Implementing a Handoff Improvement Program: Critical Steps for Success

Successful Implementation of I-PASS

- What does success look like?
  - Everyone trained in I-PASS
  - Everyone using I-PASS consistently
  - Miscommunications, errors and patient harm reduced
- What does success require?
  - Core training (i.e. basic knowledge)
  - Observation/feedback in workplace to improve performance
  - Measure outcomes to improve and sustain

Intervention:
I-PASS Handoff Bundle Components

I-PASS Handoff Bundle

- I-PASS Mnemonic
- Introductory Workshop
- TeamSTEPPS Training
- Simulation Exercises
- I-PASS Printed Handoff Document
- Faculty Development
- Structured Observation & Feedback
- I-PASS Campaign

I-PASS Implementation Steps

1. Establish Institutional Support and Ensure Team Organization

2. Assess the Local Environment

3. Consider Need to Adapt I-PASS and/or the Local Environment

4. Determine Implementation Scope

5. Develop a Communication Plan

6. Ensure Ongoing Data Collection and Iterative Improvement Cycles
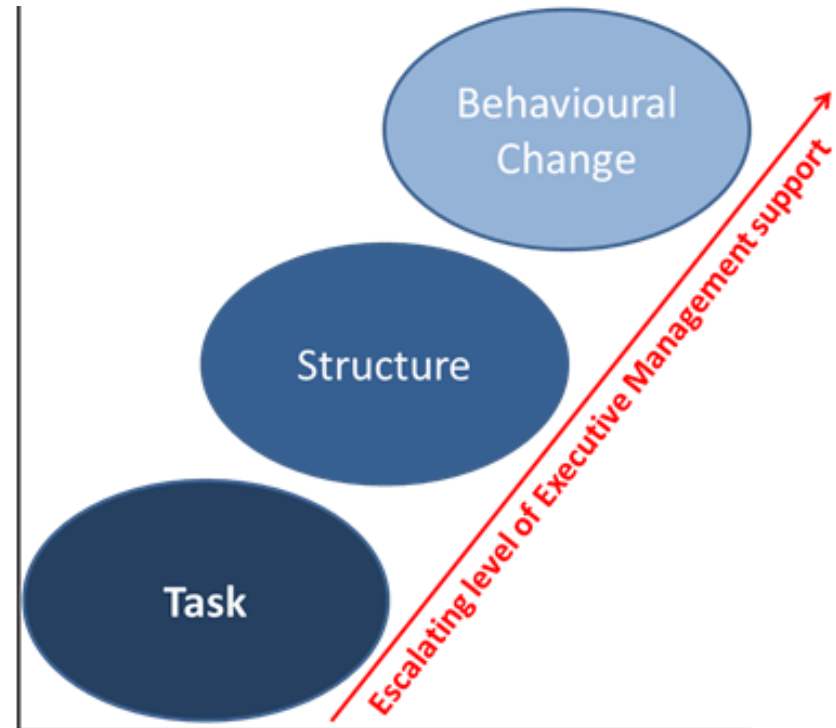
7. Plan for Implementation
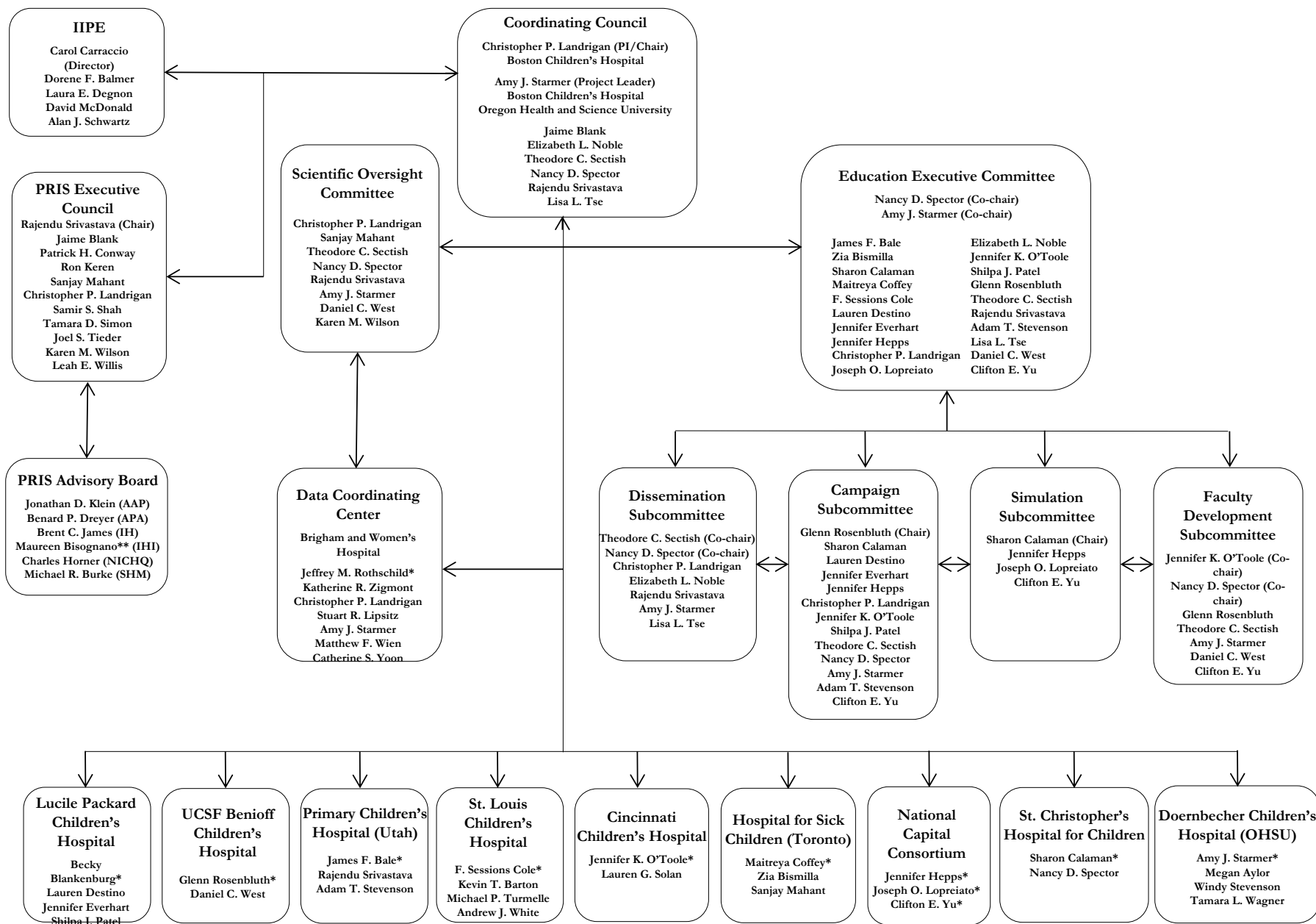
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Institutional Support and Team Organization

- Local institutional support = strong
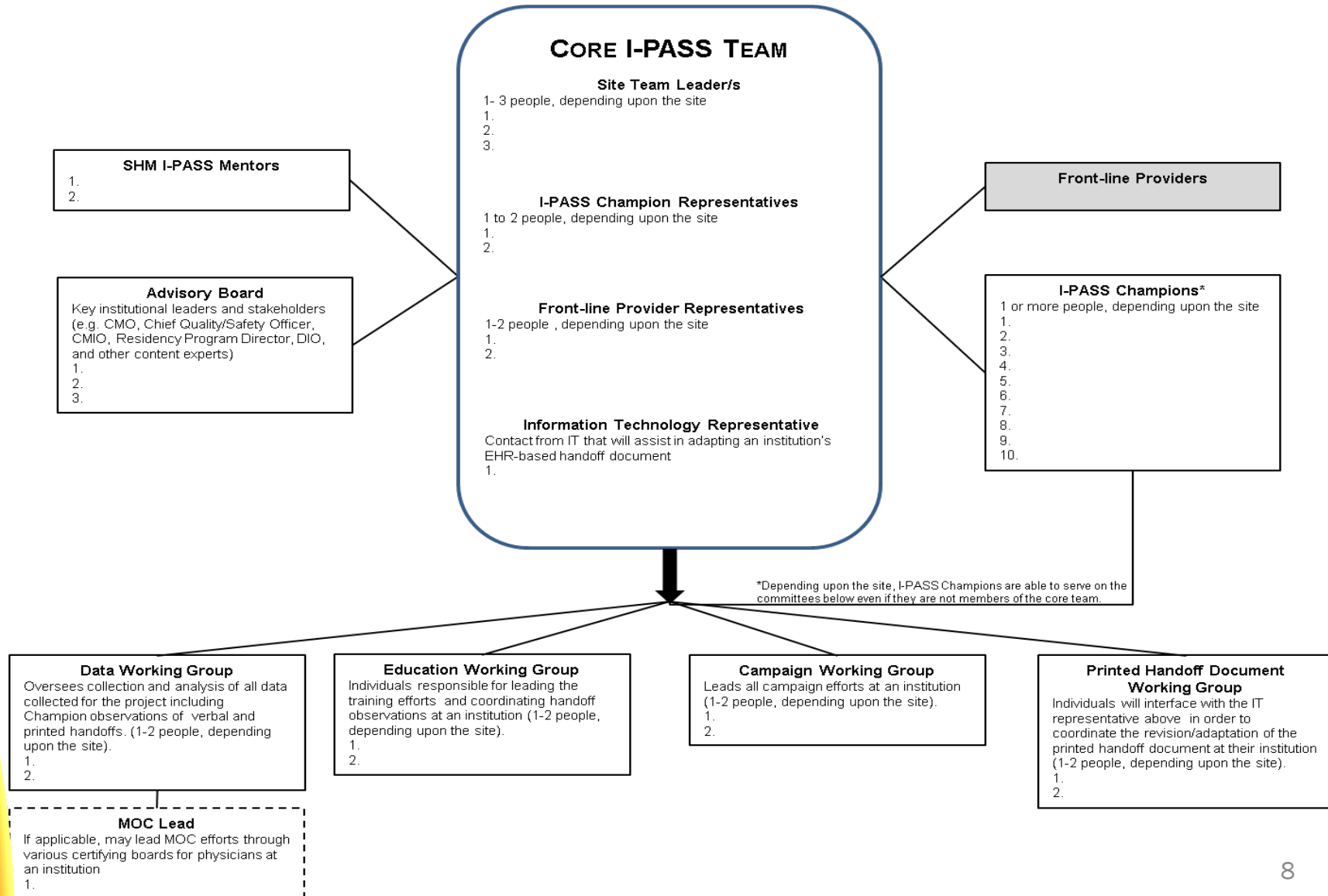- Ongoing sponsorship and support are critical!
  - Chief medical, safety and/or quality officers
  - Training program directors
  - Division and Department Chairs
- Commitment from Executive Sponsors ensures goals of implementation align with institution's strategic goals
- I-PASS Champions also needed

Behavioural Change

Structure

Task

Escalating level of Executive Management support

I-PASS Study Group

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I-PASS Site Organizational Chart

CORE I-PASS TEAM

Site Team Leader/s
1- 3 people, depending upon the site
1.
2.
3.

I-PASS Champion Representatives
1 to 2 people, depending upon the site
1.
2.

Front-line Provider Representatives
1-2 people , depending upon the site
1.
2.

Information Technology Representative
Contact from IT that will assist in adapting an institution's EHR-based handoff document
1.

SHM I-PASS Mentors
1.
2.

Advisory Board
Key institutional leaders and stakeholders (e.g. CMO, Chief Quality/Safety Officer, CMIO, Residency Program Director, DIO, and other content experts)
1.
2.
3.

Front-line Providers

I-PASS Champions*
1 or more people, depending upon the site
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

*Depending upon the site, I-PASS Champions are able to serve on the committees below even if they are not members of the core team.

Data Working Group
Oversees collection and analysis of all data collected for the project including Champion observations of verbal and printed handoffs. (1-2 people, depending upon the site).
1.
2.

MOC Lead
If applicable, may lead MOC efforts through various certifying boards for physicians at an institution
1.

Education Working Group
Individuals responsible for leading the training efforts and coordinating handoff observations at an institution (1-2 people, depending upon the site).
1.
2.

Campaign Working Group
Leads all campaign efforts at an institution (1-2 people, depending upon the site).
1.
2.

Printed Handoff Document Working Group
Individuals will interface with the IT representative above in order to coordinate the revision/adaptation of the printed handoff document at their institution (1-2 people, depending upon the site).
1.
2.

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Overcoming Barriers

- First line providers
  - "We already know how to sign out"
  - "We use SBAR!"
  - It will increase the length of the handoff
  - It may work for doctors , but not for nurses
- Senior Providers
  - It may work for the residents, but not for us
  - It doesn't apply to our setting
  - Are there any data that it works?

Overcoming Barriers

- Institution or unit
  - IT department will not support this
  - It is disruptive to current workflow
    - Protected time for a handoff is problematic
    - Protected time for training is problematic

Resistance to change is the expected not the exception
sabguthrie.info

Implementation = Culture Change

- The content of I-PASS was the easy part!
- Change is hard, even if everyone wants to change

Implementation = Culture Change

- Doing it right requires:
  - Hospital leadership support
  - Champions
  - Stakeholder input
  - Time and patience .....it cannot be done in a few months
  - Commitment to make the change *real*..... a three hour workshop and a mnemonic are not enough
  - Improvement cycles
  - Willingness to tailor to local needs

"What if we don't change at all ... and something magical just happens?"

"Look, I can't promise I'll change, but I can promise I'll pretend to change."

Changing Culture Is Not Easy

- Behavior change takes a long time

- Need to sustain the effort
  - Repeat curriculum for new learners
  - Continue observations and tracking adherence
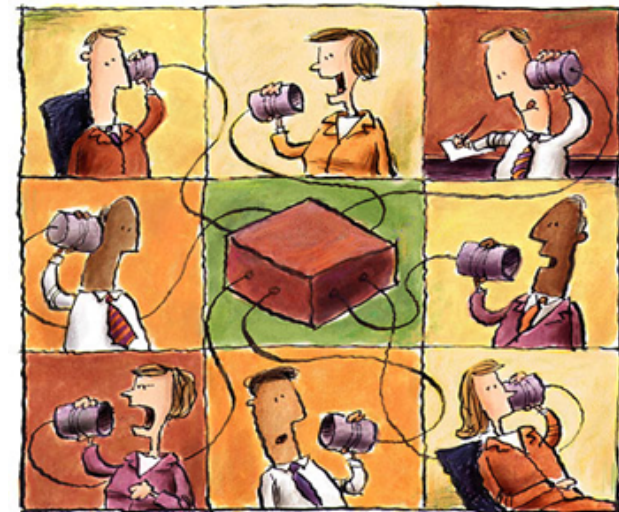
Feedback is essential
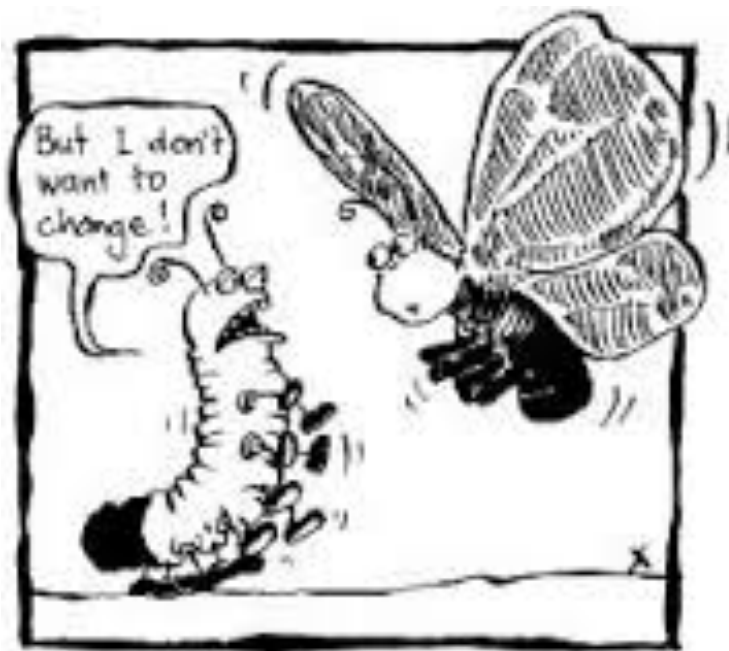
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Needs Assessment

- Completion of a needs assessment activity offers insight into current handoff practices and critical areas of vulnerability

- Best conducted as a collaborative effort including Front-line providers, I-PASS Champions and other key stakeholders

- Documentation of discussion strongly encouraged

Needs Assessment: Key Domains

- Inventory of all handoff types on unit of focus
  - Time of day
  - Team members involved
  - Type of information exchanged
  - Census
- Describe patterns of information exchange for verbal and written handoffs
- Discuss anticipated options and barriers for implementation

Process Mapping: Current State

START

Nightfloat team arrives

Day interns update handoff document if time permits

Day interns have prepared a fully updated and complete handoff document — **Yes** / **No**

Verbal handoff occurs between first day intern and nightfloat intern, handoff document that is **NOT updated** is shared

Verbal handoff occurs between second day intern and nightfloat intern, handoff document that is **NOT updated** is shared

Verbal handoff occurs between third day intern and nightfloat intern, updated handoff document shared

All three day interns leave

Overnight patient care

Nightfloat intern called with questions (refers to one updated and two non-updated handoff documents as needed)

Nightfloat intern must refer frequently to EMR to answer questions regarding patients given two non-updated handoff documents

Nightfloat intern unable to update handoff document

Day team arrives

Old handoff documents shared with day team

Verbal handoff occurs **ONLY on sick patients with issues overnight**

Rounds and daytime patient care occurs

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Process Mapping: Ideal State

START

Nightfloat team arrives → Day intern has fully updated handoff document

- **No** → Day intern updates handoff document
- **Yes** → Faculty attending is available to complete a handoff observation

Faculty attending is available to complete a handoff observation:
- **Yes** → Faculty attending obtains necessary handoff assessment tools → I-PASS verbal handoff occurs between day and nightfloat interns, and the handoff document is shared → Faculty attending reviews printed handoff document → Verbal and written feedback given immediately following handoff → Day team leaves
- **No** → Handoff observation scheduled for subsequent day → I-PASS verbal handoff occurs between day and nightfloat interns, and handoff document is shared → Day team leaves

Day team leaves → Overnight patient care by nightfloat team → Nightfloat intern called with questions (refers to handoff document as needed) → Nightfloat intern updates handoff document throughout the night → Day team arrives → Nightfloat intern has fully updated handoff document

Nightfloat intern has fully updated handoff document:
- **No** → Nightfloat intern updates handoff document
- **Yes** → I-PASS verbal handoff occurs between day and nightfloat interns, and handoff document is shared → Nightfloat team leaves → Daytime patient care → Day intern updates handoff document throughout their shift

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Adapting IPASS and/or the Local Environment

- Sometimes modifications of the local environment are necessary in order to incorporate all components of the handoff program

- Sometimes elements of I-PASS need to be modified or adapted to fit the needs of a local environment

Adaptation of I-PASS: Guiding Principles

- Keep the I-PASS mnemonic intact

- Retain training on general principles of high functioning teams

- Engage Champions and Front-line providers to ensure consensus is achieved

- Reinforce handoff skills through direct observation

- Refine implementation using PDSA cycles

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Determining Implementation Scope

- Define short-term and long-term scope of I-PASS Implementation efforts

- Recommendation: start small!
  - Small scale local wins are more likely to spread
  - Serial testing and learning on a small scale makes broad scale implementation more manageable

- Select units in the short-term that are on board and include early adopters

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I-PASS Communication Plan

- Timely and effective communication critical
  - Raise awareness about anticipated changes
  - Assists adopters transition from awareness to conscious decision to change behaviors
- Ensure all stakeholders aware of key timelines, particularly if impacts workflow

Sample I-PASS Communication Plan

Stakeholder	Communication Goal	Information to Communicate	Timing of Communications	Communication Method
Advisory Board	Continued support from Advisory Board Members	Handoff Team progress	Quarterly (July 1, Oct 1, Jan 1, Apr 1)	Initial Meeting and formal presentation by Handoff Team Leads ; subsequent quarterly email updates
Front-line providers	Gather input from front line providers for revision of written tool	Timeline for implementation Current written tool and ideal written tool	During scheduled Morning Report Conference April 15	Education Working Group meeting with Frontline Providers
Faculty on call for pilot unit	Ensure on call faculty for go-live month aware of pilot and observations required for data collection and evaluation of handoffs	Logistics for data collection and observations	2 weeks prior to go-live (on June 1); Reminder communication on go-live date and as needed	Email
Administration	Secure resources	Resources needed for I-PASS campaign material, internal website advertisement, available funding, food incentives, consultative services	Ongoing (at least 1 month prior to event date or date material is needed)	Face-to-face
Inpatient unit nurses for pilot unit	Develop strategies for IPASS campaign Garner nursing staff support	Placement of I-PASS campaign material, bulletins, rewards for small accomplishments and incentives (food, etc.) in patient care areas and report station;	Next nursing staff meeting April 13th	In person as well as in person meeting prior to staff meeting with nurse manager
Front Line Providers	Praise and Encouragement to continue I-PASS pilot	Thank you message, encouragement message	June 15 go live July 30 August 30	Email
I-PASS Mentors	Continued consultation services	Pilot progress	At each phase of implementation or as needed Next call March 30	Teleconference and email

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Data is Critical

- Data collection, analysis, and feedback to team members: Critical to I-PASS implementation

- Performance measures should
  - Map back to aims of implementation
  - Address areas of critical vulnerability and challenges
  - Track performance longitudinally
  - Actually be collected!
    - Logistics, accountability, and process are critical

"After closer investigation, it's become clear that we need to enter more than one value."

Analysis and Interpretation of Data: Run Charts

- Run charts offer several advantages over pre-post- summary data
  - Visual representation of what's working (or not)
  - Regular review of impact of different aspects of interventions as they occur
- Recommendations:
  - Regular review of data on a monthly basis with key I-PASS Champions for PDSA development
  - Regularly scheduled sessions to review data with Front-line Providers
  - Posting of data in shared areas

Sample I-PASS Run Chart

Percent of Residents Adhering to 5 Elements of I-PASS Mnemonic

Y-axis: Monthly Average (0, 20, 40, 60, 80, 100, 120)

X-axis: Jun (n=07), Jul (n=04), Aug (n=03), Sept (n=02), Oct (n=05), Nov (n=06), Dec (n=07), Jan (n=05), Feb (n=01), Mar (n=11), Apr (n=06), May (n=02), June (n=02), July (n=02), August (n=02)

Legend: Monthly Averages — Median — Goal (90)
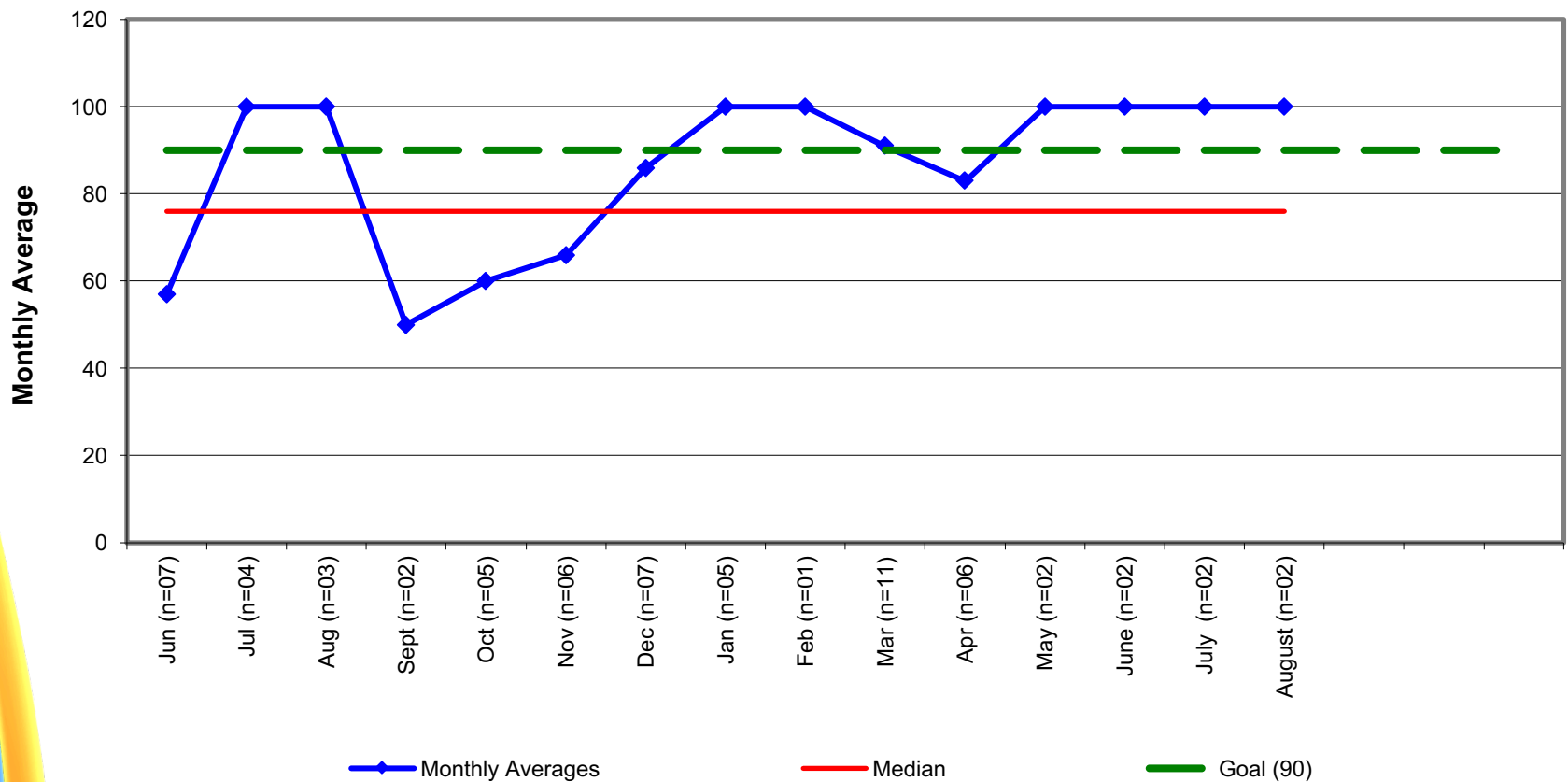
Establishing Key Outcome Metrics

- Once goals and timeline are in place, need to decide how to measure attainment
- Collecting data is critical
  - Are we headed in the right direction?
  - How do our strategies need to be adjusted in order to achieve our goals
- List of metrics should be balanced in order to understand how all aspects of I-PASS Handoff Bundle implementation are going
  - Structure, Process, Outcomes, Balancing measures

METRICS

THAT MATTER

Potential Outcome Metrics

Training Penetrance

- Percent of Front-line Providers trained
- Percent of I-PASS Champions trained

Verbal Handoffs

- Assessment of adherence with the standardized I-PASS format for the *giver* of the handoff
- Rates of faculty-documented miscommunications for the *giver* of the handoff
- Assessment of the engagement of the *receiver* of the handoff

Printed Handoff Tool

- Assessment of adherence with the standardized I-PASS format
- Assessment of frequency of miscommunications

Provider Experience Surveys

- Perception of the quality of verbal and written handoffs
- Perceived frequency of handoff related medical errors
- Frequency of observations

Turning Goals and Metrics into Specific Aims

- Specific aims offer clear direction by including original goals, a clear timeline, and measures
- Aims should be *SMART*
    - *S*pecific, *M*easurable, *A*chievable (and *A*ggressive), *R*ealistic (and *R*elevant), and *T*ime-bound
- Example specific aim:
    - Within the next 12 months, 80% of verbal handoff sessions for the giver will usually or always include each element of the I-PASS mnemonic

| Specific | Measurable | Agreed | Realistic | Timed |
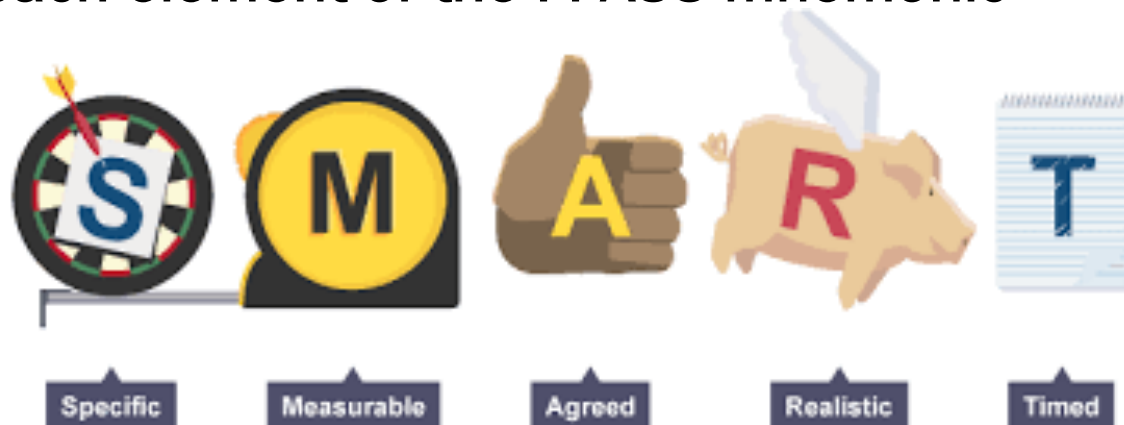
Developing a Data Collection and Reporting Plan

- Collect minimum of 2 months of baseline data prior to finalization of measures

- Once measures finalized, establish ongoing data collection and reporting routine for each measure

Measure (with operational definition)	Who collects the data?	Collection frequency	How is it reported to I-PASS champions and front-line providers	Who reports it?	How often is it reported?	Notes
Verbal handoff I-PASS mnemonic adherence						
Written handoff mnemonic adherence						
Other selected metrics						

Ongoing Iterative Improvement Cycles

- Regular review of data should include development of PDSA cycles for improvement
  - *los ciclos PHVA (Planificar, Hacer, Verificar y Actuar)*

SHM I-PASS Mentored Implementation Program
Plan-Do-Study-Act (PDSA) Worksheet

PDSA / "PHVA" Cycle Log

- For each PDSA cycle, identify:
 - problem being addressed with test of change
  - intervention
  - Measures
  - Tasks / action items nee... test of change
    - Responsible person
    - Timeframe for completion / deadline
  - Outcome

SHM I-PASS PDSA Cycle Log

Aim (overall goal you wish to achieve)	Description of test of change	Start date	Action Item(s) required to implement test of change	Person responsible	due date / deadline	Measures that will determine success	Actual completion date	Description of outcome of PDSA
Increase frequency of handoff observations	Schedule weekly email commnication to I-PASS Champions including: 1) number of handoff observations completed by each champion; and 2) number of handoff observations each front line provider received. Provide gift card for champion with most observations	9/15/2015	Collate weekly data and send email	Jane Doe	weekly from 9/15/15- next meeting on 10/13/15	% of front line providers who report being observed on end of rotation survey; total frequency of handoff observations	10/13/2015	percentage of front line providers receiving 2 observations increased from 23% to 67%; frequency of observations increased from 4 to 9

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Planning for Implementation

- Documentation of a timeline for implementation of all key I-PASS Bundle elements is critical
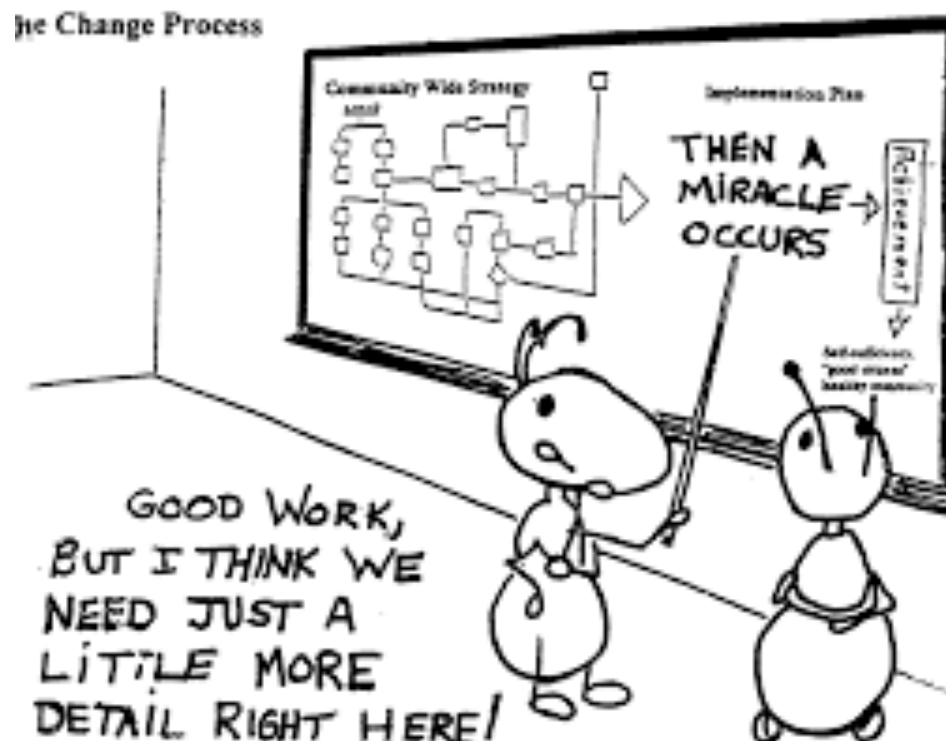
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Final Step *(lo más importante!!):* Celebrate Success!

Take Home Points

- High frequency of communication and handoff errors

- I-PASS Handoff Bundle → decreased rates of medical errors and adverse events

- Teamwork, planning, and anticipation of resistance to change are key components of successful handoff improvement efforts

Acknowledgements
I-PASS Study Group

Better handoffs.

Safer care.

Any Questions?

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www.ipasshandoffstudy.com