ACHC U®
EDUCATIONAL RESOURCES

HOME HEALTH

Scaling and Sustaining Safety: Implementing Highly Reliable, System-Wide Communications Using I-PASS

I-PASS Patient Safety Institute

Presenters

Chris Landrigan, MD, MPH

Co-Founder, I-PASS Institute and Chief of General Pediatrics, Boston Children's Hospital

Theresa Murray, MSN, RN, CPPS, LSSBB

Vice President, Clinical Strategy and Transformation

Agenda

- Introductions
- Background: Medical Errors, Communication Failures, and Adverse Events
- Structured Communication: A Key Driver of Patient Safety
- Implementing Highly Reliable, System-Wide Communications Using I-PASS
- Discussion

ACHC U®
EDUCATIONAL RESOURCES

HOSPICE

Background: Medical Errors, Communication Failures, and Adverse Events

1999

Institute of Medicine (IOM) Report – “To Err is Human”

Shocked the public, ignited the Patient Safety Movement…

Many Initiatives launched, including…

OBSTETRICS

- Team training
- Simulation training
- Shoulder dystocia drills
- EFM training

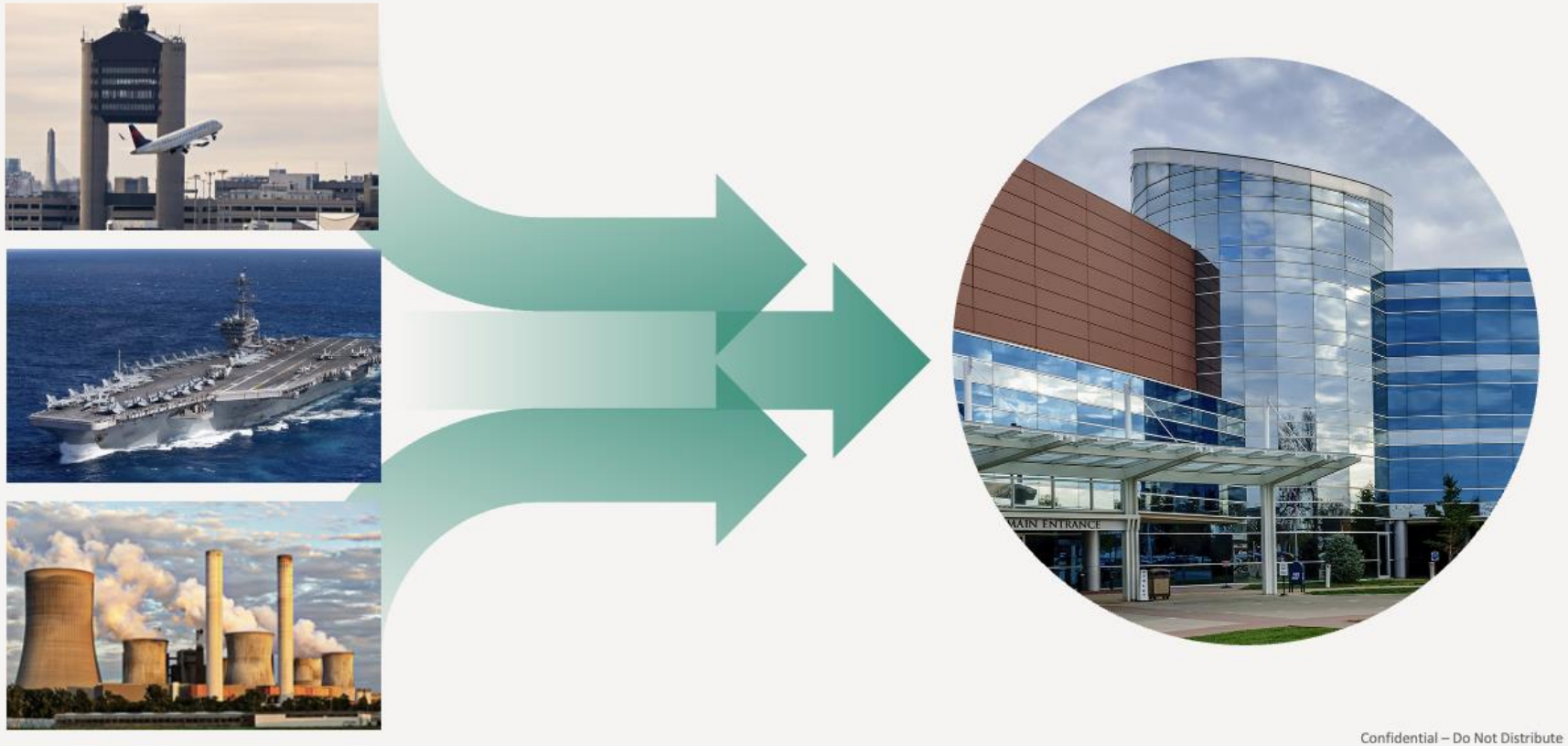
DIAGNOSIS

- Guidelines—high-risk, complex diagnosis
- Cognitive aids, including quick access to possible differentials
- Centralized medical record (EHR)

SURGERY

- Skills labs/simulation training
- Prevention of wrong site/wrong procedure surgeries
- RFID technology (prevention of retained surgical items)
- Surgical Safety Checklist
- Surgical Timeouts
- Debriefs

High Reliability in Healthcare



Confidential – Do Not Distribute

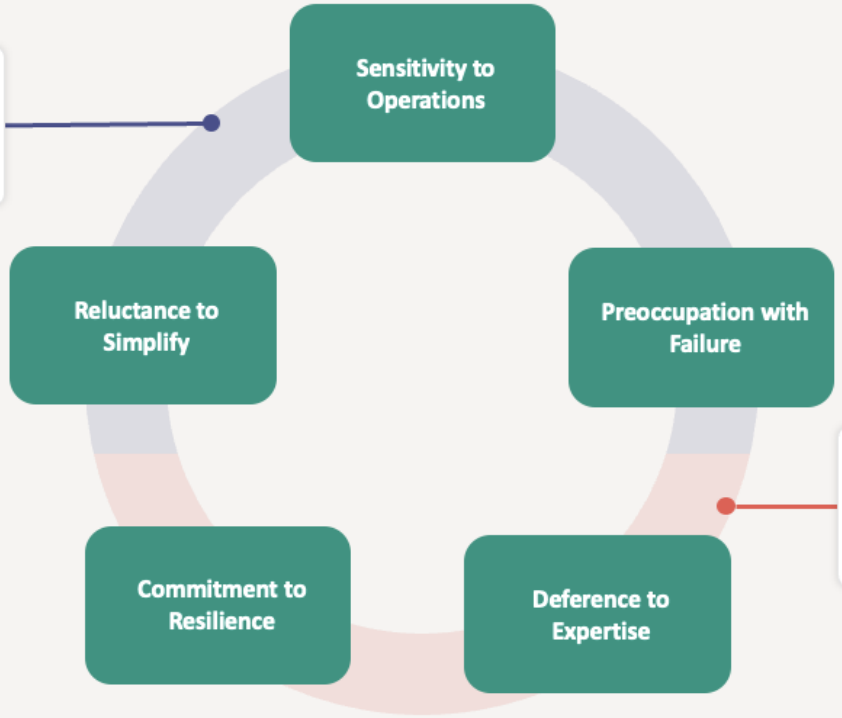
The 5 Principles of High Reliability

High Reliability Organizations

An organization that experiences fewer than anticipated accidents or events of harm, despite operating in highly complex, high-risk environments.

3 Principles of Anticipation

"Stay out of trouble"



2 Principles of Containment

"Get out of trouble"

Driving High Reliability Principles Into Daily Practice

HIGH RELIABILITY PRINCIPLES

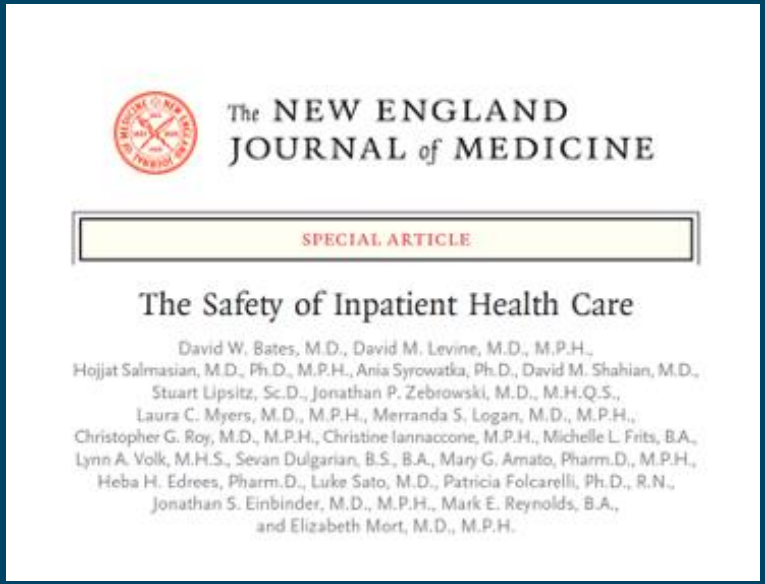
CONSISTENT APPLICATION OF SAFETY BEHAVIORS

Health Systems

The Impenetrable 'Clay Layer'

Frontline Caregivers

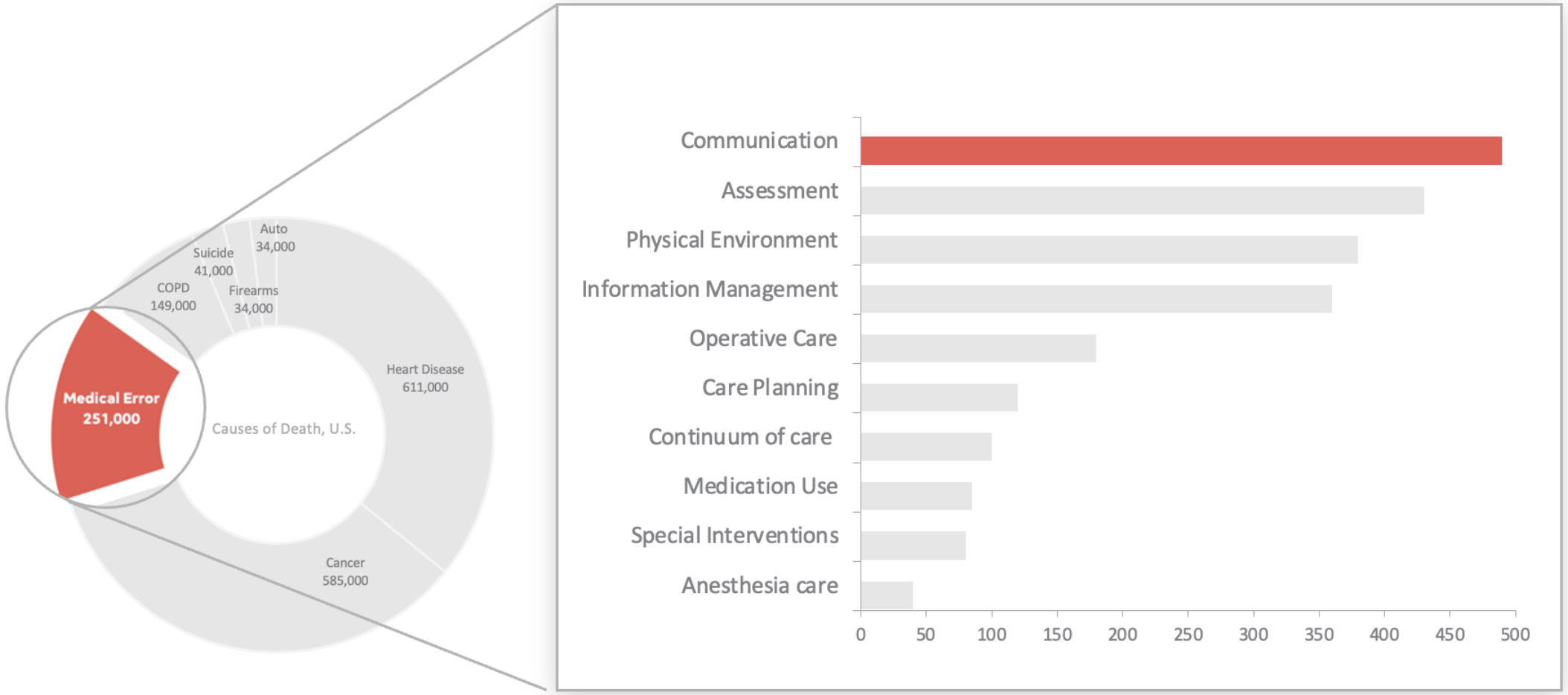
- Critical Thinking
- Situational Awareness
- Coordination



KEY TAKEAWAYS

- **Adverse events** are **major source of harm** for hospitalized patients
- Adverse events identified in **1 in 4 admissions**
- **Approximately 25%** of those events **are preventable**

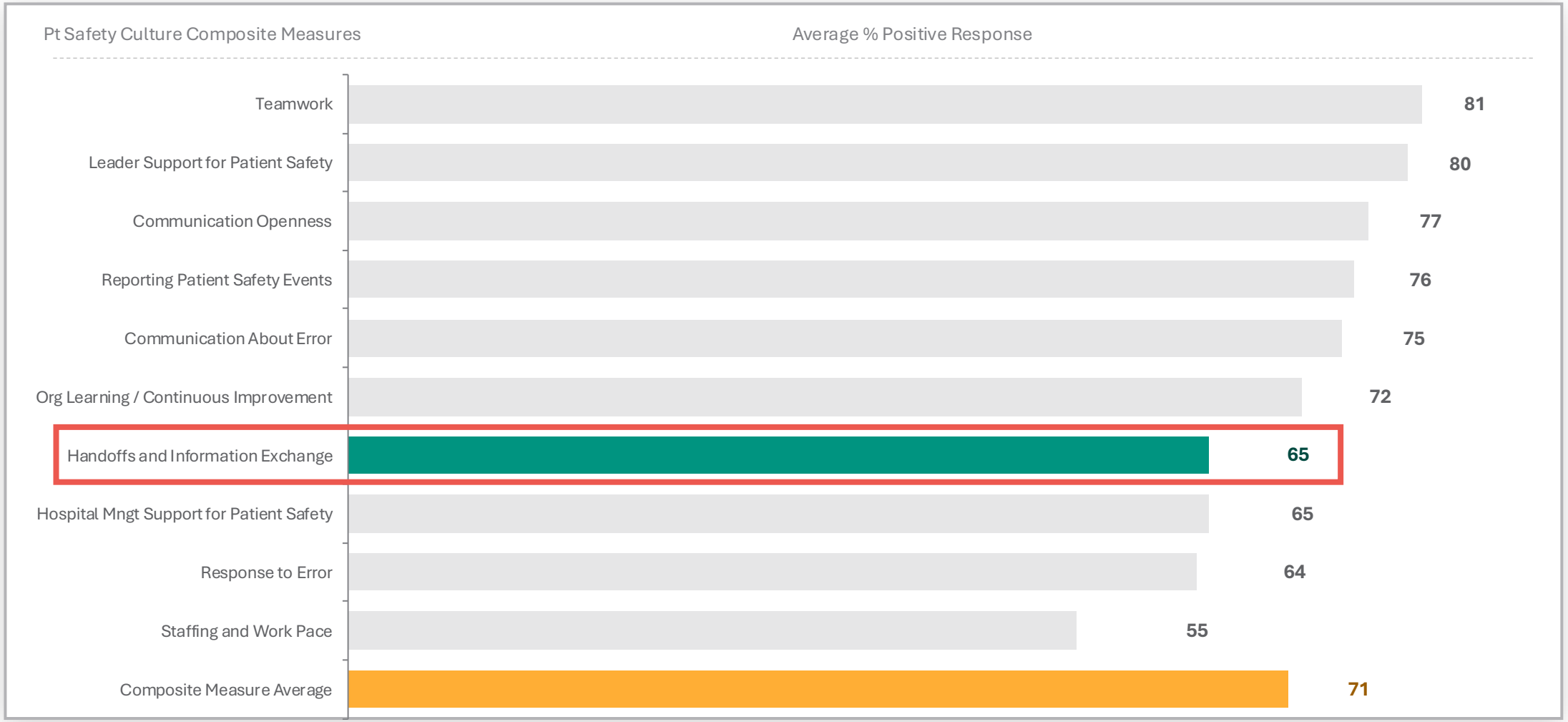
Leading Contributing Factor to Medical Errors is Communication



BMJ 2016l 353:i2139 (Published 03 May 2016) © 2016 BMJ Publishing group, Ltd.

Joint Commission. (2011). Sentinel Event Statistics Data – Root Causes by Event Type (2004 – Third Quarter 2011)

Culture of Safety



I-PASS and Regulatory Standards: What's the Connection

CRF	ACHC Standard	Standard Language
		Acute Care Hospital
Emergency Services-§482.55(a)(2)	20.00.02 Integration	If emergency services are provided at the hospital, • The services must be integrated with other departments of the hospital. Emergency services integration would include, at a minimum: • Coordination and communication between the emergency department and other hospital services/departments.
Outpatient Services-§482.54	31.00.01 Integration of Services	Outpatient services must be appropriately organized and integrated with inpatient Services The hospital's outpatient services at all locations must be integrated with inpatient services (e.g., radiology, laboratory, surgical services, anesthesia (including pain management) services, other diagnostic services, etc.) as appropriate to the outpatient services offered. The hospital must have written policies in place to assure the integration of outpatient services, including an established method of communication between outpatient service departments to corresponding inpatient services. The hospital must coordinate the care, treatment, and services to a patient. In order to provide continuity of care, it should have an established method of communication between inpatient services and outpatient care in order to provide continuity of care to its patients.
		Critical Access Hospital
Nursing Services-§485.635(d)(4)	06.08.13 Hand-offs in Care	The facility has a written policy or protocol that establishes expectations for the handoff of care. The information communicated to staff at change of shift or transition of care is to be standardized to ensure continuity of patient care. Hospital policy standardizes the communication of patient information to ensure care is seamless and without interruption.

I-PASS and Regulatory Standards: What's the Connection

New 2025 ACGME Institutional Requirements:

- "The leadership of the Sponsoring Institution must meet periodically with the interprofessional working group of each PCLE to: **review resident/fellow hand-offs, addressing standardization**, oversight, and continuous quality improvement; review and revise policies and procedures for transitions between patient care settings in which residents/fellows are involved, including review of both active and passive strategies."

I-PASS and Regulatory Standards: What's the Connection

- Aligns with American Nurses Association Standards of Practice. (Standard 5A: Coordination of Care and Standard 9: Communication)
- Supports Quality and Safety Education for Nurses (QSEN) competencies of Safety, Teamwork & Collaboration, and Quality Improvement
- Supports meeting AORN and ENA recommendations

ACHC U®
EDUCATIONAL RESOURCES

HOME INFUSION THERAPY

Structured Communication: A Key Driver of Patient Safety

Sample I-PASS Handoff

708/708-A **Greg Defina** **MRN:** 50414306 55 y.o. male **ADMIT:** 02/01/2025 **Primary Team/Contact:** Green Team 555-555-1234
Iso: None **Allergies:** latex **WT:** 84 kg (185 lb 3 oz) (02/01/25 2330) **Exp D/C Date:** 02/03/2025

Code Status: FULL

Illness Severity/Patient Summary

Stable

Reason for Admission: 55 y.o. male reports sternal, crushing CP during yardwork, relieved with ibuprofen and rest – returning intermittently. Admitted for worsening chest pain on exertion x 2 days, unstable angina
Relevant PMH: Hx of HTN, smoking
Significant 24-hour Events: Hypertensive on arrival – BP 182/90, CP 3/10; given 0.4mg sublingual nitro in ED, started metoprolol, aspirin, and atorvastatin; Initial and repeat EKG and lab markers normal; Stress test scheduled for AM

Action List

- Review labs overnight
- Call lab at 6AM to confirm plan for stress test

Situation Awareness & Contingency Planning

If labs come back abnormal overnight, then page the cardiology fellow

If patient reports chest pain, then start with 0.4mg sublingual nitroglycerin. If this is not relieved, then order 3mg IV morphine and get STAT markers and EKG

Synthesis:(Verbal Only)

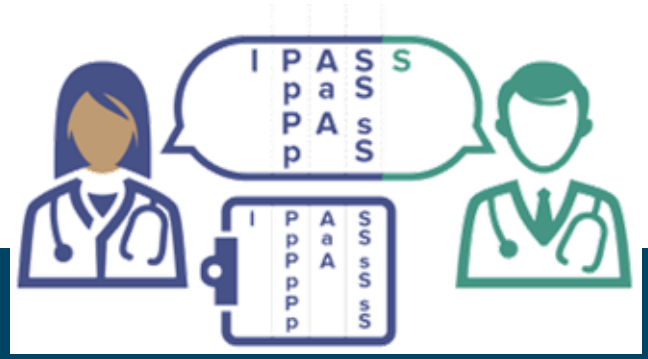
Vitals (Last 24 hour range)
Temp: [36.4 °C (97.5 °F)-36.9 °C (98.4 °F)] 97.5 ° F
Heart Rate: [62-80] 73
Resp: [16-18] 18
BP: (136-182)/(61-96) 136/90
SpO2: [95 %-97 %] 95 %
Heart Rate from SpO2: [59 bpm-65 bpm] 65 bpm

LDAs

Peripheral IV 12/13/2024 Right Antecubital (Active)
Placement Date/Time: 12/13/2024 1234 Size (Gauge): 16 G Orientation: Right Location: Antecubital Site Prep: Alcohol

ACHCU Is a Brand of ACHC.

Structured Communication Helps Reduce Cognitive Burden



Healthcare Workers Face High Cognitive Load

- **Distractions & Interruptions:** Alarms, Paging Systems, Questions from Patients, Communication from other Teammates
- **Multiple Priorities:** Direct Patient Care, Clinical Documentation, Administrative Tasks
- **Information Overload:** EMRs, Medical Device Data, Multiple Communication Methods

What is I-PASS?

A Common Structure for Reliable Communication

I — **Illness Severity**
Stable, "Watcher," Unstable

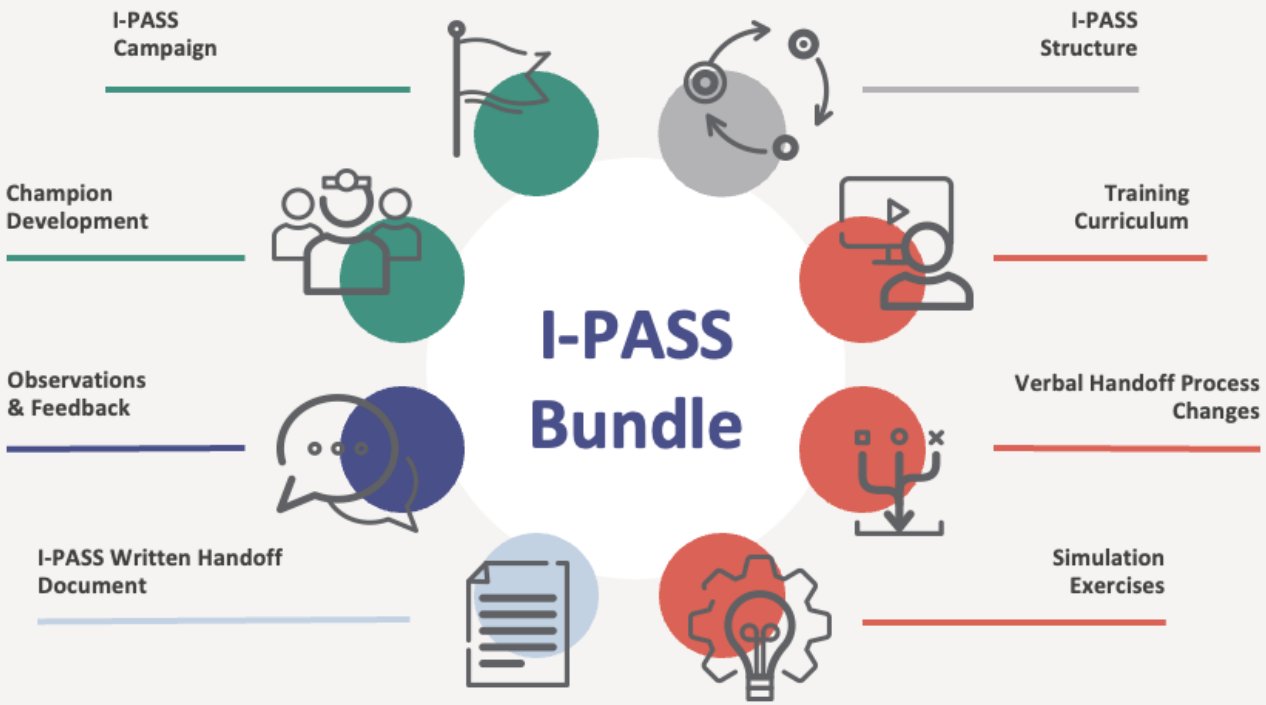
P — **Patient Summary**
Summary statement; events leading to admission; hospital course; ongoing assessment; plan

A — **Action List**
To do list; timeline and ownership

S — **Situation Awareness & Contingency Planning**
Know what's going on; plan for what might happen. "If", "then"

S — **Synthesis by Receiver**
Receiver summarizes what was heard; asks questions; restates key action/to do items

Operating System – Required for Successful Implementation



Confidential – Do Not Distribute

Backed by 15+ Years of Evidence

JAMA The Journal of the American Medical Association

Pilot study at Boston Children's Hospital found significant **reduction in medical errors** after bundle implementation

(JAMA 2013)

The NEW ENGLAND JOURNAL of MEDICINE

9-center federally funded study found **30% reduction in injuries from medical errors** after I-PASS implementation

(NEJM 2014)

Journal of Hospital Medicine

AHRQ-funded 32-center study demonstrated **47% reduction in handoff-related harms** across various clinical areas

(JHM 2022)

TRUSTED BY LEADING HEALTHCARE ORGANIZATIONS:

MedPro Group

Accreditation Council for Graduate Medical Education

AHRQ Agency for Healthcare Research and Quality

Transitions, Rounds, Communication, and More

Receiver Driven Primary Care to ED I-PASS Handoff

Huth et al, BMJ Quality Safety 2021

46%

Reduction in Miscommunications

I-PASS in Inpatient – Outpatient Discharges

Huth et al, J Patient Safety 2023

36%

Reduction in AEs, Errors and post-discharge incidents

73%

Reduction in ED revisits

I-PASS in Family Centered Rounds

Khan et al, BMJ 2019

38%

Reduction in Harmful Medical Errors

...and more

- In total, **100+ peer-reviewed publications** in past decade
- Most studies show **30-50% reductions** in patient harms, medical errors, and/or miscommunications

AHRQ Rapid Review of Evidence for Structured Handoff Protocols

PURPOSE

Reviewed effectiveness of structured protocols for "within-unit" clinician handovers in acute care hospitals (2013-2024)

Of structured handoff tools proposed, I-PASS has strongest certainty of evidence in reducing medical errors and the most developed set of implementation strategies and tools.

No SBAR studies assessed communication clarity or fidelity. Studies reporting large improvements in fidelity all occurred in classroom settings, and studies in clinical settings reported only small-to-moderate improvements.

Use of Structured Handoff Protocols for Intrahospital Within-Unit Transitions, Making Healthcare Safer IV Rapid Review. AHRQ Rapid Review: Publication No. 25-EHC008-2; January 2025

I-PASS and Workforce Experience

ED to Inpatient Workload

Brigham & Woman's Hospital

80%

reduction in floor to ED call backs

Reduced Sign Out Time

St. Jude's Cancer Research Hospital

18 mins

reduction in length of sign-out per patient

Nursing Overtime Reduction

Hawaii Pacific Health

70%

reduction in Nursing Overtime

Improved Bedside Shift Report

Carilion Clinic

5.6x

More likely for handoffs to occur at bedside

Decrease in Interruptions

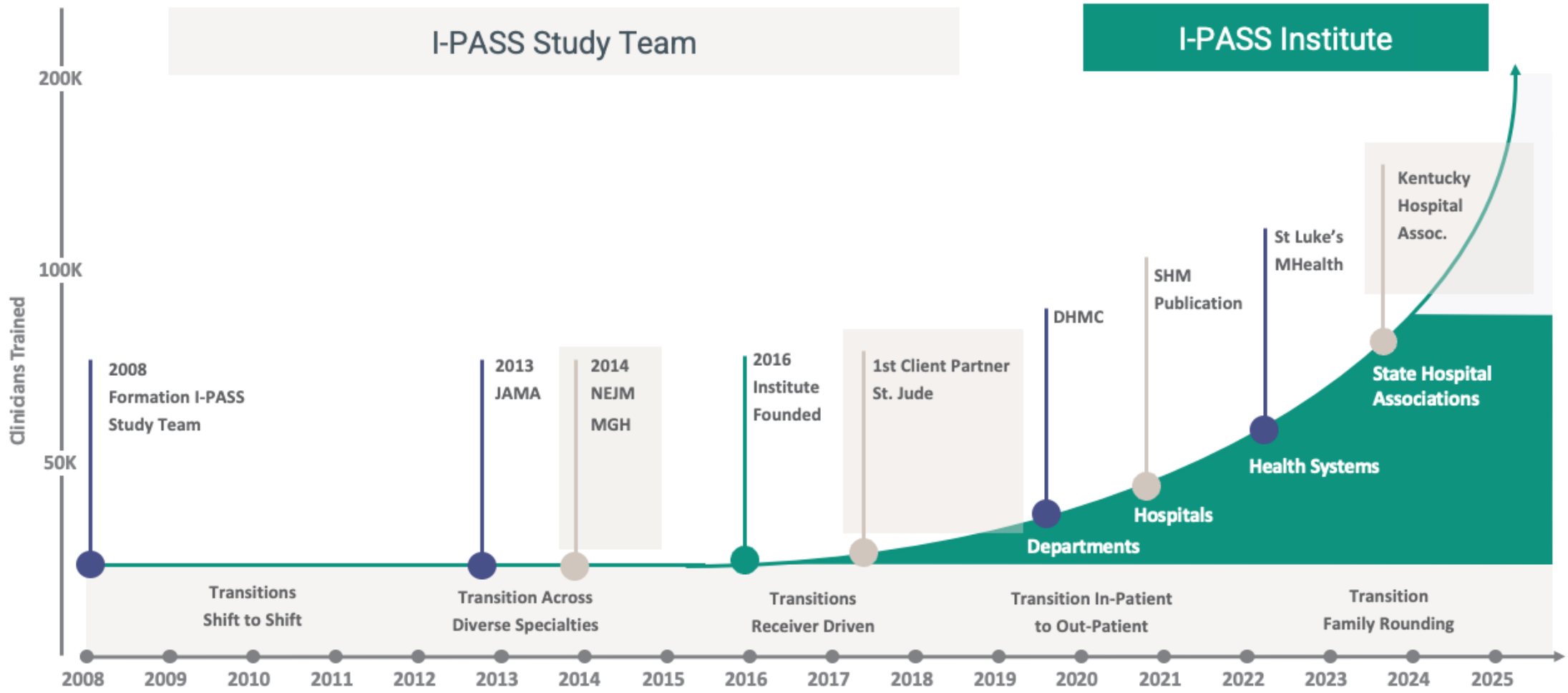
Boston Children's Hospital

67%

reduction of interruptions

Confidential – Do Not Distribute

The Evolution of I-PASS...A 15-Year Journey



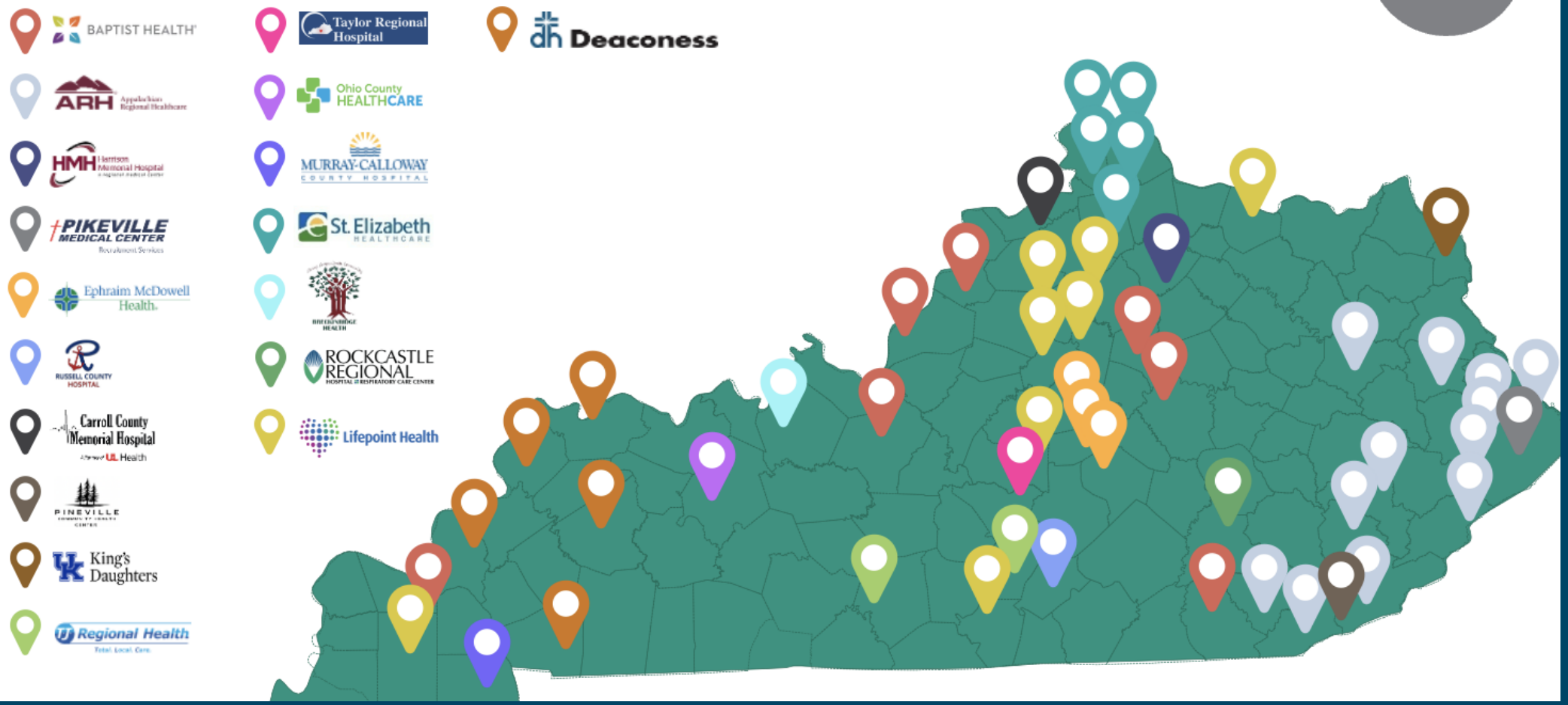
Confidential – Do Not Distribute

Statewide Common Language for Handoffs

- 54 hospitals signed on to date
- 72% to 8-year goal in 2 years
- Others Joining...

Kentucky Hospital Association

I∞PASS PATIENT SAFETY INSTITUTE



ACHC U
EDUCATIONAL RESOURCES

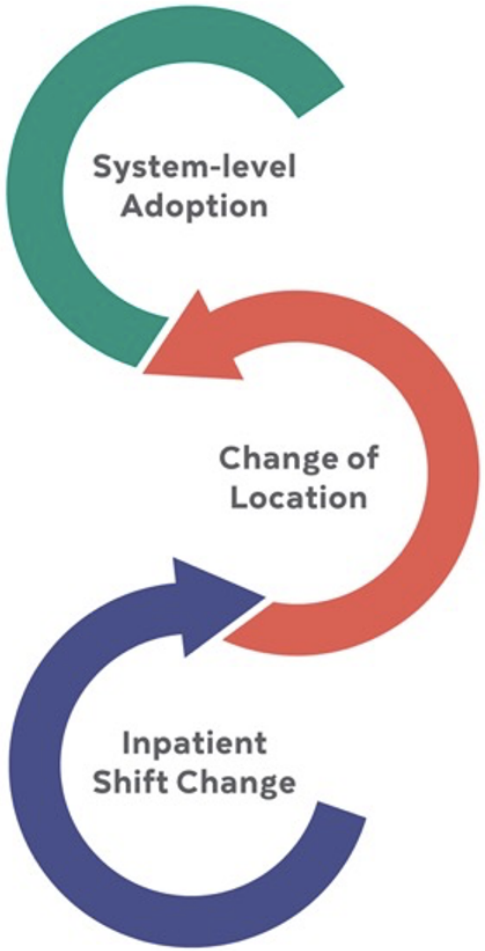
RENAL DIALYSIS

Implementing Highly Reliable, System-Wide Communications Using I-PASS

Key Considerations

- How do we achieve consistent application of safety behaviors?
- How do we make this real and not just policy on paper?

Progression of I-PASS Implementation



Universal Language of I-PASS **across a health system: between care facilities** and when transitioning patients to and from the inpatient setting.

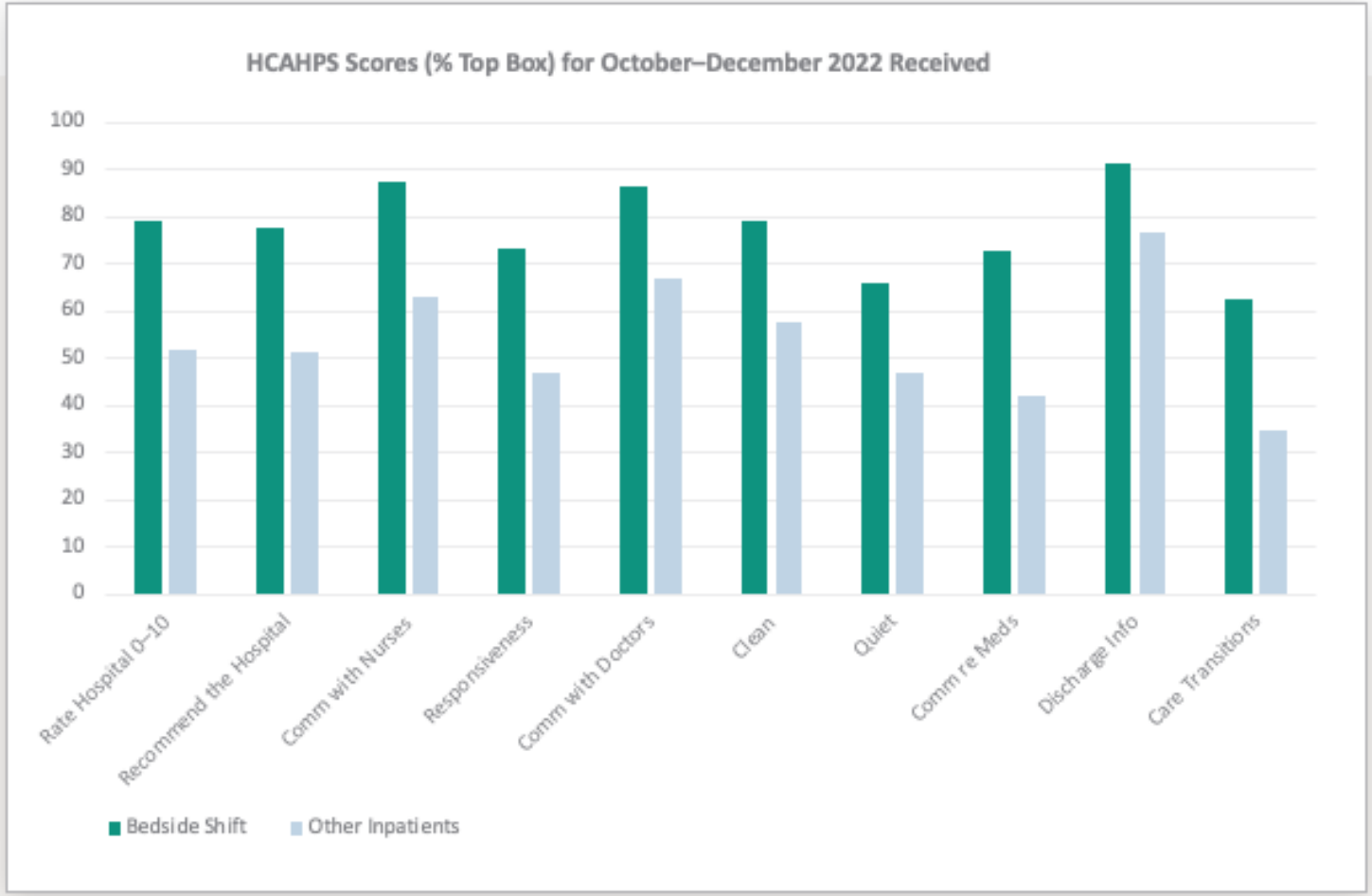
I-PASS for inter-unit handoffs reinforces I-PASS as the standard of communication and **can be implemented by the receiver.**

The **most common transitions of care occur between shifts,** making them the most intuitive application of I-PASS.

I-PASS Synergistic with Bedside Shift Report

Bedside Shift Report

- Keeps patients informed about their care
- Creates trust and reduces patient anxiety
- Opportunity for patients and families to relay meaningful information to care team
- Positively impacts patients' perceptions of safety



Source: Press Ganey. (2023). E-Book – Nursing Bundle

Confidential – Do Not Distribute

Comprehensive Change Management Bundle

Confidential – Do Not Distribute

Tools & Support Provided by the I-PASS Institute

Software & **Services** help organizations implement and sustain the proven I-PASS methodology at scale.

I-PASS Written Tool Development

Embedded EHR Support leveraging best practices for building and modifying written handoff templates to meet workflow needs.

I-PASS Training

Scalable digital learning platform which includes robust library of clinically relevant cases.

I-PASS Assessment & Improvement

Capture and analyze actionable insights for sustaining a culture of high reliability.

Program Management

Oversee all aspects of effective implementation and sustainment.

I-PASS Certified Coaches

Our experts have years of firsthand clinical and I-PASS implementation experience to launch and sustain

Implementation Guide

Improves implementation speed and effectiveness.

Confidential – Do Not Distribute

To Improve Health Care, Focus on Fixing Systems-Not People

Leadership and culture are often to blame when underlying systems are the real problem

- Healthcare is complex and that complexity needs **strong default systems**
- There is no greater dissatisfaction than working in a system not intentionally and carefully **designed for success**
- Instead of **focusing attention on the systems** in which people work, they focus on fixing the people. **The systems need fixing far more than the people**
- Organizational efforts to improve culture without strong systems rarely lead to sustainable performance improvement. **"Seeking a transformed culture without building the systems that enable it, is like trying to create music without instruments."**
- Essentially, the people working to improve these organizations' performance have focused less on trying to get more from their workforce and more on trying to **maximize what they can get from the system**
- You do not rise to the level of your goals. **You fall to the level of your systems.**

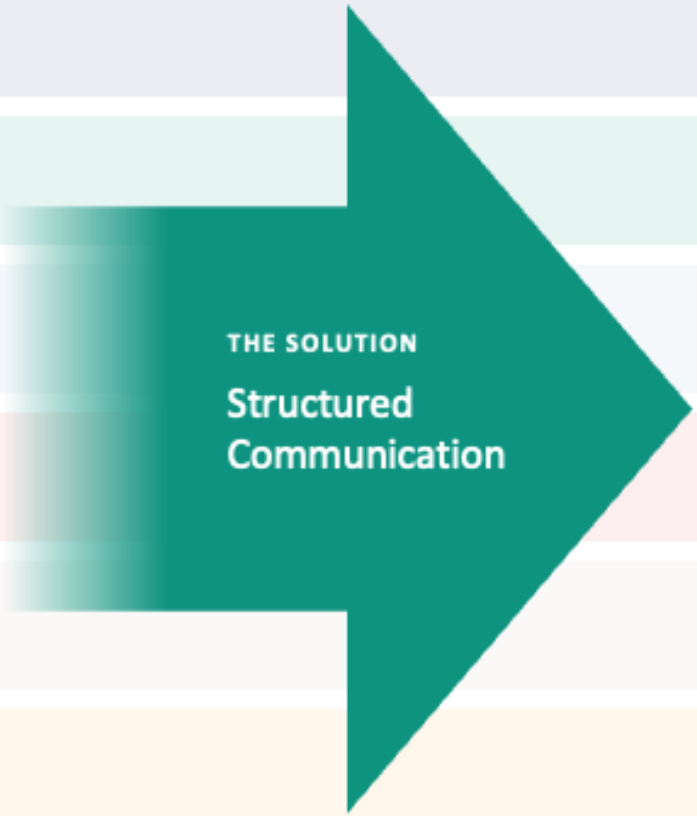
Harvard Business Review | Digital Article

Kedar Mate, Josh Clark and Jeff Salvon-Harman. July 12, 2024 HBR.org

Confidential – Do Not Distribute

Summary: A High-Leverage Solution for Systemwide Impact

Organizational Priorities	The Impact
Patient Safety	**30-50%** reduction in harmful medical errors **30%** increase in AHRQ Safety Culture Survey for Handoff and Information Exchange questions
Efficiency	**70%** reduction in nurse overtime
Patient Experience	**560%** increased bedside shift reporting
Quality	**92%** reduction in handoff interruptions
Cost	**27%** reduction in claims payouts
Workforce Staffing	**Mitigates** drivers of burnout, improved provider satisfaction



Confidential – Do Not Distribute

ACHC U®
EDUCATIONAL RESOURCES

Q&A

theresa.murray@ipassinstitute.com
christopher.landrigan@childrens.harvard.edu