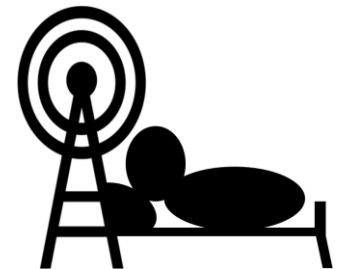


Two-Tiered Facilitation: An Implementation Strategy For Successful Uptake of a VA Telesleep Program

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Agenda

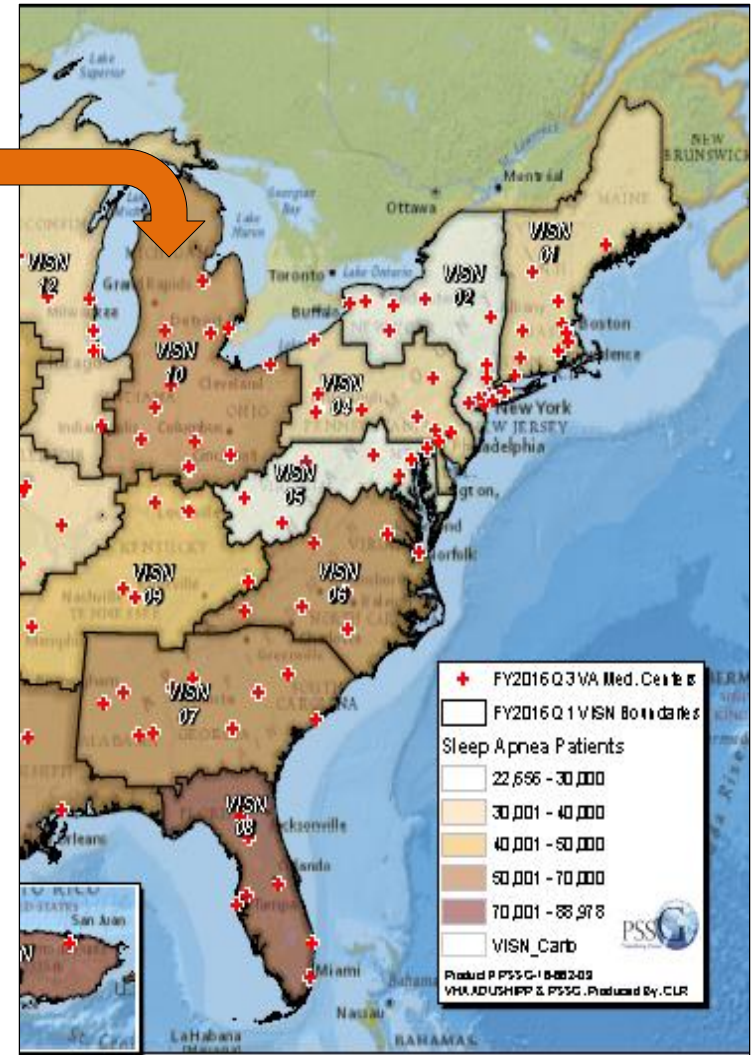
- Quality improvement project rationale, methods and findings
- External facilitation implementation strategy description
- Discussion and conclusions

Background: Sleep Apnea in the VA

- Sleep apnea is very common among Veterans:
 - Veterans are four times more likely than non-Veterans to have sleep apnea
 - 48% of combat Veterans with PTSD have sleep apnea
 - VA provides >100,000 new PAP machines annually
- **Providing diagnostic and treatment services for this very large and growing population is straining existing VA sleep infrastructure and access**

Map of Veterans with Sleep Apnea

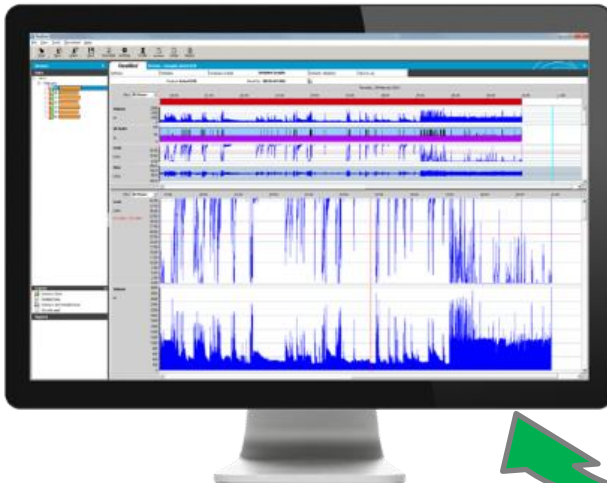
- Over 69,000 Veterans with sleep apnea were cared for in VISN 10 in FY2015
- VISN 10 has the third largest population of patients with sleep apnea after VISNs 8 and 17



Problem

- Veterans are being issued positive airway pressure (PAP) machines that have remote monitoring capability, however, few VAMCs are currently using this capability
- Turning “on” remote monitoring could result in a deluge of data for which there is no clinical infrastructure
- Traditionally, we do not know how patients are doing with PAP therapy when they are in their homes, they must come to clinic to receive care

How does a VA sleep medicine service typically get data for patients on positive airway pressure (PAP) to guide therapy?



Most sleep medicine programs require the Veteran to come to clinic for a data download

Problems with the Current Standard of Care

- **Access:** PAP clinic wait times are among the longest of any clinic at many VAMCs
- **Patient-Centered Care Imperative:** Why demand that Veterans drive all the way to the VA just to check their data when those data are available remotely?
- **Clinical Care:**
 - Remote PAP monitoring has been shown to improve patient adherence to PAP therapy
 - First two week compliance predicts long-term compliance
 - Remote PAP monitoring allows for timely intervention (instead of waiting for patient to return to clinic 1-month after PAP set-up)



INdiana Telemonitoring to Optimize Use of CPAP at Home (The IN-TOUCH Program)

QUALITY IMPROVEMENT PROJECT (FY16)

Implemented Remote PAP monitoring to assess effects on:

- Access
- Costs
- Patient satisfaction
- Staff satisfaction



Results

- IN-TOUCH was successfully pilot-tested at Roudebush VA:
N=59 IN-TOUCH and N=141 usual care patients
- The results demonstrated:
 - Improved Access: on-site PAP clinic appointments took 40 minutes whereas IN-TOUCH visits took 20 minutes (including all repeat phone calls and documentation)
 - Miles Saved: the roundtrip distance for IN-TOUCH patients ranged from 5.4 to 220 miles with an average of 72 miles
 - Patient Satisfaction: patients reported: being very pleased with not having to drive “all the way to the VA just for a data download,” and being very happy with having someone “to call to help them” as they adjust to being on PAP
 - Staff Satisfaction: Telehealth nurses described increased satisfaction attributed to receiving education about a common and clinically important medical condition that effects many of their Veteran patients

How were these data used by the facility?

- Based on the success of the IN-TOUCH quality improvement project, the Richard L. Roudebush VAMC implemented a remote monitoring program for Veterans using CPAP (TeleSleep)
- New and existing users are offered remote monitoring
- TeleSleep program implemented without facilitation

Treatment (CPAP) Outcomes

	Usual Care		
	CPAP clinic visit		
New patients	N=52		
Excellent adherence: ≥4h/night for >70% of nights	12/52 (23%)		
Excellent disease control: AHI < 5 events/h	11/12 (92%)		
Excellent adherence and disease control	11/52 (21%) 95%CI: 0.099-0.321		

Treatment (CPAP) Outcomes

	Usual Care	IN-TOUCH	
	CPAP clinic visit	Telehealth RN	
New patients	N=52	N=38	
Excellent adherence: ≥4h/night for >70% of nights	12/52 (23%)	12/38 (32%)	
Excellent disease control: AHI < 5 events/h	11/12 (92%)	12/12 (100%)	
Excellent adherence and disease control	11/52 (21%) 95%CI: 0.099-0.321	12/38 (32%) 95%CI: 0.172-0.468	

IN-TOUCH: quality improvement project with external facilitation

Treatment (CPAP) Outcomes

	Usual Care	IN-TOUCH	TeleSleep
	CPAP clinic visit	Telehealth RN	CPAP Technician
New patients	N=52	N=38	N=43
Excellent adherence: ≥4h/night for >70% of nights	12/52 (23%)	12/38 (32%)	11/43 (26%)
Excellent disease control: AHI < 5 events/h	11/12 (92%)	12/12 (100%)	7/11 (64%)
Excellent adherence and disease control	11/52 (21%) 95%CI: 0.099-0.321	12/38 (32%) 95%CI: 0.172-0.468	7/43 (16%) 95%CI: 0.050-0.270

IN-TOUCH: quality improvement project with external facilitation
 TeleSleep: changed standard of care without facilitation

Conclusions: Remote PAP Monitoring

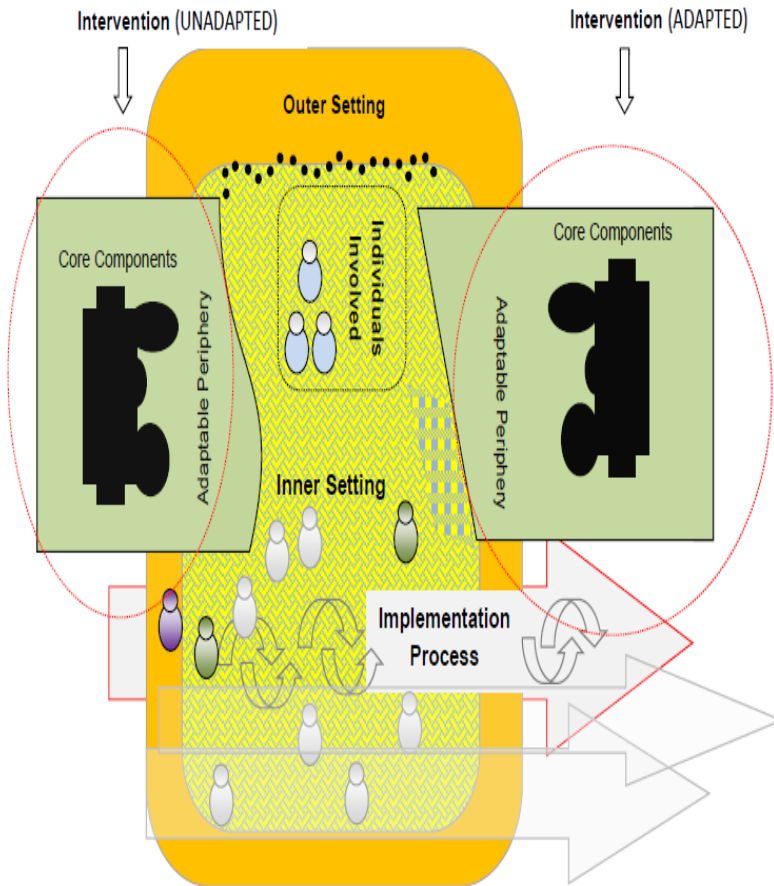
- Access to sleep medicine program is among the worst of any service at many VAMCs
- Remote PAP monitoring has the potential to:
 - Increasing the number of Veterans being served
 - Improving their timeliness of care
 - Improve patient and staff satisfaction
 - Reduce costs
- Unclear what the absolute effect on access might be
 - Dependent on the implementation strategies (e.g., thresholds for contacting patients)
 - May require external facilitation

Agenda

- Quality improvement project rationale, methods and findings
- **External facilitation implementation strategy description**
- Discussion and conclusions

Conceptual Model

Figure 1. Visual Model of Five Interrelated Major Domains of CFIR Framework: Intervention, Inner Setting, Outer Setting, Individuals Involved and Implementation Process.



Consolidated Framework for Implementation Research Damschroder, et al. 2013

Focused on the
Implementation Process for
the Intervention innovation in
the Inner Setting

Implementation Outcomes

Proctor, et al. 2013

Acceptability, Adoption,
Fidelity, Sustainability

Specify Implementation Strategies

SUBDOMAIN	REQUIREMENTS
The ACTOR	Identify who enacts the strategy
The ACTION	Actions, steps or processes that need to be enacted
ACTION TARGET	Specify targets based on models/identify unit of analysis for implementation outcomes.
TEMPORALITY	Specify when the strategy is used
DOSE	Specify dosage of strategy
IMPLEMENTATION OUTCOME AFFECTED	Identify and measure implementation outcomes affected by each strategy
JUSTIFICATION/ RATIONALE	Provide empirical, theoretical or pragmatic justification for strategy choice

Two-Tiered External Facilitation

Specify Strategy: Define It

STRATEGY

Facilitation – Based upon the Consolidated Framework for Implementation Research (CFIR), we used a combination of “Internal Implementation Leader” (assigned coordinator) & “External Change Agent” (Clinical Executive) facilitates decisions in a desirable direction) in the Process Domain

DEFINITION

Quality improvement experts with clinical expertise on the Tele-Sleep innovation internal to the local organization yet external to the specific services implementing the innovation provided support to the local front line clinical team implementation through weekly scheduled and ad hoc meetings

RATIONALE

Complex and novel innovation

Spanned Services with no existing relationships or collaborative workflow

Intervention implemented into existing Telehealth service yet clinical contents were new to Telehealth staff

Implementation Evaluation

- **Purposive sample:** 3 physicians, 5 Telehealth nurses, 2 respiratory therapists, 2 additional staff members
- **Brief, open-ended check-in sessions:** (5-20 minutes) to elicit how participants perceived implementation at a point in time Miech, et al. 2016; 2018
 - Rated each update (-3 to +3), with notes
 - 62 sessions were conducted, resulting in 190 updates, with weekly logs and interviews
- Qualitative data from updates analyzed prospectively monthly and fed back to facilitators
- Facilitation notes by both Executive and Coordinator facilitators were included in qualitative analyses

Brief Open-Ended Check-in Examples

Telehealth Service

In wave 1, there were no “warm-hand offs” from Respiratory to Telehealth services per protocol. All patients had to be called up for enrollment later by Telehealth. Not sure why.

[-2]

CPRS Templated Note Creation

Telehealth RNs found the wording on the note to be confusing as did the sleep service and claimed this affected implementation. Templated note was revised until all users were satisfied with its language.

[-2]

Two-Tiered Facilitation: Strategy Actors and Targets

Coordinator Facilitator

Executive Facilitator

A coordinator facilitator and an executive facilitator working together within an organization to promote implementation

Two-Tiered Facilitation: Strategy Actors and Targets

Coordinator Facilitator

- Coordinated planning and development of the innovation
- Developed and coordinated the data systems including patient tracking system and CPRS templated notes
- Trained Telehealth RNs
- Boundary Spanned the services (Sleep, Respiratory, Telehealth) to facilitate implementation

Executive Facilitator

- Asked by Leadership to develop and demonstrate program to address clinic access problem and secured resources
- Met with National VHA telehealth leadership
- Met with Vendors/Existing VHA programs
- Met with Service Chiefs
- Provided Feedback to the Front Line

Both Facilitators met together weekly to plan their strategies for the stakeholders

Facilitation Dose & Temporality

Coordinator Facilitator

- Planning: 21 logged development meetings (Sept-Feb)
- Implementation Progress: 15 Team meetings with front line and service chiefs
- Cross service communication: 2 meetings
- Addressed front line gaps:
 - Answered clinical questions for Telehealth RNs
 - Fixed data tracking bugs
 - Provided data feedback to front line
 - Provided patient warm hand off information for Respiratory Techs to deliver as requested by Telehealth Service

Executive Facilitator

- Pre-Planned National Operational Partner (TeleHealth) Meetings: 2
- Planning Meetings: 25 (Nat, VISN, Local leadership, Vendors) (Sept-Feb)
- Implementation Progress: 15 team meetings (Feb-July)
- Feedback patient and program progress to front line services during critical junctures (end of recruitment waves, team lunch)
 - Provided patient quotations on how much patients appreciated program
- Business case analysis
- Leadership meetings: Facility decision to officially adopt program in its sleep service
 - Modified delivery from Telehealth RN to Respiratory Tech
 - Discussions with VISN
- Weekly meetings with Sleep Service which adopted the innovation

Results: Two-Tiered Facilitation Activities

Outer Setting

National Telehealth program

Vendor relationship

Access goals (policy)

Patient Needs

Sleep Medicine (Recipients)

- Sleep Physicians
- Respiratory Therapists

Facilitation

Executive

- Secured endorsement from leadership
- Supported clinical champions
- Provided space for reflecting on data
- Worked with device vendors

Coordinator

- Serve as “neutral party”
- Support front-line staff and facilitate warm-handoffs
- Translate QI goals to front-line activities
- Monitor enrollment
- Create IT/EMR tools to track treatment

Inner Setting

Culture of each service

Incentives

Documentation of care

Available Resources

Telehealth (Recipients)

- Telehealth Supervisors
- Telehealth RNs



Results: Three Critical Junctures

Barrier: Respiratory therapists feared job security; skeptical that RNs can quickly learn OSA treatment (Jan-Feb)

Facilitation of Critical Juncture # 1

Executive

Consulted with sleep medicine lead and Telehealth supervisor; reframed aims to emphasize patient satisfaction

Coordinator

Supplemented direct training of RNs by RTs through coaching and assisting with warm hand-offs

Barrier: Lack of trust between sleep service and Telehealth RNs hampered implementation (April)

Facilitation of Critical Juncture # 2

Executive

Convened cross-team lunch that improved relationships and re-affirmed joint interest through team newsletter

Coordinator

”The lunch is where we bridged the gap, broke down socially constructed barriers.”

Barrier: Telehealth came to the consensus that Telesleep should be delivered by cross-trained RTs (May-Jun)

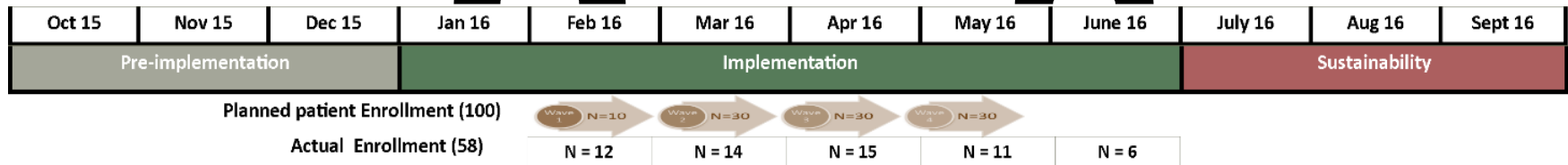
Facilitation of Critical Juncture # 3

Executive

Secured buy-in from exec. leadership on FTE RT for project expansion; worked with to create Telesleep infrastructure in EMR.

Coordinator

Created patient tracking tool EMR templates with RNs, RTs, clinical application coordinator >> sustainability



Implementation Outcomes

Acceptability Telehealth nurses were satisfied with new training about a clinically important medical condition from the facilitators. The RTs expressed doubt about appropriateness of having RNs provide sleep care, concern with increased workload, and reluctance to train Telehealth nurses. They overcame their resistance once issues with professional boundaries were clarified and they received feedback about high patient satisfaction from facilitators.

Adoption by staff progressed positively to the point where enrollment had to be halted due to staffing constraints.

Implementation Outcomes

Fidelity Initially “warm” handoffs where RTs transferred patients to Telehealth RNs were not taking place. As a workaround, a patient tracking tool was developed to ensure that the RNs could track patients enrolled in the program. **The coordinator facilitator developed a patient handoff sheet to facilitate the Telehealth uptake that was used consistently by the telehealth staff.**

Sustainability **Executive facilitators presented pilot data on clinical effectiveness, staff satisfaction, and a business case analysis.** Facility leadership approved Rapid Process Improvement Workshop in January 2017 that led to funding a new full-time RT position dedicated to Telesleep treatment, which was also seen as a model program to be expanded at other VAMCs in the regional network.

Agenda

- Quality improvement project rationale, methods and findings
- External facilitation implementation strategy description
- **Discussion and conclusions**

Discussion

- **The two-tiered facilitation strategy included:**
 - **Executive facilitator** focused on developing clinical champions, working with external stakeholders and national VA representatives, and in securing facility leadership
 - **Coordinator facilitator** played the role of neutral party (boundary spanner), mediating between front-line staff across two clinical services, translating broader strategies objectives into achievable goals, and providing support based on feedback from the implementation evaluation team
- Through weekly meetings with each other, the facilitators formulated solutions to address emergent barriers

Discussion

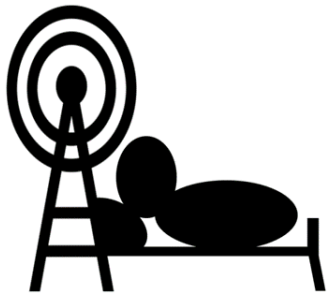
- The quality improvement program was predicated on “buy-in” from two separate sets of front-line staff. There was initial resistance to moving beyond typical scopes of work and dissatisfaction with sharing territories.
- Significant training, new infrastructure, gatekeeping, and existing limitations in staff capacity were barriers to implementation. The implementation strategy of employing facilitators at the executive and coordinator levels – working both at separate levels and in concert as necessary – proved essential to implementation success.

Contributions to Implementation

- Concept of two-tiered facilitation falls within the domain of the facilitation implementation strategy
(Powell et al, 2015)
- Builds from Prior work:
 - Blended facilitation (Kirchner, Ritchie et al, 2014))
 - Multiple champions for complex interventions
(Damschroder et al, 2009; Soo et al 2009; Shaw et al, 2012)
- Facilitation tasks across the implementation process are delineated
- Data suggests two-tiered facilitation is an efficacious strategy

Implications for Quality Improvement

- Without the two-tiered facilitation the clinical effectiveness was diminished
- Circumstances when two-tiered facilitation may be considered:
 - A novel, elective intervention that involves changes in usual scope of practice
 - Multiple services involved
 - Divide between front-line staff and service chiefs
 - When implementation requires activities both outside of the facility (outer setting) and within the facility (inner setting)



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