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Reducing High-Dose Opioid Prescribing in Primary Care: Effectiveness of Opioid Safety Committees

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Background

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Prescription opioids continue to be a problem in the U.S., with **nearly 8.6 million people** age 12+ reporting opioid misuse in the past year. (CDC)



What are the challenges?

- People with long-term pain **lack safe and effective treatment alternatives.**
- Primary care providers **wrestle with uncertainties** of prescribing opioids.
- Health systems face state and federal regulatory pressure to reduce prescribing.

What can be done?

- There are many guidelines aimed at reducing high-dose prescribing, but **support for implementing guidelines is sparce** and recommendations go unimplemented.
- To implement guidelines and promote safe prescribing, many health systems have launched **opioid stewardship committees.** But a 2024 review found little evidence on how they function or their effectiveness.

Opioid Safety Committees in Primary Care

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The ACT Center worked with patients, care teams, and health system leaders to **design, implement, and evaluate** a primary care-based intervention to improve safe opioid prescribing.

Objectives:

1. Evaluate the effectiveness of **patient-centered Opioid Safety Committees (OSCs)** in:
    - Reducing high-dose opioid prescribing: >=90 MME (morphine milligram equivalents)
    - Reducing concurrent prescribing of opioids and benzodiazepines

2. Identify the facilitators, barriers, and perceived care team impact of implementing OSCs

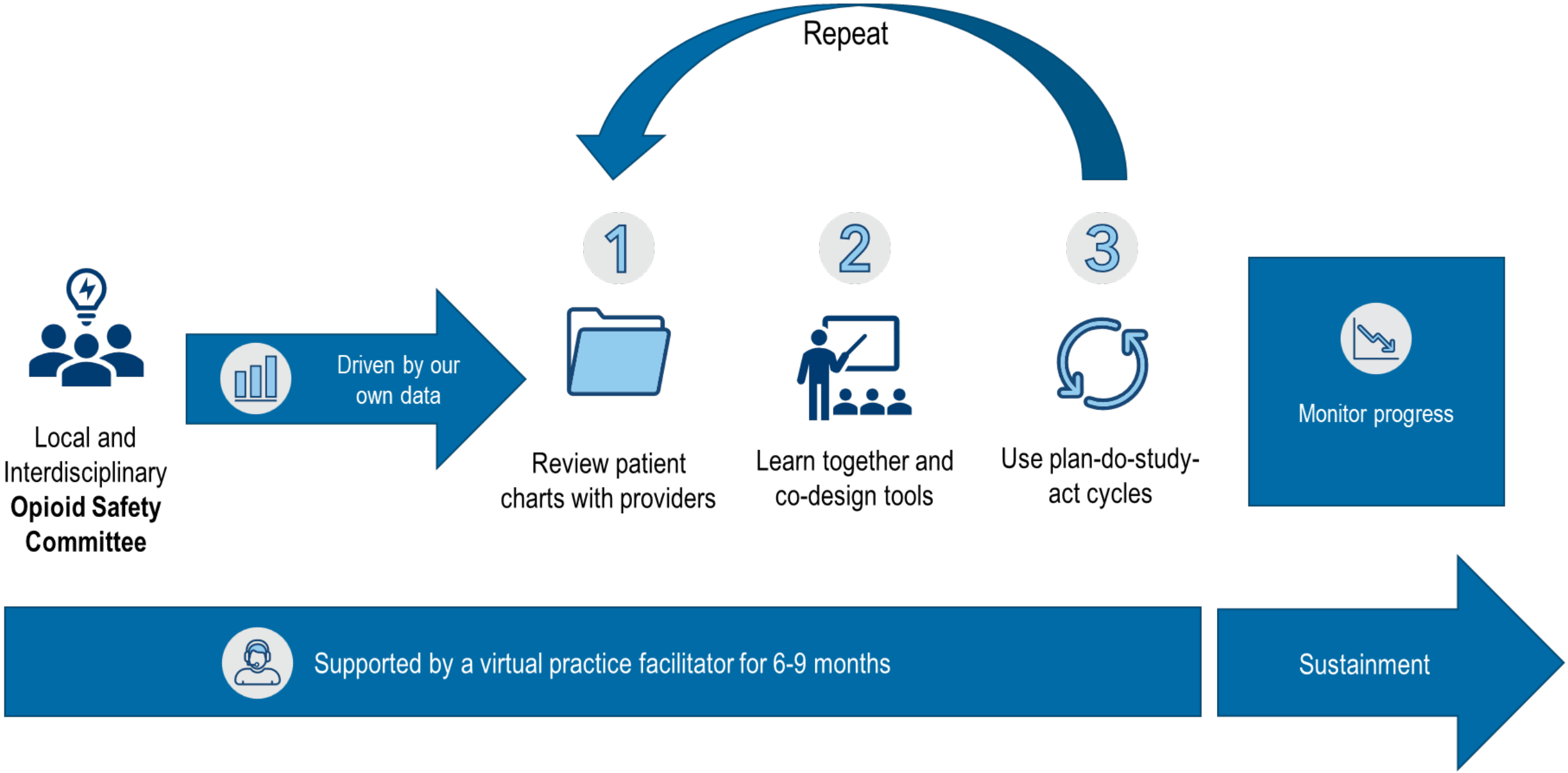
Overview of the OSC intervention

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- **Co-designed with patients** and primary care teams
- In 9 primary care clinics, established **interdisciplinary committees** to improve care and patient safety
- Conducted chart audit and review process to **provide care recommendations** to the PCP
- Identified QI priorities and tested improvement ideas using PDSA cycles and **virtual practice facilitation**

6 to 12 members each

- Primary care providers
- Social workers
- Pharmacists
- Clinic operations leaders
- Nurses
- Community resource specialists
- Medical assistants
- Administrative staff


Repeat
1
2
3
Local and Interdisciplinary **Opioid Safety Committee**
Driven by our own data
Review patient charts with providers
Learn together and co-design tools
Use plan-do-study-act cycles
Monitor progress
Supported by a virtual practice facilitator for 6-9 months
Sustainment

Centering patients across the life of the project

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4 patient partners with **lived experience managing long-term pain** guided us throughout (3.5 years!). This sustained engagement strengthened the intervention's relevance, accessibility, and alignment with patient values.

- Patient-centered education materials and provider scripting
- Chart review tool with a holistic review of a patient's care
- Care plan template with patient-centered recommendations
- Patient-centered language choices, for example "long-term" pain instead of "chronic"



Patient partners and researchers on the IPM team gather to celebrate their collaboration. Bottom row, from left: Kathryn Ramos*, Starette Canada*, Sunday Brush, and Jess Mogk. Top row, from left: Kelsey Stefanik-Guizlo, Claire Allen, Marina Peck*, Paula Lozano, and Karen Volpe*.

***Patient partner**

Overview of evaluation methods

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Quantitative

Similar to a stepped wedge design

- Change in outcomes over time in control clinics (prior to the intervention) vs. outcomes in the intervention clinics post-implementation

Population included in analyses

- All adult patients insured by Kaiser Permanente Washington (N=635,397) for at least 3 months, paneled to a primary care clinic, and not in hospice or on palliative care.

Qualitative

Semi-structured interviews with OSC members

- Completed with 55 of 61 invited members
- Topics included facilitators, challenges, implementation strategies, and impact
- Conducted by external evaluation team

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What we learned from quantitative analyses

Time since intervention started	RR (95% CI)
MME ≥ 90	
1-6 months	0.96 (0.85, 1.08)
7-12 months	0.88 (0.76, 1.03)
More than 1 year	0.81 (0.67, 0.97)
MME ≥ 50	
1-6 months	0.95 (0.90, 1.01)
7-12 months	0.91 (0.85, 0.98)
More than 1 year	0.84 (0.76, 0.92)
Concurrent prescribing of opioids and benzodiazepines	
1-6 months	1.00 (0.94, 1.07)
7-12 months	1.04 (0.96, 1.12)
More than 1 year	0.89 (0.81, 0.97)

OSCs implemented with virtual practice facilitation **reduced high-dose opioid prescribing and concurrent prescribing** of opioids and benzodiazepines. Estimated 19% relative decline in high-dose prescribing (MME>=90).

The intervention **took more than 1 year** to produce significant results.

RR: Relative risk
CI: Confidence interval

Prescribing outcomes for patients reviewed by OSCs (N = 181)

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	Baseline[1]	9 months	15 months
Opioid dose (MMEs)			
Average MME	68 (sd=73.2)	53 (sd=60.9)	45 (sd=53.2)
MME ≥90	56 (30.9%)	37 (20.4%)	28 (15.5%)
MME between 50 and <90	36 (19.9%)	43 (23.8%)	41 (22.7%)
MME <50	89 (49.2%)	101 (55.8%)	112 (61.9%)
Concurrent benzodiazepine prescription			
# of days with concurrent prescribing	20 (sd=32.2)	15 (sd=29.1)	10 (sd=25.6)
Any days with concurrent prescribing	64 (35.4%)	45 (24.9%)	33 (18.2%)

SD: standard deviation
[1]Outcomes summarize prescribing in the 90 days prior to month of OSC discussion.

The percentage of patients seen by the OSC who were prescribed opioids at doses >=90 MME **reduced from 30.9% (N=56) to 15.5% (N=28) at 15 months** of follow-up.

What we learned from qualitative results

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Facilitators to implementing OSCs

- Establishing an interdisciplinary team
- Using a patient-centered approach
- Collaborative review process that included the primary care provider
- Having practice facilitators to provide structured implementation support

> A lot of times, I feel that we forget that **there are other people that we can rely on.** It was nice to be able to say: these are all the resources we have in the clinic that we can use to help these patients." (Pharmacist)

> It's been really beneficial because it's more patient centered and a little more focused on helping the patient. **To be frank about this whole opioid therapy stuff it's felt more medical legal than anything…** there are so many boxes to check that makes it legal but has nothing to do with what's going on with the patient." (PCP)

What we learned from qualitative results

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Challenges to implementing OSCs

- Lack of alternative treatments
- Provider resistance to having charts reviewed by peers
- Difficulty removing providers from daily care tasks to allow for meetings
- Complex situations with patients taking long-term opioids

> "I think the biggest challenge is **recognizing that some people still need opioids.** It's easy to taper and take it away from everyone, and say that it's not safe for them. But some people don't have an option outside of that. We realized that you have to be in the mindset that there are valid cases out there." (Nurse)

> "Some providers felt like they were called on the carpet (even though it wasn't the message). They were defensive." (Social worker)

> "If they have an **unstable social situation, it makes it very difficult** to do any kind of adjustment to their narcotics medication." (PCP)

What we learned from qualitative results

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Individual and team impact

- Better awareness and empathy
- Greater understanding of importance of holistic approaches
- Greater understanding of each team member's role and contributions
- More confidence and skills to have difficult conversations about pain

> "I've found…**how much more aware I am.** [Patients] come in not related to pain…it's depression, anxiety or stress, and they ultimately talk about their pain issues. This process with the OSC has made me more willing to take on those conversation about their pain. It **changes your perspective on who is sitting in the room with you**." (Social worker)

> "Now that I'm part of [the OSC] I know how important the [intake] questionnaires are and **how that can impact decisions of the provider**." (Medical assistant)

Take-home messages

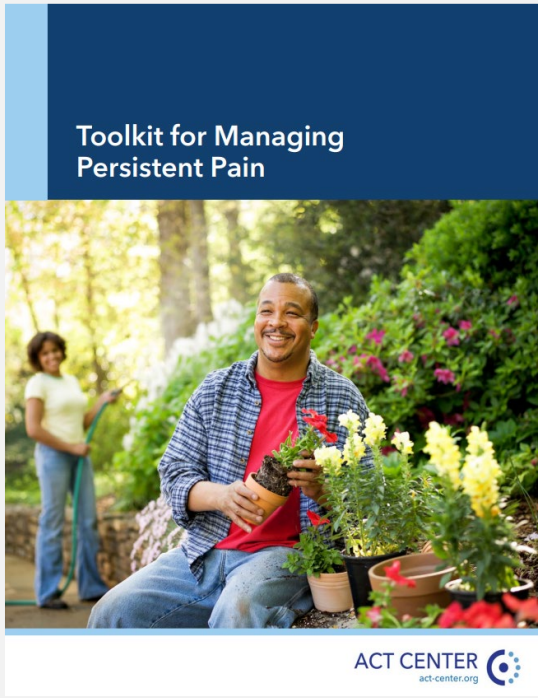
Patient-centered **OSCs are a promising way to promote safe opioid prescribing** practices and to ensure policies and practice align with patient needs.

To maximize effectiveness, **OSCs need to be adequately supported** through practice facilitation and **sustained over time** with leadership commitment.

A strength is our LHS Program, which aligns health system and research priorities to ensure greater likelihood of sustainment.

- OSCs have built capacity and are still running in the 9 clinics where they started.
- New positions with dedicated time for opioid management improvement work have been added.
- Patient & provider education resources are shared across clinics and available in Epic.

Find publicly available patient resources on the ACT Center website



Thank you!



IPM practice facilitators, from left: Jess Mogk, Claire Allen, and Kelsey Stefanik-Guizlo

To learn more about the ACT Center

Visit our website: act-center.org

Contact us: act-center@kp.org

Connect on LinkedIn:

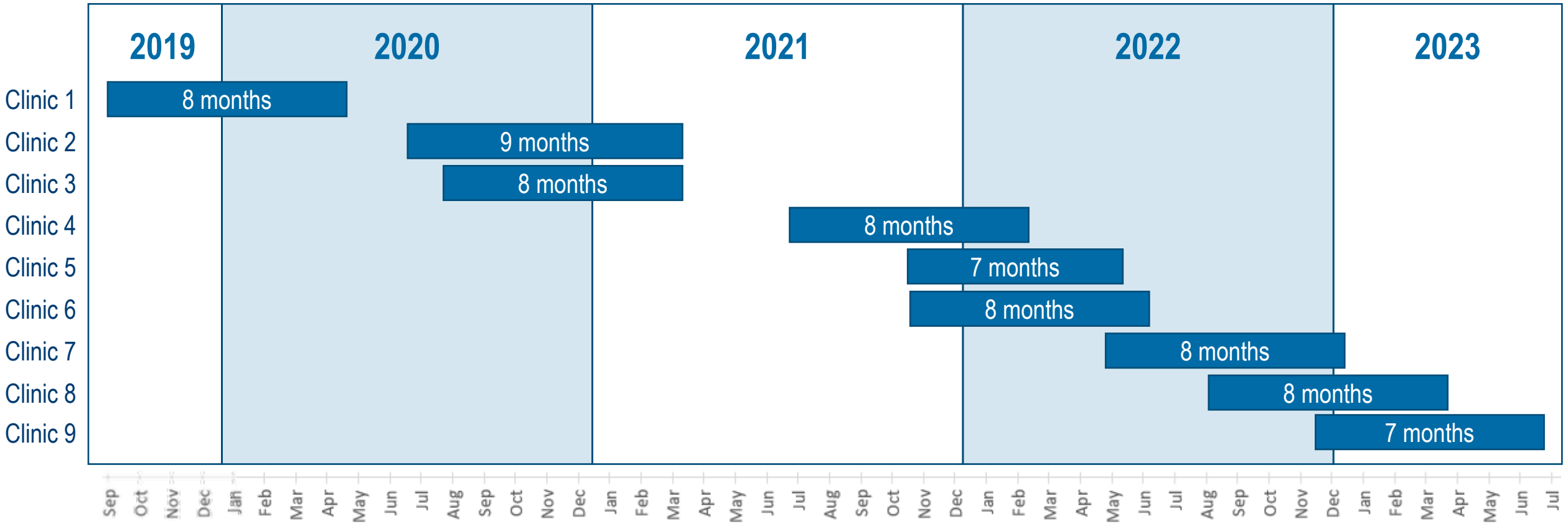
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Extra slides

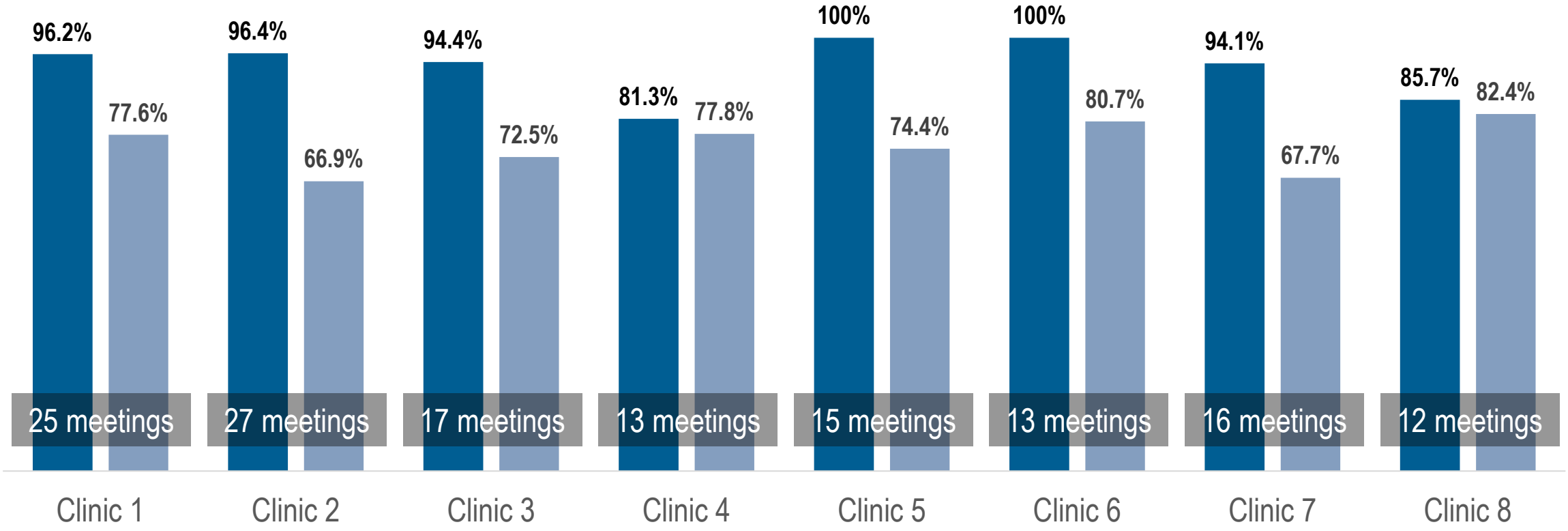
Intervention timeline

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Measures of feasibility

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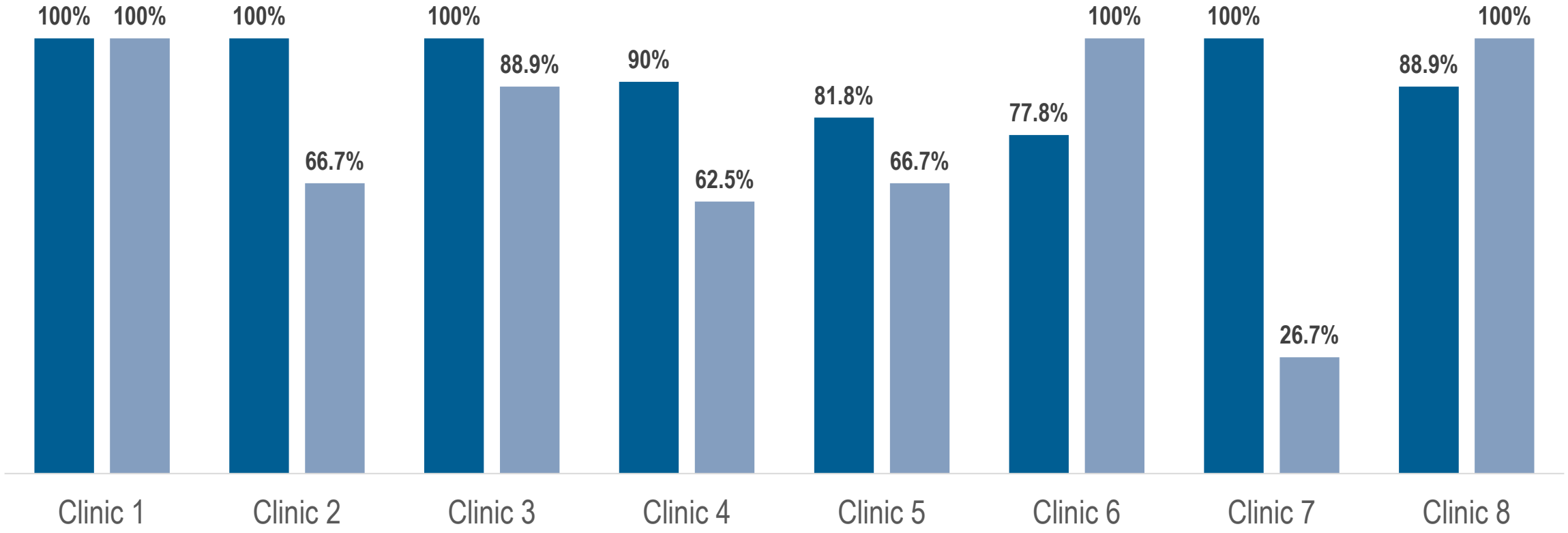
% of PF meetings held as planned

Avg % PF meeting attendance

Retention: 84.1%

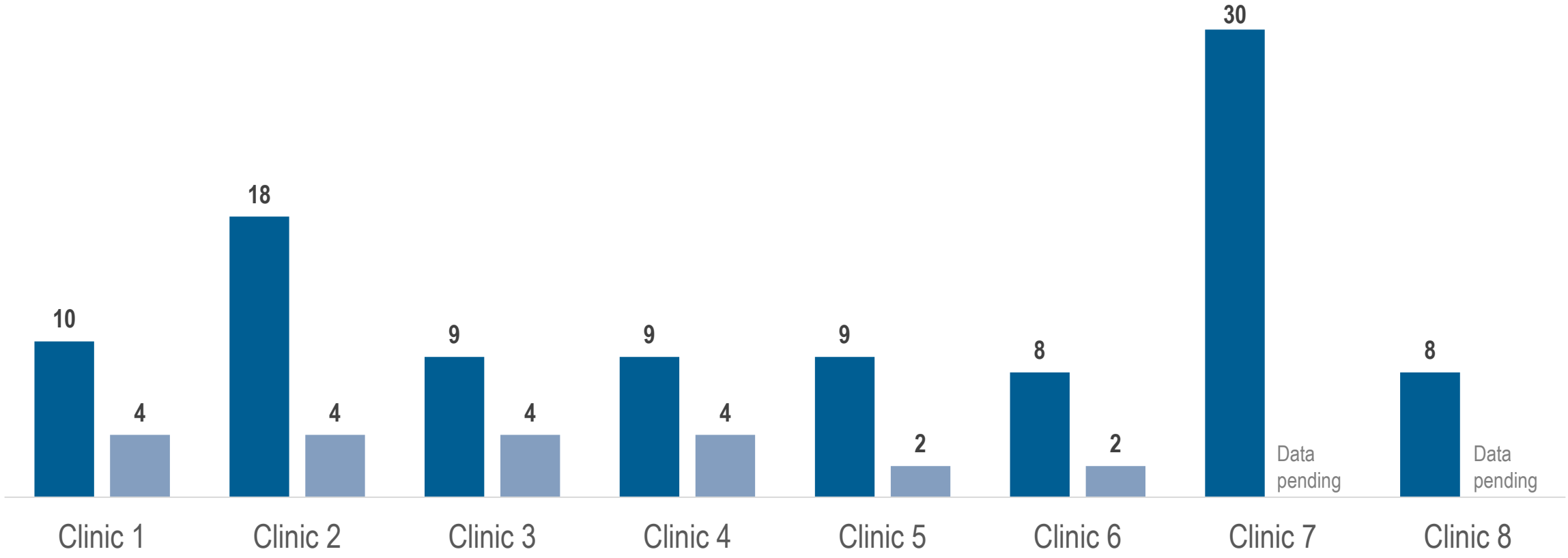
Measures of fidelity

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Fidelity drops off after active practice facilitation ends

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Bonus content: Implementation outcomes

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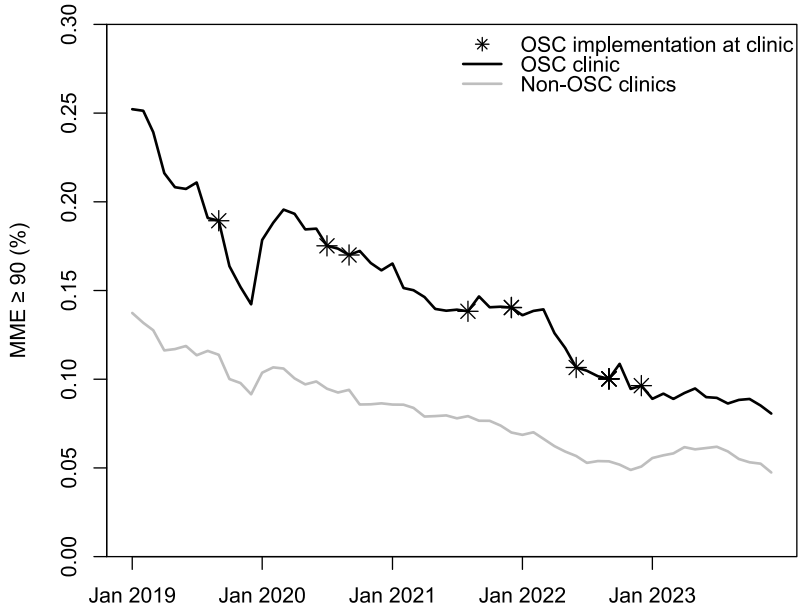
We implemented OSCs with high fidelity, suggesting that **virtual practice facilitation** is an effective implementation strategy.

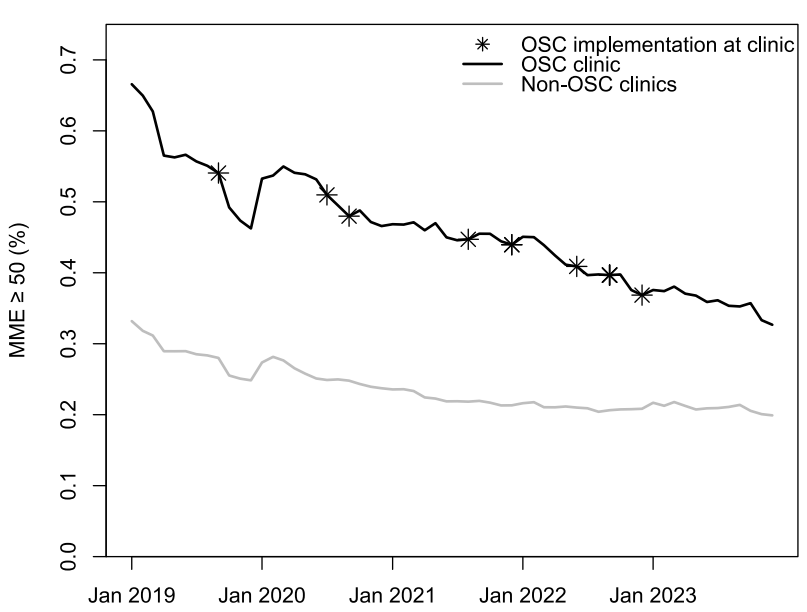
> The Committee wasn't that motivated to start with. [The practice facilitator], through her perseverance, got us involved. She got us to be active participants… It's a tough position she was in to get people motivated. But **she was persistent, she didn't give up, she seemed to believe in the process** so other people bought in and she bowed out appropriately." (Clinic 4)

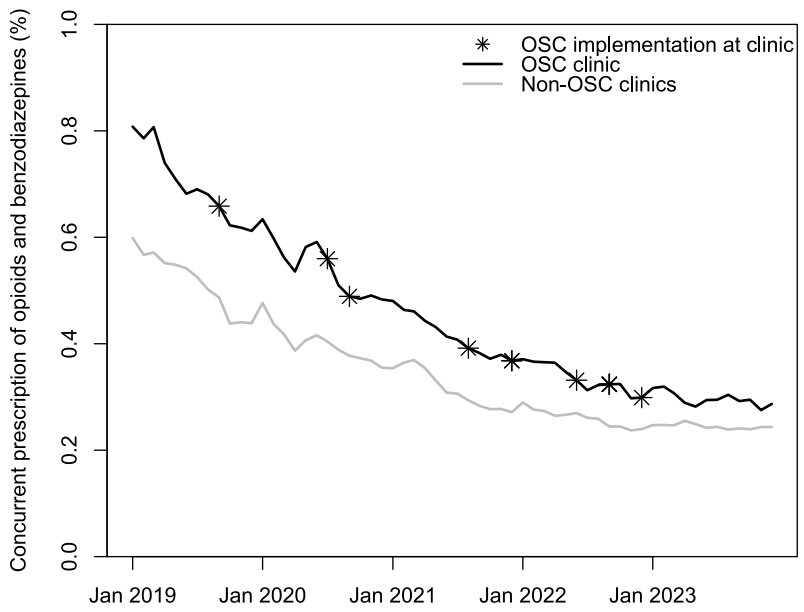
> It was nice having our own files and go-to spot in Teams, catered just to us, where only we have access. **Knowing where that stuff is and not having to hunt or dig for things,** we all knew exactly where to go." (Clinic 3)

Opioid-prescribing outcomes for clinics that did and did not implement OSCs

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What is the ACT Center?



Center for Accelerating Care Transformation (ACT Center)

- **Internally and externally funded projects and programs** that leverage research capabilities and evidence to transform care.
- Our **Learning Health System (LHS) Program** is funded internally by Kaiser Permanente Washington.
- Thoughtful and deliberate selection of LHS projects that **align with care delivery's strategic priorities and emerging needs.**

We are grateful to the **care teams and patient partners** who worked with us to improve patient care.

The authors have no conflicts of interest to report.