

Building the Foundation for PACT in a Large VA Academic Medical Center



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PACT Research Inspiring Innovations & Self Management
(PRIISM) Demonstration Laboratory, VISN 11

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Audience Poll Question

How are you involved with PACT implementation?

- 1) Involved in PACT implementation at an academic medical center
- 2) Involved in PACT implementation, but not at an academic medical center
- 3) Researcher whose work relates to PACT
- 4) Other
- 5) Not involved with PACT implementation

Background and Purpose

- The literature on Patient-centered Medical Home (PCMH) implementation has focused largely on relatively small private practices in non-academic settings.
- There is little in-depth evaluation of PCMH implementation in larger, more complex settings, including academically-affiliated medical centers.
- The VA has 152 primary care clinics housed in medical centers, and about 80% of these clinics are academically affiliated.
- Our purpose was to better understand how the academic context and large clinic size affects PACT implementation.

Setting

- **Ann Arbor VAMC
Primary Care Clinic**

- **Clinic Structure**

- Over 20,000 patients
- 20 Teamlets
- 70 PCPs and Residents = 20 FTEE
 - 80% of PCPs work <16 hrs/wk
 - 30 residents work 4 hrs/wk

- **Average of 3.5 PCPs per teamlet**

- At least 1 resident per teamlet
- Residents care for about 15% of clinic patients



Large and Growing Staff and Patient Population

	April 2010	April 2011	April 2012	April 2013	% Increase April 2010 – April 2013
Patients	14,803	16,148	18,340	21,024	42%
Non-physician Staff	23	33	43	52	126%
Physicians	62	69	70	75	21%

Methods

Data Collection:

- Jan 2011-March 2012
- 33 Interviews with key informants at AAVA
 - PCPs, Residents, RNCMs, LPNs, MSAs, PharmDs, social workers, psychologists, dieticians, clinical management
- Topics
 - Knowledge of and attitudes toward PACT
 - Communication among physicians and staff
 - Main challenges to implementation
- Observations of weekly registered nurse care manager (RNCM) staff meetings

Data Analysis:

- Qualitative content analysis using two frameworks
 - Consolidated Framework for Implementation Research (CFIR)
 - PACT Model

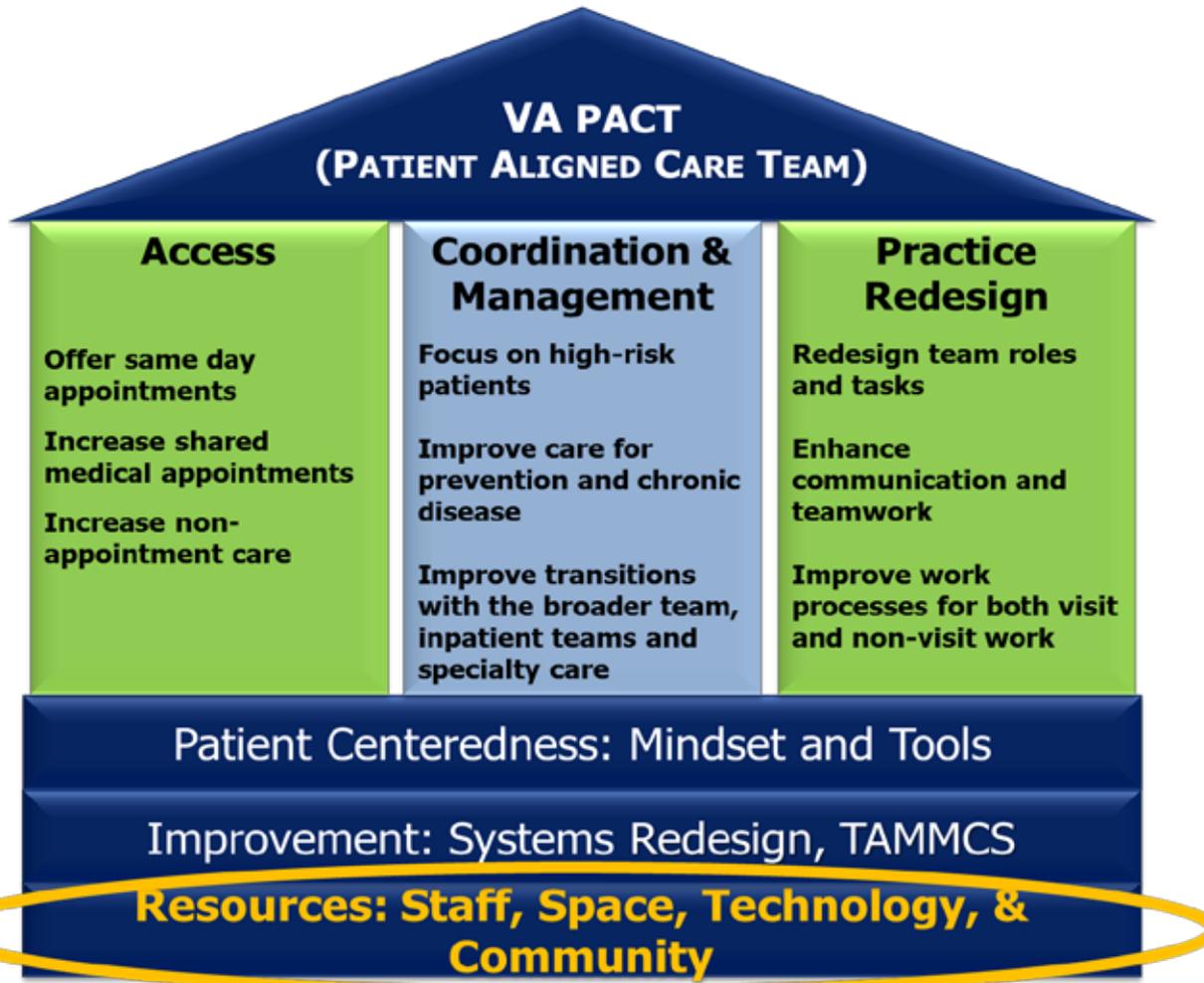
Consolidated Framework for Implementation Research (CFIR)

- A compilation of common constructs from published implementation theories.
- Provides a framework to understand contextual factors that affect implementation of new programs.

CFIR Construct	Definition
Compatibility	How the intervention fits with existing workflows and systems.
Networks & Communications	The nature and quality of webs of social networks and the nature and quality of formal and informal communications within an organization.
Available Resources	The level of resources dedicated for implementation and on-going operations.
Access to Knowledge and Information	Ease of access to digestible information and knowledge about the intervention and how to incorporate it into work tasks.

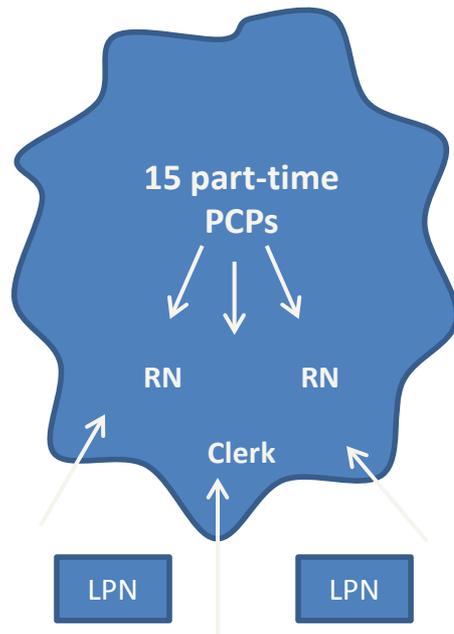
PACT Model: Foundation and Pillars

- Building the foundation was necessary to create functioning teamlets

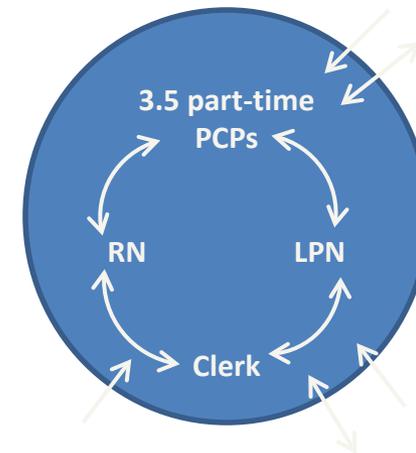


“If [the] foundation isn’t built, then you can’t have anything on top of [the] foundation... and expect it to be functional...”
Leadership

Compatibility: Existing Clinic Structure Not Highly Compatible with the PACT Model



4 Teams (3500 patients each)



20 Teamlets (1100 patients each)

“Every other site in our health care system has full-time providers. So...you’re **linking up one nurse, one LPN with one doc**, very different than linking up with at least two, or up to 5-6 docs that are on different half days...it’s a very different model...” Leadership

Available Resources: Staff -- Hiring

- **Staff needed to be more than doubled to meet the 3:1 staff to provider teamlet ratio and to keep up with growth in the patient population.**
- **Hiring process was lengthy and resource-intensive:**
 - “We’ve hired [a lot of people] this year...that’s **working with HR, interviewing people, making final selections, doing the paperwork...**to write them up to go to the Boards if it’s a nurse and things like that. **That’s taken a...huge amount of time...**” Leadership
- **Rapid changes in roles and resulting stress made hiring and retention more difficult, even though most staff were positive about PACT:**
 - “...we all kind of think **the concept’s good**. It’s just how they execute it that’s going to be the big thing. Because like **right now, pretty much the RNs are...really in an uproar...we have four [out of twelve]...leaving.**” RNCM
- **Especially difficult for hires new to primary care:**
 - “**We’ve hired some excellent [non-primary care] nurses...Two [of them] have both said very clearly, they didn’t realize how hard this work was, that, you know, this was not what they thought it was and it’s much harder.**” Leadership

Available Resources: Staff – Effects of Shortage

- **Delayed teamlet formation:**

- “P: ...like I was talking to Dr. [Last Name PCP 1] this morning and her clerk’s iffy and her LPN’s about to go out on two week’s of leave and...her RN, Patient Care Services is sitting on. So you know, she, today’s her last day of having a full teamlet for at least two weeks.
- I: Right, so what happens then in terms of functioning?
- P: It kind of falls apart” RNCM

- **Required staff to cover vacancies in other teamlets:**

- “You need to be involved with just your teamlet only...the nurse tells [the doctor], ‘You have a cancelation...and so and so needs a pap smear and so and so needs blood work.’ We don’t do that. **We don’t even know who [the doctors are] seeing...it’s unorganized.**” LPN

- **LPNs spent most of their time checking in patients for many PCPs, not doing more advanced tasks and coordinating patient care within a teamlet:**

- “for right now, we check the patient in. All we do is take the vitals and go sit them down... If we have this all set up...the patient gets better contact with you, he knows you’re his nurse and he knows that’s his doctor and it’s more like a regular doctor’s office.” LPN

Available Resources: Space

- Leadership needed to “scavenge” for space.
- Not enough contiguous space for growing staff and co-location of teamlets:
 - “If you want teamlets to function well, you really should...have everybody consolidated in a similar area so you’re not wandering around the halls looking for each other.” RNCM
- Lack of co-location a barrier to bringing care to the patient:
 - “I think [being co-located will] help the Veterans move through the clinic a little quicker...right now...[to get an EKG]...[patients have] to go to the [clerk] window, have a seat, then we come back out and call them...the doctor could...just come and say, “...[this patient] needs an EKG...” I could just come right to the room...do the EKG and then let them continue on.” LPN
- No stable space for RNCMs:
 - “I was just with somebody before I came to see you, and we’d already been kicked out of two rooms...” RNCM

Networks and Communications: In Clinic

- **Lack of space and the need to schedule a changing roster of part-time PCPs and residents made co-location difficult and thwarted communication:**
 - “In some instances **we have so many docs from a given team in clinic that you may be 200, 300 feet from your nurse so that...direct...communication where you can just walk out of an office two feet away...to have a discussion about a patient care need is somewhat limited** right now.” Leadership
- **Staff had to deal with multiple modes of communication from multiple providers:**
 - “It’s challenging for nurses to have inputs from many different [doctors] who may have different practice styles. So **one doctor always sends issues via a CPRS computer-based alert...some providers get on instant...the different ways of communicating really challenges the implementation of PACT.**” Management
- **Lack of stable space and telephones for nurses made them difficult to reach:**
 - “...because we don’t have a dedicated space for all nurses with a telephone and telephone number, nurses end up moving from room to **room...it’s challenging to get calls directed to them...**” Leadership

Networks and Communications: Residents Not Often in Clinic

- **Communication often delayed when residents not in clinic:**
 - “...The biggest group of people that we have trouble communicating with are the residents...because they’re not here very much and have other obligations... whenever I have to co-sign a resident to a note, I sign the mentor for that resident as well...” RNCM
- **Residents deal with multiple and difficult-to-access communication systems:**
 - “I have to check [the EMR system] to get alerts...if I’m at the University, I’m not to [do] that [more than 3 times a week]...I’m[also] doing CITRIX desktop but...I can’t get it at home.” Resident
- **Residents often had no clear point of contact:**
 - “if I get a message from a nurse or somebody within the team through CPRS, I don’t always know who I’m supposed to direct that to...early on as a resident, it’s hard to identify...who you’re supposed to communicate with and you can’t do everything through your attending because they have, I don’t know how many residents they’re in charge of.” Resident

Access to Knowledge and Information: Residents

- **Difficult to leverage the resident-mentor relationship for PACT education because many physician mentors themselves had limited hours in clinic:**
 - “...the model was built to educate residents on the clinical practice of medicine... **The mentors...can educate them on [heart failure, lung disease, etcetera]...what they have a harder time doing is educating them on practice management, how do you...get involved in access for your patients, how do you actively identify patients who use resources out there...they don't live those things themselves.”**
Leadership
- **Occupied with clinical curriculum:**
 - “When we come here in July, **our heads are spinning in terms of like trying to know what's going on in terms of the residency program.**” Resident
- **Difficult to attend meetings:**
 - “...meetings between...attendings and clinic staff...usually occur you know, at noon or 12:30 which is...when we as residents have to be finishing up seeing our patients and...leaving usually for another site and for other responsibilities. So um, even though residents are welcome to go to those meetings, practically we don't really go on any regular basis.” Resident

Access to Knowledge and Information: All Staff

- **Challenging to train a large staff:**
 - **“Because we’re an academic [medical center] and because we have so many people [who] are part-time that we almost have 2 or 3, 4 times as many people to educate about this program as...hospitals that are not academic.”**
Management
- **Challenging to train many new staff in the midst of rapid change:**
 - **“RN educator- I’m training them for the PACT model and it’s getting confusing when they come into the clinic and are told that’s not the way we do things.”**
Field Notes
- **Challenging to train new nurses who came from outside primary care:**
 - **“...I’m not saying they can’t hire anybody...without a strong background [in primary care] because they can, but not in a time where they’re making so many changes.”** RNCM
- **National teamlet training discontinued before most AAVA teamlets formed**

Fast Forward to 2013: Where are we now?

- **Teamlets and Staffing**

- 20 Teamlets formed.
- Almost full staffing.
- Hired float nurses.

- **Co-location and Communication**

- Improved, but still a challenge, especially communication with residents.
- Heavy use of instant messaging.

- **Training and “Living PACT”**

- Coaching model tailored to local needs.
 - Part-time PCP attendance and engagement important. Still difficult to include residents.
 - Facilitates getting into the “pillars”
 - Target access and continuity.
 - Evaluation in process.

Audience Poll Question

- **If you are implementing PACT in an academic medical center, what are the main challenges you face? (check all that apply)**
- Staffing
- Space
- Communication
- Training
- Other

Conclusions and Recommendations

- **Large academic medical centers face special challenges in implementing the PACT model.**
- **Building the foundation to support functioning teamlets was complicated by residents and PCPs with limited clinic hours.**
 - More difficult to co-locate teamlets
 - Few clear communication channels when not in clinic, especially for residents.
 - Limited exposure to the PACT model.
- **Inadequate space and communication challenges were closely related.**
- **Recommendations:**
 - Important to focus on space and to establish technological means of communication.
 - Develop strategies to engage part-time PCPs and residents in the PACT model, and to train all staff early in implementation.
 - Think creatively about staffing models.
 - Need to better understand how clinics with chronic staffing shortages can successfully implement PACT.
- **Although the time it took to build the foundation was considerable, it has proven essential.**
 - With functioning teamlets in place and the coaching model implemented, the clinic is now seeing more rapid uptake of the work processes needed to provide true patient-aligned care, and improvement in access and continuity metrics.

Acknowledgements

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Part-time Primary Care Physician Access and Continuity: Implications for PACT

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Part-Time Physicians

- 22% of men and 44% of women physicians work part time
 - More than 80% of academic departments have part time physicians
 - pediatrics, family medicine, and internal medicine
 - Associated with less burnout, higher job satisfaction, slightly greater productivity/hour, similar process performance

VA Primary Care Physicians

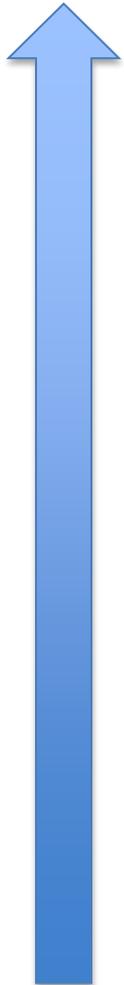
Partial Availability in Primary Care Clinic Due to:

- Actually Part-Time
- Administrative Duties
- Non-Primary Care Clinical Duties (i.e. Urgent Care)
- Research
- Teaching
- Trainees

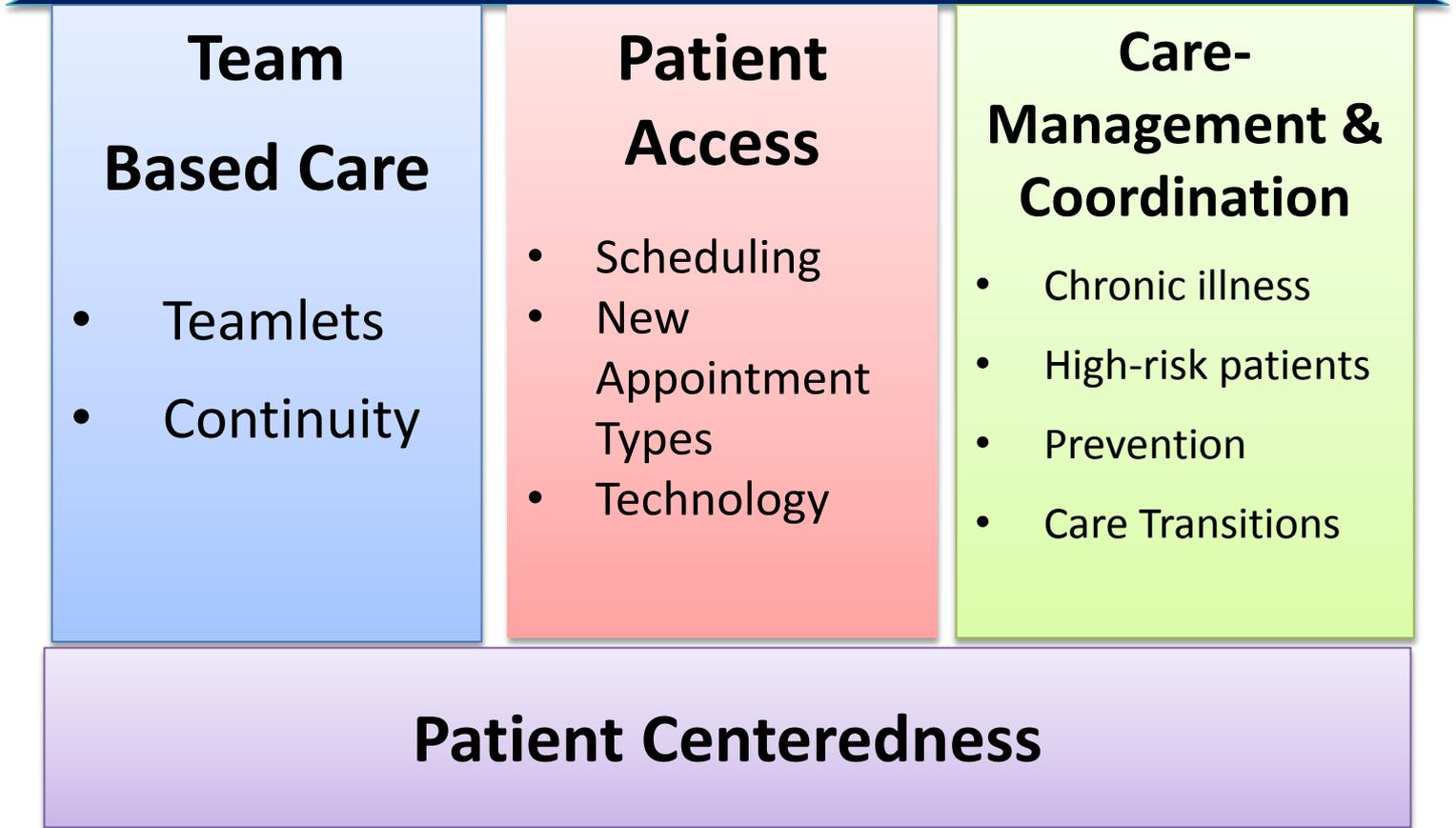
Poll Question

- Primary Care providers work part-time in our primary care clinic for the following reasons:
(check all that apply)
 - Work part-time hours overall
 - Work part of the time in administration
 - Work part of the time in another clinical area
 - Research part of the time
 - Teaching/mentoring part of the time

2014



2010



Other Team Members

Clinical Pharmacy Specialist ± 3 panels

Social Work: ± 2 panels

Integrated Behavioral Health

Psychologist ± 3 panels

Social Worker ± 5 panels

Care Manager ± 5 panels

Psychiatrist ± 10 panels

Teamlet:

Assigned to 1 panel
(1200 patients)

- **Provider**
- **RN Care Manager**
- **Clinical Associate**
(LPN, Medical Assistant)
- **Clerk**

Actual panel size =
120 patients per
half-day session

Patient

Team-Based Care

VA PACT Access Measure

- Emphasized Access Measure
 - Percent of requests for same-day appointments accommodated same-day or next-day WITH the patient's assigned PCP

VA PACT Continuity Measure

- Percent of Appointments Completed with Patient's Assigned PCP
- Emphasized Continuity Measure includes
 - ED Visits
 - Telephone Appointments
 - Primary Care Mental Health visits

PACT Performance Measurement

PACT Recognition Score

- Continuity - % provider visits with Assigned PCP
- Same Day Access with Assigned PCP
- Telephone ratio - % of PC encounters by phone
- Post-Discharge follow-up - % contacted within 2 days

Study Research Questions

- How do part-time PCPs compare to full-time PCPs in VA PACT performance measures of access and continuity?
- Would alternate performance measures better reflect patient experience of access/continuity?
- Are patients' experiences with access and continuity different for those with part-time vs. full-time PCPs?

Methods

- Setting
 - One VA Healthcare System
 - Hospital-Based Site with a co-located Urgent Care (UC)
 - (51 providers)
 - Community-Based Site with NO Urgent Care
 - (17 providers)

Methods – Encounter Data

- Data from Completed PC and UC Encounters
 - In-Person encounters with physician-level provider
 - Excluded encounters from Patients Assigned to a Resident PCP
 - July 2010 – December 2012
 - Data Available:
 - Date patient called to schedule
 - Desired appointment date
 - Date encounter was completed
 - Assigned Provider
 - Provider seen at the encounter

Methods - Predictor

- Physician Availability
 - Assigned Panel Size as proxy
 - 120 patients = 1 half-day session per week
 - Continuous in models
 - <5 sessions per week when used as dichotomous
 - Full time is 8 patient care sessions
 - Distribution of primary care docs with nadir at 4-5 sessions per week

PCP-Months by Half Days in PC Clinic

Panel Size	Corresponding Half-Days Per Week	PCP-Months Examined		
		Frequency	%	Cumulative %
0-120	1	136	9.9%	9.9%
121-240	2	329	23.9%	33.8%
241-360	3	137	10.0%	43.8%
361-480	4	65	4.7%	48.5%
481-600	5	60	4.4%	52.9%
601-720	6	104	7.6%	60.4%
721-840	7	158	11.5%	71.9%
841-960	8	104	7.6%	79.5%
961-1080	9	157	11.4%	90.9%
1080-1200	10	69	5.0%	95.9%
1200+	10+	56	4.1%	100.0%

Methods - Outcome

- Access Measures
 - Same-Day Request: Date Called = Desired Date
 - % Same-Day Requests Accommodated
 - *Same-Day - Assigned PCP (Day 0 or Day 1)*
 - Same Day – Other PCP (Day 0 or Day 1)
 - 2-7 Days - Assigned PCP
- Continuity Measures
 - % Physician Appointments Completed with Assigned PCP
 - *PC + UC*
 - PC Only

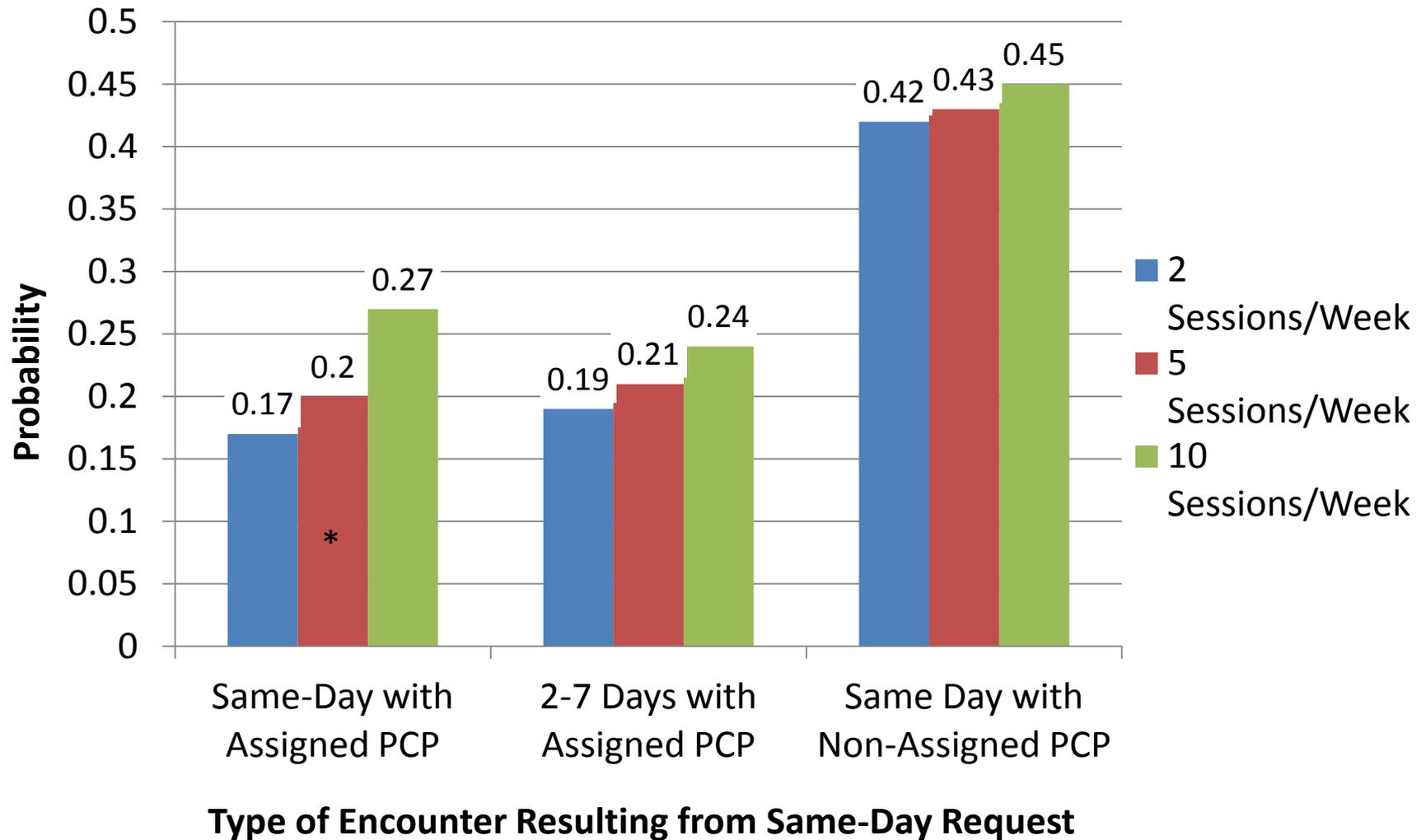
Modeling Methods

- Three-Level Nested Logistic Regression
 - Predictor: PCP Panel Size Continuous
 - Outcome: Encounter Meets Access or Continuity Measure
 - Random Intercepts: patients and physicians
 - Covariates:
 - Time
 - Site of Assigned PCP
 - Patient: Age, Sex, Dx (CHF, DM, chronic pain, PTSD, SMI, SUD, Depression), Chronic Opioid User, OEF/OIF
 - # of same-day requests by that patient in that month

Results

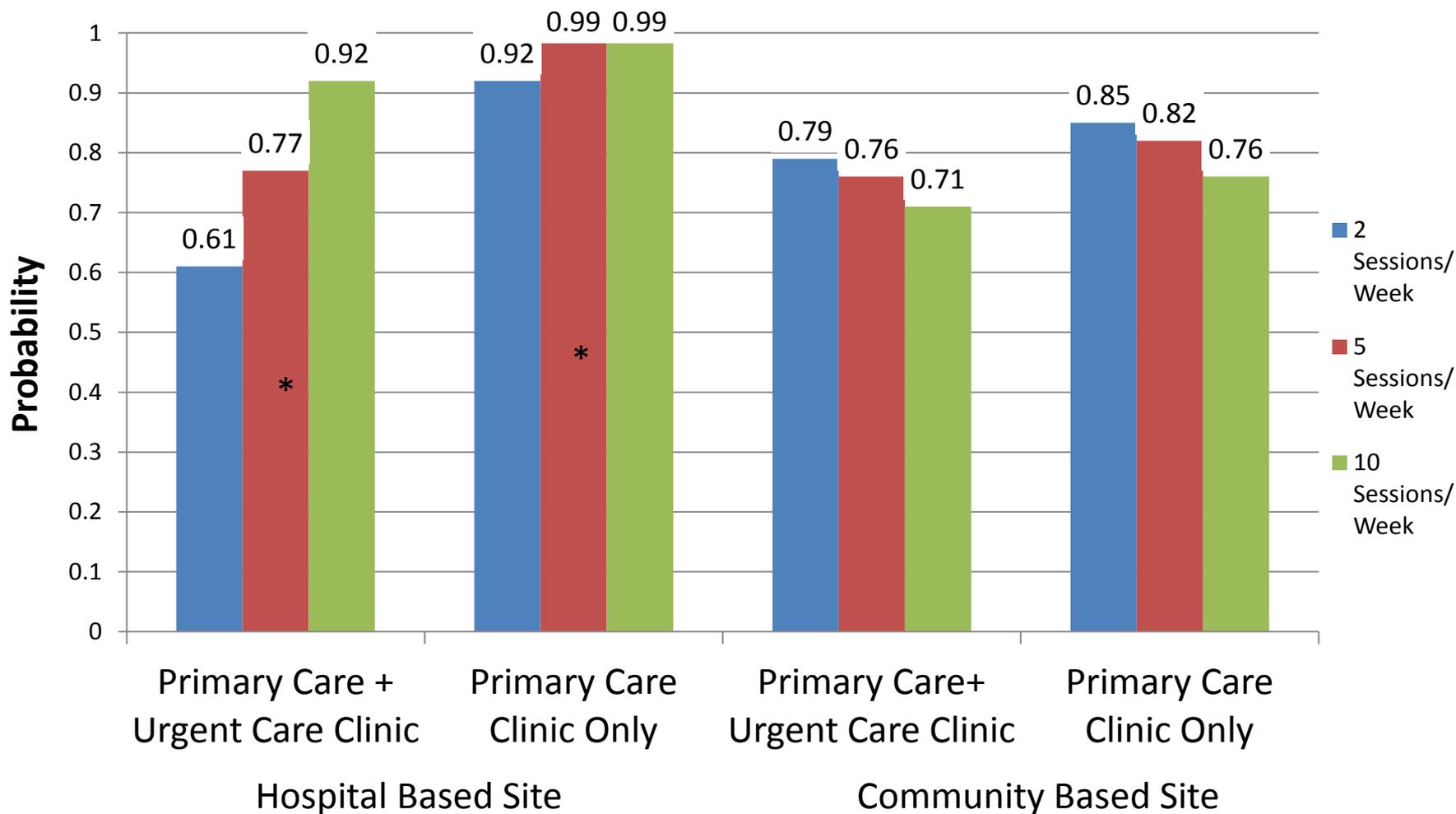
- 1375 total PCP-months of care
- 49% were from Part-Time PCPs
- 23,078 Encounters from Same-Day Appointment Requests Continuity
- 110, 454 Total PC Encounters
- 28,247 UC Encounters

Predicted Probability[&] of Accommodating a Same-Day Appointment Request



*=PCP Availability was significant predictor of outcome in MLM

Predicted Probability[&] of Continuity with Assigned PCP



*=PCP Availability was significant predictor of outcome in MLM

Patient Experiences Access and Continuity

- VA CAHPS-PCMH Patient Survey
 - Consumer Assessment of Healthcare Providers and Systems – PCMH
 - Now used for SHEP
 - October 2012
 - Mailed to those ≥ 2 outpatient primary care visits in past year

Patient Experiences

Data/Methods

- 2881 respondents assigned to PCP at two examined sites
- 53% response rate
- Designated as assigned to part-time vs. full-time PCP

Patient Experiences - Access

	Patients of Part-Time PCP N=436	Patients of Full-Time PCP N=2066	P value
For URGENT need, appointment as soon as needed	73% usually or always	81% usually or always	0.02*
For URGENT need, days waited for appointment			
Same day or 1 day	34%	43%	0.004*
2-7 days	31%	35%	
>7 days	36%	23%	
For ROUTINE need, appointment as soon as needed	87% usually or always	90% usually or always	0.11

Patient Experiences - Continuity

	Patients of Part-Time PCP N=436	Patients of Full-Time PCP N=2066	P value
	% usually or always		
How often PCP knew important medical history	95%	93%	0.07
How often PCP seemed informed about specialist care	91%	89%	0.41

Results Summary

- High levels of same-day access and continuity overall
- Patients assigned to part-time PCPs had less same day access to assigned PCP
- Indications that part-time assigned patients at site with contiguous UC use UC more often
- Equally likely to get appointment with assigned PCP 2-7 days
- Patient experiences of access mirrored encounter data results – slightly less urgent access but similar routine access and continuity

Limitations

- Two health care sites
- No data on people who call with urgent problem and do not get a primary care appointment.
- No external data (comorbidities)



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Implications

PCMH Performance Measurement

- Are we capturing all important elements that reflect good access to urgent care?
 - Appropriate Triage to UC / ER
 - Telephone encounter**
 - Nurse encounter*
 - Visit with PCP on shared teamlet*

Implications

PCMH Performance Measurement

- When is it important to see the assigned PCP for an urgent clinical matter?
 - Could measure at clinic level**
 - Could change to 3 or 7 day measure**
 - What do patients prioritize (in what situations)?
 - Can continuity reside in a Team or with the RN?

Conclusions

- Ideally good access 'performance' would reflect the urgency of the need and appropriateness of the mode and timing for meeting that need
- Ideally access measures would recognize and encourage the full use of PCMH approaches to improve access and continuity

Collaborators

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