

The Lumbar Imaging with Reporting of Epidemiology (LIRE) Trial- Lessons Learned

Jerry Jarvik, M.D., M.P.H.
University of Washington
May 2016

Talk Outline

- Brief reminder
- Lessons Learned/Sustainability/Barriers

Enrollment Through 3/31/16

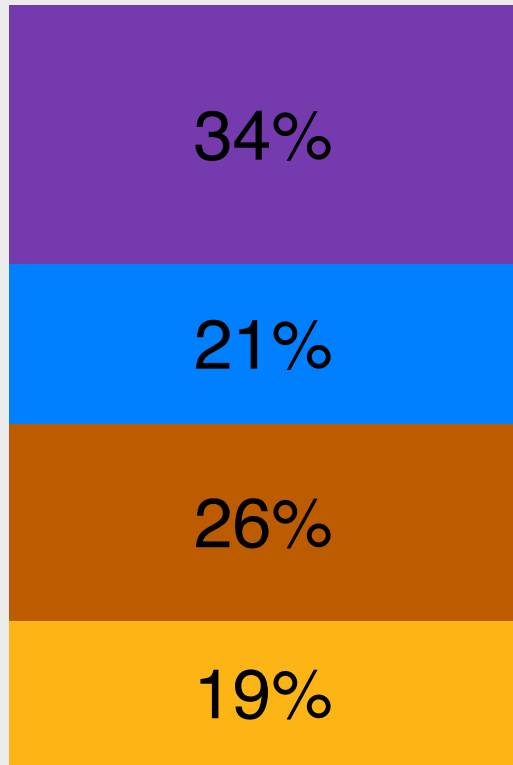
(5/6 waves complete; intervention “on” 78/100 sites)

System	# Primary Care Clinics	# PCPs	# Patients
Site A	21	1,965	164,294
Site B	26	172	13,795
Site C	19	346	13,220
Site D*	34	352	9,226
Total	100	2,835*	200,535

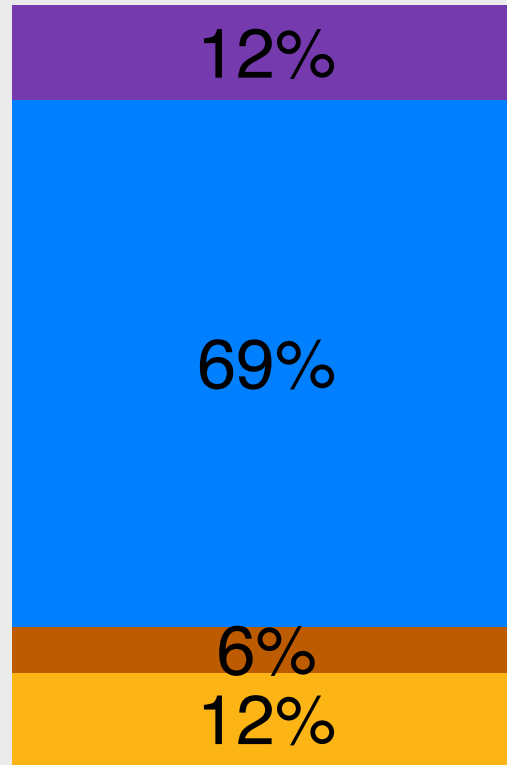
*D data only go through 9/30/2015

LIRE: Enrollment as of 3/31/16

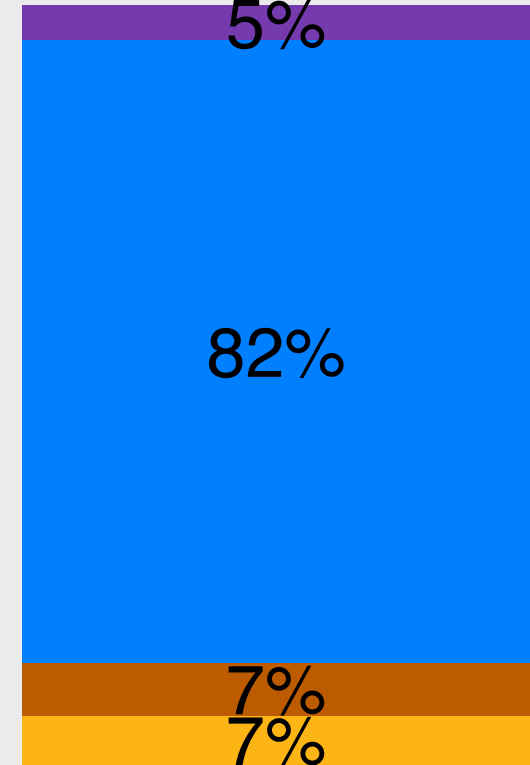
Clinics (n = 100)



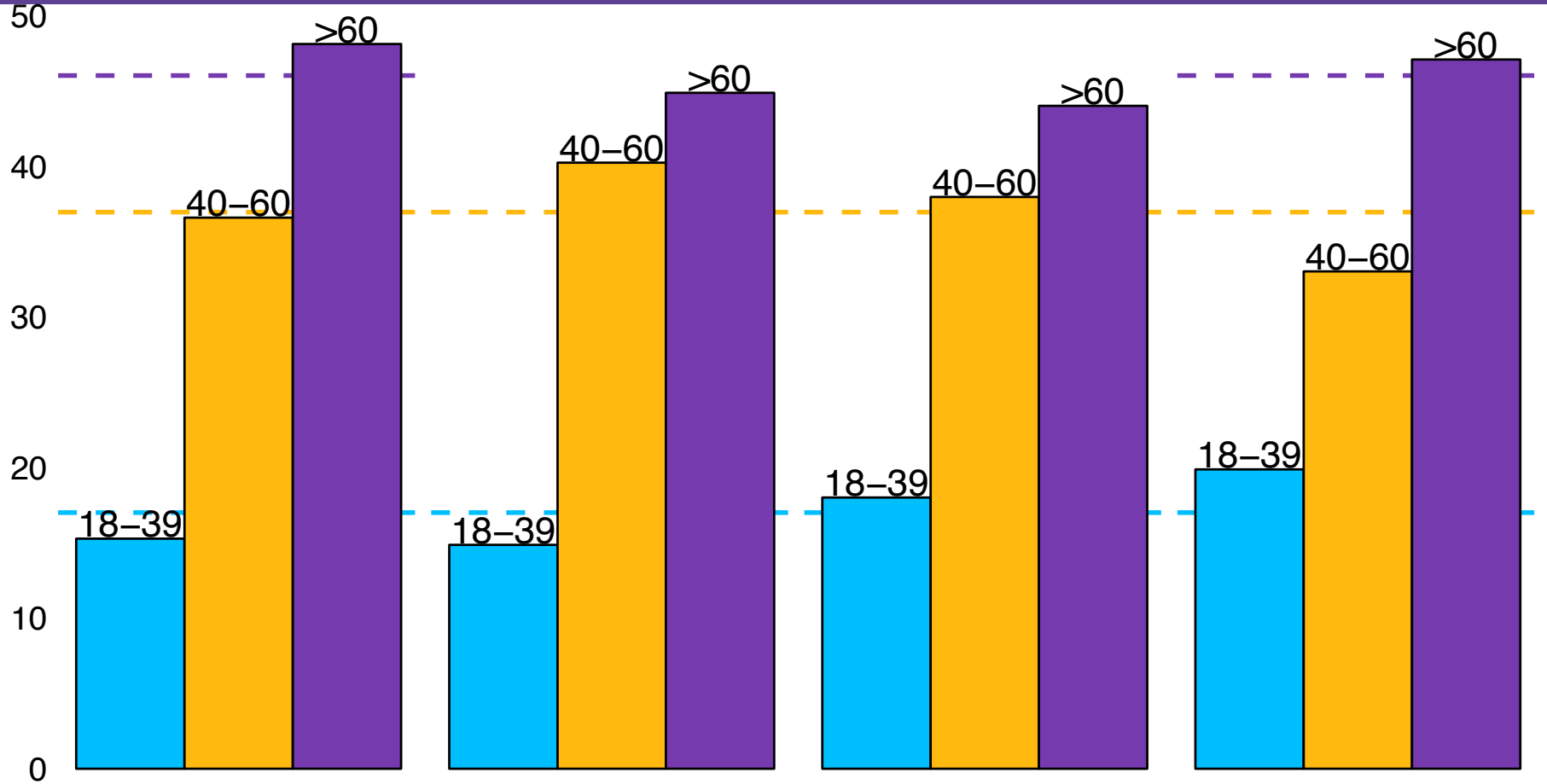
Providers (n = 2,835)



Patients (n = 200,535)

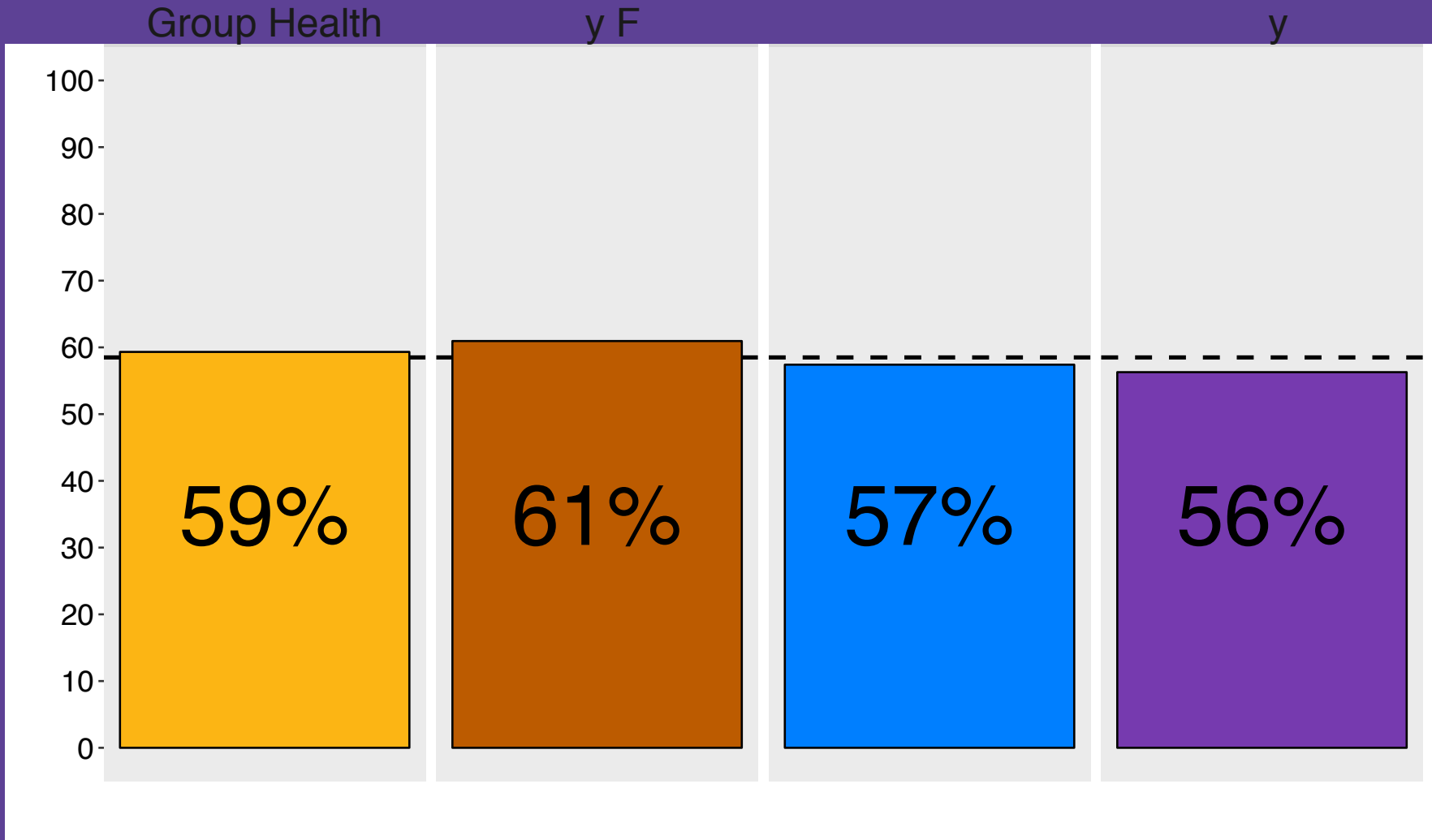


Patient Age at Index Image



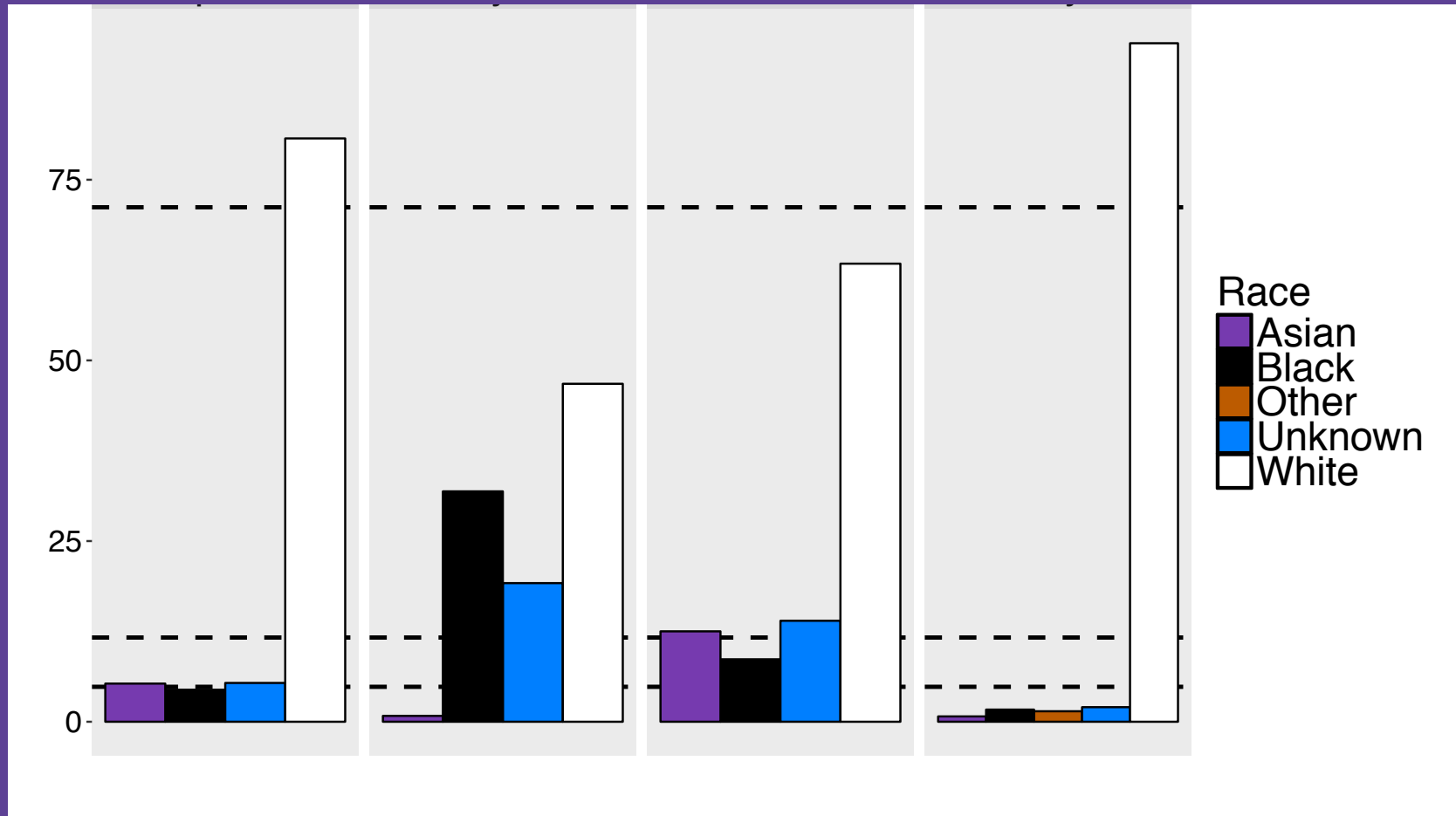
*Mean percent across sites for each age category indicated by dashed line

% Female



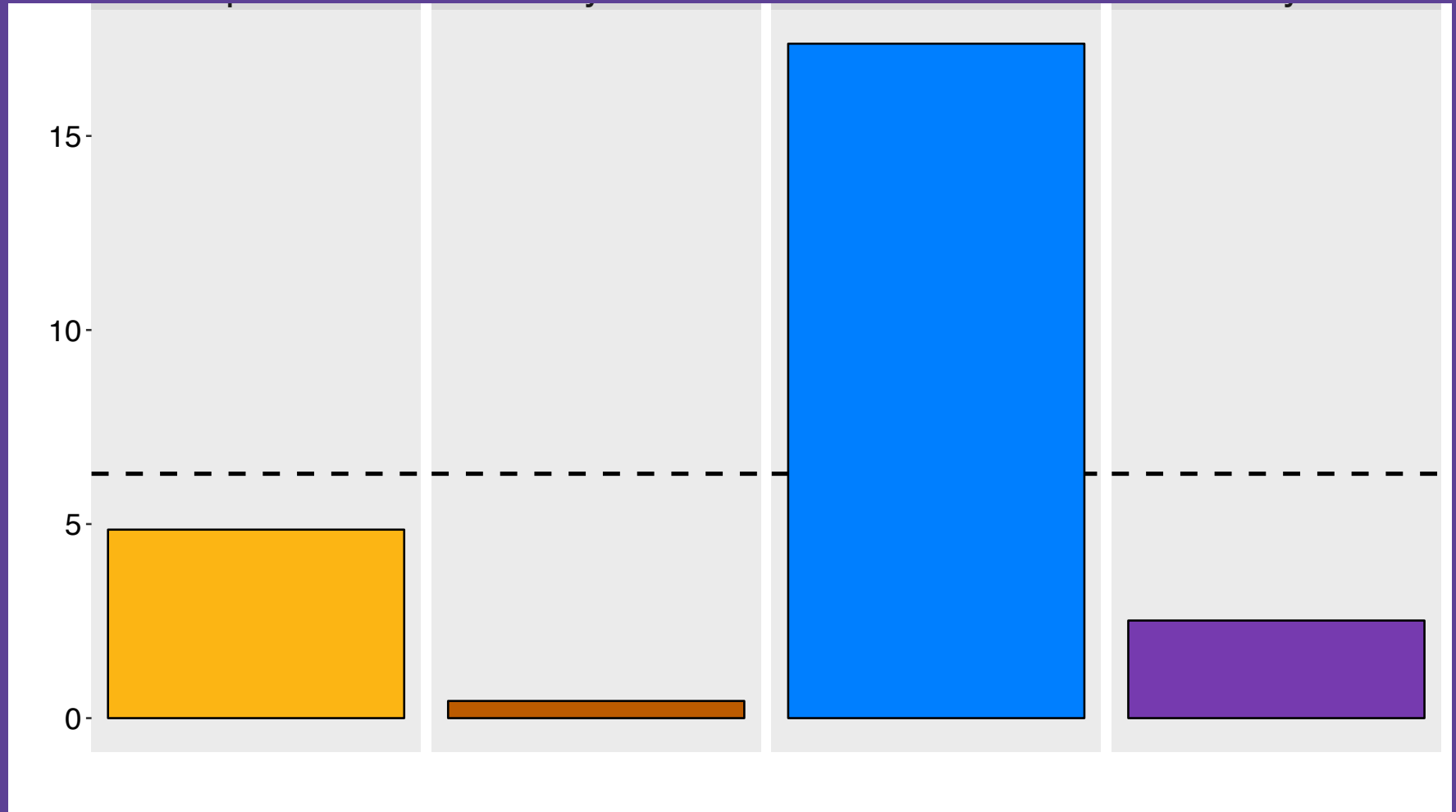
*Mean percent across sites indicated by a dashed line.

Race



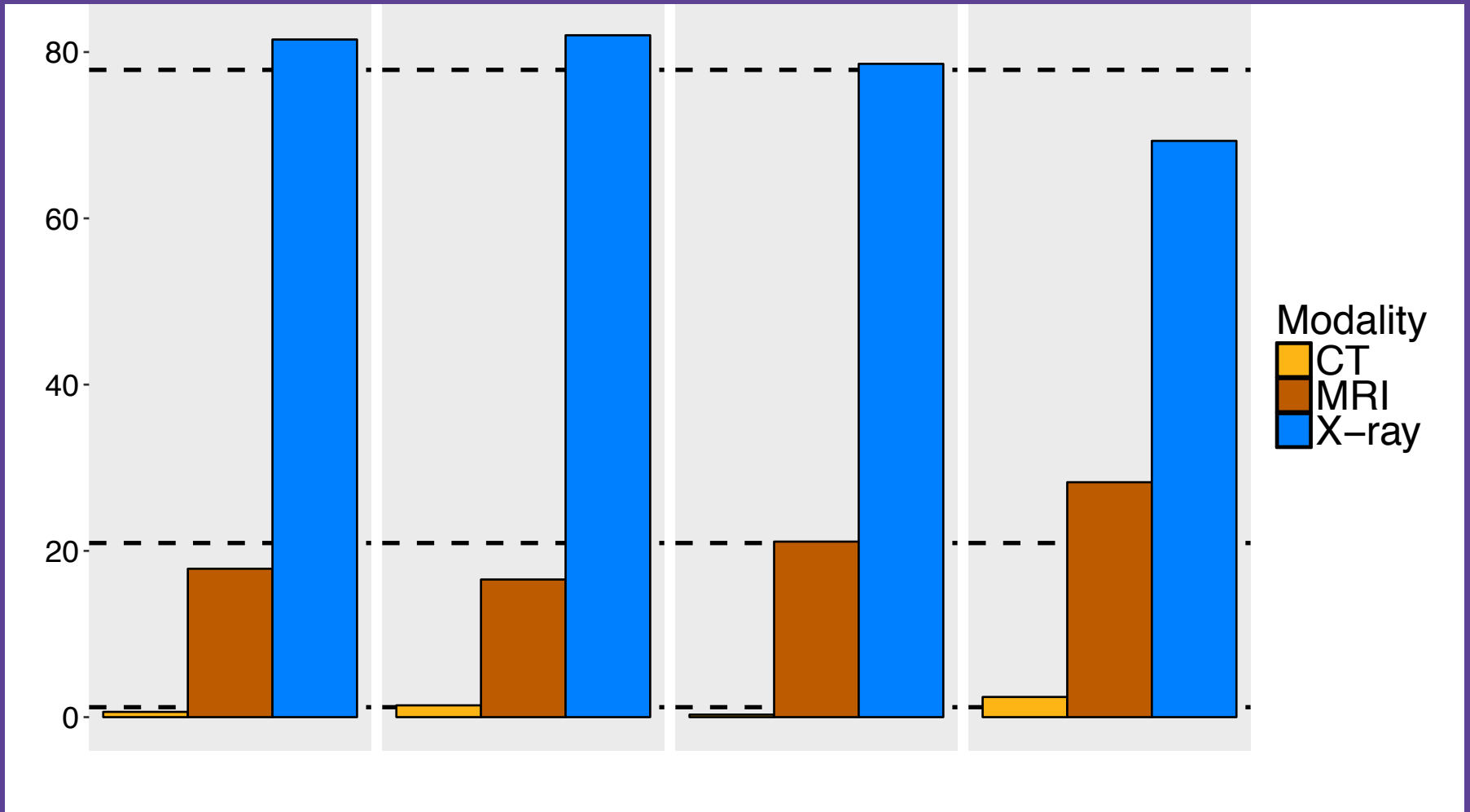
*Mean percent across sites for White, Black, and Asian races indicated by dashed lines.

Hispanic Ethnicity



*Mean percent across sites indicated by dashed line. Ethnicity not available for some patients: (3%), (19%), and (5%). One site did not report non-Hispanic explicitly so all patients are in the denominator.

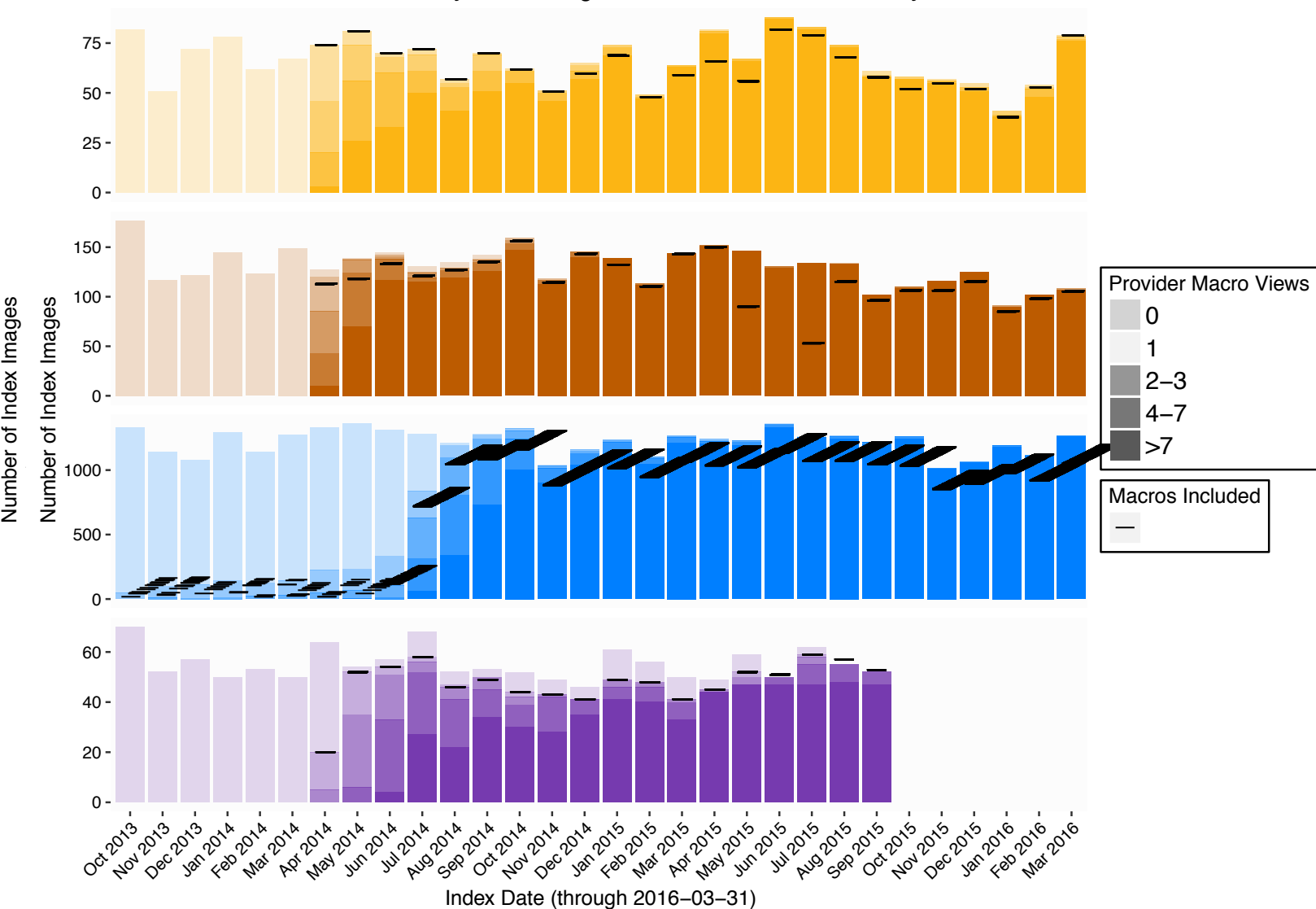
Imaging Modality



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

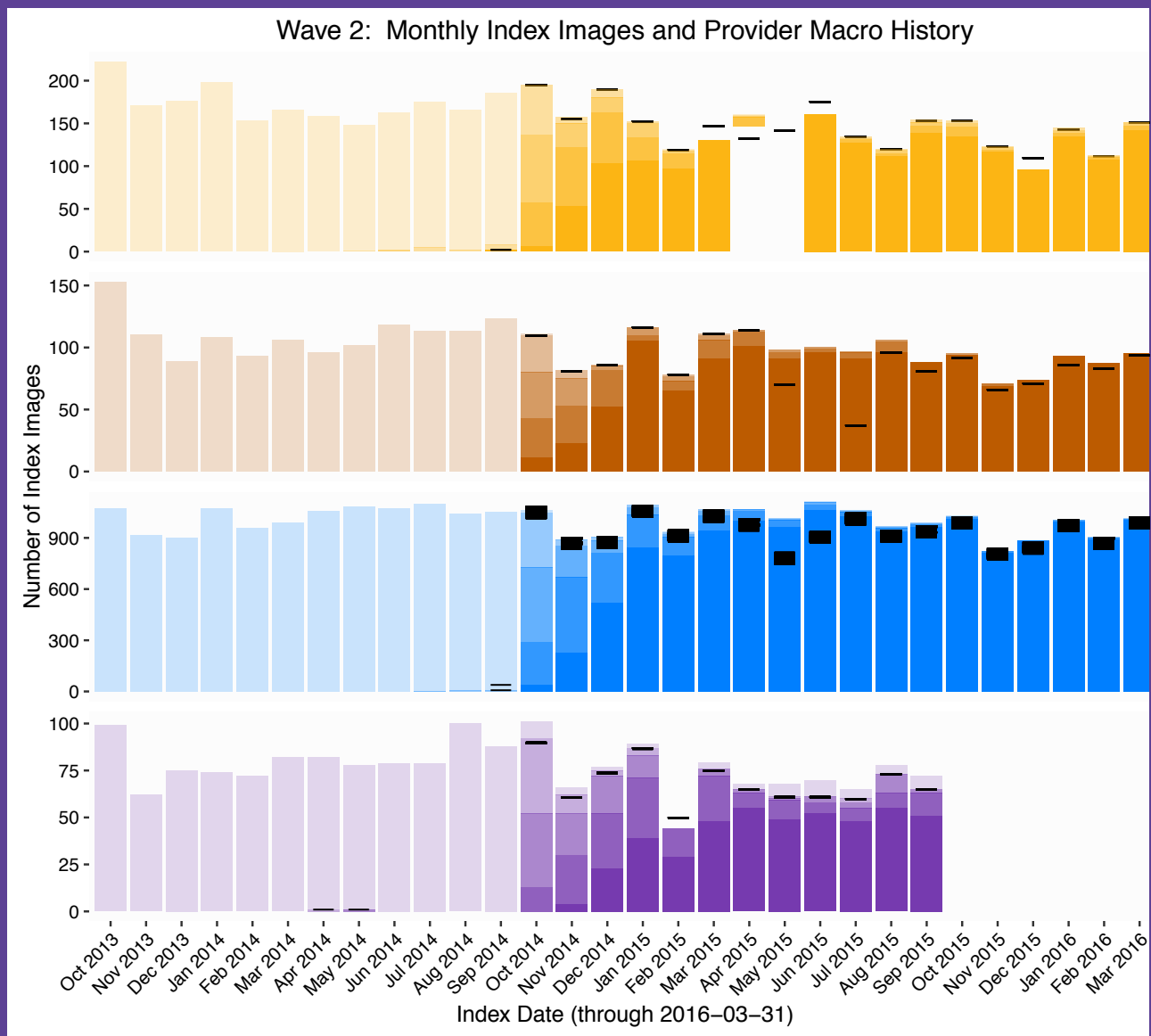
Macro Penetration at Wave 1 Clinics

Wave 1: Monthly Index Images and Provider Macro History



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

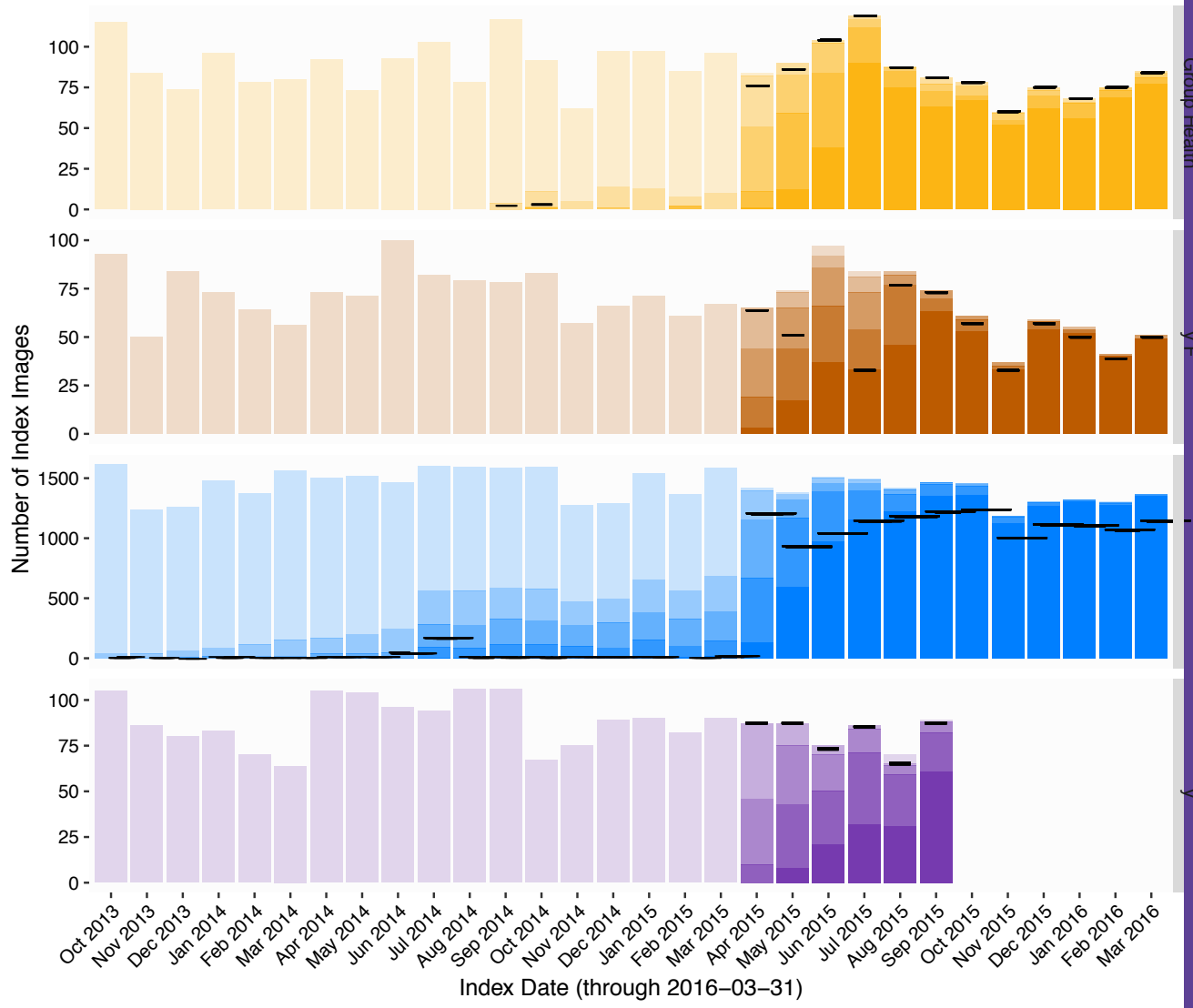
Macro Penetration at Wave 2 Clinics



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

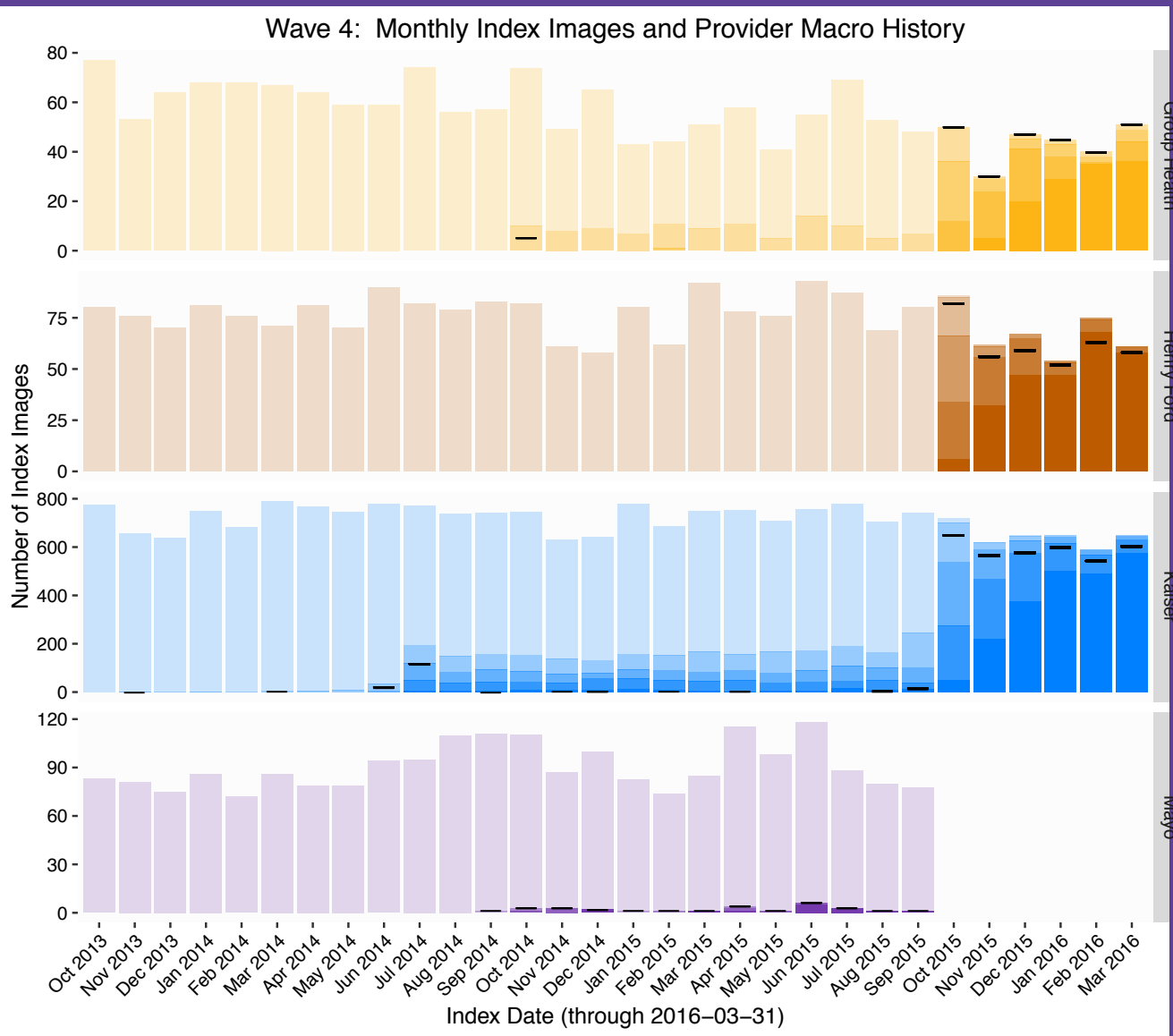
Macro Penetration at Wave 3 Clinics

Wave 3: Monthly Index Images and Provider Macro History



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

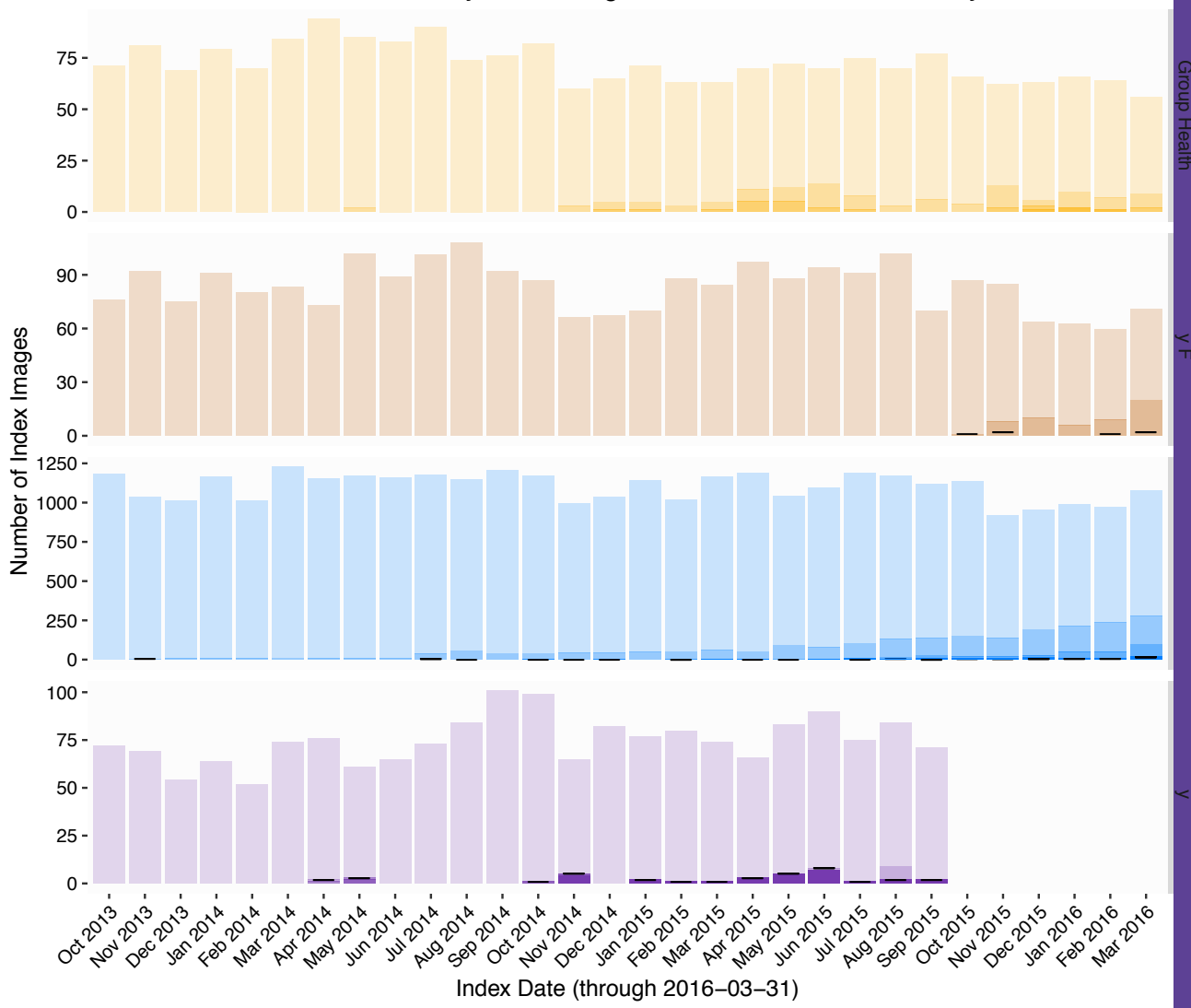
Macro Penetration at Wave 4 Clinics



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

Macro Penetration at Wave 5 Clinics

Wave 5: Monthly Index Images and Provider Macro History



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

Lessons Learned

1. The proof of the pudding is in the tasting
2. Wear belts AND suspenders
3. Don't have a failure to communicate

The proof of the pudding is in the tasting

- The data specifications, even if clear, are not always followed
- “Taste” the data early and often
- Regular data pulls for quality checks of intervention (index files) and EHR data (comprehensive files)

Belts AND Suspenders

- Sites check the data before sending
- DCC checks the data after receiving

Don't have a failure to communicate

- Despite regular meetings with site PIs, communication not perfect
- Regular meetings with programmers as well as PIs

Sustainability

- Depends on trial results
- Multiple conversations with provider stakeholders emphasized as long as intervention is not harmful, they're for it
- Stepped-wedge design makes sustainability the default

Barriers Scorecard

4/2015 Barriers	Level of Difficulty					5/2016 Barriers	Level of Difficulty				
	1	2	3	4	5		1	2	3	4	5
Enrollment and engagement of patients/subjects	X					Enrollment and engagement of patients/subjects	X				
Engagement of clinicians and Health Systems		X				Engagement of clinicians and Health Systems		X			
Data collection and merging datasets		X				Data collection and merging datasets		X			
Regulatory issues (IRBs and consent)	X					Regulatory issues (IRBs and consent)	X				
Stability of control intervention		X				Stability of control intervention		X			
						Implementing/ Delivering Intervention Across Healthcare Organizations		X			

1 = little difficulty 5 = extreme difficulty

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
- Zach Marcum, PhD BCPS
- Eric Meier, MS- Biostats
- Nancy Organ, MS- Biostats
- Sean Rundell, PT- Rehab
- Kari Stephens, PhD- Informatics
- Pradeep Suri, MD- Rehab
- Judy Turner, PhD- Psychol/Psych
- Rick Deyo, MD, MPH-OHSU
- Dan Cherkin, PhD-GHRI
- David Carrell, PhD- GHRI
- Brent Griffith, MD-HFHS
- Dave Nerenz, PhD- HFHS
- Dave Kallmes, MD- Mayo
- Patrick Luetmer, MD- Mayo
- Andy Avins, MD, MPH-KPNC
- Curt Langlotz, MD, PhD-Stanford