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MEDICINE

Dartmouth Center for  
**IMPLEMENTATION  
SCIENCE**

# *Application of Sustainability Frameworks and Tools to a National Implementation Initiative*

Hosted by:



**Kelly Aschbrenner, PhD**  
Co-Director, DCIS



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Director, DCIS



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Implementation Science and Health Interventions  
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## Accreditation and Continuing Education (CE) Credit

In support of improving patient care, Dartmouth Health is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

### **American Medical Association (AMA)**

Dartmouth Health designates this live activity for a maximum of *1.0 AMA PRA Category 1 Credit(s)*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### **American Nurses Credentialing Center (ANCC)**

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As a Jointly Accredited Organization, Dartmouth Health is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved under this program. Regulatory boards are the final authority on courses accepted for continuing education credit. Social workers completing this course receive 1.0 general continuing education credits.

**Other Learners:** All other learners may claim CME-designated participation credit. Consult your professional licensing board regarding the applicability and acceptance of CME-designated participation credit for programs certified for credit by organizations accredited by Joint Accreditation for Interprofessional Education.



## Learning Objectives:

1. Explain the role of sustainability determinants in defining sustainment outcomes.
2. Describe adaptations to evidence-based programs in the sustainment trajectory.
3. Discuss variations in financing strategies and their role in sustaining evidence-based programs.



# Continuing Education

Mobile Text-In Code: 159371

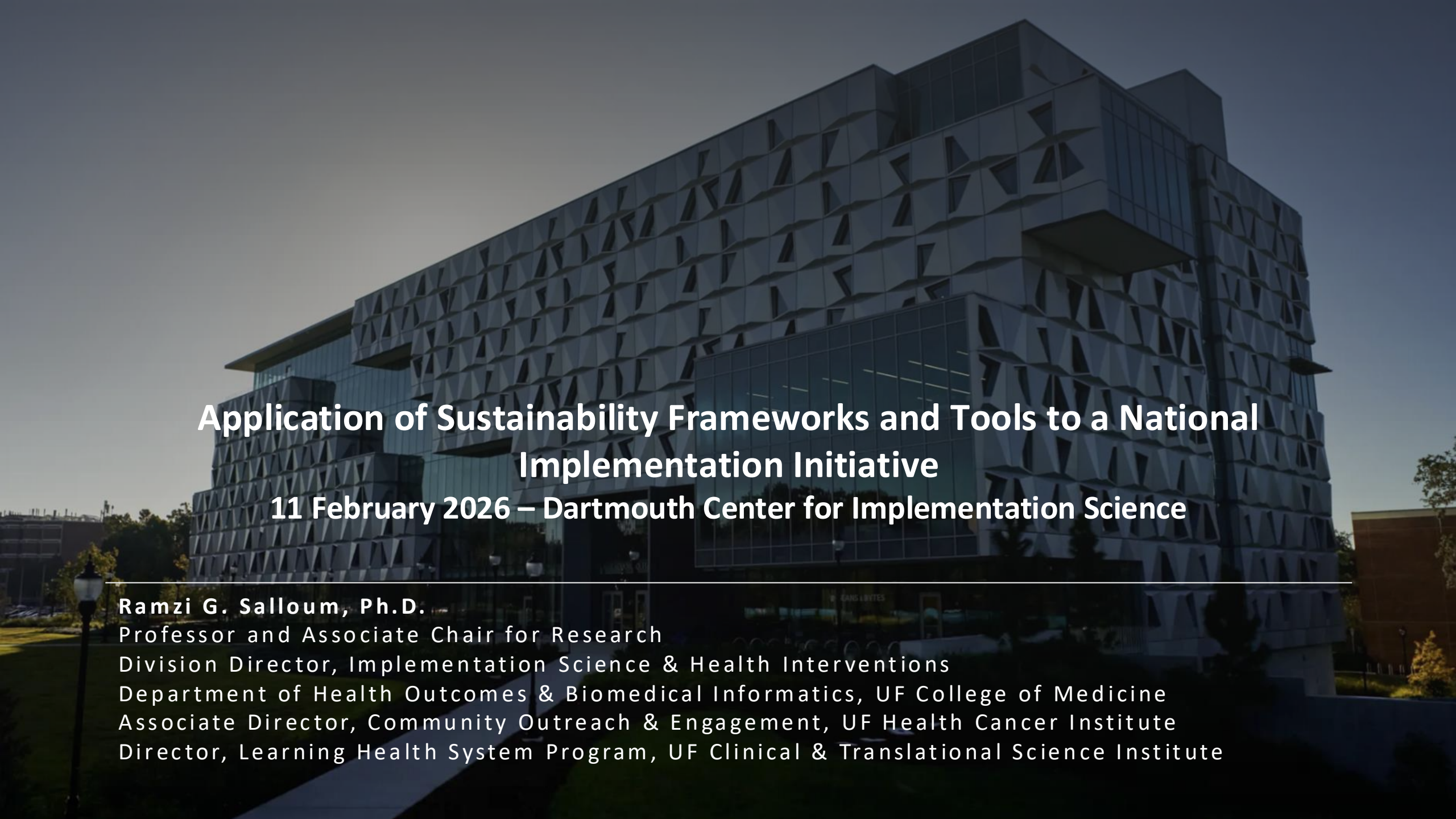
Phone Number: **833-884-3375**

*Code expires in 48 hours and is for this session only.*

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# Application of Sustainability Frameworks and Tools to a National Implementation Initiative

11 February 2026 – Dartmouth Center for Implementation Science

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Division Director, Implementation Science & Health Interventions

Department of Health Outcomes & Biomedical Informatics, UF College of Medicine

Associate Director, Community Outreach & Engagement, UF Health Cancer Institute

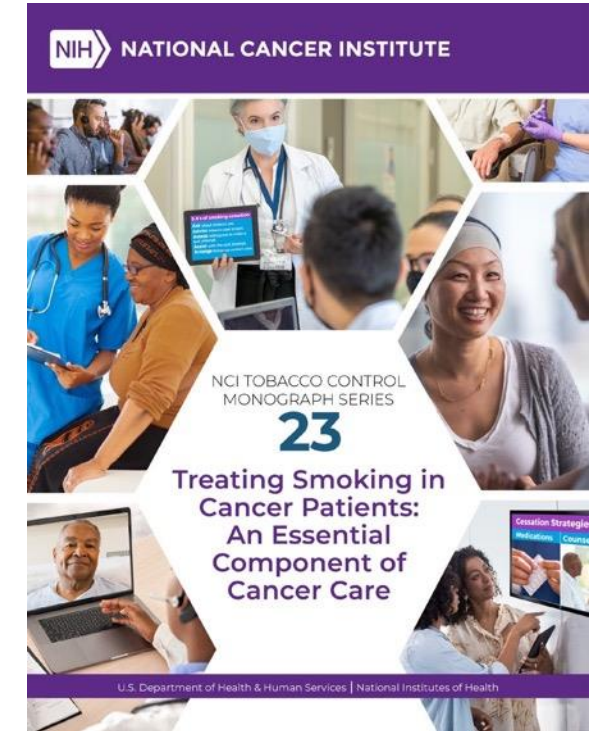
Director, Learning Health System Program, UF Clinical & Translational Science Institute

## Treating tobacco use in patients with cancer

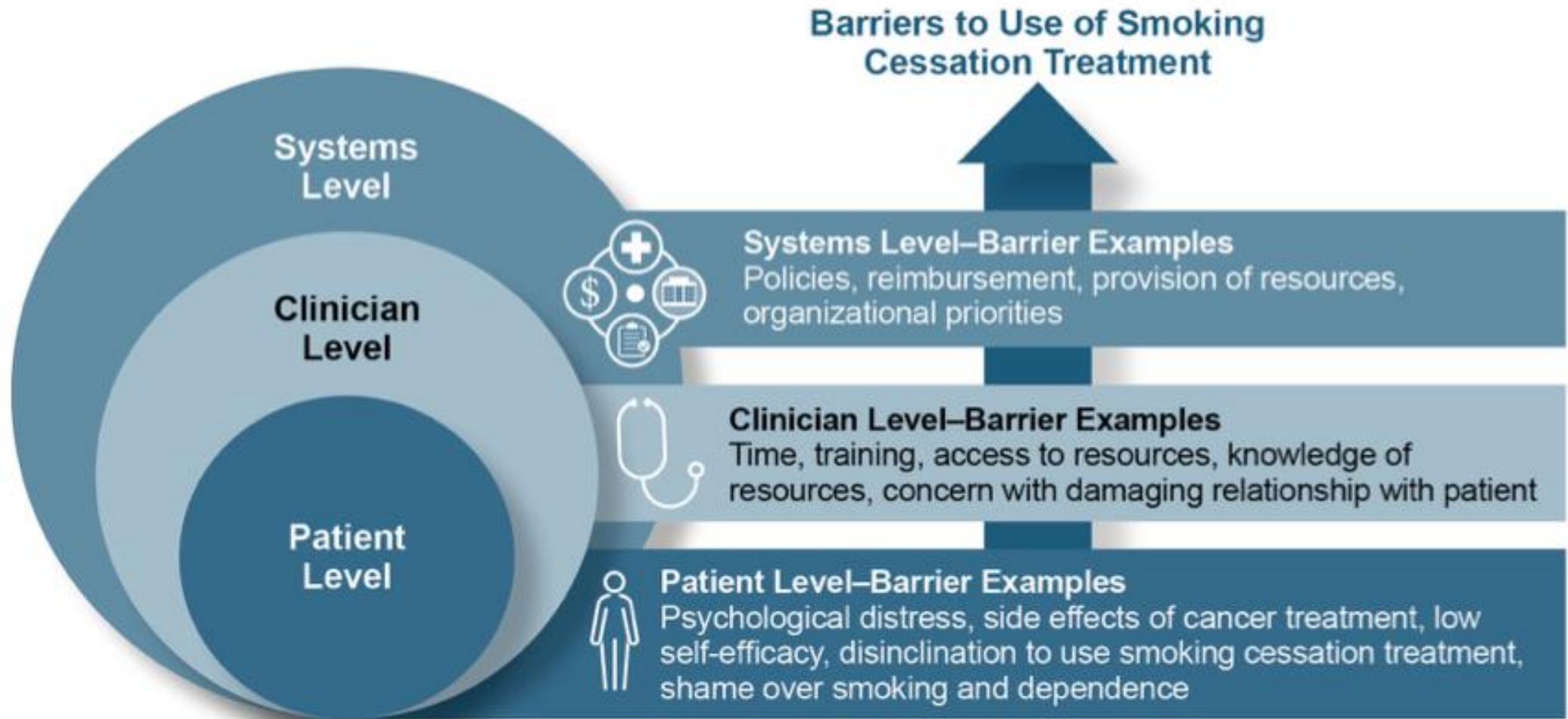
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**“ ... quitting smoking is among the most effective treatment options [for people with cancer] in improving the likelihood of survival, quality of life, and overall health.”**

*Treating Smoking in Cancer Patients:  
An Essential Component of Cancer Care*  
NCI Tobacco Control Monograph 23

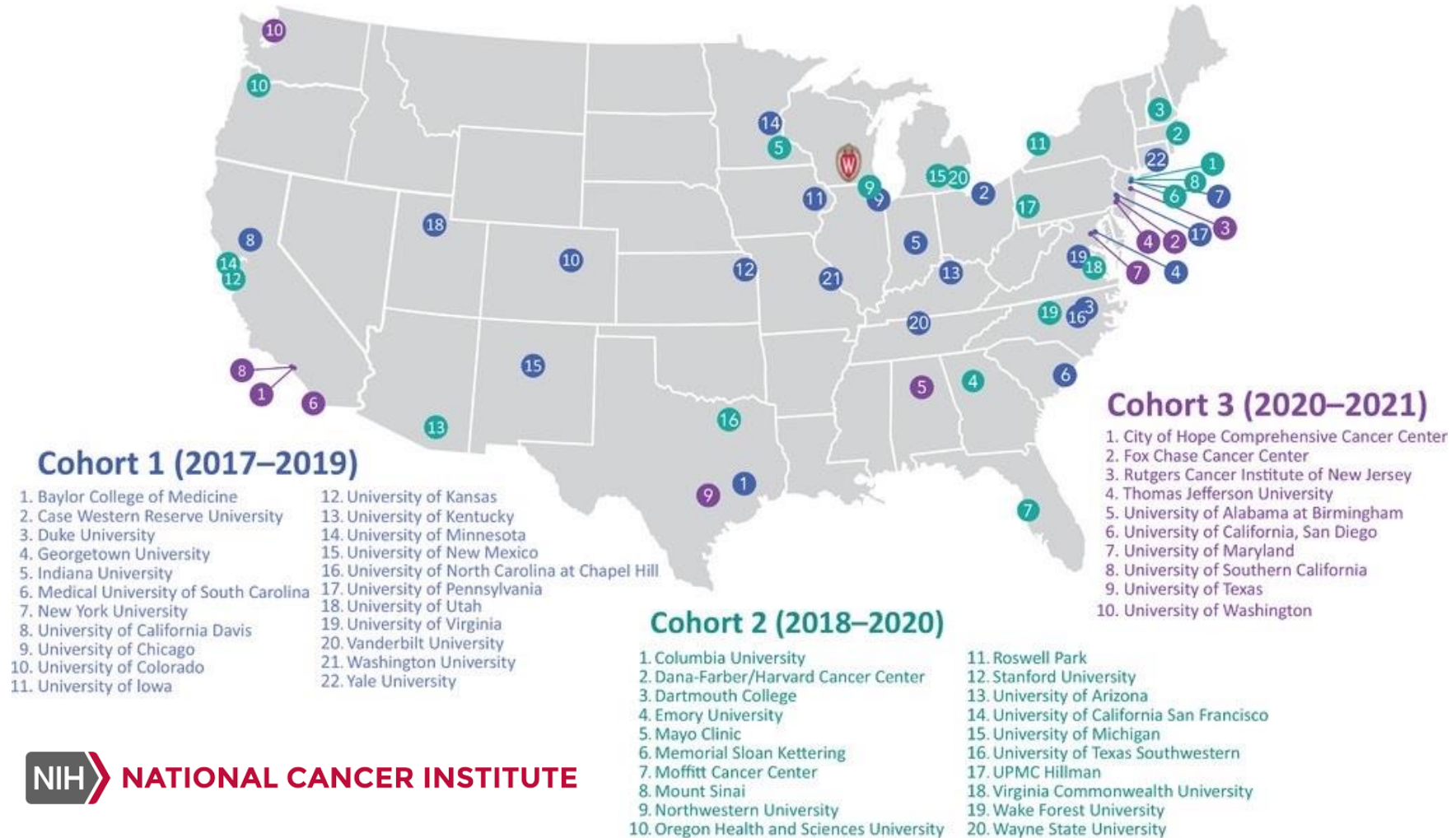


# Barriers to tobacco use treatment in cancer care



Source: NCI Tobacco Control Monograph 23

# Cancer Center Cessation Initiative (C3I)



# Tobacco treatment services

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individually delivered in-person



group delivered in-person



telephone based support



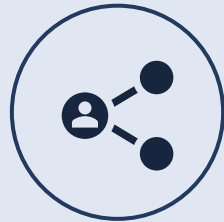
patient education material



cessation medication



point of care



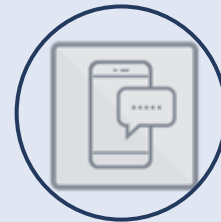
EHR integration



integrated voice response



quitline referral



SmokefreeTXT

## Cancer Center Cessation Initiative (C3I) Outcomes

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- **Reach:** More than 100,000 oncology patients have been reached by a C3I tobacco treatment program.
- Reach increased for all patient populations, particularly underserved populations including patients who were women, older, Black, Hispanic, or covered by Medicaid, Medicare.
- **Effectiveness:** In 2022, more than 20% of patients who received tobacco treatment reported they were no longer smoking 6 months later (in programs reporting effectiveness).



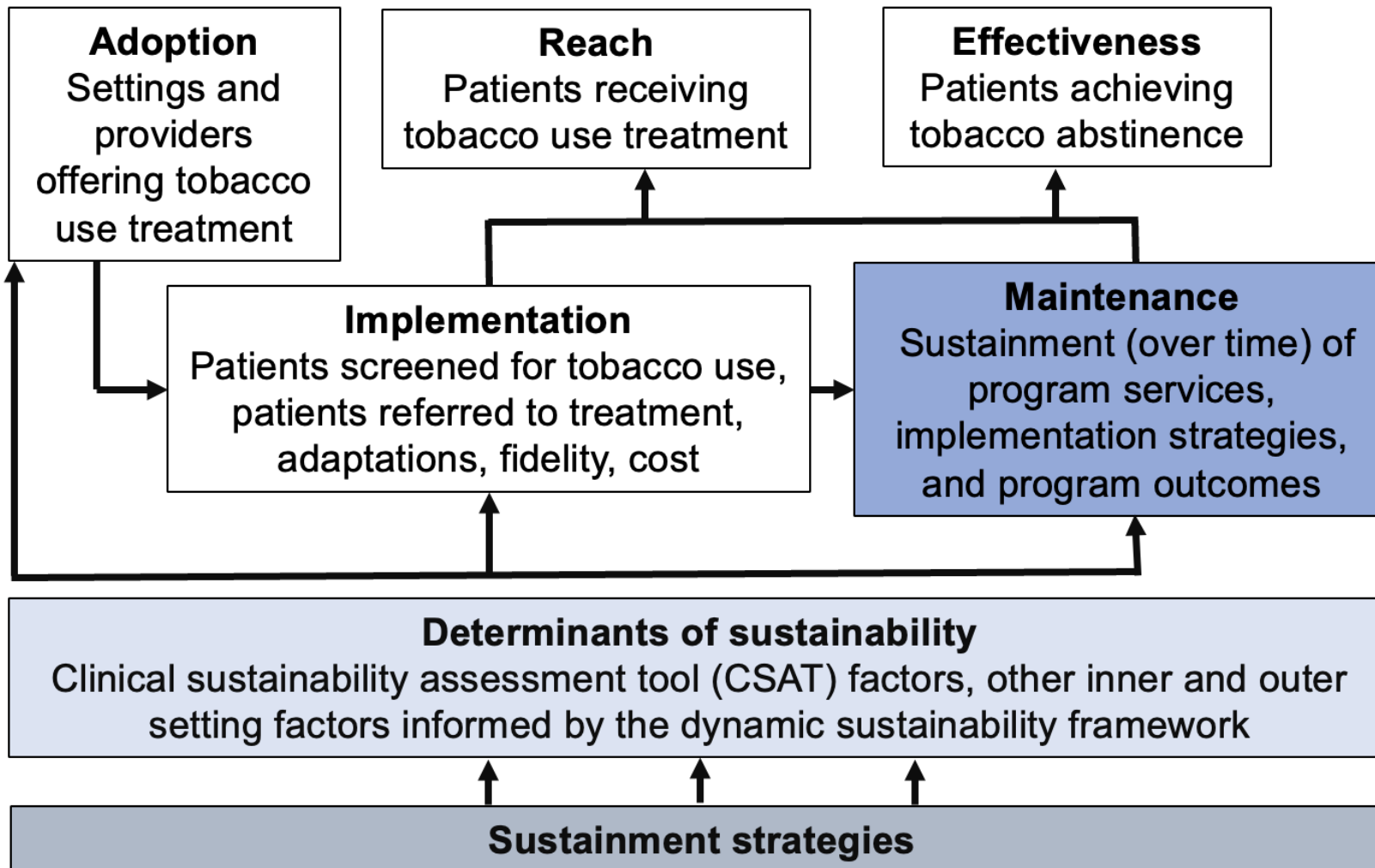
# Sustainability plans

Table 1. Human resources committed for tobacco treatment program sustainability

Human Resources Committed for TTP Sustainability	FTE committed	Estimated commitment end date (year)	Source of Support and/or Collaborator <i>See example list above; add others as are relevant for your site's context.</i>	Our program does not have plans to sustain this resource.
Project Lead				<input type="checkbox"/>
Project manager or coordinator				<input type="checkbox"/>
Tobacco Treatment Specialist				<input type="checkbox"/>
Clinical Collaborator				<input type="checkbox"/>
IT specialist				
Other (specify): Click here to enter				

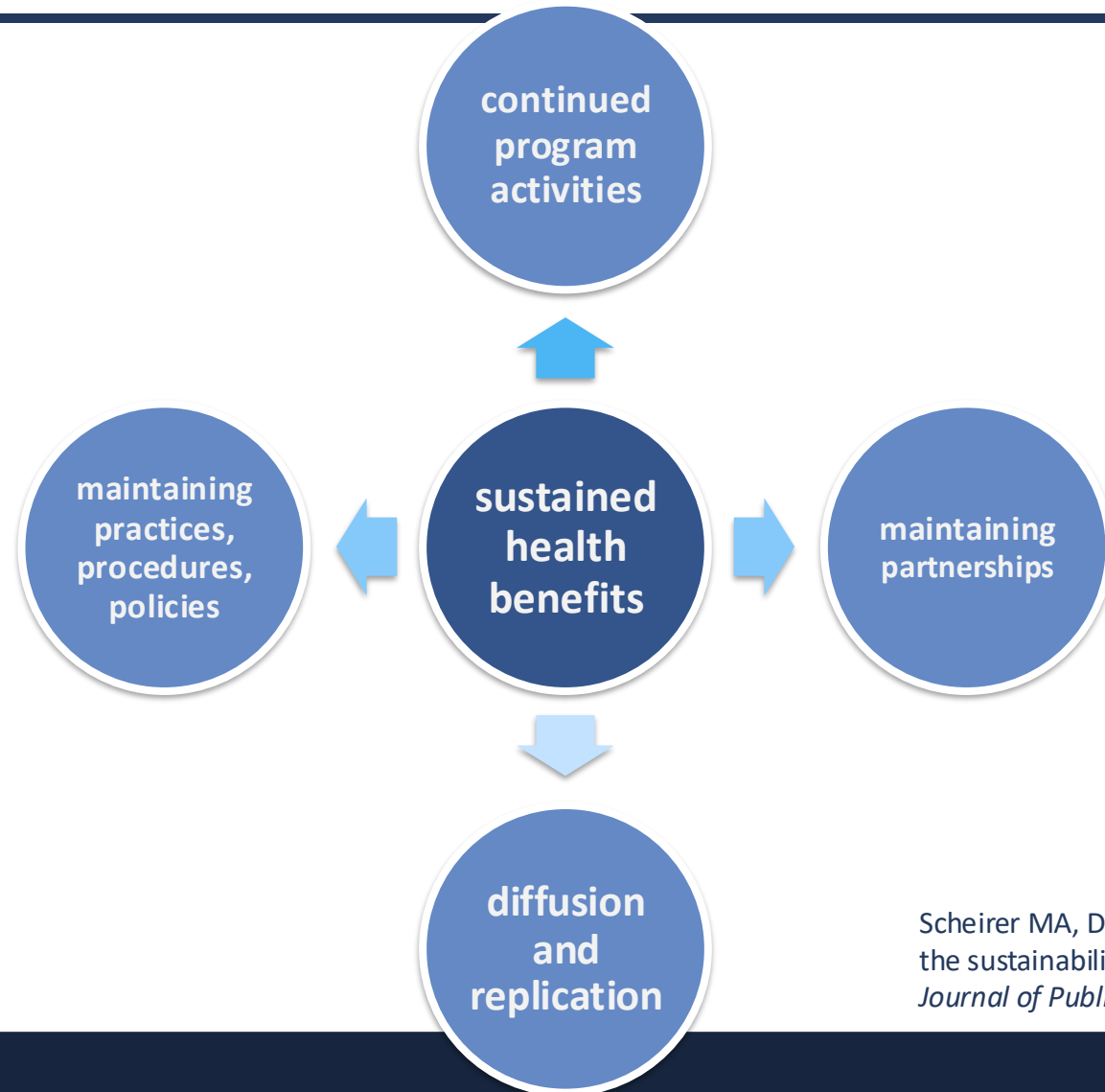
# Implementation Sustainability mapping

R01CA279890



# Sustainability outcomes

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Scheirer MA, Dearing JW. An agenda for research on the sustainability of public health programs. *American Journal of Public Health*. 2011;101(11).

## Sustainability assessment

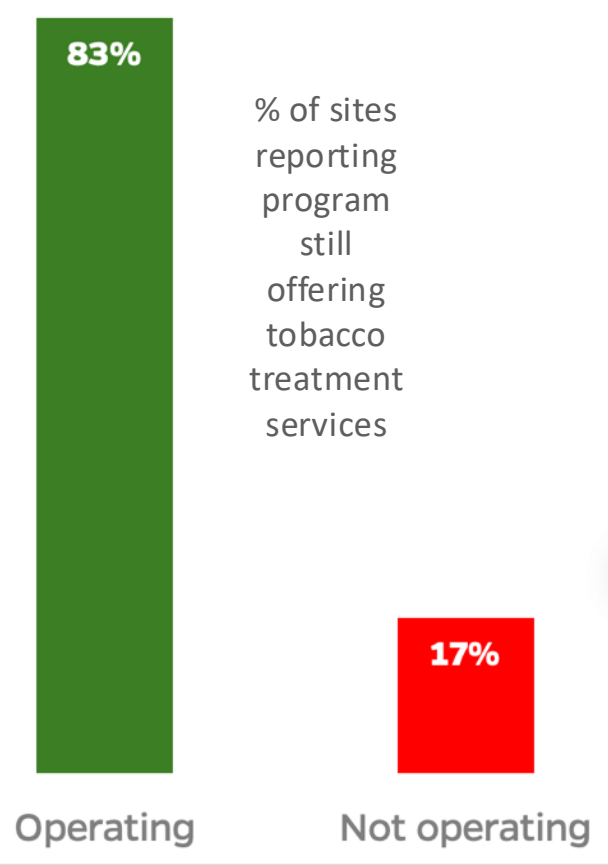
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- Qualtrics surveys disseminated to the 52 C3I centers Nov 2023 – Apr 2024
  - Option to complete the survey individually or via group consensus
  - Includes assessment of program status, determinants (CSAT/PSAT), financing strategies, and outcomes
- Qualitative interviews conducted starting in Apr 2024 with 20 C3I centers
- Representative sample of sustained and non sustaining sites, high and low reach
- Each interview extracted into FRAME template for analysis of adaptations

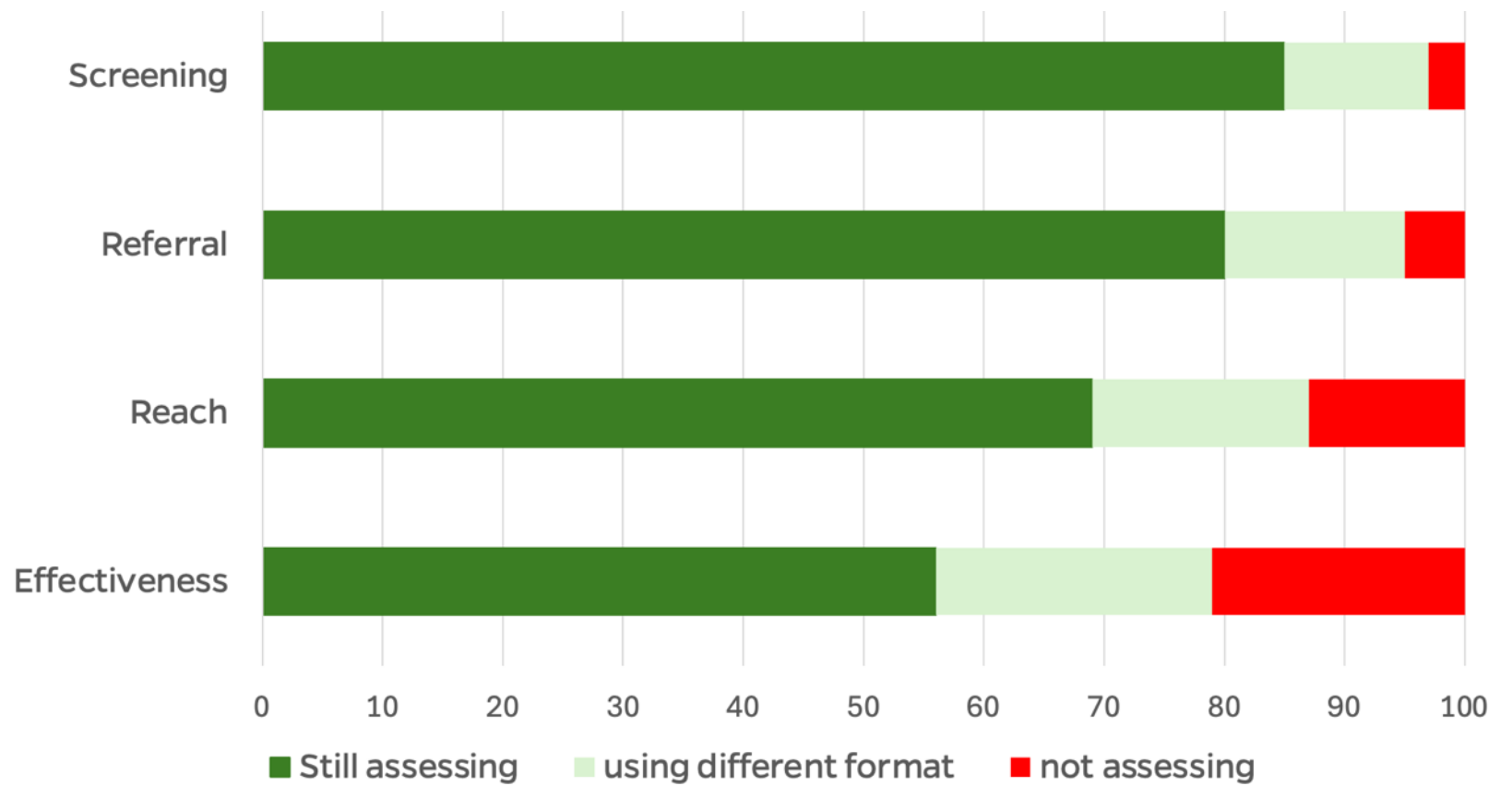
## Tobacco treatment core functions

Motivating Need/Problem	Core Functions	Forms
Patients not regularly asked about tobacco use	Screening	EHR, patient portal, paper, tobacco use registry, biometric screening
Patient not receiving health professional guidance for quitting	Advice	Education materials and aids
Patient reach is low	Referral	Connect, opt-out, direct through EHR, warm handoff
Insufficient staffing/resources in clinical settings	Treatment	Individual or group counseling, medications, TelASK, Quitline
Tobacco treatment outcomes not consistently measured in clinical care	Evaluation	Documentation of screening, reach, effectiveness, other patient outcomes

# Monitoring of core functions



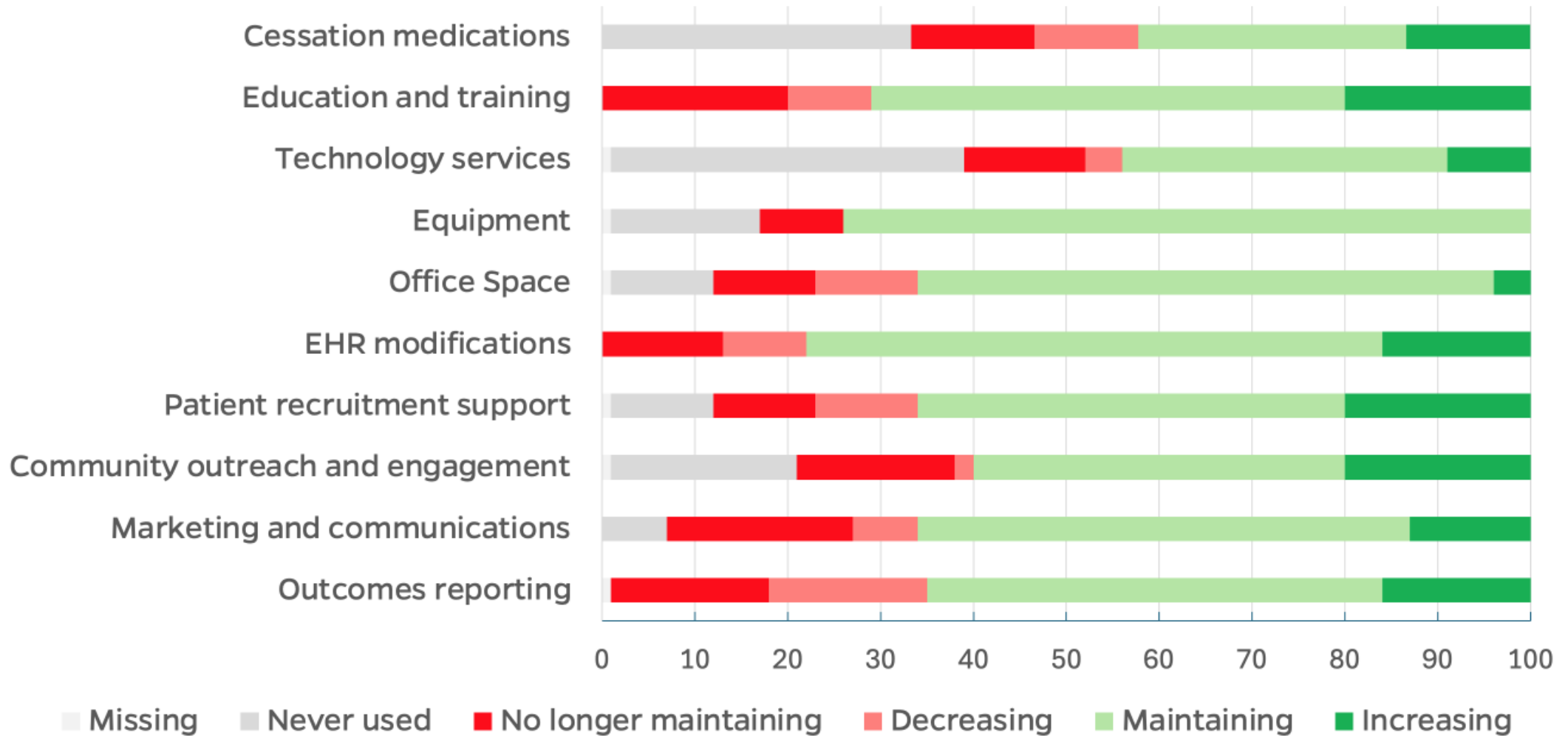
Response rate: 90% (47 sites)



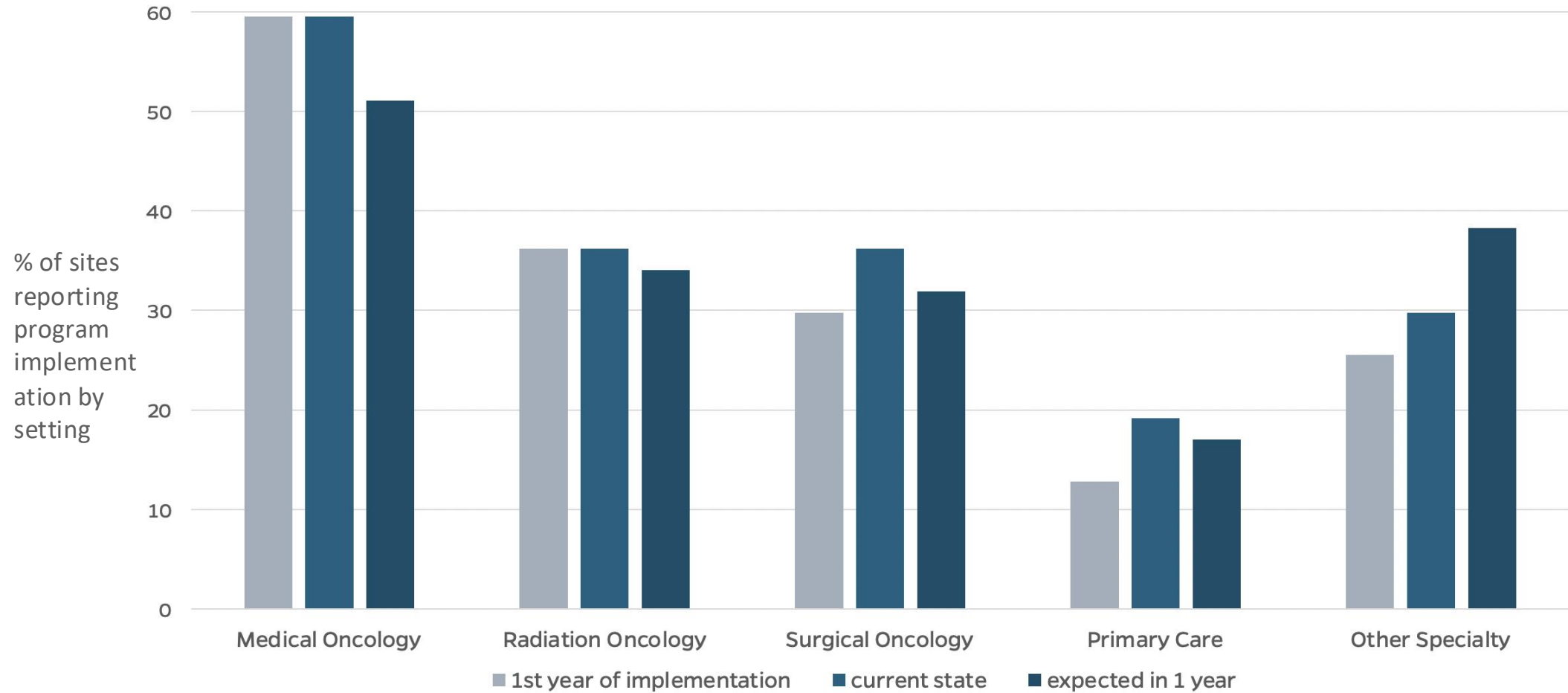
\* among programs still operating

Salloum RG, Montague M, Minion M, LeLaurin JH, Lee JH, Ramly E, Liu G, Reid M, Bylund CL, McCarthy D, Shelley D. Sustainment of Tobacco Use Treatment Programs Across National Cancer Institute–Designated Cancer Centers. *Cancer Medicine*. 2025;14(22):e71424.

# Tobacco treatment program forms

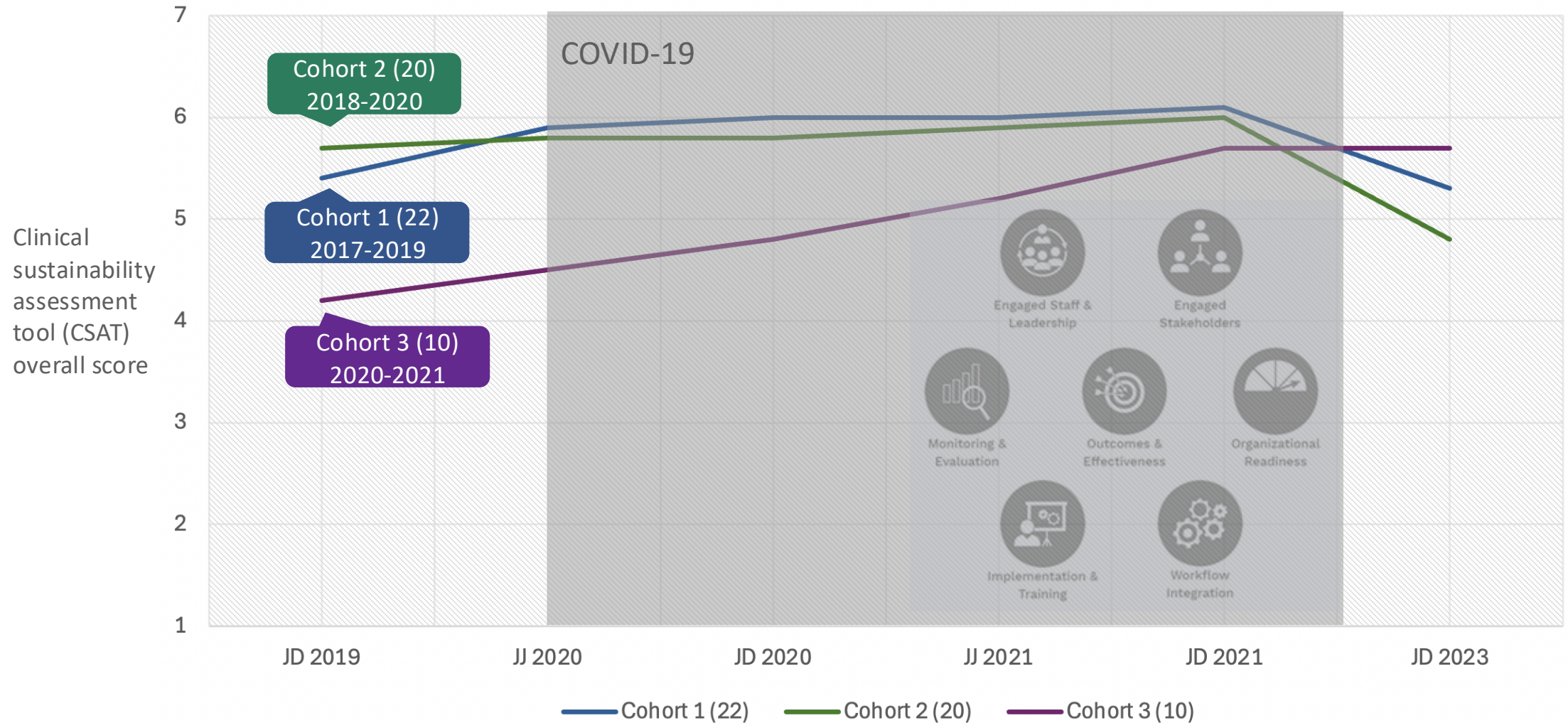


# Tobacco treatment program diffusion across settings



Salloum RG, Montague M, Minion M, LeLaurin JH, Lee JH, Ramly E, Liu G, Reid M, Bylund CL, McCarthy D, Shelley D. Sustainment of Tobacco Use Treatment Programs Across National Cancer Institute–Designated Cancer Centers. *Cancer Medicine*. 2025;14(22):e71424.

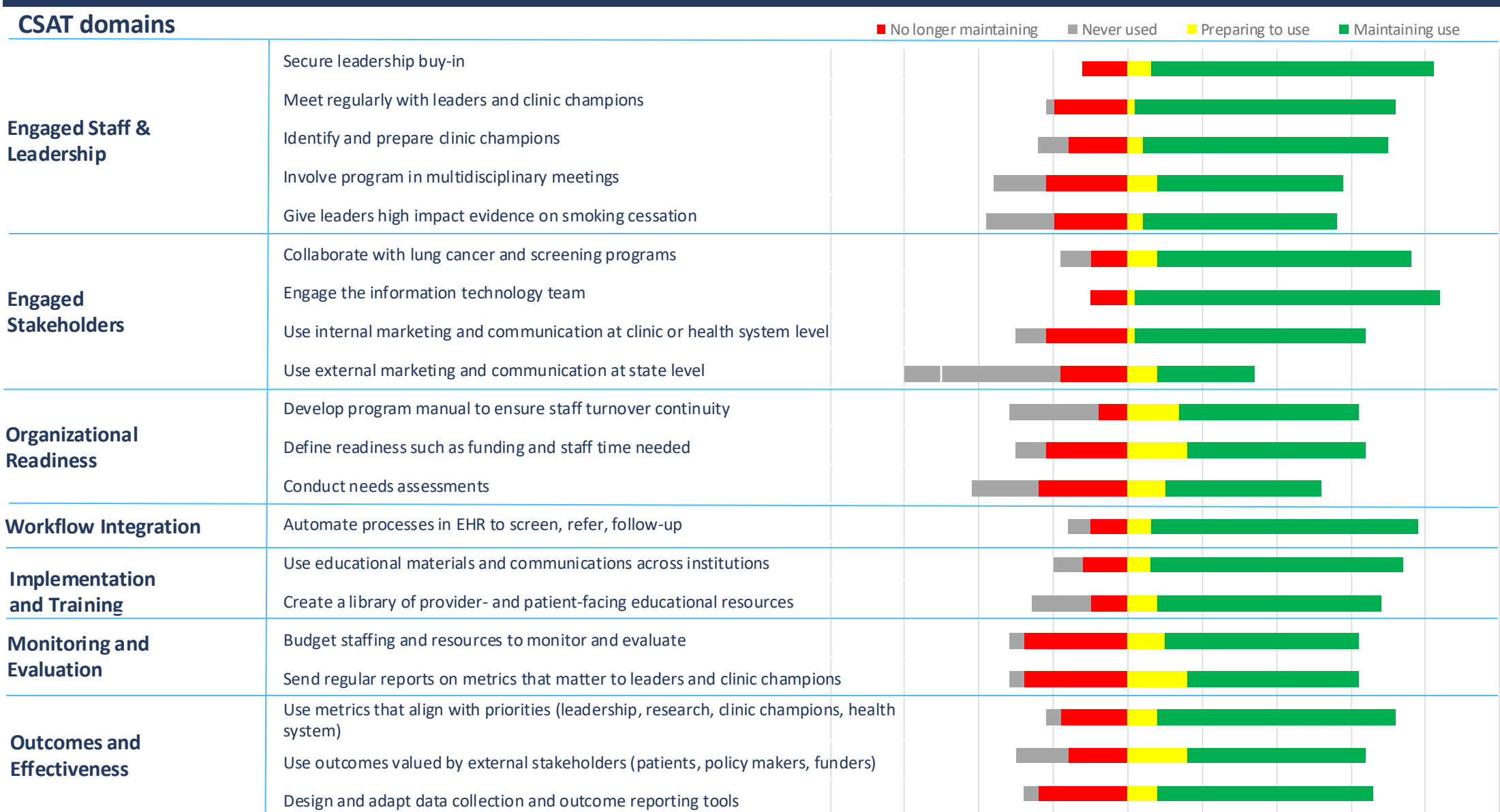
# Sustainability Capacity (Overall CSAT Score by Cohort)



# Clinical (and Program) Sustainability Assessment Tool (CSAT/PSAT)



# Sustainability strategies



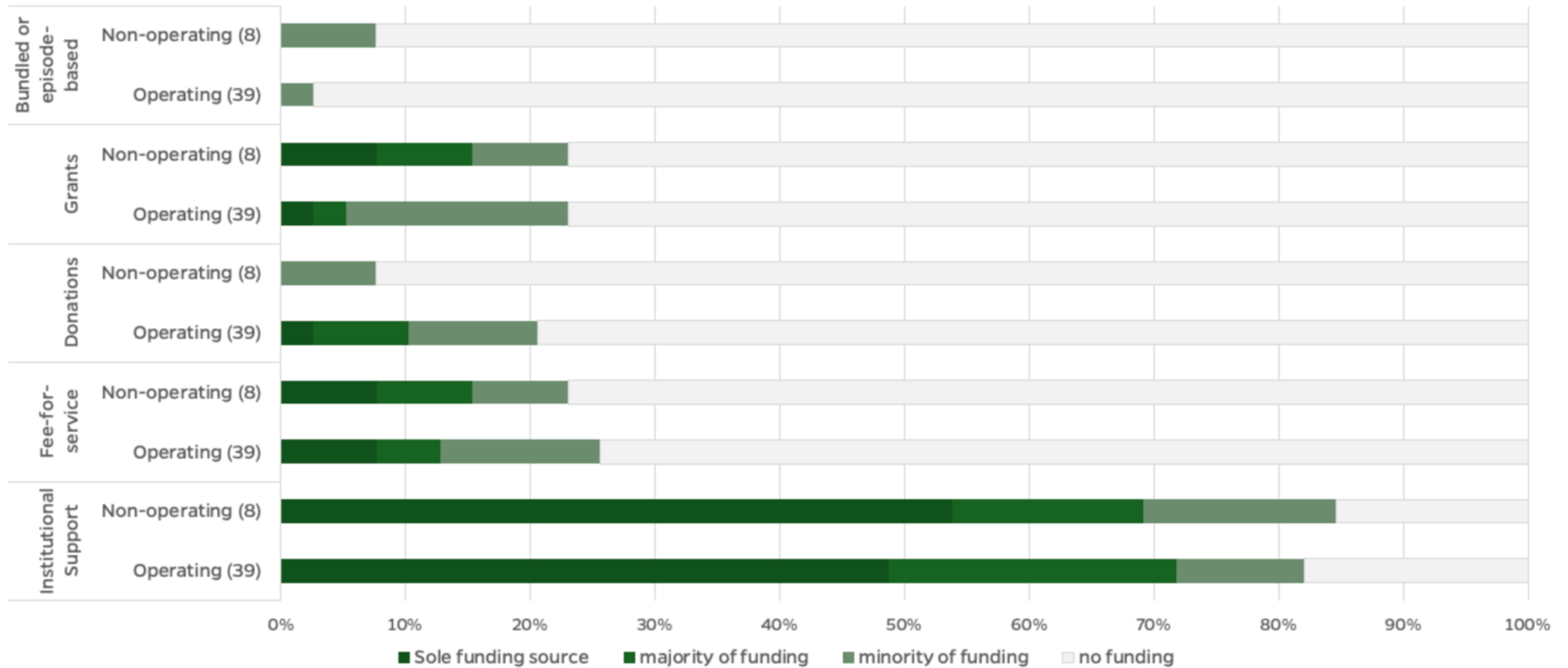
# Sustainability strategies



# Tobacco treatment program financing



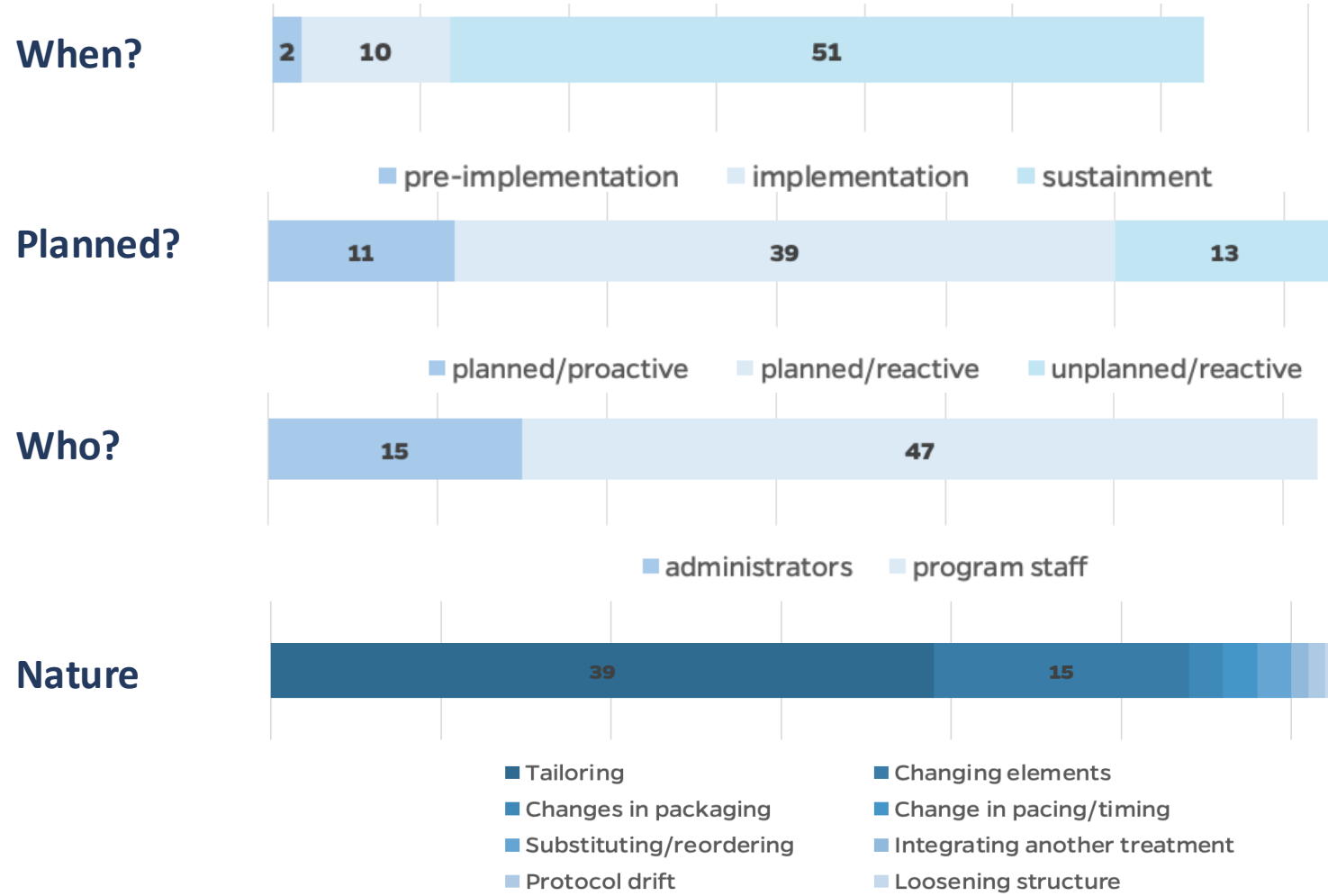
# Program financing strategies



# Maintaining partnerships



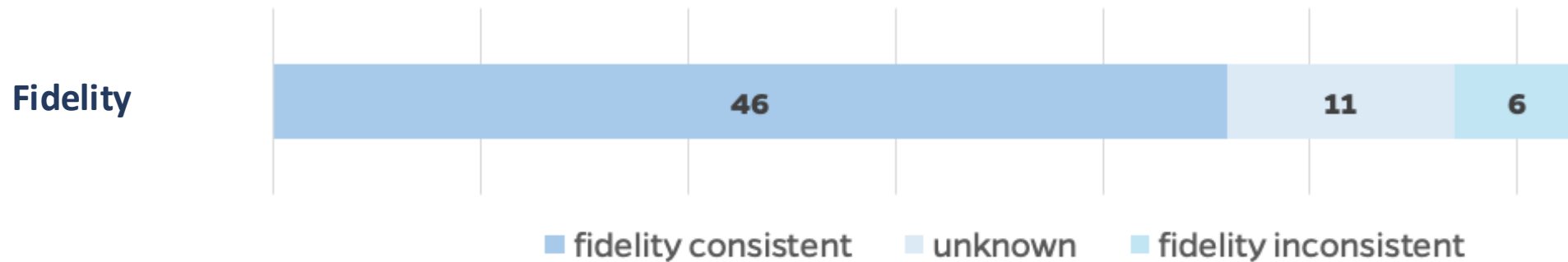
# Adaptations (20 interviewed sites)



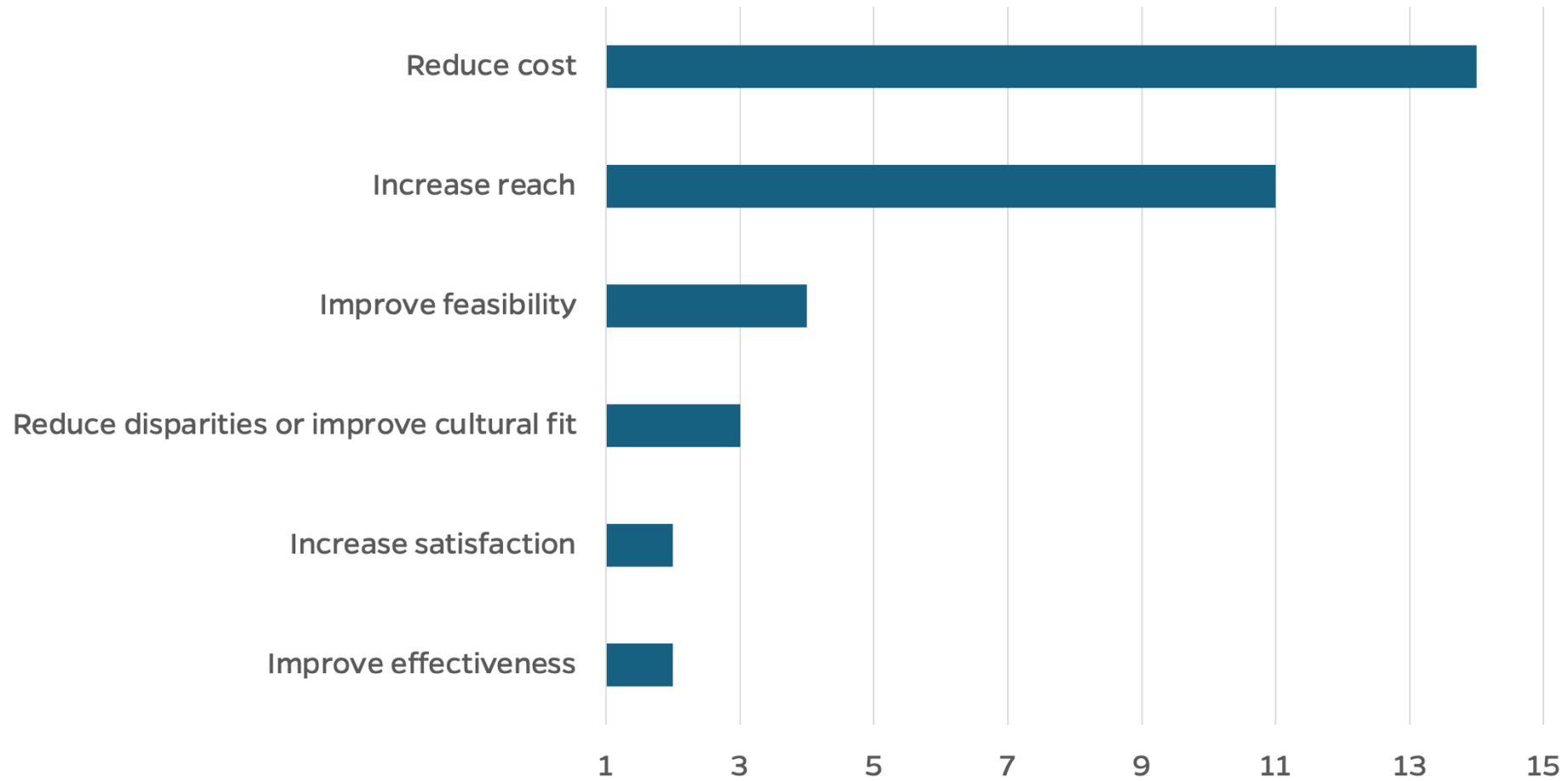
## Fidelity (63 reported adaptations)

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- Challenging to measure
  - Difficult to define what is fidelity consistent without data on impact
  - Assessed using: ask, advise, refer, treat, evaluate



# Goals of adaptations



note: adaptations could have >1 goal

# Planning and implementation milestones

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## Planning Phase

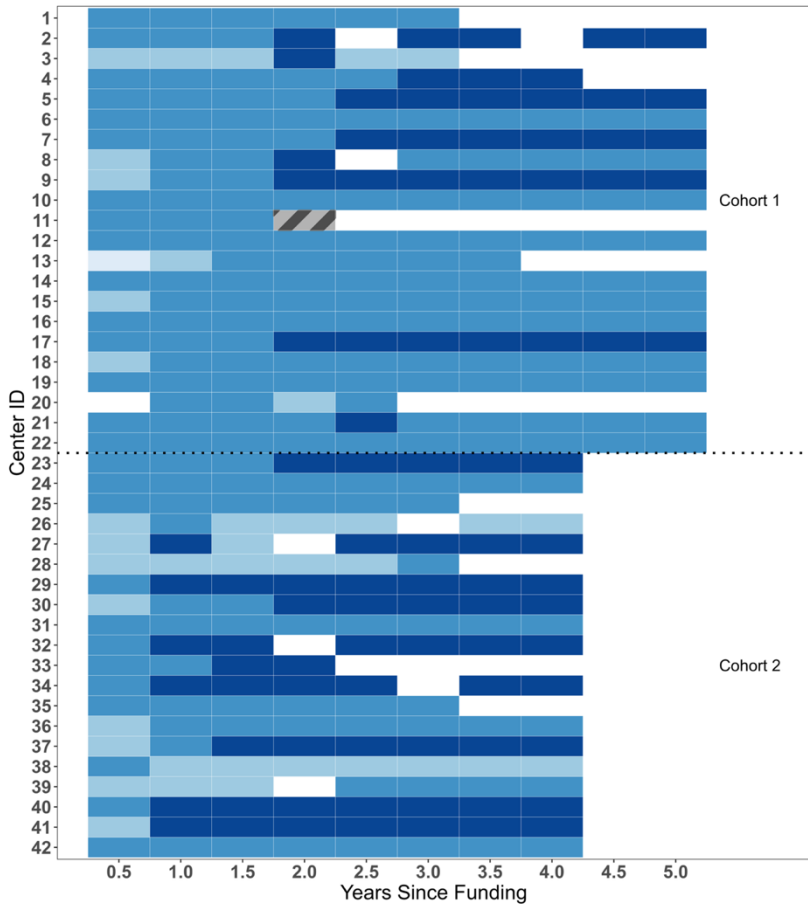
- Secure admin, clinical, and IT leadership buy-in
- Define new workflow and modify EHR for screening, referral
- Acquire space, hire program staff, and train clinicians

## Implementation Phase

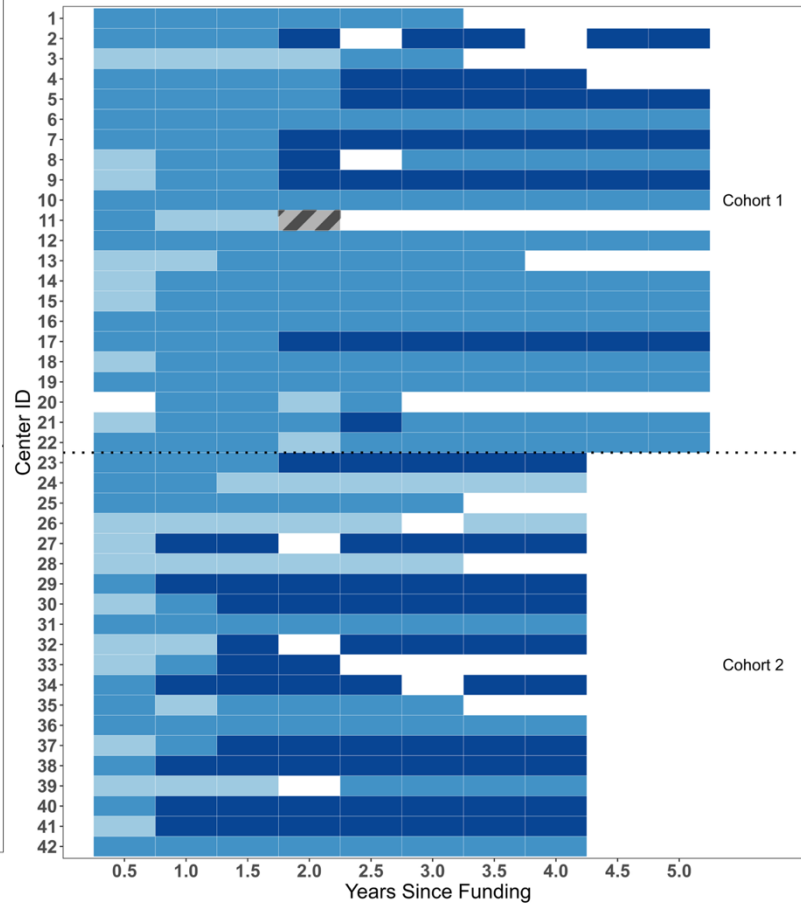
- Pilot and implement new workflow
- Develop, pilot and implement the program

# Securing leadership buy-in (planning phase)

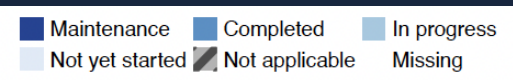
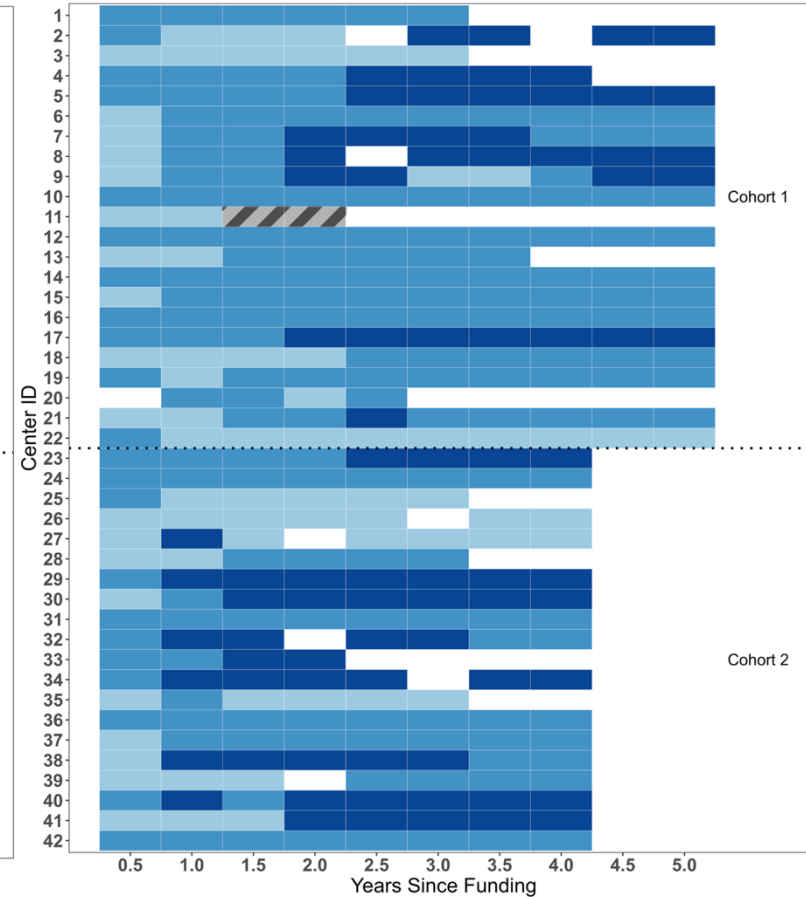
## Secure admin leadership buy-in



## Secure clinical leadership buy-in



## Secure IT leadership buy-in

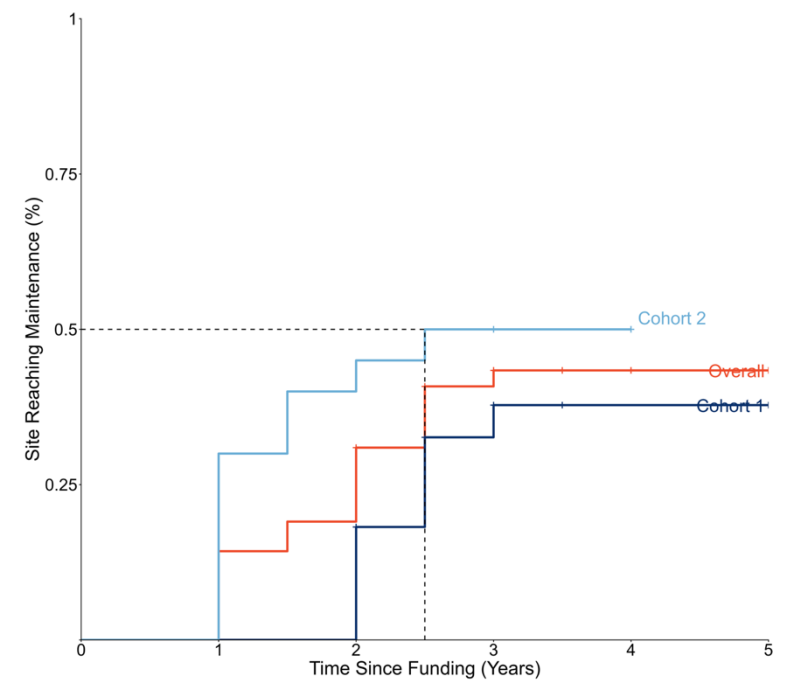
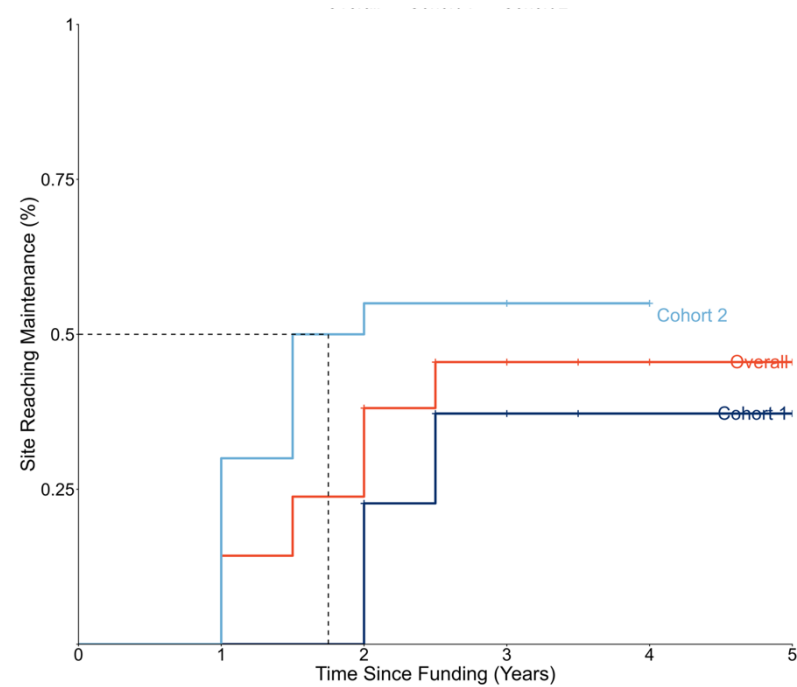
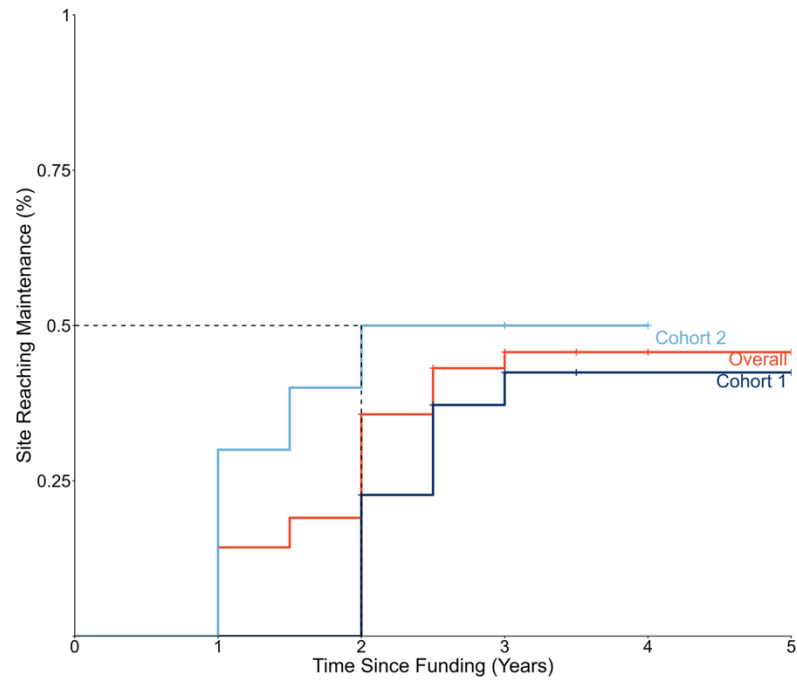


# Securing leadership buy-in (planning phase)

Secure **admin** leadership buy-in

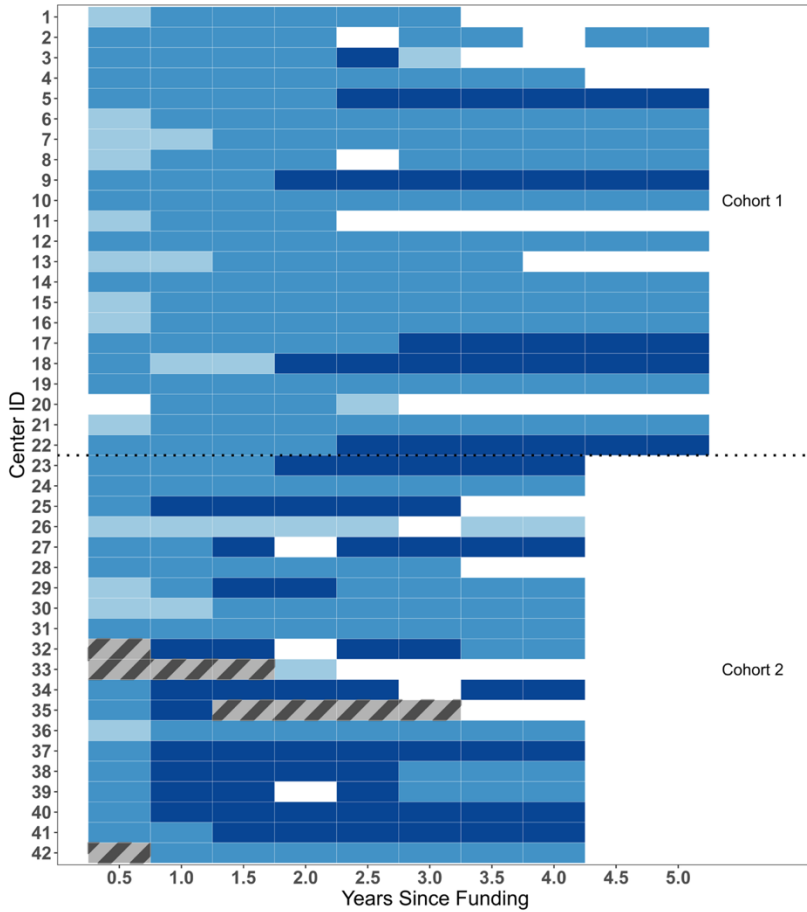
Secure **clinical** leadership buy-in

Secure **IT** leadership buy-in

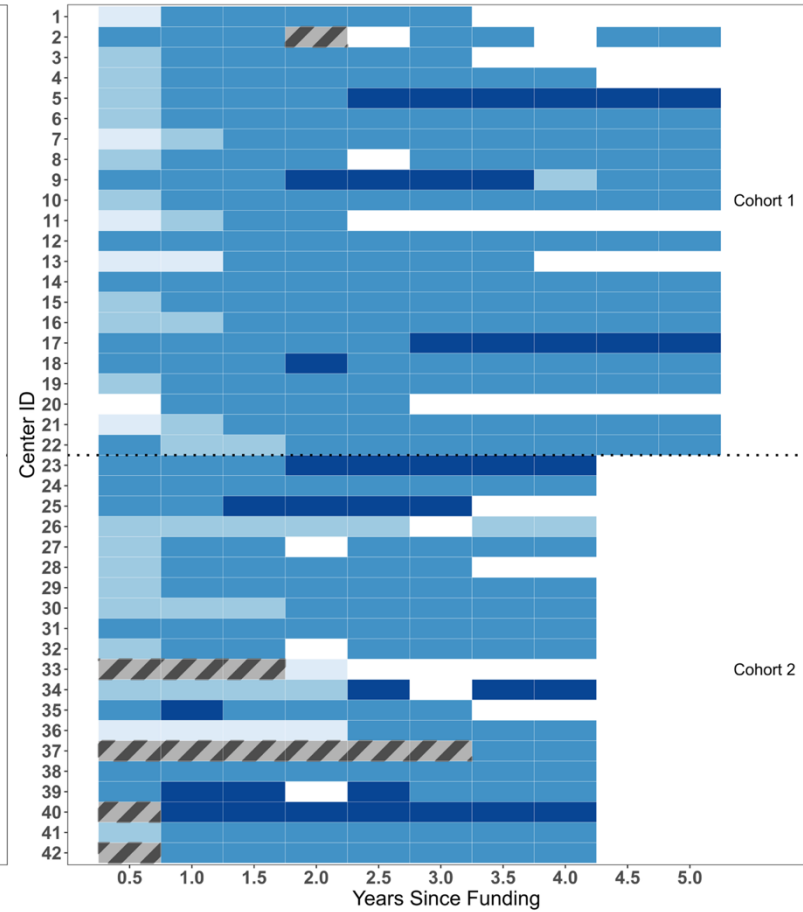


# Develop, pilot, and implement the program (implementation phase)

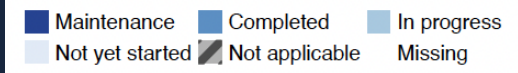
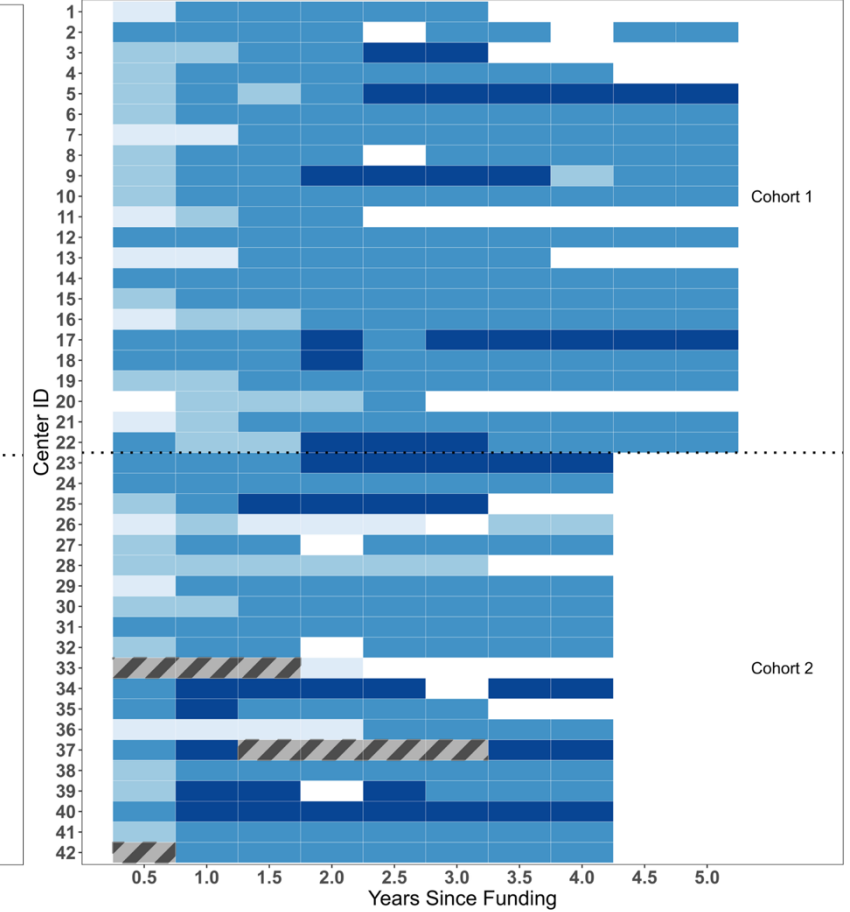
## Develop the program



## Pilot the program



## Implement the program

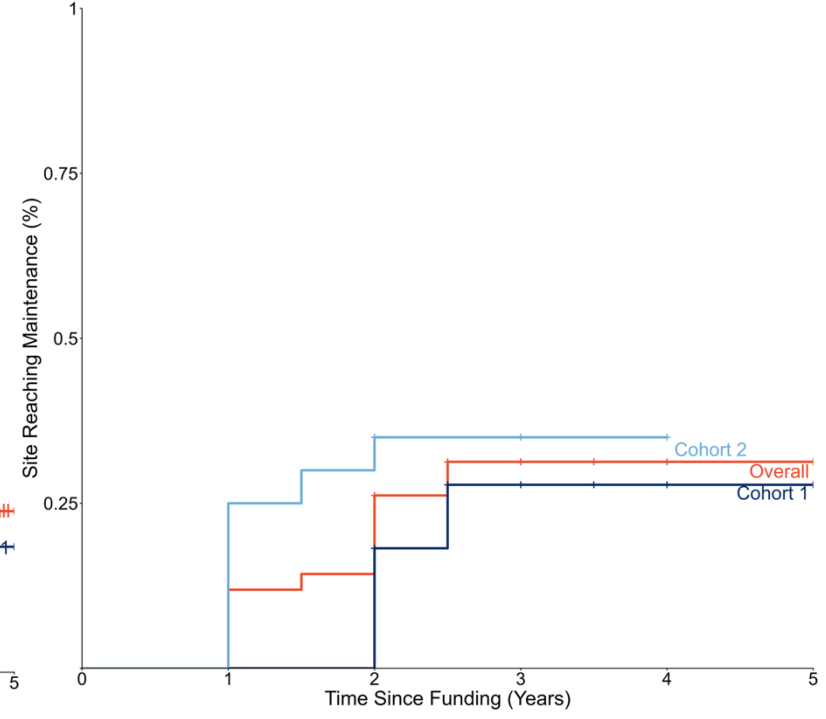
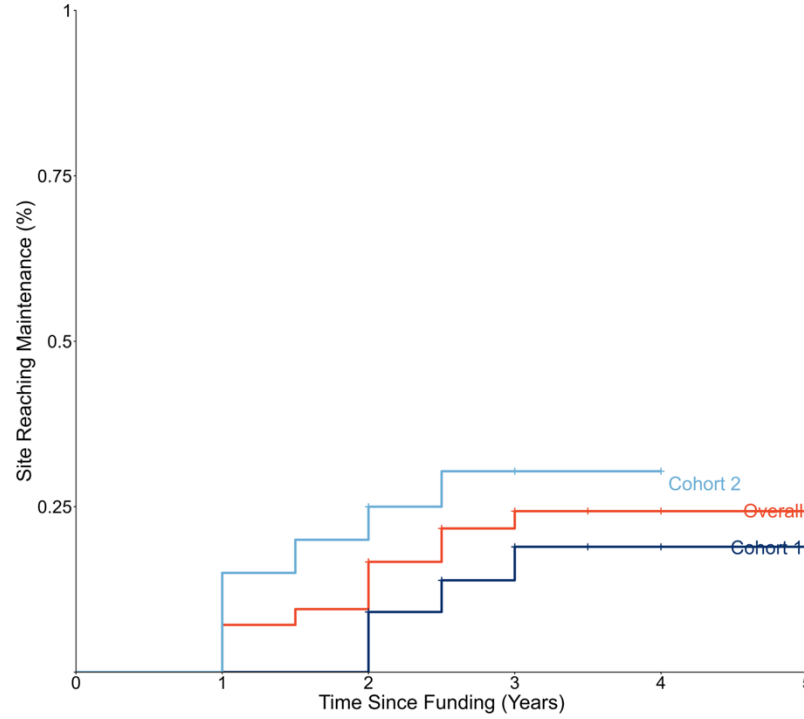
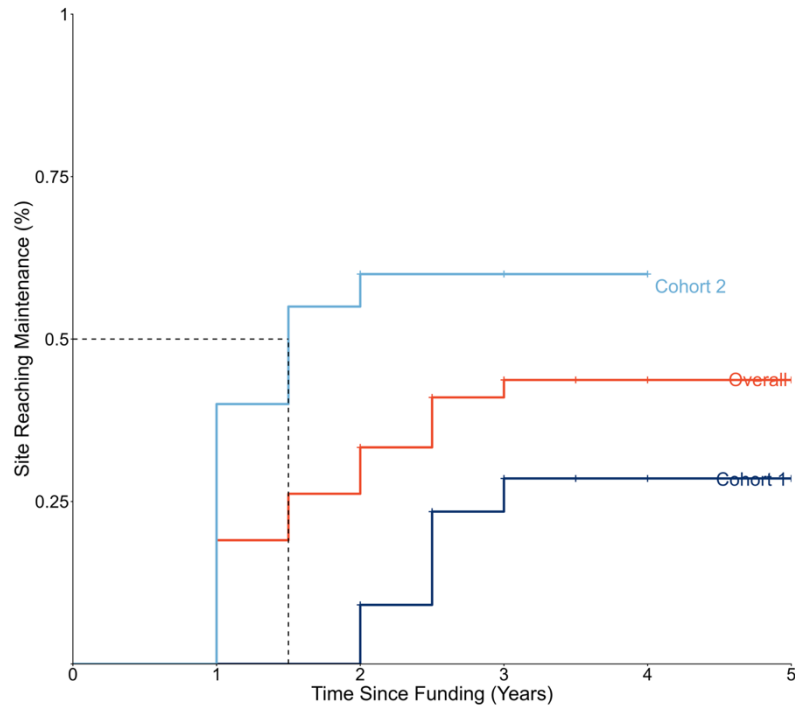


# Develop, pilot, and implement the program (implementation phase)

## Develop the program

## Pilot the program

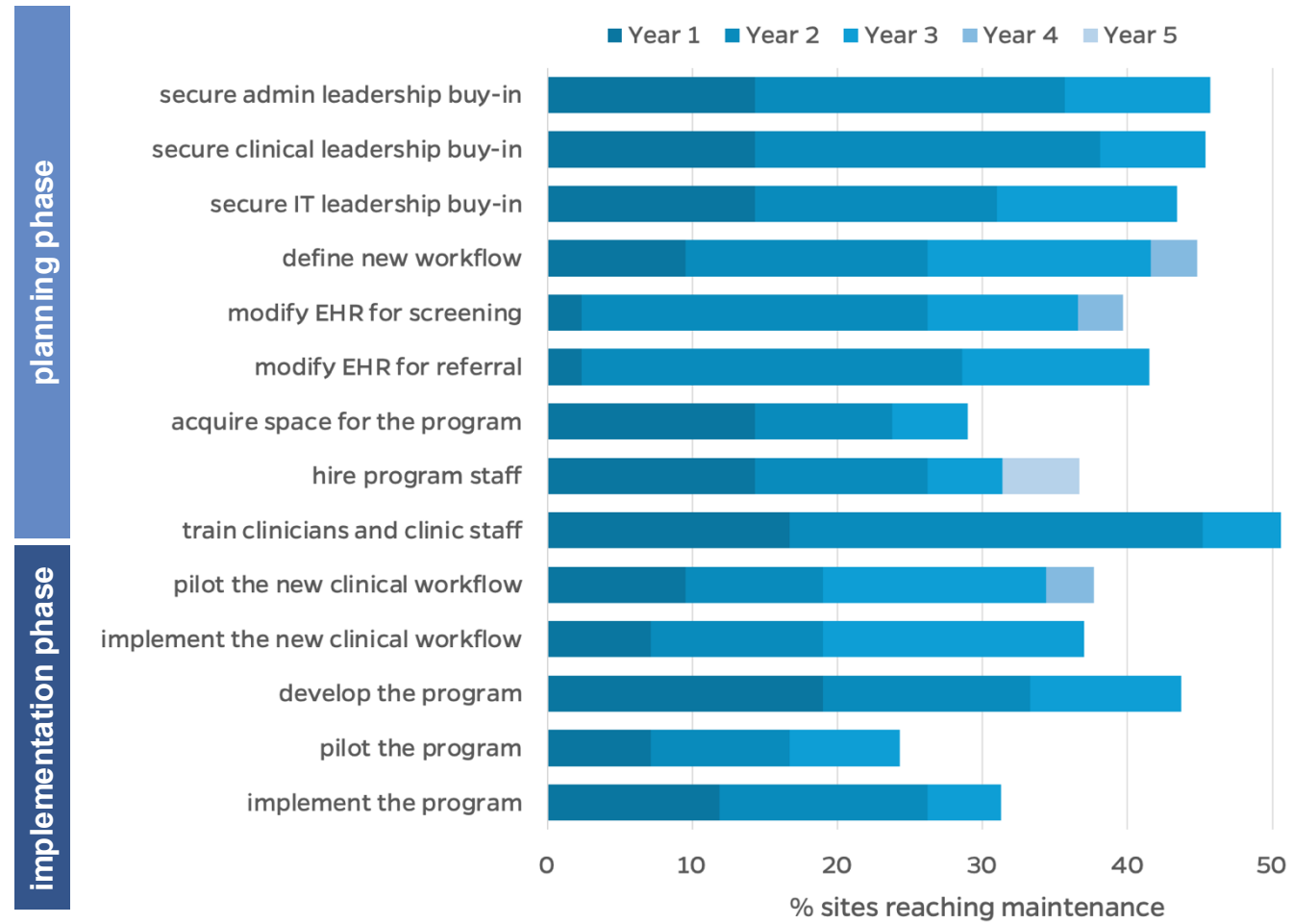
## Implement the program



# Planning and implementation milestone progress



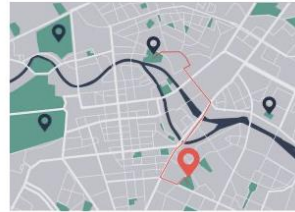
# Planning and implementation milestones time to maintenance



<https://ctri.wisc.edu/oncology/>



## Tobacco Treatment Implementation Roadmap



Welcome to the C3I Tobacco Treatment Implementation Roadmap for Cancer and Other Patients. This resource was developed by the [Cancer Center Cessation Initiative \(C3I\)](#), funded by the National Cancer Institute.

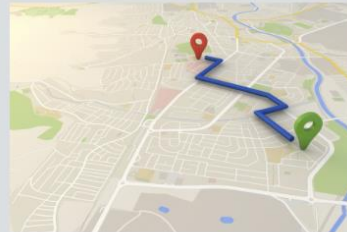
The Roadmap provides practical guidance, examples, and resources that can be adapted to fit the particular needs and contexts of diverse clinical settings to deliver evidence-based tobacco treatment to patients who use tobacco.

We recommend starting with the [Pre-Implementation module](#). This module describes the key functions of tobacco treatment programs in oncology and other settings and offers strategies to engage interested parties; screening and treatment tools and workflows; and illustrative case studies to help champions and teams design tobacco treatment programs for their health systems.



[Sign Up For More](#) to receive updates, submit questions and comments, and consult on the application of these tools to your clinical setting.

### Roadmap



#### Pre-Implementation

Pre-implementation module offers high-level considerations for tobacco treatment program design; strategies to engage interested parties; screening and treatment tools and workflows; and illustrative case studies.



#### Implementation

Implementation module to help teams successfully launch and adapt their tobacco treatment programs with guidance to design a launch process, identify necessary resources, determine team roles, and monitor progress.



#### Sustainability

Sustainability module to sustain the tobacco treatment program and its benefits.

# Acknowledgments

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## **University of Florida**

Magda Montague, MPH  
Jennifer LeLaurin, PhD  
Miranda Reid, MPH  
Ji-Hyun Lee, DrPH  
Carma Bylund, PhD  
Kathryn Pluta, PhD  
Gonghao Liu, MS  
Sofia Anrecio

## **Univ. of Wisconsin - Madison**

Danielle McCarthy, PhD  
Michael Fiore, MD  
Mara Minion, MPH  
Jennifer Bird, PhD  
Betsy Rolland, PhD

## **Indiana University**

Edmond Ramly, PhD

## **Med. Univ. of South Carolina**

Graham Warren, MD, PhD

## **New York University**

Donna Shelley, MD, MPH

## **Memorial Sloan Kettering**

Jamie Ostroff, PhD

## **C3I Sustainability Working Group**



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### Fundamentals of Implementation Science

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12:00 – 1:00PM ET

*Virtual*



### Works in Progress

Monthly on the 3<sup>rd</sup> Wednesday

12:00 – 1:00PM ET

*In Person & Virtual*



#### Hosted by:

Jeremiah Brown, PhD, DCIS Director  
Kelly Aschbrenner, PhD, DCIS Co-Director  
Sarah Lord, PhD, DCIS Co-Director



[implementation.science@dartmouth.edu](mailto:implementation.science@dartmouth.edu)

## MS in Implementation Science



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9 or 18 Months



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Implementation science is a rapidly growing field with robust government investment and industry interest that addresses the lag between evidence-based practices and widespread practical application in the real world.

The Implementation Science program at Dartmouth provides rigorous training in dissemination and implementation science including theory, methods, and practical applications, as well as essential project management, collaboration, and leadership skills. Graduates will be equipped to apply these skills in a broad range of disciplines and communities throughout the country and the world.

**1<sup>st</sup>**

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**Traditional** In this delivery option, students take one course at a time (two courses per term) and spend approximately 16-20 hours per week on coursework and class time.

**18 Months Total**    **30 Students Per Class**    **1 Course At A Time**

#### Why Implementation Science and Why Now?

**Employment for Implementation Science** related occupations is projected to grow annually by 9% by 2021.

The salary range for jobs in the implementation science field is \$70,000 - \$200,000.

*"Implementation science is the bridge between great ideas and great people ready to see them. This science brings the 'know' to the 'do.'"*  
-Genevieve Shafer '26

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The Dartmouth Center for Implementation Science is a Center of Biomedical Research Excellence (COBRE) supported by the National Institute of General Medical Sciences (NIGMS) of the National Institutes of Health (NIH) under Award Number P20GM156710