October 2/3, 2017

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IT'S HOW MEDICINE

SHOULD BE





25 Years of progress through prevention

AND A SPECIAL THANKS ALSO GOES TO THE

Carolyn R. "Bo" Aldigé

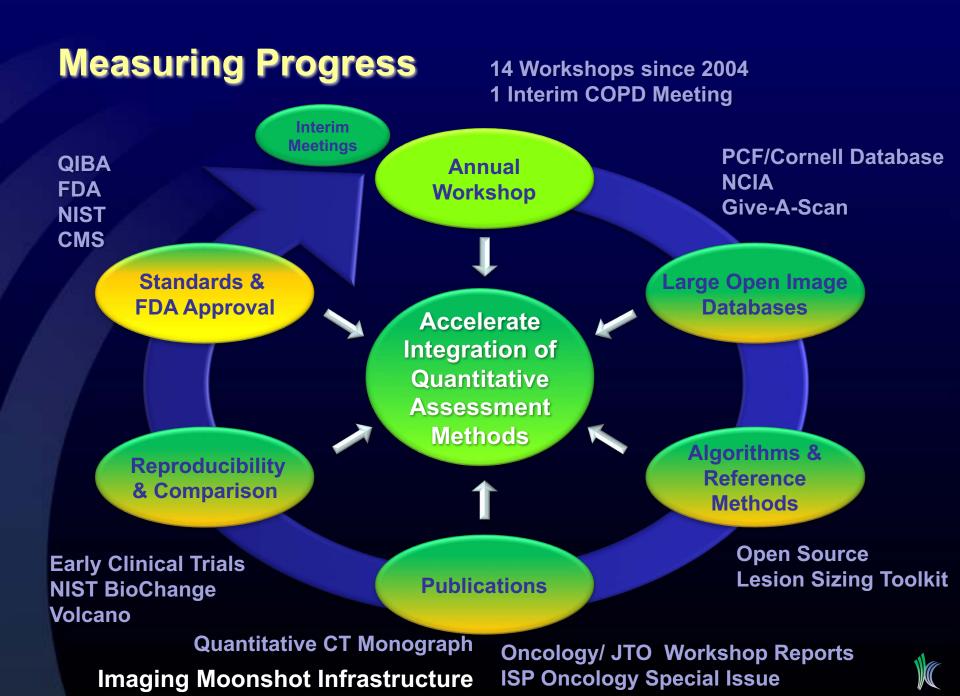
Prevent Cancer Foundation

STEERING COMMITTEE

Chair:

- James L Mulshine, *Rush University*<u>Members:</u>
- Laurie Fenton Ambrose
 Lung Cancer Alliance
- Ricardo S. Avila Accumetra, Inc
- Daniel C. Sullivan
 Duke University

- Elisha Malanga COPD Foundation
- Raul San Jose Estepar
 Brigham and Women's Hospital
- David F. Yankelevitz
 Mount Sinai Medical Center



Slow Screening Implementation

- Ramp up to quality imaging challenging but moving slowly forward
- Reimbursement by CMS reduced, raising concerns with access and disparities
- Concerns with medical radiation harms receding but "false positivity" becoming more prominent
- Published volumetric approach associated with false positivity around 3%
- LDCT image quality inadequate in 40% of VA screening pilot cases

Issues with LDCT status quo

- Screening is a demanding complex management process
- Screening makes people think about their health in ways that are challenging
- LungRADS which is a good intermediate solution involves crude manual techniques that do not provide precise characterization of clinical aggressiveness
- Access to facile volume measurement tools limited and labor intensive
- Integration with screen-optimized smoking cessation not fully baked



Addressing QI Quality

- QIBA Small Nodule Profile undergoing internal review prior to launch
- Evolution from tape to automated, cloudbased conformance testing for imaging process using precision phantom
- Crowd sourcing plans to test this revised approach to validate national and international feasibility
- Exploration of scaling conformance to other tobacco-induced diseases (COPD)
- Need financial model to support ongoing evolution of care



Developmental Implications

- Need to define magnitude of benefit (clinical as well as cost) to support reimbursement for providing services
- Need to define economical and workflow-friendly solutions to allow for implementation especially in existing HR systems
- Need to overcome inertia of a skeptical medical community



Workshop XIV Take Aways

- Continued imaging evolution: 1024
 X1024 matrix size, separate data files for visualization and quantitation
- Strategic plan to resource evolution of QI to drive tobacco-related disease care
- Align with FDA on elucidation of feasible continuous quality measures for QIbased clinical decision support
- Formalize planning on scalable cloud infrastructure to facilitate QI dissemination and CPI



Where Can We Go?

- Integration of Cancer/COPD screening at both a clinical and technical level
- Enhancing biofeedback on tobacco cessation with integrated lung cancer/COPD (CAD) focus
- Alignment with emerging FDA regulatory approaches



Moving to the Cloud

- Work with QIBA, cloud-centered services
- Profile Conformance Testing to validate appropriate CT performance to reliably measure pulmonary nodule volume change
- Serve as a central, neutral resource to enable nodule measurement precision
- Data aggregated on the cloud services as a data quality resource to monitor delivered CT performance

- Our goal is for better, cheaper, faster implementation of cloud-enabled LDCT screening of the three leading causes of tobacco-related premature death
- How do we ensure that the populations that are at the highest risk have access to these services
- How do we make sure these services are supported so that continued rapid evolution and dissemination are ensured?