Improving Safety During Care Transitions
the I-PASS Project at MGH

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Director, Norman Knight Nursing Center for Clinical & Professional Development
Presenter Conflict of Interest Disclosures

- David Shahian MD
  - Nothing to disclose

- Laura Rossi RN, PhD
  - Nothing to disclose

- Gino Chisari RN, DNP
  - Nothing to disclose
Objectives

- Explain the rationale for improving patient safety during handoffs and transitions in care
- Describe the hospital-wide implementation of I-PASS at Massachusetts General Hospital
- Discuss the plan for ongoing evaluation to document and sustain improvement
Handovers and transitions of care

- **Transfer of:**
  - Information
  - Authority
  - Responsibility

- Occur during transitions in care
  - Shift changes
  - End of service rotation
  - Unit transfers
  - Admissions, discharges
What’s the problem?

- Healthcare has become more complex
  - Greater range of diagnoses and treatments
  - More practitioners involved in most patient’s care
  - More sites where care is delivered (in and out of hospital)
  - Team-based care
  - Work hours restrictions
- AMC’s even more vulnerable due to case mix
- Healthcare providers not taught a consistent method of communication (compare with pilots, air traffic control)
- Communication efficiency and accuracy rarely evaluated
Most Frequently Identified Root Causes of Sentinel Events Reviewed by The Joint Commission by Year

The majority of events have multiple root causes
(Please refer to subcategories listed on slides 5-7)

<table>
<thead>
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<th>2012 (N=901)</th>
<th>2013 (N=887)</th>
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The reporting of most sentinel events to The Joint Commission is voluntary and represents only a small proportion of actual events. Therefore, these root cause data are not an epidemiologic data set and no conclusions should be drawn about the actual relative frequency of root causes or trends in root causes over time.
2012 AHRQ Safety Culture Survey Data—National Aggregate Scores

Hospital Handoffs & Transitions

- Median 44%
- 75th %ile = 51
- 50th %ile = 44
- 25th %ile = 37
59% of respondents reported major or minor patient harm from a problematic handover
Survey Feedback: MGH Institutional Stakeholders

**Question:** Please describe up to three Q&S issues or concerns that should be considered for 2016 Q&S goals.

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<td>Resource Utilization / Patient Throughput (incl. ED Boarders)</td>
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<td>Outcomes Reporting and Measurement</td>
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<td>Patient Disruptive Behavior (NEW)</td>
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<td>20</td>
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<td>9</td>
<td>Discharge Planning</td>
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<td>1%</td>
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<tr>
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<td>23</td>
<td>17</td>
<td>Universal Protocol</td>
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**TOTAL** | 303 | 100%
MGH Handover Committee

Handovers and Transitions Committee

Handover of Responsibility:
- Shift to Shift (RN, MD / PA / NP)
  - Coverage (i.e. weekends)
  - Off-service
- Coverage (i.e. weekends)
  - Off-service

Handover of Location (temporary):
- Travel for a study / procedure / test / appointment

Handover of Responsibility and Location (internal):
- Dept. to dept: ED, OR, ICU, Medicine, Surgery

Handover of Responsibility and Location (external):
- Entering MGH, Leaving MGH

Acute Episode:
- Urgent / emergent change in clinical status

Comprehensive Background Documentation:
- Living document concept
ED to Medicine/ICU Handover Script
MD/PAINP

Senders: Use this tool as a “script” for pass-off.

Receivers: Use this tool as a prompt for questions you may want to ask.

Set Up
- Sender: Pass-off of pass-off?
- Receiver: Already reviewed data?
- One item and reason for admit

History of Present Illness (HPI) and Initial Evaluation
- VS: Initial Labs
- Initial studies

Request of CQIs - Are you using a standardized tool for:
- Cardiology Access Unit
  - Ellison J3 NP to Ellison NP: Verbal report and PEPF, note
  - Ellison NP to Overnight: Verbal report and PEPF, note

- Surgery
  - AHS to AIS: AHS based sign-off note, and verbal pass-off on the medical ward face to face
  - Team 3 to Team 3: Autopsy based sign-out note, and verbal pass-off on the medical ward face to face

- Team 4 and Team 5 to (Night Coverage): Team 4 MD and Team 5 MD

- Team 4 MD and Team 5 MD to (Night Coverage): Team 4 MD and Team 5 MD: Written and verbal handoff based on our

Department of Medicine Patient Handoffs and Communications
March 20, 2013

CQIs

1. Shift Change of Your Providers (Which units and providers)

Cardiology Access Unit
- Ellison J3 NP to Ellison NP: Verbal report and PEPF, note
- Ellison NP to Overnight: Verbal report and PEPF, note

Surgery
- AHS to AIS: AHS based sign-off note, and verbal pass-off on the medical ward face to face
- Team 3 to Team 3: Autopsy based sign-out note, and verbal pass-off on the medical ward face to face
- Team 4 and Team 5 to (Night Coverage): Team 4 MD and Team 5 MD: Written and verbal handoff based on our
Handover/Transitions Committee Goal
## I-PASS

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<td>Patient Summary</td>
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<td>• Events leading up to admission</td>
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<td>• Hospital course</td>
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<td></td>
<td>• Ongoing assessment</td>
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<td></td>
<td>• Plan</td>
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<td>A</td>
<td>Action List</td>
<td>• To do list</td>
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Adapted from Starmer AJ et al., Pediatrics 2012; 129(2): 201-204.
Why I-PASS?

- Simple and intuitive
- Explicitly incorporates important elements not consistently present in our current practice or in other handover instruments
  - Situational awareness/contingency planning
  - Synthesis by receiver
- Accommodates multiple complex problems/tasks
- Specifically designed for use in healthcare
- Extensive educational materials
- Widespread national and international interest
- Evidence-based: multiple academic studies (conceptual, pilot, multi-institutional)
- NEJM study: dramatic reduction in errors and adverse events
Development, Implementation, and Dissemination of the I-PASS Handoff Curriculum: A Multisite Educational Intervention to Improve Patient Handoffs

Amy J. Stairner, MD, MPH, Jennifer K. O’Toole, MD, MEd, Glenn Rosenbluth, MD, Sharon Calaman, MD, Dorene Balmer, PhD, RD, Daniel C. West, MD, James F. Bale, Jr., MD, Clifton E. Yu, MD, Elizabeth L. Noble, Lisa L. Tse, Rajendra Srivastava, MD, MPH, FRCP, Christopher P. Landrigan, MD, MPH, Theodore C. Sedish, MD, and Nancy D. Spектор, MD, for the I-PASS Study Education Executive Committee

Abstract

Patient handoffs are a key source of communication failures and adverse events in hospitals. Despite Accreditation Council for Graduate Medical Education requirements for residency training programs to provide formal handoff skills training and to monitor handoffs, well-established curricula and validated skills assessment tools are lacking. Developing a handoff curriculum is challenging because of the need for standardized processes and faculty development, cultural resistance to change, and diverse institution- and unit-level factors. In this article, the authors apply a logic model to describe the process they used from June 2010 to February 2014 to develop, implement, and disseminate an innovative, comprehensive handoff curriculum in pediatric residency training programs as a fundamental component of the multicenter Initiative for Innovation in Pediatric Education—Pediatric Research in Inpatient Settings Accelerating Safe Signouts (I-PASS) Study. They describe resources, activities, and outputs, and report preliminary learner outcomes using data from resident and faculty evaluations of the I-PASS Handoff Curriculum: 96% of residents and 97% of faculty agreed or strongly agreed that the curriculum promoted acquisition of relevant skills for patient care activities. They also share lessons learned that could be of value to others seeking to adopt a structured handoff curriculum or to develop large-scale curricular innovations that involve redesigning firmly established processes. These lessons include the importance of approaching curricular implementation as a transformational change effort, assembling a diverse team of junior and senior faculty to provide opportunities for mentoring and professional development, and linking the educational intervention with the direct measurement of patient outcomes.

Communication and handoff failures are among the root causes in nearly two-thirds of "sentinel events," which are serious, often fatal, preventable adverse events in hospitals. In response requirements and patient safety concerns, well-established handoff curricula and validated tools to observe and assess trainees' handoff skills are lacking. In June 2010, the Initiative for Innovation in Pediatric Education—Pediatric Research in Inpatient Settings Accelerating Safe Signouts (I-PASS) Study was launched as part of a collaborative effort involving 11 pediatric...
“In 10,740 patient admissions, the medical-error rate decreased by 23% from the preintervention period to the postintervention period (24.5 vs. 18.8 per 100 admissions, P<0.001), and the rate of preventable adverse events decreased by 30% (4.7 vs. 3.3 events per 100 admissions, P<0.001). …Across sites, significant increases were observed in the inclusion of all prespecified key elements in written documents and oral communication during handoff ... There were no significant changes from the preintervention period to the postintervention period in the duration of oral handoffs (2.4 and 2.5 minutes per patient, respectively; P = 0.55) or in resident workflow, including patient–family contact and computer time.”
International I-PASS Downloads

457 International Downloads
Updated September 9, 2015
I-PASS by Provider Type and Clinical Setting

**Providers**
- Physicians: 71.5%
- Registered Nurse: 15.7%
- Medical students: 5.6%
- Nurse Practitioner: 5.9%
- Pharmacist: 5.7%
- Physician Assistant: 1%
- Other: 3%

**Clinical Settings**
- Internal Medicine: 21.5%
- Pediatrics: 25.1%
- Surgery: 8.7%
- Emergency Medicine: 8.9%
- Intensive Care: 10.4%
- Family Medicine: 9.6%
- Obsterics Gynecology: 5%
- Other: 17.4%
- Psychiatry: 2.9%
- Neurology: 2.8%
- Orthopedics: 1.6%
TeamSTEPPS™

(Team Strategies and Tools to Enhance Performance and Patient Safety)

- Evidence-based team training curriculum
- High performing teams:
  - Effective leaders
  - Structured communication strategies
  - Situational awareness
  - Shared mental model
  - Provide mutual support
- High performing teams promote patient safety
## Structured Team Communication Techniques

<table>
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<tr>
<th>Technique</th>
<th>Function</th>
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<tr>
<td>Brief</td>
<td>Plan team activities</td>
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<tr>
<td>Debrief</td>
<td>Analyze an interim event</td>
</tr>
<tr>
<td>Huddle</td>
<td>Solve a problem</td>
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<tr>
<td>Cross monitoring / Feedback</td>
<td>Improve performance</td>
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<tr>
<td>Assertive statement</td>
<td>Identify potential errors</td>
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<tr>
<td>Check-back</td>
<td>Ensure accurate information transfer</td>
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<tr>
<td>Handoff</td>
<td>Transfer care and responsibility</td>
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Handovers

- Unambiguous transfer of
  - Information
  - Responsibility

- Protected time and space
  - Quiet location
  - Interruptions minimized

- Standardized format
Printed/Electronic Handoff Document

- Foundation for the verbal handoff
  - Provides structure for giver and receiver
  - Provides more comprehensive information

- Creates efficient information transfer

- Requires daily updates by senior caregivers
Verbal Handoff

- Structured format
  - Mnemonic provides standardized language and sequence, inclusion of all critical elements

- Content / length of verbal handoff depends on
  - Level of training
  - New patient on service?
  - Length of time on rotation, familiarity with routines

- Must provide an opportunity for discussion
  - Clarifying questions
  - Creates a shared mental model
  - Facilitates active participation by receiver
## I-PASS

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<td>Varies by institution, unit type</td>
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<tr>
<td></td>
<td>Diff diagnosis, diagnostic reasoning</td>
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<tr>
<td></td>
<td>Hospital course: problem or system-oriented</td>
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<td>Ongoing assessment, overall plan</td>
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<td>“Big picture” of patient and care team</td>
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<td>Anticipatory problem solving--Plan for what might happen and how to respond</td>
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Adapted from Starmer AJ et al., Pediatrics 2012; 129(2): 201-204.
Contingency Planning: Anticipatory problem solving

**EMERGENCY PROCEDURES CHECKLIST CESSNA 172**

**Engine Fire During Start**
- Starter – crank engine continuously
- Mixture – idle cut-off
- Throttle – full open
- Fuel Selector – OFF

**Engine Power Loss: Immediately After Takeoff**
- Airspeed – 75 MPH @ 0° Flaps
  - (70 MPH @ 40° Flaps)
- Mixture – idle cut-off
- Fuel Selector – OFF
- Magneto – OFF
- Flaps – 40°
- Master Switch – OFF

**Engine Power Loss: In-Flight**
- Airspeed – 80 MPH, Best Glide @ 0° Flaps
- Best Site To Land
- Checklist:
  - Fuel Selector – on Both
  - Primer – in and locked
  - Magneto – cycle
  - Mixture – full rich
  - Carburetor Heat – ON
- Declare: Talk on 121.5; Squawk 7700
- Evacuate: Follow “POWER-OFF LANDING” Procedure

**Power-Off Landing**
- Airspeed – 75 MPH @ 0° Flaps
  - (70 MPH @ 40° Flaps)
- Fuel Selector – OFF
- Mixture – idle cut-off
- Magneto – OFF
- Flaps – 40°
- Master Switch – OFF
- Seatbelts – secure
- Door – unatched before touchdown

**Fire in Flight**
- (electrical fire)
- Master Switch – OFF
- All Electrical Switches – OFF
- Heater – OFF
- Cabin Air – OFF
- Air Vents – closed
- Land as soon as possible

- (engine fire)
  - Establish an Emergency Descent
  - Fuel Selector – OFF
  - Primer – in and locked
  - Throttle – closed
  - Mixture – idle cut-off
  - Cabin Heat – OFF
  - Cabin Air – OFF
  - Overhead Vents – open
  - Follow “POWER-OFF LANDING” procedure
Effective Contingency Planning

- Articulate what might go wrong, and Rx options
  - Interventions that have/have not worked
  - Code status
  - Available resources and chain of command
  - Special family, psychosocial, nursing concerns

- Level of detail appropriate for receiver’s
  - Experience
  - Knowledge of disease process
  - Familiarity with service/patient
Synthesis by Receiver

- Forces active, engaged listening
- Brief re-statement/summary of essential information
  - Demonstrates information is received and understood
  - Receiver may synthesize the facts differently, perhaps better
  - Opportunity to clarify elements of the handover
  - Vary in length, content, and emphasis depending on patient
- Ensures effective transfer of information and responsibility
- Shared mental model
The Goal
Implementation Plans

A hospital wide effort

• Large, complex academic medical center
  1046 licensed beds
  25 satellite locations on hospital license
  3.1 million square feet of main campus licensed space

• Largest private employer in the city of Boston and state of Massachusetts, more than 30,000 in our workforce
Where did we begin?

- **Project Aims:**
  - Improve the quality of handovers during care transitions by implementing a standardized approach
  - Reduce handover-related errors and adverse events, thereby enhancing patient safety

- **Scope:**
  - Build an infrastructure across all MGH clinical areas and departments to support ongoing training and competency development in handovers
I-PASS Hospital-wide Implementation

- **Uniform go-live date**
  - Preferred approach
  - Feasible & essential for some activities (e.g., IT systems)
  - Unpredictable clinician availability, competing initiatives, new residents, etc. made this option unrealistic for I-PASS at MGH

- **Asynchronous, mixed model**
  - Not all caregivers in all locations can be trained at the same time
  - Formal, intensive training for core leaders, superusers, trainers
  - Menu of training options including didactic lectures, simulations
  - Robust portfolio of educational materials
  - Viral, person to person spread will rapidly “infect” the entire institution
I-PASS Hospital-wide Implementation Principles

- **All caregivers** to receive comparable, but role and function-specific training
  - Verbal skills and written instruments
  - Begin with clinical units, departments
  - Subsequent focus on cross-department handovers, particularly in high risk areas

- Encourage participants to use I-PASS framework to develop venue and function-specific applications

- Recognize and accommodate various ongoing training needs, schedules and competing priorities (e.g., Ebola, regulatory readiness)
Framework for Implementation

- Senior leadership support/engagement
- Centralized program leadership
- Identification of local “Champions”
- Implementation plan development and design
- Consensus building
- Organizational communication strategies
- Measure and refine: evaluation, analysis and feedback
Implementation Timeline: 2013-2014

May-Aug 2013
- Assess current practice at MGH
- Literature review: select I-PASS
- Build consensus w/ stakeholders
- Consult with I-PASS developers

Sept-Dec 2013
- Plan for pilot study on 3 inpt units
- Engaged clinical leads for pilot
- Baseline staff survey
- Pilot evaluation: survey/focus groups

Jan-June 2013

July-Dec 2013
- Engage Senior Leadership
- Launch communication plan
- Train clinicians in inpatient areas
Communication Plan

Getting the word out 
June – Dec 2014

- Articles in MGH publications: *Hotline, Caring, Fruit St Physician*
- “From the Desktop” of hospital president
- Use of MGH Daily broadcast to announce/register for training sessions
- ID Badge cards
- Posters illustrating leadership support
Training

- Multi-modal, curriculum delivery including didactic lectures, simulated role play, coaching

- Flexible and adaptable options for existing opportunities (e.g., Department M&M meetings, Grand Rounds, intern orientation, etc), allotted time, staff schedules

- Centralized hospital resources: development and dissemination of training materials and resources

- Variable department-specific support
### MGH Clinicians trained

<table>
<thead>
<tr>
<th>Type of training</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Open Forums (2 hours)</td>
<td>508</td>
</tr>
<tr>
<td>2. Department Specific Training Sessions (July 2014 – August 2015)</td>
<td>700</td>
</tr>
<tr>
<td>3. Patient Care Services</td>
<td>4165</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5373</td>
</tr>
</tbody>
</table>
Sustaining the learning in practice

- **Training Plans**
  - Sharepoint/web access with DVD, papers, slides to support
  - Integration within simulation program

- **Ongoing reinforcement**
  - Unit and Department-level Resource Leaders
  - Observation and feedback program
  - I-PASS electronic documentation
**Implementation Timeline: 2015**

**Jan- March**
- EHR modifications
- Pilot software application
- MGH handover policy revised
- Observation/monitoring plan
  - purpose, method, frequency

**April- June**
- Appointment of resource leaders
- Orientation of resource leaders
- Selected dept focus groups
- Safety Culture survey launched

**July - Sept**
- Initiate observations
- Feedback to departments
- Convene groups to plan for interdepartmental pilots
Tailoring implementation at the unit/dept level

- What type of handoff would you like to improve?
  - Shift to shift
  - Across dept/disciplines

- What are the critical types of information to be conveyed, and the greatest vulnerabilities?

- What is the current workflow related to handovers on your unit/service?
Handover Evaluation at the Unit Level

- Process measures: Direct observation
  - Number and proportion of caregivers trained
  - Observation
    - Level of adoption: usage of I-PASS structure
    - Quality and appropriateness of content

- Outcome measures: Staff and Patients
  - AHRQ Safety Culture survey
  - Focused clinician survey
  - Safety report, medical record review, clinical outcomes
Electronic Version of MGH I-Pass Observation Tool

- Paper and “Socrative Student” Smartphone applications
### Compiled Data:

<table>
<thead>
<tr>
<th>I</th>
<th>P</th>
<th>A</th>
<th>S</th>
<th>S</th>
<th>Correct Sequence</th>
<th>Giver Prep/Organized</th>
<th>Receiver Engaged in Listen/Clarifying</th>
<th>Overall Quality</th>
<th>Comments</th>
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<tbody>
<tr>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Good</td>
<td>Loud environment</td>
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</table>

### Percentage Totals:

<table>
<thead>
<tr>
<th>I</th>
<th>P</th>
<th>A</th>
<th>S</th>
<th>S</th>
<th>Correct Sequence</th>
<th>Giver Prep/Organized</th>
<th>Receiver Engaged in Listen/Clarifying</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
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</tbody>
</table>
Initial Observations (N = 96)

<table>
<thead>
<tr>
<th>I</th>
<th>P</th>
<th>A</th>
<th>S</th>
<th>S</th>
<th>Correct Sequence</th>
<th>Giver Prep/Organized</th>
<th>Receiver Engaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>28%</td>
<td>98%</td>
<td>81%</td>
<td>44%</td>
<td>54%</td>
<td>46%</td>
<td>93%</td>
<td>82%</td>
</tr>
</tbody>
</table>
Overall Program Evaluation

- **Structure**
  - Resources used: staff time for training, project coordination
  - PR and training materials (binders, DVDs, posters)

- **Process**
  - # and proportion trained
  - Satisfaction with training

- **Intermediate Outcomes**—have we improved handover quality?
  - Handover observations
  - Staff perceptions of handover quality

- **Ultimate outcomes**—have we improved patient safety?
Take home messages...

- Hospital & Department Leadership commitment are essential.
- Link handover improvement to better patient safety.
- Define manageable phases for implementing improvement.
- Single training exposure will not produce consistent application—need ongoing attention to engage/recruit staff in changing culture of practice setting.
- Flexibility and adaptability to address handover needs, workflow, and level of staff involved.
- There can never be enough communication!
INTERACTIVE EXERCISE

- Thinking about your own institution, how would you implement I-PASS
  - Project aim
  - Key stakeholders to engage
  - Focus areas
  - Implementation plan
  - Barriers
  - What is success, and how do you measure it?
Nursing & Patient Care Services

A Departmental Implementation Plan
MGH Patient Care Services: Statistics

Over 6,000 clinicians and support staff comprise the Nursing and Patient Care Services team.

Disciplines
- Nursing
- Chaplaincy
- Medical interpretation
- Occupational therapy
- Physical therapy
- Respiratory care
- Social Service
- Speech, language & swallowing disorders

Programs
- Center for Global Health
- Domestic Violence
- Institute for Patient Care
- International Patient Center
- Office of Patient Advocacy
- Office of Quality & Safety
- Tobacco Treatment
- Volunteer Services & Ambassadors

End of FY 2015

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
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<tbody>
<tr>
<td>Inpatient Beds</td>
<td>999</td>
</tr>
<tr>
<td>Admissions</td>
<td>50,679</td>
</tr>
<tr>
<td>Inpatient Surgeries</td>
<td>19,347</td>
</tr>
<tr>
<td>Ambulatory Surgeries</td>
<td>23,121</td>
</tr>
<tr>
<td>Occupancy (Inpatient)</td>
<td>86.1%</td>
</tr>
<tr>
<td>Outpatient Visits (Main Campus)</td>
<td>453,110</td>
</tr>
<tr>
<td>ED visits</td>
<td>105,958</td>
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</tbody>
</table>
Framework

**INPUT**
- Societal factors affecting Health Care Accreditation – Licensure Requirements
- Economic Indicators
- Patient/family nursing care needs
- Organizational needs
- Individual/group learning needs

**PROCESS**
- Internal and External Factors
- Relationship with customers

**OUTPUT**
- Onboarding
- In-Service training
- Ongoing & Continuing Education for Competency Development
- Educational Consultation
- Professional Development

*Edward P. Lawrence Center for Quality & Safety*

*MGH 2010 – All Rights Reserved*
Norman Knight Nursing Center for Clinical & Professional Development

- One of four Centers within the Institute for Patient Care
- Originally established in 1998
- Renamed in 2007 in honor of Mr. Norman Knight
- Responsible for the onboarding/learning needs of over 4000 nursing and support staff
- Educational consultants
- Project Management
Nursing & Patient Care Services Model

IPASS in the Department of Nursing
Educational Proposal

The 5 D’s

Discover
Decide
Design
Deploy
Determine
Discover

Goal of this phase

- To bring together a well, cross-sectional representation of the Dept of Nursing to engage in a discussion and form recommendations to Nursing Ops on several key components of IPASS

Participants

- Unit Leadership
- Norman Knight Nursing Center staff
- Lawrence Center for Quality & Safety
- Others

Outcome: Met

- A set of recommendations accepted by a majority of the participating members and sent to Nursing Executive Ops
Decide

*Goal of this phase*

- To secure executive feedback, support and endorsement of the recommendations

*Participants*

- Nursing Executive Operations
- Norman Knight Nursing Center

*Outcome: Met*

- Nursing Executive Ops approves the plan and authorizes the Norman Knight Nursing Center to implement I-PASS
Design

Goal of this phase:
- To develop an educational/adoption plan to introduce/launch I-PASS within the Department of Nursing

3 Parts
- Pre Educational Intervention
- Educational Intervention
- Post Educational Intervention

Outcome: Met
- Educational plan built on consensus building
Deploy

*Goal of this phase:*
- To introduce, excite, promote adoption, and educate a minimum of 90% of the staff to I-PASS.

*Participants*
- Unit-Based Leadership
- Norman Knight Nursing Center staff
- Staff nurse champions

*Outcome: Met*
- As of April 20, 2015 – 93.14% of the nursing staff has been educated, including each cohort of new staff onboarded each month, as well as 212 (to date) Patient Care Services staff.
Determine

**Goal of this phase:**
- To evaluate the overall adoption of I-PASS within the Department of Nursing and as necessary, provide ongoing support and if required, introduce and deploy any course adjustment.

**Participants**
- Unit-Based Leadership
- Norman Knight Nursing Center staff
- Lawrence Center for Quality & Safety

**Outcome: Ongoing**
- 3 post-education Observations of Practice to date, each with an intervention
IPASS Pre and Post Education Data
(element present at change of shift handover)

<table>
<thead>
<tr>
<th></th>
<th>Pre-Feb</th>
<th>May</th>
<th>July</th>
<th>Sept</th>
</tr>
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<tbody>
<tr>
<td>I</td>
<td>14%</td>
<td>73%</td>
<td>60%</td>
<td>58%</td>
</tr>
<tr>
<td>P</td>
<td>73%</td>
<td>99%</td>
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<td>95%</td>
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<td>92%</td>
<td>97%</td>
<td>93%</td>
</tr>
<tr>
<td>S</td>
<td>27%</td>
<td>89%</td>
<td>70%</td>
<td>85%</td>
</tr>
</tbody>
</table>
Activities of the 5 D’s

- Consensus Building Retreat
  - Buy-in
  - 66% as majority

- Curriculum
  - Standardized
  - Customized

- Pilot
  - 3 inpatient units
    - 2 general medical
    - 1 surgical
Activities of the 5 D’s

- Curriculum revision
  - Online – HealthStream
  - Town Hall Meetings
  - IPASS 101
  - Unit-Based inservice
  - Unit-Based Tool Kits

- Education
  - 16/7 x 2 weeks

- Evaluation
  - Professional Learning Environment for Nurses (PLEN-RN)
  - Observations: Pre- and Post- Education
Lessons Learned

- Involve stake/shareholders early
- Acknowledge challenges & potential barriers upfront
- Determine which barriers to tackle
- Communication
- Marketing
- Follow-Up/Reevaluate