Track II C
9:30 am

Creating the Safest Hospital

Richard Salluzzo, MD, FACEP, MBA
President and CEO
Wellmont Health System

Healthcare Safety in America

- There is a problem.
- Hard to separate safety from model of reimbursement
- Good health care: a birthright or a byproduct?

How are We Doing?

(Compared to Western Nations)

- #1 in cost (15% GNP)
- #25 in infant mortality
- #17 in longevity
- #35 in customer service
- #1 in percent of population without healthcare coverage

Some people see things as they are and ask, “Why?”

I see things that never were and ask, “Why not?”

Robert F. Kennedy

The Challenge

- Create appropriate metrics in a system that lacks standardization of care.
  e.g. Southwest Airlines
- Identify and track medical errors and process defects that are dependent on self-reporting.

Hospital ratings on government site fall short , study says

POSTED: 6:24 p.m. EST, December 12, 2006

CHICAGO, Illinois (AP) -- New research offers this warning to consumers shopping for top-notch hospitals: Many that are highly rated by government regulators have only marginally lower patient death rates.

The researchers evaluated 3,657 hospitals nationwide that are listed on a Centers for Medicare & Medicaid Services Web site. The Hospital Compare site shows how hospitals stack up on recommended treatments and is designed to help consumers comparison shop for health care.

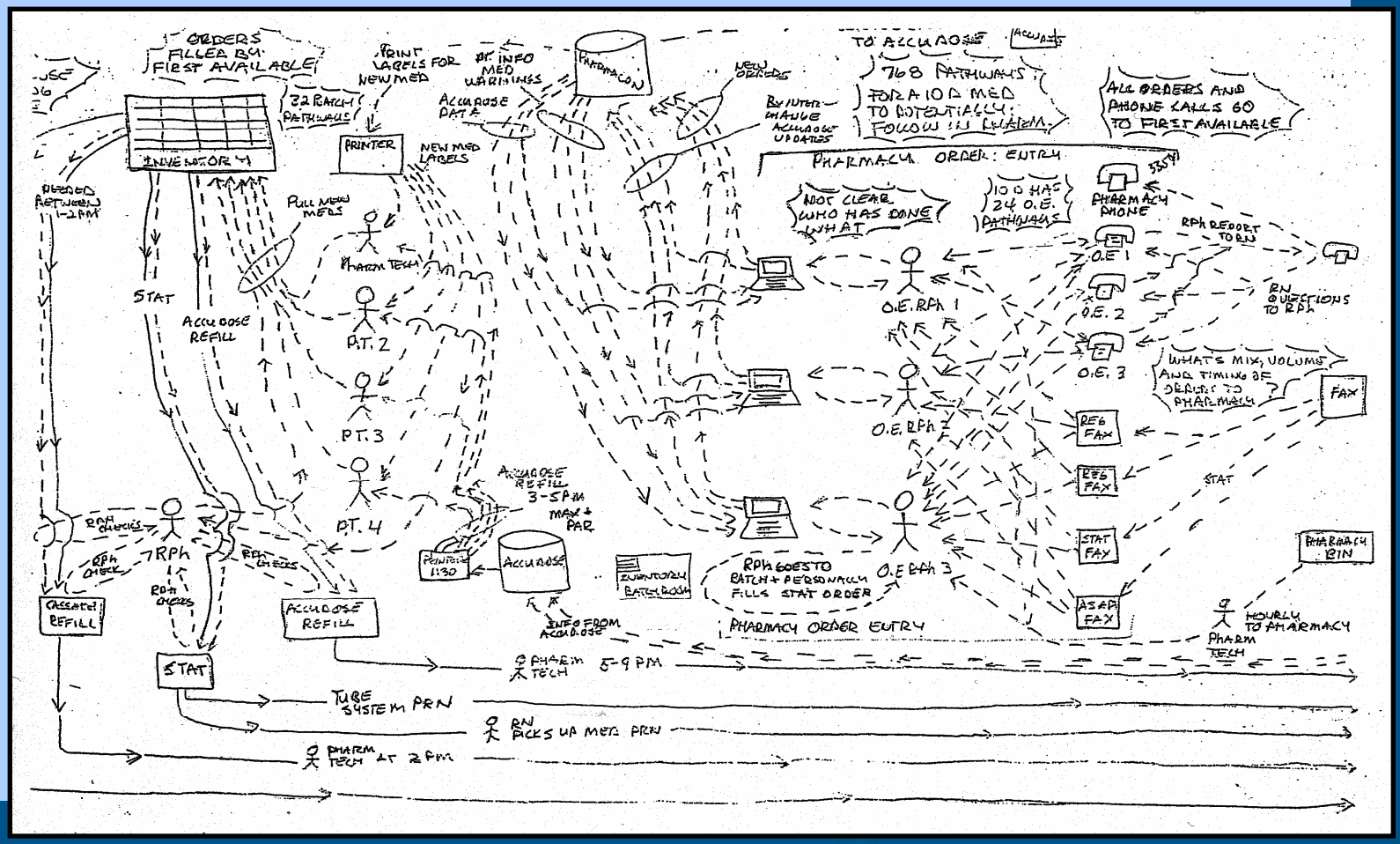
The study examined three conditions that often lead to hospitalization -- heart attacks, heart failure and pneumonia -- and found that death rates for patients with those diseases were only slightly lower at top-rated hospitals in 2004 than at the lowest-rated hospitals.

The results suggest that better ways of measuring performance are needed to help consumers make meaningful choices, the researchers said. "Only then will performance measurement live up to expectations for improving health care quality."

The study appears in Wednesday's Journal of the American Medical Association.

The University of Pennsylvania researchers, Dr. Rachel Werner and Eric Bradlow, looked at recommended treatments for hospitalized heart attack patients: aspirin and beta blocker drugs within 24 hours of arrival and prescribed at discharge and ACE inhibitor drugs given during the stay. The percentage of heart attack patients who died was close to 7 percent at both groups of hospitals, with high-rated ones losing 0.5 percent fewer patients over the one-year period.

Rapid-Cycle Improvement
Medication Pathway Old Condition



The Winner of "Not My Job"

Understanding and Integrating High-Reliability Principles and Design

- Institute for Healthcare Improvement definitions of reliability
  - How reliable is the process?
    - 3 errors out of 10 = 10^{-1} (70%)
    - 5 errors out of 100 = 10^{-2} (95%)
    - 5 errors out of 1000 = 10^{-3} (99.5)
    - 5 errors out of 10,000 = 10^{-4} (99.95)
    - 5 errors out or 100,000 = 10^{-5} (99.995)
    - 5 errors our of 1,000,000 = 10^{-6} (99.9995)

Understanding and Integrating High-Reliability Principles and Design

- Humans can achieve 10^{-1} performance with intent, vigilance and hard work (Unconstrained Human Performance).
- Process standardization within acceptable science can achieve 10^{-2} performance (Constrained Human Performance).

Understanding and Integrating High-Reliability Principles and Design

- Health care must be better than 10^{-3}. Why? 10^{-3} =
  - 5 patient falls for every 1,000 patient days
    - 10^{-4} would be equal to about 1 fall every 10 days
  - 5 medication errors per every 1,000 doses (would be equal to 50 medication errors at a hospital with 20,000 admissions). Common benchmark is 2.5, which would be 25 errors per day.
    - 10^{-4} would be 5 errors per day
- Let's compare that to another industry:
  - 1 jumbo jet crashing every 3 days
    - 10^{-4} is still 12 jumbo jet crashes per year

The Safest Hospital Alliance

- A group of three large hospital systems
  - Wellmont Health System
  - Adventist Health System
  - Novant Health
- More than 50 hospitals around the nation
- Approximately 1.5 percent of all U.S. patients
- Collective net revenue of more than $10 billion

The Safest Hospital Alliance is committed to implementing a comprehensive and innovative approach to hospital safety.

Our Hospitals Must Be Safe

- Our nation's eighth-leading cause of death
- 98,000 lives lost to hospital mistakes *every year*
- 2.4 million extra days spent in hospitals *every year*
- $37.6 billion in additional costs *every year*

The cost is too great, because America can't afford hospitals that aren't safe at any price.

The Problem is Not Going Away

- **To Err is Human**,
  IOM, 1999
  - 100,000 to 200,000 projected preventable deaths
  - Health care in the United States is not as safe as it should be.
- **Crossing the Quality Chasm,**
  IOM, 2001
  - No substantial improvement since 1998
  - The U.S. healthcare delivery system does not provide consistent, high-quality medical care to all people.

The Problem is Not Going Away

- **Patient Safety: Achieving a New Standard of Care**,
  IOM, 2003
  - The evidence substantiating the magnitude of the safety concerns raised in “To Err is Human” has continued to grow.

- **Patient Safety in American Hospitals,**
  HealthGrades, 2004-2007
  - No improvement in the safety of hospitals
  - Patient-safety incidents continue to rise in American hospitals.

The Problem is Not Going Away

- **Improving America's Hospitals,**
  The Joint Commission, 2007
  - Considerable variability exists in the performance of hospitals on most safety measures.

The McKinsey Report

13 Nations (OECD)

- Higher costs, no sicker patients
- U.S. 16% GNP – mean of other nations 8.8%
- U.S. outcomes in lower one-third
- Customer satisfaction in lower one-third
- Most uninsured

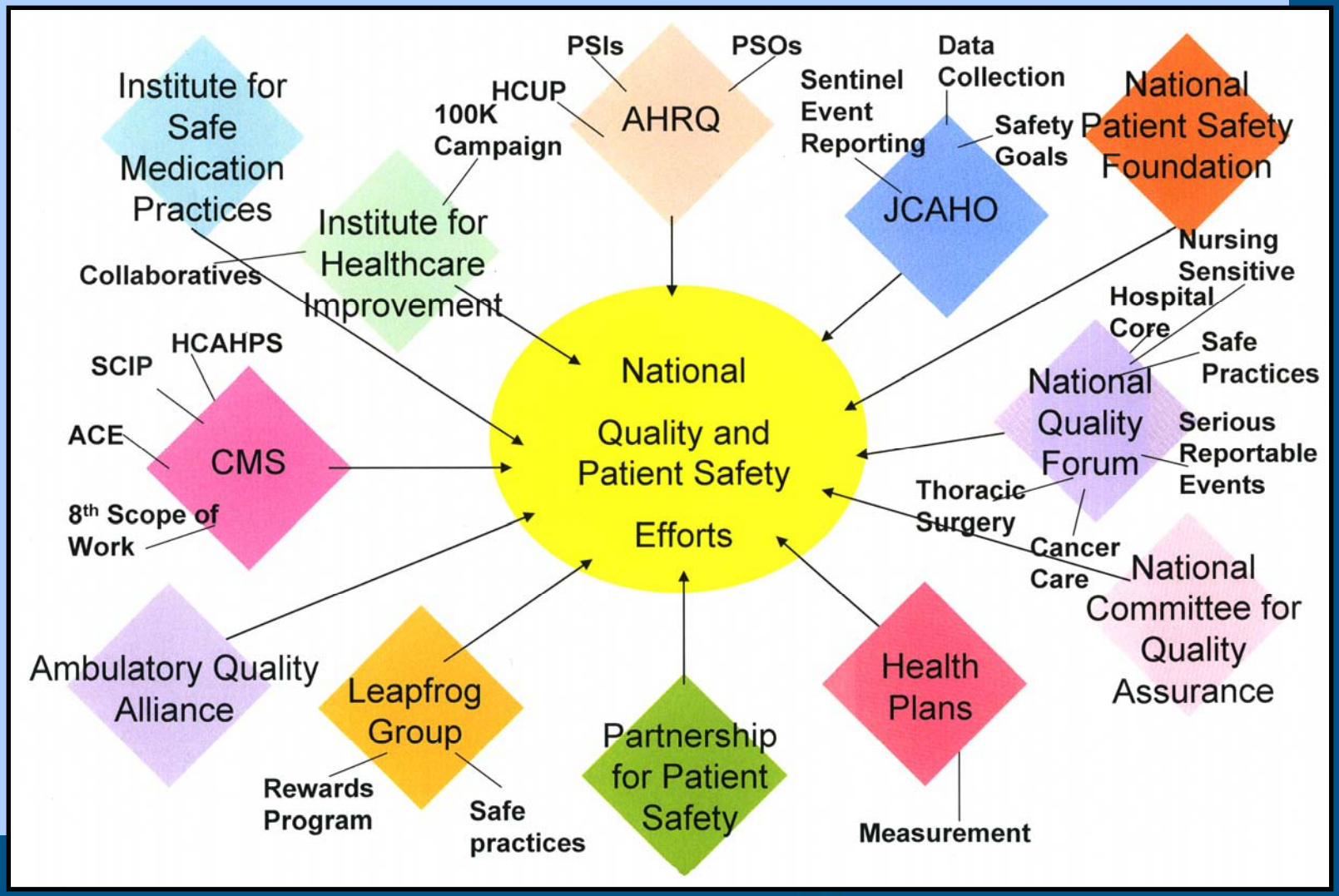
With such an emphasis on safety,

Why Haven't We Improved?

- There is no definition of a safest hospital.
- Current safety measures fall short.
- Hospital staff is often not empowered to keep patients safe.
- A fragmented approach to safety overwhelms hospitals rather than improves them.

I am cognizant of the interrelatedness of all communities and states. I cannot sit idly by in Atlanta and not be concerned about what happens in Birmingham. Injustice anywhere is a threat to justice everywhere. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly.

Letter from the Birmingham Jail
(April 16, 1963)
Dr. Martin Luther King Jr.


National Quality and Patient Safety Efforts
AHRQ
PSIs
PSOs
HCUP
100K Campaign
Institute for Safe Medication Practices
Institute for Healthcare Improvement
Collaboratives
JCAHO
Sentinel Event Reporting
Data Collection
Safety Goals
National Patient Safety Foundation
Nursing Sensitive
Hospital Core
Safe Practices
National Quality Forum
Serious Reportable Events
Thoracic Surgery
Cancer Care
National Committee for Quality Assurance
CMS
SCIP
HCAHPS
ACE
8th Scope of Work
Ambulatory Quality Alliance
Leapfrog Group
Rewards Program
Safe practices
Partnership for Patient Safety
Health Plans
Measurement

The Time is Now

- Hospitals can no longer wait as others attempt to intellectualize a solution to healthcare safety.
- The cure cannot come from government or various agencies with narrowly focused initiatives that view health care from an external standpoint.
- A solution cannot be found without relevant measures to benchmark performance.

Hospitals, heal thyselves.

The Path to Safety

1. Create a template for the “safest hospital.”
2. Identify key care processes and key diagnoses that have the most impact on safety.
3. Define perfect patient-care outcomes: the steps need to reach desired outcomes.

The Path to Safety

4. Utilize the best practices of other industries.
   - Toyota production system
   - Six Sigma
   - Lean manufacturing

5. Make rapid-cycle improvement part of the hospital's daily work.
   - Each staff member is a mini process-improvement team.

“The Safest Hospital Alliance reflects the type of leadership commitment and collaboration that are needed to advance patient safety. We look forward to learning from the alliance’s experiences and successes.”

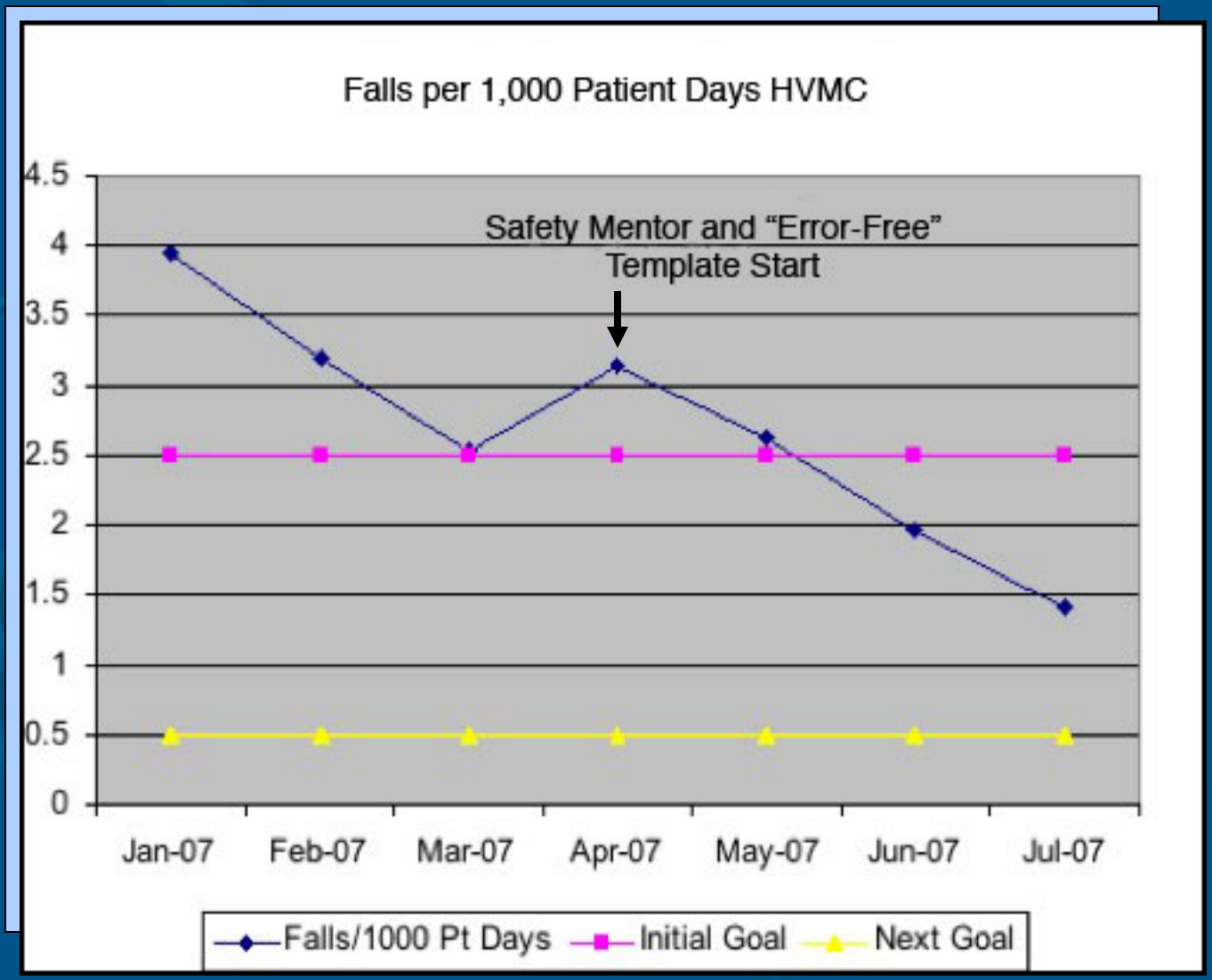
Dennis O’Leary, MD
president of The Joint Commission

Error-Free Template: Falls

- ✓ Fall assessment must be done
- ✓ Bed alarm
- ✓ Signing on door
- ✓ Starring on chart
- ✓ Hourly rounding
- ✓ EVS approach

- Measure compliance with above!
- Assure staff is calling out obstacles to error-free behavior.
- Constantly receive staff input to improve error-free behavior.

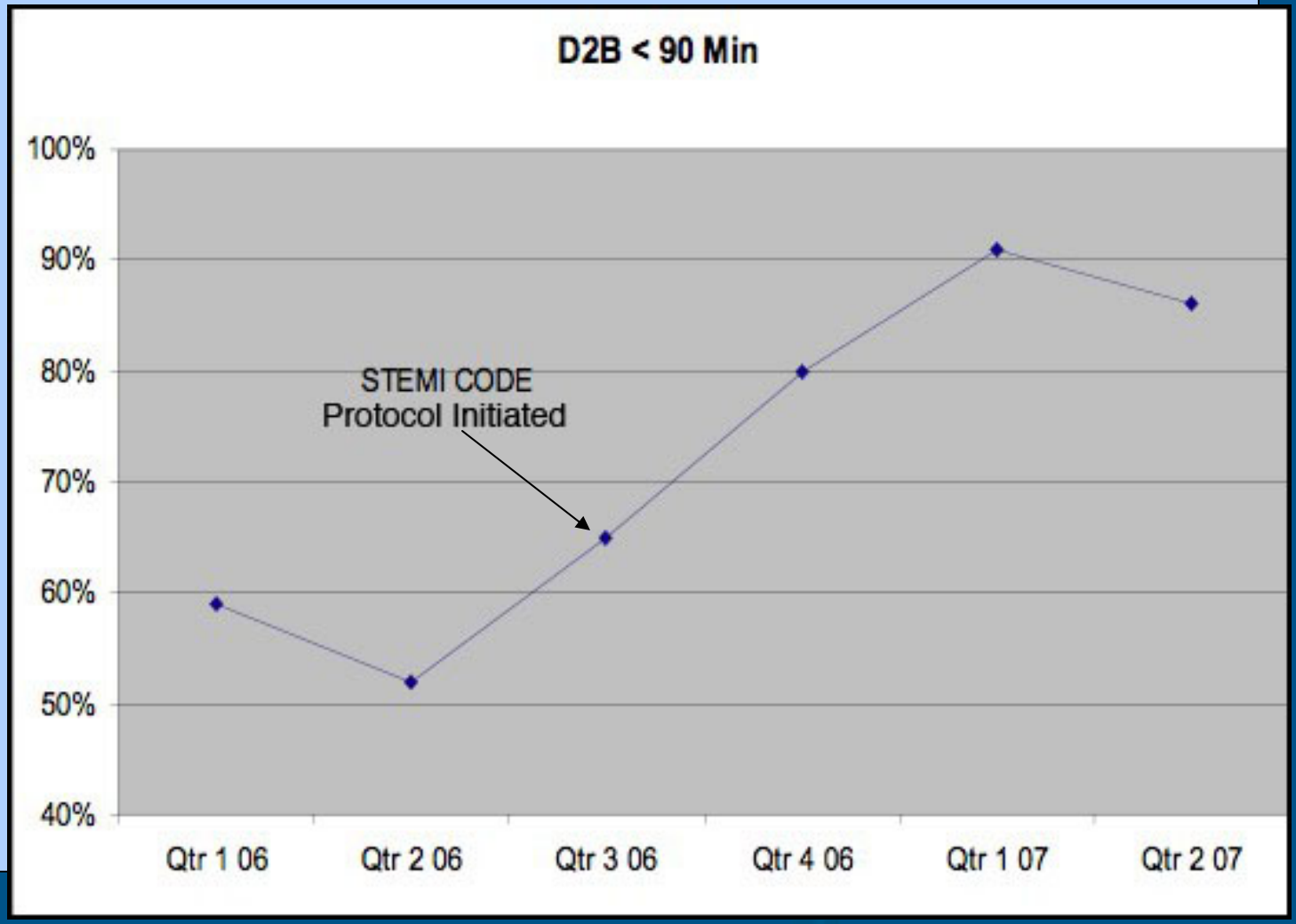
Falls HVMC


Falls per 1,000 Patient Days HVMC
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Safety Mentor and "Error-Free" Template Start
Jan-07
Feb-07
Mar-07
Apr-07
May-07
Jun-07
Jul-07
Falls/1000 Pt Days
Initial Goal
Next Goal

Error-Free Template: Door-to-Balloon Time

- ✓ All patients with CP at ED drugs to room in 2 minutes
- ✓ All patients get EKG within 4 minutes
- ✓ All EKGs read within 6 minutes
- ✓ If positive for St↑ MI, cath lab called immediately, must arrive within 15 minutes
- ✓ PT out of ED with all IVs, meds within 30 minutes

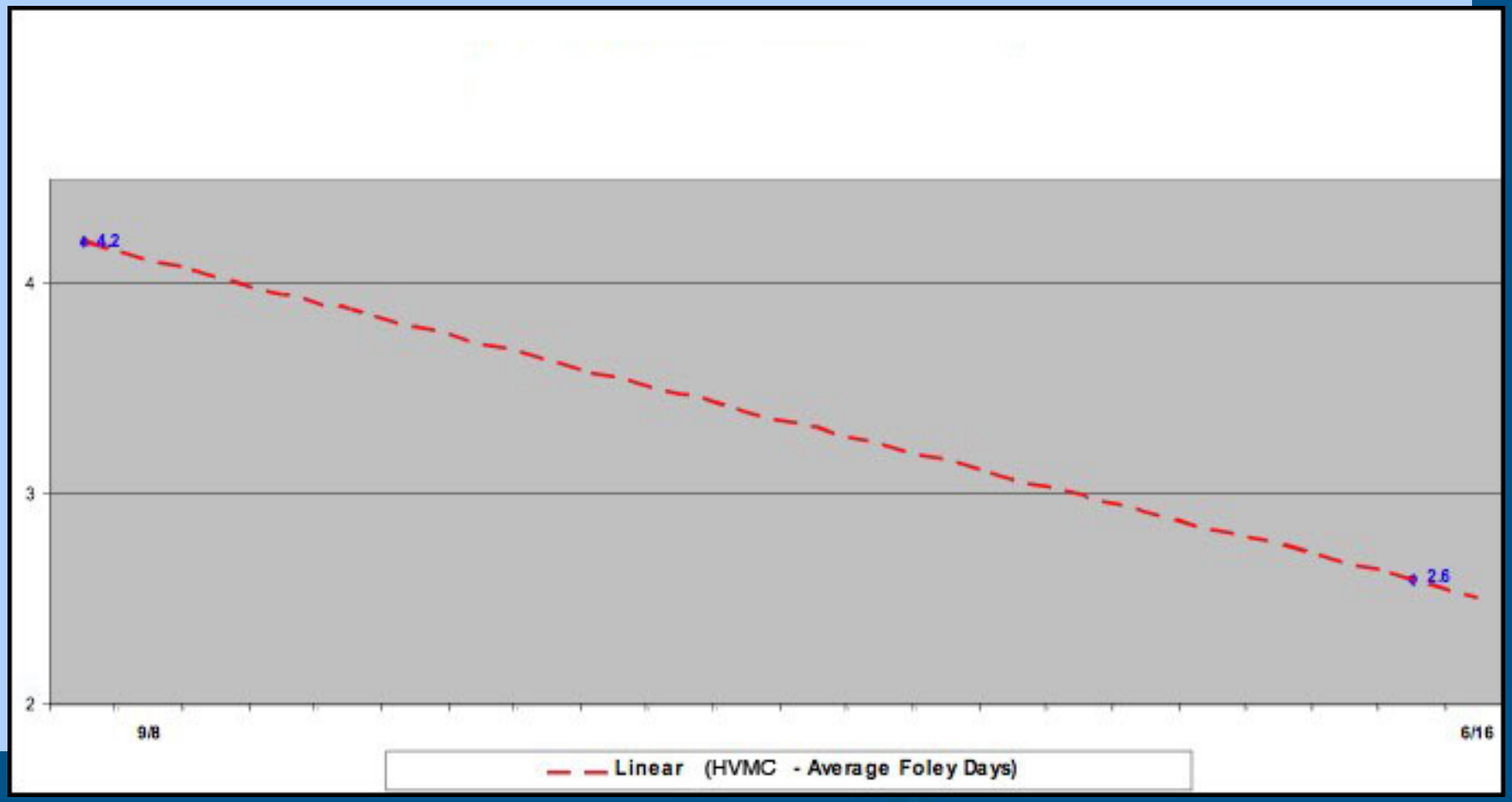
Door to Balloon % < 90 Min



Error-Free Template: Foley Management

- Foley team
- Evaluate each Foley each day
- Evaluate clerical record for appropriateness
- Discuss with MD, nursing staff
- D/C if appropriate, culture urine

Average Foley Days



Error-Free Template: Discharge Process

7 PM Shift: When doing chart checks, review ALL patients for AM discussion. Review CM and PT notes. Catch Omissions.

6:30 AM - Clinical Leader or Associate Clinical Leader to meet with night shift to review all patients for readiness:

IV	Anticoagulation	Cardiac
Foley	Caregiver	Rehab
P.O. Pain Med	Ambulance Home	
Ambulatory Needs	Wound Vac	
Diet Tolerance	Transportation	
Elimination	Home O2	

Unit Specific Needs

1. _____
2. _____
3. _____

Identify needs for the day to be accomplished.

Categorize Patients		
1	2	3
Discharge Today	Possible Tomorrow	All Other

Initiation of Actions: At 7:00 AM, Prioritize Activities for Today (Nursing Actions

Necessary Physical Therapy	MAR and Nursing Home Order Sheet
Radiology Orders	Order to Discharge
Pulmonary Rehab.	Stress Test
Labs	Other

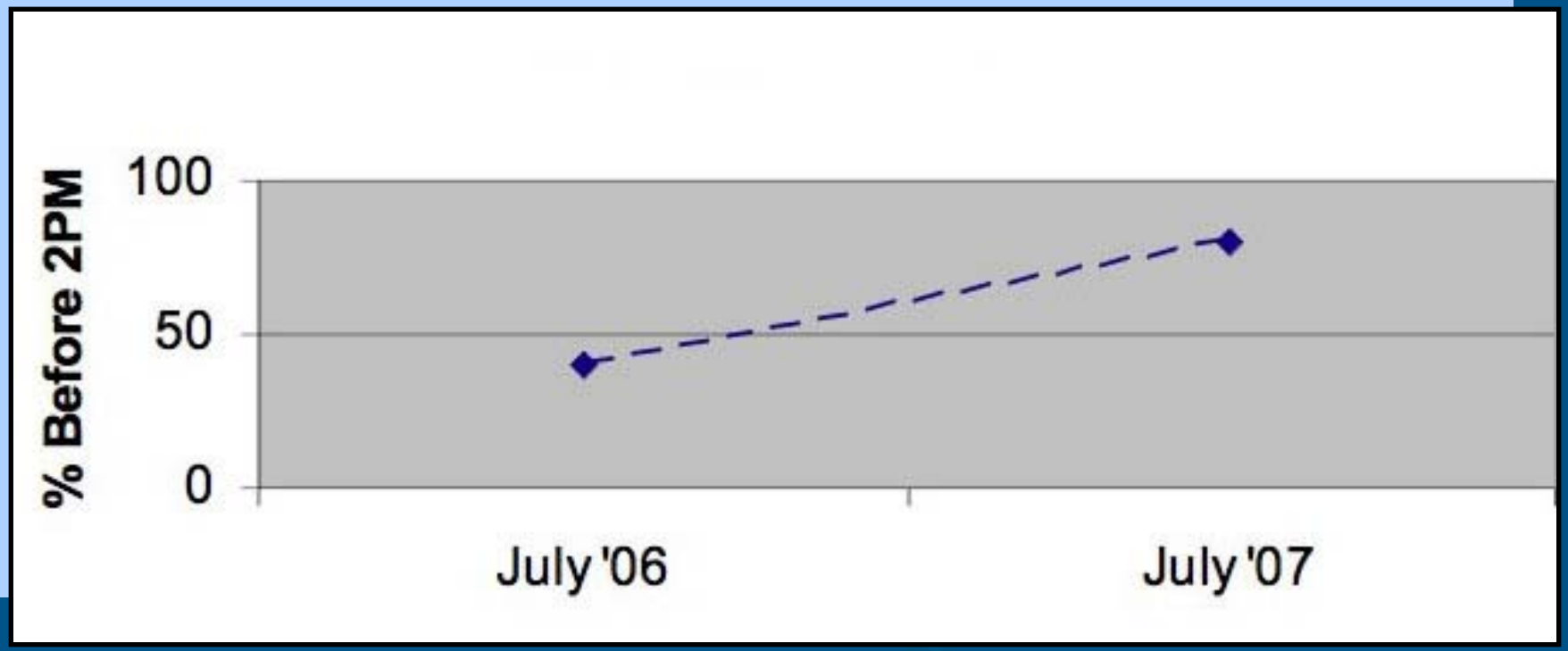
GOAL: DISCHARGE PATIENT BY 11:00 AM

8:30 AM (Set Time) - Hand-Off CM functions to Case Manager

Categorize Patients		
1	2	3
Discharge Today	Possible Tomorrow	All Other
Transportation	Insurance Approvals & Review	Assessment NH,Rehab or Hospice
Validation of Needs/Orders	Placement Defined	Referral NH,Rehab or Hospice
Agency Notification	Acceptance Confirmed	Palliative Care/Hospice Consults
If VA Medicaid Recipient,	Equipment Delivered	Wound Vac Application
Call for Ambulance by 9AM	Home Health Arranged	Dialysis - Fresenius Application
Insurance Review	IV Medications - Lovenox, Plavix	Financial Screen for Referrals
1 Hour Notice to Nurse	Wound Vac Orders Finalized	Insurance Review & Stay Approved
	O2 Assessment & O2 Arranged	

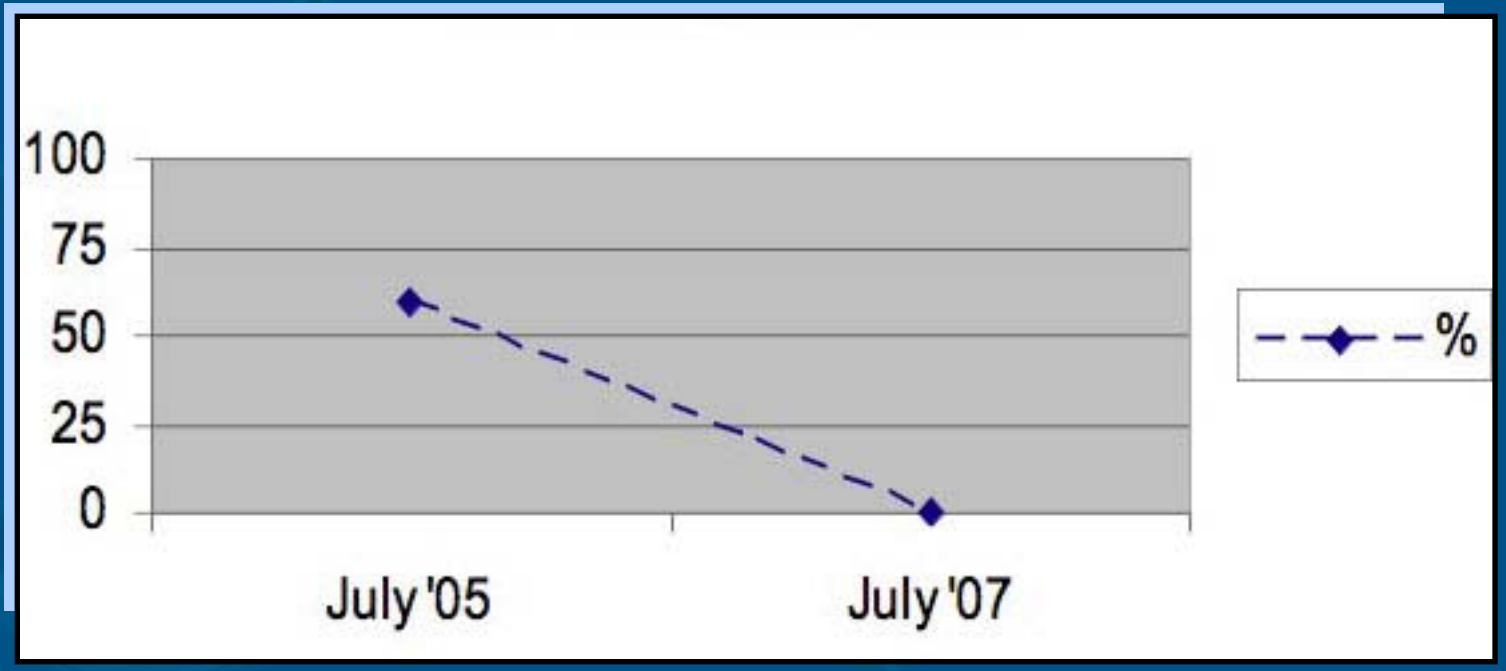
GOAL: DISCHARGE BY 11:00 AM

Discharge Process
% before 2 p.m.



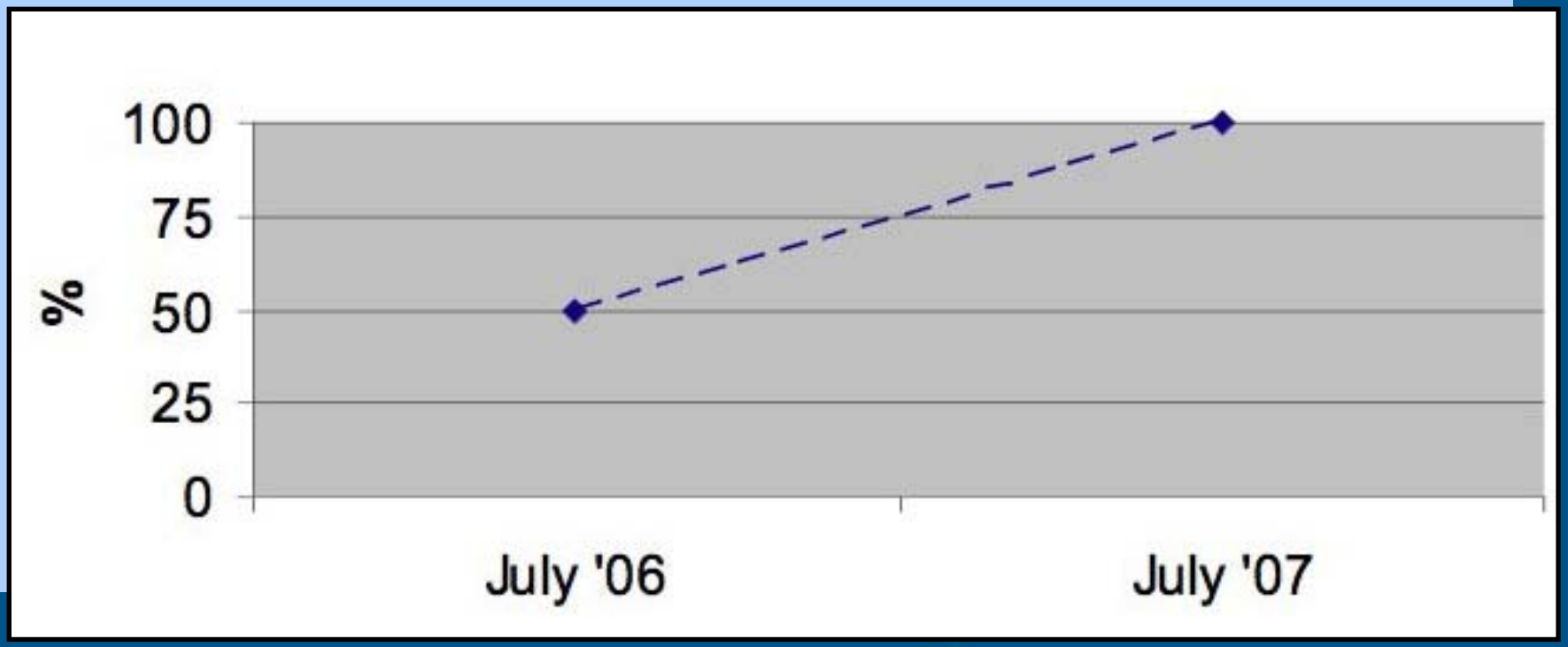
HVMC

% of Patients to Waiting Room



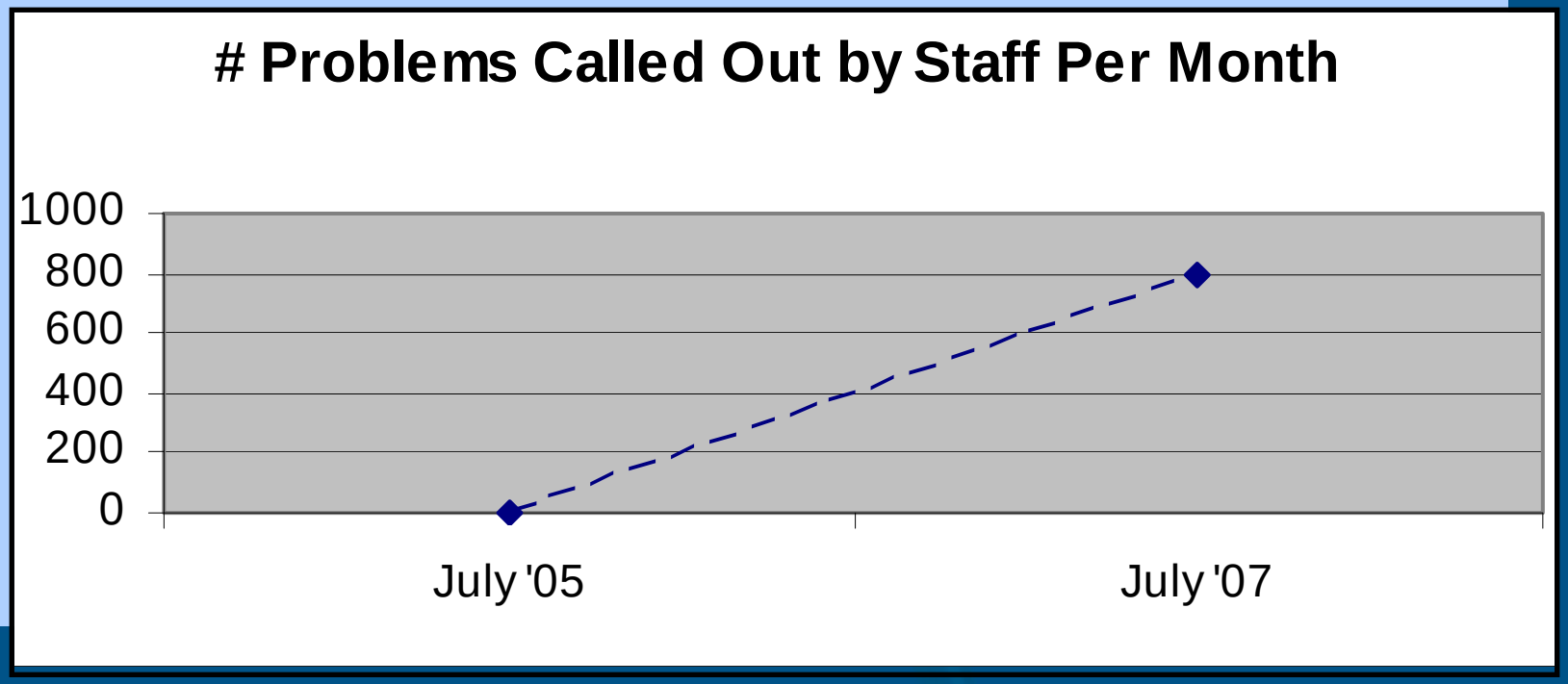
HVMC

% of ED Patients in Room Within 25 Minutes



HVMC

Problems Called Out by Staff



HVMC

Healthcare Excellence

If each individual staff person seeks error-free behavior and optimal efficiency, each person will naturally take on a large number of initiatives (pull system).

Power is infinite – the more we share, the more there is.

Alain Enthoven

We have prioritized existing quality parameters, added some around key processes and DRGs and created error-free templates for each. We have empowered and hold accountable point-of service staff members to do their work in this manner.

The Definition of Safety

Questions ?????