Leadership Challenges in Creating Safer Care

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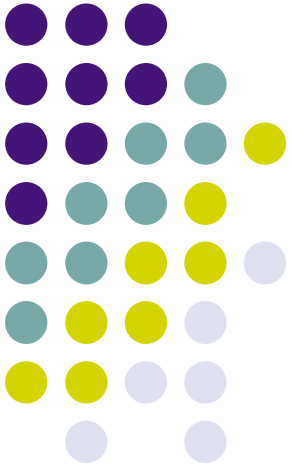
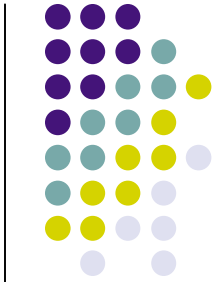
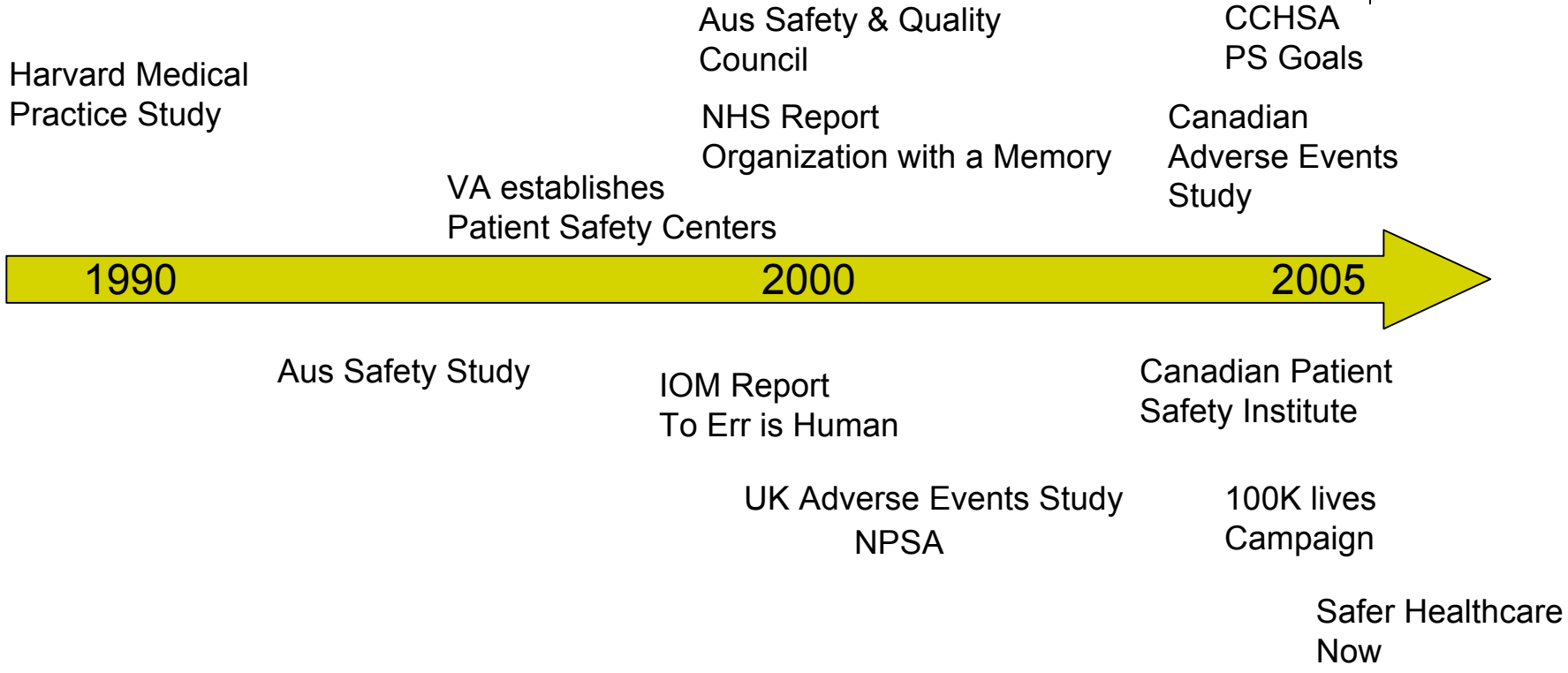


Overview



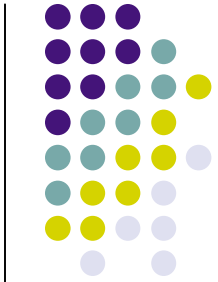
- Status Report on Patient Safety in Canada
- Key Strategies for Improvement
- Engaging leadership

Key Events



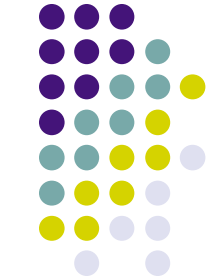
Identify Problems	Establish Infrastructure	Institute Improvements

Drivers for Patient Safety



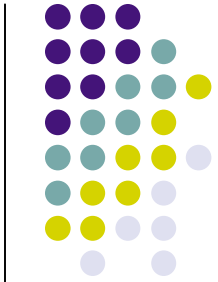
- CCHSA Required Organizational Practices
  - Culture, Communication, Workforce/Worklife, Medication and Infection Control
- Canadian Patient Safety Institute
- Safer Healthcare Now!

Safer Healthcare Now!



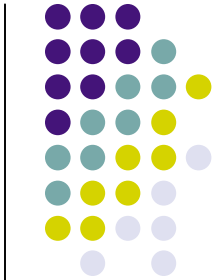
- Canadian adaptation of the IHI 100,000 lives campaign
- Sponsored by Canadian Patient Safety Institute and Quality and Safety Councils in western Canada, Quality Healthcare Network in Ontario, and provincial governments
- Includes key support from the Canadian ICU Collaborative, CAPHC and ISMP Canada
- More than 200 regions or hospitals have enrolled with roughly teams in 6 initiatives

6 Key Interventions



- Deployment of Rapid Response Teams
- Delivery of reliable, evidenced based care for acute myocardial infarctions
- Prevention of ADEs
- Prevention of central line infections
- Prevention of surgical site infections
- Prevention of ventilator- associated pneumonia

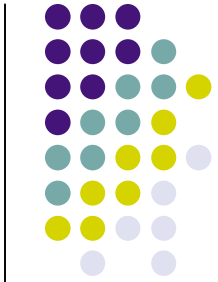
“Care Bundles”



- Ventilator associated pneumonia bundle:
  - Elevation of the head of the bed to between 30 and 45 degrees
  - Daily “sedation vacation” and assessment of readiness to extubate by performing an SBT
  - Use of oral versus nasal tubes for access to the trachea or stomach
  - Use of EVAC tubes for the drainage of subglottic secretions
  - And two “optional elements”
    - Peptic ulcer disease prophylaxis
    - Deep venous thrombosis prophylaxis

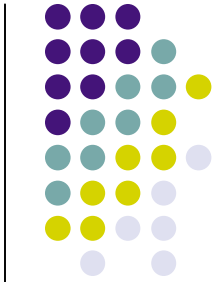
www.saferhealthcarenow.ca

Evidence Base



- Evidence on some interventions is excellent, e.g., most aspects of AMI bundle and the infection related topics
- Two interventions have more limited evidence
  - Medication reconciliation to reduce ADEs
  - Rapid Response teams

Measures: VAP Rate in ICU



Calculation of Denominator		Formula	Answer
1.1	What is the total number of patients in the previous month who received care in selected Intensive Care Units?		
1.2	What is the total number of patients in # 1.1 who did not receive mechanical ventilation? *Exclude from patient list for calculating VAP Rate.*		
1.3	Subtract the answer to # 1.2 from the answer to # 1.1 and enter here.	(1.1 - 1.2 =)	
1.4	What is the total number of patients in # 1.3 whose age was less than 18 yrs on admission to the ICU? *Exclude from patient list for calculating VAP Rate.*		
1.5	Subtract the total of # 1.4 from the total of # 1.3 and enter here. *(This represents the final list of patients eligible for inclusion in the denominator)*	(1.3 - 1.4 =)	
1.6	Count and record the total number of days of exposure to ventilators for each patient accounted for in # 1.5.		
1.7	Add the total number of days of exposure to ventilators by all patients in # 1.5.		

Calculation of Numerator		Formula	Answer
1.8	What is the total number of patients in # 1.5 who developed Ventilator-Associated Pneumonia (i.e.,nosocomial pneumonia in a patient on mechanical ventilatory support (by endotracheal tube or tracheostomy) for greater than or equal to 48 hours)?		

Final Calculation		Formula	Answer
1.9	Divide # 1.8 by #1.7. Multiply by 1000.	(1.8 / 1.7) x 1000	

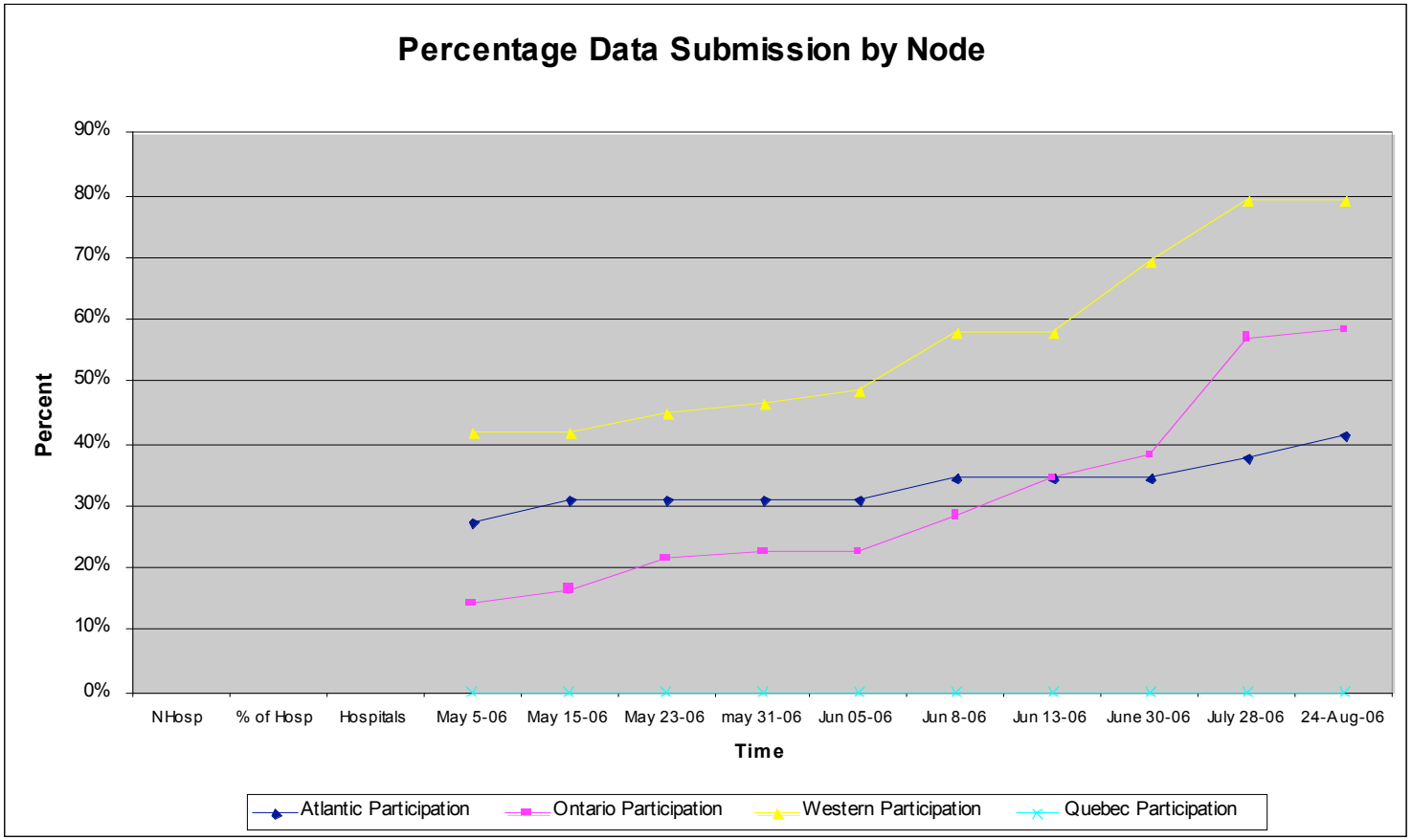
Teams submitting data

Western Node – 42% ⇨ 79%

Ontario Node – 17% ⇨ 59%

Quebec - 0 %

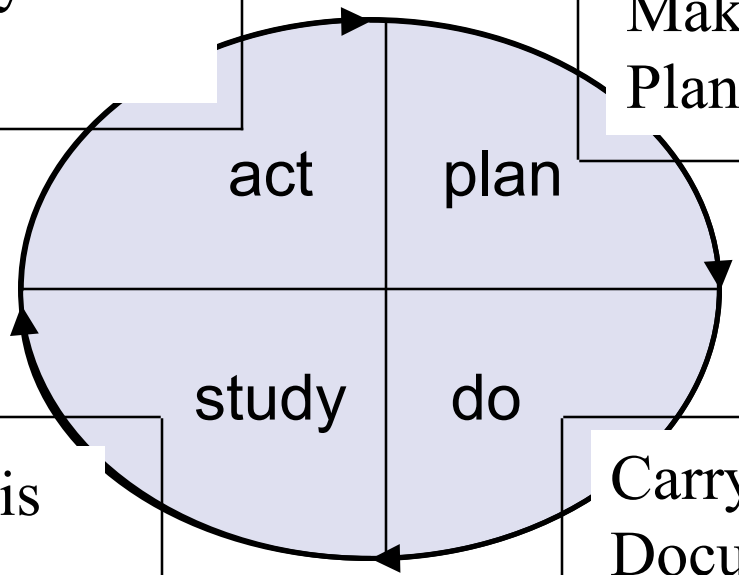
Atlantic Node – 53% ⇨ 67%



Using PDSA Cycles to Test Changes

Identify changes to make
Determine next cycle objective

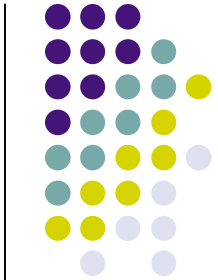
State test objectives
Make predictions
Plan the test



Complete analysis
Compare test to predictions
Summarize learning

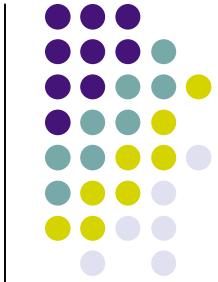
Carry out the test
Document observations and problems
Begin analysis

Supports for Improvement

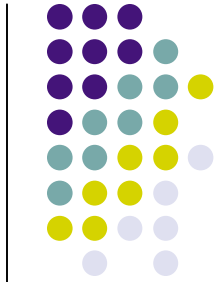


- Getting Started Kits
- Learning sessions with clinical and improvement “faculty”
- Conference calls
- Web based communities of practice
- Regional nodes with improvement supports
- Central measurement, analysis and feedback

From Strategy to Action

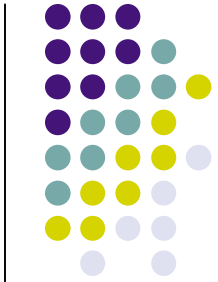


- In June Don Berwick announced that the IHI 100K lives campaign surpassed its goal
- Current US efforts focus on deepening and sustaining the 6 initiatives
- Plans are underway to identify new areas for the next stage of the US campaign



So how hard can this be?

Key Elements For Improving Care



- Setting aims
- Identifying and testing improvements
- Monitoring progress
- Supporting teams

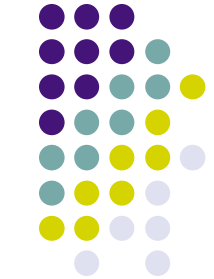
Medication Reconciliation

Medication Reconciliation is “a formal process of obtaining a complete and accurate list of each patient’s current home medications—including name, dosage, frequency and route—and comparing the physician’s admission, transfer, and/or discharge orders to that list. Discrepancies are brought to the attention of the prescriber and, if appropriate, changes are made to the orders. Any resulting changes in orders are documented.”

Two major types of discrepancies:

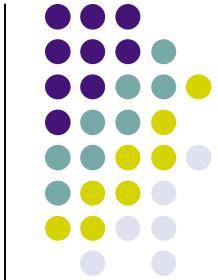
- Undocumented intentional discrepancies
- Unintentional discrepancies

Evidence of Need for Medication Reconciliation



- Canadian Adverse Events Study
- Forster et al. study of patients discharged from a teaching hospital found 23% incidence of adverse event, of which 72% were ADEs
- Cornish et al. study of patients admitted to a general medicine service in a Canadian hospital on at least 4 meds found that 54% had at least 1 unintended discrepancy
  - 39% had the potential to cause moderate or severe patient discomfort or deterioration in the patient's condition
- Systematic review of the literature found error rates varying from 10 to 67%

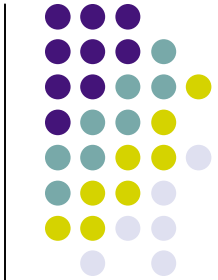
What The Research Says



"Medication history errors at the time of hospital admission are common and potentially clinically important. Improved physician training, accessible community pharmacy databases and closer teamwork between patients, physicians and pharmacists could reduce the frequency of these errors."

Tam, Knowles, Cornish, et al. CMAJ 2005

Why is There a Problem?



- No clear owner of the process
  - Nurses, physicians or pharmacists may take the medication history
  - Competing demands result in history taking being given a low priority
- Front line practitioners may lack knowledge about the critical importance of this function
- There are often no clear criteria about which patients are at risk (e.g., 5 or more meds, high alert medications, frequent med changes)
- No standardized process to collect this information
- Patients often lack the information and patient databases are often not easily accessible
- There may not be a process to link the medication history to the prescribing process during admission or at other transitions of care

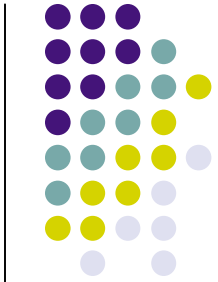
Using Medication Reconciliation To Reduce Adverse Drug Events

- Transition points in care increase vulnerability for ADEs
  - 46% of medication errors occur at transitions
- Medication reconciliation ensures patients receive all intended medications, and no unintended medications
- Medication reconciliation improves documentation and communication regarding changes in patients' medication regimens
- Goal: To develop a process that provides an accurate list (BPMH) that can be used for medication orders by all healthcare providers when patients are admitted, transferred and discharged

CCHSA Patient Safety Goals and Required Organizational Practices

- **PATIENT SAFETY AREA: COMMUNICATION**
  GOAL: Improve the effectiveness and coordination of communication among care/service providers and with the recipients of care/service across the continuum
- ROPs:
  - Inform and educate patients/clients about their role in patient safety (written and verbal communication)
  - Employ effective mechanism for transfer of information at interface points
  - Implement verification processes and other checking systems for high-risk care/service activities
  - *Reconcile the patient's/client's medications upon admission to the organization and with the involvement of the patient/client*
  - *Reconcile medications with the patient/client's medications to the next provider of service*

Lessons Learned

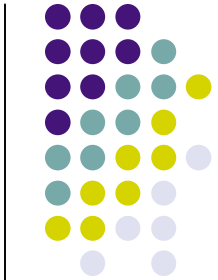


- Emerging data confirms the intervention has great potential to reduce unintentional discrepancies and undocumented intentional discrepancies
- Medication reconciliation will not be achieved using a single specific model
- Data is critical
- Medication reconciliation is complicated but gains in efficiency and reduction of harm can be substantial
- Key to success lies in redesigning the medication history process to improve communications and facilitate accurate prescribing

SASKATOON HEALTH REGION
Saskatoon, Saskatchewan
RUH ❑ SCH ❑ SPH ❑ Other ❑ _____

PREADMISSION MEDICATION LIST PHYSICIAN ORDER FORM

Keep this form with the Physician Orders

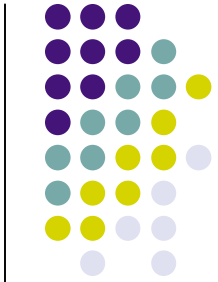


Allergy / Intolerance to Medication & Food (NO MEDICATIONS TO BE ADMINISTERED UNTIL THIS SECTION COMPLETED) ❑ No Known Allergies ❑ Unable to obtain (Pharmacy to flag on MAR) ❑ Allergies as follows:	**Weight:** **_____ kg, _____lbs** ❑ Estimate, ❑ Actual **Height:** **____ cm, ____ inches** ❑ Estimate, ❑ Actual	❑ **Check here** if this is an addendum to or revision of previously completed medication list.

At Home or Outpatient Prescription, Over the Counter (nonprescription), and Herbal Medications.
List all the patient's medication taken prior to admission. Herbal medication will not be supplied on admission.

Medication Name, Dose, Frequency, Route (list only those medications currently being taken)	Time / Date of Last Dose	**Physician Orders** **for Individual Medications on Admission**			
		Continue	Stop	Change to (specify):	MAR

What are the barriers to improving patient safety?

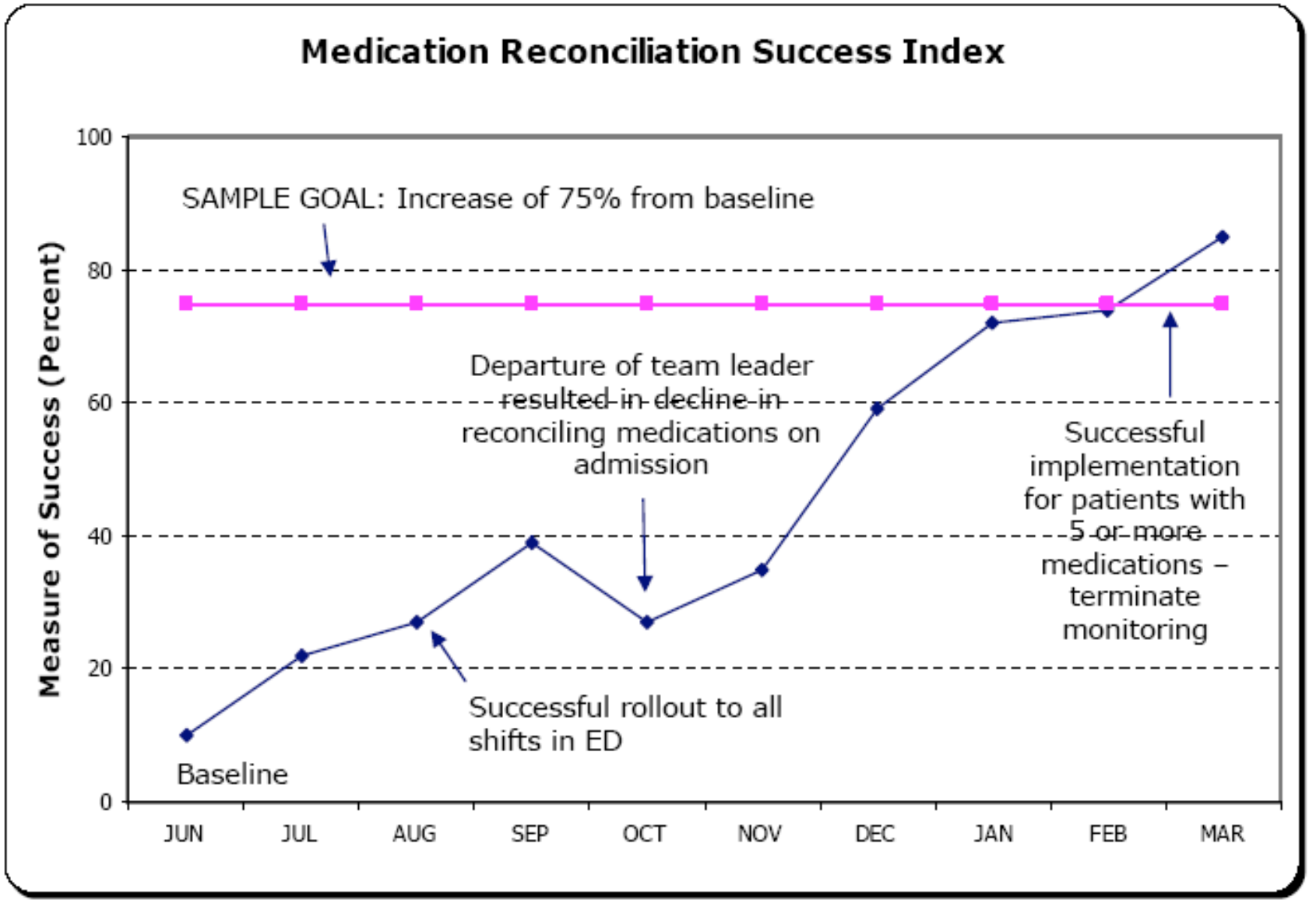


- The culture of medicine and its commitment to autonomous individual performance and progress through research
- Professional fragmentation and complexity
- Fear of individual liability and loss of trust

Leape and Berwick, *NEJM* 2005

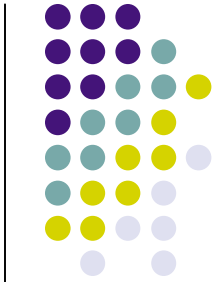
Leadership is Key

- While the evidence is strong that improvements are needed to ensure medication reconciliation (and other processes addressed in Safer Healthcare Now!) there are barriers:
  - Resistance to changing current work processes
  - Limited resources
  - Hospital policies or practices that discourage change
  - No clear champions in some organizations to support improvements
  - Lack of experience in quality improvement methods
- Safer Healthcare Now will only succeed if leaders support these efforts



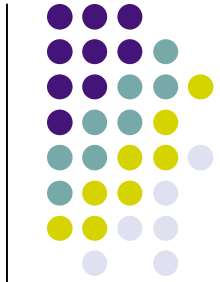
Medication Reconciliation Success Index = $\frac{\text{\# of NO discrepancies + \# of documented intentional discrepancies}}{\text{\# of NO discrepancies + total \# of ALL discrepancies}} \times 100$

Leadership



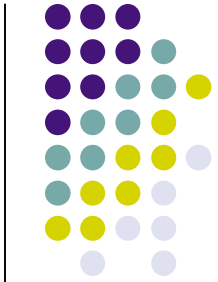
"The agenda for health care in developed countries in the 21st century will be dominated by a vision of quality which seeks to address the deep seated problems of the past. The ability to deliver safe, effective, high quality care within organizations with the right cultures, the best systems and the most highly skilled and motivated workforces will be the key to meeting this challenge…..Developing leadership and management skills will be essential in achieving this transformation in the quality of care delivered to patients"

Liam Donaldson, 2001



But what should leaders do?

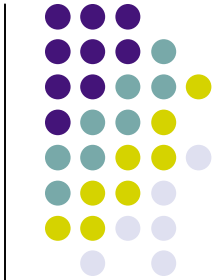
7 Leadership Leverage Points



1. Establish and oversee system level aims for improvement at the highest board and leadership level
2. Align system measures, strategy and projects in a leadership learning structure
3. Channel leadership attention to system level improvement
4. Get the right team on the bus
5. Make the CFO a quality champion
6. Engage physicians
7. Build improvement capability

Reinertsen, Pugh, Bisognano, IHI, 2005

7 Leadership Leverage Points



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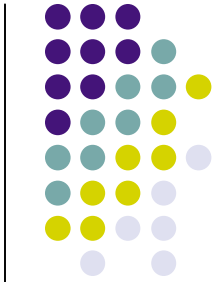
HSMR



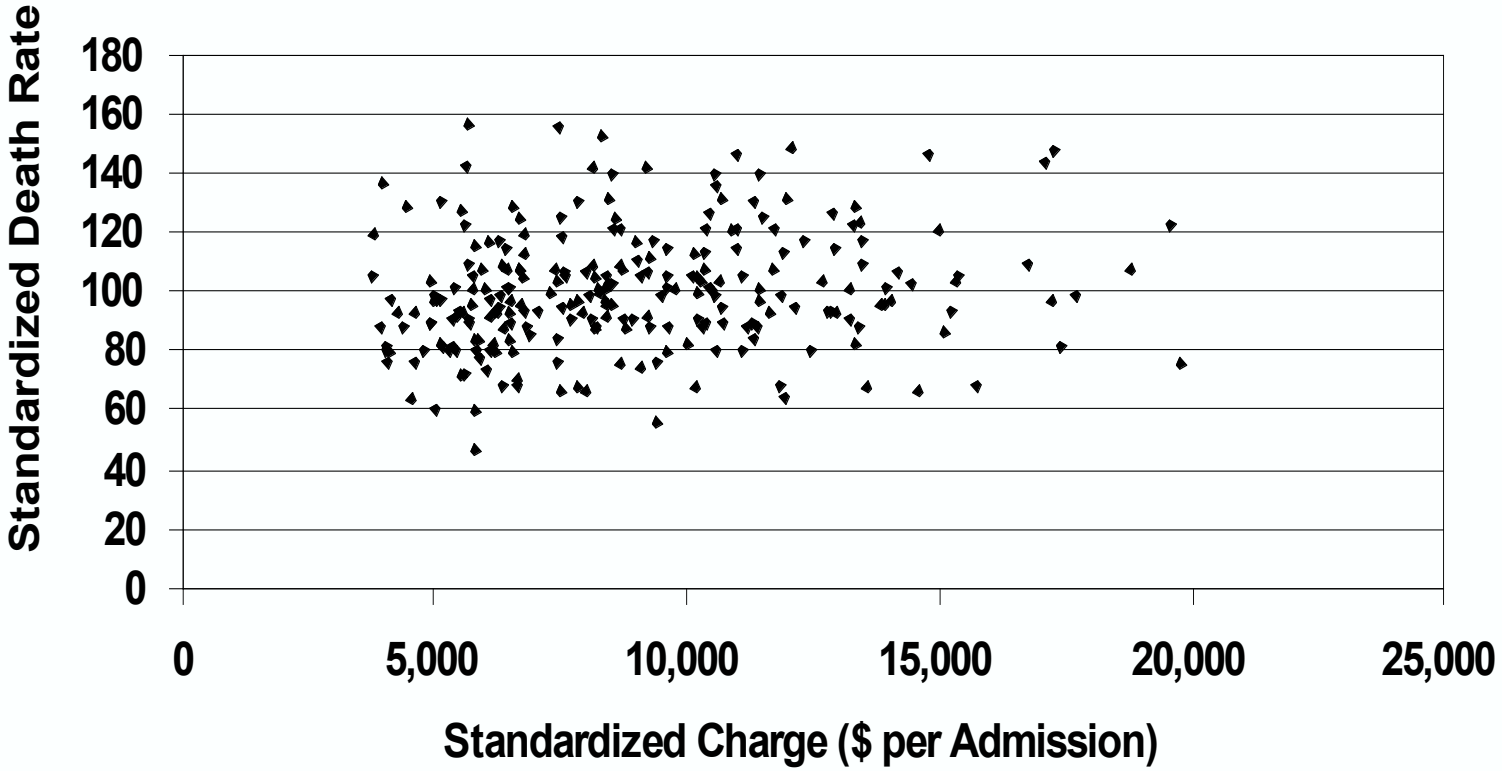
- Hospital Standardized Mortality Ratio
  - Methodology developed by Sir Brian Jarman in the UK
  - Widely used in the UK (Dr. Foster) and increasingly in the US
  - Adopted by IHI as the key measure of their 100K lives campaign's success
- The methodology
  - Ratio of actual deaths to expected deaths in acute care hospitals
  - Based on 80 diagnoses that account for most in-hospital deaths
  - Adjusted for age, sex, LOS, method of admission

U.S. Hospital Death Rate

(Standardized for Age, Sex, Race, Payer, Admission Source & Type)

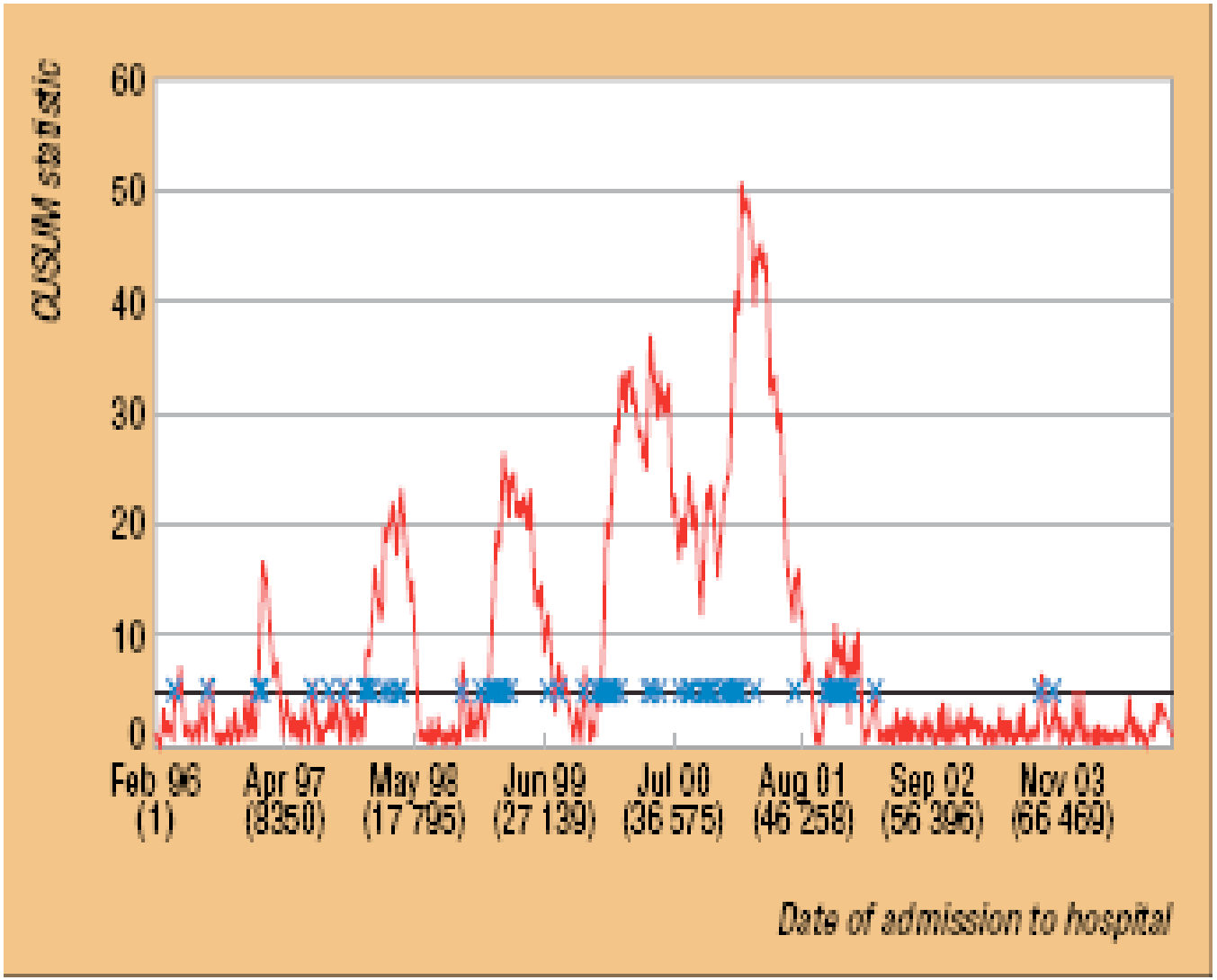
vs Charge per Admission

(Standardized for Age and Diagnosis) -- AHRQ 1997 Data



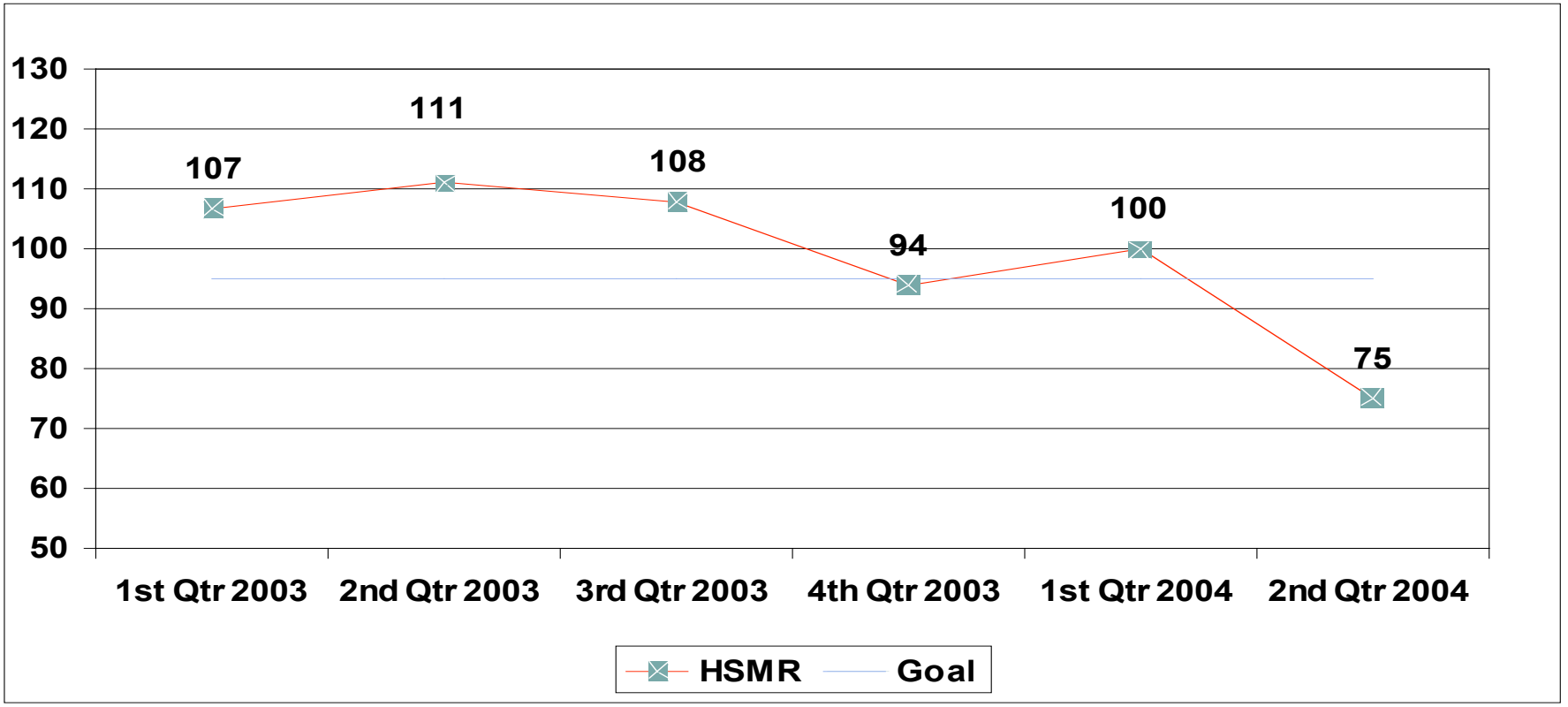
D. Berwick and B. Jarman

Walsall Hospital Improvements in HSMR



Baptist-DeSoto HSMR

(Hospital Standardized Mortality Rate)



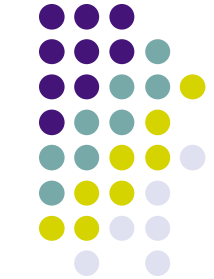
2x2 Matrix for Review of Last 50 Deaths

Comfort Care only	In ICU	Not in ICU
Yes	1 US 3% UK 1%	2 US 13% UK 42%
No	3 US 35% UK 8%	4 US 49% UK 48%

Based on data from 8 pilot hospitals
Whittington, et al., 2005

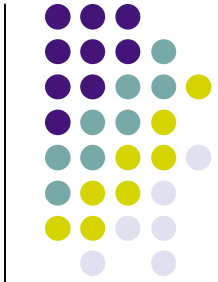
CC ONLY	ICU Admission: Yes	ICU Admission: No
Yes	•Execution of a “policy” limiting use of ICU for comfort care only •High capability for pain and symptom management on the patient care units	•Alternatives in the community to hospitalization •Best practices in End of Life care
No	•Best practices in ICU care for three time categories •ED-ICU interface	•Customization of care by risk group •Reduction of adverse events •Resolve system issues such as slow response time

Assessing “Box 4” Patients



- Why do patients admitted to acute care non-ICU units die?
- Common themes emerging from chart reviews:
  - Poor handoffs
  - Lack of communication and teamwork
  - Suboptimal risk assessment
  - Delays in diagnosis
  - Adverse events (unintended injuries)
- Three sources of failure to respond to changes in patient condition:
  - Failure to recognize the change
  - Failure to effectively communicate concerns
  - Failure to respond in an appropriate and timely fashion

7 Leadership Leverage Points



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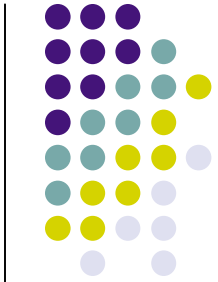
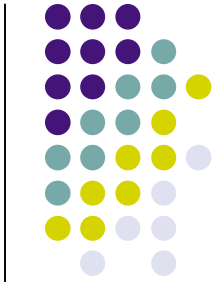
Reinertsen, Pugh, Bisognano, IHI, 2005

Leaders' Roles in System Improvement



- "The currency of leadership is attention"
- Do current agendas and priorities include review of patient safety efforts?
- Are senior leaders engaged in project review?
- What are the expectations for participation in Safer Healthcare Now!
- Will success be rewarded?

Project Review



- Budget time for reviews
- Learn whether projects are on track or likely to fail
- Diagnose problems due to
  - Lack of organizational will
  - Absence of strong enough ideas for execution
  - Failure to execute changes
- Provide guidance and support
- Decide if project should continue

Executive Review of Projects, IHI, 2005

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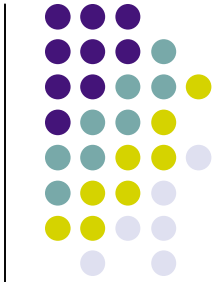

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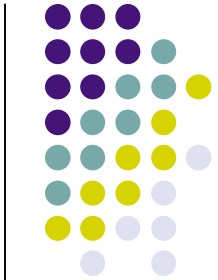
7. Build improvement capability

Reinertsen, Pugh, Bisognano, IHI, 2005

Building Improvement Capacity

- The greatest obstacle to success in Safer Healthcare Now is the low levels of improvement capacity in most healthcare organizations
- Most senior executives do not understand the science of reliability, flow management, and the Model for Improvement
- Few staff are available to support tests of change in front line teams
- The growing interest in patient safety, quality improvement, lean thinking, accelerated access and related skills has fully engaged current resources

Key Behaviors for Leaders

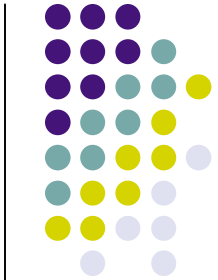


- Create a strategic focus on patient safety
- Identify “Big Dots” that reflect that strategy, e.g., HSMR, event rates
- Create accountability for current performance across the organization
- Raise expectations for senior team and middle management to manage improved performance
- Provide linkages between senior leadership and front line concerns
  - Review projects
  - Identify responsibilities for system improvements that emanate from incident reviews and root cause analyses
- Create a system for improvement aligned with strategic goals and reviewed on a ongoing basis

Some Tools for Safety Culture and Leadership

- Conversations and structured readings
- Surveys
- Appoint “Safety Champions’’
- Executive Walk Rounds
- Safety Briefings
- Provide Feedback to Frontline Staff
- Accountability principles
- Disclosure Policies

Conclusions



- Patient safety research has clearly identified gaps between current care and desired care
- Aims, measures, evidence-based improvements and methods are available to improve results
- Leadership is critical for achieving success