

AWAKE IN THEIR ROOMS: THE REAL FALL DANGER ZONE

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Introduction/Objective:

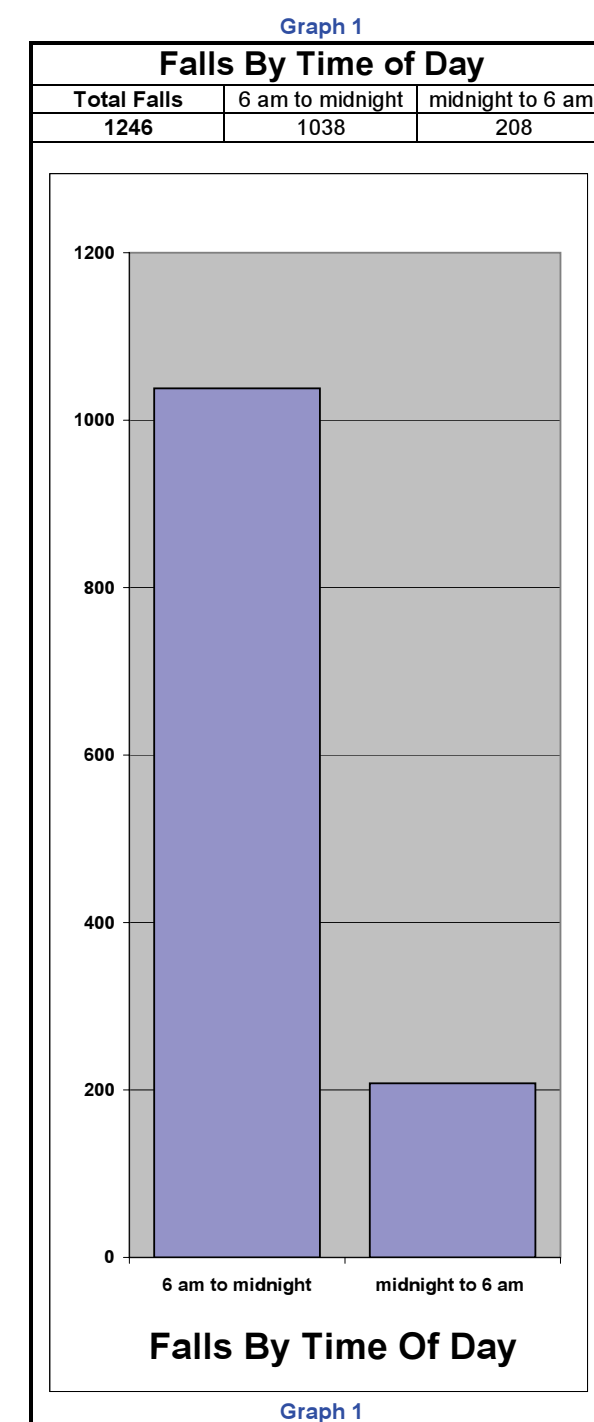
While analyzing data routinely collected for monthly quality assurance meetings, it appeared that most residents fall in their individual rooms. We undertook a quality improvement project to determine which areas and what factors were most closely associated with residents falling in nursing homes.

Method

We combined the falls data from six skilled nursing facilities with similar facility characteristics for a total of 48 facility-months to determine which physical-plant areas and what other factors were most closely associated with resident's fall(s) in each of the facilities.

Using a Quality Improvement (QI) statistical package we analyzed this information. The data points we look at include: number of falls per resident, time of day (Graph 1), day of week, the location (Graph 2), and activity at time of fall. In addition, we were able to analyze injuries and hospitalizations (Table 1). We then combined those data points to determine which factors had the highest correlation with falls.

Graph 1



Graph 2

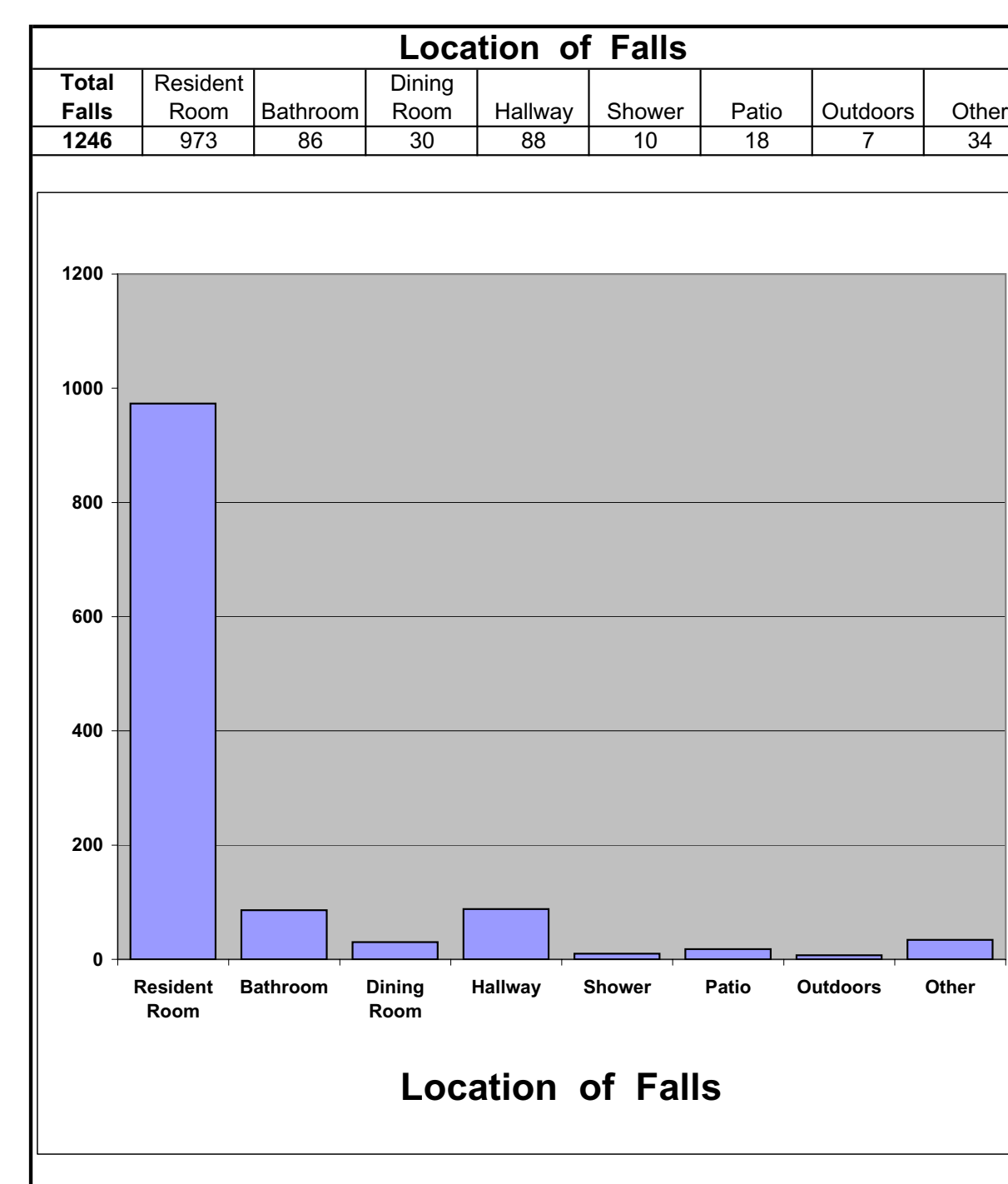


Table 1

	Injuries from Falls							
	Total Falls	No Injury	# Residents with One or More Injuries	Total Injuries	Head Injury	Other Fracture	Hip Fracture	Transfer to Hospital
Facility A	59	40	19	22	0	1	0	2
Facility B	145	85	60	95	5	2	2	11
Facility C	445	301	144	168	2	4	5	15
Facility D	339	211	128	140	5	4	0	8
Facility E	57	44	13	35	3	2	1	4
Facility F	201	117	84	115	18	1	1	6
Total	1246	798	448	575	33	14	9	46
% of Total Falls		64%	36%		2.65%	1.12%	0.72%	3.70%
% of Total Injuries					5.74%	2.43%	1.57%	8%

Results

Our results reveal that for the 1246 falls analyzed, that residents fall most frequently in their rooms and that they fall during awake hours.

- Location:**
 - 77% occurred in the resident's individual room
- Time:**
 - Fewest falls occurred between midnight and 6 am
- Injury:**
 - No Injury 64% (range between 58% and 77%)
 - Injury Sustained 36% (range 23% to 42%)
 - Total Fractures 1.9% of Falls and 4% of Injuries
 - Hip Fractures <1% of Falls and 1.6% of Injuries
 - Head Injuries 2.6% of Falls and 5.7% of Injuries
- Hospital:**
 - Transport to Hospital: 3.7% of Falls and 8% of Injuries

Conclusion:

The implication of these important findings is that facilities will likely benefit by concentrating on providing the safest bedroom design possible. Programs designed to address falls in resident bedrooms should be emphasized. We presume that many residents fall while rising or lowering themselves to bed, so improving systems to anticipate when this simple event occurs would be most fruitful in decreasing falls and therefore injuries to the residents. No other factors that we looked at had as significant of a correlation, despite the fact that at times facilities postulate on all sorts of various causes with no statistical backing for many such assumptions. Empowering all facility staff to be alert to risk factors that can lead to injuries from falls, and then responding to that input may be the most effective deterrent to fall injuries and/or repeat falls. Providing activities and encouraging residents to be out of their rooms may be an additional factor in decreasing falls/injuries in the bedroom. Although we can make every effort to make the resident bedrooms as safe as possible, we will not eliminate falls or injuries, but may minimize the number of and the morbidity of these events.