Adaptation and implementation of a family caregiver skills training program:
from single site RCT to multisite pragmatic intervention

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ADAPT
DURHAM CENTER OF INNOVATION
TO ACCELERATE DISCOVERY AND
PRACTICE TRANSFORMATION

Implementation Research Group
December 5, 2019

VA | Durham VA
Health Care
System

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- Function QUERI team
- GRECC Durham VA

- Caregiver participants and their Veteran care recipients

Agenda

Background

HI-FIVES

- Intervention development
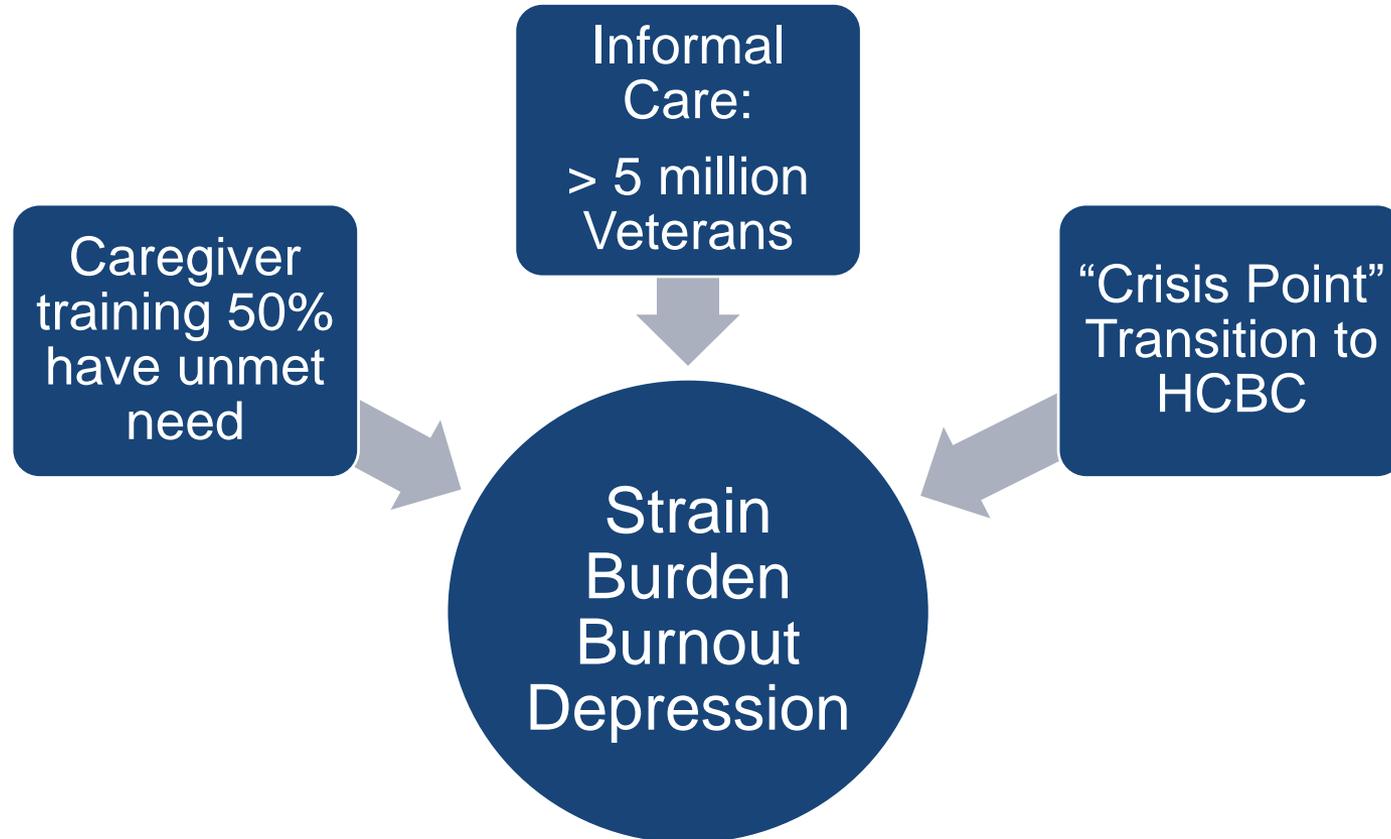- RCT Effectiveness testing

iHI-FIVES: Function QUERI

- Adaptation process
- Evaluation of implementation

Work in Progress

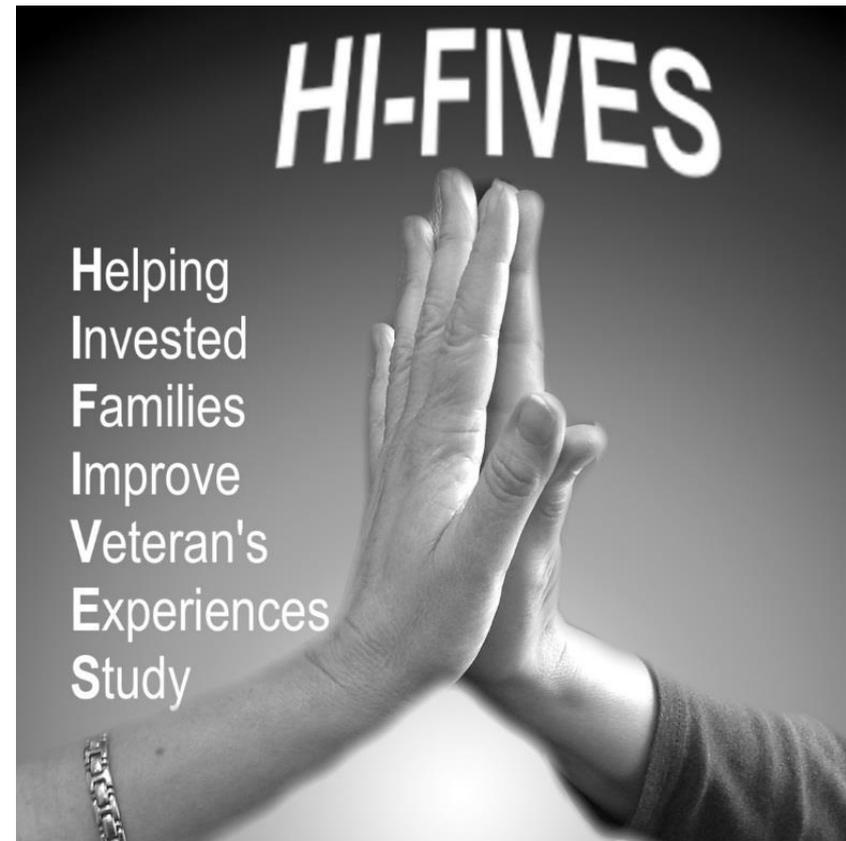- Lessons Learned
- Current status

Informal Caregivers

Caregiver training 50% have unmet need

Informal Care:

> 5 million Veterans

"Crisis Point" Transition to HCBC

Strain Burden Burnout Depression

Wray et al., 2010; Nichols et al., 2011; Mittelman et al., 1995; Mittelman et al., 2006; Belle et al., 2006; Gitlin et al., 2006
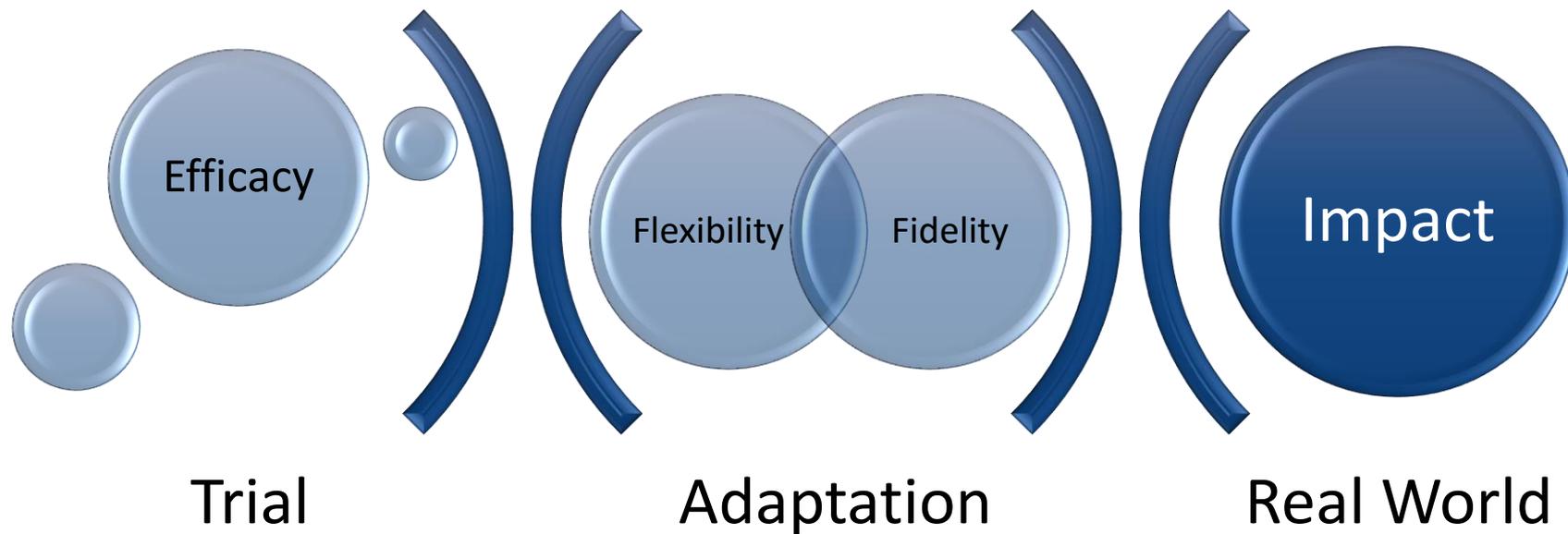
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Development and Effectiveness Testing

HI-FIVES
(PI: VAN HOUTVEN)

Rapid Translation Phases

HI-FIVES Implementation Process

2007	1. Survey of caregivers of Veterans
2008-2009	2. Review of the literature
2010-2011	3. HI-FIVES Intervention development
2011	4. Pilot/feasibility study for HI-FIVES
2013-2017	5. Single site RCT for HI-FIVES
2017-2018	6. iHI-FIVES Intervention Adaptation
2018	7. Multi-site roll out

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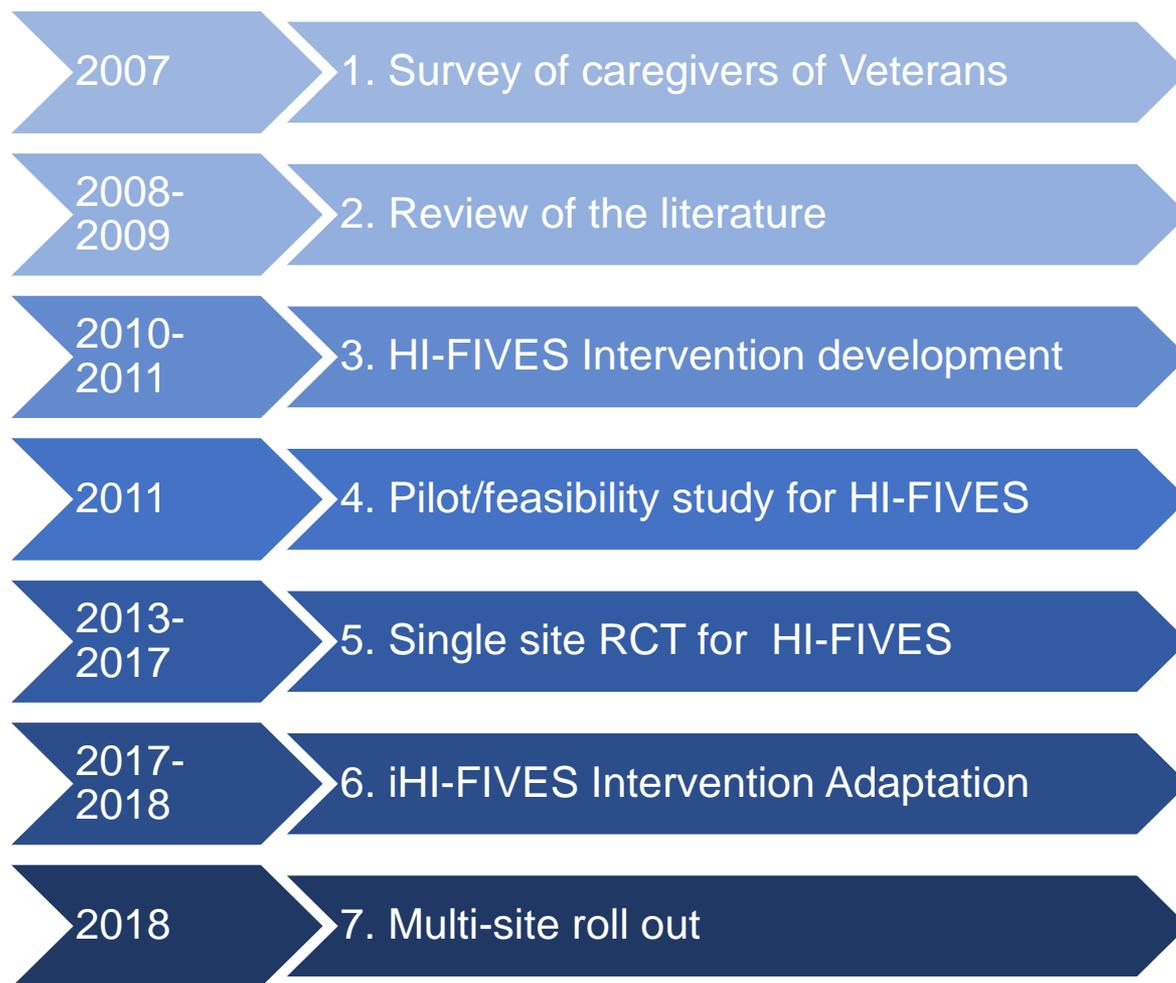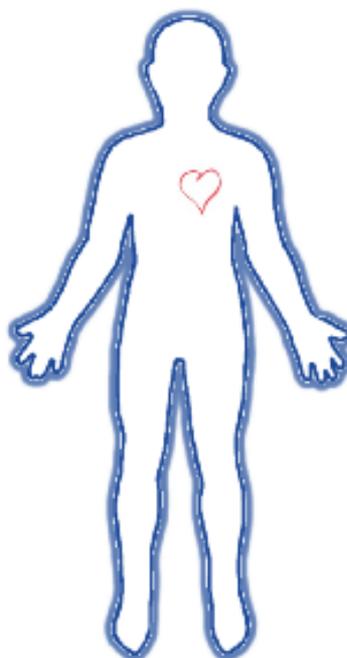
HI-FIVES Goals

- Connect with other caregivers and staff

- Skills Building

Coping

Support Seeking

Hands-on

Van Houtven et al., 2010; Nichols et al., 2011; 2016 Nichols et al., 2016; Van Houtven, Voils, & Weinberger, 2011

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Individual Training: Nurse Phone Calls

Call 1
- Introduction
- Medication Management
- Action Item

Call 2
- Questions
- Action Item Follow up
- 2 Topics
- Action Item

Call 3
- Questions
- Action Item Follow up
- 2 Topics
- Action Item

Booster 1
- Action Item follow up
- Needs and Services

Booster 2
- Action Item follow up
- Needs and Services

Individual Training: Select 4 Topics

Patient-oriented topics	Caregiver-oriented topics
• Disease information	• Management of stress
• Managing symptoms at home	• Sleep hygiene for self
• Safety issues such as falls	• How to care for yourself
• Planning for the future (directives)	• Coping with frustrations
• Safe home environment, driving	• When/how to ask for help
• Sleep hygiene for the patient	• Relaxation techniques

Group Training

Class 1: Introduction and caregiving discussion

- Frustrations, rewards
- Helping Veteran remain independent

Class 2: Clinical skills and injury prevention

- Basics of daily care
- Safety in house
- Safety and medications
- Proper body mechanics

Class 3: Caring for the caregiver

- Improving communication
- Stress management
- Recognizing depression and how to get treatment

Class 4: Navigating the system / planning for the future

- VA services available for Veteran
- VA caregiver support program
- Non-VA resources
- Preparing for the future and legal issues

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Study Design

Randomized Caregivers

242

119   **123**

HI-FIVES

Nurse call
- 3 selected topics
- + 2 boosters

97%
completed

In-person group training
- Group sessions
- with caregivers

79%
attended

+ Usual care

Usual Care
May initiate contact
With local or national caregiver support staff or other support resources

Study Measures collected at Baseline with follow-up at about 3 months plus at 6 and 12 months

Results
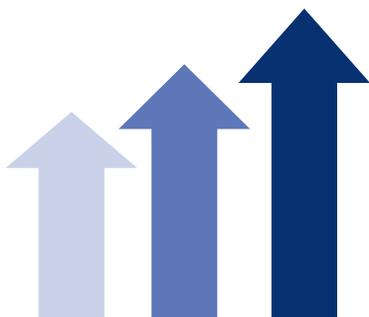
- Improved caregiver experience with VA care

- Improved Veteran's experience with VA care

- No differences in VA health care costs

- No difference in caregiver depression

- 1 day increase in Veteran days at home

- Not significant

2017-Present: Adaptation and Implementation in 8 sites

iHI-FIVES: FUNCTION QUERI

Optimizing Function and Independence through iHI-FIVES
(PIs: Hastings, Allen, van Houtven, Wang)

Function QUERI is designed to evaluate implementation of HI-FIVES at 8 VA sites (2018-2020): "iHI-FIVES"

Evaluating impact of iHI-FIVES on:

<u>Veteran Independence</u>: Veteran days spent at home

<u>Caregiver Function</u>: Caregiver burden, depressive symptoms, and satisfaction

Function QUERI iHI-FIVES Sites

★ iHI-FIVES site

Portland, OR
Puget Sound (Washington)
South TX (San Antonio, TX)
TN Valley (Nashville, TN)

John J. Pershing (Poplar Bluff, MO)
Edward Hines, Jr (Hines, IL)
Madison, WI
Durham, NC

Function QUERI: Implementation Strategies

Replicating Effective Programs (REP)

balance **fidelity** and **adaptation**
Tailor to local condition

CONNECT

promote **team function and readiness for change**
interactive sessions for delivery staff

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Replicating Effective Programs

Pre-Conditions
- e.g. identifying needs, target population, selecting suitable intervention

Pre-Implementation
- e.g. intervention packaging, community input

Implementation
- e.g. package dissemination, training, technical assistance, evaluation

Maintenance and Evolution
- e.g. preparing the intervention for sustainability
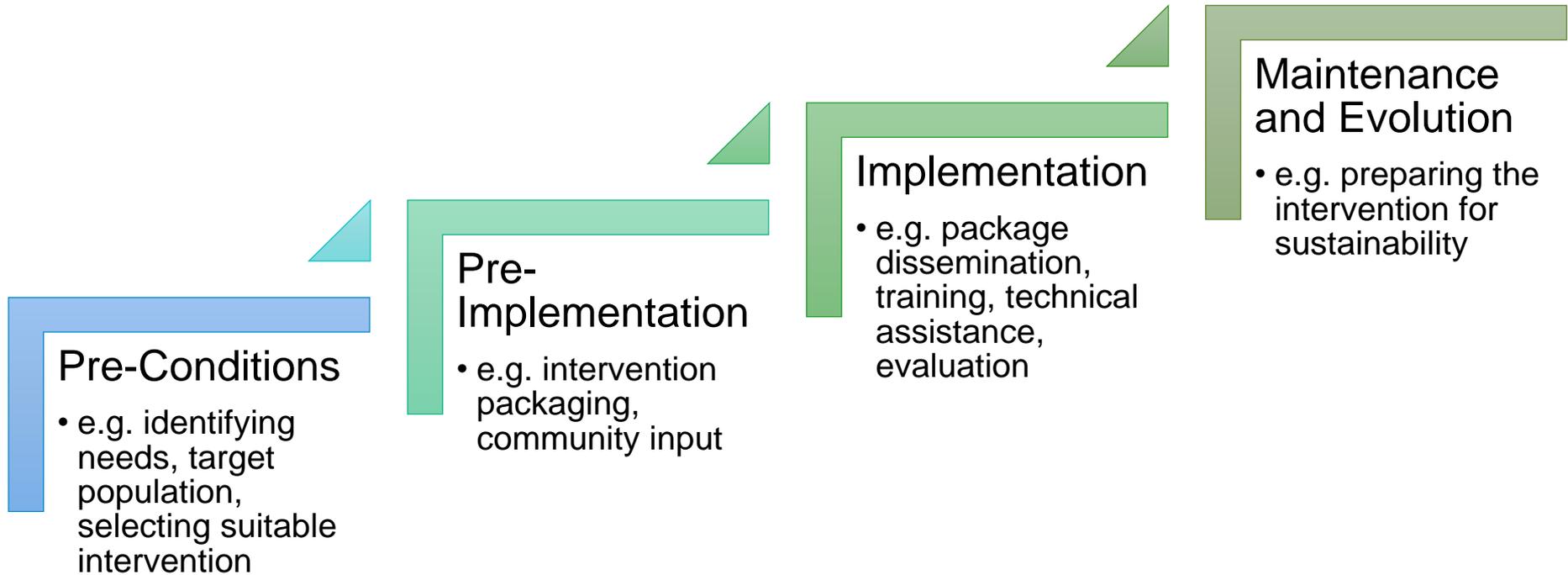
CONNECT Team Training

Interaction-oriented session designed to improve daily interactions between healthcare providers

- CONNECT session (2 hrs):
  Facilitated in-person:
  - CONNECT & Learn
  - Relationship mapping (individual and groups)

- Follow-up activities (1 hr):
  - Mentoring call

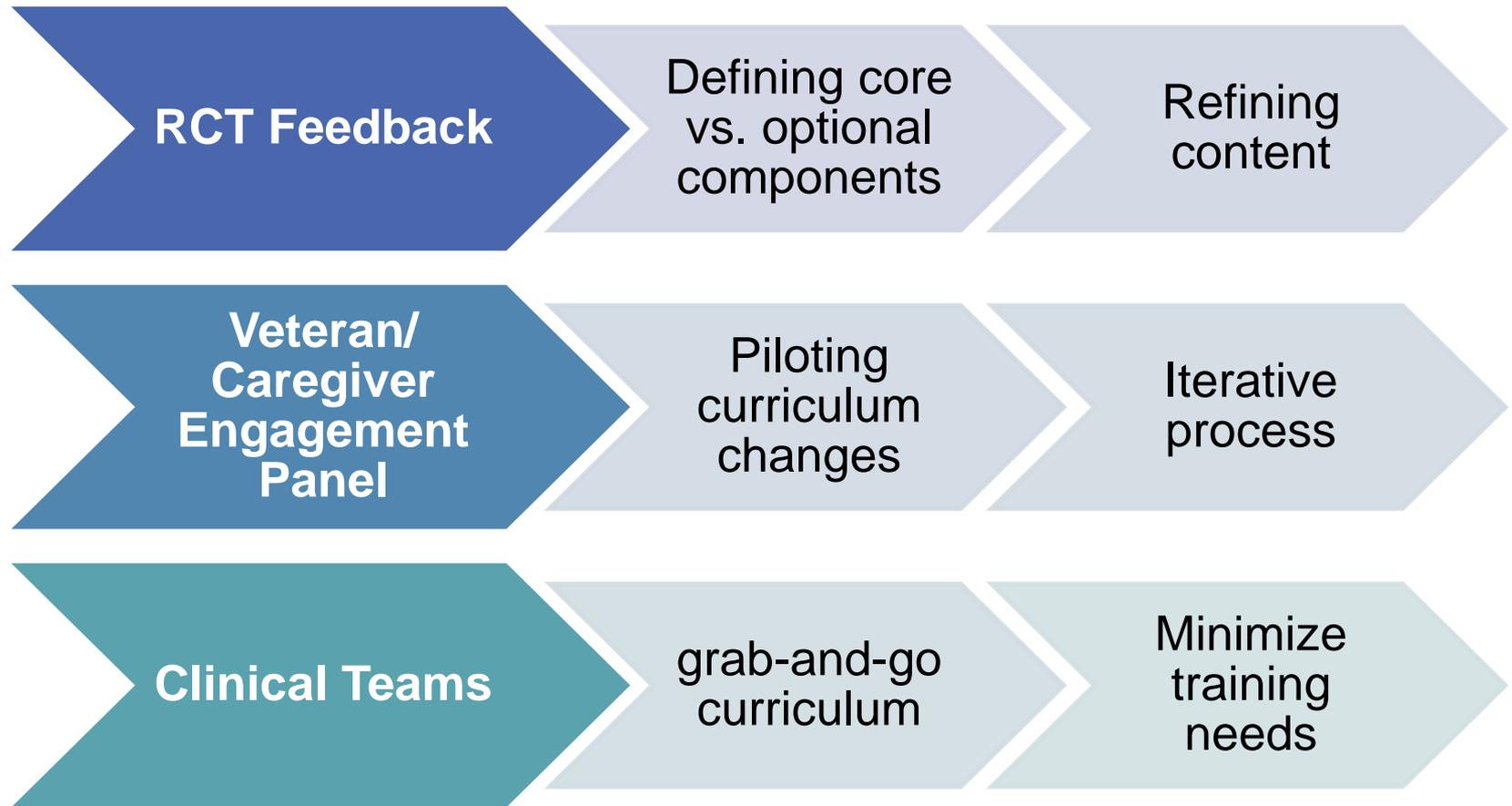ADAPT

VA Durham VA Health Care System
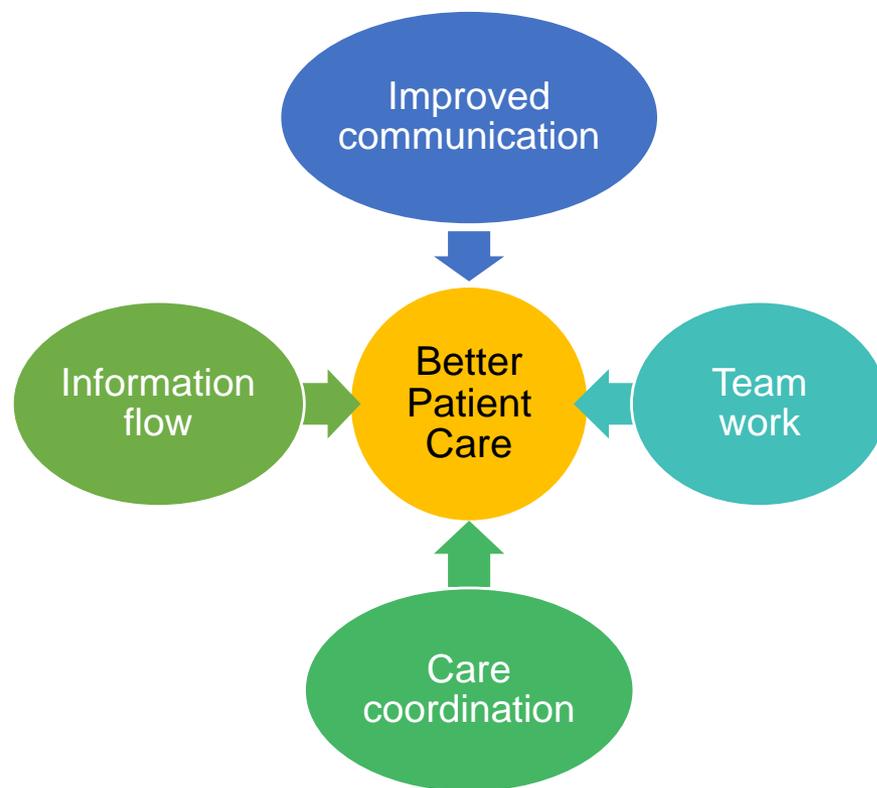
2017-2018

ADAPTATION PROCESS

Adaptation Considerations
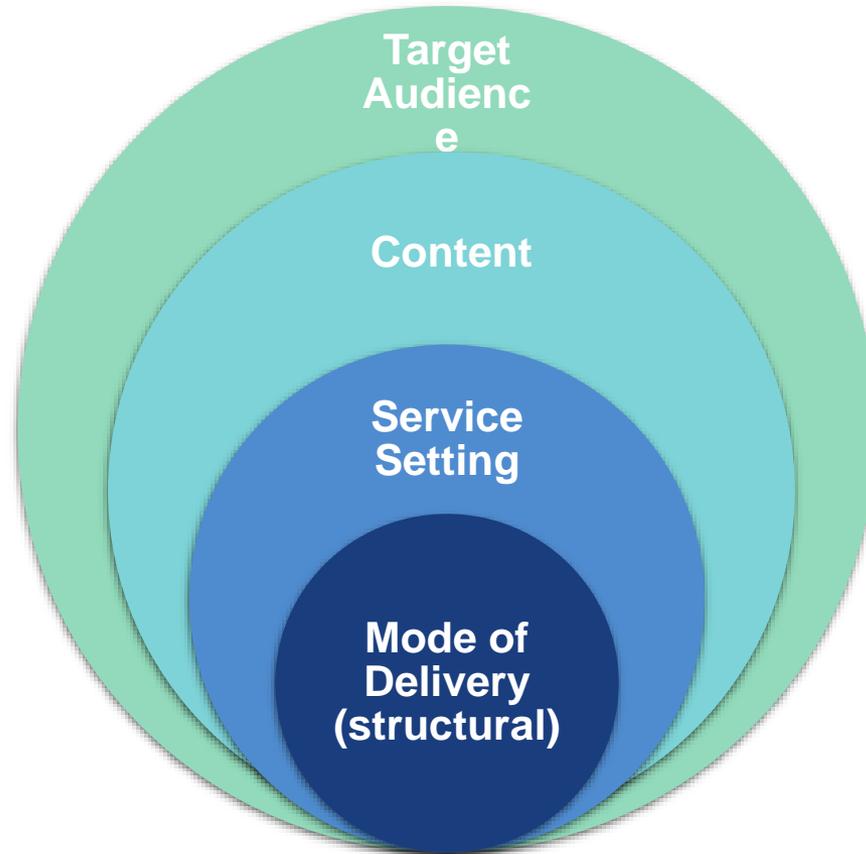
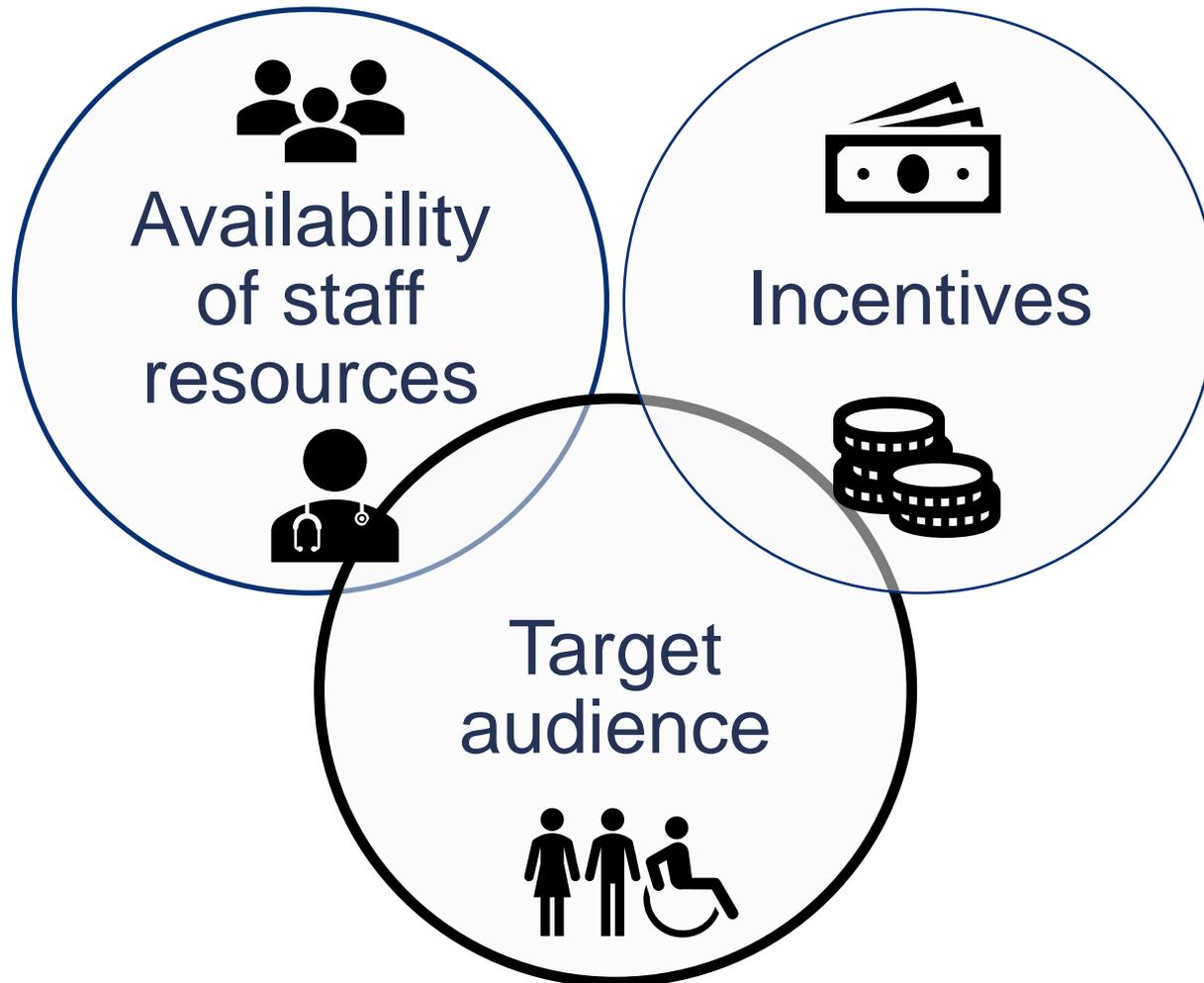Lee's planned adaptation framework (2008) and Wiltsey Stirman's adaptation typology (2013)

Adapting Content

RCT Feedback → Defining core vs. optional components → Refining content

Veteran/ Caregiver Engagement Panel → Piloting curriculum changes → Iterative process

Clinical Teams → grab-and-go curriculum → Minimize training needs

Adaptations to Delivery Process

Adaptations to Delivery Process

Adaptations to Delivery Process

	Original RCT	Adaptations for iHI-FIVES
Target Audience	Veterans and their informal caregivers (referred to home care services or geriatric clinic visit)	Simplified to recruitment to home care services

Core/Optional Components (content)	1. Individual topic calls = 3 (CORE)
	2. In-person group classes = 4 (CORE)
	3. Follow-up individual calls = 2 (CORE)
		1. Individual topic calls = 1-3 (OPTIONAL)
		   • Reduced topics from 12 to 6
		2. In-person group classes = 4 (CORE)
		   • Added relaxation exercise to classes
		   • Condensed slides, created workbook
		3. Follow up individual calls = 1-2 (OPTIONAL)

Service Setting	**ONE** VAMC (Durham) / Delivery Staff: • Individual calls (nurse/health educator) • Group classes (health educator, study investigator, Caregiver Support Coordinator)	**EIGHT** VAMCs/Delivery Staff: • Individual calls and group classes: (Caregiver Support Coordinator only or in collaboration with other VAMC service lines e.g., GRECC, HBPC)

Mode of Delivery (structural)	1. Individual topic calls (CORE)
	   • Training time = 20-25 min.
	   • Phone delivery only
	2. In-person group classes (CORE)
	   • Training time = 75 min.
	   • In person delivery only
	3. Follow-up individual calls (CORE)
	   • Training time = 15-20 min.
	   • Phone delivery only
		1. Individual topic calls/video (OPTIONAL)
		   • Reduced time to 15 min
		   • Added video (online pre-recorded)
		2. In-person group classes (CORE)
		   • Reduced time to 60 mins
		   • Developed implementation protocol to promote fidelity
		3. Follow up individual calls (OPTIONAL)
		   • No changes

Lee et al., 2008; Wiltsey Stirman, Miller, Toder, & Calloway, 2013

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EVALUATION OF IMPLEMENTATION

Hybrid 3 Effectiveness-Implementation Study Design

Design

- Programmatic outcomes (attendance, dose, adherence, cost)
- Caregiver Survey
- Patient days in community

Outcomes

- Stepped wedge cluster randomized trial
- Pragmatic
- 8 sites
- No research staff at sites

Stepped Wedge Design

- All sites receive facilitation support (REP)
- Facilitation start date and program launch randomized
- "Pre-implementation" = control group

| Stratified Block	Wave	Recruitment months (6 month intervals)				
		Months 1-6	Months 7-12	Months 13-18	Months 19-24	Months 25-30
1	1 2 VAMCs	**REP Facilitation**	**Program Launch**			
1	2 2 VAMCs		**REP Facilitation**	**Program Launch**		
2	1 2 VAMCs			**REP Facilitation**	**Program Launch**	
2	2 2 VAMCs				**REP Facilitation**	**Program Launch**

■ pre-implementation ■ post-implementation ■ administrative data collection only

Lessons Learned

- Grab and go curriculum

- Use of existing staff/resources

- Flexible delivery approach

- Remote delivery options

Lessons Learned
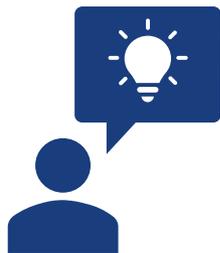
- Grab and go curriculum
- Use of existing staff/resources
- Flexible delivery approach
- Remote delivery options

- Recruitment
  - Poor documentation of caregivers in VA EHR
  - Recruitment strategies varied
- Evaluating impacts

WORK IN PROGRESS

iHI-FIVES Implementation Status

4 VA Medical Centers launched: Poplar Bluff, Puget Sound, Hines, Durham

**81**

Number of informal caregivers trained Oct 2018-Aug 2019

100% of caregiver participants agree/ strongly agree the training was worth the time invested

Site Modifications

	Site A	Site B	Site C	Site D
Audience	• Home and Community-based consults (HCBS) • Bowel and Bladder stipend	• Respite Care • Caregiver Support Program rosters	• HCBS consults • Bowel and Bladder stipend	• HCBS consults • Transitional Care • COACH Outpatient
Delivery team	• Caregiver Support Program • Transition Case Management (TCM)	• Caregiver Support Program	• Caregiver Support Program • Mental Health • Geriatrics • Spinal Cord Injury • TCM	• Caregiver Support Program
Optional content	Videos, in-person booster sessions after training		Videos	
Delivery	In-person weekly	In-person + video conference, 1-day training	In-person weekly	In-person weekly
Training location	VA Medical Center	VA Medical Center, Chamber of Commerce, VFW	VA Medical Center	VA Medical Center, outlying VA clinics

Key Implementation Barriers (4 sites)
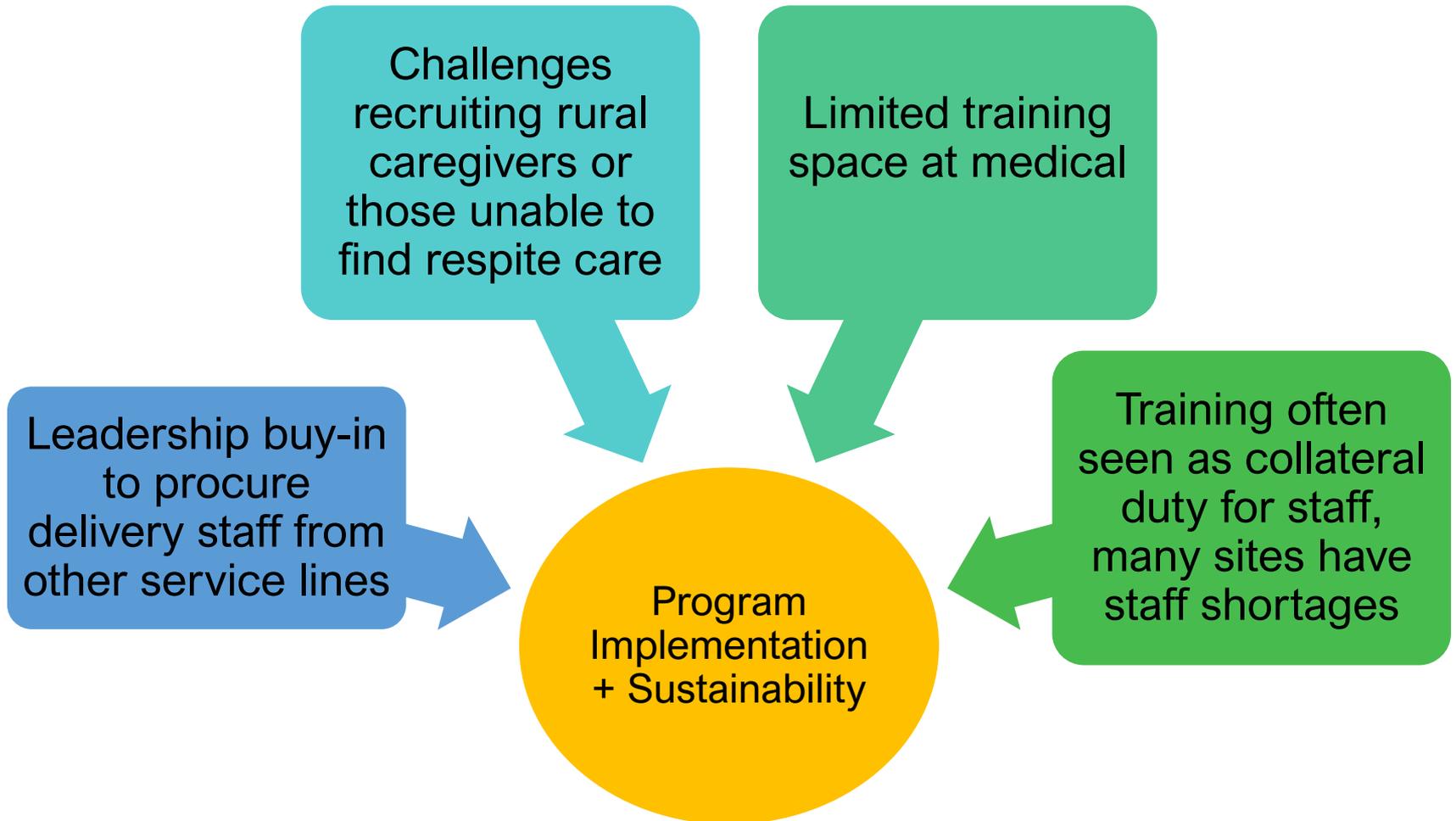
Next Steps

- 4 additional sites to launch

- Toolkit development + pilot (Phoenix VA)

- Function QUERI "2.0"

  - Spread + sustainability

  - Mission Act expansion

Questions / Discussion

Funding Source

- United States (U.S.) Department of Veterans Affairs Quality Enhancement Research Initiative QUE-16-170

- ADAPT CIN 13-410

Thank You!

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