- Rates presented at board of trustees meetings

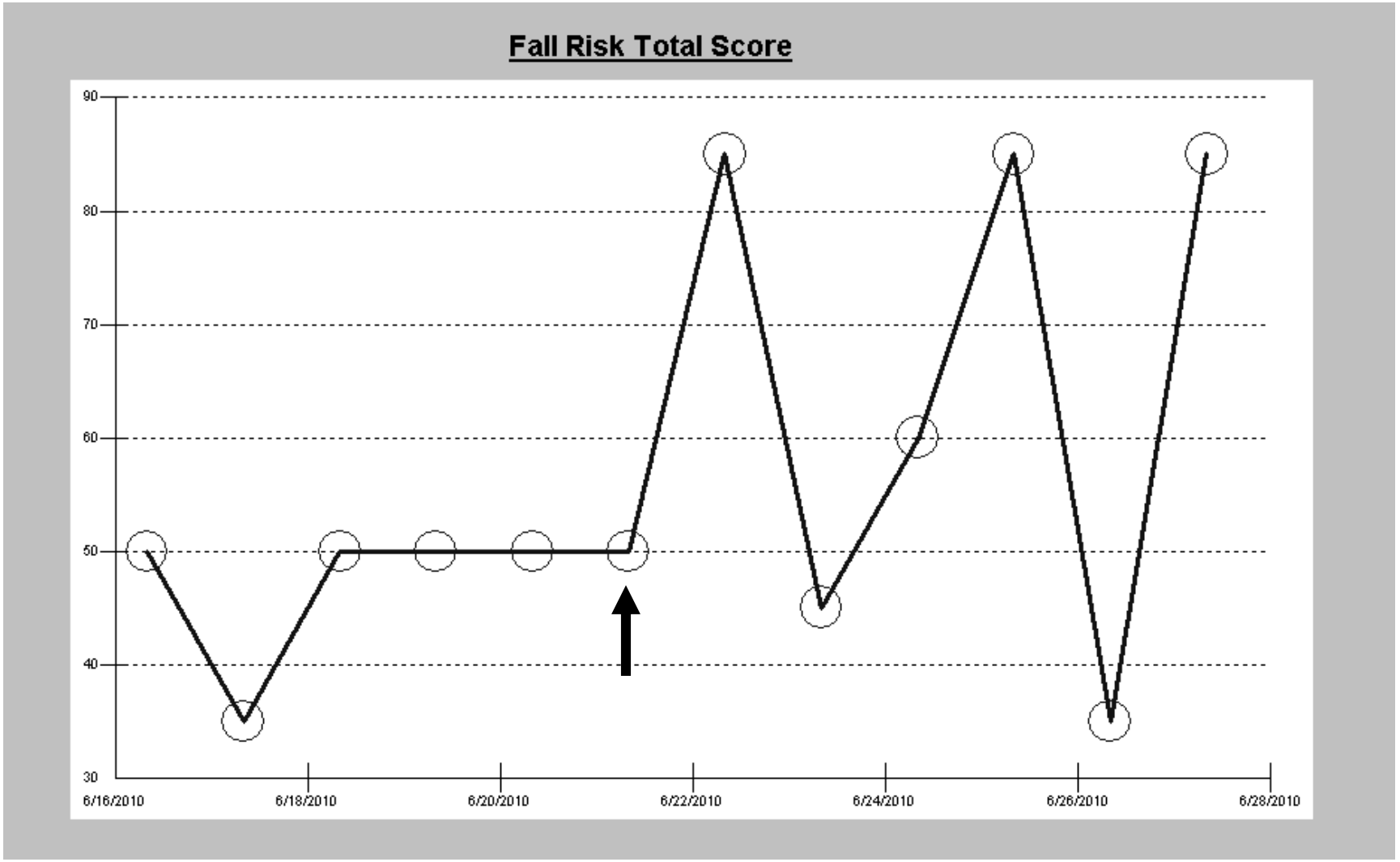
Intensive Reviews

- A thorough review of patients who had an in-hospital fall
  - Not a post fall debrief
  - Chart review followed by discussion of patient and possible interventions for future prevention
- Outcomes
  - Better use of bed alarms – simple fix
  - Better communication
  - Establish awareness

Patient Example

- Patient admitted on 6/5 for alcoholic pacreatitis.
- Fell twice
- Hx of ETOH abuse, but not on CIWA
- Using walker/wheelchair to get around
- Frequent reminders to ask for assistance
- Ambulated to nurses station and fell
- Impulsive behavior at time of falls

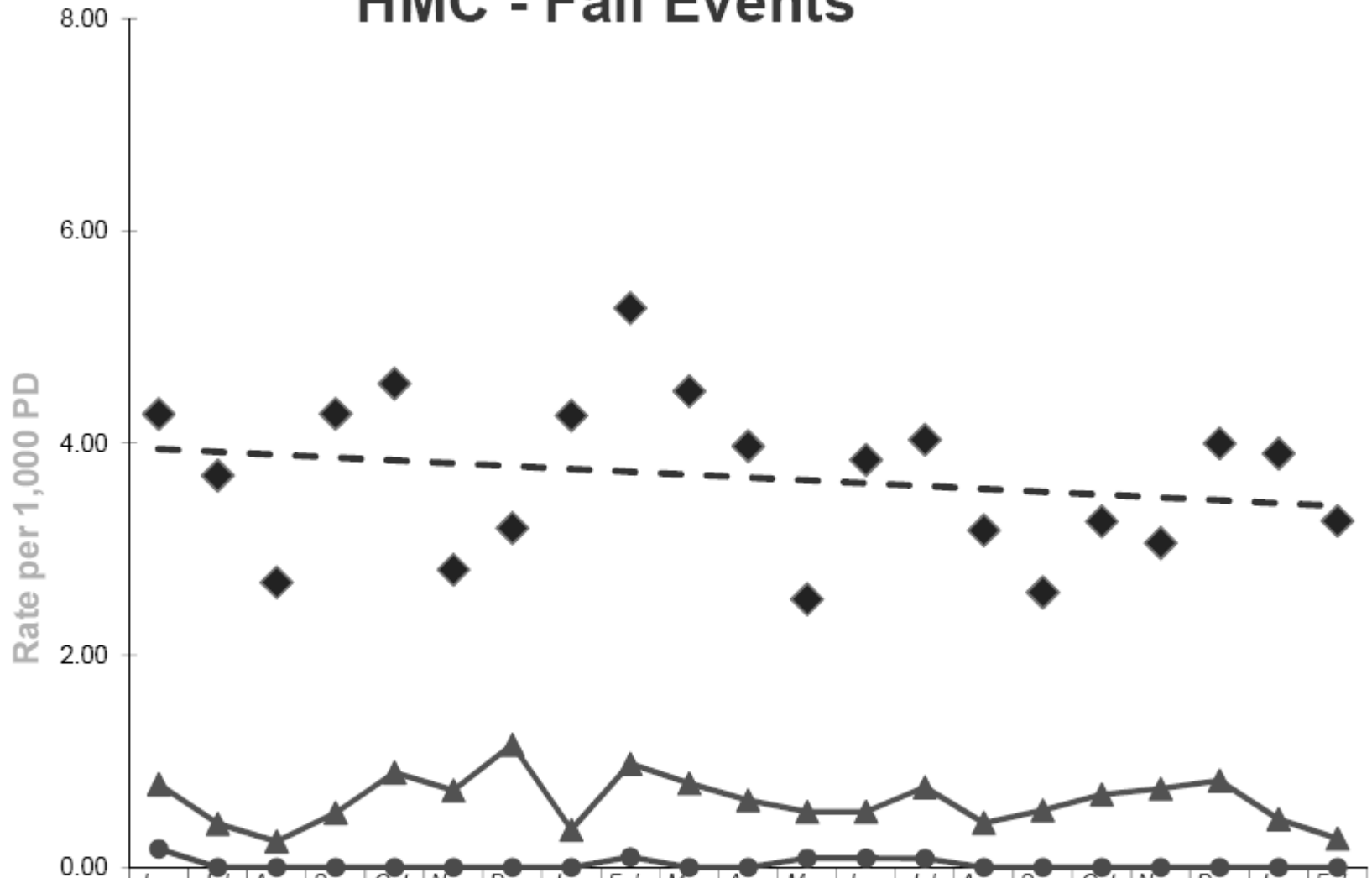




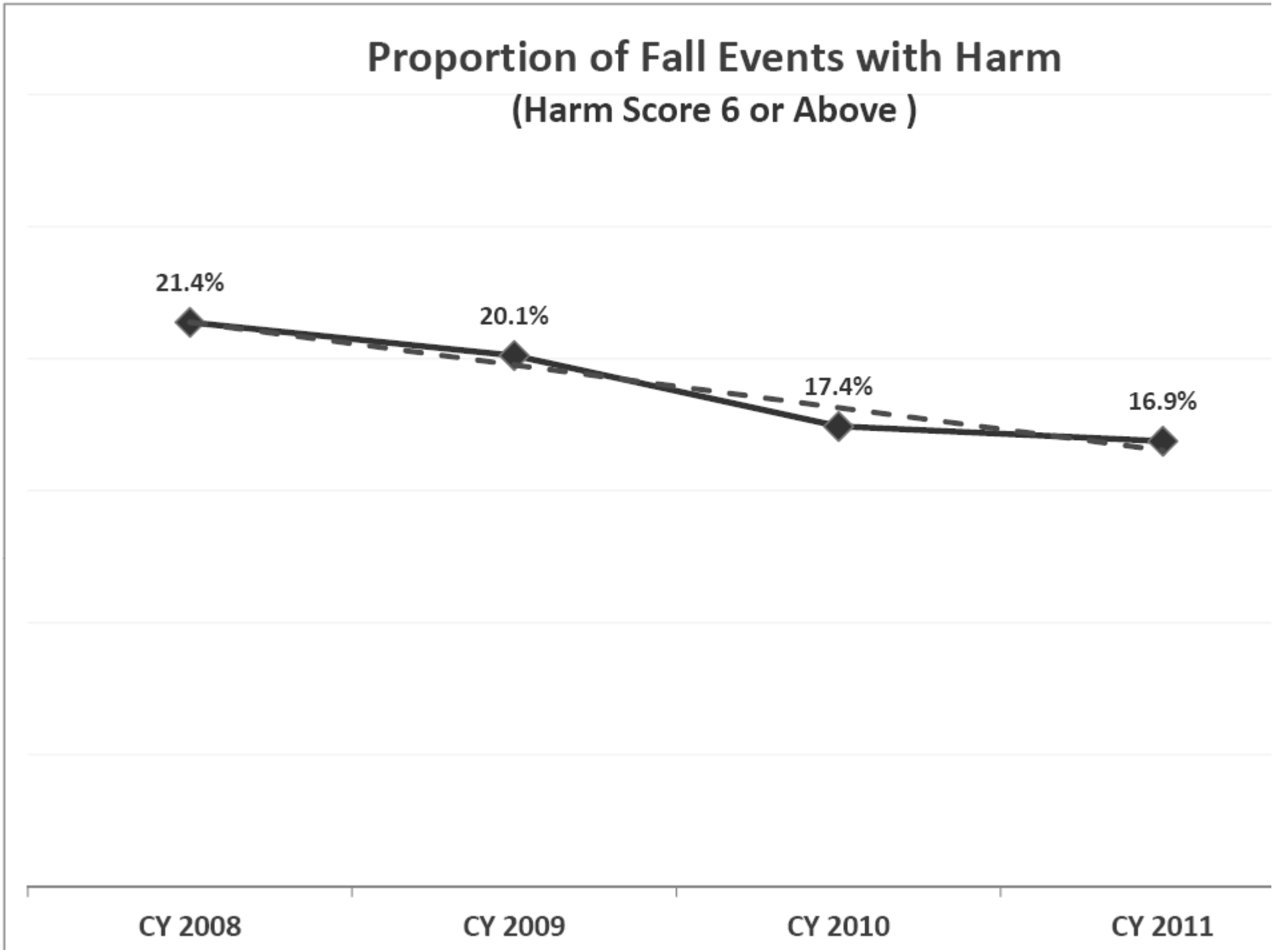
Results to Date

- Greater than 30% reduction in the number of falls on pilot unit
- Falls with severe harm are <1/month
  - Six falls hospital wide with severe harm in 12 months
  - Zero falls with major harm on pilot unit in 12 months
- The incidence of repeat-falls reduced by a third

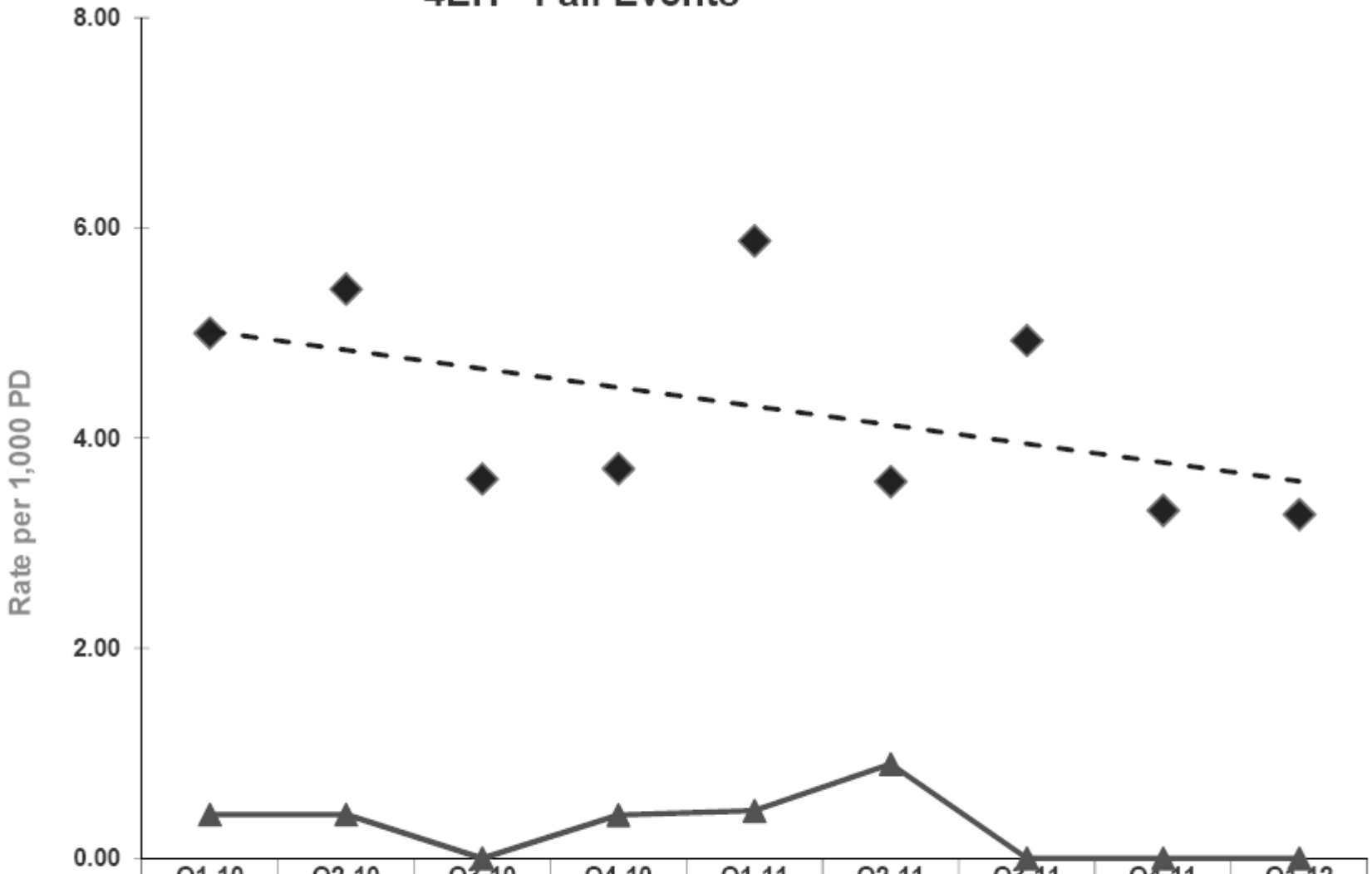
HMC - Fall Events



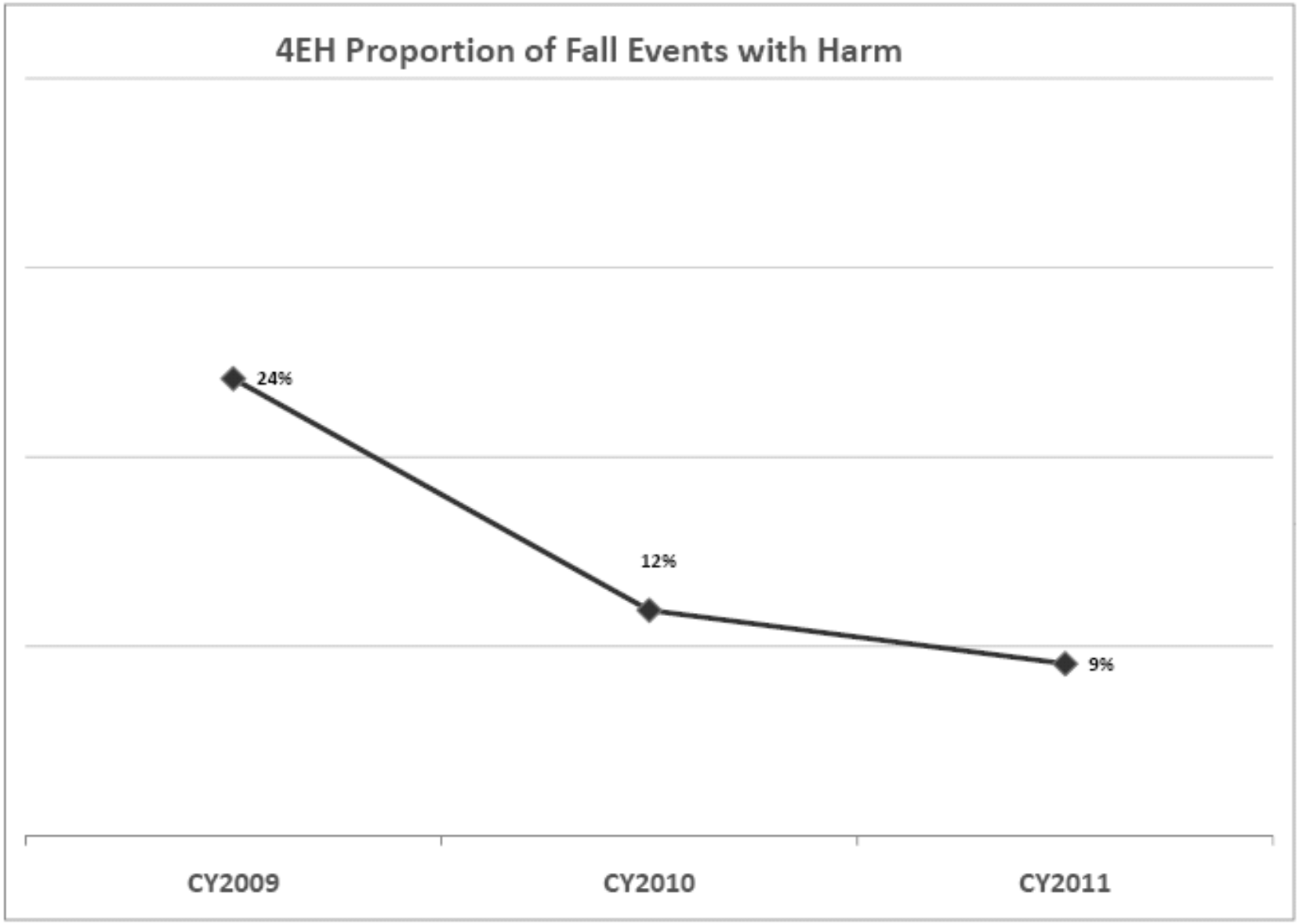
	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12
Rate All Falls	4.27	3.69	2.69	4.28	4.56	2.81	3.20	4.26	5.27	4.49	3.97	2.53	3.84	4.03	3.18	2.59	3.26	3.06	4.00	3.90	3.27
Rate E +	0.78	0.41	0.24	0.51	0.89	0.72	1.16	0.35	0.98	0.79	0.63	0.52	0.52	0.76	0.42	0.54	0.69	0.74	0.82	0.45	0.27
Rate F +	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.09	0.09	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00


Proportion of Fall Events with Harm
(Harm Score 6 or Above)
21.4%
20.1%
17.4%
16.9%
CY 2008
CY 2009
CY 2010
CY 2011

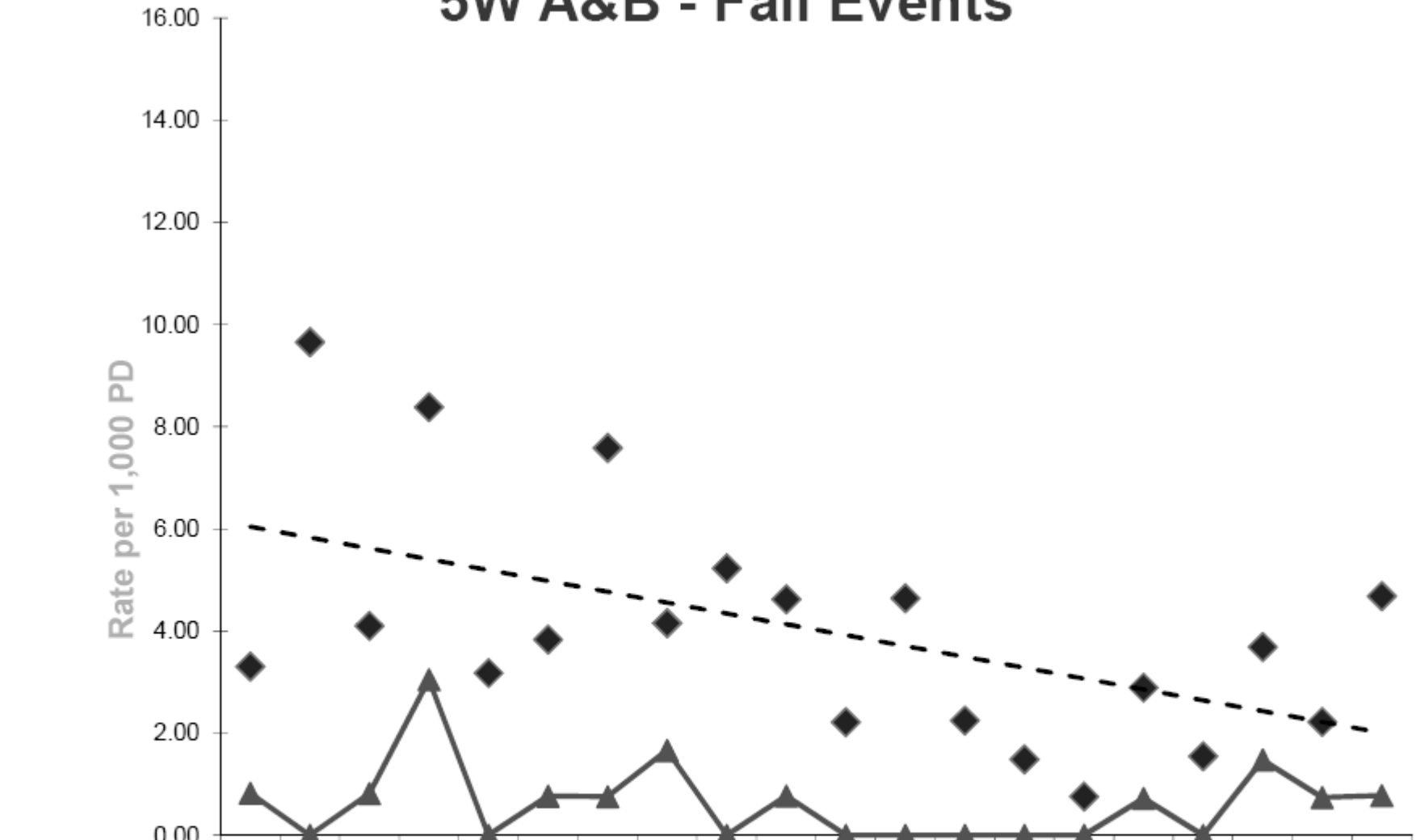
4EH - Fall Events



	Q1-10	Q2-10	Q3-10	Q4-10	Q1-11	Q2-11	Q3-11	Q4-11	Q1-12
Rate All Falls	5.00	5.42	3.61	3.71	5.88	3.59	4.93	3.31	3.27
Rate Falls w/ Harm	0.42	0.42	0.00	0.41	0.45	0.90	0.00	0.00	0.00

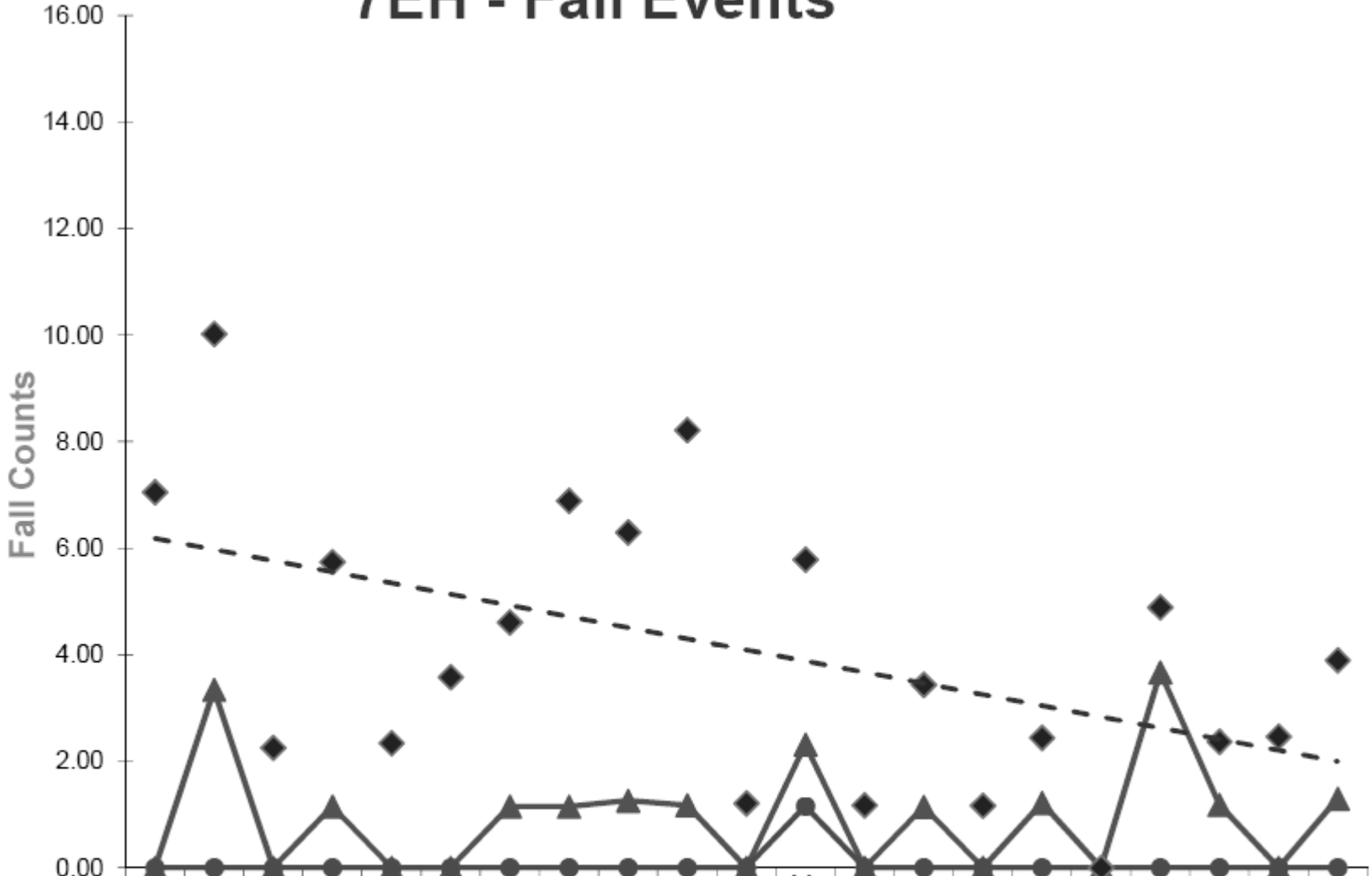

4EH Proportion of Fall Events with Harm
24%
12%
9%
CY2009
CY2010
CY2011

5W A&B - Fall Events



	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12
RateAll	3.31	9.66	4.10	8.38	3.18	3.83	7.59	4.16	5.23	4.62	2.22	4.64	2.25	1.49	0.76	2.89	1.55	3.69	2.22	4.68
RateW/Harm	0.83	0.00	0.82	3.05	0.00	0.77	0.76	1.66	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.72	0.00	1.48	0.74	0.78

7EH - Fall Events



	Jun -10	Jul-10	Aug -10	Sep -10	Oct -10	Nov -10	Dec -10	Jan -11	Feb -11	Mar -11	Apr -11	May-11	Jun -11	Jul-11	Aug -11	Sep -11	Oct -11	Nov -11	Dec -11	Jan -12	Feb -12
Rate All Falls	7.05	10.0	2.25	5.74	2.34	3.58	4.61	6.89	6.30	8.22	1.21	5.79	1.18	3.44	1.17	2.44	0.00	4.89	2.37	2.46	3.90
Rate E +	0.00	3.34	0.00	1.15	0.00	0.00	1.15	1.15	1.26	1.17	0.00	2.31	0.00	1.15	0.00	1.22	0.00	3.67	1.18	0.00	1.30
Rate F +	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Reason for Success to Date

- Sense of urgency
- Executive support
- Physician support
- Outside agency involvement
- Multidisciplinary task force

Barriers

- Communication post fall
  - Family
  - Staff
- Continued push back on multidisciplinary approach
- Consistent use of order form
- Consistently including nurses in daily rounding
- Difficult to implement hourly rounding on a consistent basis
- Ability to sustain program

Future directions

- **A consistent approach to post fall management: Debrief, call to family and patient handling & assessment**
  - **Hearing from providers they need more information on what to do if a patient falls**
- **Identifying high harm groups (anti-coagulated, craniotomy & older adult) and continued focus on tailoring fall prevention to prevent harm**
- **IT involvement**

Post Fall Assessment ORCA Note Template

Section 1 – To be completed by RN

1) Admitting Dx: (can this be pulled?)
2) Date and time of fall: (date and time box)
3) Brief Description of Fall: (free text)
4) Location: bed, bathroom, hallway, other (freetext)
5) Nursing Assessment:
   - Y N Witnessed or assisted fall
   - Y N Did patient hit head?
   - Y N Lost of consciousness?
   - Y N Patient is alert
   - Y N New lacerations?
     If yes, where: (free text)
   - Y N Evidence of new skeletal injury?
     If yes, where: (free text)
   - Y N New complaint of pain?
     If yes, where: (free text)
6) Date and time provider called:
7) Date and time Family called:
   N/A: patient declined or called family

Section 2- To be completed by provider

Date and time patient assessed: (date and time box)

- Y N Laceration Assessment: (free text) closure
- Y N Suspected cervical spine injury (new numbness of extremities or new neck pain, pain on palpation of spine). *Consider or Order:* cervical collar and immobilization, C-spine series.
- Y N Concern for intracranial bleed (on anticoagulation therapy, coagulopathy, new focal neuro findings) order: CT head, increased neuro checks) *Consider or Order:*
- Y N Suspected skeletal injury (chest wall pain, positive sterna compression, decreased ROM, cannot bear weight) Consider or order radiology exams

Family notified: (Time and Date): N/A pt declined:

Annotation (free text):

Section 3 Interventions:

Medication review- stop or decrease: Narcotics, sedatives, anti-cholinergics, sedative/hypnotics

Decrease tethering: discontinue Foley, Saline Lock IV, discontinue SCD's, discontinue telemetry

ORDERS: Fall prevention orders, Delirium Order set, PT-inpatient, PT outpatient, Fall prevention clinic

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Next Steps

- Developed the business plan
  - A chart review of every fall in 12 months requiring diagnostics has been completed
  - Assign a cost to each fall reviewed based on exams, results, and increased LOS
- Continue spreading to entire hospital
- Continue to develop program and revise as needed
- Develop CME credit for MDs

Summary

- Program has been well received by providers
- The bundle and order form continues to evolve
- Multidisciplinary task force has been instrumental in early successes
- An increased awareness has significantly contributed to a decrease in falls and falls with harm

Thank You

Questions?

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