

Transforming Lung Cancer Care Delivery

An End to End Multi Disciplinary Clinical Engagement

Dr. M. Fung-Kee-Fung, M.B., BS, FRCSC, MBA

Chief of Cancer Transformation and Strategy

Head, Surgical Oncology Program

The Ottawa Hospital Cancer Program



The Challenge

IOM – Best Care Lower Cost

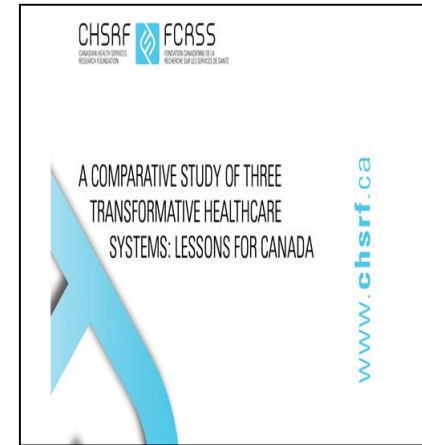
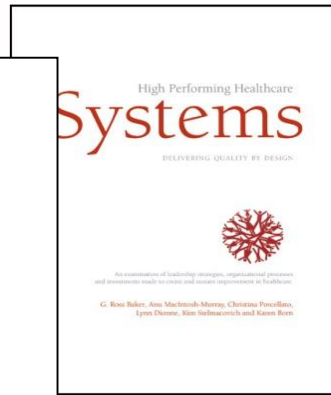
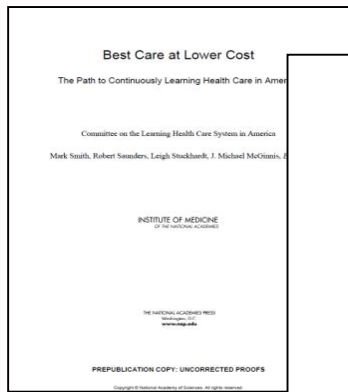


Figure 1: Schematic of the health care system today (Source: Best Care Lower Cost, 2012)

Source: Smith, M. Saunders, R. Stuckhardt, L. McGinnis, M. (2012). Best Care at Lower Cost The Path to Continuously Learning Health Care in America. *Institute of Medicine*. National Academy of Sciences. S9.



Getting to a common framework



Key problem to be solved:

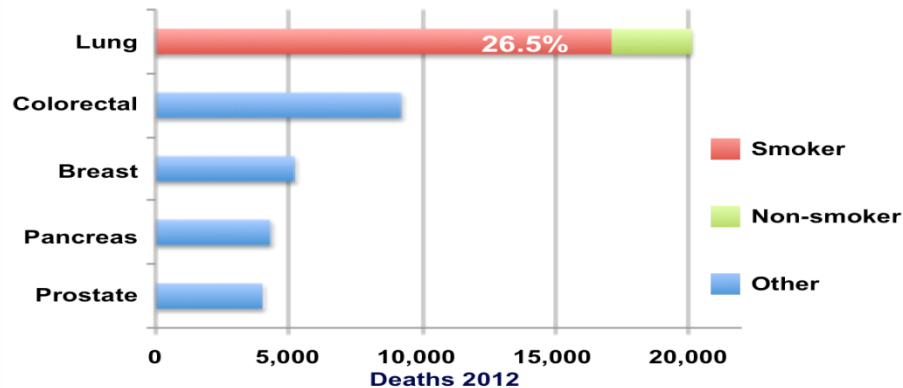
How do we increase value, while increasing Quality and lowering costs in a patient centric care model that is continuously increasing in complexity,





The Cold Hard Facts

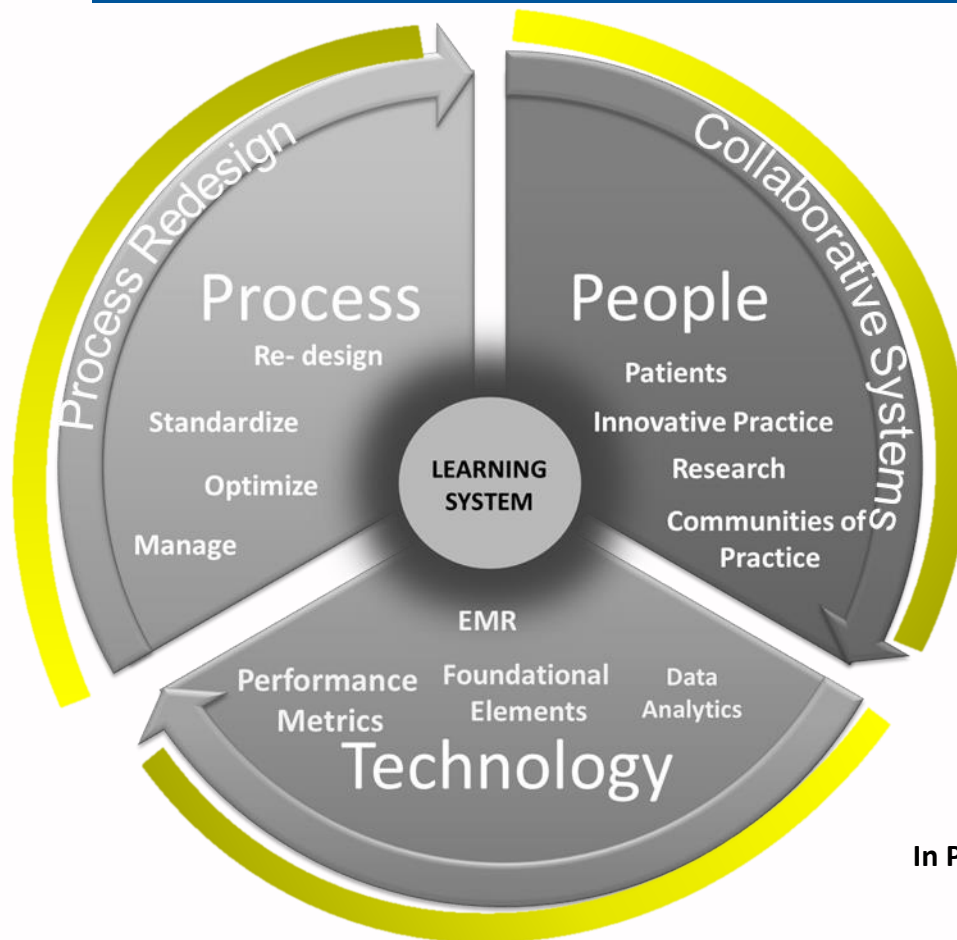
Lung cancer causes 26.5% of cancer deaths in Canada (1.4M worldwide)



- Lung cancer survival improved from 13% to 16% from 1975 to 2005 (1% per decade)
- Lung cancer is most complex
- Long total cumulative wait times
- Coordination of care is disjointed with many hand offs: Variable
- Multiple and complex testing



Enabling our People, Process and Technology THE TOH WAY



In Press – Fung-Kee-Fung et al

***Patient Centric Care Delivery
by Enabling our People, Processes and Technology***

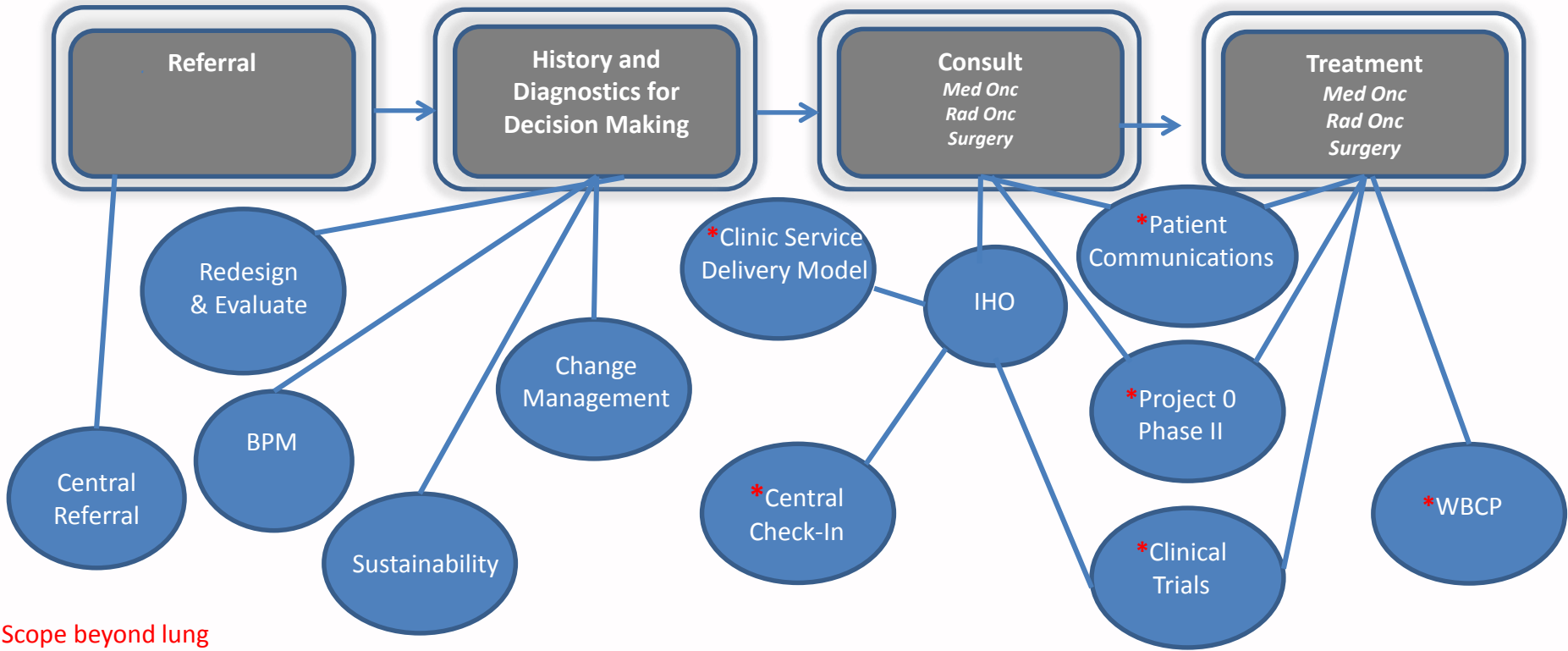


Lung Cancer Transformation

Problem – poor patient flow, confusing patient processes, repetitive processes

Issue - workload inefficiencies, lack of coordinated patient support care

Solution - coordinate, standardize, streamline, engage, learn



* Scope beyond lung

Change Management, Communities of Practice (CoP)
 CCO - Disease Pathway Management , INTEGRATE

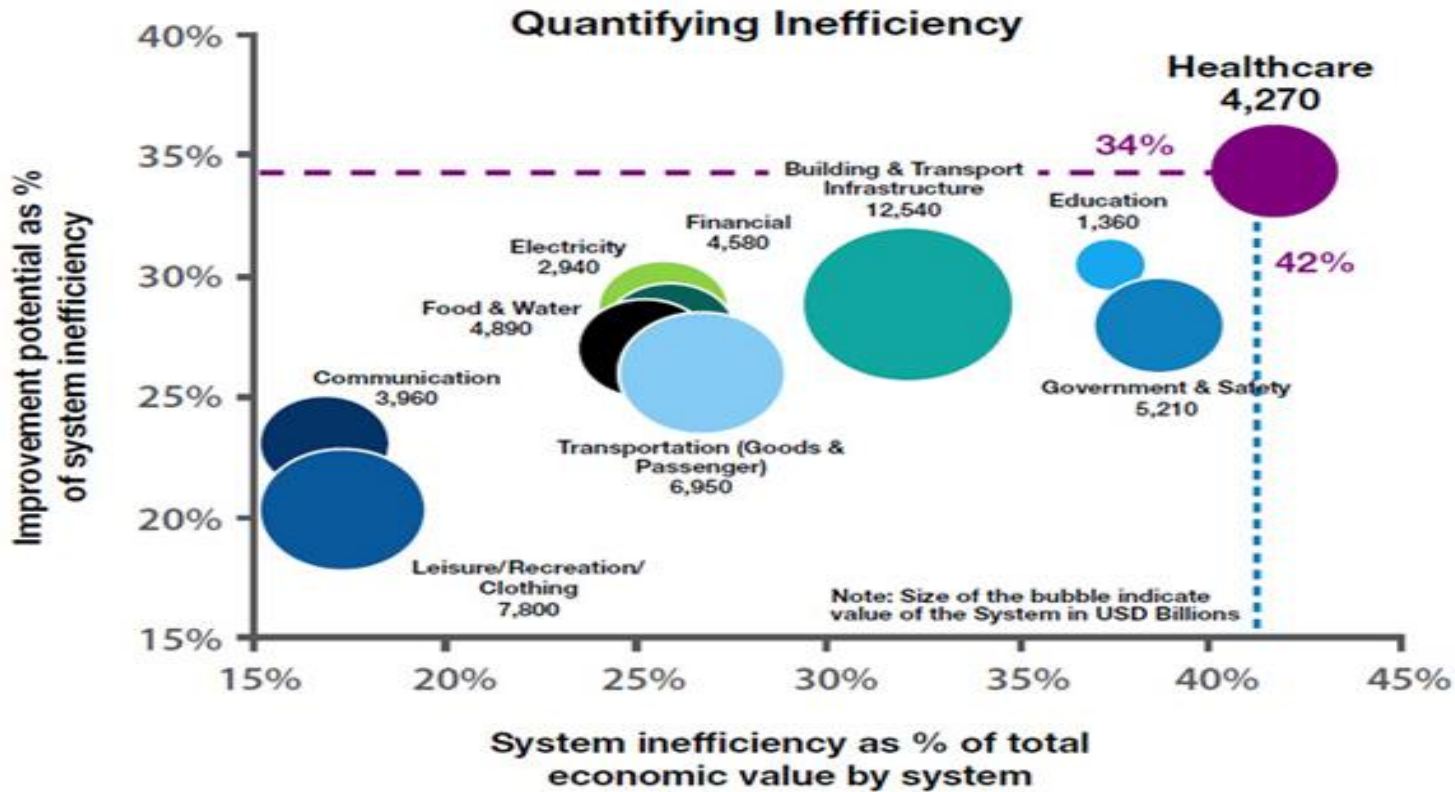


PROCESS



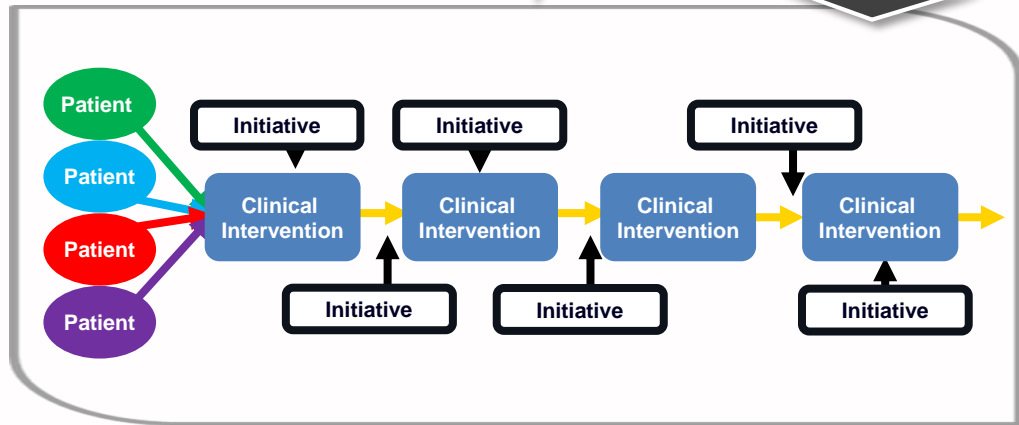
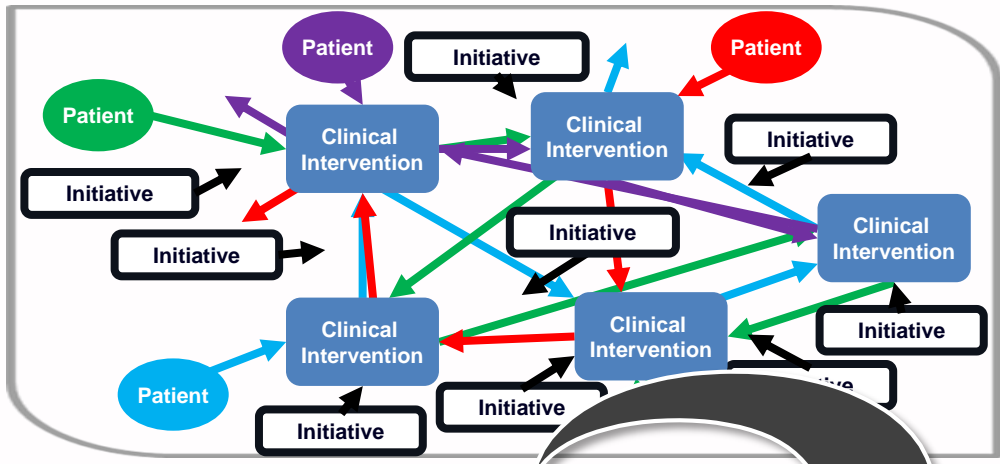
Healthcare Inefficiency Opportunity for Improvement

THE OPPORTUNITY



[Redefining Value and Success in Healthcare: Charting the Path to the Future](#),
Whitepaper - IBM Healthcare and Life Sciences Thought Leadership, January 2012.

Process Improvement Tools



THE TOOLS
Process Improvement Concepts

LEAN THINKING

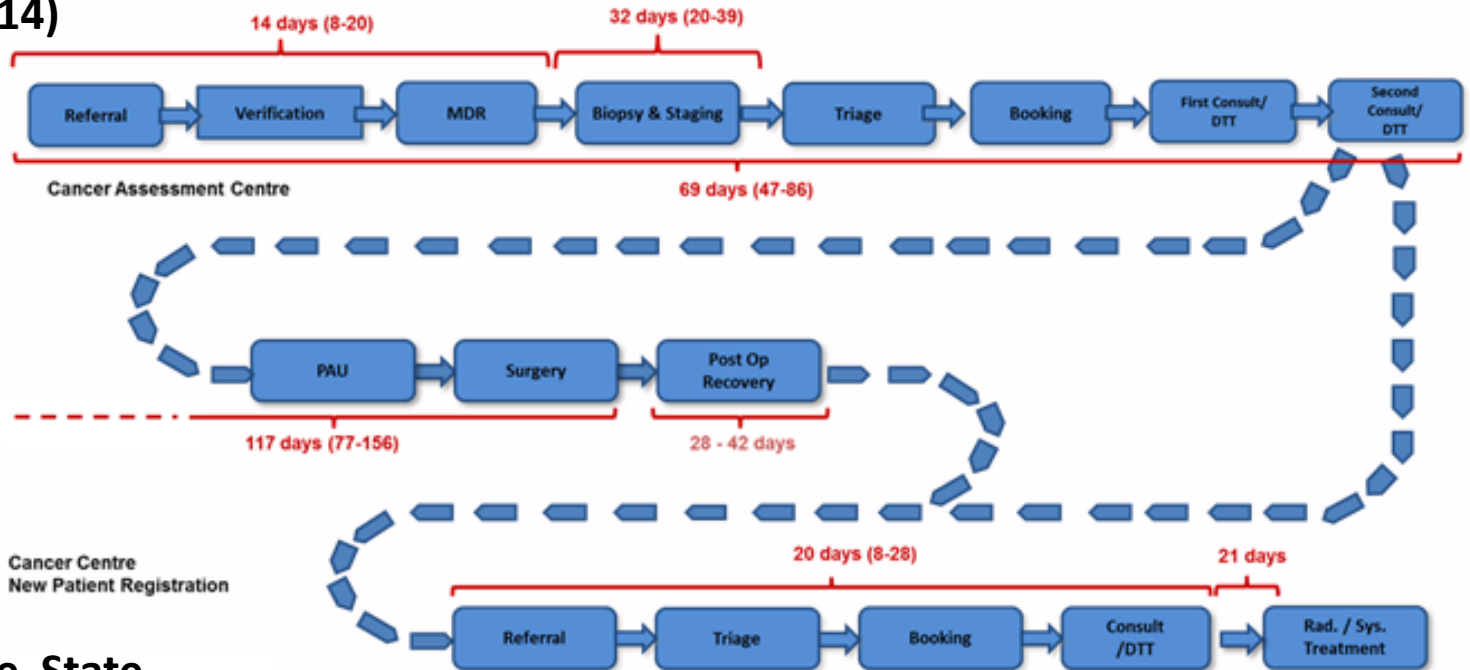
Lean Focuses on the removal of waste, which is defined as anything not necessary to produce the product or service.

THEORY OF CONSTRAINTS

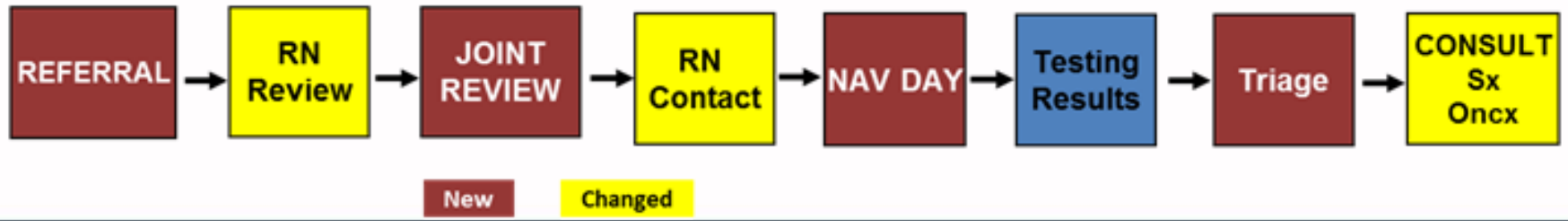
The performance of the entire chain is limited by the strength of the weakest link.

Current State vs Future/Current State

Current State (before Oct 2014)



TODAY / Future State (after Oct 2014)





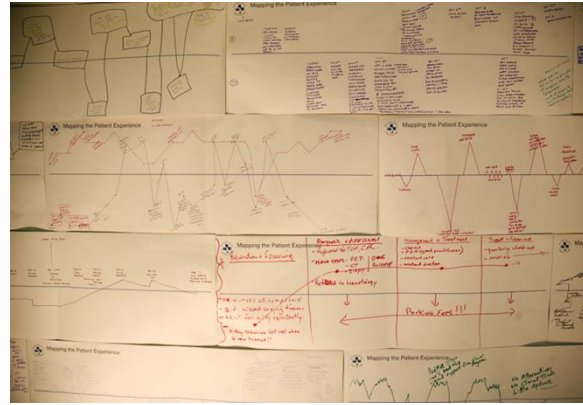
PEOPLE



Stakeholder Engagement



Consultation with Patients and Family Members, Clinicians And Non Clinicians



Mapping Process and Patient Experience



Consensus and Agreement in the Lung Community, Lung Community of Practice, and PFAC

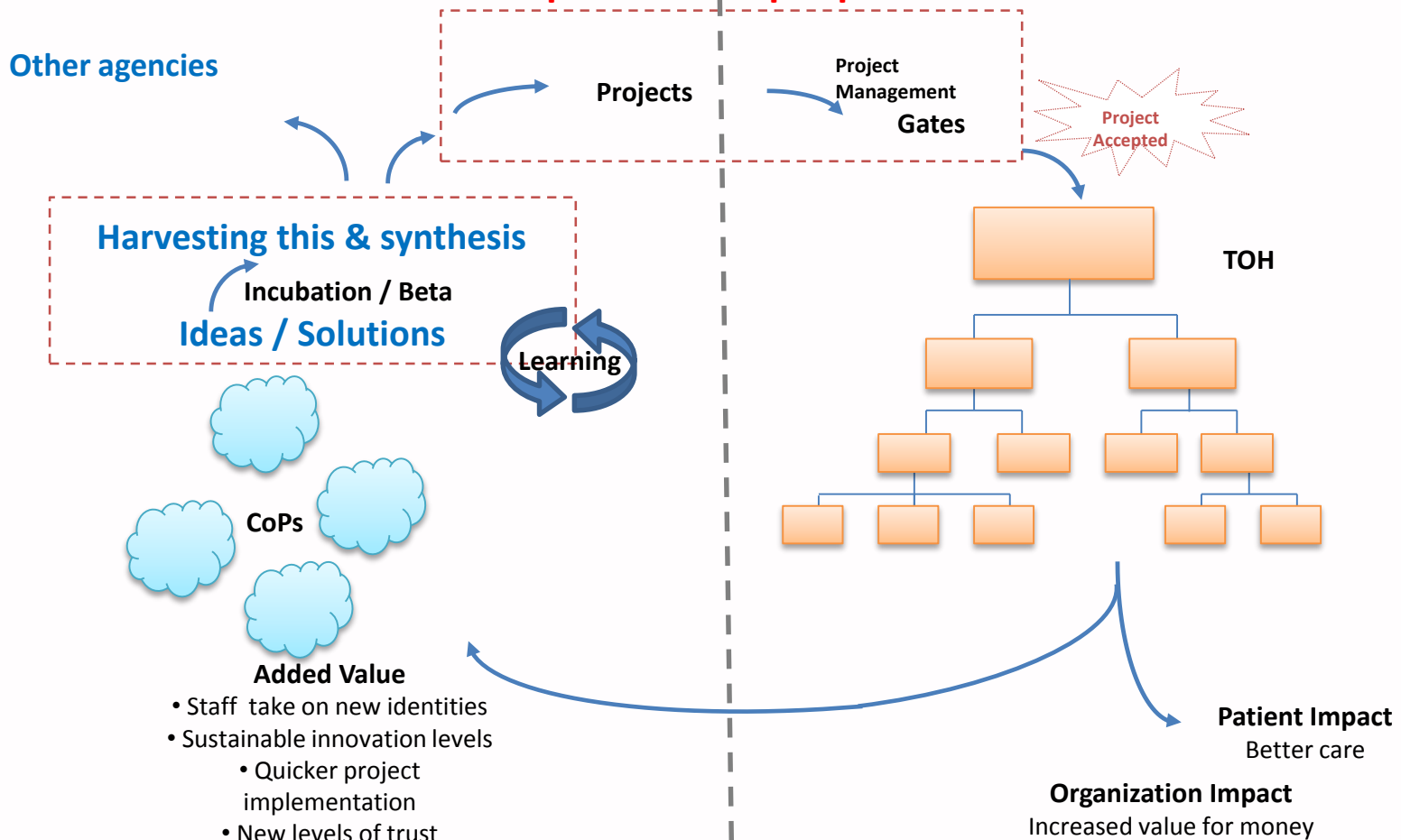
Past Patient Consultation Recommendation Themes

- Increasing Patient Participation
- Improving System Navigation
- Enhancing Communication
- Better Information
- Building Relationships
- Addressing Financial Pressures
- Adoption a 'whole-person' Approach



Collaboration- Communities of Practice

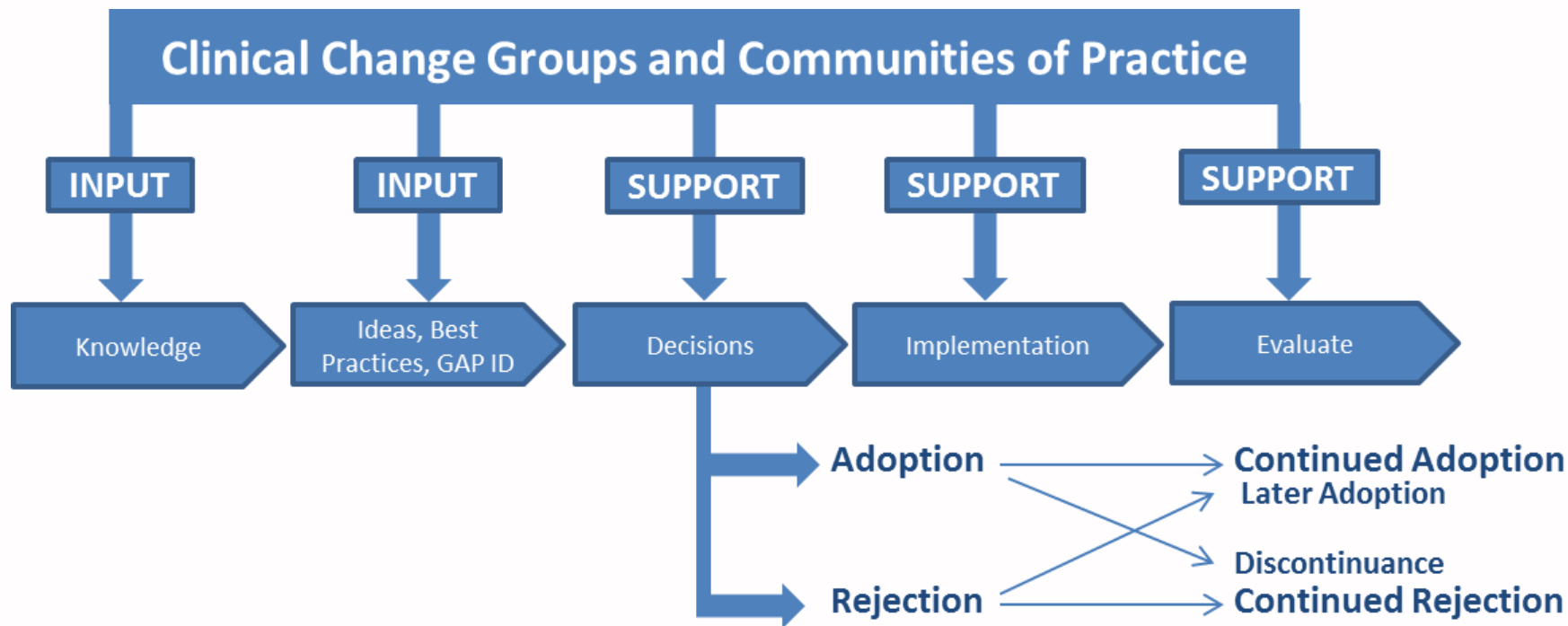
This is our bridge in the learning continuum between technology, process and people.



Fung-Kee-Fung M, Goubanova E, Sequeira K, Abdulla A, Cook R, Crossley C, Langer B, Smith AJ, Stern H: **Development of communities of practice to facilitate quality improvement initiatives** in surgical oncology. Qual Manag Health Care 2008, 17:174-185.



Change Management Engagement Methodology



Empowering, Innovating, Collaborating

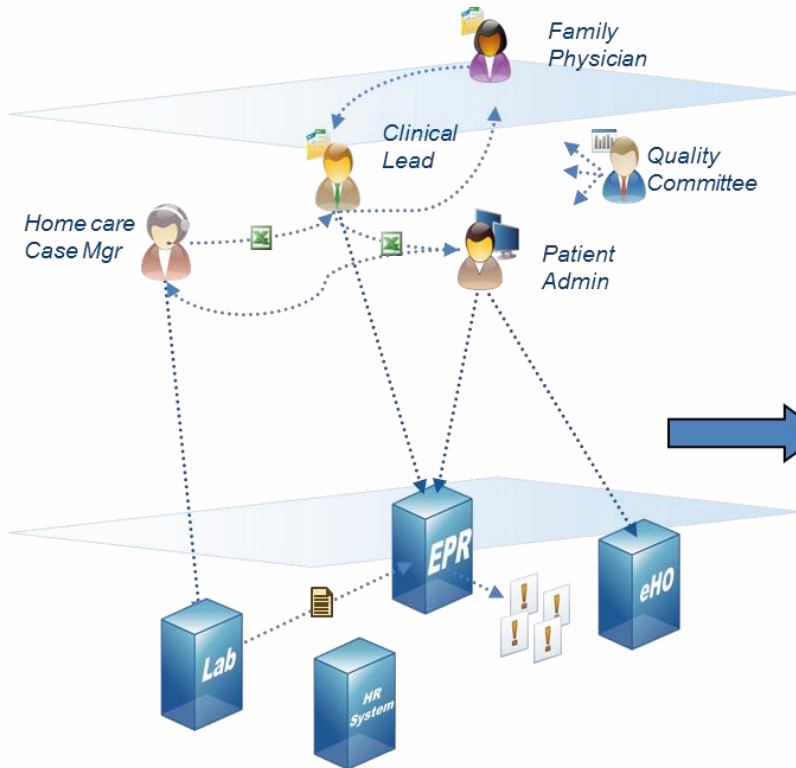


TECHNOLOGY



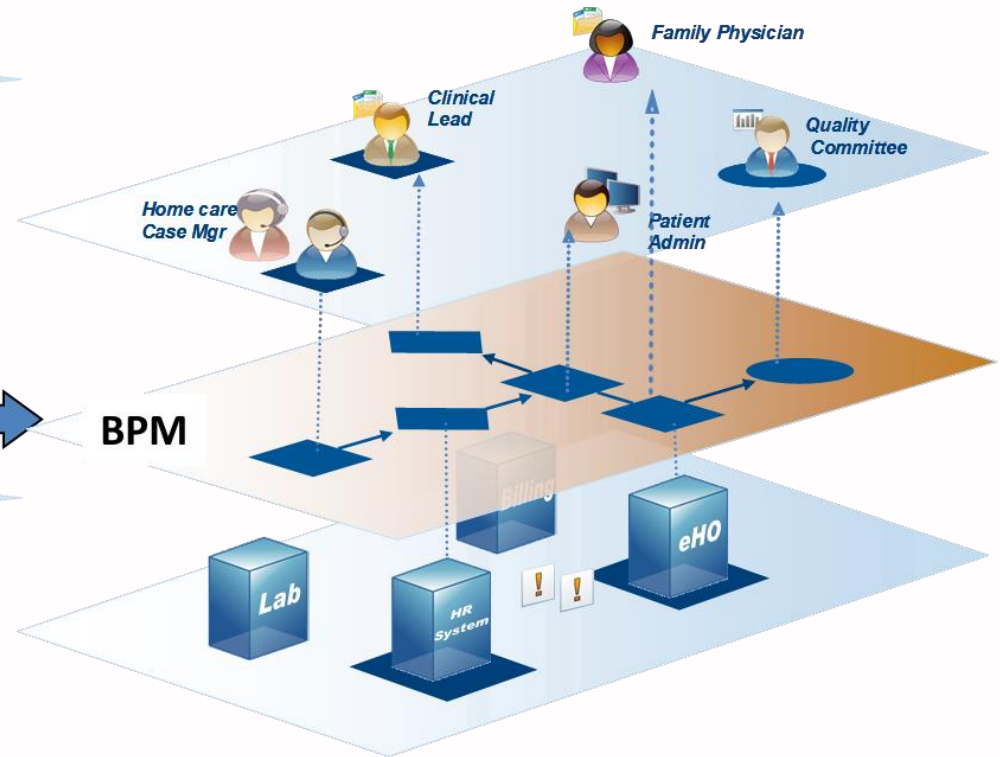
Business Process Management Implementation in a healthcare environment

CURRENT STATE



BPM

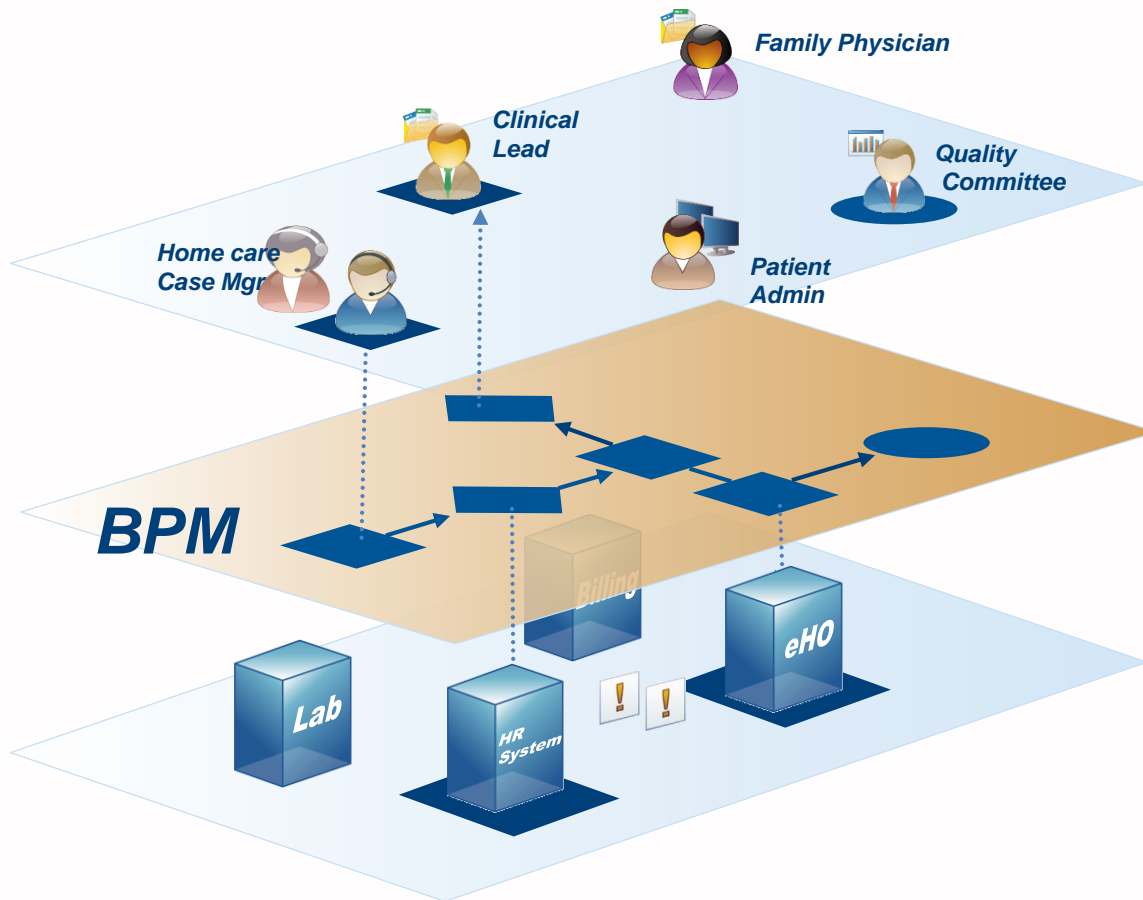
FUTURE STATE





The Value of BPM

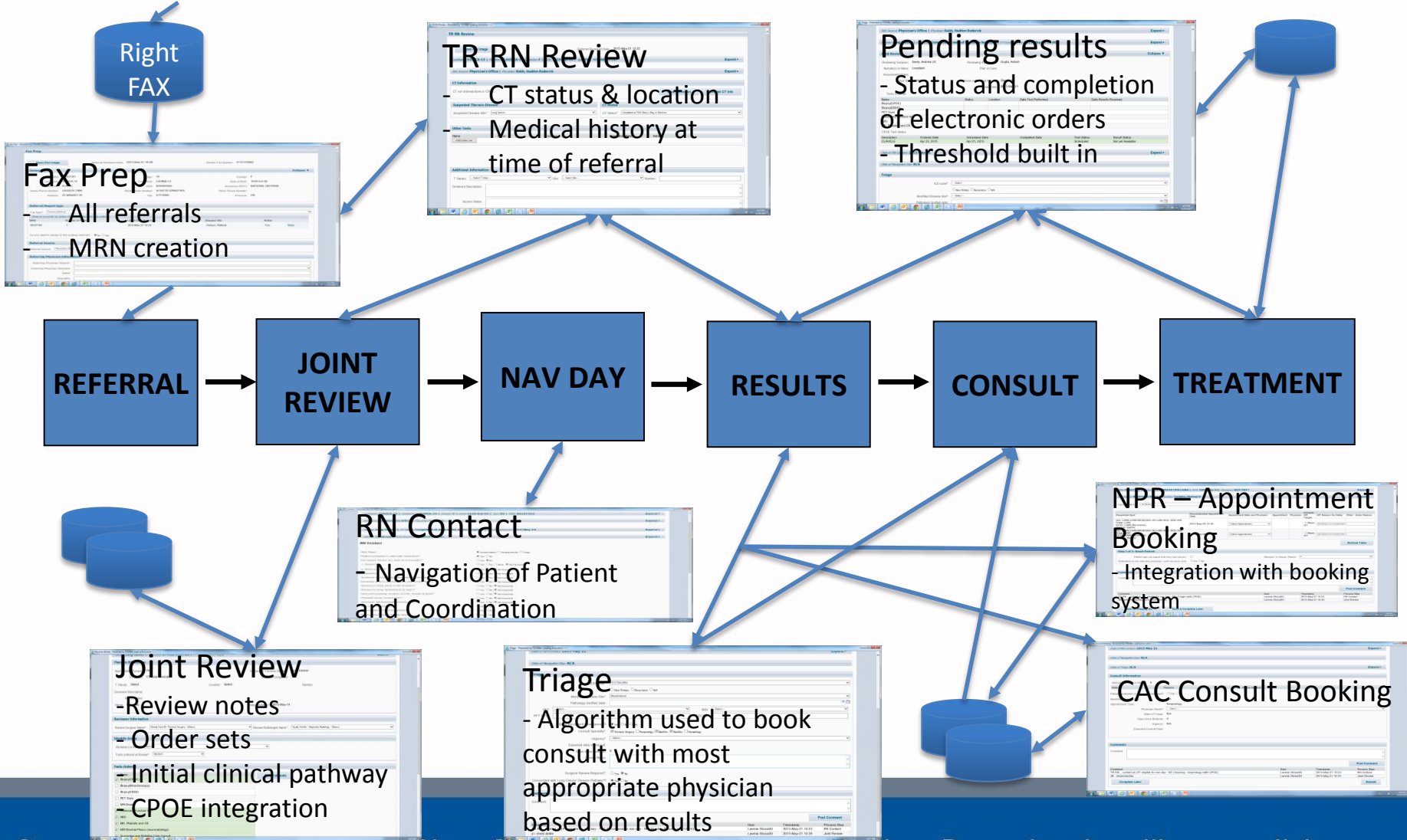
Adaptability, Accountability, Awareness



1. Automatically prioritizes and routes work
2. Guides users through decisions
3. Standardizes resolution across geographies
4. Leverages existing systems and data
5. Monitors for business events and initiates action
6. Real-time visibility and analytics for quality control

All Lung Referrals to Cancer Program

Lung Cancer Intake BPM Implementation

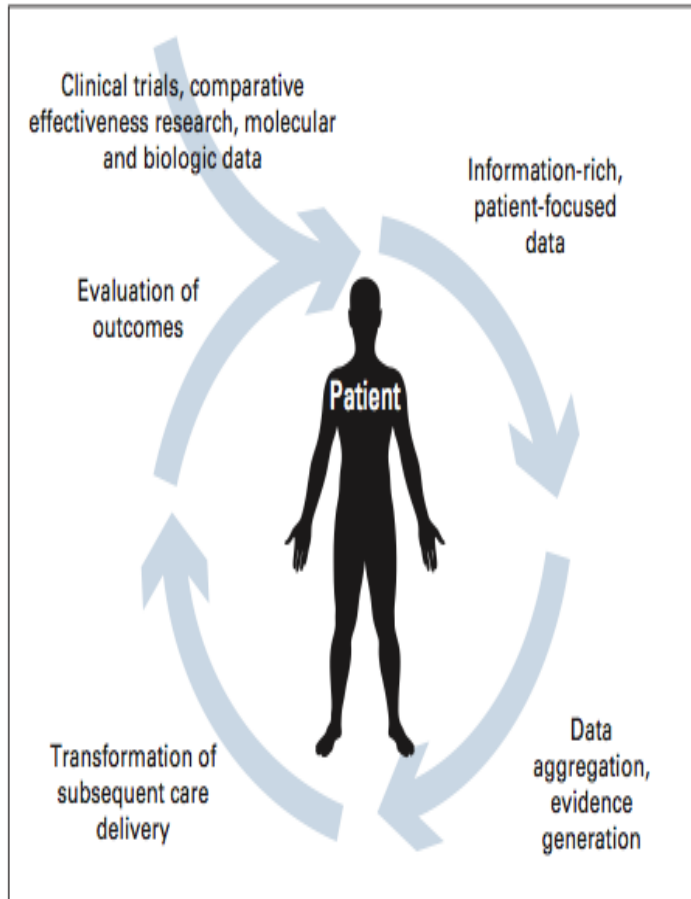




LEARNING SYSTEM



Learning System



VOLUME 28 · NUMBER 27 · SEPTEMBER 20 2010

JOURNAL OF CLINICAL ONCOLOGY

SPECIAL ARTICLE

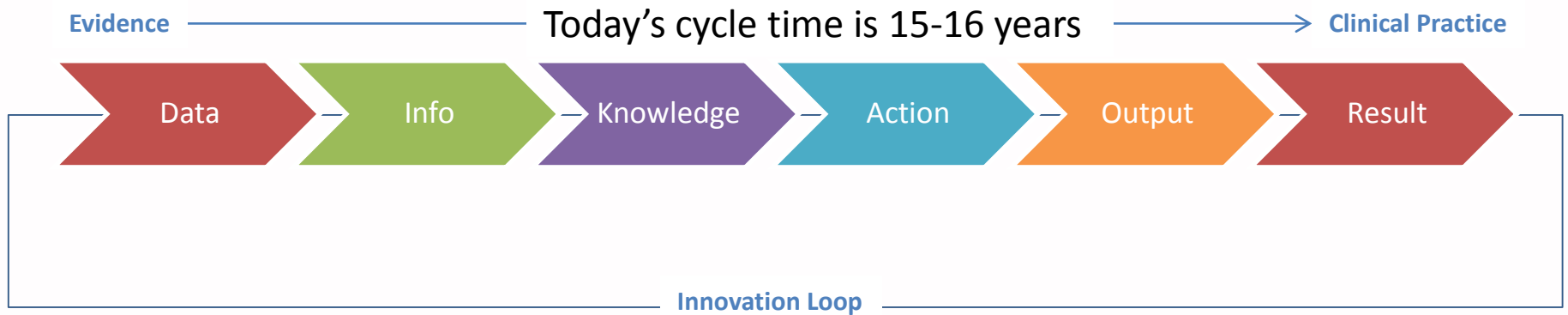
Rapid-Learning System for Cancer Care

Amy P. Abernethy, Lynn M. Etheredge, Patricia A. Ganz, Paul Wallace, Robert R. German, Chalapathy Neti, Peter B. Bach, and Sharon B. Murphy



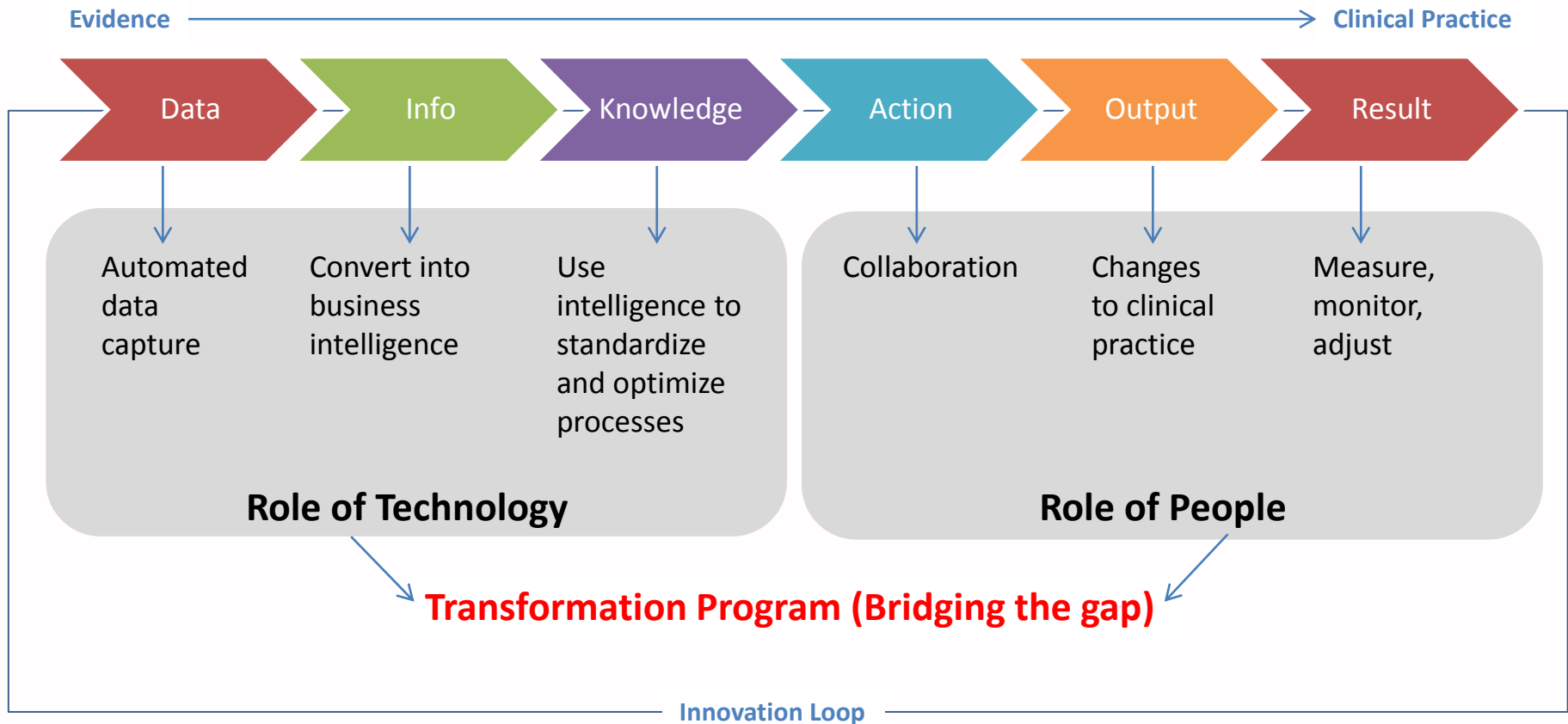
The Learning System and Transformation

Systematic capture of both operational and clinical data embedded in a process of knowledge harvest, innovation and implementation



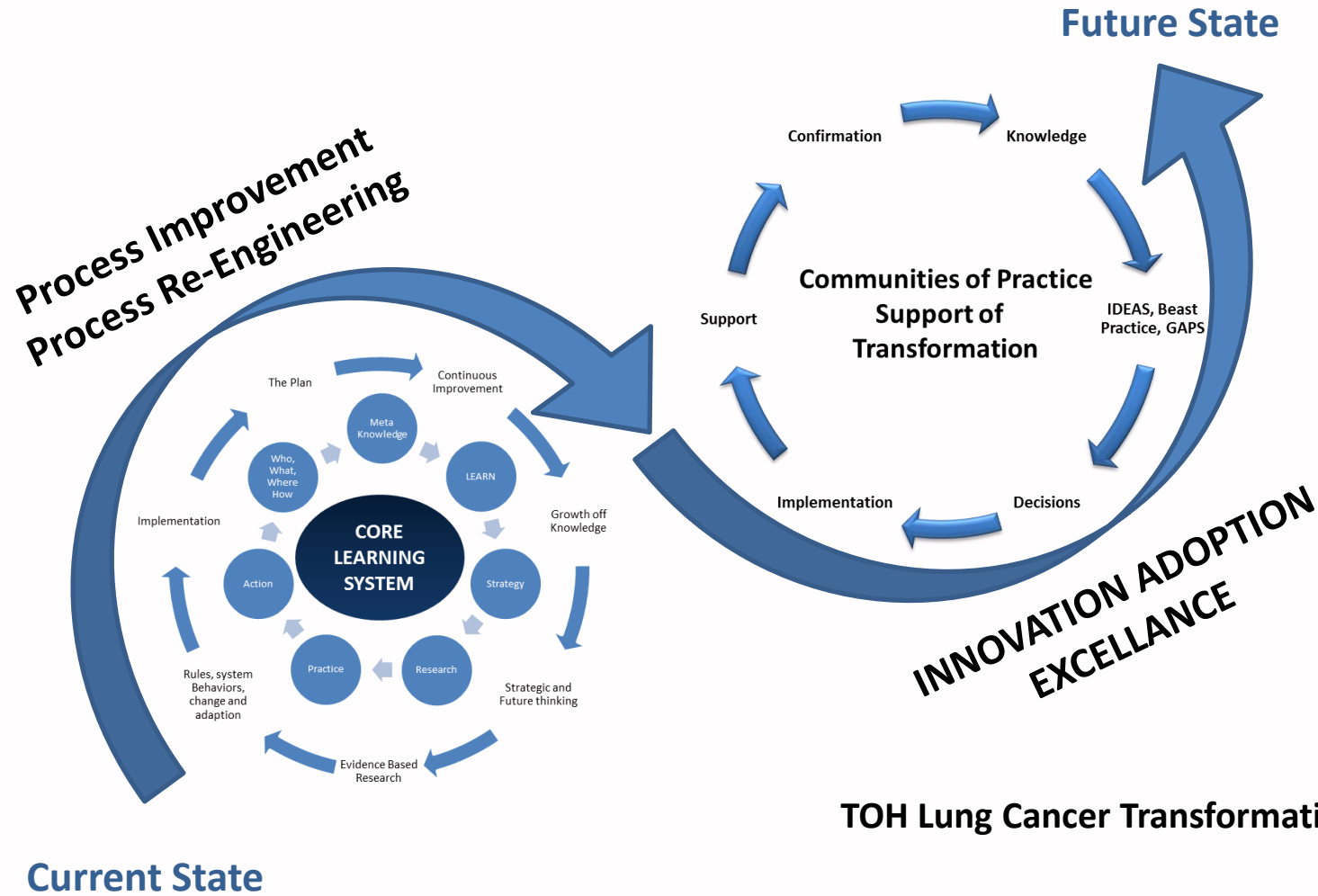


Transformation Learning System





From Current and Future State



TOH Lung Cancer Transformation 2015



RESULTS



Lung Cancer Transformation Results

Value - Effectiveness Efficiencies and Experience

Wait Time Improvement

Area of Improvement	January 2014	January 2015	February 2015
Lung Process - 90 th Percentile (Referral to 1 st Treatment)	117 days	85 days 27% improvement	82 days 30% improvement
Lung Process - Median (Referral to 1 st Treatment)	92 days	55 days 40% improvement	48 days 48% improvement

Engagement –Significant individual and team commitment

- Over 40 clinical change team members
- Over 110 active members of the Lung COP
- Over 200 people actively engaged (18 disciplines, 30+ different positions/roles)
- 2000 patients/year

Value – Effectiveness , Efficiencies and Experience

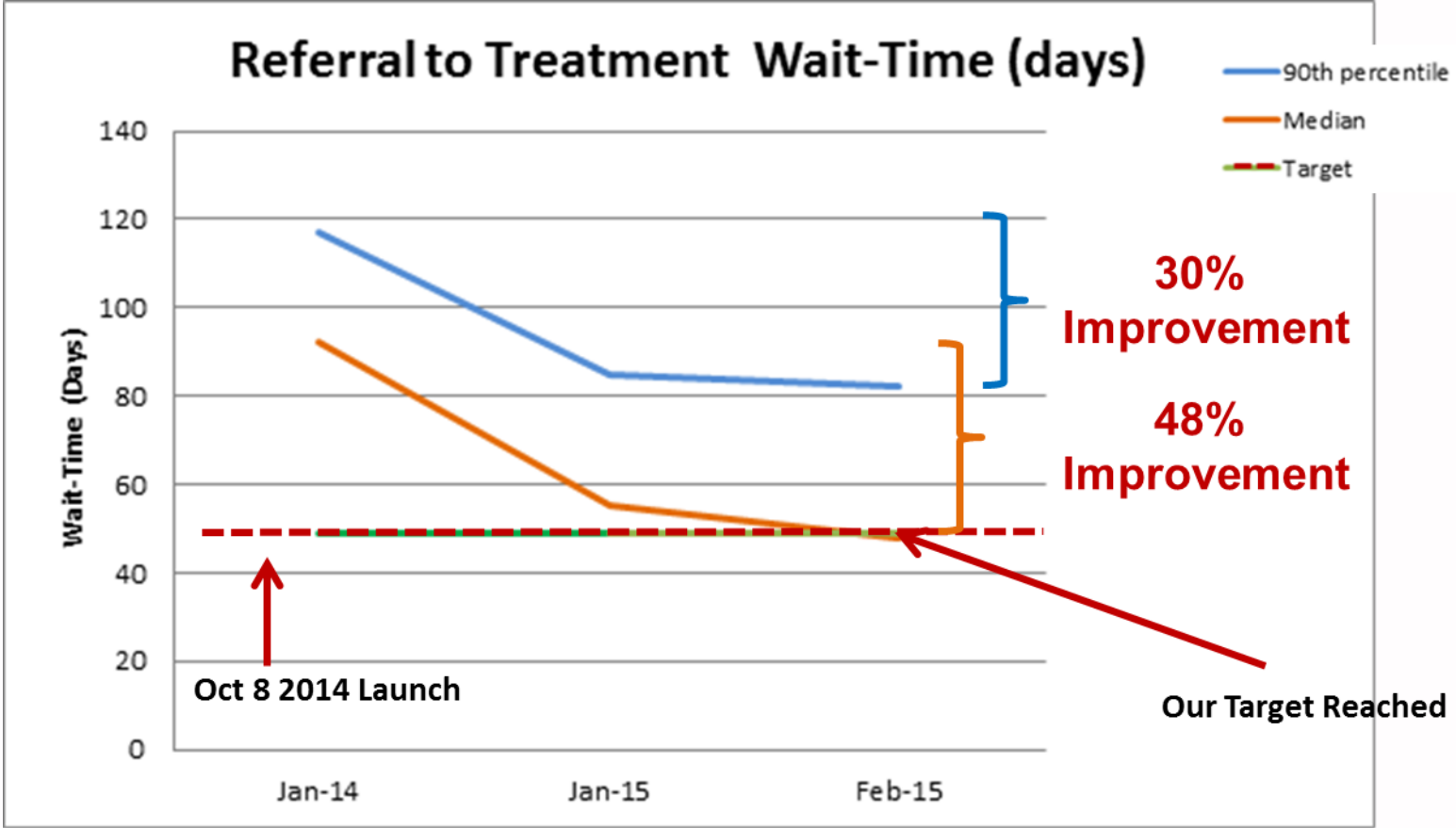
- Over 100 constraints /Barriers identified (to date 30 have been resolved)
- Value creation – over 25 areas where primary and secondary value was created

Change - Process and Sub Processes Change, Issues and Actions

- 12 Processes/ sub processes changed
- Over 270 actions logged and resolved leading to 57 process changes



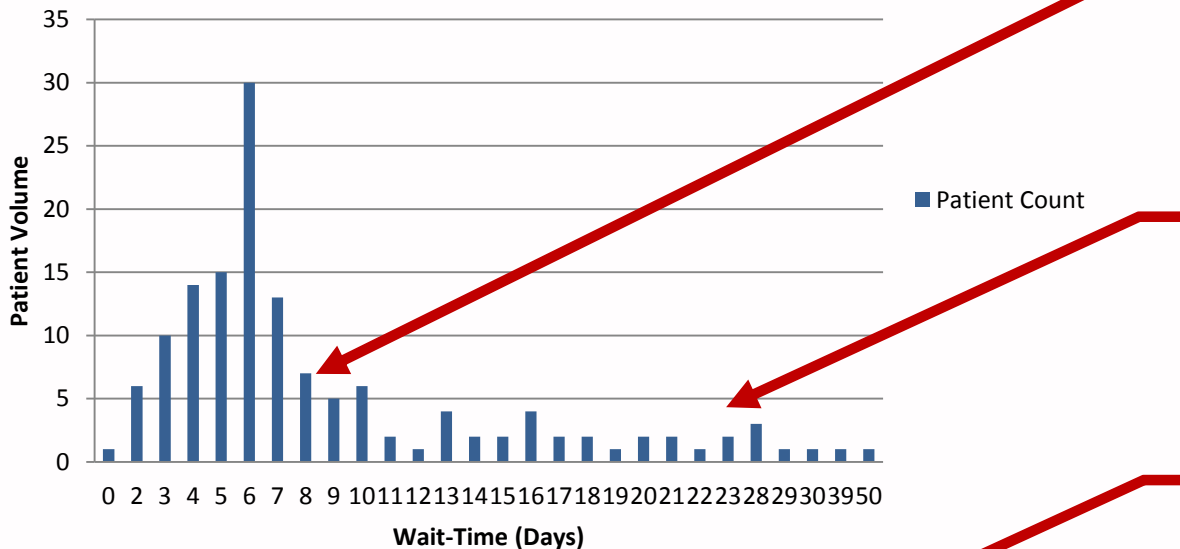
Lung Transformation Overall results to date





Lung Transformation Other results

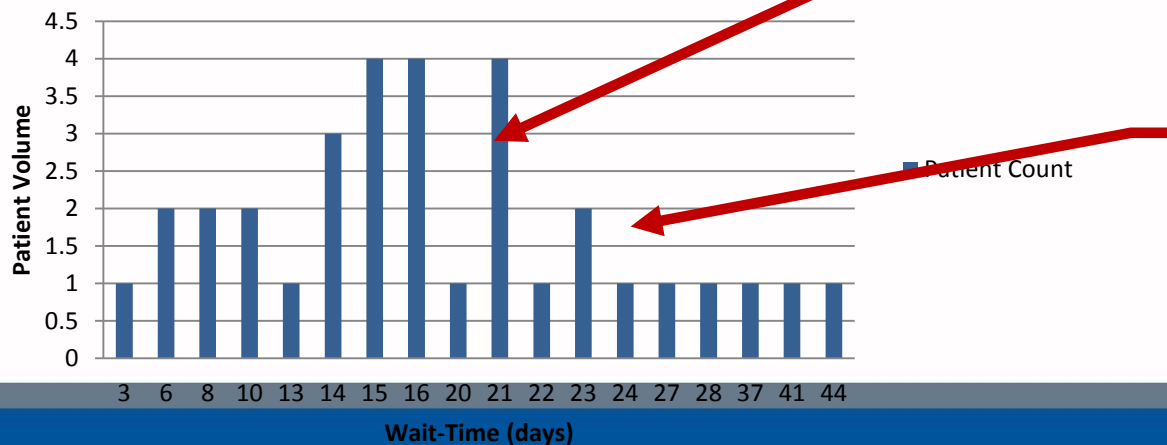
PET: Patient Volume vs. Wait-Time (days)



66% Improvement
 Target = 5 days
 Jan 2014 Median = 18 days
 Feb 2015 Median = 6 days

- Reasons for Delay**
- Coordination with nav day
 - Patient availability
 - Sequencing of tests (ie. Bx first)

Endoscopic Bx: Patient Volume vs. Wait-Time (days)

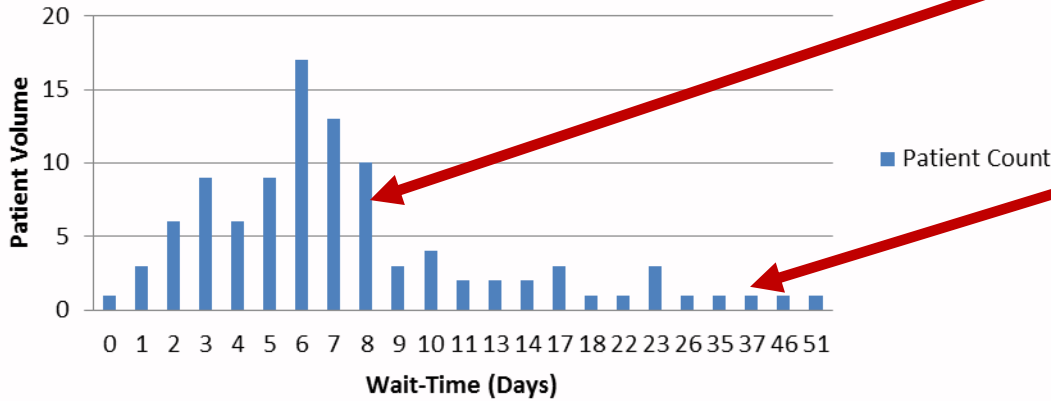


33% improvement
 Target = 10 days
 Jan 2014 median = 24 days
 Feb 2015 Median = 16 days

- Reasons for Delay**
- Consult before biopsy scheduling for consent
 - PAU visit for EBUS performed by thoracic surgeons
 - Consults with thrombosis, cardiology, neurology for bridging/stopping of anticoagulants



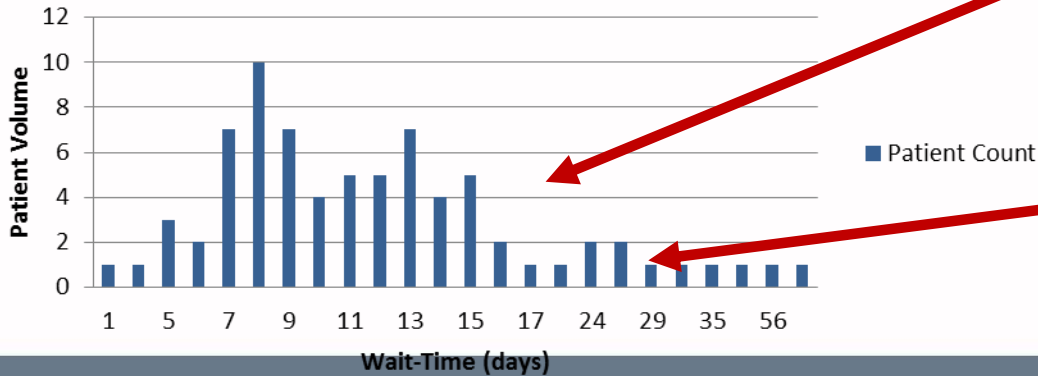
PFT - Patient Volume vs. Wait-Time (days)



50% improvement
 Target = 5 days
 Jan 2014 median = 12 days
 Feb 2015 Median = 6 days

- Delay Reasons
- Not Coordination with Nav Day
 - Patient Availability

FNA Bx: Patient Volume vs. Wait-Time (days)

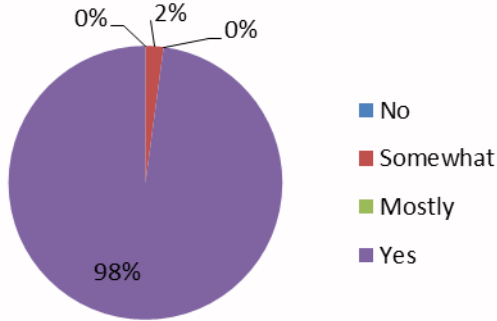


35% improvement
 Target = 10 days
 Jan 2014 median = 17 days
 Feb 2015 Median = 11 days

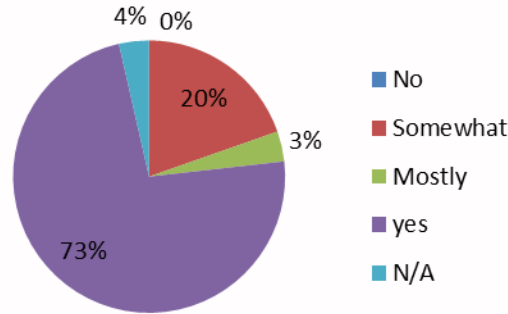
- Delay Reasons
- Consults with cardiology/neurology/ thrombosis if on anticoagulants
 - Stopping of anticoagulants for 5 days prior to procedure
 - Wait until after Nav Day (blood work, other testing)
 - Demand fluctuations vs. rigid

Navigation Day Patient Survey

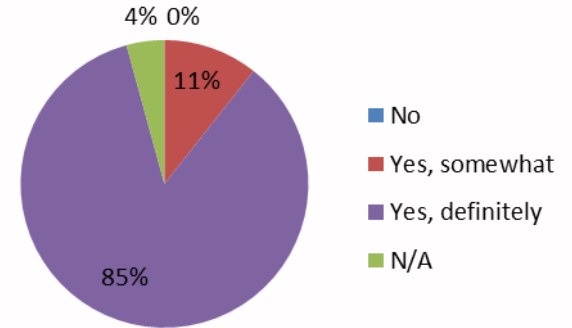
Q1: Was NAV Day helpful, explained and clear expectation of the day and the next weeks?



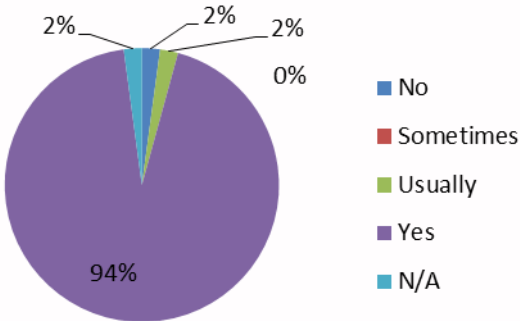
Q2: Do you feel that testing was well coordinated?



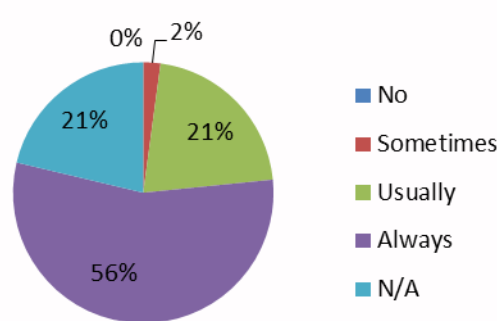
Q3: Were your tests are scheduled quickly enough?



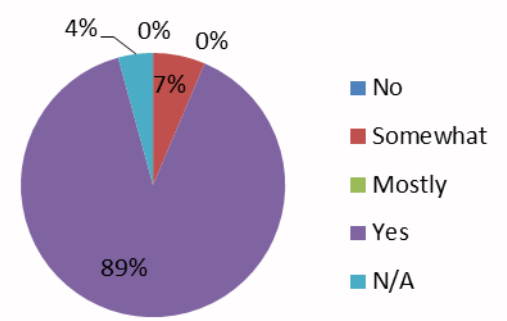
Q4: Do you know who to contact if you have questions or concerns ?



Q5: Do you find the Patient Passport you were given helpful?



Q6: Did you have an opportunity to ask questions during your visit today?



Navigation Day patient response has been EXCELLENT!!



THANK YOU!