



American Board
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Assessing PBL&I and SBP: Formal Tools

University of Wisconsin
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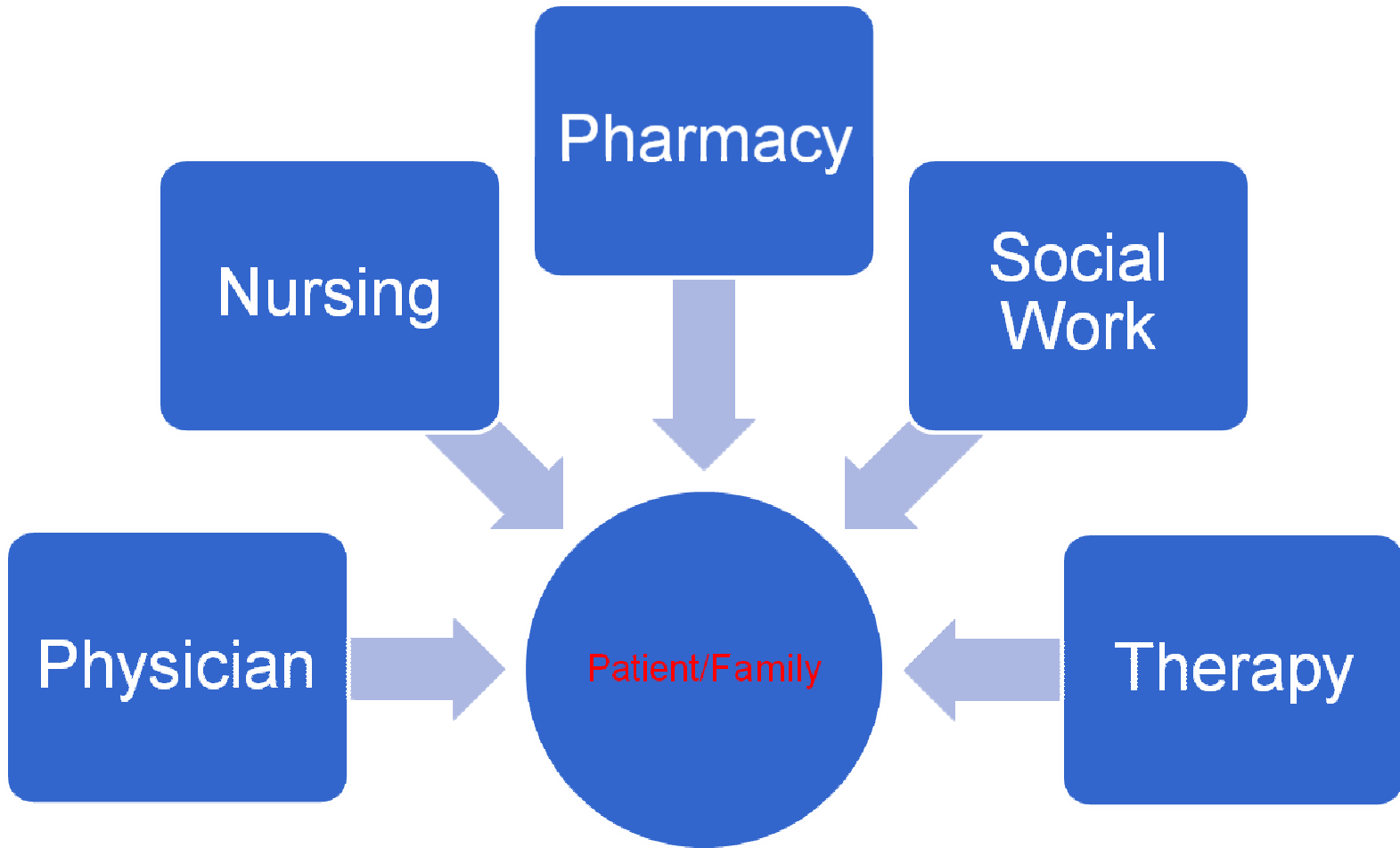
Objectives

- Discuss important principles and tools in quality improvement
- Review and apply methods and tools for assessment in PBLI and SBP

“Formal” Approaches for SBP

- CTM-3 Tool
 - Can be used as formal performance measure for team (see specifics from NQF)
- Multi-source feedback
 - “Twofer”: Interactions with systems and interpersonal and communication skills
- Simulation
 - Growing evidence of value to assess “capability” to work in teams

SBP: It's not just about the doctors



Multi-source Feedback

Norcini: 5 step implementation process

1. Purpose of assessment should be stated, preferably in writing
2. Assessment criteria must be developed and communicated to participants
3. Participants should receive training
4. Monitor results throughout implementation
5. Provide feedback to all participants



MSF: Strengths

- Focuses on actual “workplace” performance
- Captures different perspectives:
 - Patients and nurses - evaluate humanism, professionalism, communication
 - Peers – work ethic, team approach, professionalism
 - Others – unique observations on key attributes
- Communicates the importance of teamwork
- Adaptable:
 - Assessment of Communication / IPS and SBP

MSF: Limitations

- Limited information in medical education and practice
- Measurement issues:
 - Uncontrolled environment
 - Usual limitations of global rating forms:
 - Reliability and validity
- Feasibility issues: logistics of data collection, entry, analysis and reporting results
- Cultural issues:
 - Personal feedback, rater and learner resistance, confidentiality

MSF: Conclusions

- Uses – Professionalism; Systems-based Practice, Interpersonal and Communication Skills
- Raters should be appropriately trained to provide ratings based upon the context of observation and qualifications
- Communication of objectives through assessment
→ importance of team approach and patient-centeredness



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Practice-based Learning and Improvement

Important Principles

Residents and QI skills

- Understand key definitions and IOM rules
- How to measure quality
- Understand micro-systems
- Process tools:
 - PDSA
 - Flowcharts

Residents and QI skills

- Role of physician leadership
 - What is a physician opinion leader/champion?
- Working in inter-disciplinary teams
 - Move beyond the ward team concept
- Ability to institute a change as part of a rapid cycle PDSA

Measuring Quality

Donabedian Model

1. Structure: the way a health care system is set up and the conditions under which care is provided

Measuring Quality

Donabedian Model

2. Process: the activities that constitute health care
 - Diagnosis, treatment, prevention, education, etc.

Understanding a Process

- Any human activity that produces an output is a process
- Processes tend to be hierarchical
 - Step A before Step B before Step C...
 - Helps manage complexity without drowning in detail
 - Allows focus within context

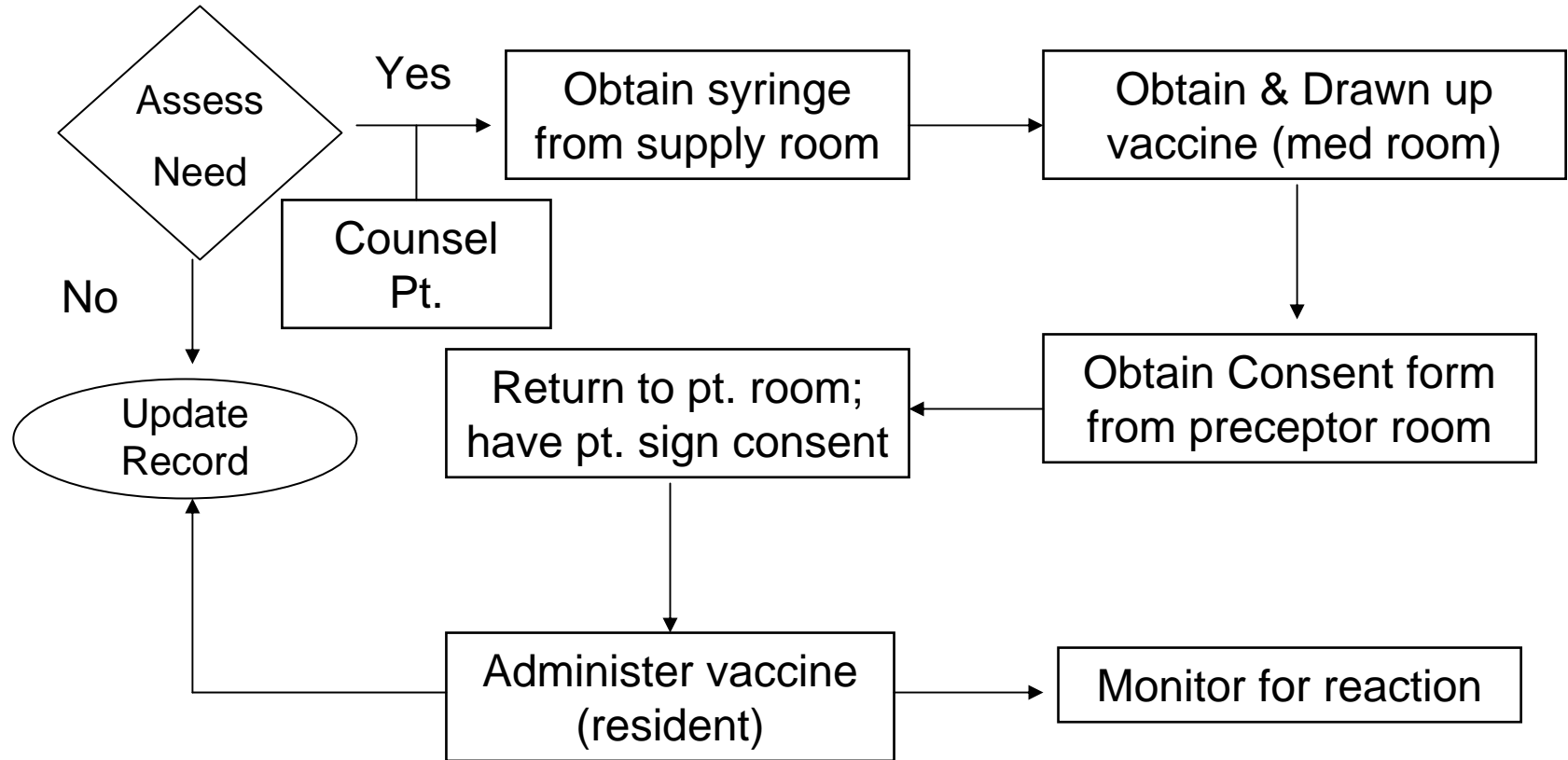
Rudd, Stanford Contemporary Practice, 2004

Understanding a Process

- Explicit models
 - Allows shared understanding and approach
 - Allows criticism, comparison, and improvement
 - Indicates what and when to measure
- Documenting the process
 - Flow charts: conceptual block diagrams or decision flows

Rudd, Stanford Contemporary Practice, 2004

PneumoVax in a Residency Clinic



Flowcharting Tips

- Flowchart a process, not a system
- Avoid too much detail
- Process should reflect mission statement
- Get all necessary information
- Show process as it actually occurs, not in ideal state
- Critical stage: take as much time as needed
- Show the flowchart to other front line people for input
- Look for areas of delay, rework loops, hassles, complaints

Rudd, Stanford Contemporary Practice, 2004

Flowcharting: Small Group Exercise

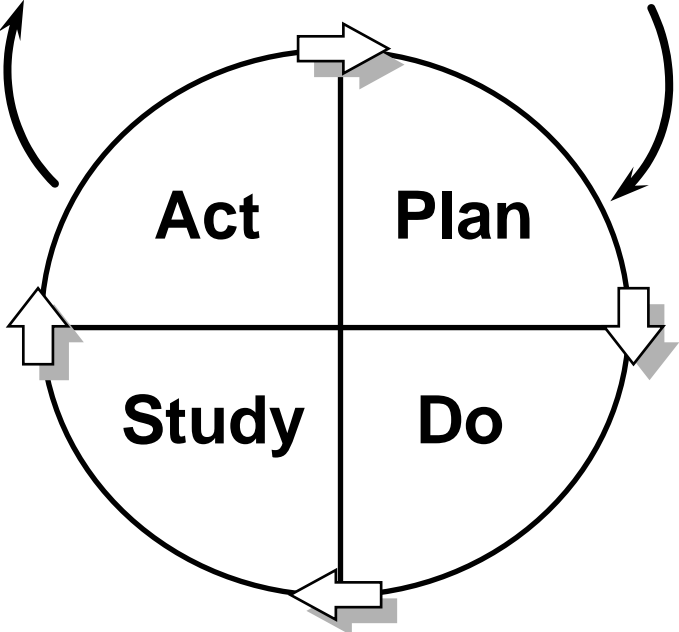
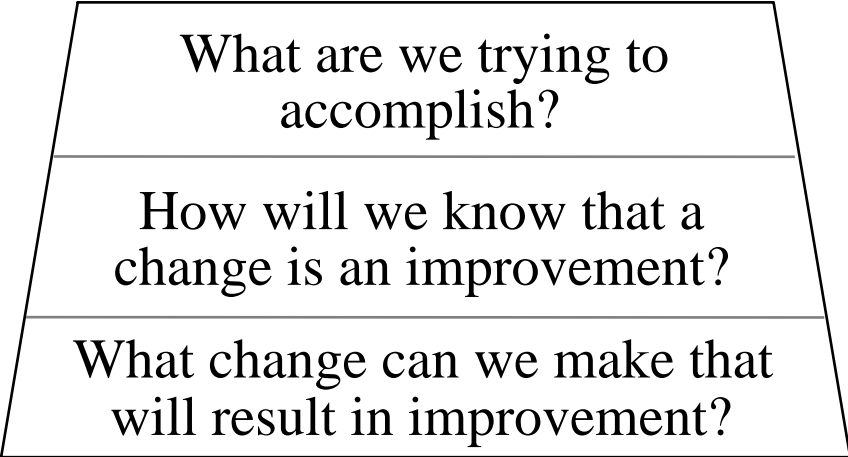
- Step 1:
 - Flowchart the process for completing an evaluation form, with feedback to the resident, for a typical ward month in your program
 - Who reviews the form?
 - What is done with the information?
- Step 2:
 - Discuss in your small groups:
 - What works and what doesn't with the current process

Measuring Quality

Donabedian Model

3. Outcomes: the changes (desired or undesired) in individuals that can be attributed to healthcare
 - Change in health status
 - Change in knowledge among patients
 - Change in patient behavior
 - Patient satisfaction

Model for Improvement



IHI: Nolan

Data and Improvement

- Data *essential* in quality improvement
 - Without quality data, you cannot effectively:
 - Complete an accurate needs assessment
 - Measure change
 - Develop individual action plans
 - Change systems to improve patient care and residency educational programs

Teaching QI and SBP

- Healthcare Improvement Skills Center
 - Six web-based modules with assessment
(<http://www.improvementskills.org/index.cfm?CFID=&CFTOKEN=63664402>)
- Institute for Healthcare Improvement Open School
 - Online courses in quality and patient safety
(<http://www.ihl.org/IHI/Programs/IHIOpenSchool/>)
- Both are FREE!

Teaching QI and SBP

- American Board of Medical Specialties
 - Patient safety modules
 - In conversation about making available to training programs
- Johns Hopkins University
 - Developing Patient-centered medical home training modules
- MD Content
 - Covers management, finance and liability (www.mdcontent.com)
 - Small fee for use

“Show How” Assessments for QI

- Quality Improvement Knowledge Assessment Test (QIKAT)
 - Assesses ability to create aim and design project based on PDSA
- Quality Improvement Proposal Assessment Tool (QIPAT-7)
 - Rating scale approach to quality of a QI proposal developed by learner
- Both require faculty with knowledge and understanding of QI

Learning by Doing: Approaches

- Embed in existing local QI teams
- Individual QI projects
- Longitudinal resident QI initiatives
- Practice improvement modules (PIMs)
- Changing systems

QI: Your Training Programs

- What approaches do you use in your program?
- What approaches would you like to use in your training programs?
 - Residents
 - Fellows

Existing QI Teams

- Embed the resident(s) into existing QI teams
 - Usually hospital-based
 - Rotation approach
 - Difficult logistically to involve residents over continuous periods of time
 - Little empiric data regarding impact
 - Residents helpful in identifying errors and suggesting approaches to reducing errors

Existing Teams: SIU

Quality Improvement Teams

Faculty/residents/staff

Rolling membership

Inpatient/outpatient

1 to 3 year projects

Grand Rounds



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1.800.441.ABIM | www.abim.org

Individual QI Projects

- Residents learn QI by developing QI projects with faculty mentor
 - Learn PDSA cycle, flowcharting, etc.
 - Multiple studies have demonstrated residents like experience*
 - Improves QI knowledge
 - Limitations
 - Cannot implement all projects
 - Little information on benefit for patients
 - Djuricich (IU): Improvement in care processes for those projects actually implemented

**Headrick, Ogrinc, Djuricich, Weingart, Moore*



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Longitudinal QI Projects

- Residents participate in ongoing initiative
 - Rotate “in and out” of QI initiative/program
 - Continue to use learned skills in own practice
 - Contribute to ongoing adjustments and changes in QI initiatives

Yale PC Program QI Study

- Self-directed curriculum in quality improvement for PGY-2 residents
 - Four week block during ambulatory rotation
 - Longitudinal design
 - “Standard” experience for all residents
 - Patient focus consistent over time: diabetes and prevention
 - Potential to “build” on previous learning and data
 - Allows for sustainability

Yale PC Program QI Study

■ Components:

- Syllabus: Key chapters from IOM reports, instruction in medical record audits, key QI approaches
- Data collection: Performed self audit of care for their own diabetic patients
- Reflection: Met weekly with faculty member to review reading, reflect on data, and plan for change
- Commitment to change: Self chosen areas for self-improvement
- Follow-up: Repeat reflection 6 months later



Yale QI Study: Outcomes

- 153 diabetic patient records abstracted
 - Only 91 patients seen at least once by resident in both study periods
- Median number of visits in both the baseline and follow-up years was 7 in both the PGY-2 and PGY-3 groups

Results: DM Processes

Test	PGY2 (N = 43)		PGY3 (N = 48)	
	Baseline	Follow-up	Baseline	Follow-up
Urine microalbumin	54%	59% [†]	52%	32% [†]
Monofilament test once	14%	26%*	6%	8%*
Pneumovax ever	35%	63%	27%	48%
Baseline ECG ever	33%	67%*	19%	31%*

* $p < .05$; [†] $p < .10$

Results: Commitment to Change

Category	Number of changes	Level of implementation		
		Fully	Partial	None
Individual/self change	39	23	12	4
Patient change	3	2	1	0
Systems change	12	4	4	4

Practice Improvement Modules

- Web-based tool originally developed for maintenance of certification by ABIM
- Walks physicians through a quality improvement cycle
- Attempts to catalyze reflection

Apply quality measures to practice

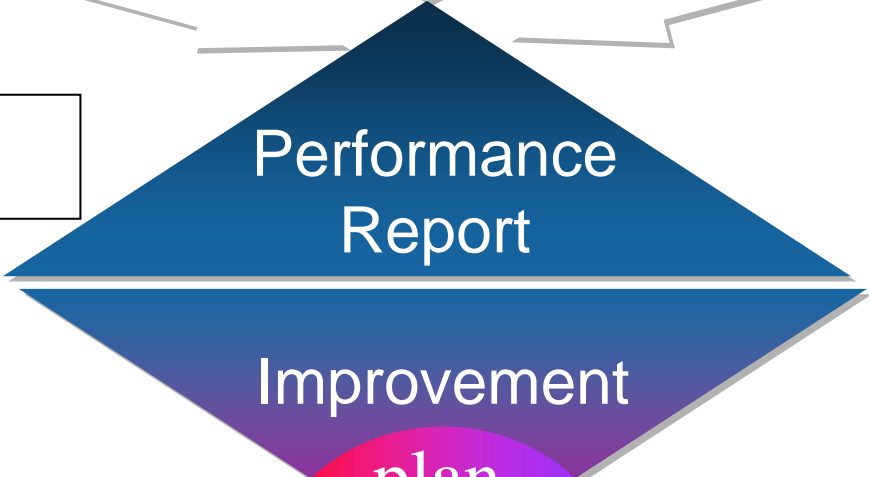
Examine system of practice processes

Chart review

Patient survey

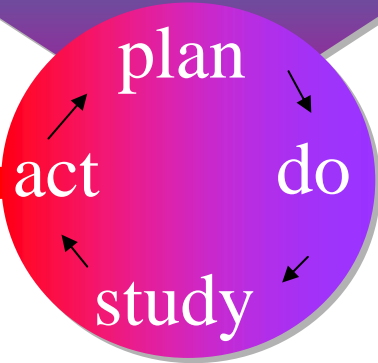
Practice review

Compare performance to guidelines



Report what was learned

Impact



Test a process change aimed at improving care

ABIM PIM Topics

- Asthma
- Diabetes
- Preventive Cardiology
- Clinical Preventive Services
- Hypertension
- Care of the Vulnerable Elderly
- Hospital-based
- Hepatitis C
- HIV
- Colonoscopy
- Osteoporosis
- CAHPS surveys
 - Principal care
 - Specialty care
 - Peer-consultant

ABIM PIM Demo Site

- Can view demos of all PIMs at:

<http://www.abim.org/online/pim/demo.aspx>

PIM Research in Residency

- Practicum Feasibility Study
 - 15 programs and 736 residents
 - Preventive Cardiology PIM
- Macy-ABIMF Care of the Vulnerable Elderly PIM
 - 42 IM and FM programs; 1016 residents
- AAIM-APDIM-SGIM Clinic Systems Study
- U of Chicago Study

Practicum Study: Audit Results

<i>Outcome measure</i>	Practicum (N = 4790)	Diplomates (N = 2696)
Sys BP >140	33%	28%
Dias BP > 90	14%	10%
LDL >100	60%	46%
<i>Limitations</i>		
Psychiatric cond	15%	4%
Adherence	25%	13%
Social factors	27%	9%

Practicum Study: Patient Survey

Measure	Practicum (N = 3092)	Diplomates (N = 3370)
Mean age	54	65
Self rating health (VG-E)	27%	31%
Practice answer my question*	39%	61%
Diet, exercise, med: prev MI*	33%	52%
Side effects of meds*	32%	43%
Overall rating: Prev card*	37%	63%

* *Rating of excellent*

Practicum Study: Information Management*

Measure	Practicum (N = 29)	Diplomates (N = 107)
Problem List	55%	80%
Med List	66%	97%
Follow trends	41%	41%
Integrated TX plan	31%	60%
Hx/PE Template	59%	83%
Post MI reminders	7%	36%
Med Problem template	17%	80%

**Working well in the practice*

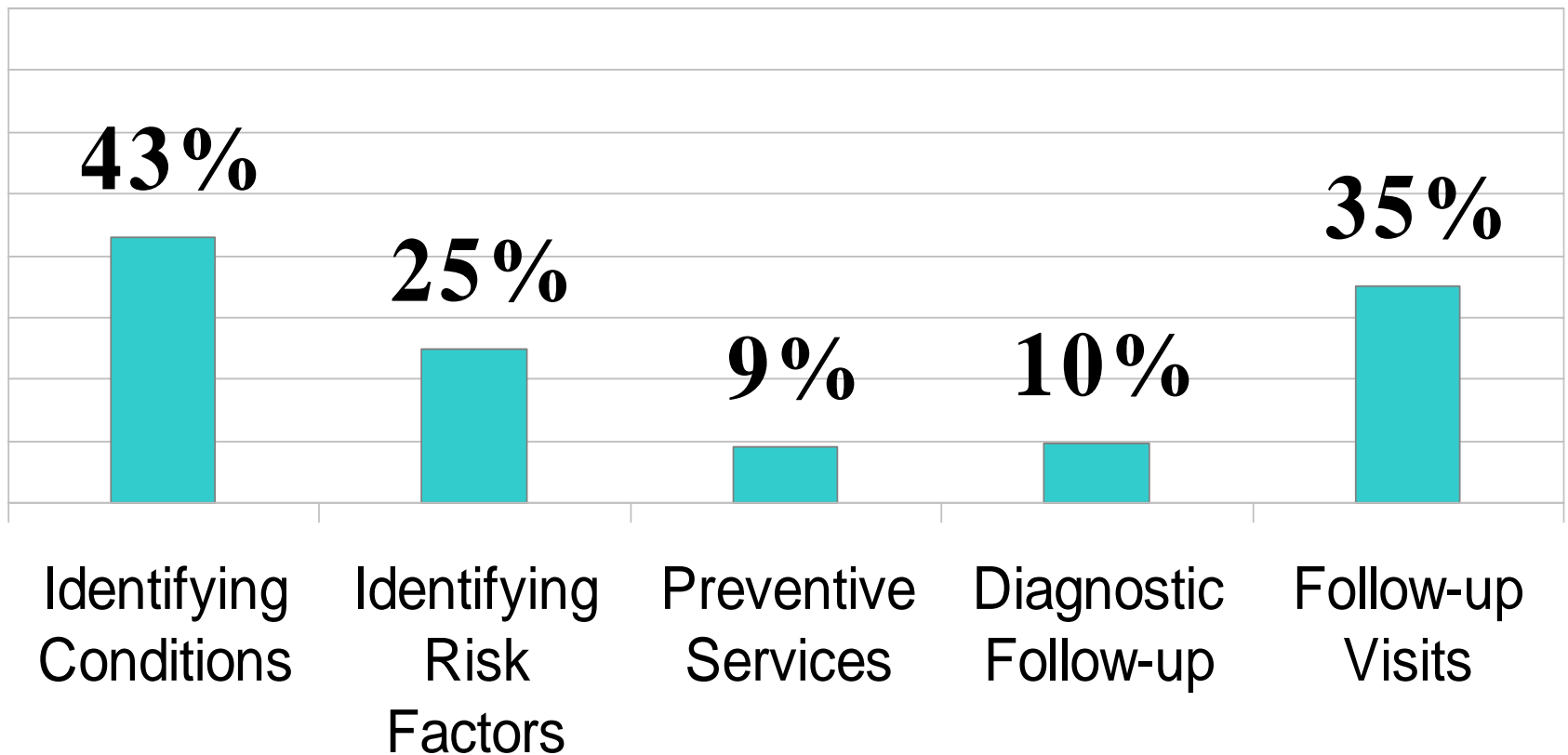
Residency Clinic Study

- There is a strong belief that longitudinal ambulatory clinic experiences are suboptimal in internal medicine training
- Two part survey of IM clinic directors
 - Staffing and educational environment
 - Systems readiness survey
- Collaborative project with AAIM, ACGIM and SGIM
- Survey delivered via Grapevine web-based tool

Results

- Sample
 - 226 of 369 clinic directors (70%) completed both sections of the survey
 - Represents 49% of all US IM programs
- Patient populations heterogeneous, but predominantly underserved
- 56% of IM clinics in study have EMR
 - Programs with > 50 trainees more likely to have EMRs than smaller programs

Use of Practice Data to Track...



University of Chicago PIM Study

Clinical Preventive Services PIM

- 3 quality improvement projects in the ambulatory clinic:
 - Measurement and documentation of BMI
 - Measurement improved from 4% to 79%
 - Smoking cessation counseling
 - Counseling improved from 41% to 67%
 - Accuracy of medication lists.
 - Inaccuracies in medication lists fell from 25% to 9%.

PIM Lessons to Date

- Residents experience same “aha” moments as practicing physicians in MOC
- Medical record audit relatively easy for residents to perform
 - Challenge is scheduling time *to do* audit
- Patient surveys a challenge
 - However, data from patients *invaluable*
 - Many programs targeting communication as one of their interventions
- Effective local champion a must

Narrative Assessment

- In your small groups, discuss the following:
 - Did the resident gain any insight into his/her own practice?
 - If so, what insight(s)
 - Did the resident gain any insight into the systems issues of the clinic?
 - If so, what insight(s)

Small Group Exercise

- *What might be your next steps in PBL&I and SBP, with a specific focus in quality?*

Questions