## CULTURAL TRANSFORMATION TO

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# PREVENT FALLS



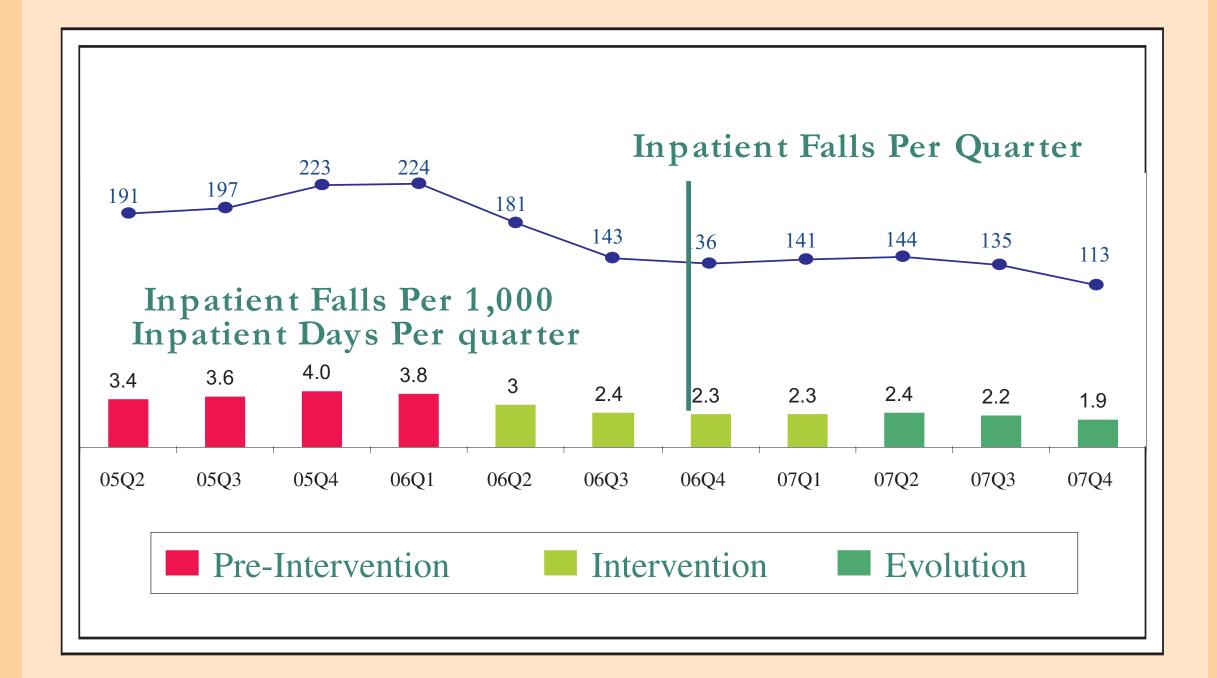
AND ASSOCIATED INJURIES IN A TERTIARY CARE HOSPITAL



#### Table 1. Annual Equipment Cost of Falls Prevention Initiative

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	Item	Cost \$\$ per Item	# Pur chased 1ST Year	Cost 1 <sup>ST</sup> Year	Estimated Lifetime	Annual Cost		
	Personal Alarm	\$37	289	\$10,730	3 years	\$3,576		
	Sitter Select	\$70	\$600	\$42,000	3 Years	\$14,000		
	Mattress Pads	\$777	\$26	\$20,613	6 Months	\$20,613		
	Chair Pads	\$256	\$23	\$6,110	6 Months	\$6,110		
			Total:	\$79,455	Total:	\$26,485		

#### Figure 1. Quarterly inpatient falls and falls per 1,000 inpatient days.



### Table 2. Estimated cost of inpatient falls based on pre-intervention and ongoing intervention.

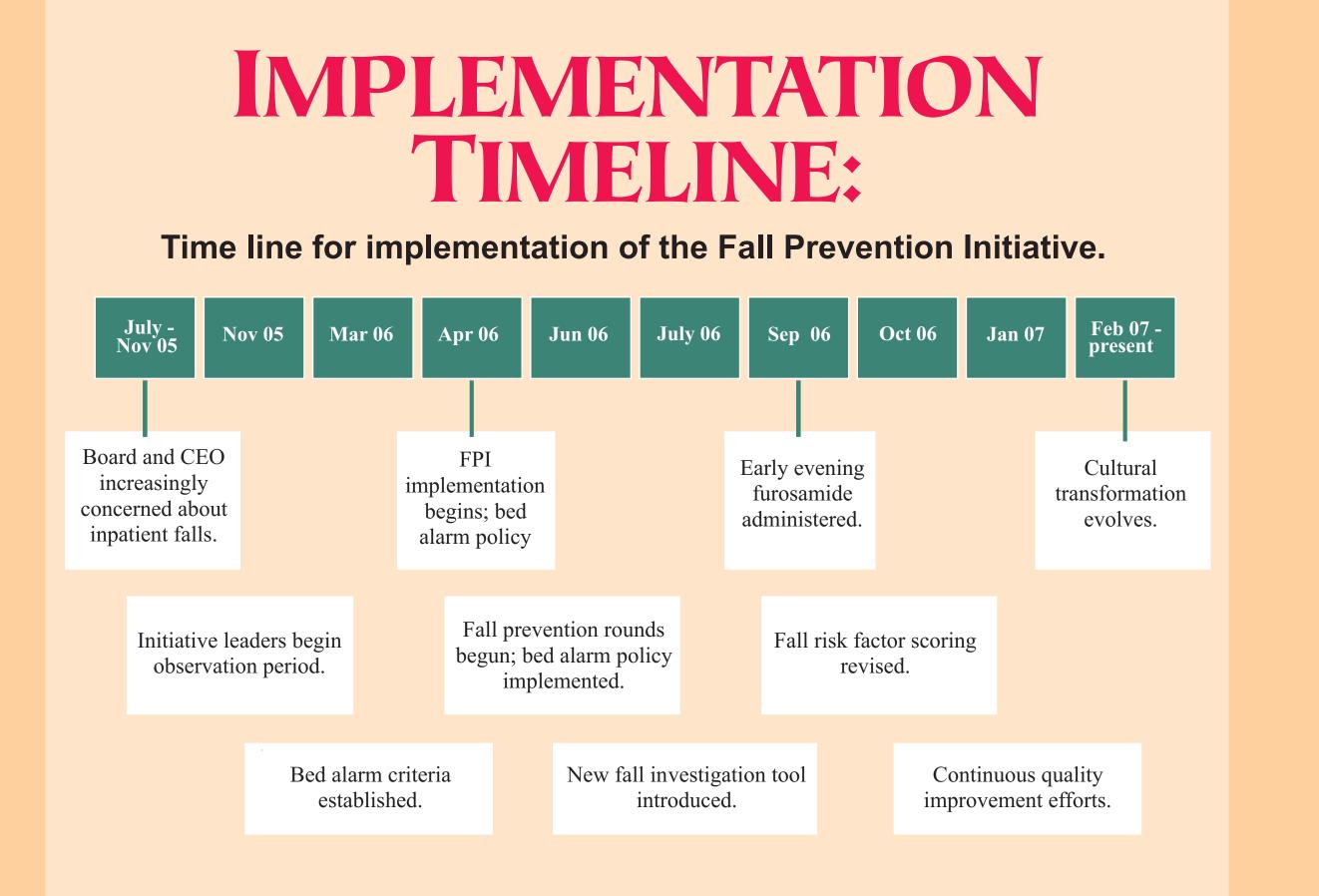
Time Falls		Cost With Injury	Cost Without Injury	Total Average Cost	Average Annualized Cost		
2006Q1	224	\$113,789.13	\$10,600.45	\$103,188.68	\$412,754.72		
2007Q4	113	\$65,022.36	\$5,324.65	\$59,697.71	\$238,790.84		

Savings: \$173,963.88

### Table 3. Inpatient fall, stratified by number of repeat falls within a hospital stay and by injury level.

Number of Falls*	<b>Pre-Intervention</b>		Intervention		<b>Evolution</b>		Relative	1	
	Falls	Rate per 1,000 ID <sup>†</sup>	Falls	<b>Rate per</b> 1,000 <b>ID</b> <sup>†</sup>	Falls	<b>Rate per 1,000 ID</b> <sup>†</sup>	incidenc		p value
0	566	57.13	427	56.33	314	48.95	0.86	199.66	< 0.0001
1	132	33.27	104	28.28	42	23.76	0.71	70.0	< 0.0001
2+	89	26.20	24	13.13	6	10.70	0.41	65.32	< 0.0001
Injury Leve	l								
Major	0		2	0.0084	1	0.0055			
Moderate	25	0.11072	14	0.0587	7	0.0387	0.35	1244.76	< 0.0001
Minor	127	0.56244	80	0.3353	66	0.3645	0.65	1329.96	< 0.0001
None	626	2.77233	476	1.9951	294	1.6239	0.59	1329.96	< 0.0001
Unknown	56	0.24800	27	0.1132	24	0.1326	0.53	1223.28	< 0.0001
Total	834	3.69349	599	2.5107	392	2.1651	0.59	4112.97	< 0.0001

\*Includes inpatients, admitted and discharged in one phase; \*Unequal variance



#### Purpose of the Study

• Inpatient falls were increasing to 4.0 per 1,000 inpatient days. There was also an associated increase in significant fall-related injuries. The goal of our strategy was to transform the Hospital's culture to one supporting staff awareness.

#### Study Significance

- Inpatient falls can:
  - Significantly impair a patient's healing,
  - Increase their LOS,
  - Place patients at risk for further health complications.
- Fall Prevention protocols that are superficially adhered to do little to reduce falls and fall-related injuries.

### Strategy and Implementation

 The cornerstone of this initiative was fall prevention and injury reduction through awareness, critical thinking, and accountability for patient safety.

This was accomplished through:

- 1. Documenting and quantifying inpatient falls to highlight safety awareness, identifying fall patterns, evaluating the initiative's progress by monitoring data, and protocol breaches.
- 2. Evaluating the root cause analysis of <u>each</u> fall to identify missed opportunities for prevention.
- 3. Reviewing the existing fall prevention protocols to reveal shortcomings and improvements.

#### Partners in Quality

- Hospital Board of Directors
- Chairman of Rehabilitation Medicine
- Chief Nurse Executive
- Nursing Department
- Quality Management Team
- House Staff Physicians
- Non-nursing personnel working on in-patient units

#### Evaluation

Overall patient fall rates per 1,000 inpatient days decreased by 50% with significant reductions in minor and moderate injury rates by 65% and 35% respectively. The associated costs were minor compared to the significant savings that resulted from fewer falls.

#### Implications for Practice

 Cultural transformation is a powerful tool in improving patient safety and reducing inpatient falls/injuries. The Board's leadership role and inclusion of a broad range of personnel, including management, nursing and non-nursing staff, is key to success. Improved patient safety is cost effective.

#### LESSONS LEARNED

- 1. Cultural transformation, with improved staff safety awareness, critical thinking, and accountability for fall prevention, was a powerful tool in improving patient safety and reducing inpatient falls/injuries.
- 2. The Hospital Board's leadership role, and the inclusion of a broad range of personnel, including management, nursing, and non-nursing staff, were key to achieving cultural transformation.
- 3. Achieving effective compliance with fall prevention policies and procedures, while only adding a limited few new ones, was important to the success of fall prevention.
- 4. Improved patient safety through the reduction of falls/injuries is cost effective.
- 5. Data collection, analysis, and a continuous performance improvement philosophy were important for the success of fall prevention.

