

The Lumbar Imaging with Reporting of Epidemiology (LIRE) Trial

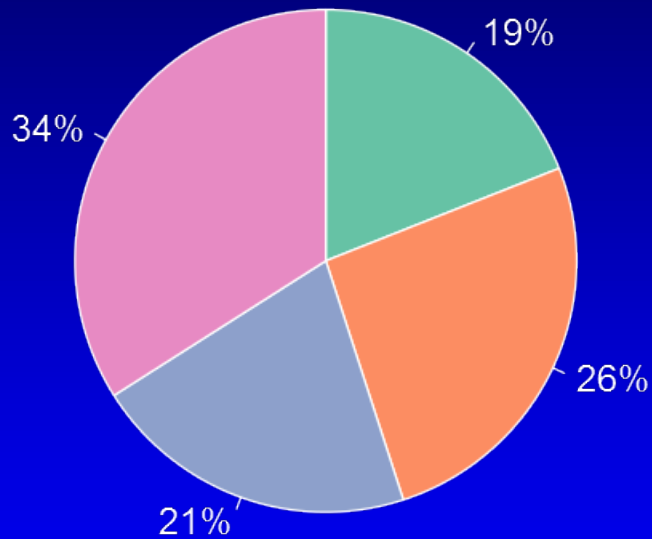
**Jerry Jarvik, M.D., M.P.H.
University of Washington
April 2015**

Talk Outline

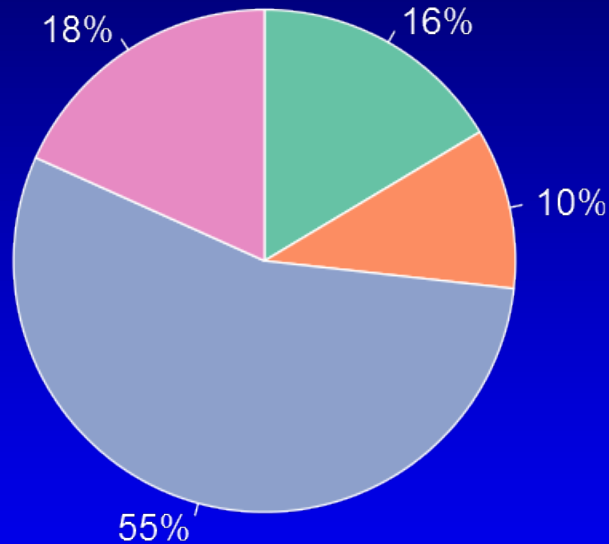
- UH3 Update
- Lessons

LIRE: Enrollment

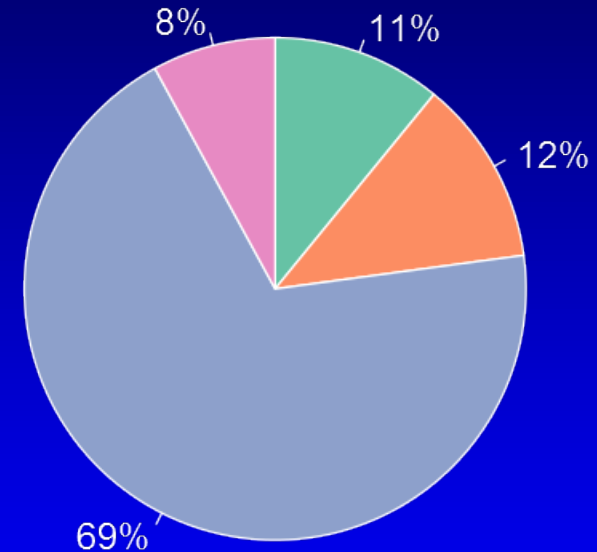
Clinics (n=100)



PCPs (n=1,741)

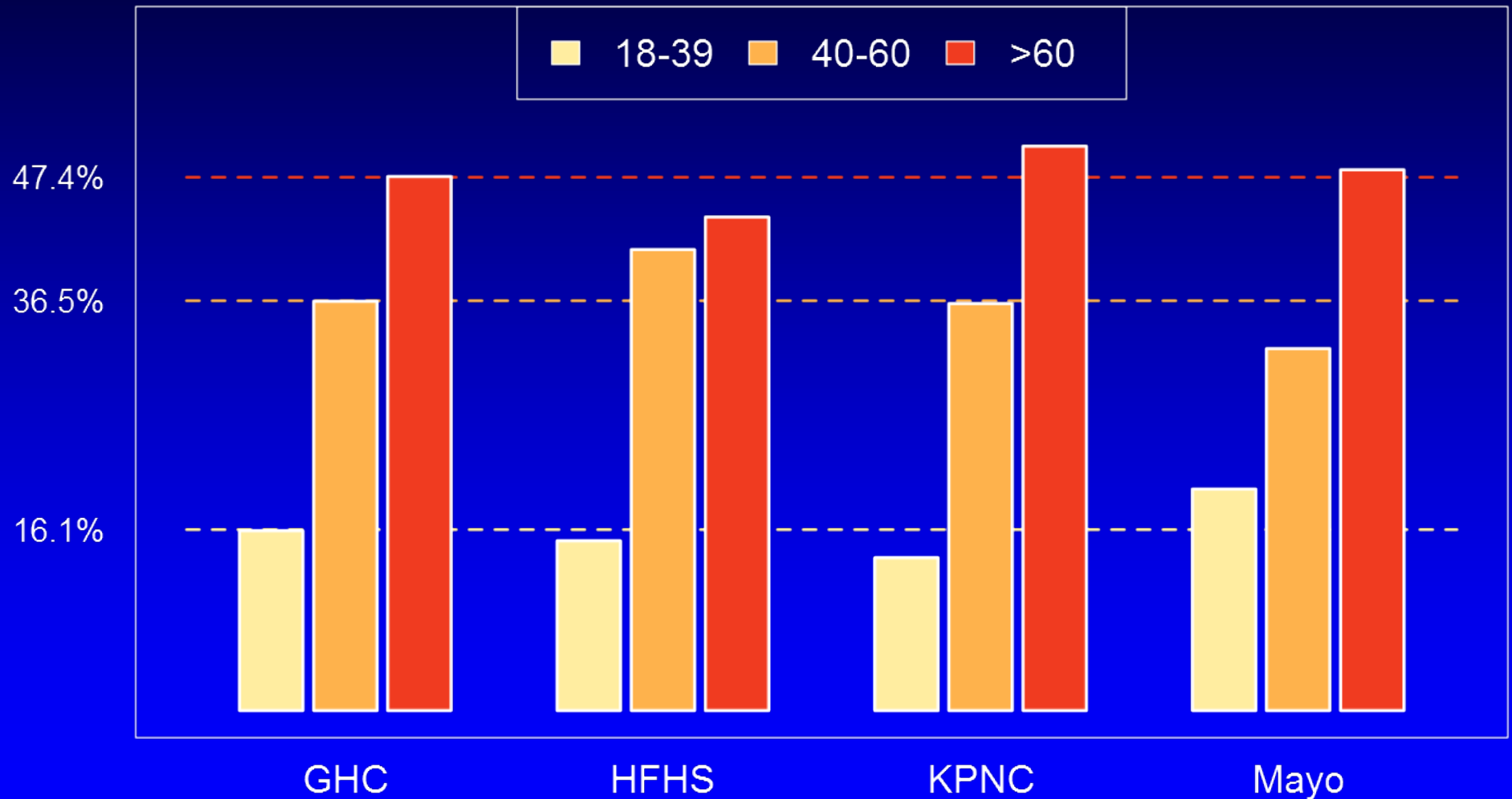


Patients (n=52,086)



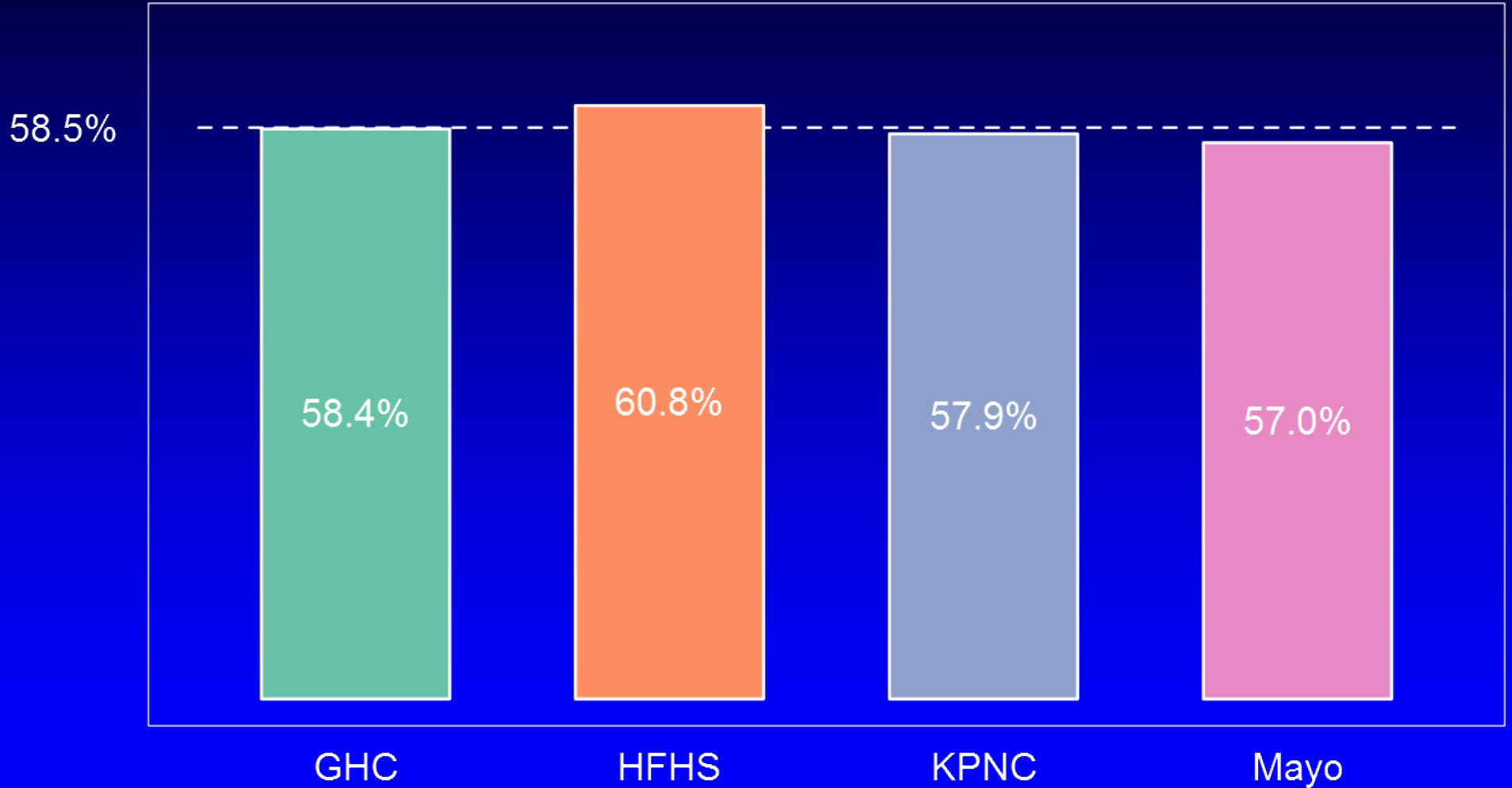
Demographics

Patient age at index image



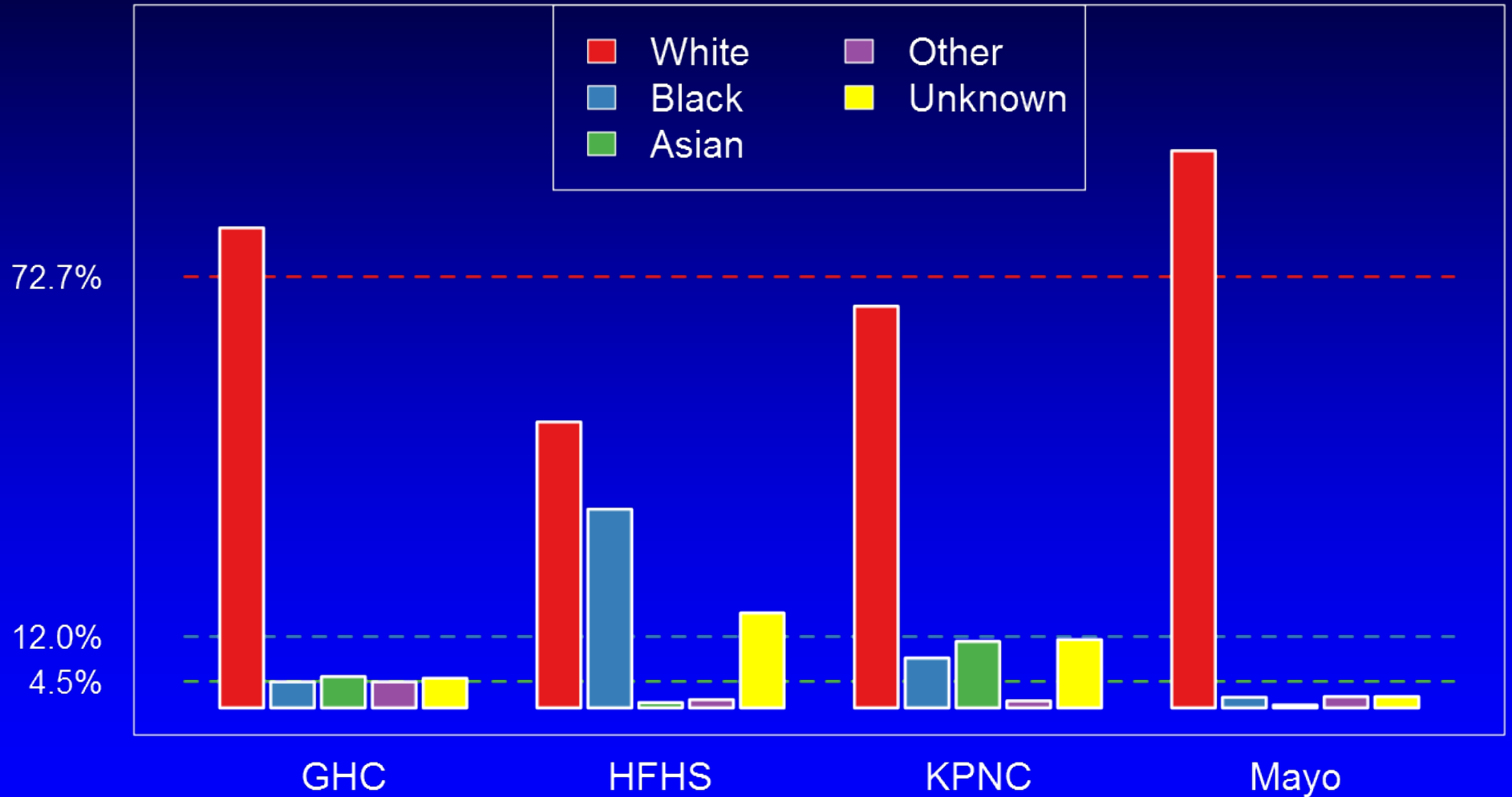
* Mean percent across sites for each age category indicated by a dashed line.

Female



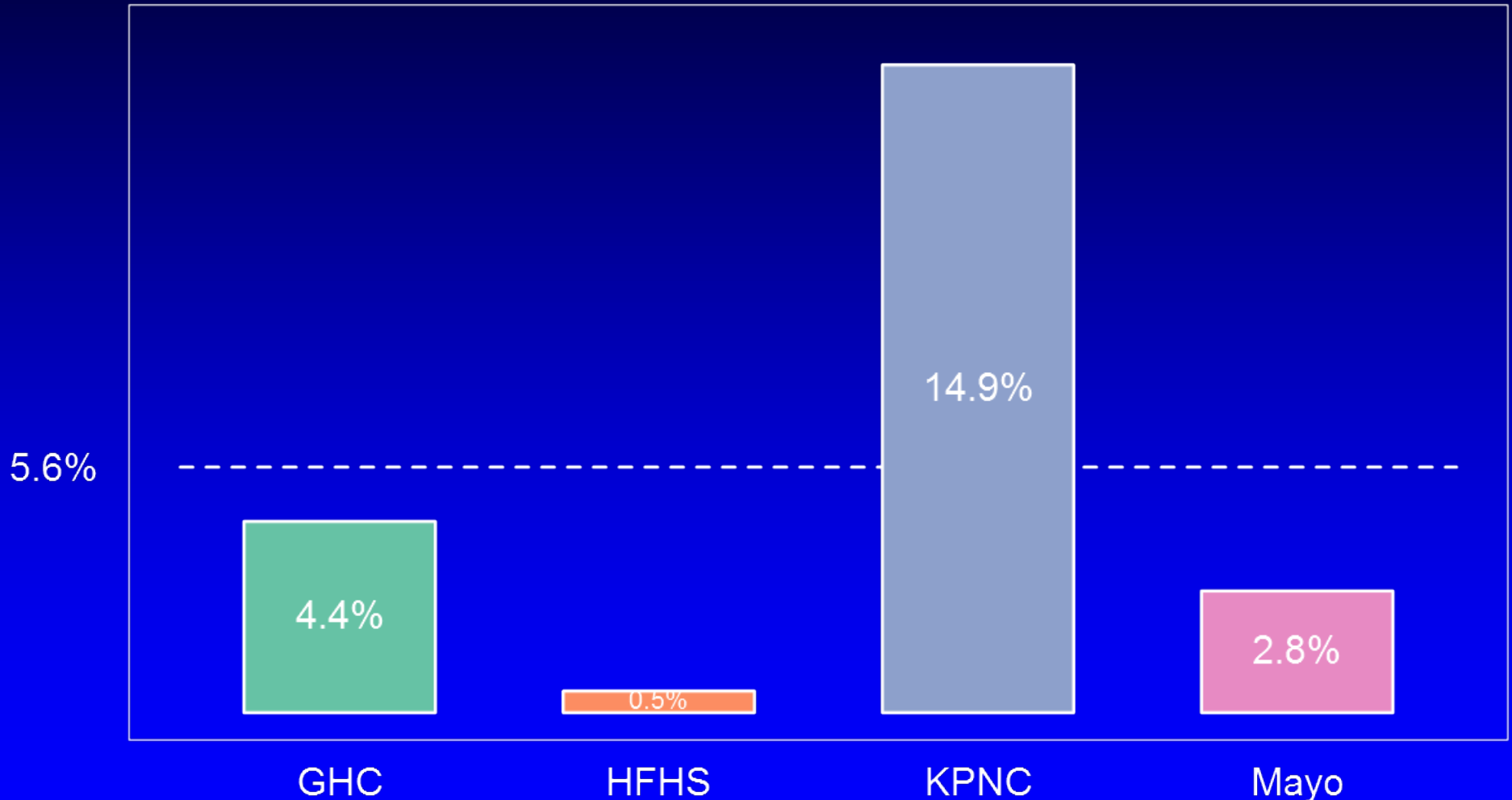
* Mean percent across sites indicated by a dashed line.

Race



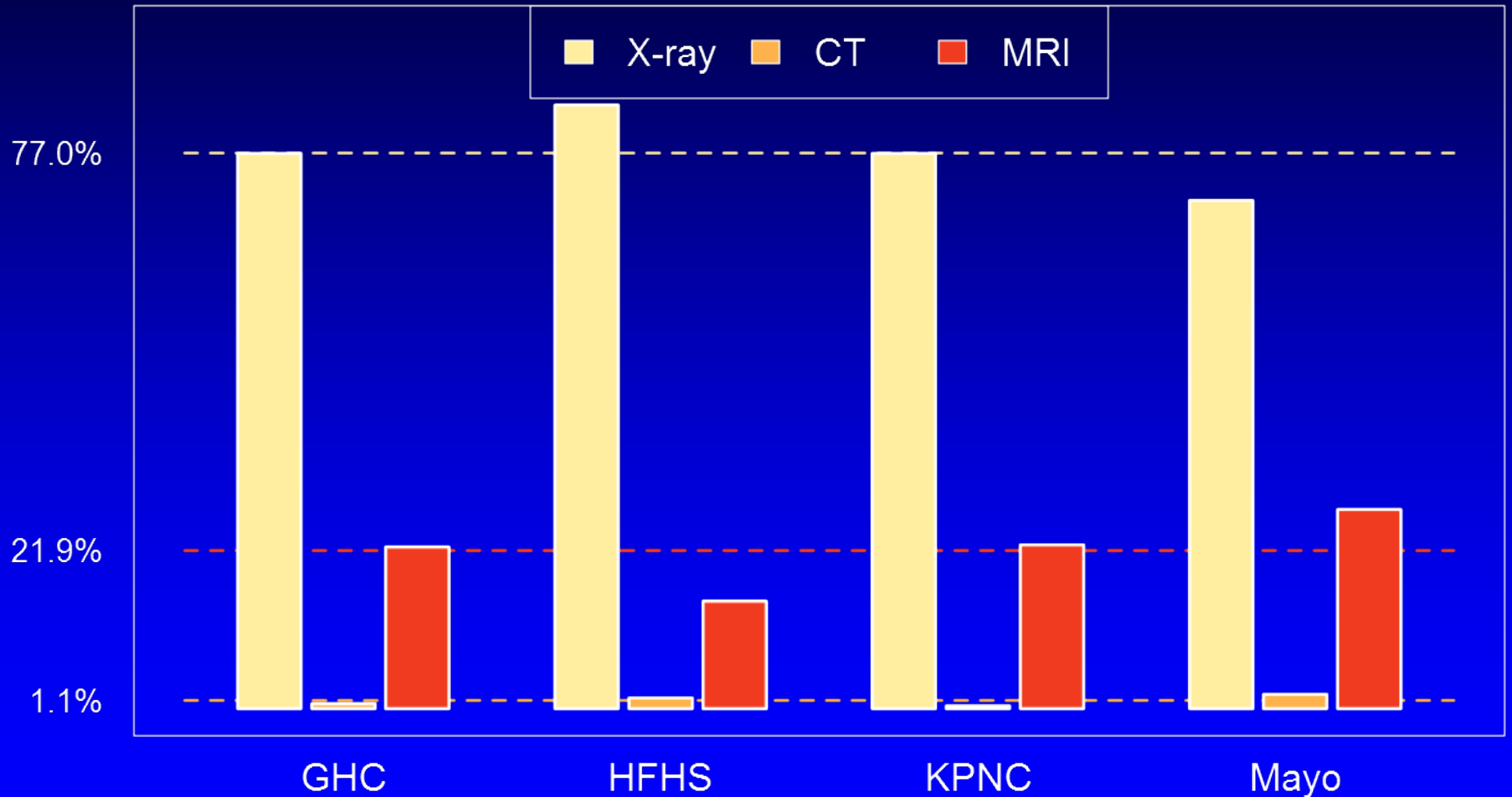
* Mean percent across sites for White, Black, and Asian races indicated by dashed lines.

Hispanic Ethnicity



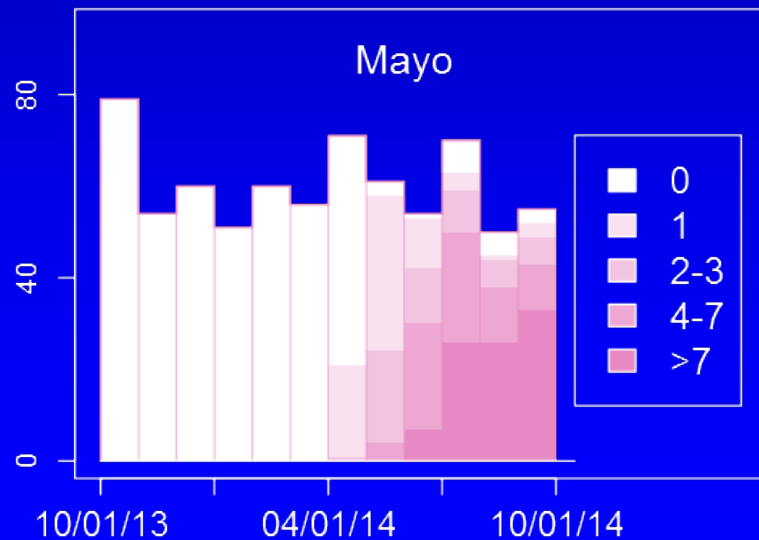
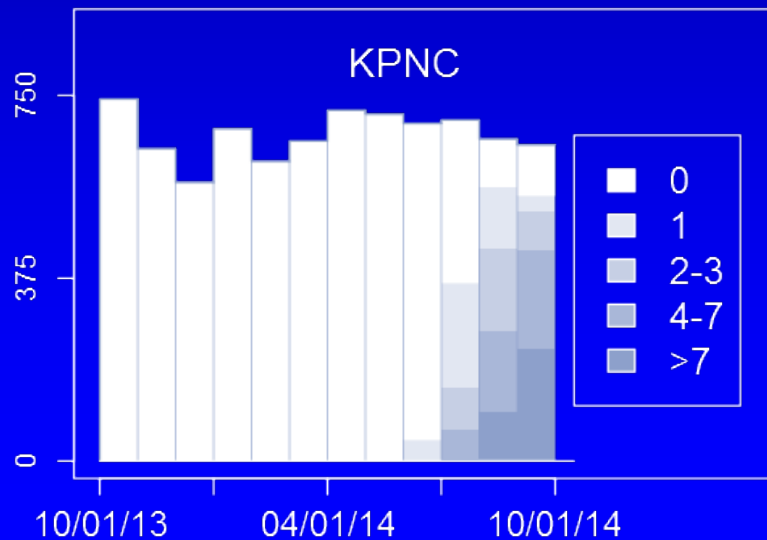
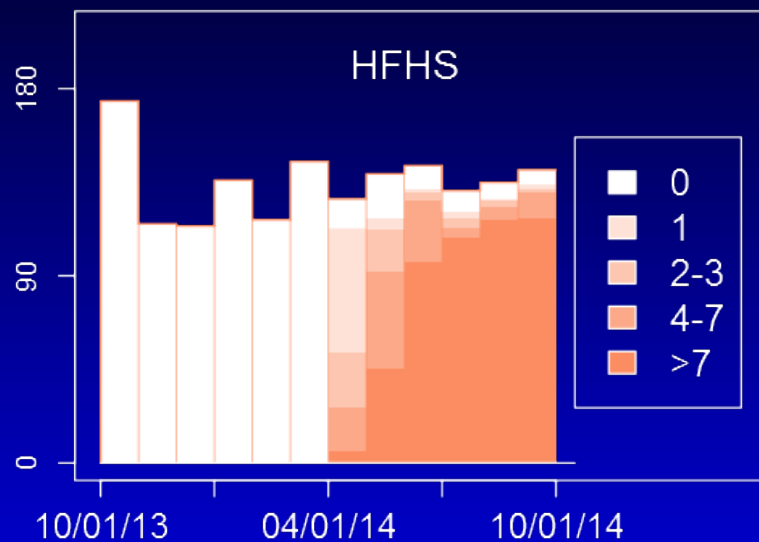
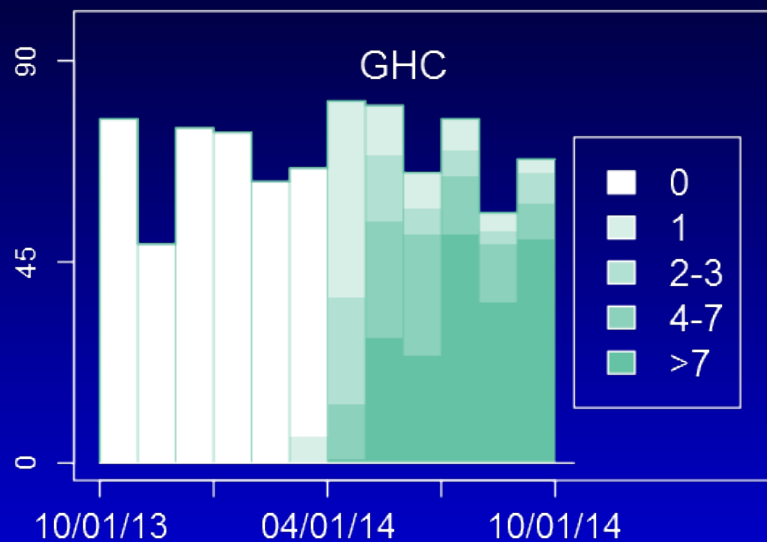
* Mean percent across sites indicated by dashed line. Ethnicity not available for some patients: GHC (3%), HFHS (16%), and Mayo (5%). KPNC did not report non-Hispanic explicitly so all patients are in denominator.

Imaging Modality



* Mean percent across sites for each imaging modality indicated by a dashed line.

Macro Penetration at Wave 1 Clinics



Shading indicates the number of macros that the patients' providers have been exposed to

Barriers Scorecard

Barrier	Level of Difficulty				
	1	2	3	4	5
Enrollment and engagement of patients/subjects	X				
Engagement of clinicians and Health Systems		X			
Data collection and merging datasets		X			
Regulatory issues (IRBs and consent)	X				
Stability of control intervention		X			

1 = little difficulty; 5 = extreme difficulty

Lessons Learned

- Choose your family wisely (biostats, bioinformatics, collab)
- Provider Issues (*Engagement of Clinicians*)
 - Now you see it, now you don't (KPNC-rads ability to remove text)
- EMR Issues (*Data Collection and Merging Datasets*)
 - You've seen one, you've seen one (GHC-Epic implementation different/dynamic)
 - Answersà more ??s: (GHC's dynamic fixà Δ w/each access)
 - Complexity is complex (Mayo- multiple RISs)
- System Issues (*Engagement of Health Systems*)
 - Trying to hit a moving target (KPNC-system changes)
 - You get what you pay for (Mayo-not paying lowers priority)
 - Know the players (KPNC couldn't identify PCPs)

Lessons Learned- Clinician Engagement:

Now You See It...

- KPNC-rads ability to remove text
- Part of initial negotiation with health system leaders
- In reality, possible at all sites
- Can track when this happens- rads insert code when they remove intervention text

Lessons Learned- Data Collection and Merging Dataset: *You've seen one...*

- Implementation at each site has unique aspects
- Even though 3 of 4 sites use Epic, only GHC had dynamic rendering of intervention text

Lessons Learned- Data Collection and Merging Dataset: *Answers à more ??s*

- Fix of dynamic rendering
- Discovered fix resulted in intervention text linked to date of viewing and not date of imaging
- Potentially changed text due to stepped wedge design
- This too eventually fixed

Lessons Learned- Data Collection and Merging Dataset: *Complexity is complex*

- Mayo Clinic Health System
- Multiple RISs feed into single EMR
- Programming for each RIS slightly different

Lessons Learned- System Issues-Engagement of Health Systems: *Complexity is complex*

- Mayo Clinic Health System
- Multiple RISs feed into single EMR
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Systems Issues- Engagement of Health Systems: *Trying to hit a moving target...*

- KPNC changed approach to reporting
- Standardization and centralization
- Inertia worked in our favor

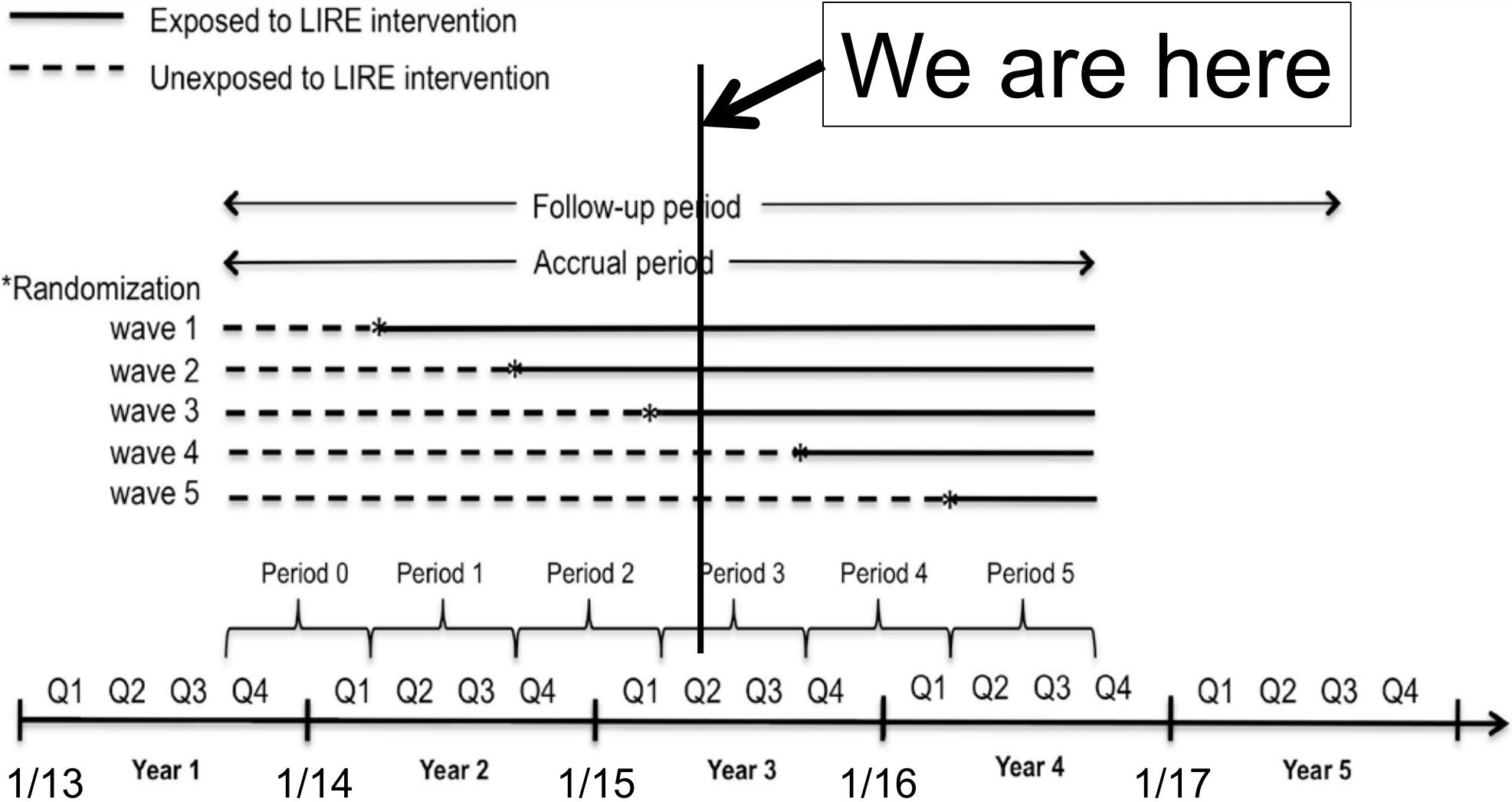
Systems Issues- Engagement of Health Systems: *You get what you pay for...*

- Paying for health system personnel difficult
- Lowers project priority on their list

Systems Issues- Engagement of Health Systems: *Know the players...*

- KPNC couldn't identify their primary care docs
- Had done this previously for BOLD
- Other approaches to identify PCPs

Timeline- On Track



Key People

- Katie James, PA-C, MPH- PD
- Brian Bresnahan, PhD- Hlth Econ
- Bryan Comstock, MS- Biostats
- Janna Friedly, MD- Rehab
- Patrick Heagerty, PhD- Biostats
- Larry Kessler, PhD- HSR
- Danielle Lavalley, Pharm D, PhD
- Eric Meier, MS- Biostats
- Kari Stephens, PhD- Informatics
- Judy Turner, PhD- Psychol/Psych
- Rick Deyo, MD, MPH-OHSU
- Dan Cherkin, PhD-GHRI
- Heidi Berthoud- GHRI
- Safwan Halabi, MD-HFHS
- Dave Nerenz, PhD- HFHS
- Dave Kallmes, MD- Mayo
- Jyoti Pathak, PhD- Mayo
- Patrick Luetmer, MD- Mayo
- Andy Avins, MD, MPH-KPNC
- Luisa Hamilton- KPNC