

SUSTAINMENT OF LEAN REDESIGNS FOR PRIMARY CARE TEAMS

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Issues in Sustainment

- Quality improvements (QI) often followed by “backsliding,” i.e., relapse
- Implementing quality initiatives is well studied – less research on sustaining changes
- Organizational and workplace factors can affect efforts especially in long-run
- Primary care a particularly relevant area for studying sustainment of QI efforts



Lean Process Improvement

- Lean is being implemented to enhance practice efficiency and care quality
- Roots in auto manufacturing: eliminate waste, optimize workflows, engage workforce
- Clear benefits in health care, but also barriers to maintaining changes
- ❖ We examine sustainment of Lean workflow redesigns for primary care teams



Lean at PAMF Primary Care

1 "pilot" clinic in 1 region
(Phase 1, 2012)

3 "beta" clinics in 3 regions
(Phase 2, 2012-13)

13 clinics across all 4 regions
(Phase 3, 2013-14)

5S of
Workspace

Call
Management

Workflow
("Flow")
Redesign

Frontline
Continuous
Improvement

Care Team Work Redesigns

- Co-location of MD/MA care teams
- Daily huddles
- Agenda setting
- Inbox management

Overview of Methods

- Mixed Methods: Qualitative and Quantitative data
- In-depth interviews: 57 leaders, primary care physicians, medical assistants
- Surveys: 1,164 frontline physicians and non-physician staff in 17 primary care clinics
- ❖ Analyzed transcripts, Independent sample t-tests to identify key factors related to sustainment

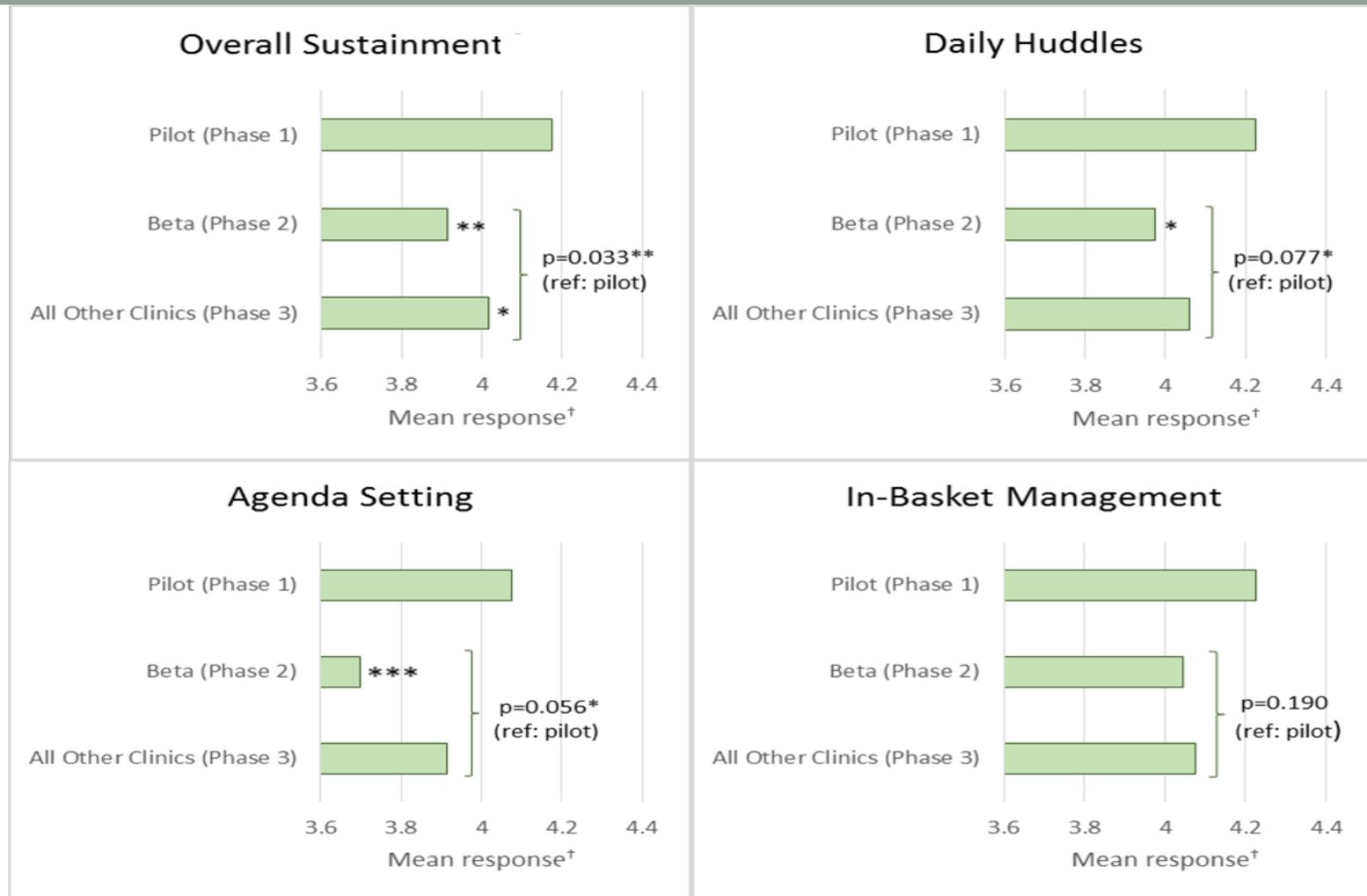


Methods - Qualitative Interviews

- We sought to understand
 - To what extent workflows were still used by care teams
 - Whether Lean management tools were still used for continuous improvement
- Transcript coding
 - Codes informed *a priori* by literature
 - Codes based on recurring themes in data
 - Independent coding: kappa 76%

Methods - Quantitative Surveys

- 74% response among physicians and staff
- Sustainment of Lean workflows (5 pt. Likert scales)
 - Daily huddles
 - Agenda setting
 - Joint inbox management
- Work experiences, features (5 pt. Likert scales)
 - Physician and staff engagement
 - Work environment
 - Beliefs about Lean changes
 - Burnout



Flow designs have become “just the way things are.” –Staff, pilot (phase 1)

I can't imagine not doing things this way anymore. I think everyone sees a lot of us have been getting home earlier and not spending so much time closing our charts. And the benefits of seeing our patients in a timely manner, having our MA right next us - I don't think any of us want to go back to the way things were.

–Physician, pilot site

Results

Domains	<u>Phase 1</u>		<u>Phase 2†</u>		<u>Phase 3†</u>	
	Mean	(SD)	Mean	(SD)	Mean	(SD)
Overall Sustainment‡	4.175	(0.750)	3.913**	(0.859)	4.017*	(0.814)
Work Engagement and Environment						
Physician/Staff engagement	4.072	(0.685)	3.889**	(0.696)	3.926*	(0.730)
Participation in decisions	3.206	(0.757)	2.972**	(0.840)	3.105	(0.846)
Teamwork	3.798	(0.630)	3.723	(0.675)	3.663*	(0.719)
Beliefs about Lean Changes						
Effectiveness	3.211	(0.551)	3.069*	(0.671)	3.069**	(0.742)
Appropriateness	3.828	(0.725)	3.772	(0.753)	3.676*	(0.824)
Valence (Personal benefits)	3.576	(0.939)	3.390	(0.919)	3.346**	(0.972)
Job-related Burnout						
Emotional exhaustion	3.375	(1.624)	3.813**	(1.582)	3.572	(1.719)
Depersonalization	1.686	(1.044)	1.721	(1.108)	1.790	(1.221)
Personal accomplishment	2.061	(1.263)	1.736**	(0.980)	2.048	(1.303)

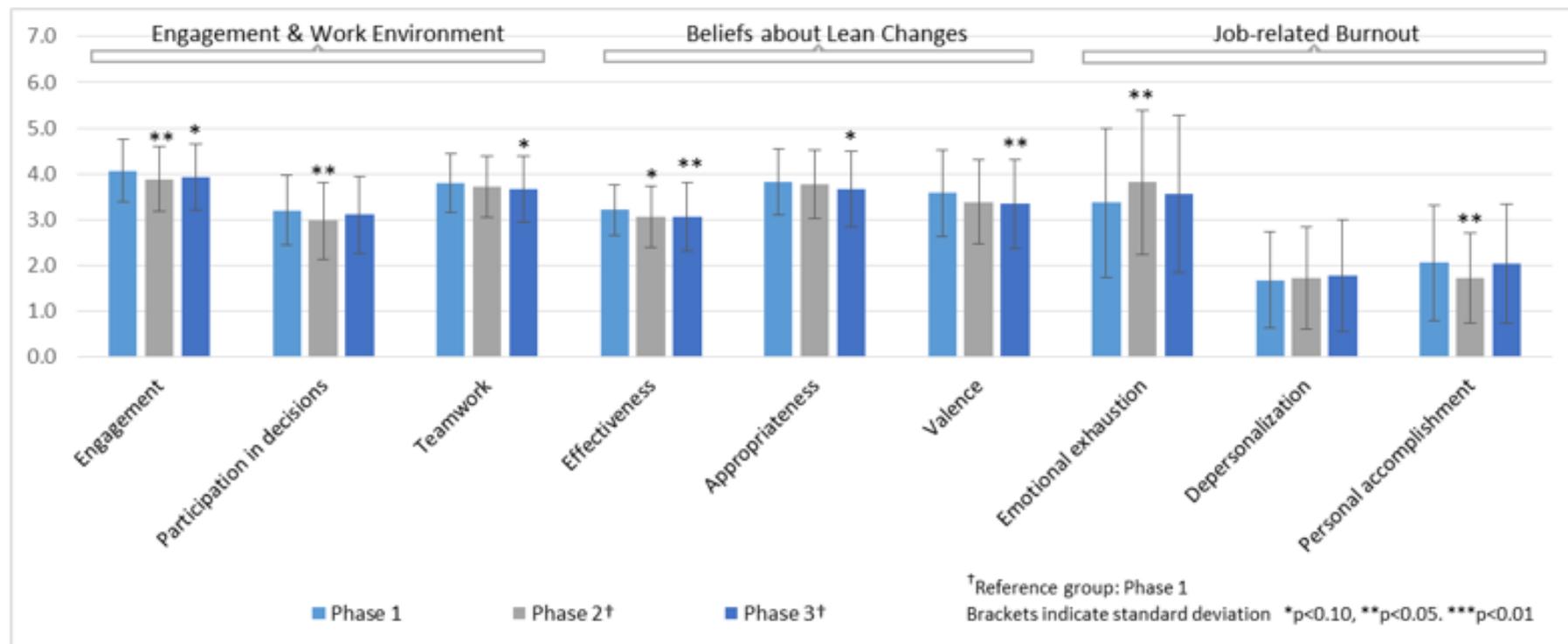
*p<0.10, **p<0.05, ***p<0.01

†Reference group for comparison: Phase 1 clinic

‡Overall Sustainment of Lean redesigns is a composite measure of adherence to daily huddles, agenda-setting, and inbox management by care teams

SD: Standard Deviation

Workplace Experiences by Implementation Phase



➤ Facilitators of sustainment:

- Staff engagement and participation
- Favorable beliefs about Lean changes
- Availability of time, energy for improvement

Engagement and Participation

Even though [Lean] came down from above...we really created 'Flow,' and maybe that's because we were the first site. We really were involved in how it came about.

–Physician, pilot site

[Clinic leaders] obviously did not think my participation was going to be helpful to the system, to the change, to Lean rollout.... Do they want you to play in their sandbox? I think that the answer is yes and no. They want you to play in the sandbox if you play by their rules.

–Physician, phase 2 “beta” clinic

Beliefs about Lean Changes

Here, we feel so strongly about [Lean's] benefits and its opportunities that you would have to shake us loose.

–Clinic leader, pilot site

We've gone back to do observation... and we've already identified that they're picking and choosing bits and pieces of 'Flow' that they really liked and they're not doing everything. So we're circling back now to provide that feedback to them.... Because we can't slip on this.

–Clinic leader, pilot site

“The failure of most strategies that are not being sustained is due to a lack of observation and coaching.”

–Regional Medical Director

Lack of Time, Energy (Burnout)

We're running so fast that I feel like constantly everyday I'm just putting out fires. I feel like I don't have time to really just sit down and think about the things that really need to be done because I'm constantly putting out the fires of the things that are already happening. So I can't get ahead of it. I can't get to the point where everything is stable.
–Clinic supervisor, phase 2 “beta” clinic

Conclusions

- **Early approaches to implementing change** are critical to later sustainment.
- Importance of **staff engagement** in design efforts, perceived value and use of **supportive management tools**
- Sufficient **time is required** for implementation and maintenance
- ❖ *These factors may be key to sustaining Lean and other QI interventions in primary care*