George Washington University Cancer Center TAP. (2022). *Implementation Science Base Camp* [PowerPoint Slides]. GWU Cancer Center TAP. https://cme.smhs.gwu.edu/gw-cancer-center-/content/implementation-science-base-camp

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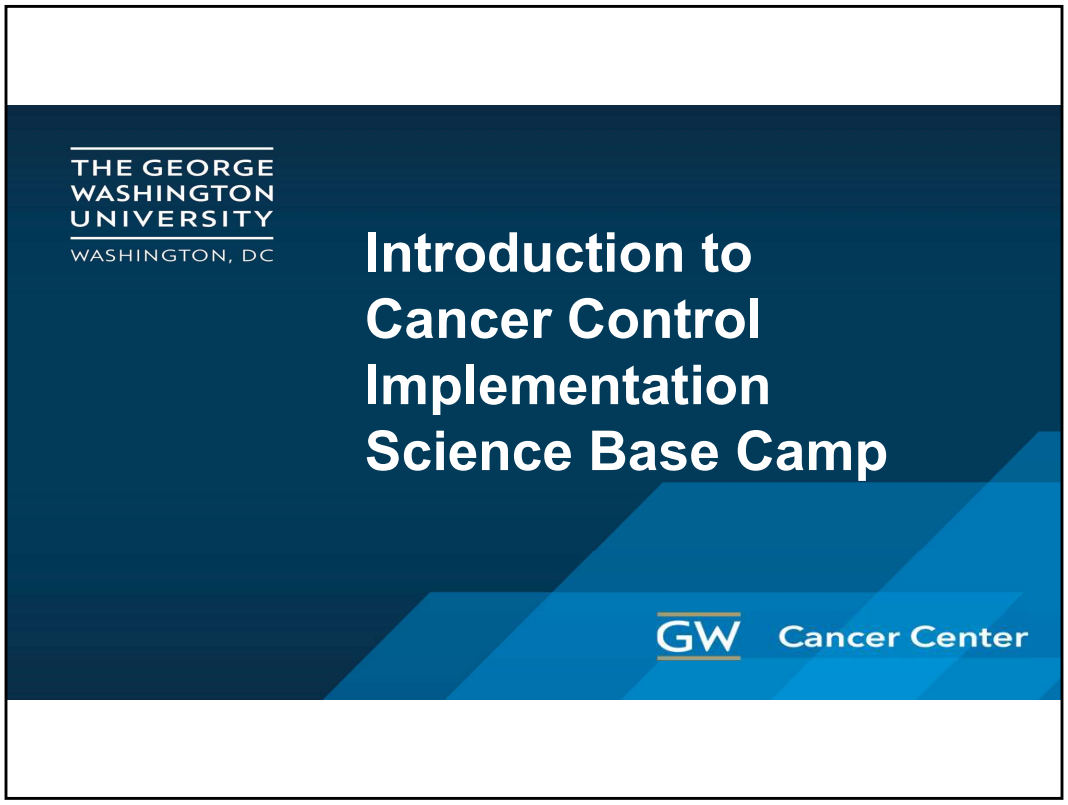

Hello, Welcome to the Cancer Control Implementation Science Base Camp from the GW Cancer Center. I'm Kelly Wells Sitting the Executive Director of the Iowa Cancer Consortium.

Disclosure

This session was supported by Cooperative Agreement #NU58DP006461-03 from the Centers for Disease Control and Prevention (CDC). The views expressed in written workshop materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

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Welcome

Let's work together to learn how to optimize cancer screening interventions to reduce health disparities!

From this training, you will:
- Learn a lot about implementation science
- Be prepared to bring this back to your unique context

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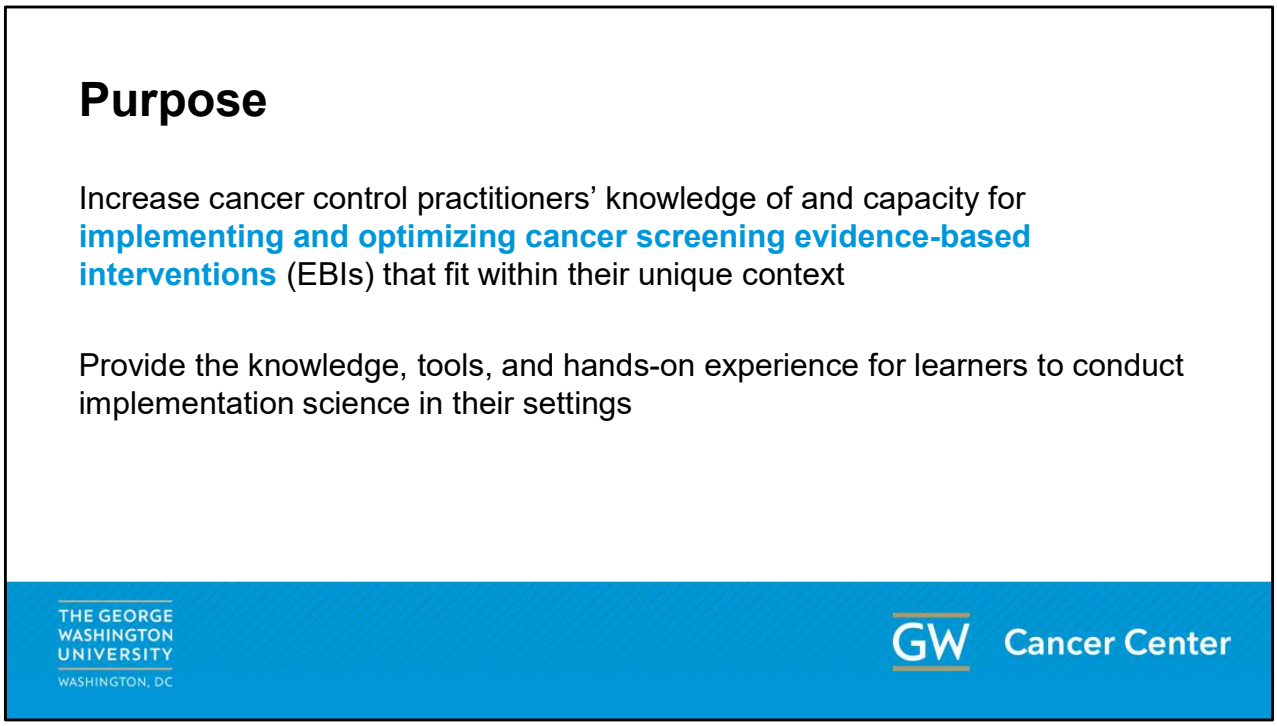
We are excited to share this new training program with you. The training is called Cancer Control Implementation Science Base Camp, because it aims to provide you with all of the supplies and tools, you need to pack your bag and head up the mountain of implementation.
We know, putting evidence based interventions into practice can be challenging like climbing a mountain.
But with the right tools, you and your partners can learn how to optimize cancer screening interventions to reduce health disparities. From this training, you will learn a lot about implementation science and be prepared to bring this back to your unique context.

From this training, you will:
- Learn a lot about implementation science
- Be prepared to bring this back to your unique context



The purpose of the base camp is to increase comprehensive cancer control practitioners knowledge of, and capacity for implementing and optimizing cancer screening EBI's or evidence based interventions.
That fit with each of their contexts, for the purposes of this training we consider a cancer control practitioner to be any of the following: comprehensive cancer control program directors, national breast and cervical cancer early detection program project level staff,
National colorectal cancer control program project level staff, coalition members and leaders, clinicians, executive leadership, and researchers and evaluators.
We also want to provide knowledge, tools and experience for you to use implementation science approaches to optimize cancer control in your own settings.

Session Agenda

1. Intro to Cancer Control Implementation Science Base Camp

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This quick sessions agenda includes an introduction to the foundation of implementation science in order to help you navigate the base camp.

Learning Objectives

1. Define basic implementation science terms
2. Establish a high-level understanding of how implementation science can be used to improve cancer screening
3. Describe how to implement evidence-based interventions through a health equity lens

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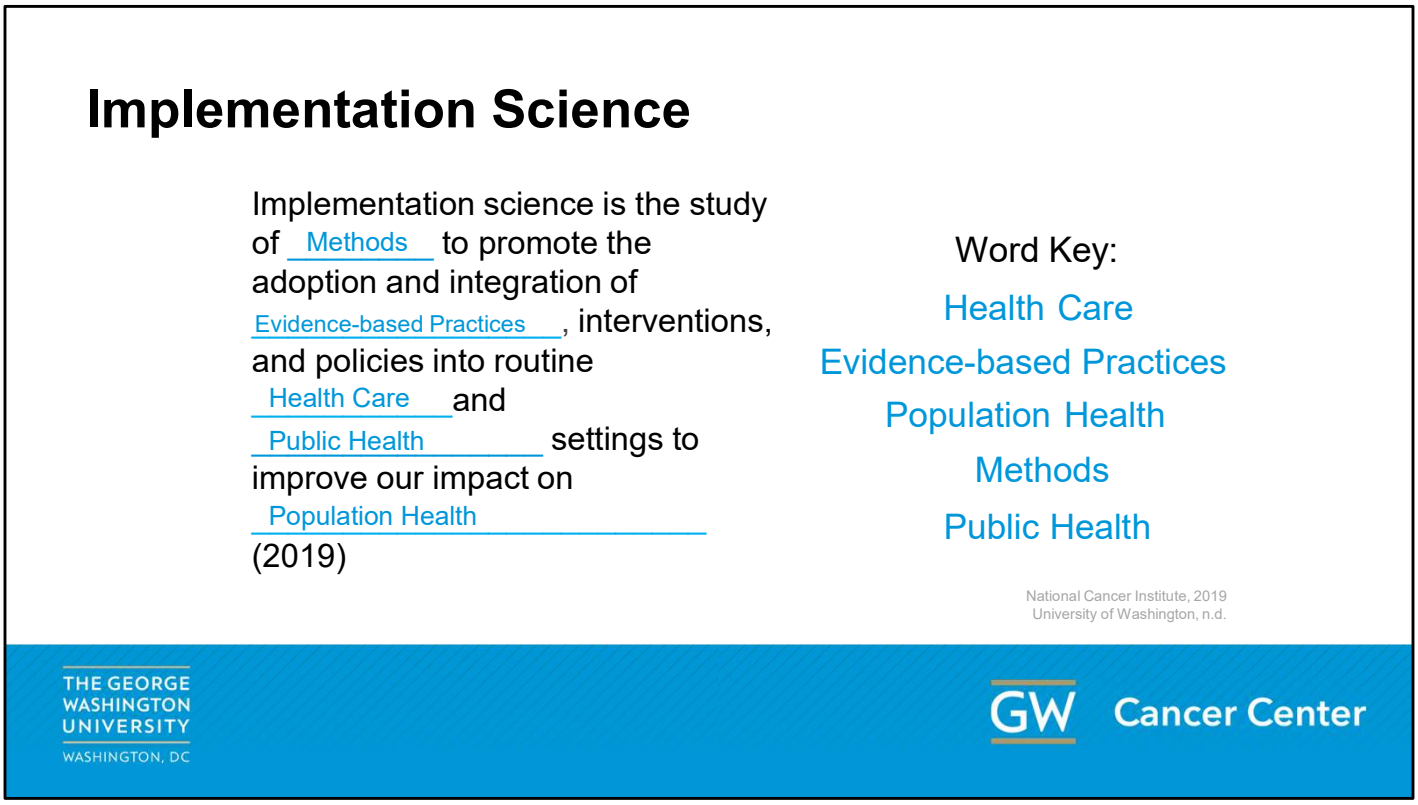
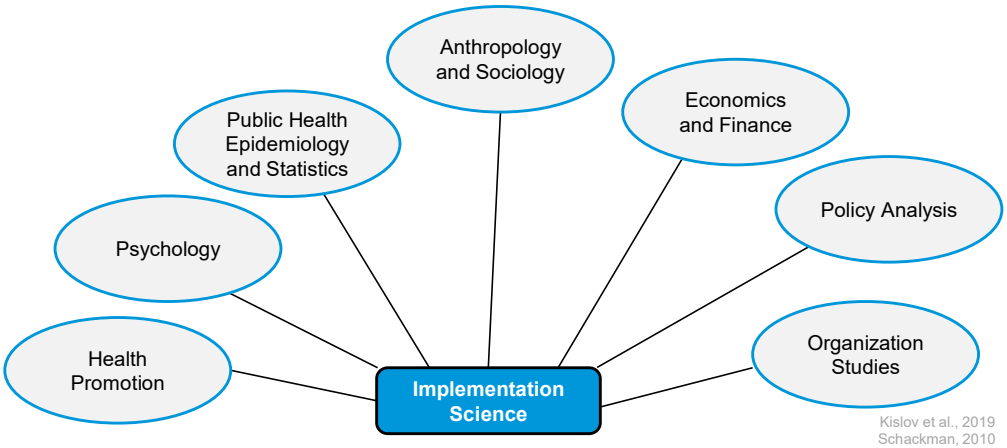
The 3 main learning objectives of this session are listed here.
We will begin to describe how to implement EBIs through a health equity lens in this session by incorporating equity elements into SMARTIE objective development – a spin on the commonly used SMART objective. You will also notice this theme of health equity throughout the entire Base Camp training. An important part of climbing a mountain is preparing for everyone to make it up together—you can use this vision to guide your equity work where everyone has the tools to achieve their goals.

- Likely you have already begun this process and are not starting from scratch. Take your time to really integrate this new material into your current initiatives.



Let's see if you can help us fill in the blank here with words from the right to help define what implementation science is. We'll move through this fairly quickly, so please feel free to pause your recording to take time to fill in the blanks.
Implementation science is the study of...
Methods to promote the adoption and integration of...
Evidence based practices, interventions, and policies into routine...
Health care and...
Public Health settings to improve our impact on.
Population health.

Implementation is Transdisciplinary



Kislov et al., 2019
Schackman, 2010
Birken et al., 2017
Bauer et al., 2015

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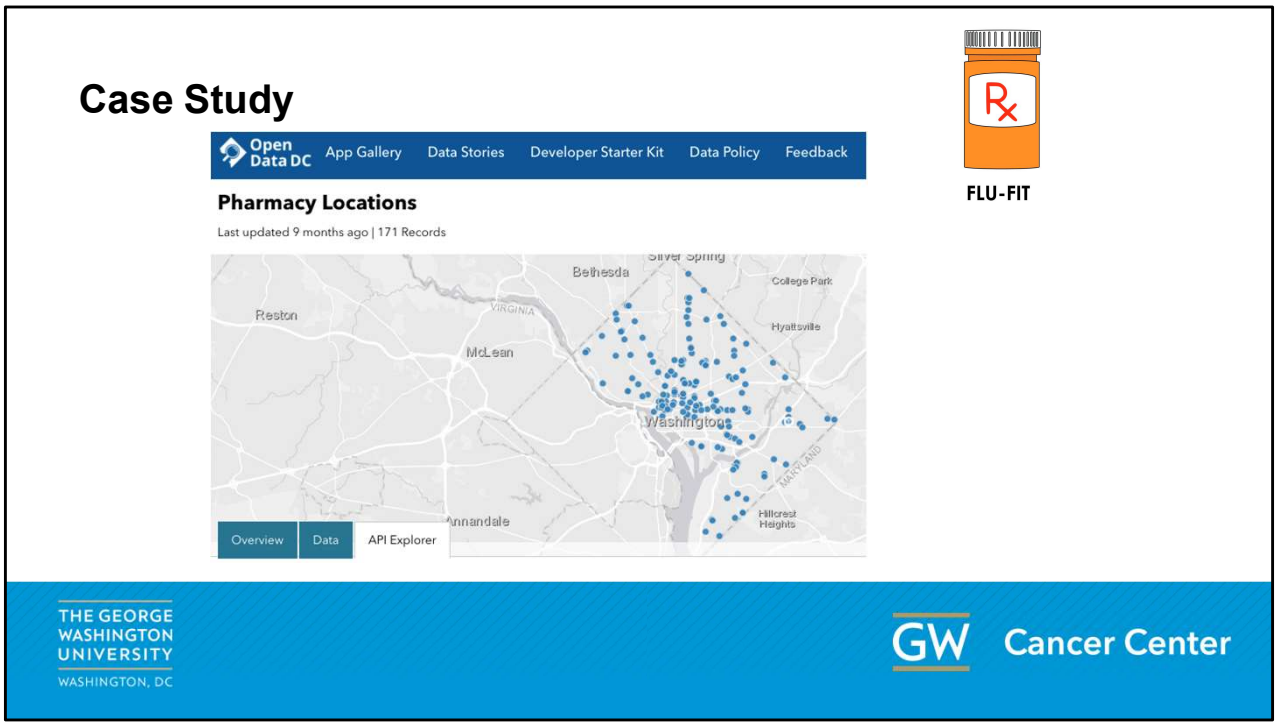
There are quite a number of disciplines that together inform the field of implementation science. Some of them are listed here.

Do you remember the animation where you may have first learned about Base Camp?
Like Talia, maybe you have been thinking about the challenges to achieving your goals.
Like her, maybe you have been deeply considering how to provide interventions that are intentionally designed with equity at the center.

- Although this training is focused on improving cancer screening, the ideas in implementation science can be used for many other areas across the cancer continuum such as risk reduction, treatment, survivorship, and palliative care.



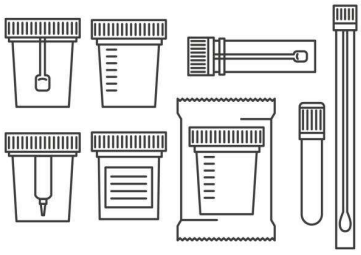
You will notice this FLU-FIT Pharmacy Logo in the top right of the slide. We want you to be able to use this Base Camp training immediately in your work, so anytime you see this image think “applied case study”.

- In the companion material you will find an extended write up of a fictional case study that is woven throughout the Base Camp to illustrate all of the different elements of implementation science. This case study focuses on two areas of Washington DC with high colorectal cancer disparities; in fact, the neighborhoods in the wards we focus on have less than 50% of their population screened for colorectal cancer and documented racial disparities. Preliminary contextual assessment demonstrates that the Federally Qualified Health Center serving the area does not have the capacity to take on new screening interventions due to COVID-19, causing a backlog of work.
- Engagement events are uncovering that many pharmacies in the neighborhood are currently taking on the majority of flu shots given because these settings are more accessible than other healthcare sites. This is resulting in more equitable distribution of the vaccine.
- What would you do to implement this innovation?

You learn how implementation strategies such as train-the trainer and the use of local champions can enhance the intervention's effectiveness.

Case Study

FLU-FIT



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- An implementation team considers these context factors and identifies the FLU-FIT intervention as an evidence-based intervention that just might fit well for the community.
- This hypothetical case study walks through an innovative intervention that partners with community-based pharmacies to distribute FLU-FIT kits as a way to increase the accessibility and acceptability of colorectal cancer screening. In the first year of the program, some pharmacies have been successful in introducing FLU-FIT and have preliminary data, but there is no coordinated effort to centralize training and implementation planning.
- A clinical champion from the team searches an EBI library to find a bundled package for new FLU-FIT programs. This helps them decide what are the necessary, or core components, of the intervention.
- The stakeholder group also uncovers that the pharmacists in the local system respond best to changes that are introduced by their peers who are considered natural leaders in the profession. The team decides to design a strategy to make this program work, by building a train-the-trainer model with local champions becoming the backbone of the intervention.

Case Study

FLU-FIT

EXAMPLE: Participant Intake for FLU-FIT Program

Date: __/__/____

First Name: _____ Last Name: _____

Date of Birth: __/__/____

Address: _____

Phone number: _____

Email address: _____

Race/Ethnicity
- American Indian, Alaska Native, Pacific Islander
- Asian
- Black
- Hispanic or Latino
- White
- Other

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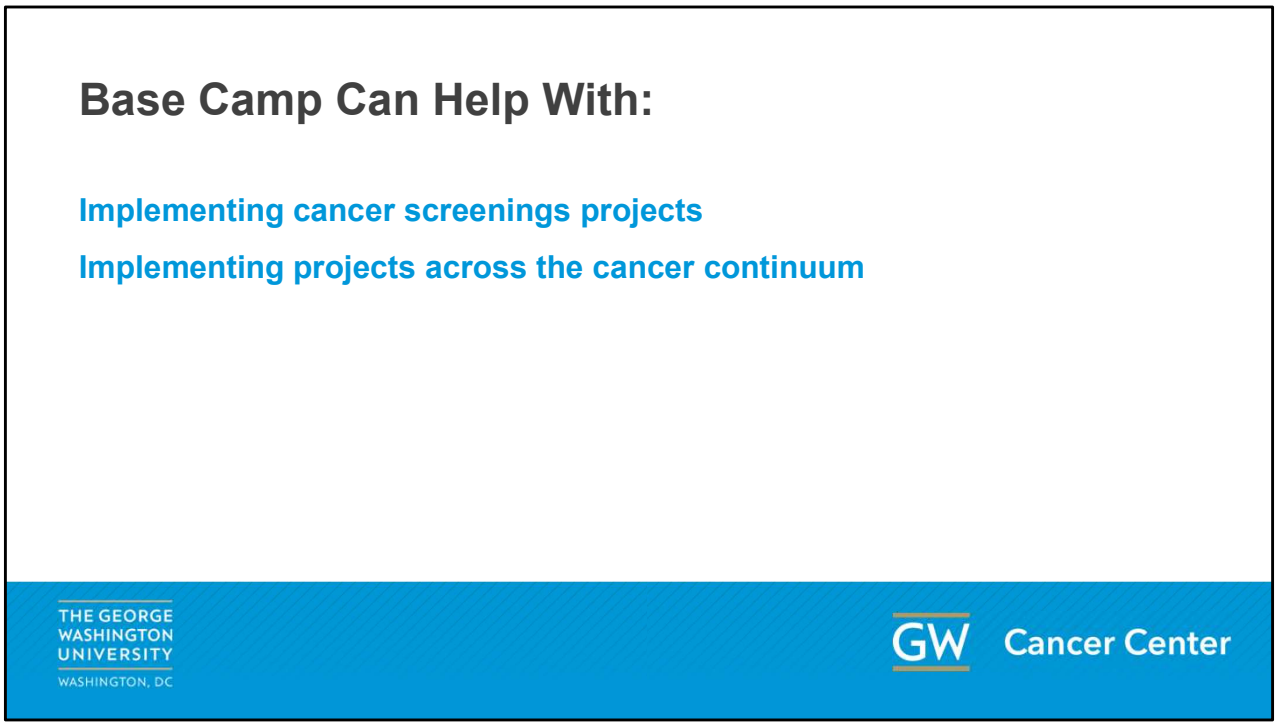
- Initial feasibility evaluation data show that patients find the intervention acceptable and it takes minimal extra time for the technicians to implement.
- The team does realize they will need to implement some new strategies to share data between providers and pharmacies to increase the reach and adoption of the program in the future to help institutionalize the change.
- The team decides to perform a sustainability assessment and discovers that there are some factors showing the program is sustainable, although there are some indicators that demonstrate a need for planning for extended sustainability into the future.

Follow along with the case study throughout this whole training to see implementation in action.



This training is designed to help coalitions implement cancer screening **better** by**:**

- Engaging stakeholders in developing a focused objective
- Planning interventions that best fit your unique location
- Designing an implementation blueprint to guide your process
- Proactively planning for sustainability

Although this training is focused on improving cancer screening, the ideas in implementation science can be used for many other areas across the cancer continuum such as risk reduction, treatment, survivorship, and palliative care.

Why Are You Learning This?

Practitioners become increasingly important as research moves from effectiveness to implementation on the knowledge pipeline

You are the key to bridging the gap!

Proctor et al., 2013
University of Washington, n.d.

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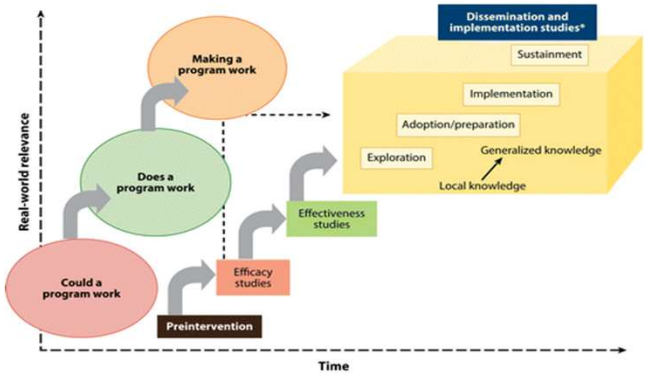
- There is a significant gap between what we know works and what we actually do in practice. The key to bridging this is you—practitioners! Researchers can only take you so far. Next you will see a visual of this process as a pipeline.

Knowledge Pipeline



Brown CH, et al. 2017.
Annu. Rev. Public Health. 38:1–22

Meissner et al., 2013
Bauer et al., 2015
Beidas et al., 2018
Brown, C.H., 2017
Singal et al., 2014

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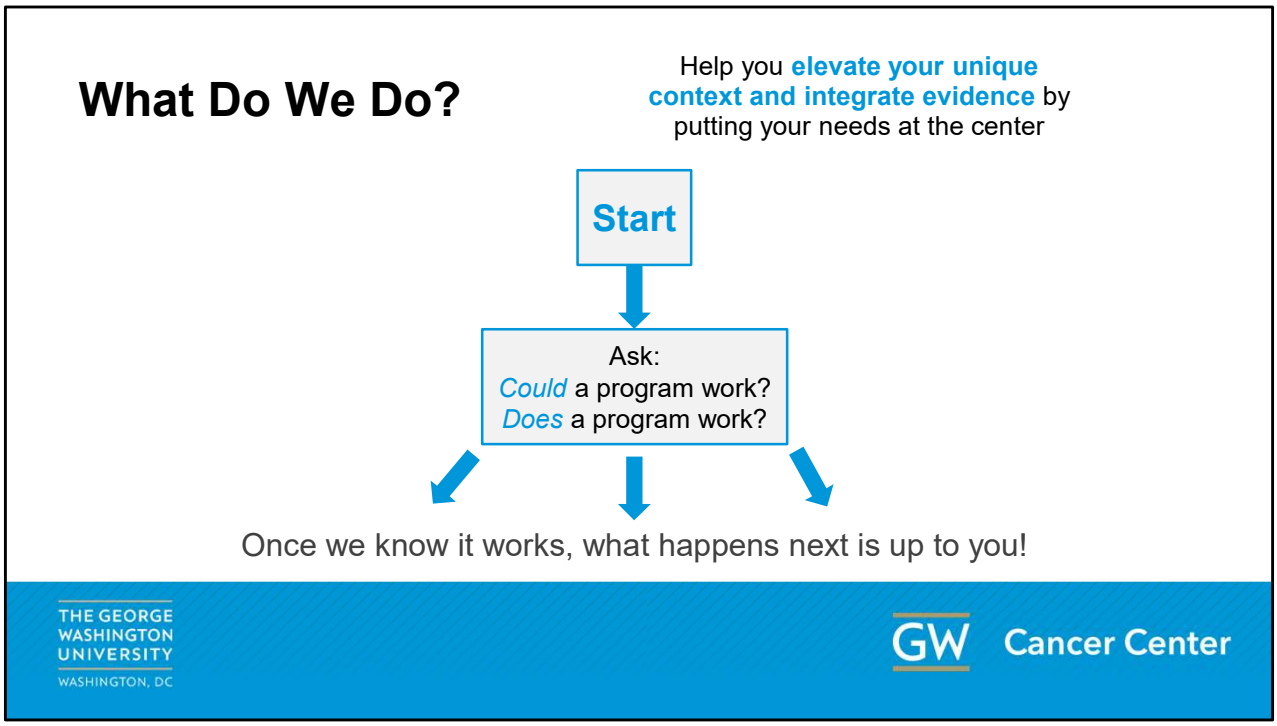
- Hi I am Heather Brandt and I served as the Co-Associate Director of Outreach, St. Jude Children's Research Hospital & Comprehensive Cancer Center. I will pick up here with the knowledge pipeline.
    - You can see in this figure as time goes on real world relevance increases.
    - First is answering the questions ”if a program could work” and “does it work”, which are the major questions in efficacy and effectiveness research.
    - Efficacy: Efficacy can be defined as the performance of an intervention under ideal and controlled circumstances
    - Effectiveness: Effectiveness refers to its performance under ‘real-world' conditions
    - HOW to make a program work is the focus of this training.



Another way to think about this is shown in this diagram.

Much research is done to establish the efficacy and effectiveness of an intervention.

This is done by asking: could/does a program work?

- But once we know it works, what happens next is up to you in terms of making a program work. This is the "HOW" of making a program work.
- This Base Camp will help you unpack how to incorporate your unique context into the planning of how to make an intervention work.

Making a Program Work

Facilitate change by:

1. **Preparing individuals and systems for change** if they are not ready
2. **Adapting the intervention** without changing its effectiveness
3. **Adjusting the environment** to integrate the intervention

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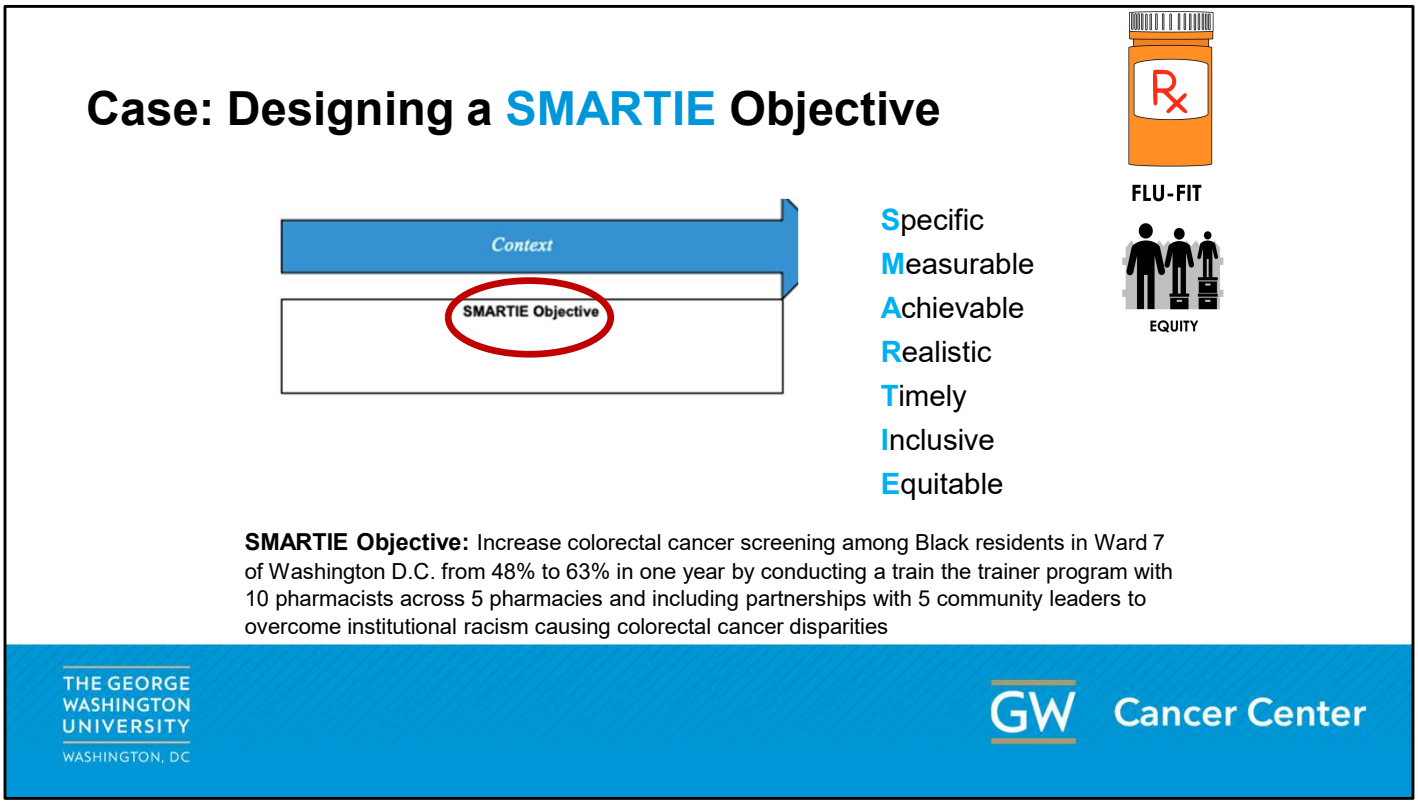
The real world is complicated and sometimes it might feel like you are trying to fit puzzle pieces together that just don't go together!

Implementation Science has an impressive toolkit to help you see the big picture and facilitate change by:

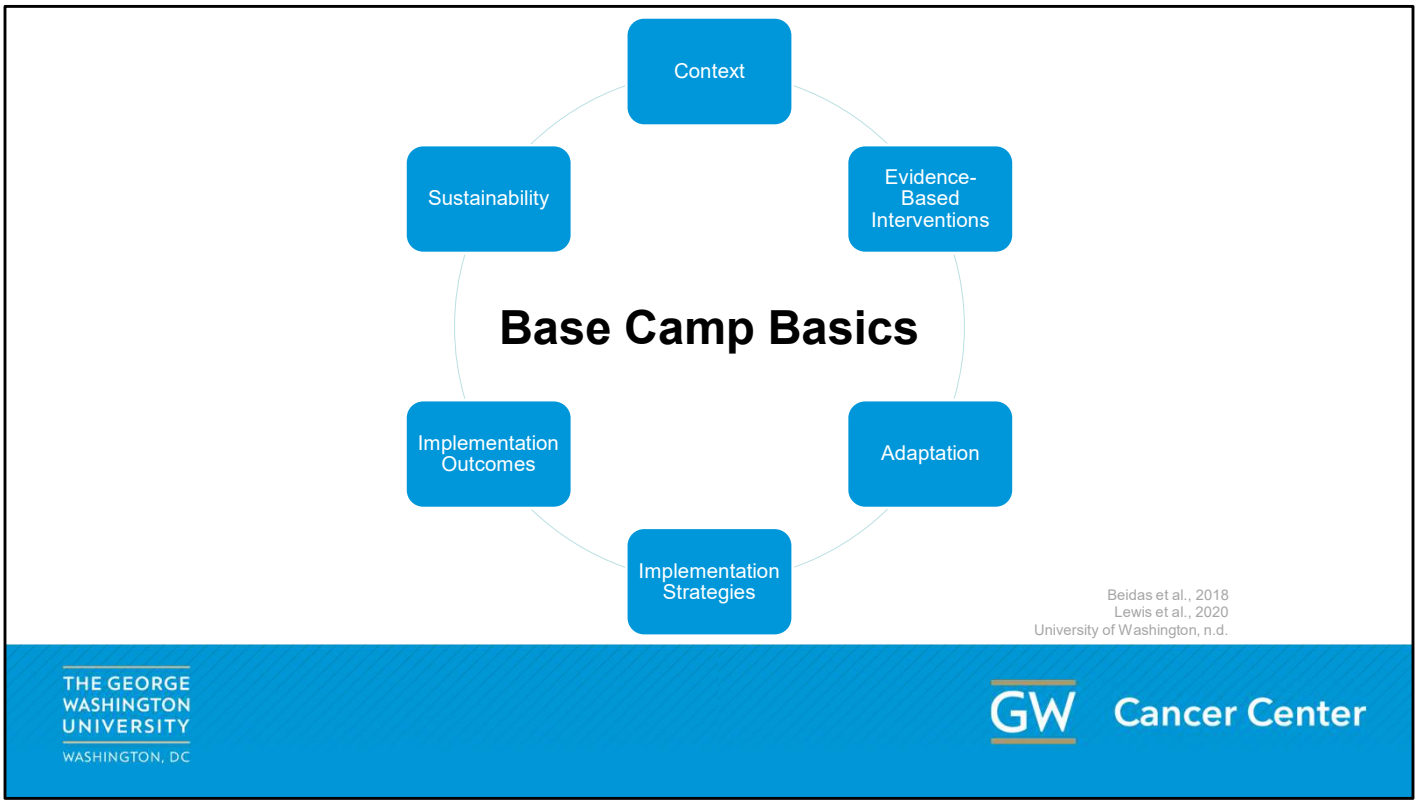
Preparing those involved for change if they are not ready
Adapting the intervention without changing its effectiveness
Adjusting the environment to integrate the intervention



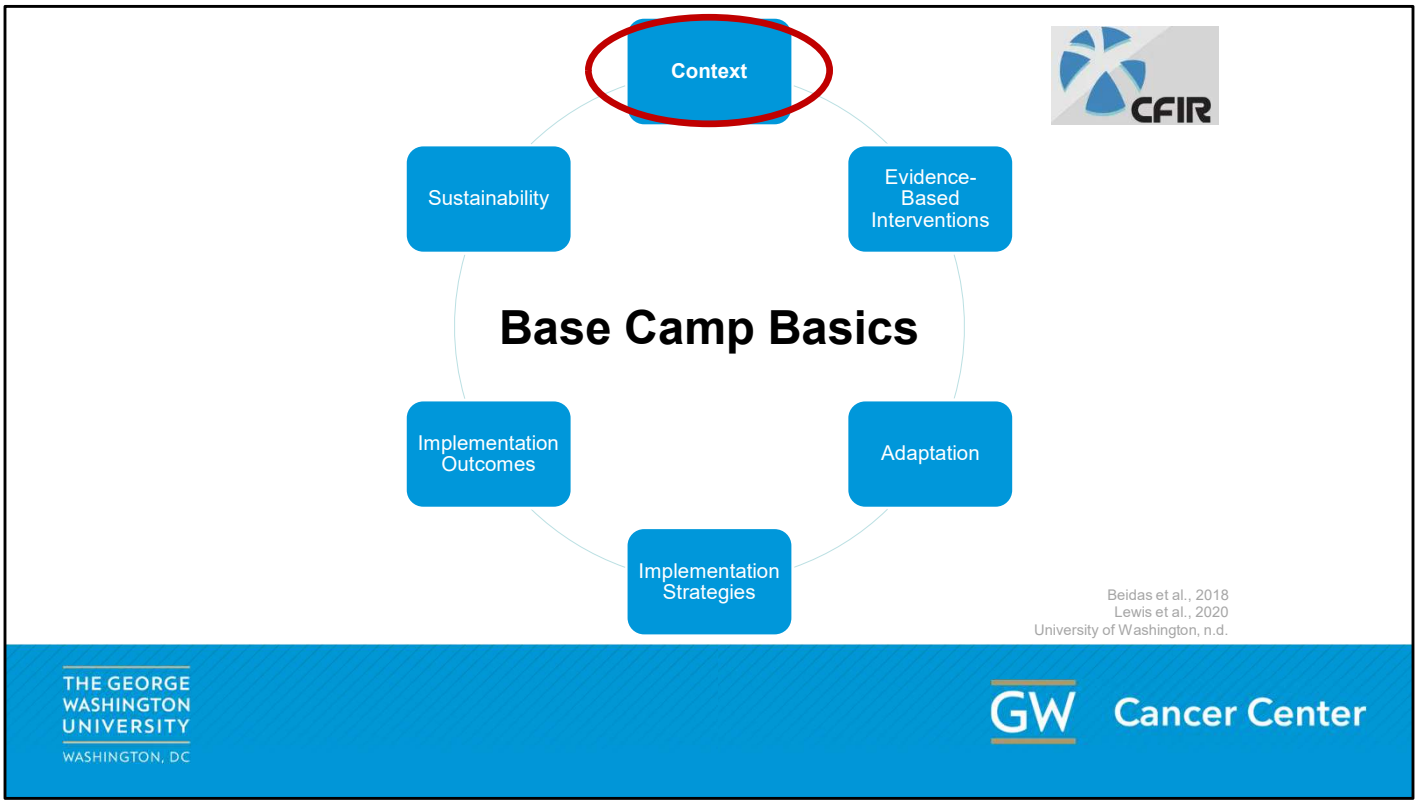
In your companion guide the first box of the logic model is a space for reflection on your SMARTIE objective that can include a health equity component.
Health equity occurs when every person has the opportunity to attain their full health potential and no one is disadvantaged from achieving this potential because of social position or other socially determined circumstances. In terms of the Base Camp model—you can think of it as working to get everyone up the mountain.
Health equity is a great foundation to start in the planning process required to make a program work well. If not addressed early on in the process, it is at risk of becoming an afterthought. This can lead to community members not fully buying into your intervention at best, and mistrusting change at worse. If you can integrate health equity approaches into your objectives, your team will be held accountable for the outcomes of your process.
You see here a SMARTIE objective example that demonstrates all the elements of the acronym.

SMARTIE Objective: Increase colorectal cancer screening among Black residents in Ward 7 of Washington D.C. from 48% to 63% in one year by conducting a train the trainer program with 10 pharmacists across 5 pharmacies and including partnerships with 5

community leaders to overcome institutional racism causing colorectal cancer disparities



- The training is built around the following skill bundles.



- **Context:** The unique factors in a setting that influence the outcomes of implementing an EBI.

Context Matters

Every setting contains unique elements that can help or hinder changes in becoming integrated consistently

Consolidated Framework for Implementation Research (CFIR) will be used to assess context

Bauer and Kirchner, 2020

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- Every setting contains unique elements that can help or hinder changes in becoming integrated consistently.
- We will use a popular framework here to assess context. The logo on the top right refers to the Consolidated Framework for Implementation Research or CFIR. Anytime you see this image, you can bet we are referring to context!

Context Considerations

- Intervention characteristics
- Inner setting
- Outer setting
- Individuals involved in implementation
  - ➢Population(s) of Focus
- Process of implementation

CFIR Research Team-Center for Clinical Management Research, 2021

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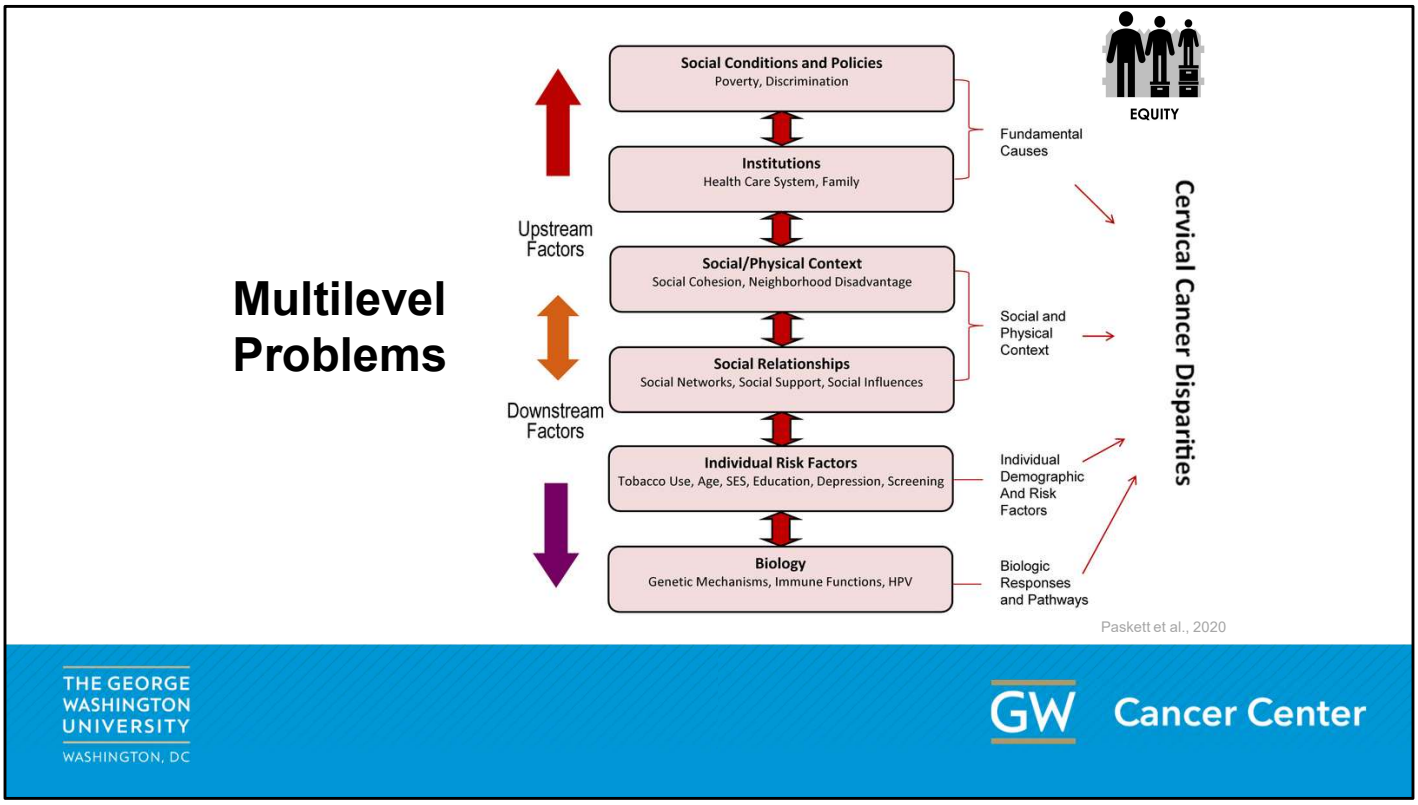
This framework examines 5 domains commonly accepted to influence the quality of implementation.

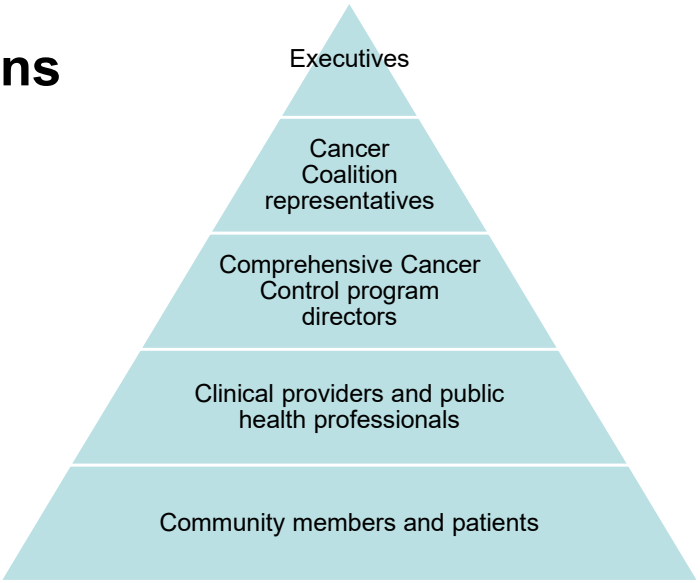
Intervention characteristics
Inner setting at the site where intervention is happening
Outer setting, which examines forces external to the setting where the intervention is happening
Individuals involved in implementation, including if there is a population of focus which could be tied with health equity goals
Lastly, factors related to the process of implementation



Taking context seriously into consideration requires us to examine the multiple levels of the problem. For example, this model came out of a collaborative project on cervical cancer disparities in Ohio and Kentucky. We see the upstream factors such as social conditions that affect these disparities, as well more individual level downstream factors such as risk factors and biology.

Multilevel Solutions

An implementation plan should **incorporate multiple levels** of your context



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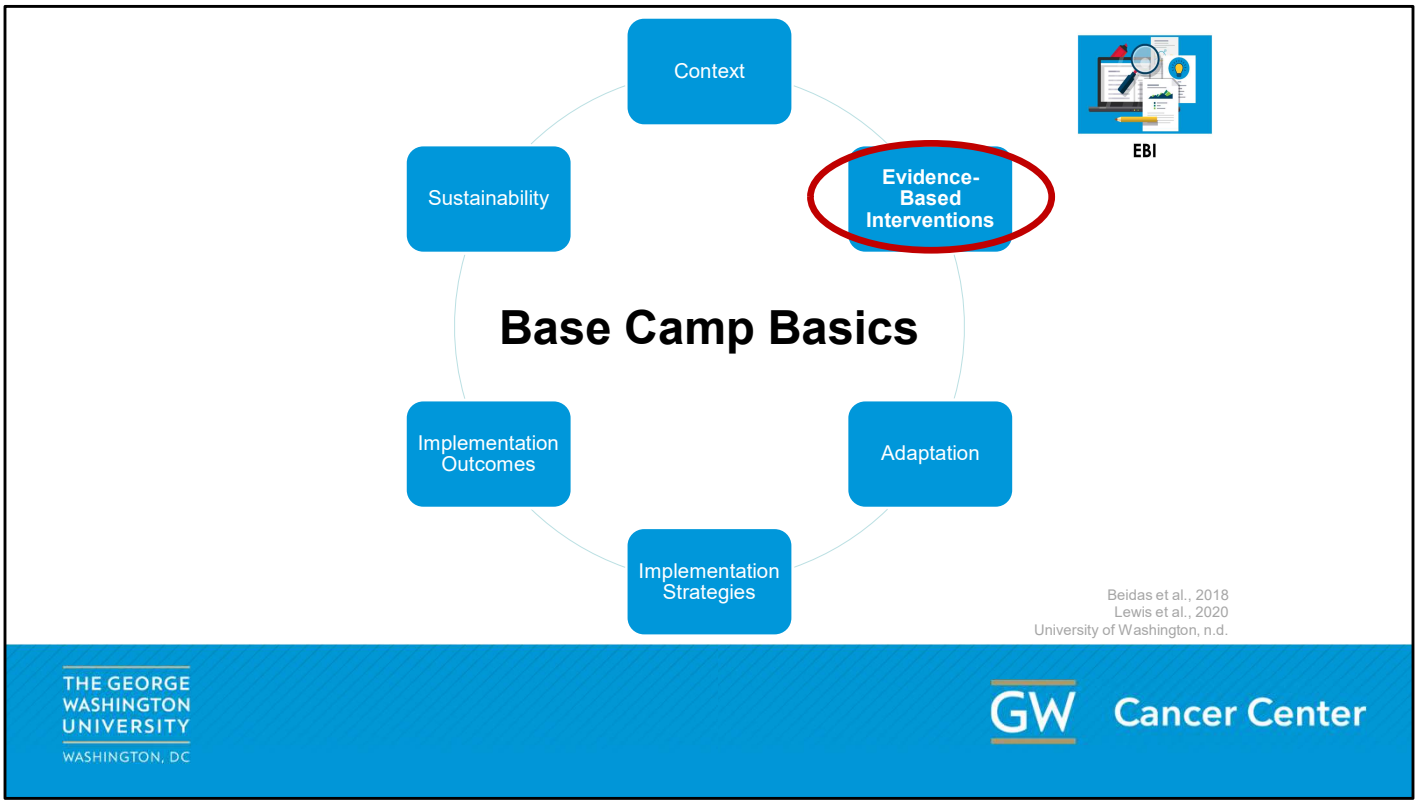
An implementation plan should incorporate multiple levels of your context. That is why we designed this training for teams taking on implementation challenges together.



- **Evidence-based Interventions** (EBIs): These are the ”what” of implementation science and can take many different forms.

The ABCs of EBIs

Evidence-**B**ased **I**nterventions:

Health-focused intervention, practice, program, or guideline with evidence demonstrating the ability of the intervention to change a health-related behavior or outcome

Beidas et al., 2018
Lewis et al., 2020
University of Washington, n.d.

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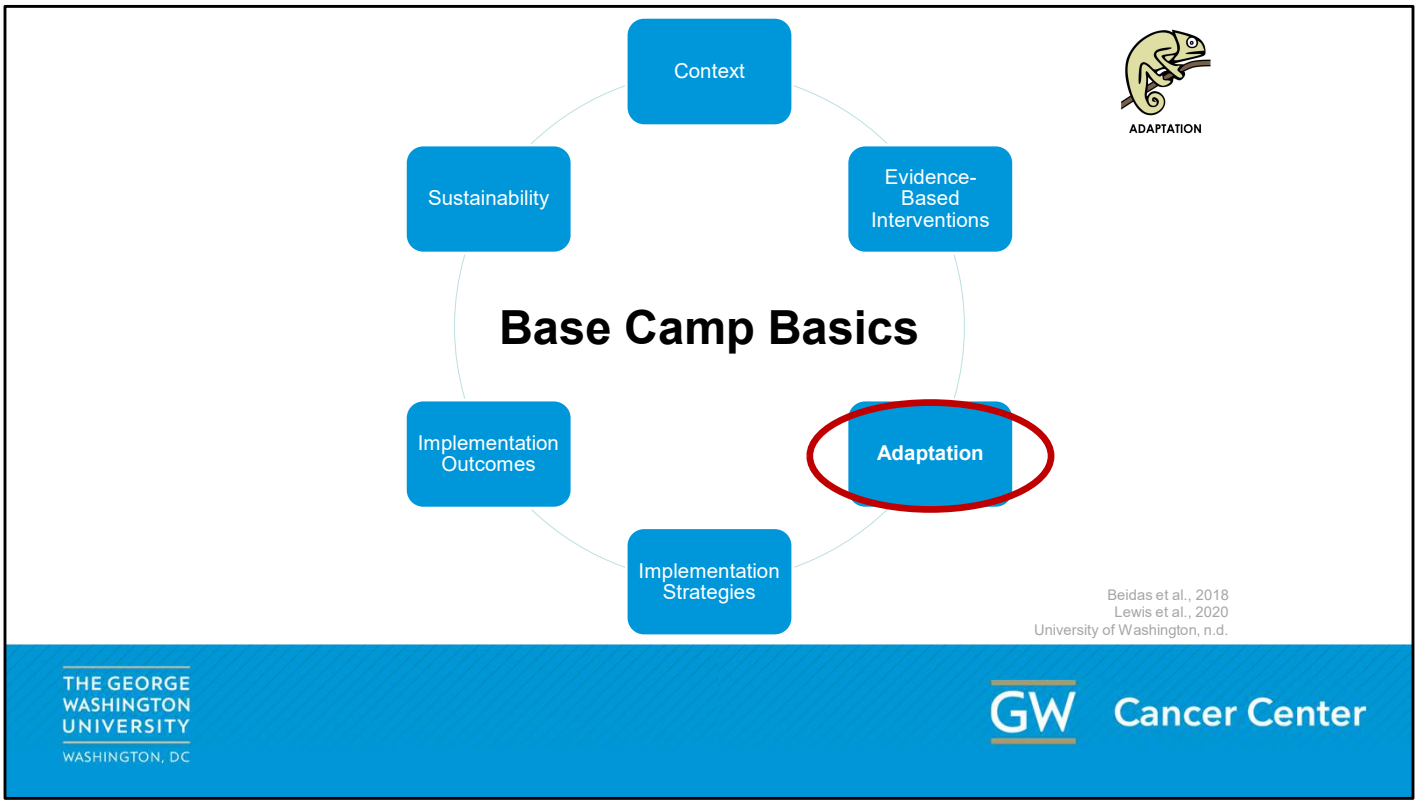
- An EBI is a health-focused intervention, practice, program, or guideline with evidence demonstrating the ability of the intervention to change a health-related behavior or outcome.
- These are often included in resources such as the Community Guide or the Evidence-Based Cancer Control Programs database from the National Cancer Institute.
- You will notice this image on the top right when we are referring to specific evidence-based interventions.



- **Adaptations:** Everyone knows cookie-cutter interventions and one size fits all approaches just won't work for the diversity of populations we need to support in our comprehensive cancer control work.

What is Adaptation?

The **degree to which an EBI is changed or modified** by a user during adoption and implementation to suit the needs of the setting or to improve the fit to local conditions

Beidas et al., 2018
Lewis et al., 2020
University of Washington, n.d.

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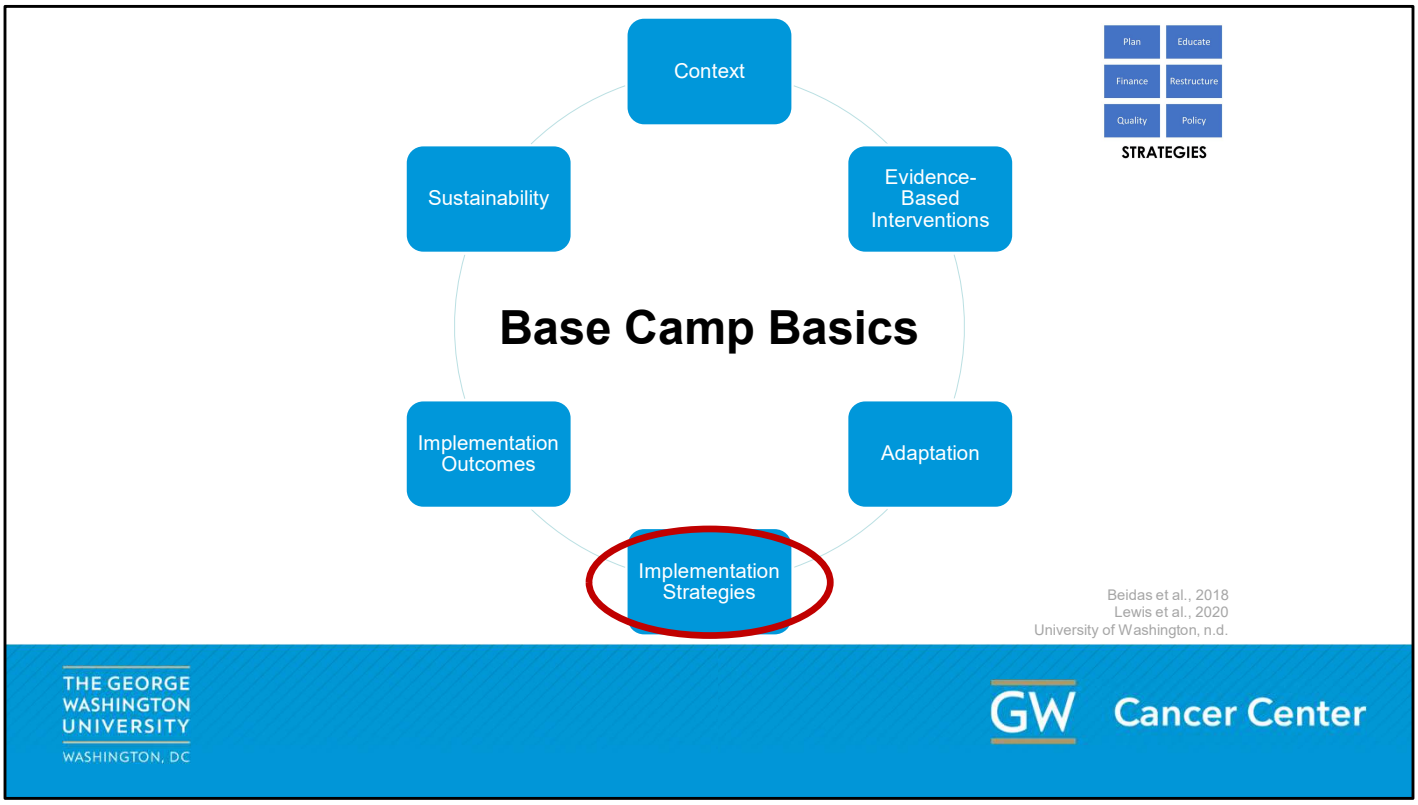
- That is why we include skills related to the adaptation. This is the degree to which an evidence-based intervention is changed or modified by a user during adoption and implementation to suit the needs of the setting or to improve the fit to local conditions.
- That is why we chose the chameleon for the image to refer to anytime we are talking about adaptation. Like a chameleon, your intervention will change to fit into its contextual setting.



- **Implementation strategies**: Methods or techniques used to operationalize the adoption, implementation, and sustainability of a clinical program or practice.

Implementation Strategies

- Planning
- Educating
- Restructuring
- Quality Management
- Financial & Policy Changes

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These can include strategies related to planning, educating, restricting, quality management, as well as financial and policy changes in the inner and outer settings where the intervention is occurring.
You will notice this blue grid made of these categories of strategies anytime we are referring to specific documented strategies known to help implement EBIs.

Facilitating Implementation

Brings together context, strategies, and evaluation

Implementing Cancer Screening Interventions:

Stories From the Field

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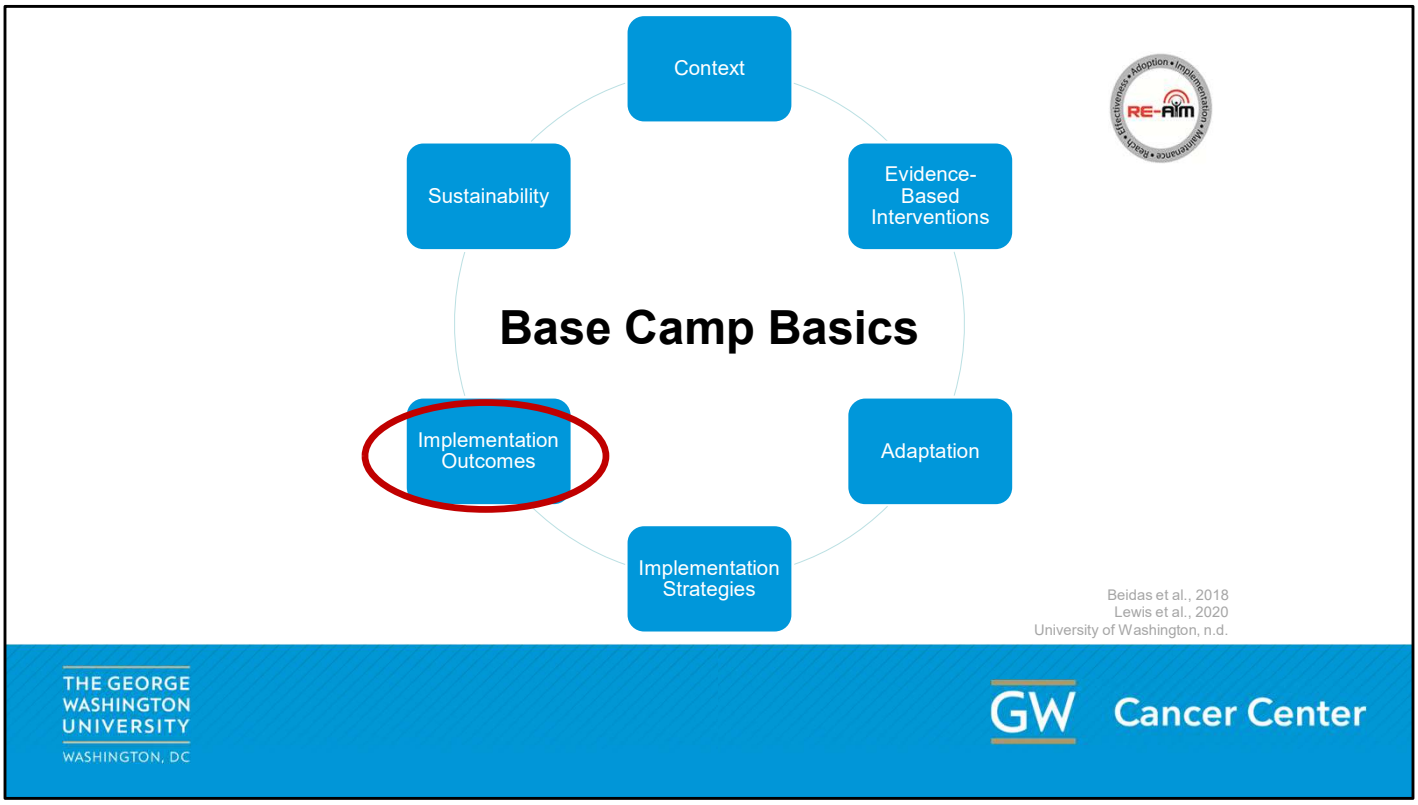
Facilitating implementation is where the rubber meets the road. We will highlight several screening case studies that exemplify this process during this session of the Base Camp. Stories from the field will bring together strategies and evaluation with real world stories of implementation from a range of different contexts.



- **Implementation outcomes** are the effects of deliberate and purposive actions to implement new treatments, practices, and services. These outcomes often serve as indicators of implementation success. We often can't achieve health outcomes without first achieving these markers of quality.

Implementation Outcomes

RE-AIM Framework

1. Reach
2. Effectiveness
3. Adoption
4. Implementation
5. Maintenance

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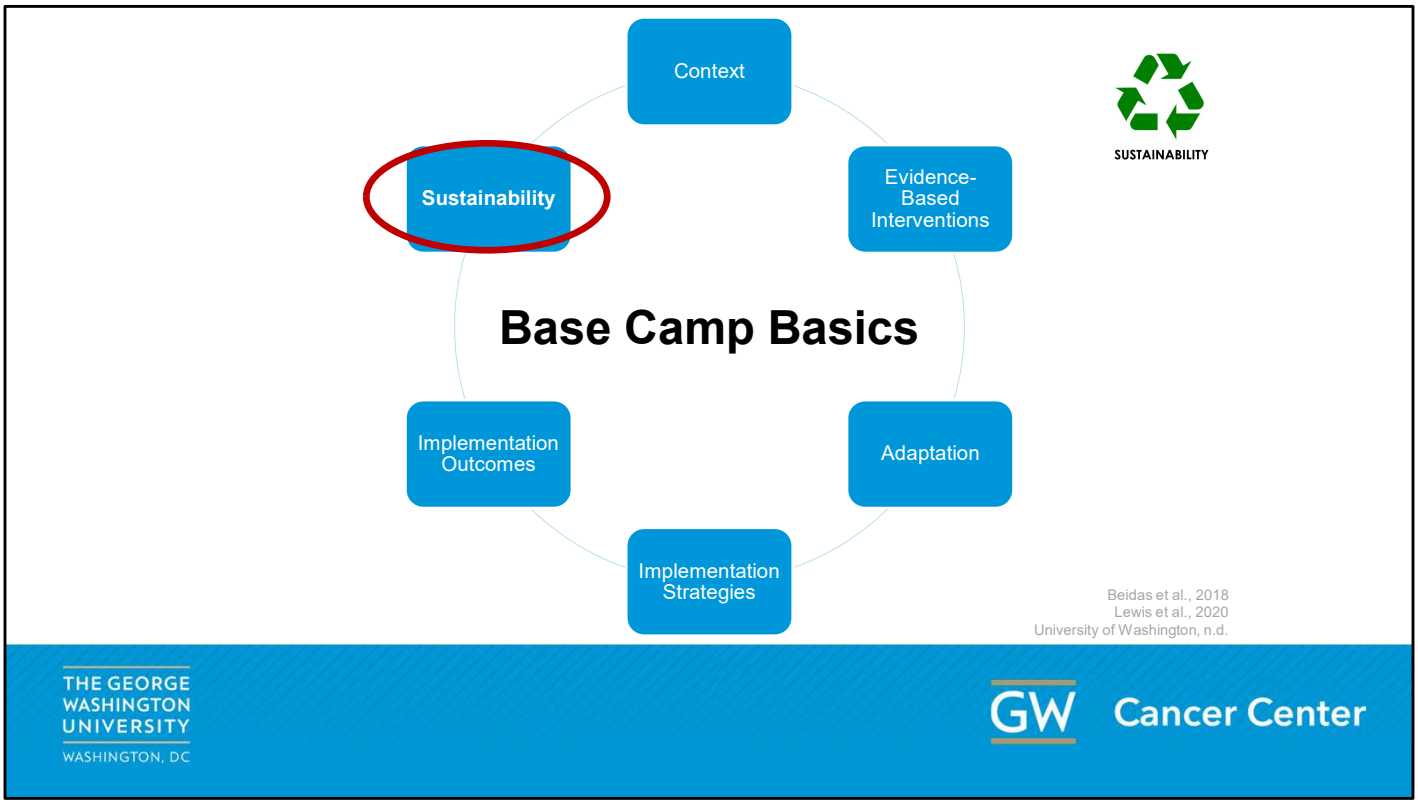
To organize the process of evaluating implementation outcomes—we will introduce another framework called RE-AIM. Each letter of RE-AIM represents an implementation outcome of interest. When you see the logo for RE-AIM shown here in the top right, you will know that we are referring to the evaluation process.



- **Sustainability** is defined as the extent to which an evidence-based intervention can deliver its programming and its intended benefits over an extended period of time after external support is ended.

Sustainability Elements

Environmental Support	Funding Stability	Partnerships	Organizational Capacity
Evaluation	Adaptation	Communication	Strategic Planning

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When you see the recycle logo, you will know we are talking about the long-term maintenance of an intervention.
Here are some of the elements we will explore related to sustaining an intervention after initial adoption.

Tools and Supplemental Resources

- Cancer Prevention and Control Research Network
- The Center for Implementation
- Center for Participatory Research: Engage for Equity Toolkit
- Comprehensive Cancer Control National Partnership Health Equity Tip Sheet
- Dissemination and Implementation Resource Guide and Glossary
- Freakonomics Postcast: Policymaking Is Not a Science (Yet)
- Implementation Science: An Introductory Workshop for Researchers, Clinicians, Policy Makers and Community Members
- The Journal of Public Health Management and Practice Implementation Science Podcast with Randy Schwartz and Justin Moore
- National Cancer Institute Cancer Facts and Figures 2021
- National Cancer Institute Dispatches from Implementation Science at NCI
- National Cancer Institute Implementation Science: Context & Equity in Cancer Research Webinar

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- Finally, here are tools, resources, and references to help continue your work in Implementation Science

Tools and Supplemental Resources

- National Cancer Institute Implementation Science Practice Tools
- National Cancer Institute Implementation Science Webinars Series
- National Cancer Institute Newsletter: Opportunities to Advance Health Equity through Implementation Science
- National Cancer Institute Orientation to the Science of Dissemination and Implementation Training
- National Cancer Institute Training Institute for Dissemination and Implementation Research in Cancer (TIDIRC) Facilitated Course
- National Implementation Research Network
- State Implementation and Scaling-Up of Evidence-Based Practices
- University of California San Francisco Implementation Science Mini Course
- The Veterans Affairs Quality Enhancement Research Initiative (QUERI) Program

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PI:
Mandi L. Pratt-Chapman PhD
Staff:
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Joseph Astorino
Leila Habib
Sarah Kerch
Workgroup Members:
Shauntay Davis-Patterson
Caleb Levell

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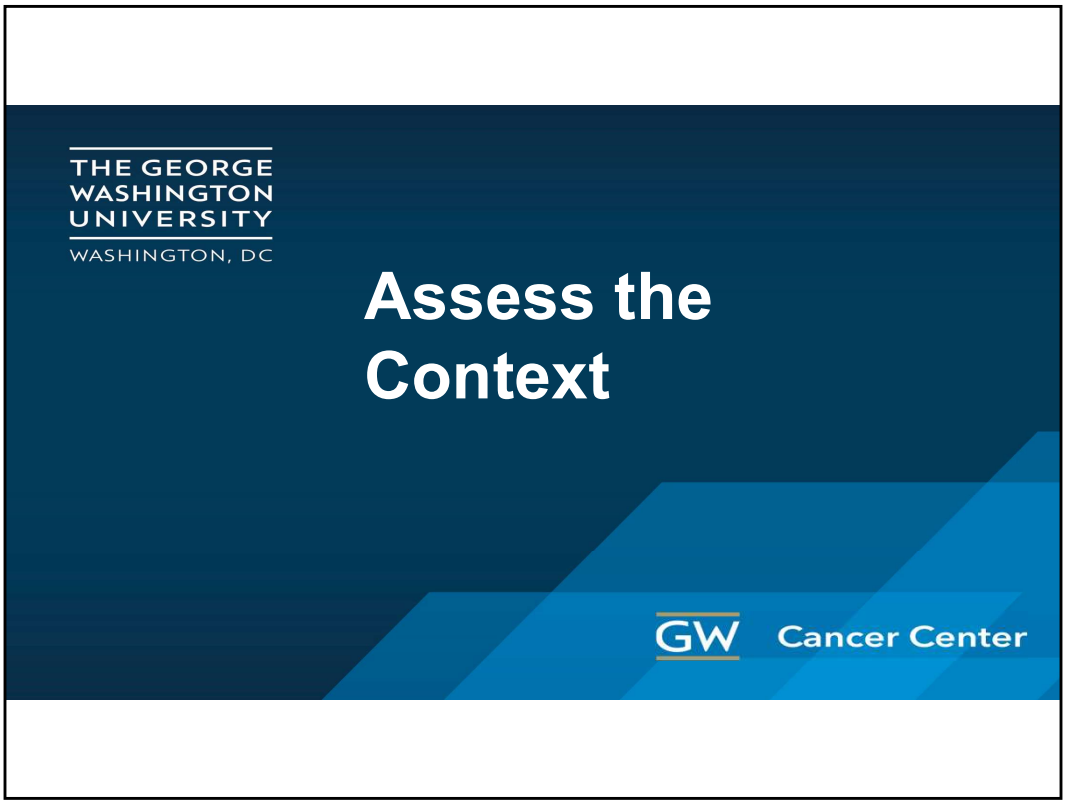
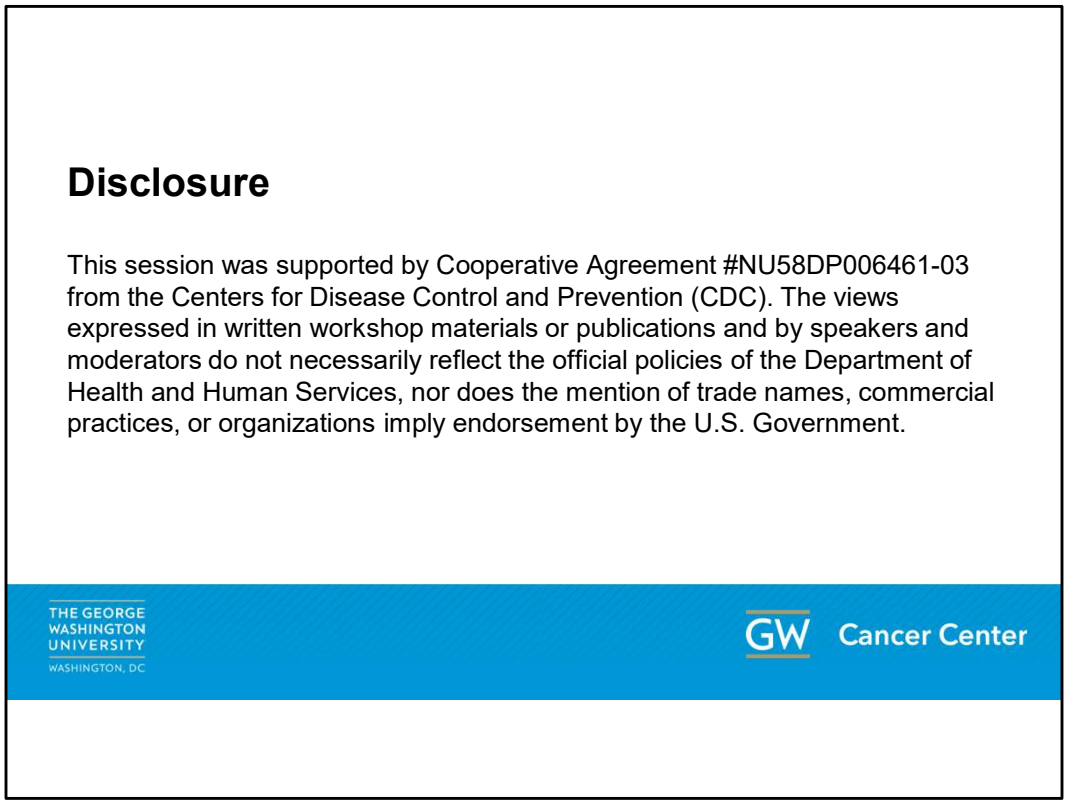


Welcome to session two of Base Camp.

- I am Shauntay Davis Patterson, the program director of the comprehensive cancer control program at the California Department of Public Health.



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Learning Objectives

1. Explain the key elements of assessing context
2. Develop a plan to assess context

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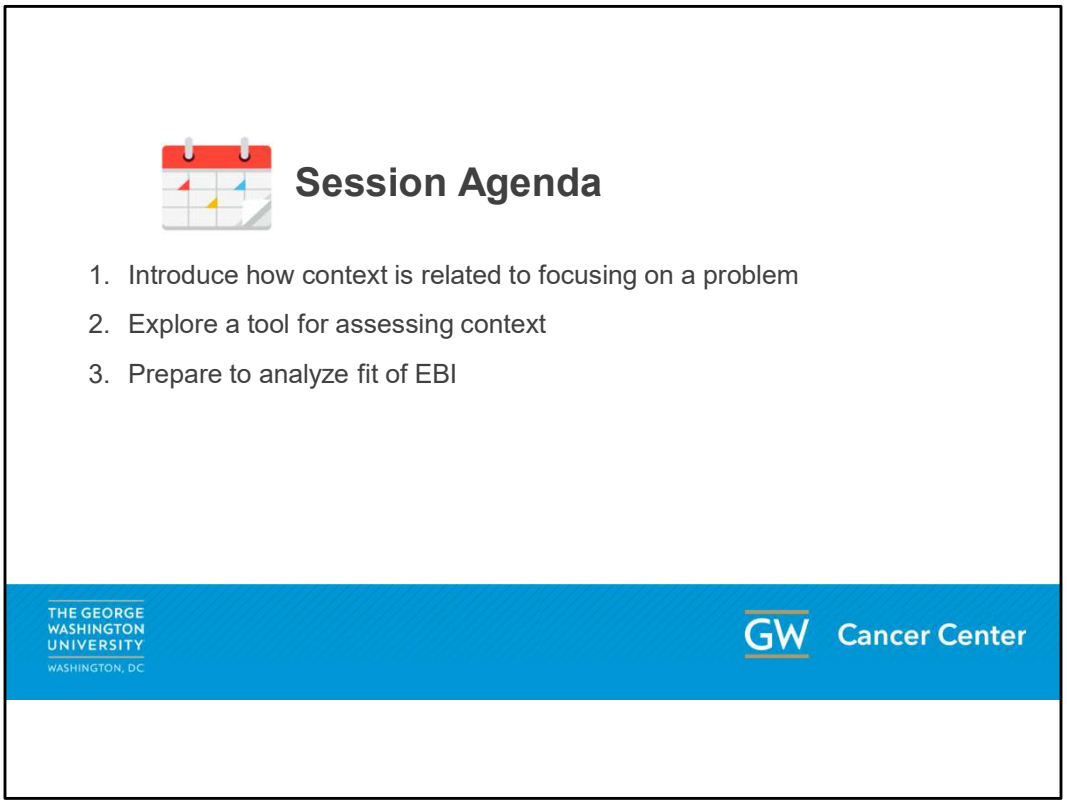
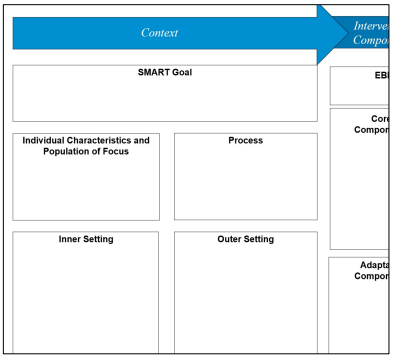
You will use what you learn in this session to prioritize the needs of your stakeholders so there is a clear shared understanding about the problem your intervention will be addressing. More specifically, you should be able to explain the key elements of assessing context and develop a plan to assess context after this session.



Here is the plan for the session so you can see the road ahead.
First, we will introduce how context is related to focusing on a problem. Then we will explore a tool for assessing context. Next, we will prepare to analyze the fit of an evidence-based Intervention.

Implementation Blueprint



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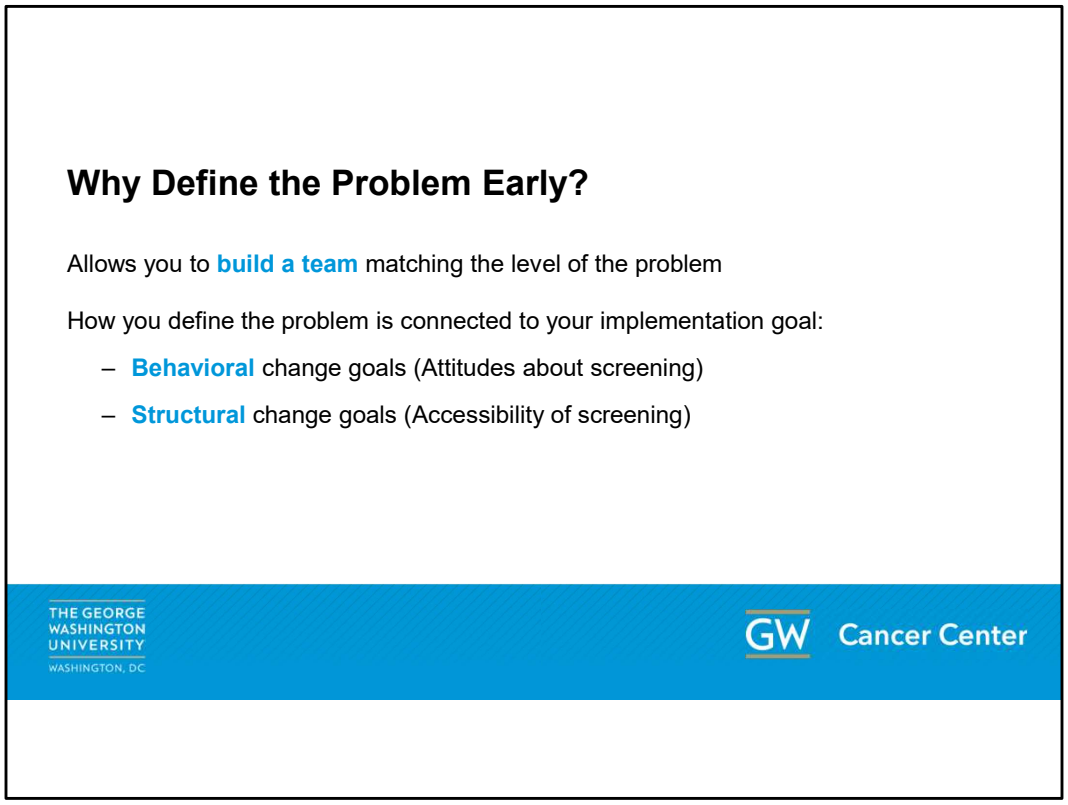
We will be working on the context section of the implementation blueprint.

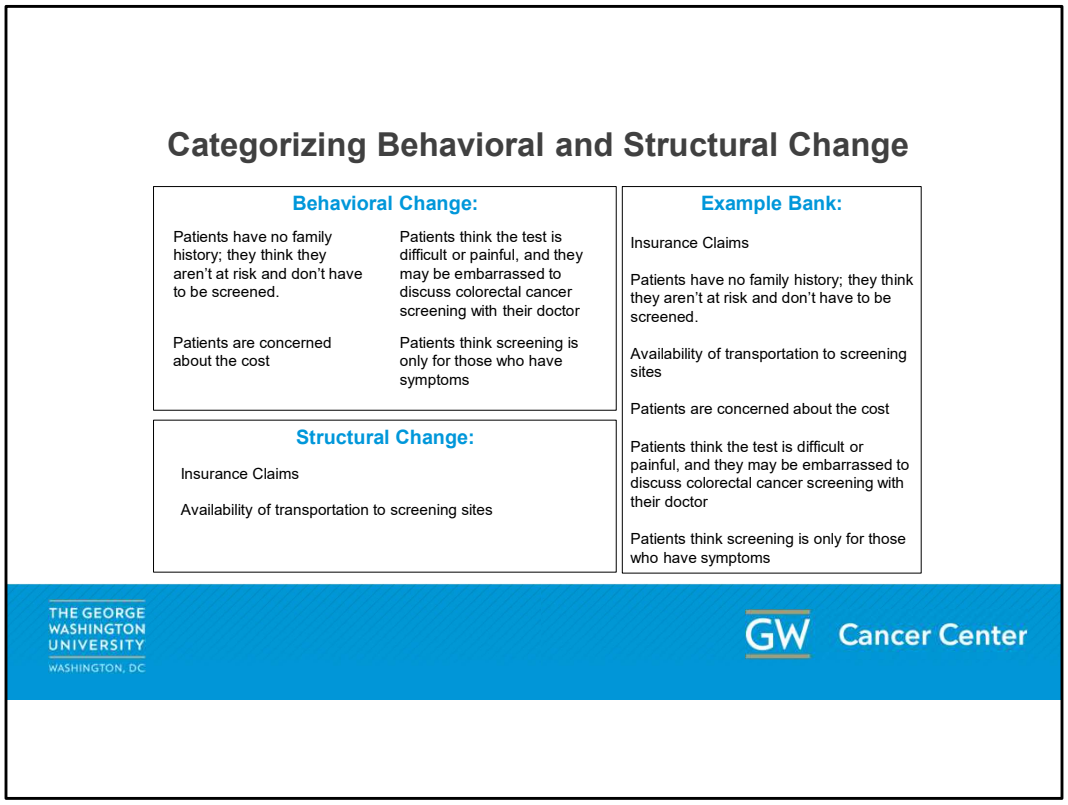


Getting specific early in the process allows you to build a team matching the level of the problem.

How you define the problem should be connected to your implementation goal. One level you might include in your plan includes the individual level, where you address behavioral change goals. A barrier you might work on at this level is changing attitudes about colorectal cancer screening. Another level you might work on is the systems level, where you address structural change goals. Maybe you decide to work on the access or financial barriers to screening at this level.

Will you aim for behavioral change or structural change goals? Or both?

Are there stakeholders that are missing from your team that you need to invite in after this Base Camp based on your definition of the problem?



Here we will play a game to drive home the point that it is important to understand the level of a barrier so that you can address it accordingly. We will start on the right with each barrier from the example bank and you can take a moment to determine if it is a behavioral change level barrier, or a structural change level barrier. Let's start with insurance claims. Insurance claims are a structural change barrier.

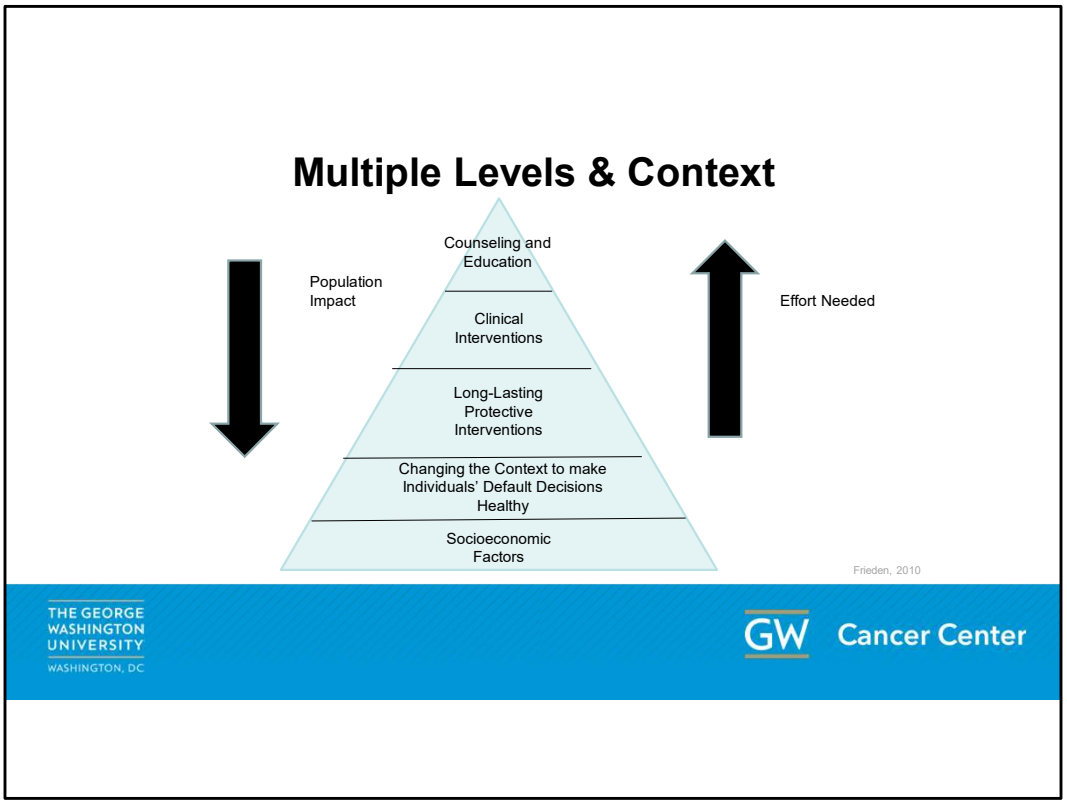
Next, patients have no family history they think they aren't at risk and don't have to be screened.

Where does that go? That's a... behavioral change. Availability of transportation to screening sites..

That's a structural change. Patients are concerned about the cost.

That's a behavioral change. Patients think the test is difficult or painful and they may be embarrassed to discuss colorectal cancer screening with their doctor. That's a behavioral change.

Patients think screening is only for those who have symptoms, that's also a behavioral change.



Another way of thinking about behavioral and structural change is the health impact pyramid. We can see here the base is socio-economic factors. These and other factors near the bottom of the pyramid have high population impact.
As you move up the pyramid, increasing individual effort is needed, similar to behavioral change interventions. Ideally you are working on many of these levels together in multi-level interventions.

Identify the Problem

1. Create a specific problem statement
   - **Specify** level of the problem
2. **Quantify** the issue so measuring improvements is possible
3. **Do research** with community stakeholders
   - Existing data on problem in larger context
   - Collect new data at your site/community

Jacobs et al., 2014

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- The first step in mapping context is to get specific about the problem. Try to draft a statement that clearly lays out the scope of the problem you will work on. Your stakeholders should all be in agreement about the levels of the problem you will address with your intervention.
- If possible, quantifying the issue will help you measure any improvements that come from your intervention.
- Your team can also perform research with community stakeholders to uncover existing data on the problem, or collect new data to help understand the problem more clearly.
- See an example of a problem statement the companion materials for the FLU-FIT case study.

Understand the System

System: Complex whole with interacting parts

What elements of the system are critical to the implementation of your cancer screening objective?

- Federally Qualified Health Center serving Ward 7 is too overwhelmed to introduce new screening program at this time
- Pharmacies are currently offering flu shots
- Most pharmacies do not have baseline data on screening rates of their customers

Ramsey et al., 2016

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A problem like cancer screening is complex and requires a systems perspective to really make wide impactful change.

Let's back up and determine what a system really is. A system is a complex whole with interacting parts.

Work with your team early on to narrow down the elements of the system that are critical to your goals.

This can be overwhelming without specific goals in mind, as well as a framework to keep your assessment organized.

- From the Case Study, we can see stakeholders learned that the health center in their location is too overwhelmed to introduce a new screening program.
- They also observed an increase in flu shot acceptability at pharmacies.
- By using systems thinking, they identified an opportunity to expand screening through pharmacies
- However, no baseline data is currently available in pharmacy health records, so this will be a challenge going forward

Ward 7 & Population of Focus

FLU-FIT

Colorectal Cancer Screening Rate in Ward 7: 48%

Black: 91.7% of the population
Families Below Poverty: 23.3% of the population

Colorectal Cancer Screening Rate at each pharmacy location in Ward 7:
Unknown at this time


EQUITY

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Zooming down on the population of focus, we can see some demographic data about Ward 7 from our hypothetical case study as well.

Of concern is the 48% screening rate in the Ward. With almost 92% of the area being Black, and 23% of the families living below the poverty rate, this raises a lot of issues from an equity standpoint.

Remember we want to include a health equity approach EARLY on, because a fundamental premise of our work is that there is no quality without equity.

Methods for Contextual Mapping

- Community input
  - Needs assessment tools: listening sessions, surveys, mapping, photovoice, etc.
- Engaged implementation research: involve stakeholders in the implementation process
- Formative evaluation: evaluate context to inform intervention, evaluate process of intervention

Fernandez et al., 2018
Vanderpool et al., 2016
Community Toolbox Chapter 3, n.d.

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Community input via a needs assessment can help you map your context.

Needs assessment tools such as listening sessions, surveys, mapping, photovoice, etc. can help with this. Some of these tools are available at the Community Toolbox link located in the supplemental resources.

Two ways to include stakeholders in this context mapping as part of your intervention are included here:

Engaged implementation research: which is involving stakeholders in the implementation process and

Formative evaluation: evaluate context to inform intervention, evaluate process of intervention

Stakeholder Engagement

- Develop and maintain trusting, equitable relationships
- Build a shared understanding
- Encourage dialogue and new ideas
- Achieve buy-in for both the evidence and the use of implementation science to put evidence in practice

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Doing context assessments is a chance to engage many different stakeholders quickly, early on in the intervention process.

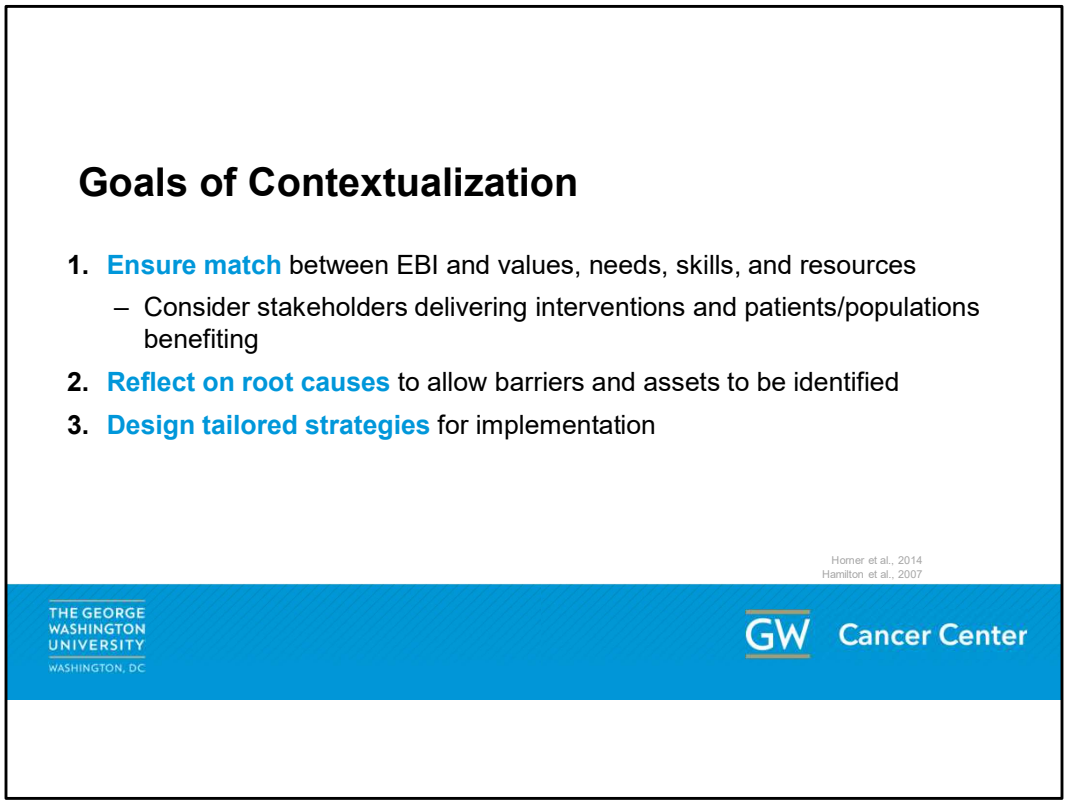
To engage stakeholders authentically, trusting and equitable relationships need to be developed.

The earlier you can build a shared understanding the better in the long term.

Getting as many ideas on the table from as many points of view means the most creative solutions will be liberated.

Authentic stakeholder relationships built between researchers and practitioners will also mean higher trust and buy in for the evidence base at the foundation of your

intervention including the use of an implementation science approach.



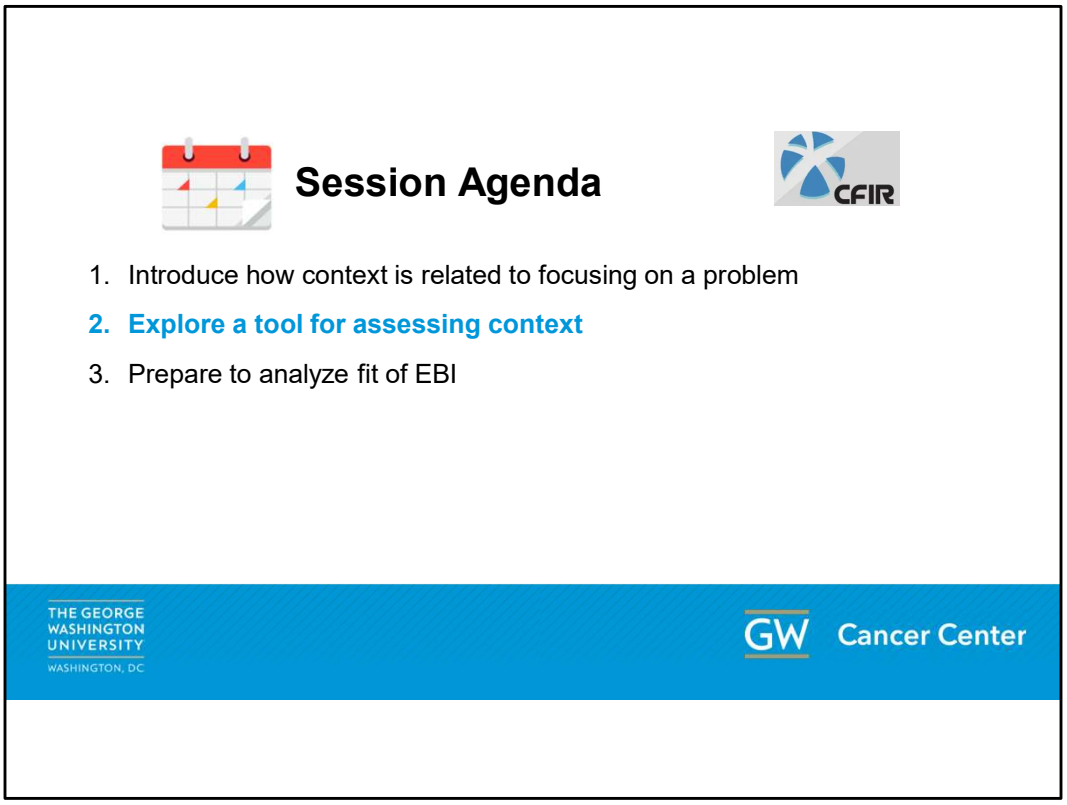
- Socrates is famous for saying “Know thyself”. This could be changed to “Know thy context” in implementation.

You really are aiming to ensure a match between the intervention and the needs and resources of the setting you are working with.

Consider the stakeholders who will be delivering and benefitting from the interventions you are working on.

Spending significant time reflecting on the root causes of your problem will help barriers and assets to be identified-meaning you can

- Tailor specific strategies to make implementation better.



Hello everyone, my name is Caleb Levell, and I am the Strategic Director of National Partnerships and Roundtables at the American Cancer Society.

Next, we will explore a tool for assessing context.

How Do I Achieve These Goals?

Use the **Consolidated Framework for Implementation Research (CFIR)** to help:

1. Ensure match between EBI and context
2. Diagnose barriers
3. Design implementation strategies

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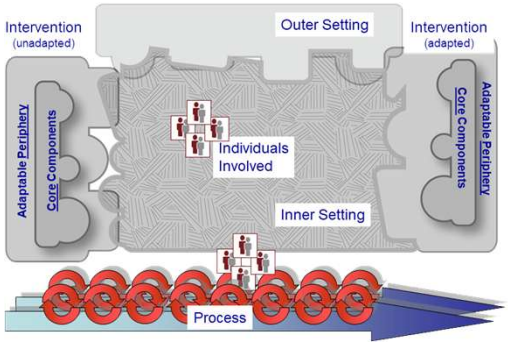
The use of the Consolidated Framework for Implementation Research (or CFIR) will help:
-Ensure a match between your intervention, or EBI and the context you are working in
-Diagnose barriers to implementation and
-Design implementation strategies to overcome those barriers

Case Example: CFIR



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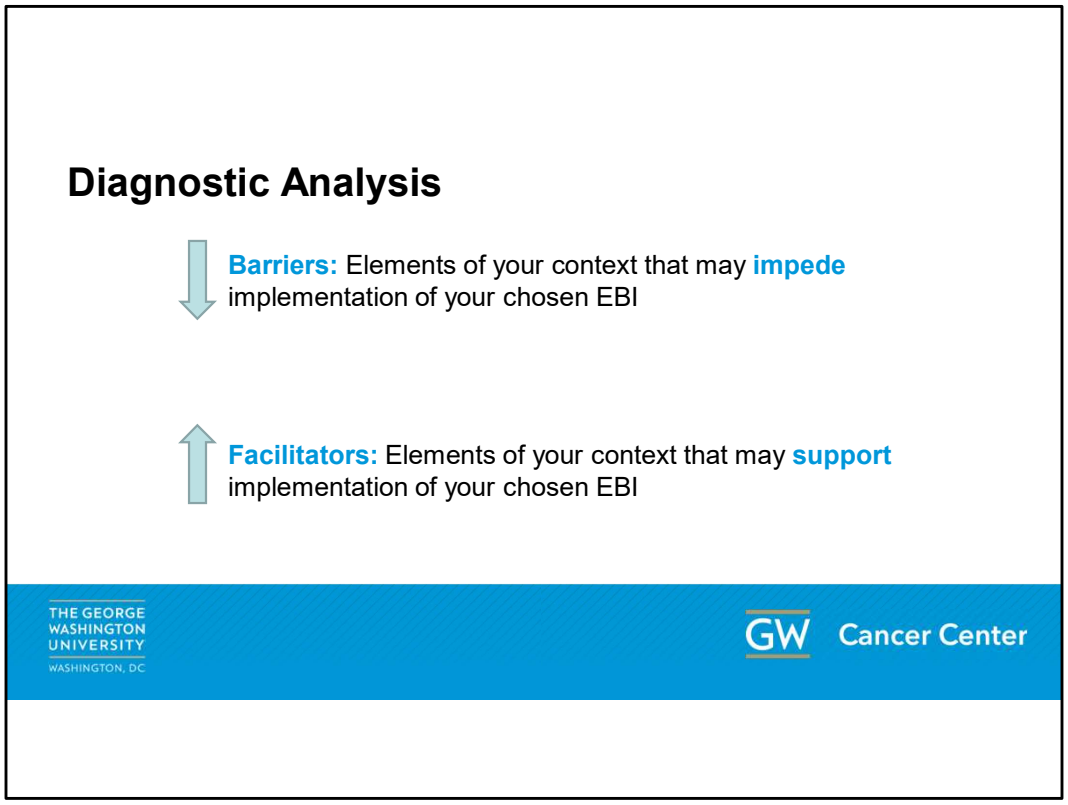
- This is one of many frameworks to help map context. The CFIR is visually demonstrated here and we will walk through each of the domains in this session.



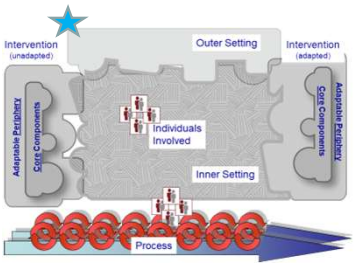
One use of your context map is a diagnosis of the problem in your unique setting. Barriers are elements of your context that may impede implementation and are marked with a downward pointing arrow.
Facilitators, also called assets, are elements of your context that may support implementation and are marked with an upward pointing arrow.

- Approaching this process with a health equity lens will allow you to identify **barriers/facilitators** connected to health disparities when mapping your context.

Case Example: CFIR

Determinants

- **Intervention characteristics**
- Inner setting
- Outer setting
- Individuals involved in implementation
  - Population(s) of Focus
- Process of implementation



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We will now walk through the Consolidated Framework.
Follow along with the blue star. First, we will look at characteristics of the intervention itself.

Intervention Characteristics

Key **aspects of the EBI** itself that influences implementation outcomes

Examples:

- Complexity
- Relative advantage
- Evidence strength and quality

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One important first step is looking closely at the key aspects of the EBI itself. For example:
Complexity: how difficult do people perceive a new intervention to be? This taps into how long the change will take, the scope of change required, radicalness or disruptiveness of the innovation, and the number of steps required to implement.
Relative Advantage: This is the stakeholders' perception of the advantage of implementing the intervention versus an alternative solution.
Evidence Strength and Quality: This is the stakeholders' perceptions of the quality and strength of evidence supporting the belief that the intervention will actually have the desired results.

Working with EBIs in detail will be addressed in the next session in a lot more detail, but it is worth noting that part of mapping context is determining what your setting is implementing in detail.

Getting Specific about EBIs

FLU-FIT

What exactly are you implementing?

Example: Colorectal Cancer Screening Intervention
- Program: Screening awareness program
- Product: **FLU-FIT kits**
- Policy: Paid time off for screening
- Practice: Coordinate transportation to screening

EBI

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You should work hard to get specific about what exactly is being implemented. This level of detail helps you determine implementation strategies that will enhance health outcomes.

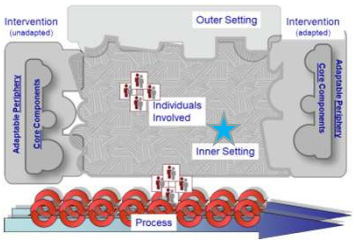
Maybe you know you are working on a colorectal cancer screening intervention generally, but that can can mean an educational program, a new product, a policy change, or a practice such as coordinating transportation.

In our case study we will focus on the implementation of FLU-FIT Screening kits.

Case Example: CFIR

Determinants

- Intervention characteristics
- **Inner setting**
- Outer setting
- Individuals involved in implementation
  - Population(s) of Focus
- Process of implementation



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Next, we will explore how to map the inner setting as part of your context map.

Inner Setting

Examples:

- Organizational structure
- Internal network & communications
- **Power structures**
- **Implementation culture & climate**
- **Readiness**

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- The inner setting refers to context factors within the organization where an EBI is being implemented.

For example:

- Organizational structure: The hierarchy, age, maturity, and size of an organization are important to understand when implementing new interventions.
- Internal networks and communications: The nature and quality of webs of social networks and formal and informal communications within an organization.
- The bottom three highlighted in blue as we are going to explore then in more detail.

Understand Power Structures

- Resistance to change is normal!
- Stems from fear:
  - "My work routine is going to change"
  - "My relationships to colleagues will change"
  - "Our patients/clients will be affected"

Gesme & Wiseman, 2010

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- Understanding power structures helps build empathy with resistance to change, which is normal in hierarchies.
- This resistance stems from fear that work, relationships, or patient health will change negatively.
  - These fears can be addressed and lessened by not changing everything at once.
  - Develop a cycle of work that can be undone if not successful for example.
  - Spread and scale successful results as you move into sustainability planning.

Relationships Matter

Growth-Oriented Relationships

Empathy

Active Listening

- People are experts in their own systems
- Listen for concerns that can help adapt the plan
- Model humility, transparency, and accountability

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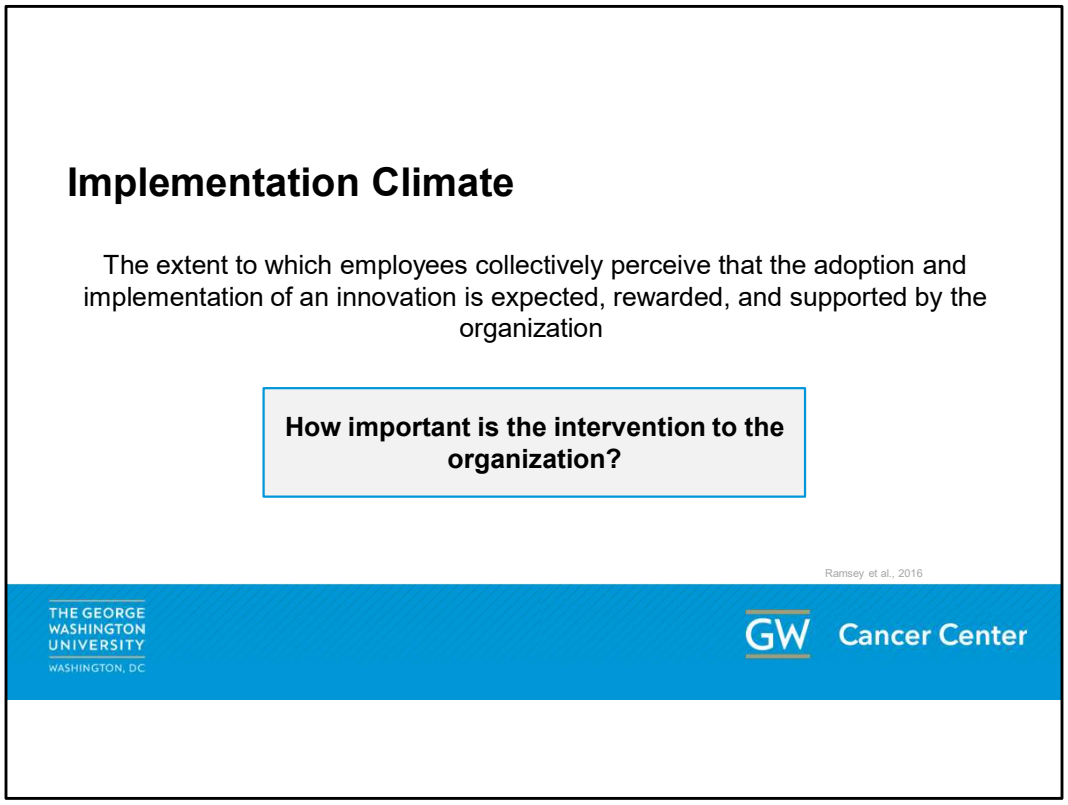
- Growth-oriented relationships can fuel implementation support
- Be empathetic
- Active listening can get at the “why” of resistance
- People are experts in their own systems
- Listen for concerns that can help adapt the plan
- Model humility, transparency, and accountability



- Implementation climate is the extent to which employees as a group think that the adoption and implementation of an innovation is expected, rewarded, and supported by the organization.
  Things like tension for change, relative priority, learning climate, and clear goals with feedback all affect implementation climate.
  Maybe you can map out through discussions with folks at the organization their capacity for change in past projects.

Case Study

Implementation Climate – Pharmacists:

- Can be stressed by quickly changing too many things
- Need peer training for new programs
- Feel supported and rewarded for innovation

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In this case, how might the implementation climate affect the FLU-FIT intervention?

How would feeling stressed impact implementation of FLU-FIT?

How might training affect the level of stress people are feeling?

How would feeling rewarded impact implementation of FLU-FIT?

$R=MC^2$

FLU-FIT

Readiness results from interplay between three components:

1. **M**otivation
   - Recent coverage of FLU-FIT and billing system changes at pharmacies
   - Interest in community prevention and equity
2. General **C**apacity
   - Recent turnover in pharmacy staff
3. Innovation-Specific **C**apacity
   - Pharmacy is ramping up flu vaccine program

Wandersman Center, n.d.
Livet et al., 2020
Walker et al., 2020

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- It is worth considering whether the organization is READY for this type of undertaking.
- Readiness comes down to: Are you and your organization willing and able to change?
- Implementation of change often includes collective change and multilevel systems redesign.
- There are many tools for assessing readiness already developed such as the online decision support tool available in your supplemental resource list.

- A fun equation to think about readiness is R=MC squared.
- Readiness for change equals=
- Motivation
- General Capacity
- Innovation-Specific Capacity

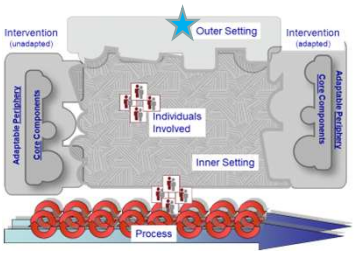
- Some examples from the FLU-FIT case study. Motivation: The incentive of recent coverage of FLU-FIT and billing change systems creates a readiness for change. There is also a reported interest in community prevention and health equity concerns.
- The general capacity for change might be weakened by recent turnover in staff.

- Innovation specific capacity may be increased due to increases in FLU vaccines which are paired with FIT kits in the intervention’s product.

Case Example: CFIR

Determinants

- Intervention characteristics
- Inner setting
- **Outer setting**
- Individuals involved in implementation
  - Population(s) of Focus
- Process of implementation



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Next, we will examine the outer setting elements to be mapped as part of a context assessment.

Outer setting

Social influences outside of the organization affecting implementation outcomes

Examples:
- –Patient needs and resources
- –External partnerships
- –External policies and incentives
- –Peer pressure

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- Outer setting refers to social influences outside of the organization affecting implementation outcomes

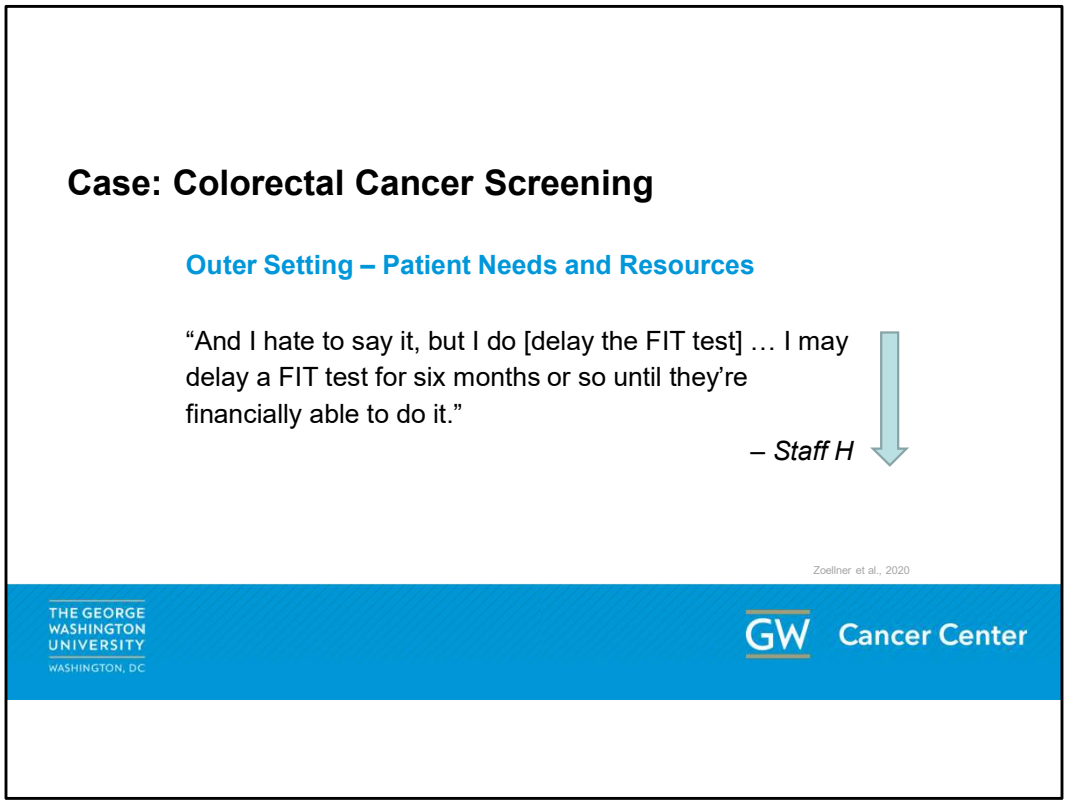
Some examples include:

Patient needs and resources: The extent to which patient needs, as well as barriers and facilitators to meet those needs, are accurately known and prioritized by the organization.

External partnerships: The degree to which an organization is connected with other external organizations.

External policies and incentives: Strategies to spread interventions, including policy and regulations (governmental or other central entity), external mandates, recommendations and guidelines, pay-for-performance, collaboratives, and public or benchmark reporting.

Peer pressure: competitive pressure to implement an intervention; typically because key peer or competing organizations have already implemented or are in a bid for a competitive edge



An example of patient needs in a community as an outer setting influence from a case study:
"And I hate to say it, but I do [delay FIT test]. I've done that a couple of times because like if they're in between jobs, it's hard. I mean this is a poverty area here. I have some patients a lot of patients who don't have any income coming in… I may delay a FIT test for six months or so until they're financially able to do it."
We can see here this outer setting (outside of the organization's control) element is acting as a barrier to full implementation.

Case: Lung Cancer Screening

Outer Setting – External Policies

"I think really the key was when Medicare said they would start paying for it [lung cancer screening]."

– Screening Facility Director

Allen et al., 2020

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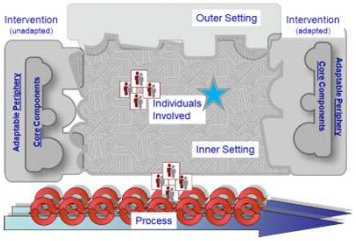
External policies can also influence what happens with implementation. For example from a case study on lung cancer screening:
"I think really the key was when Medicare said they would start paying for it. At that point, it really became something that people could take advantage of. I think that's really when we started being able to get substantial referrals."
This is an example of a facilitator for implementation.

Case Example: CFIR

Determinants

- Intervention characteristics
- Inner setting
- Outer setting
- **Individuals involved in implementation**
  - **Population(s) of Focus**
- Process of implementation



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Next, we will look at the Individuals involved in implementation and populations of focus.

Individuals

The actions and behavior of individuals ripples outward and affects networks and organizations in settings

Examples:

- Individual stage of change
- Knowledge & beliefs about EBI
- Belief in ability to succeed

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We shouldn't gloss over the power of individuals in creating change. The actions and behavior of individuals ripples outward and affects networks and organizations.

Some examples include:

Individual stage of change: Identifying the phase of change an individual is in, as he or she progresses toward skilled, enthusiastic, and sustained use of the intervention.

Knowledge and beliefs about the EBI: Individual attitudes toward and value placed on the intervention as well as familiarity with facts, truths, and principles related to the intervention.

Individual belief in their own capabilities to execute courses of action to achieve implementation goals and succeed.

Populations of Focus

EQUITY ACTIVITY

Equity Reflection:

- Are there **subpopulations** of interest in your context you want to focus on?
- Is there **historical** segregation, discrimination, or implicit bias?
- Are there specific health **disparities** that you want to address?

Comprehensive Cancer Control National Partnership, 2021

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Another important aspect of individuals in the context is determining your population of focus. Starting with reflecting on equity concerns is a good place to start. For example:

Are there subpopulations in your context you want to focus on?

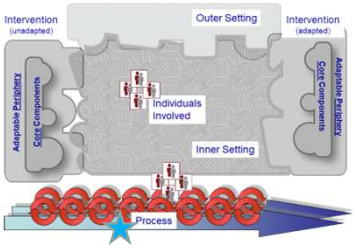
Is there a history of segregation, discrimination or implicit bias that needs addressed?

Are there specific health disparities you want to include in your goals?

Case Example: CFIR

Determinants

- Intervention characteristics
- Inner setting
- Outer setting
- Individuals involved in implementation
  - Population(s) of Focus
- **Process of implementation**



CFIR Research Team-Center for Clinical Management Research, 2021

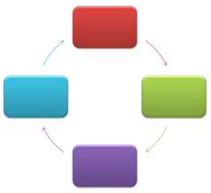
Finally, we will look at the setting's process for implementing changes in evidence-based practices.

Process

Organization's methods of carrying out change performed in repeated and incremental steps, refined over time, and necessary for implementation success

Examples:

- **Planning**
- Engaging
- Executing
- Reflecting and Evaluating



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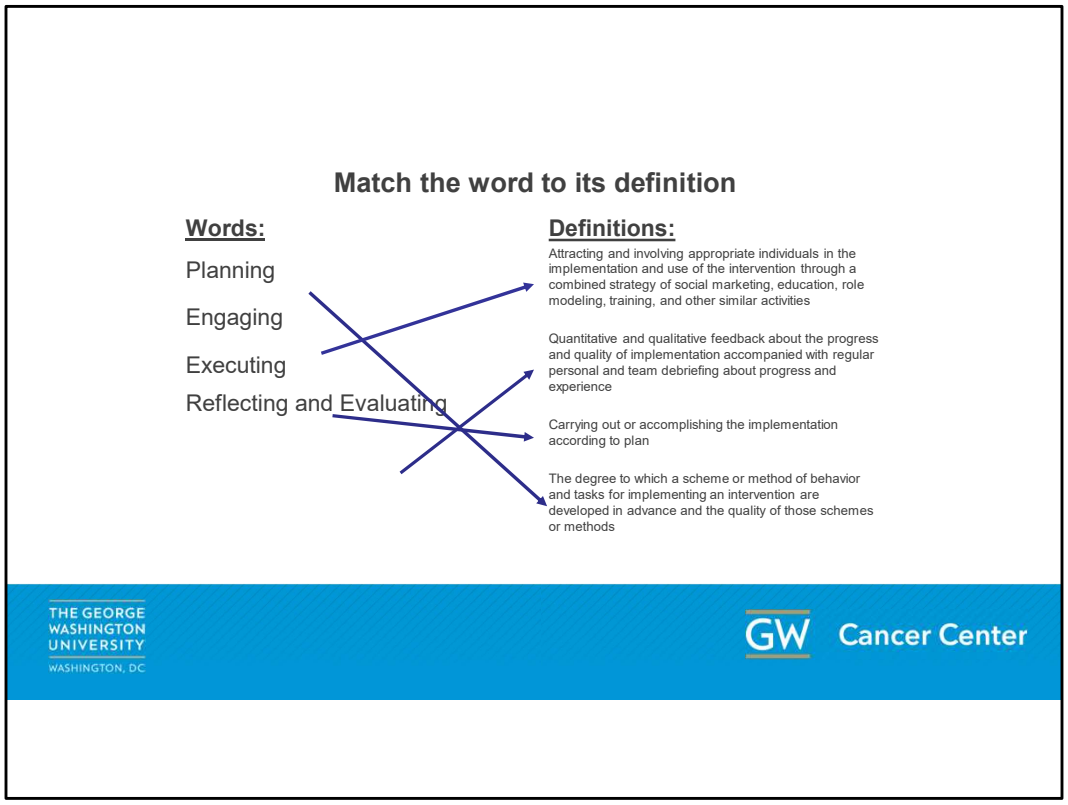
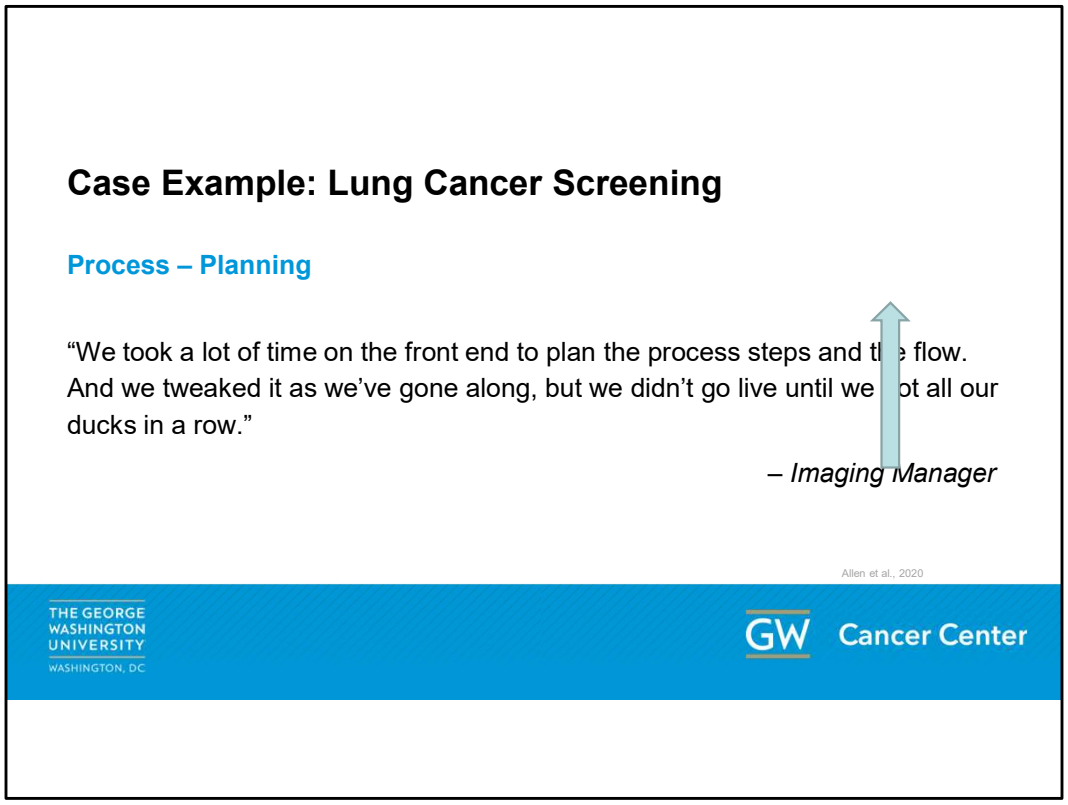
Mapping an organization's processes for change management can help plan for successful implementation.
Process includes the methods of carrying out change performed in repeated and incremental steps, refined over time. and necessary for implementation success

We will match each of these step in the change process with its definition as part of a game.

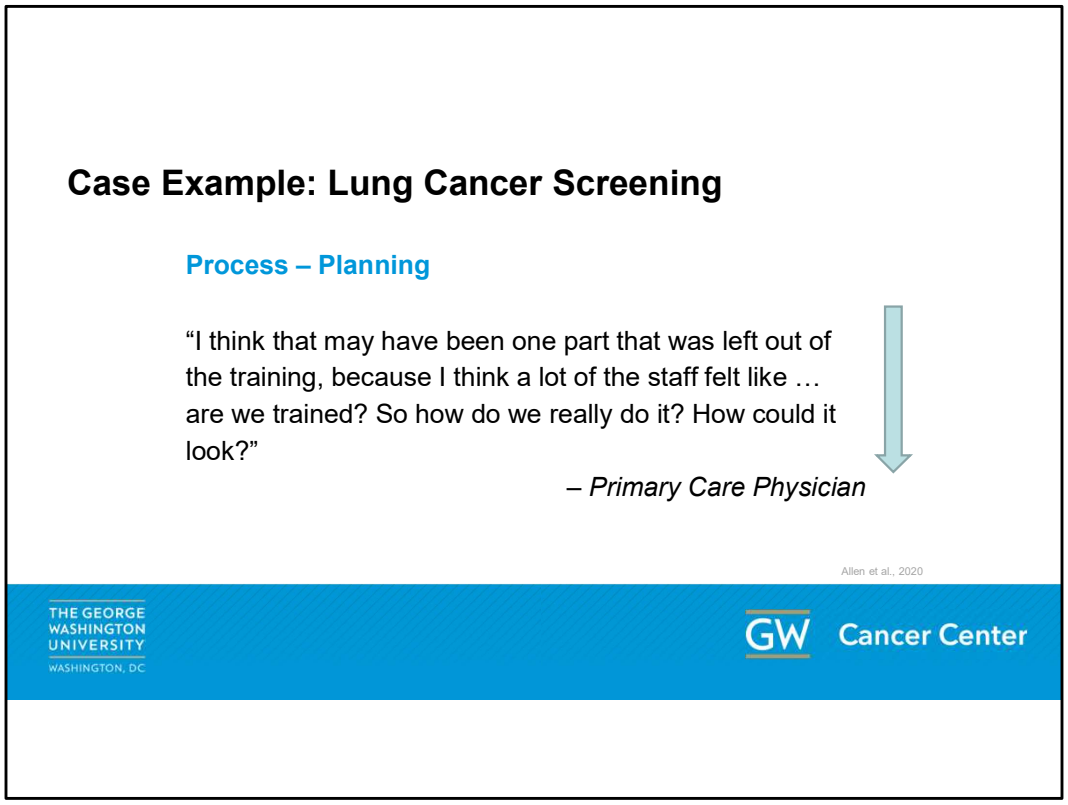


Let's match the word on the left to the definition on the right.

- First, planning: The degree to which a scheme or method of behavior and tasks for implementing an intervention are developed in advance and the quality of those schemes or methods.
- Engaging: Attracting and involving appropriate individuals in the implementation and use of the intervention through a combined strategy of social marketing, education, role modeling, training, and other similar activities.
- Executing: Carrying out or accomplishing the implementation according to plan.
- Reflecting and Evaluating: Quantitative and qualitative feedback about the progress and quality of implementation accompanied with regular personal and team debriefing about progress and experience.



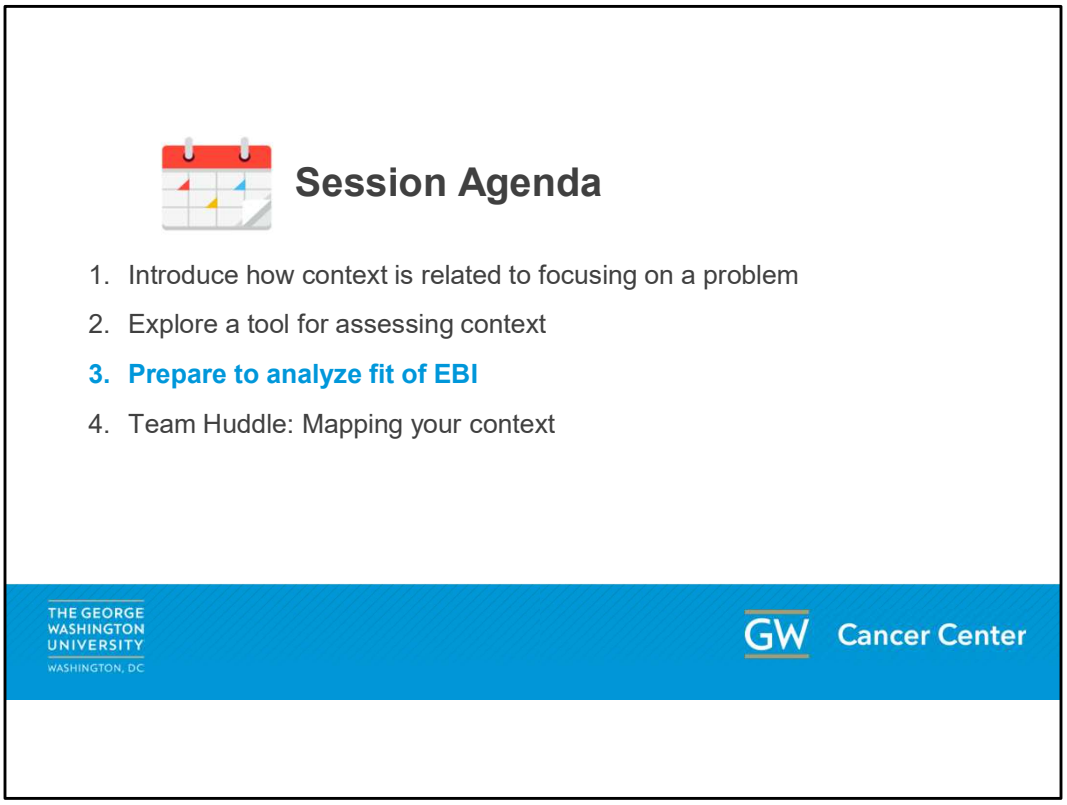
We can see some examples of a facilitator for implementation from a real case study of lung cancer screening program that had a well-defined planning process within a Federally Qualified Health Center setting.
"We took a lot of time on the front end to plan the process steps and the flow. And we tweaked it as we've gone along, but we didn't go live until we got all our ducks in a row."



Another example shows how lack of planning can be a barrier to implementation. Once again this is similar program in a different FQHC that had less success implementing lung cancer screening.

"I think that may have been one part that was left out of the training, because I think a lot of the staff felt like … are we trained? So how do we really do it? How could it look?"

At this point, you have assessed your context and you have may start to be overwhelmed by the amount of information you gathered.
A suggestion for moving forward is to slow down and begin to reflect on what all of this information means.



The next section will help you prepare to analyze the fit of the EBI to your setting.

Reminder: Goals of Contextualization

1. **Ensure match** between EBI and values, needs, skills, and resources
   - Consider stakeholders delivering interventions and patients/populations of focus
2. **Reflect on root causes** to allow barriers and assets to be identified
3. **Design tailored strategies** for implementation

Horner et al., 2014
Hamilton et al., 2007

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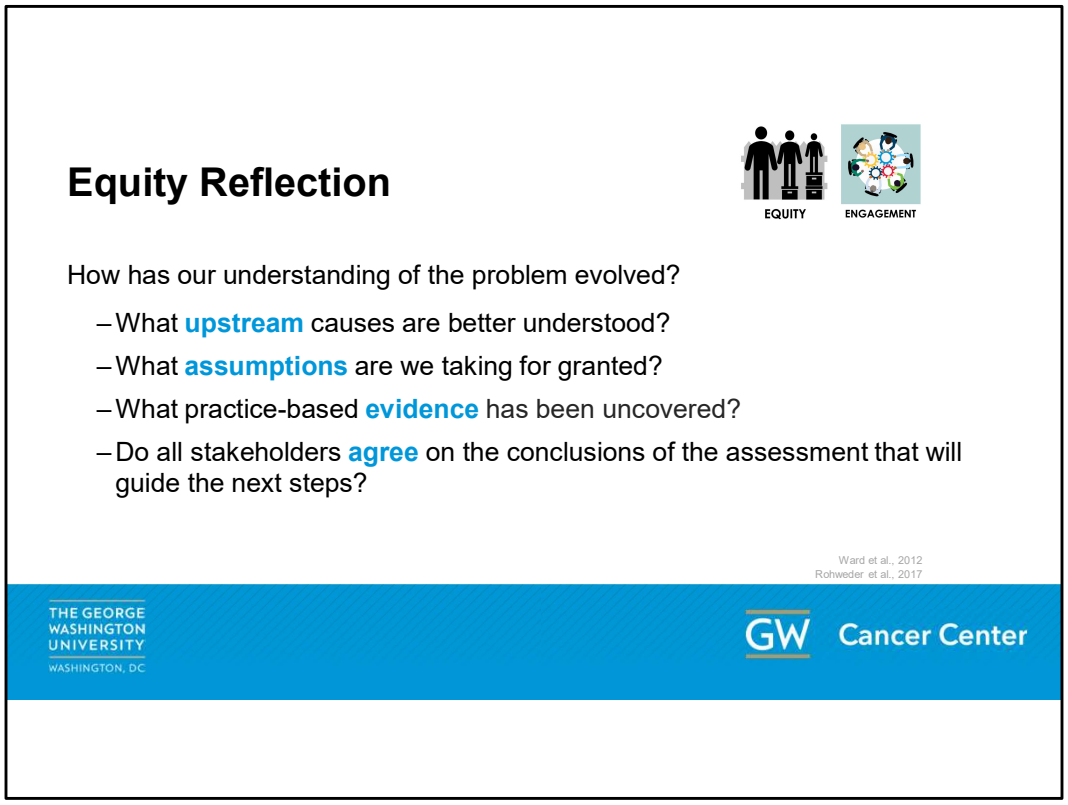
- Remember we are trying to ensure a match between the EBI you will implement and the needs, values, skills, and resources of your setting.
- It is also a good idea to continually stay aware of context as you are implementing new interventions. Context is dynamic and elements of the system or culture will change and require flexibility.



- Some questions to reflect on how your understanding of the problem is evolving:

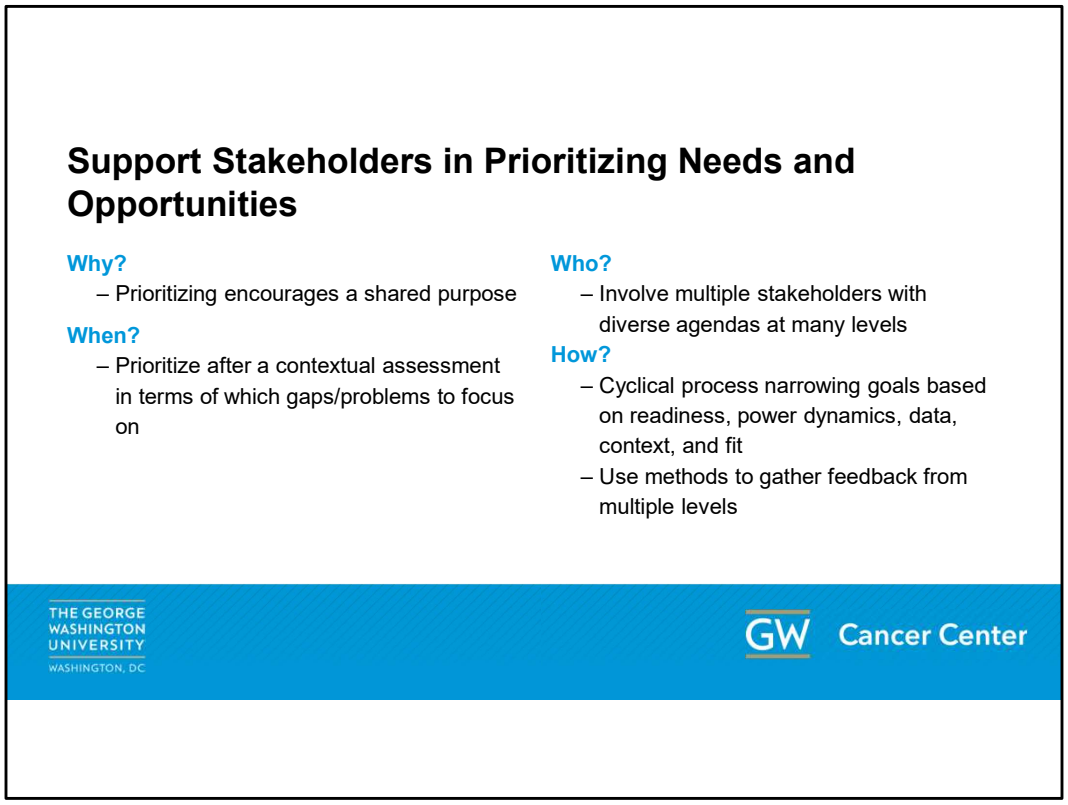
What **upstream** causes are better understood?

What **assumptions** are we taking for granted?

What practice-based **evidence** has been uncovered? Has talking to clinical or community health

partners demonstrated a need for clarity or adjustment?

Do all stakeholders **agree** on the major findings of the assessment?



- Often stakeholders may agree on the findings generally, but do not have the same feelings about the relative priority of the problems and solutions.
- Often organizations are not clear on their priorities, or not all levels of the organization are aware or in consensus about the priorities. You may find yourself supporting stakeholders in prioritizing needs together in an engaged and transparent way as part of implementation. Maybe your context turned up behavioral and structural sources of the problem and stakeholders are not sure which to tackle with their intervention.

Why Prioritize?

Prioritizing encourages a shared purpose

When?

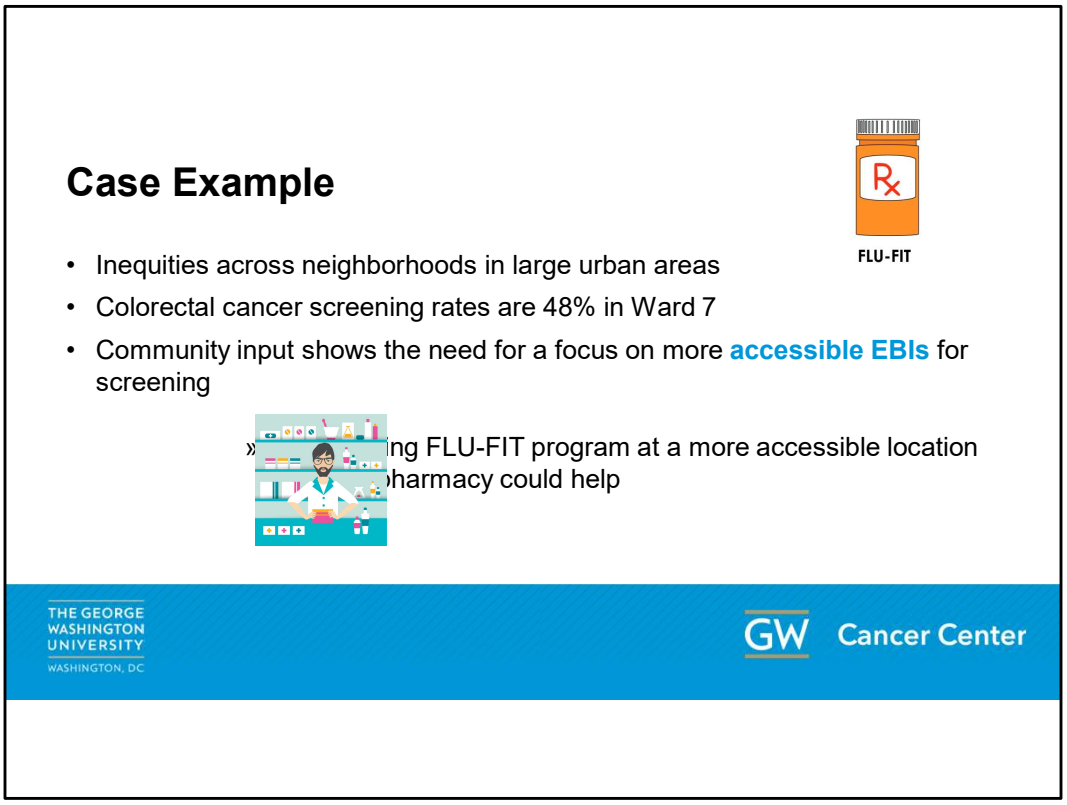
Prioritize after a contextual assessment in terms of which gaps/problems to focus on

Who?

Involve multiple stakeholders with diverse agendas at many levels

How?

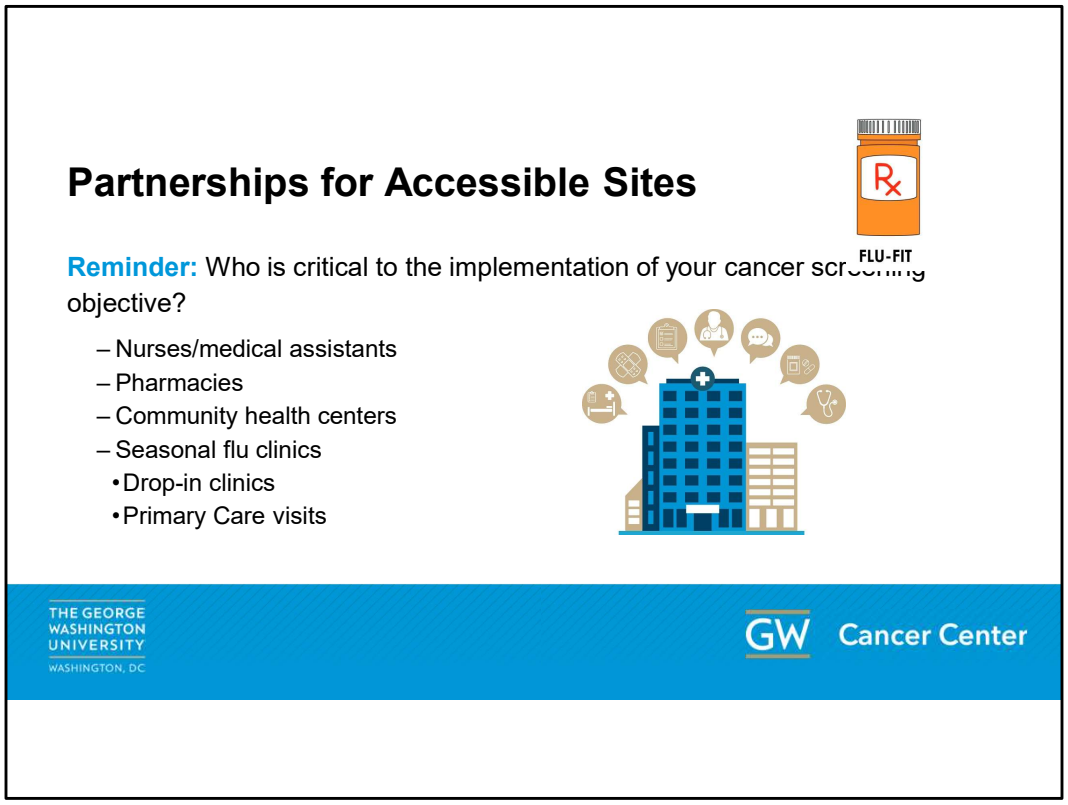
- Repeated process narrowing goals based on readiness, power dynamics, data, context, and fit
- Use facilitation methods to gather feedback from multiple levels



Some takeaways from our hypothetical case study context map:

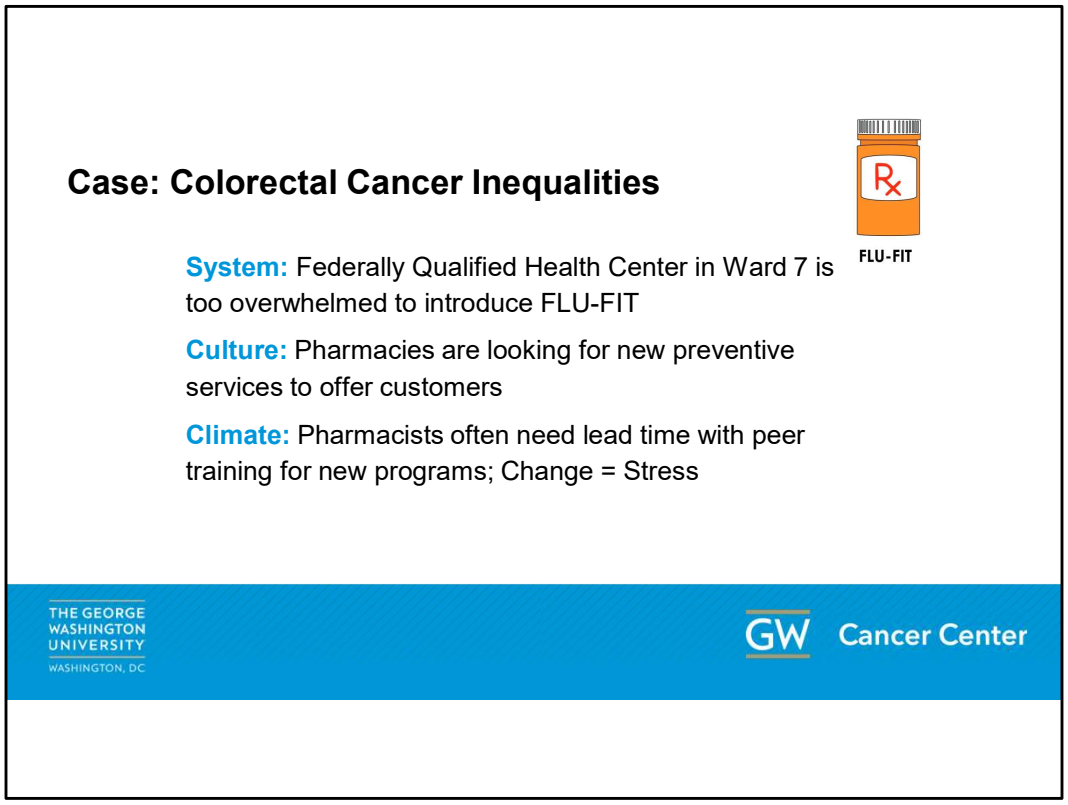
- There are significant cancer inequities across neighborhoods in large urban areas
- Colorectal cancer screening rates are 48% in Ward 7 of Washington, D.C.
- Community input shows the need for a focus on more **accessible EBIs** for screening

•This map shows implementing a FLU-FIT program at a more accessible location such as a pharmacy could help solve the problem, demonstrating a fit between the EBI and the context.



Brainstorming partnerships at this point after a context assessment can really help you identify who else needs to be at the table.
Examples from our FLU-FIT example include:

- Nurses/medical assistants
- Pharmacies
- Community health centers
- Seasonal flu clinics
  - Drop-in clinics
  - Primary Care visits

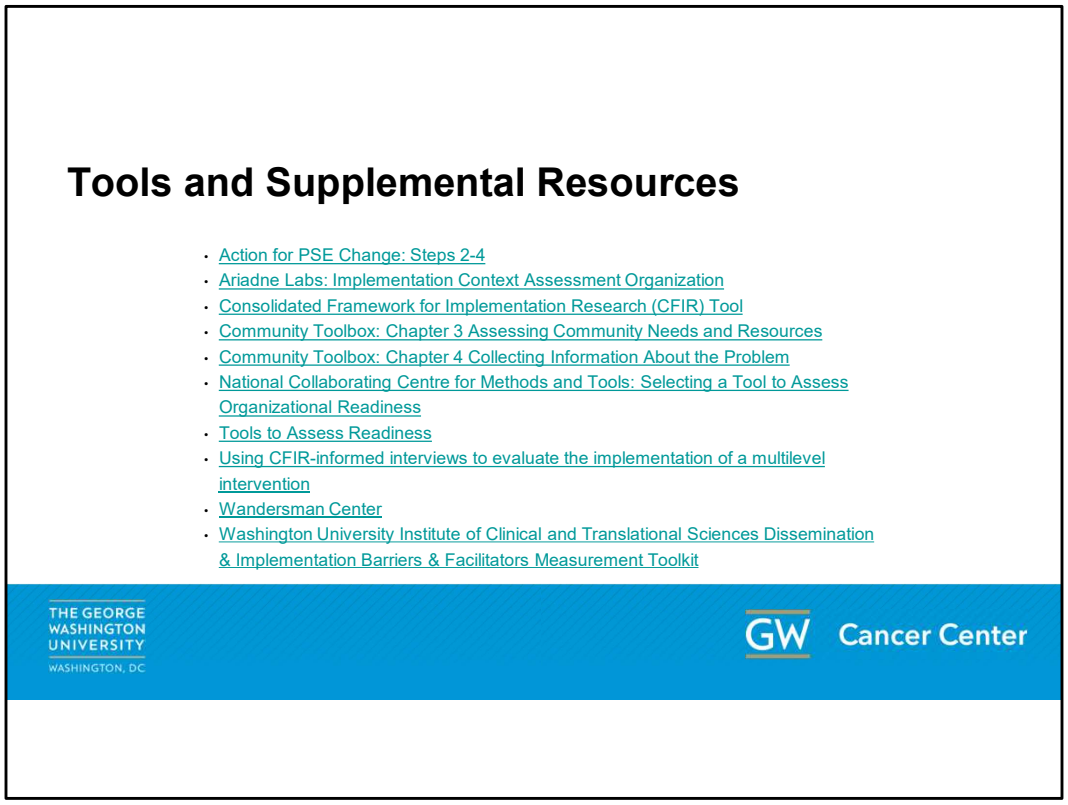


A higher-level map of context might summarize the situation like this:

System: FQHC: New program is not a good match right now due to other priorities, current capacity.

Culture: Pharmacies are looking for new preventive services to offer customers

Climate: Pharmacists often need lead time with peer training for new programs; Change = Stress



All of these tools are located in the companion guide for your use in your projects.

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- As well as references for your use as needed.

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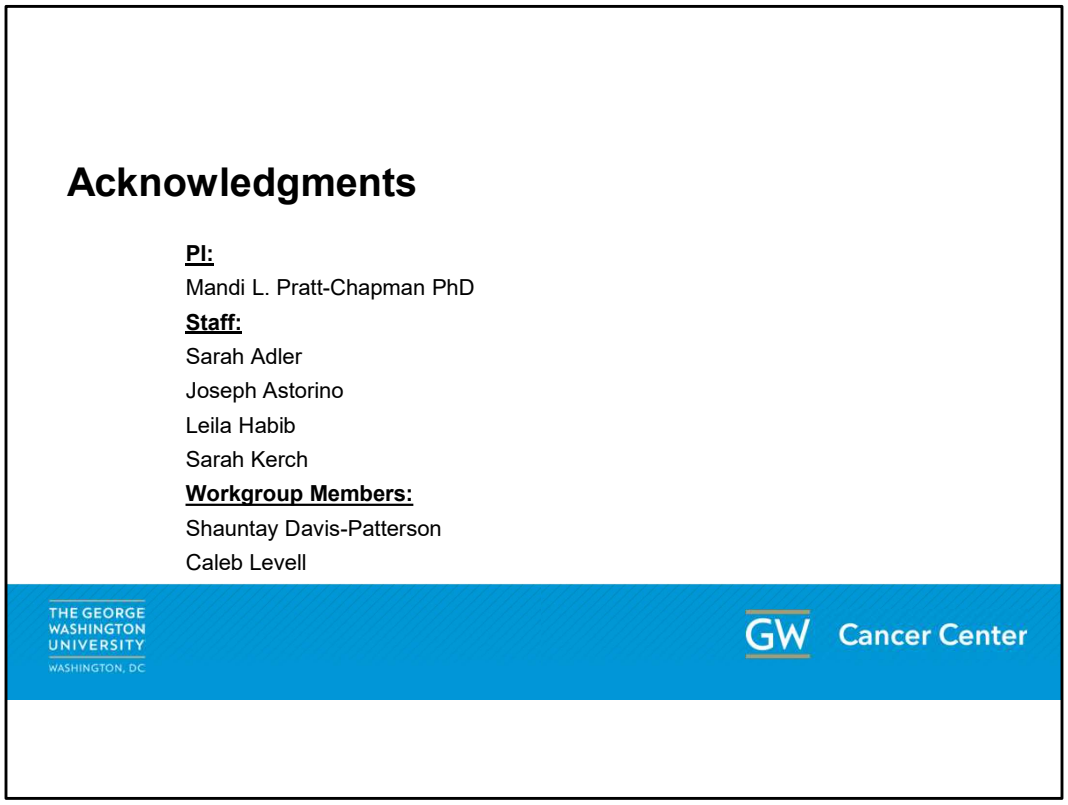
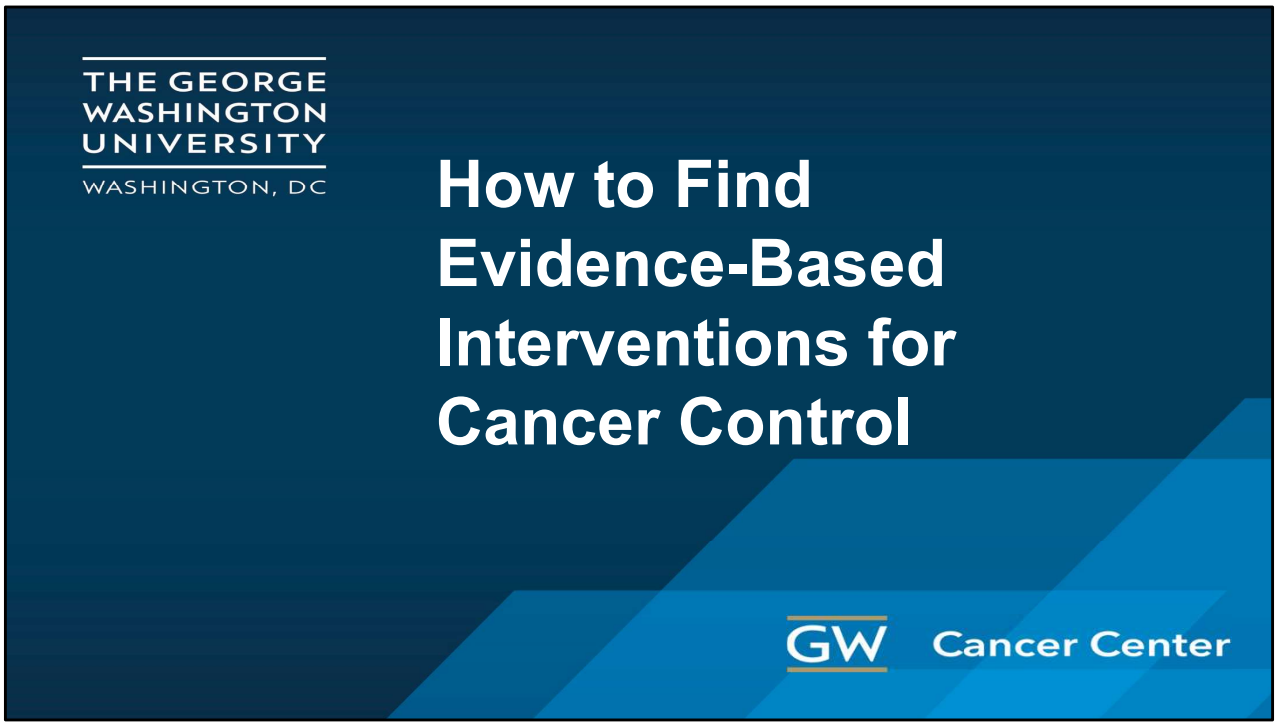


- Thank you to all those listed here who helped in developing this training.



Welcome to session 3 of the Base Camp.

I am Sarah Kerch, the Comprehensive Cancer Control Technical Assistance Manager for the George Washington University Cancer Center.

This session will focus on How to find Evidence-Based Initiatives for Cancer Control.

Disclosure

This session was supported by Cooperative Agreement #NU58DP006461-03 from the Centers for Disease Control and Prevention (CDC). The views expressed in written workshop materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

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Learning Objectives

1. Describe sources and examples of evidence-based interventions (EBIs)

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Our main learning objective is that learners should be able to describe sources and examples of evidence-based interventions (EBIs) after this quick session.

Session Agenda

1. Introduce landscape of evidence

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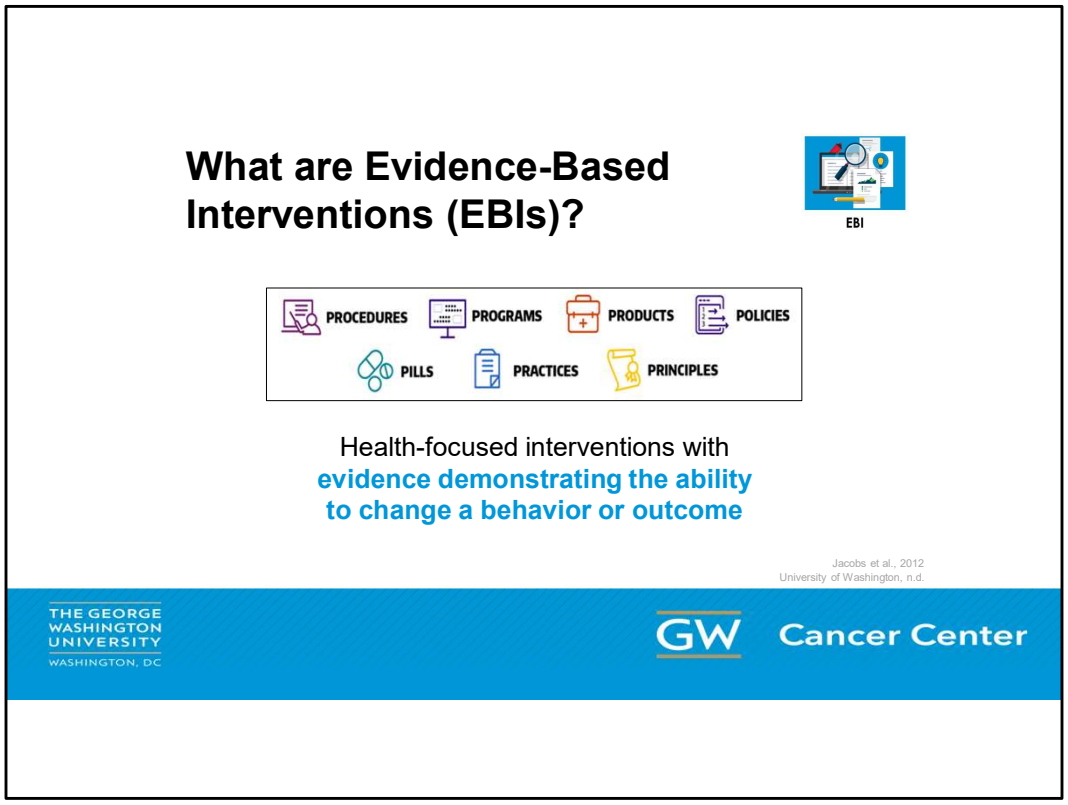
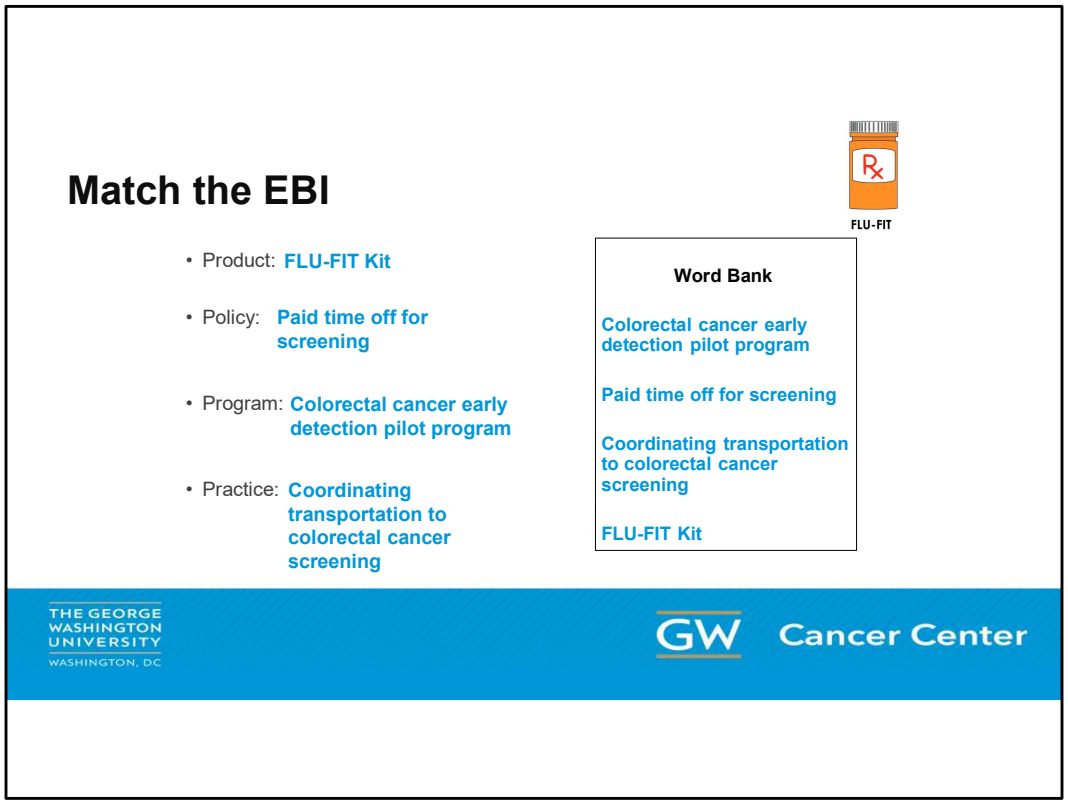
Our plan for the session is to introduce the landscape of evidence.

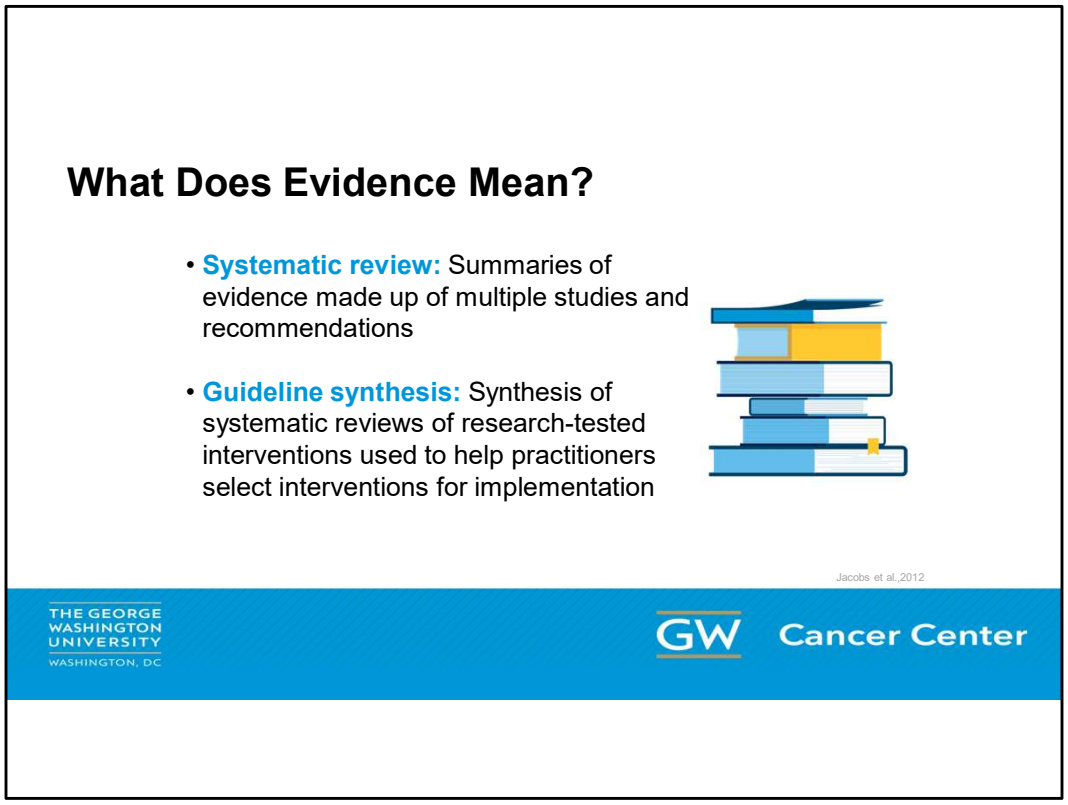


- EBIs are health-focused interventions with evidence demonstrating the ability to change a behavior or outcome. These come in many different forms such as:
    - Procedures which are written documents depicting the necessary steps of a practice
    - Programs: Short-term interventions that create temporary improvements in the wake of challenges.
    - Products: A thing or object that is a result of productive actions
    - Policies: policy (little p) is a guiding principle used to set direction in an organization; Policy (big P) guides the rules we collectively choose to live by, as articulated in legislation and regulation. They inform our socially accepted morals and ethics.
    - Pills: Medicine itself.
    - Practices: An activity or process
    - Principles: A high level ideal or value guiding behavior internally



Now we are going to do a matching game. Match the blue words to the right EBI type. Let's start with "colorectal cancer early detection pilot program". Where do you think that would go?
Continue going down the word bank list.

Product: FLU-FIT Kit
Policy: Paid time off for screening
Program: Colorectal cancer early detection pilot program
Practice: Coordinating transportation to colorectal cancer screening



Hi everyone. My name is David Chambers, and I serve as the Deputy Director for Implementation Science within the Office of the Director in the Division of Cancer Control and Population Sciences at the National Cancer Institute.

Next we will examine what does evidence even mean?

Two examples of evidence are:

Systematic reviews: Summaries of evidence made up of multiple studies and recommendations
Guideline synthesis: Synthesis of systematic reviews of research-tested interventions used to help practitioners select interventions for implementation

Practice-Based Evidence

Lived experience matters!

–Practitioners know their patients, context, and needs best

Two-way flow of knowledge can inform implementation

–Rigorous quality improvement efforts

–Getting stakeholders involved in evaluation

–Co-creating with implementation scientists

Green, 2008

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Practitioners know their setting best therefore lived experience matters.
Practitioners know their patients, context and needs best.

Some ways that this knowledge can inform implementation research include:

-Rigorous quality improvement efforts

-Getting stakeholders involved in evaluation

-Co-creating with implementation scientists

You might ask yourself (or your team): who is critical to the implementation of your cancer screening objective that might have this type of knowledge?

Resources that Synthesize Evidence

- The Campbell Corporation
  https://www.campbellcollaboration.org
- Cochrane Effective Practice and Organization of Care
  https://epoc.cochrane.org/

EBI

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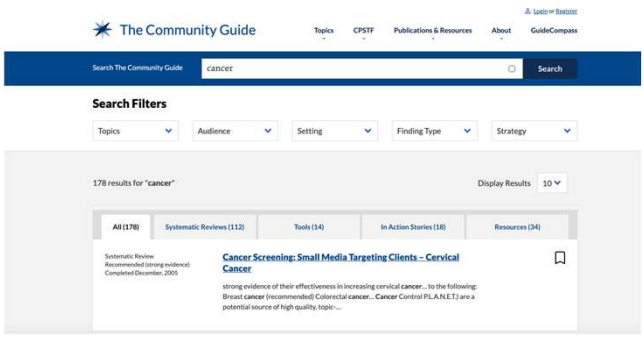
- There are also many resources that synthesize evidence for you as practitioners. The Campbell Corporation and the Cochrane Group both are useful resources that have already done the work of synthesizing evidence for you.

The Community Guide

EBI



The Community Guide, n.d.

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The Community Guide is developed by the Community Preventative Services Task Force and provides evidence-based findings and recommendations about community services, programs, and other interventions aimed at improving population health.

The Community Guide

EBI

The Community Guide, n.d.

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Some examples from the Community Guide include the systematic reviews that recommend interventions that engage community health workers to increase screening for breast, colorectal, and cervical cancer.

Guide to Clinical Preventive Services

EBI

Cancer Screening
- •Breast
- •Cervical
- •Lung
- •Colorectal

A.H.R.Q., n.d.

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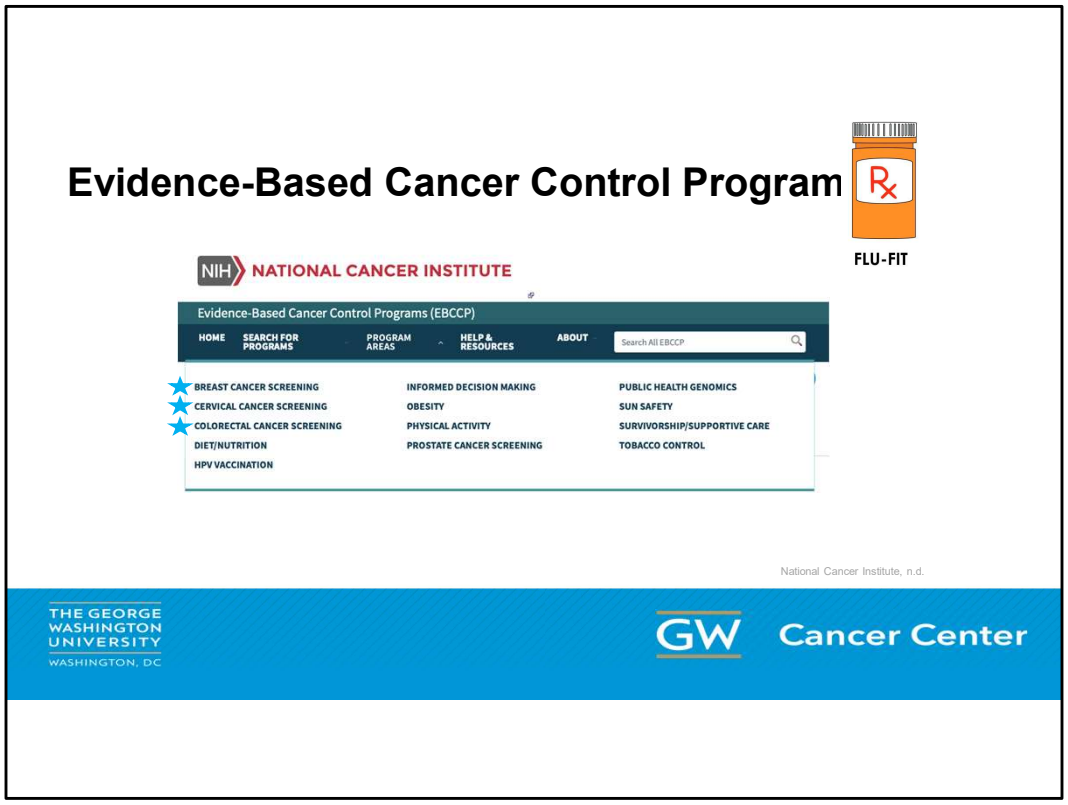
- The Guide to Clinical Preventive Services contains the U.S. Preventive Services Task Force (USPSTF) recommendations on the use of screening, counseling, and other preventive services that are typically delivered in primary care settings.



The Evidence-Based Cancer Control Programs (EBCCP) website is a searchable database that provides program planners and public health practitioners easy and immediate access to

1. programs tested in a research study
2. publication(s) of the study findings
3. program products or materials used with a particular study population in a specific setting

Given that the programs on this website are based on evidence-derived research studies, they may be particularly effective in serving the populations and communities in the settings in which they were originally tested.

Starred here are EBCCPs that focus on screening.

Each of these program areas contain detailed information about populations of focus and community type that the intervention was designed for and tested with. This should help with integrating a health equity approach when choosing

an EBI.

Cancer Control Plans and EBIs

48% of cancer control planners used EBI resources in 2010

Planners request assistance to help them use EBIs more & adapt resources for their context

Funders are increasingly interested in supporting evidence-based projects

Hannon et al., 2010

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In terms of including EBIs in your work, such as Cancer Control plans:

- 48% of cancer control planners used EBI resources in 2010
- Planners often request assistance to help them use EBIs more
- Help is also requested to adapt resources for their context
- Funders are increasingly interested in supporting evidence-based projects

Choosing an EBI

Selecting among many available interventions:

–How much **evidence** is available and what is the quality of evidence?

–How **ready** is your setting for change?

–How much **buy-in** is there from executive and clinical ch ?

–What **resources** will you need to initiate and sustain this intervention?

Fernández et al., 2014

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Choosing an EBI is very important as you probably could tell by the last presentation on mapping context in order to ensure a match between the needs of your setting and the intervention. Some questions to help guide your decision include:

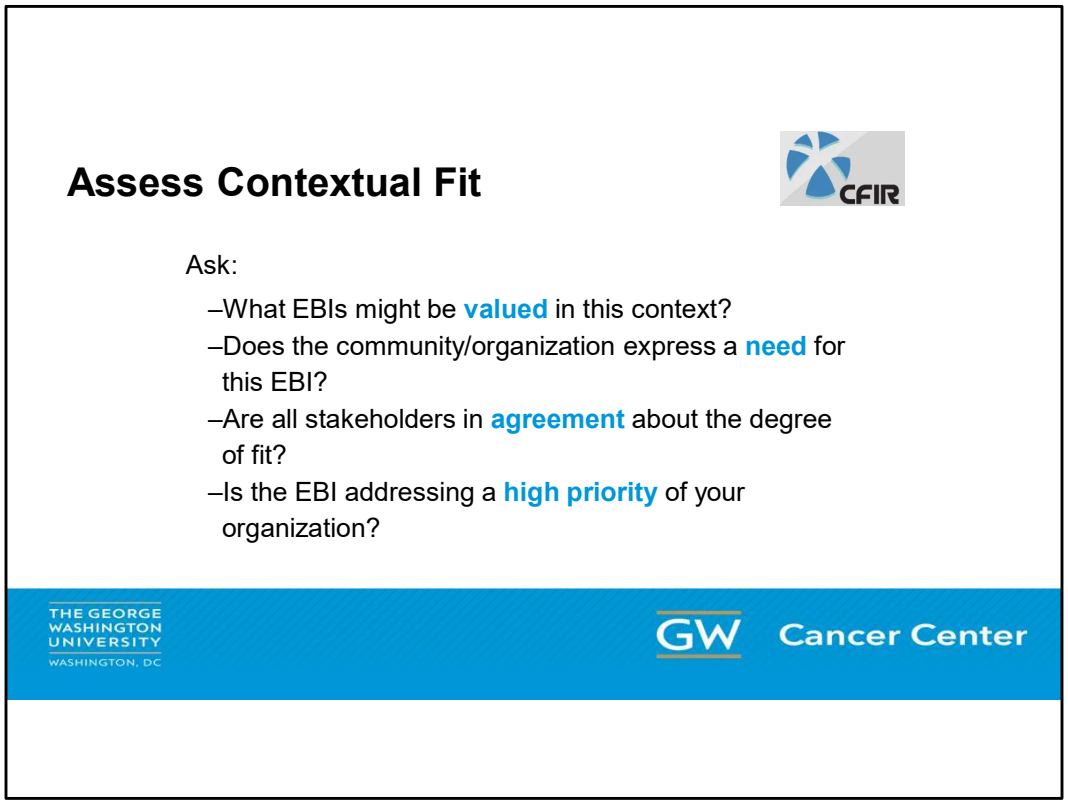
How much **evidence** is available and what is the quality of evidence?

How **ready** is your setting for change?

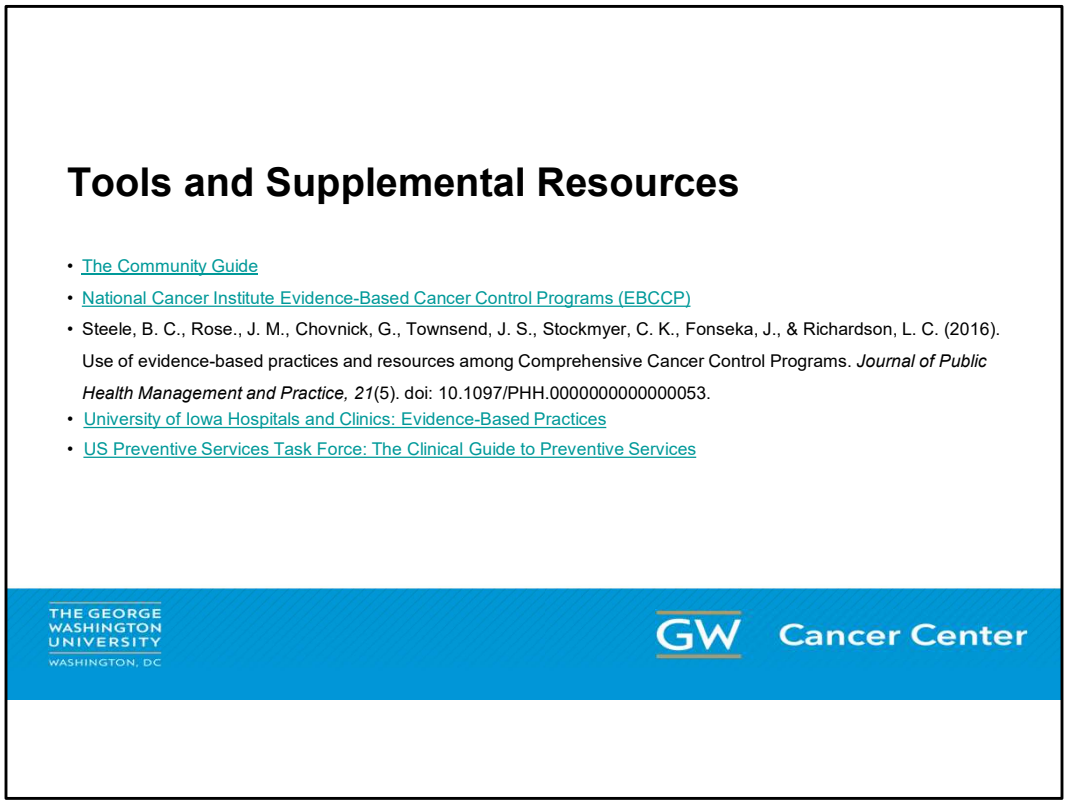
How much **buy-in is there** from executive and clinical champions?

What **resources** will you need to initiate and sustain this intervention?

Another thing to consider before making a final decisions is how much adaptation is going to be needed to ensure a good fit between your EBI and the setting?



- A reminder from the last session-–you should reflect on fit by asking yourself (and stakeholders) these questions:
  - What EBIs might be **valued** in this context?
  - Does the community/organization express a **need** for this EBI
  - Are all stakeholders in **agreement** about the degree of fit?
  - Is the EBI addressing a **high priority** of your organization?



Tools listed here are all located in your companion guide.

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As well as all references.

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PI:
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Staff:
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Joseph Astorino
Leila Habib
Sarah Kerch
Workgroup Members:
Erin Hahn
Kelly Wells Sittig

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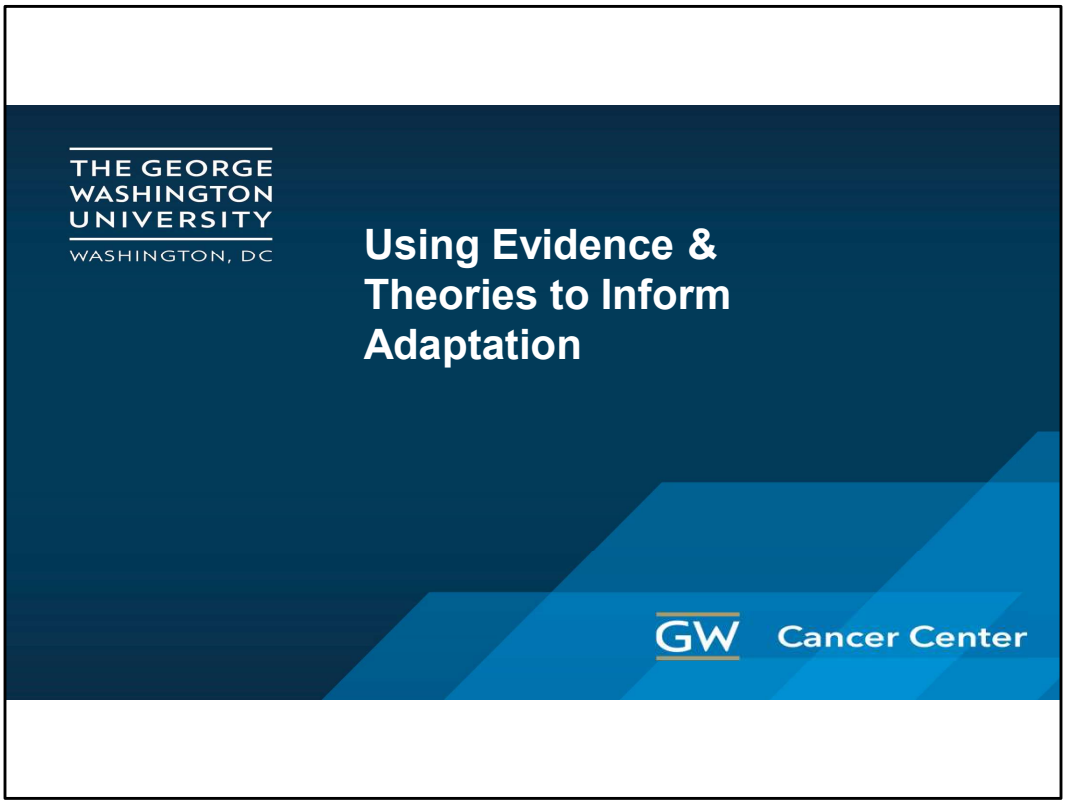
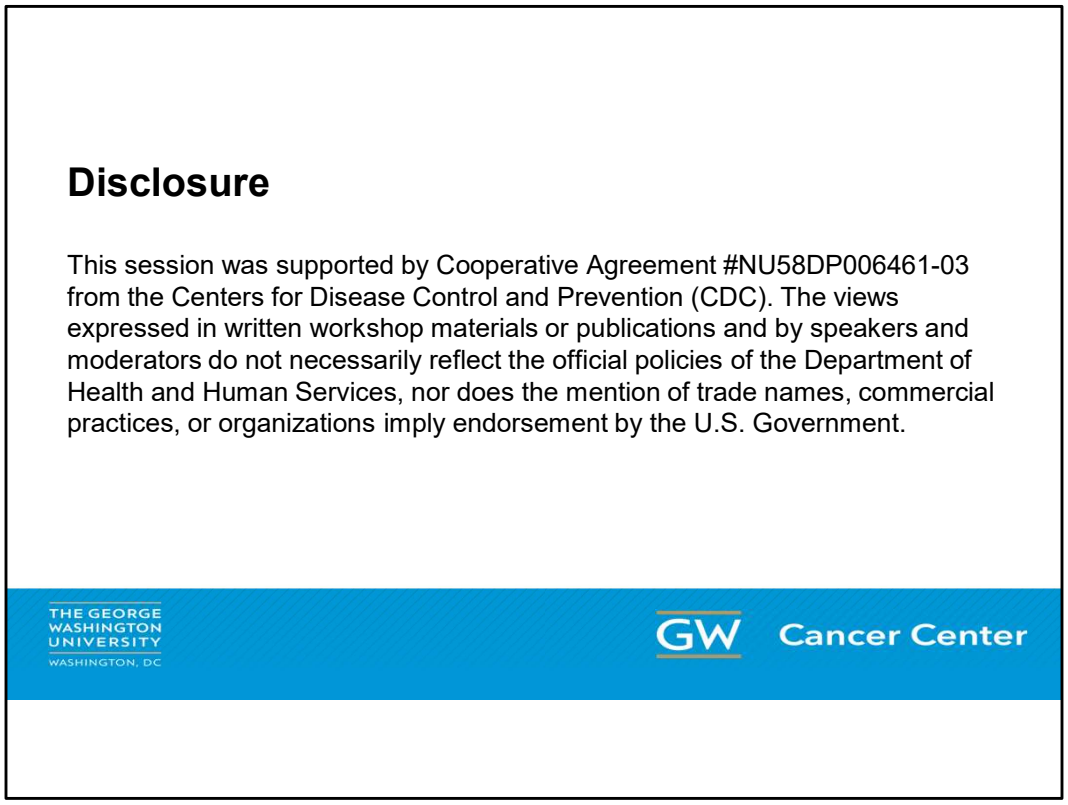


Welcome to session 4 of Base Camp.

- Hi everyone, I am Randy Schwartz. I am the President of Public Health Systems, Inc. and also bring much experience from state health department and voluntary health organizations.



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Learning Objectives

1. Identify key process components of adapting an EBI

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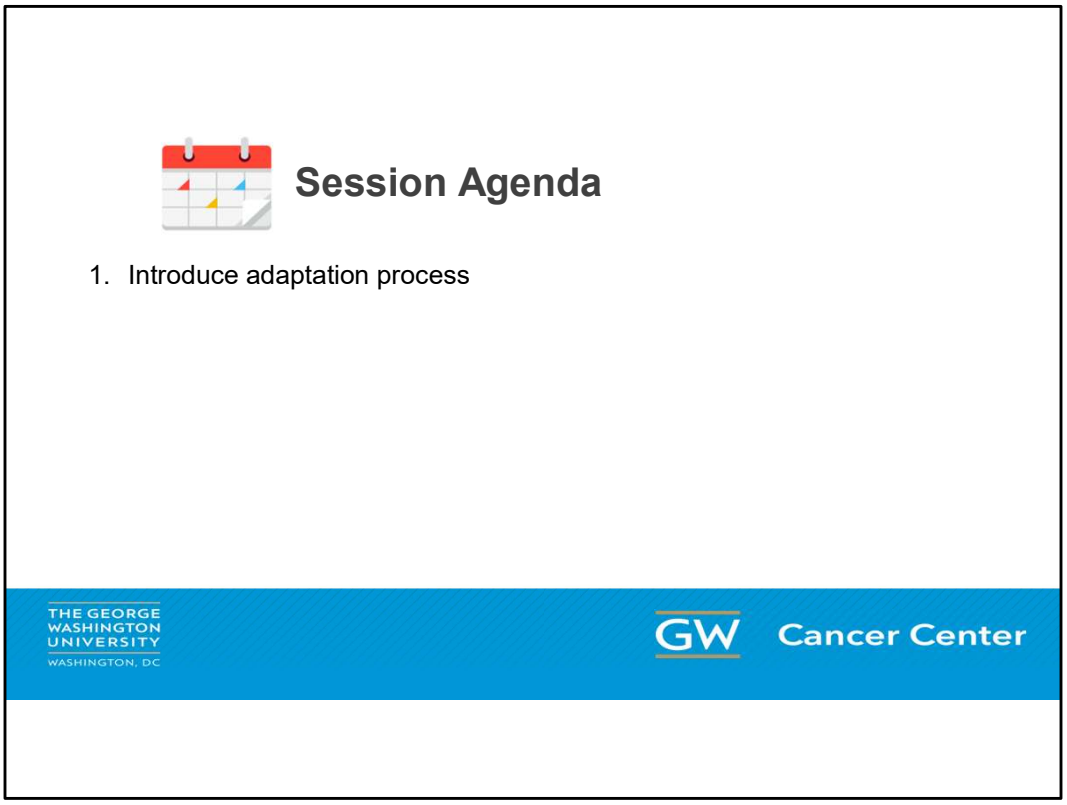
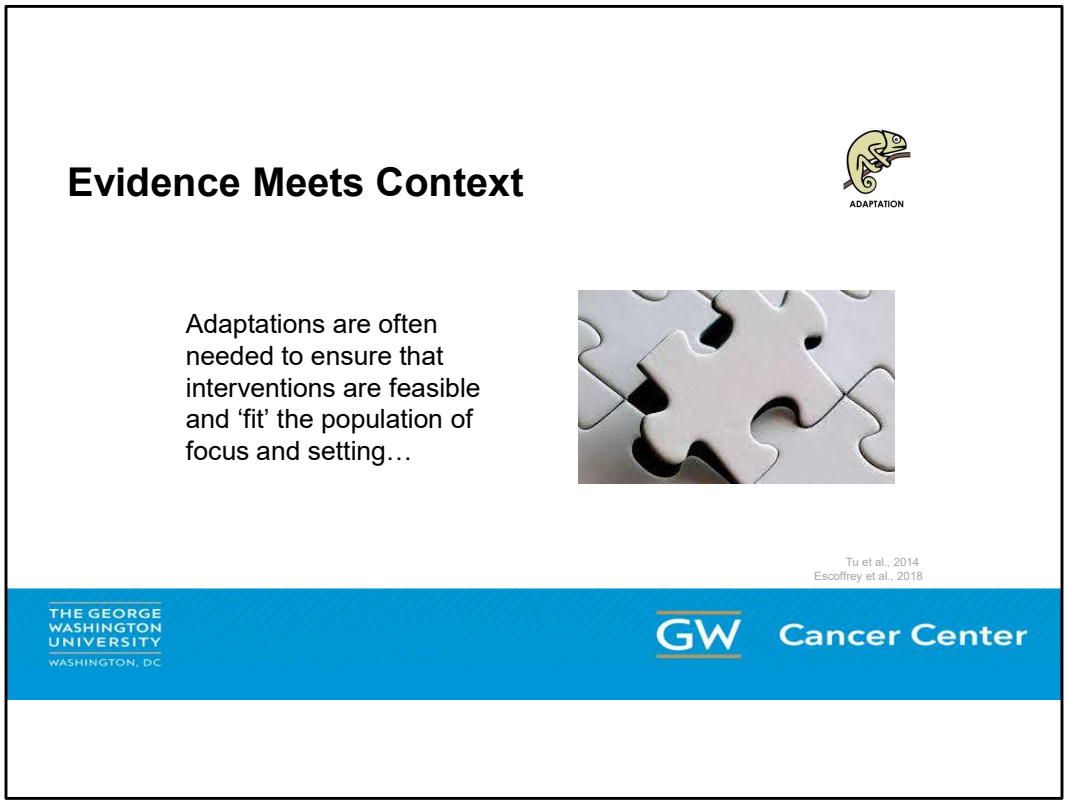
Our main learning objectives for this session include:

Identifying key process components involved in adapting an EBI



Here is our map for the session:

We will introduce the adaptation process.

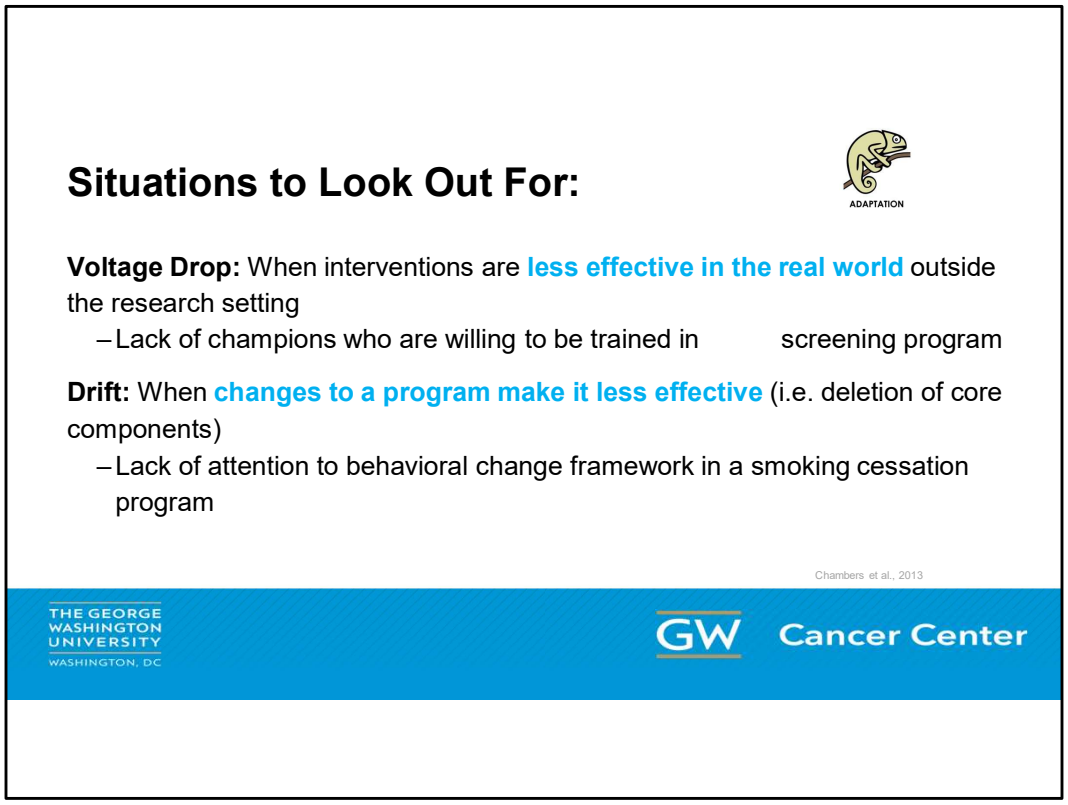


Adaptations are often needed to ensure that interventions are feasible and 'fit' the population of focus and setting. This can be a vital step in planning for health equity in your intervention, where you can plan ahead to adapt for your population(s) of focus.

Adaptation is defined as the degree to which an evidence-based intervention is **changed or modified** by a user during adoption and implementation to suit the needs of the setting or to improve the fit to local conditions.

Fidelity, a related term, is the degree to which an intervention or program is **implemented as intended** by the developers and as prescribed in the original protocol.

Example: For example, say the cancer screening program you are working with is needing to be carried out in a new setting because of system changes such as a Federally Qualified Health Center being too overwhelmed at the moment. Maybe you want to carry out the FLU-FIT program at a workplace or at a pharmacy which is more accessible and a better fit for your context. What should you take into consideration before carrying out changes like this? This session will help you plan these changes in advance.



Here we will introduce two more concepts that help explain why being intentional about adaptation is so important.

Voltage Drop occurs when **i**nterventions are less effective in real world practice than they are in a research setting, because research settings are sometimes better resourced with special conditions that a real world setting might not be able to replicate day to day.

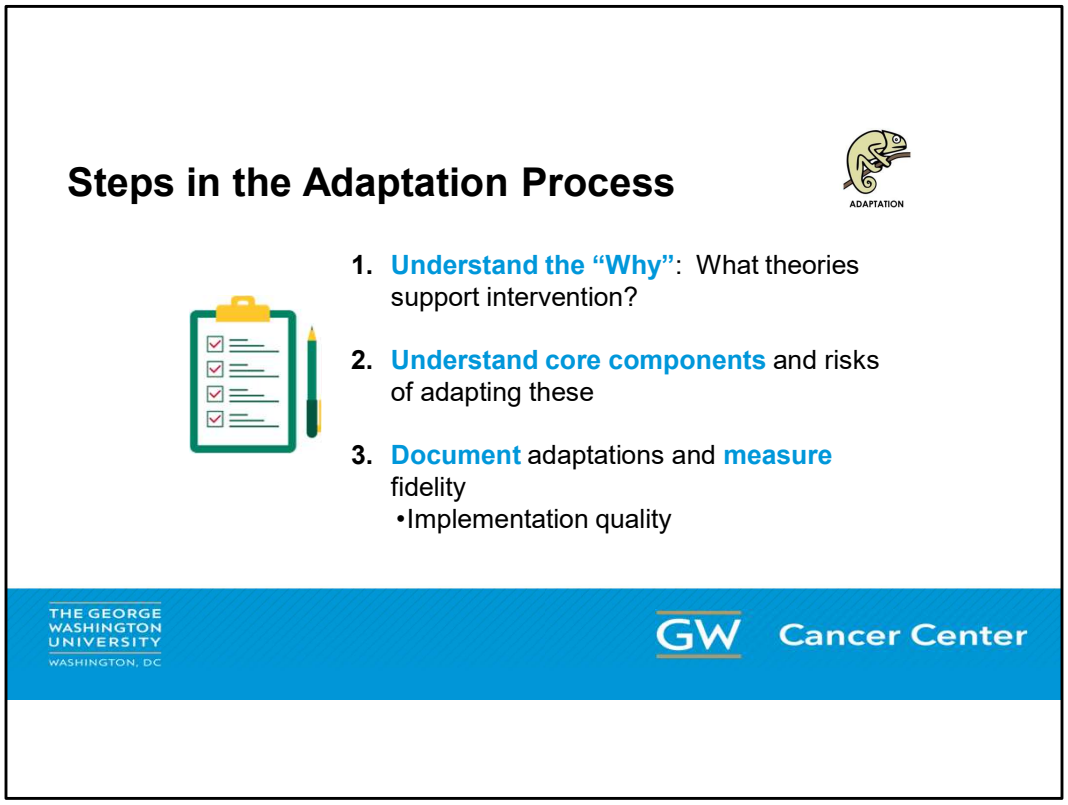
An example could be a lack of champions who are willing to be trained in a screening program, and therefore the program is not as effective as in a clinical trial.

Drift on the other hand results from adapting an intervention in a way that changes the program's effectiveness – such as deleting a core component of a program that makes it work

An example might be a lack of adherence to the behavioral change framework in a smoking cessation program

Maybe clinicians do not fully understand the theories underlying a cessation program

and have changed the components so much that it is not producing effective outcomes



Some steps in the adaptation process:

Understand the "Why": What theories support intervention?

Understand core components and risks of adapting these

Document adaptations and **measure** fidelity. This will help you understand the quality of implementation.

Steps in the Adaptation Process

1. **Understand the "Why"**: What theories support intervention?
2. Understand core components and risks of adapting these
3. Document adaptations and measure fidelity
   - Implementation quality

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First—let's look at why.

Understand the "Why"

Interventions are designed around models of behavioral change

- Target a barrier or cause of behavior
- Designed intentionally for multiple levels of change

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EBIs are grounded in theory, that is the foundation of why they work the way they do.

Interventions are designed around models of behavioral change

They may be carefully designed to target a barrier or cause of behavior

They may also sometimes be designed to target multiple levels of change

Maybe they act on a specific barrier or determinant of behavior, which causes the intervention to be effective.
Do we want to change that function? No

“Why do I need to know why?”

“Public health interventions grounded in health behavior theory often prove to be **more effective** than those lacking a theoretical base, because these theories conceptualize the mechanisms that underlie behavior change.”

ICEBeRG Group, 2006
Jacobs et al., 2012

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Why does this matter?

- “Public health interventions grounded in health behavior theory often prove to be **more effective** than those lacking a theoretical base, because these theories conceptualize the mechanisms that underlie behavior change.”

Steps in the Adaptation Process

1. Understand the "Why": What theories support intervention?
2. **Understand core components** and risks of adapting these
3. Document adaptations and measure fidelity
   - Implementation quality

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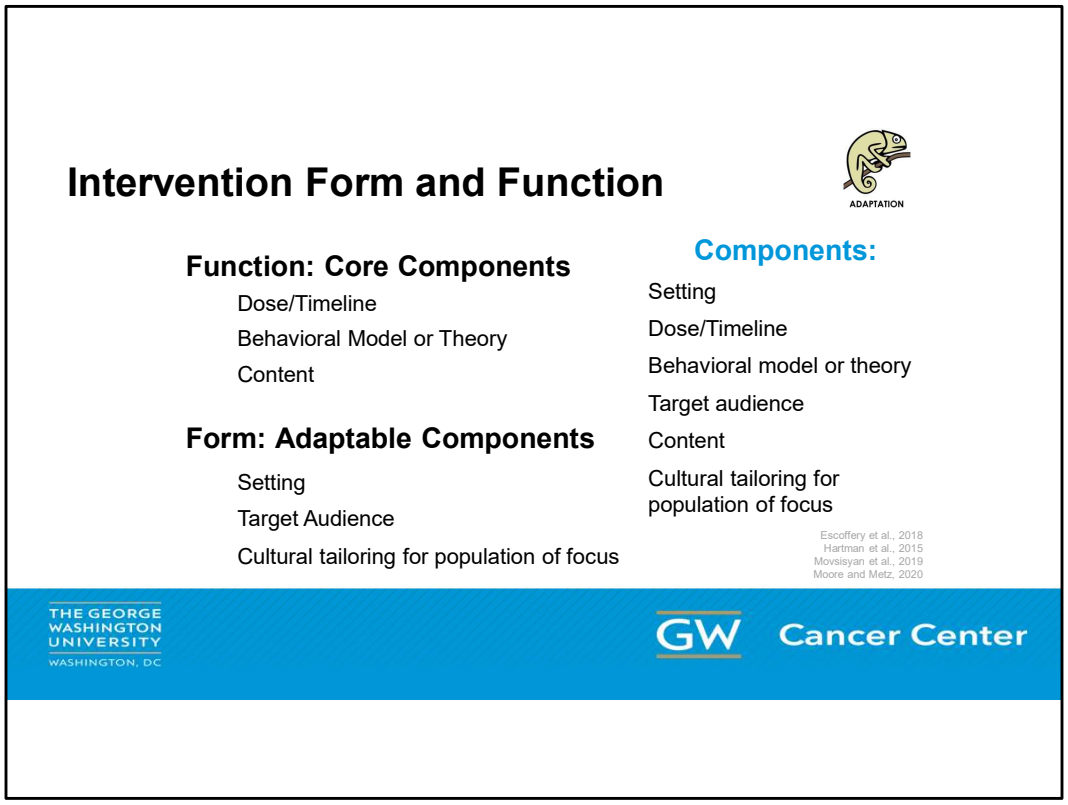
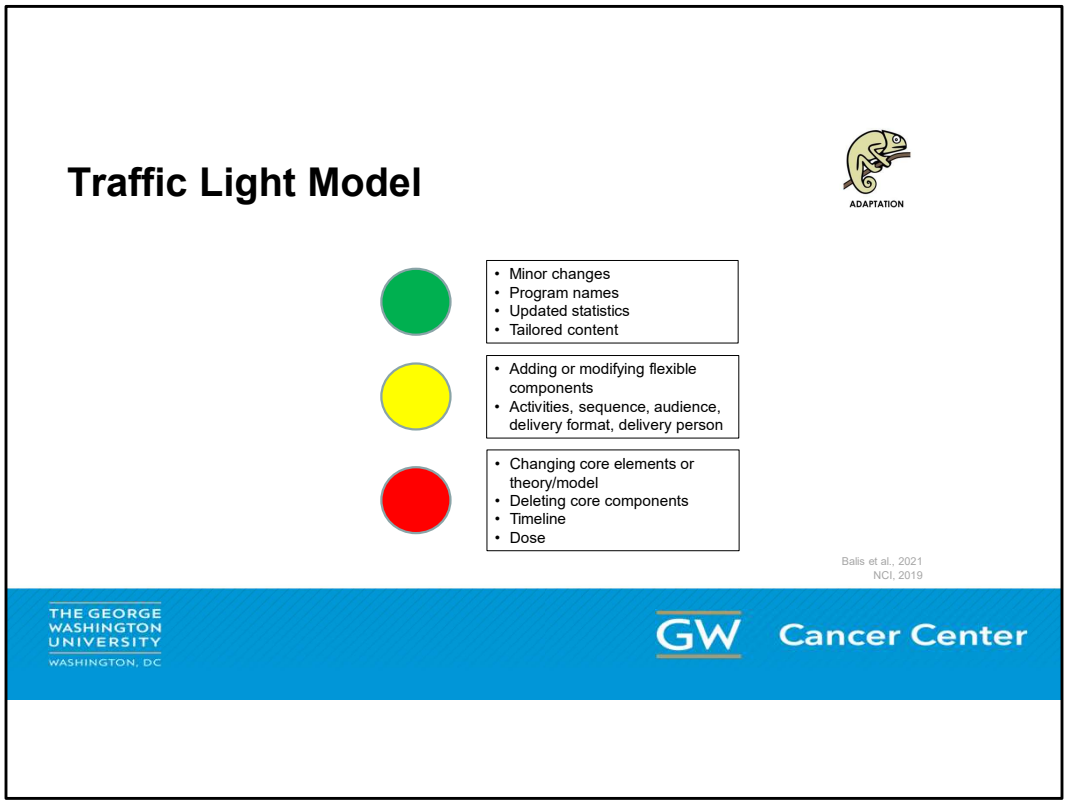
Next, we will look at core and adaptable components of interventions.



- We do not want to change the function of the EBI as it is the core reason why the program works, or is effective. Changing the form, or the adaptable components of an EBI, does not change the function.

Let's match what you think might be a core component or functional component of an intervention, versus what you think might be adaptable components.



- As we just learned, making too many changes to an intervention can reduce its original effectiveness, or worse, introduce unintended and harmful outcomes.

Before making adaptations to the intervention, you should think about how the change to the original intervention can improve the fit to your community, setting, or target population, and at the same time, maintain fidelity to the core components of the original intervention.

Think of possible adaptations as you would a green, yellow, or red traffic light:

green light changes are usually OK to make;
yellow light changes should be approached with caution; and
Red light changes should be avoided when possible.

Steps in the Adaptation Process

1. Understand the "Why": What theories support intervention?
2. Understand core components and risks of adapting these
3. **Document** adaptations and **measure** fidelity
   - Implementation quality

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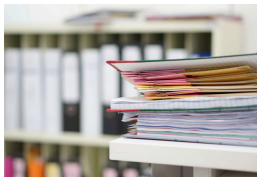
Last, we will introduce some tools for documenting adaptations and measuring fidelity.

Document Adaptations

ADAPTATION

Be Proactive:

- Make adaptations to promote acceptance
- Design implementation blueprint to allow for EBI adaptation in an intentional way



Kilbourne et al., 2020
Aarons et al., 2012

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Be intentional in the design of adaptations in your implementation blueprint
Make adaptations to promote end-user acceptance from the start.

- Maybe you know will be working with a specific population of focus that will require minor changes and cultural tailoring of content and activities. It is better to include populations most affected by the planned intervention early and document changes and reasons for changes proactively

Framework for Reporting Adaptations and Modifications (FRAME)

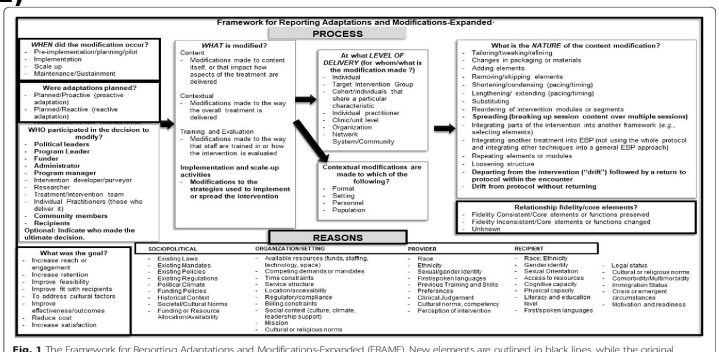

Fig. 1 The Framework for Reporting Adaptations and Modifications-Expanded (FRAME). New elements are outlined in black lines, while the original

Wiltsey et al., 2019

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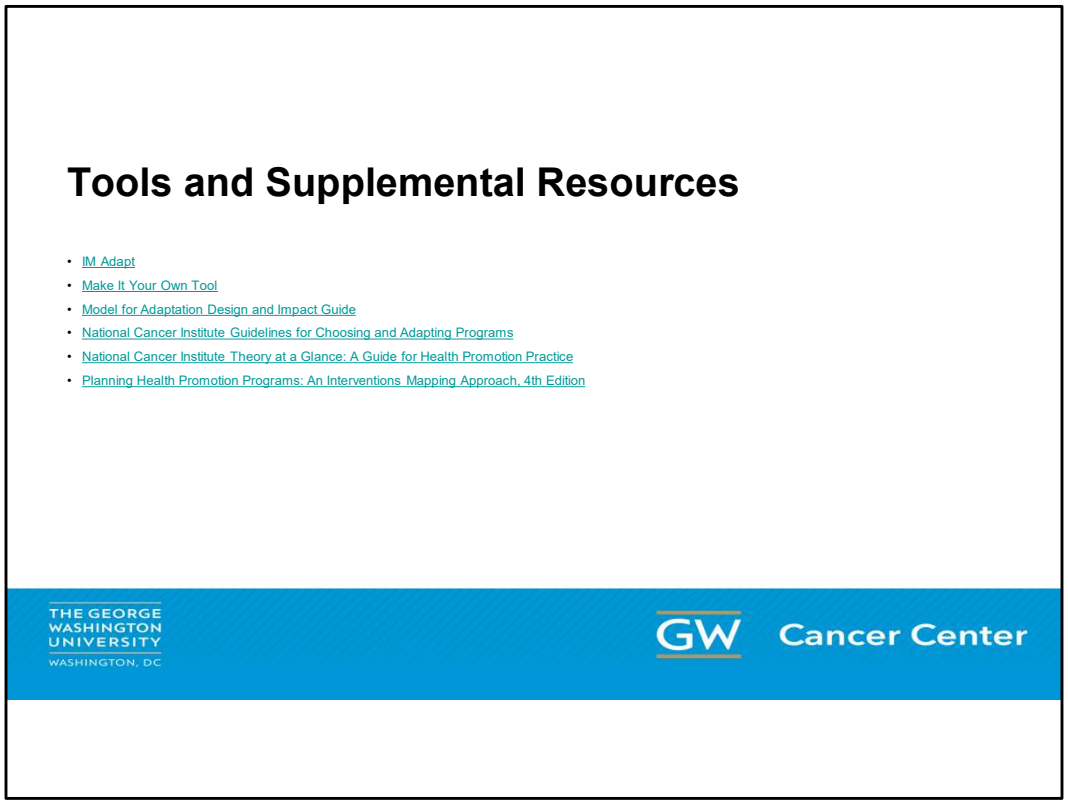
One example of a framework for documenting adaptations is the FRAME. See here a picture of the template/tool available for your use in adapting interventions. This tool contains prompts to remind you to document when adaptations occurred, who decided to modify an intervention, as well as the nature of the changes made. This tool is also located in the supplemental resources.



Tools listed here are all located in your companion guide for your continued learning

Tools and Supplemental Resources

- AcademyHealth Blog Post "Implementation Science: Embracing Adaptations to Complex Interventions for Better Outcomes"
- Stirman, S. W., Baumann, A. A., & Miller, C. J. (2019). The FRAME: An expanded Framework for Reporting Adaptations and Modifications to Evidence-based interventions. *Implementation Science, 14*(1). https://doi.org/10.1186/s13012-019-0898-y

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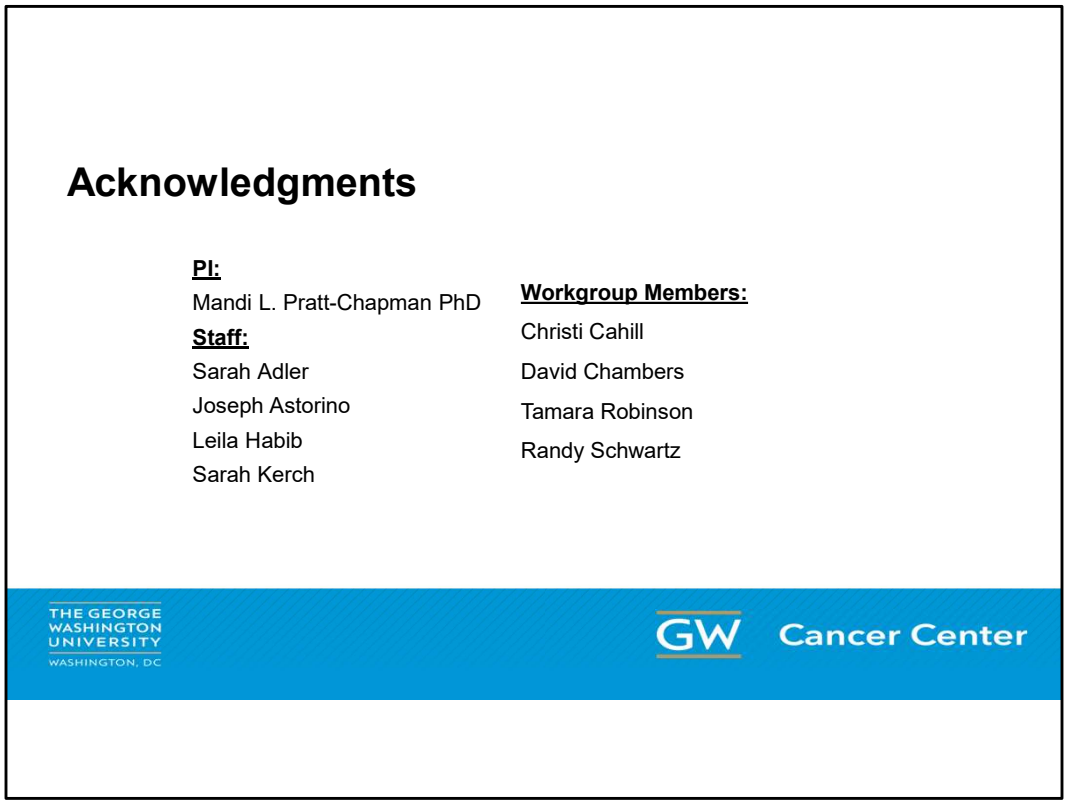
Wiltsey Stirman, S., Baumann, A. A. & Miller, C. J. (2019). The FRAME: An Expanded Framework for Reporting Adaptations and Modifications to Evidence-based interventions. *Implementation Science, 14*(58). https://doi.org/10.1186/s13012-019-0898-y



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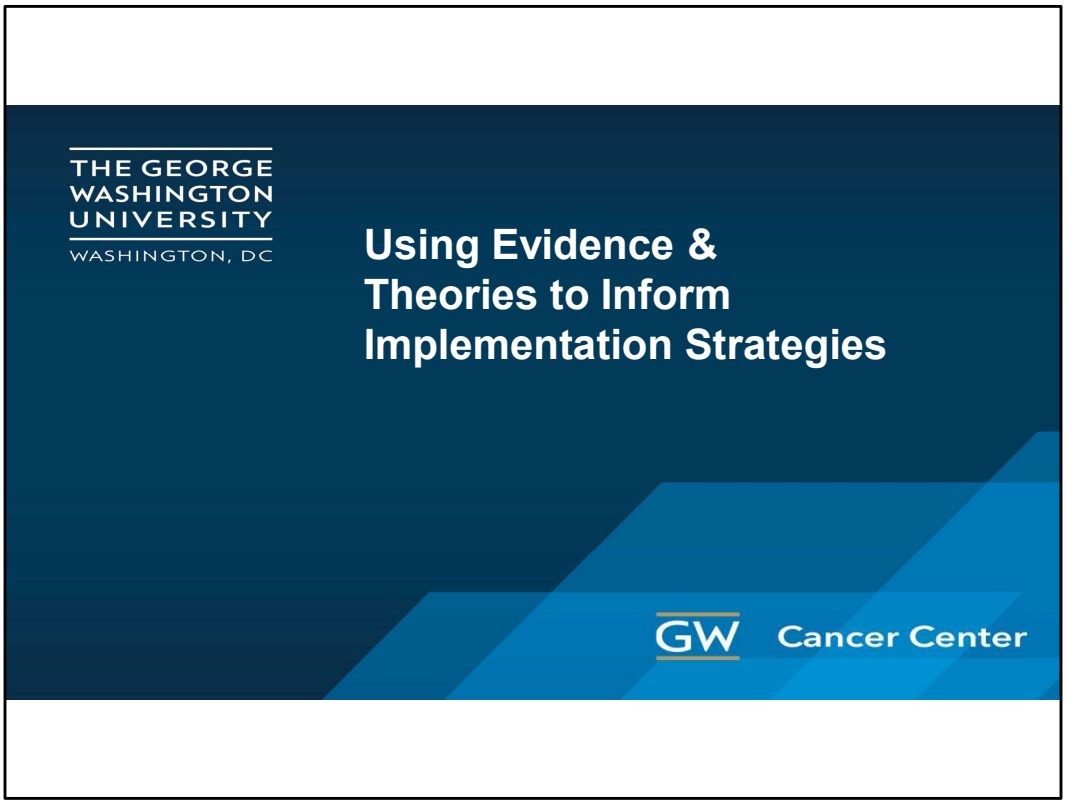
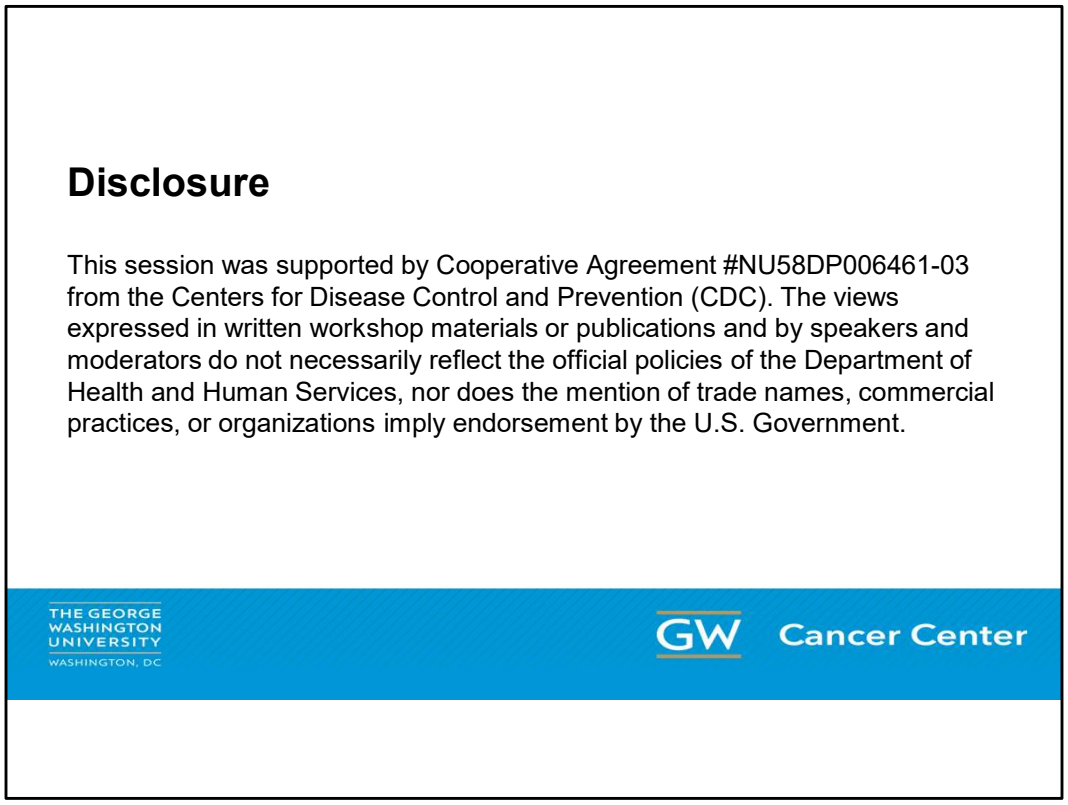


Welcome to session 5 of Base Camp.

My name is Christi Cahill and I am the executive director for the Colorado Cancer Coalition.



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Learning Objectives

1. Proposing implementation strategies that fit the unique needs of specific interventions

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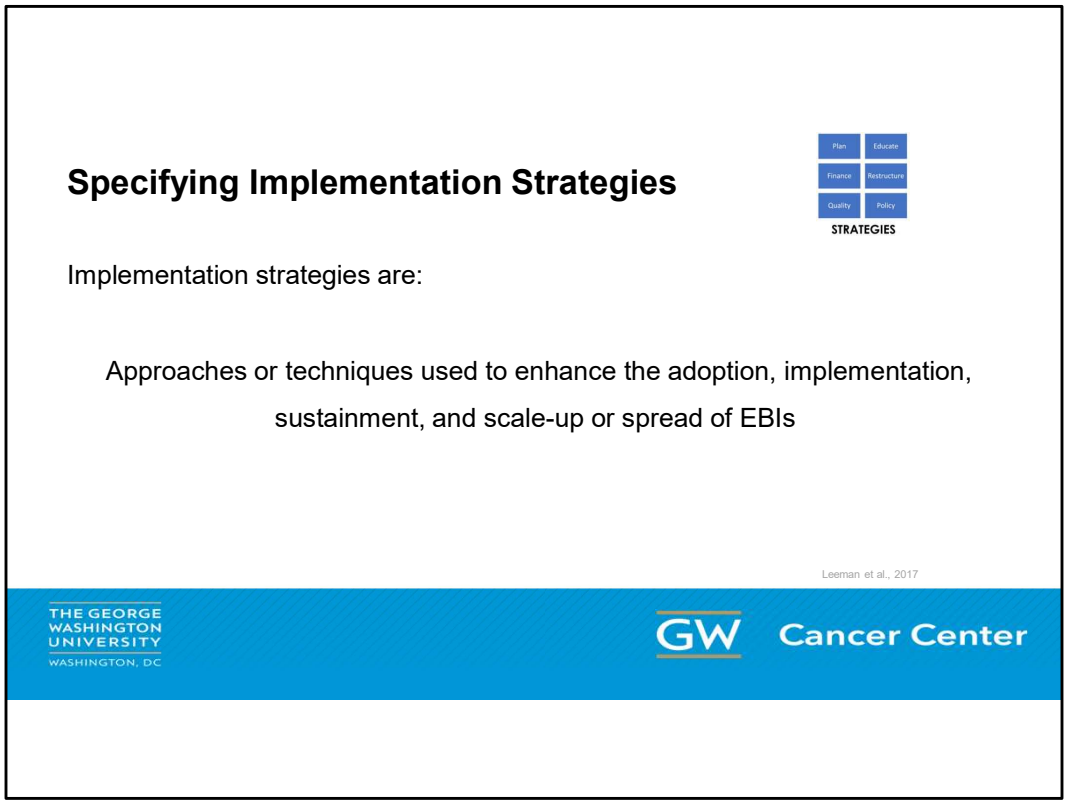
Our main learning objective for this session is :

Proposing implementation strategies that fit the unique needs of specific interventions

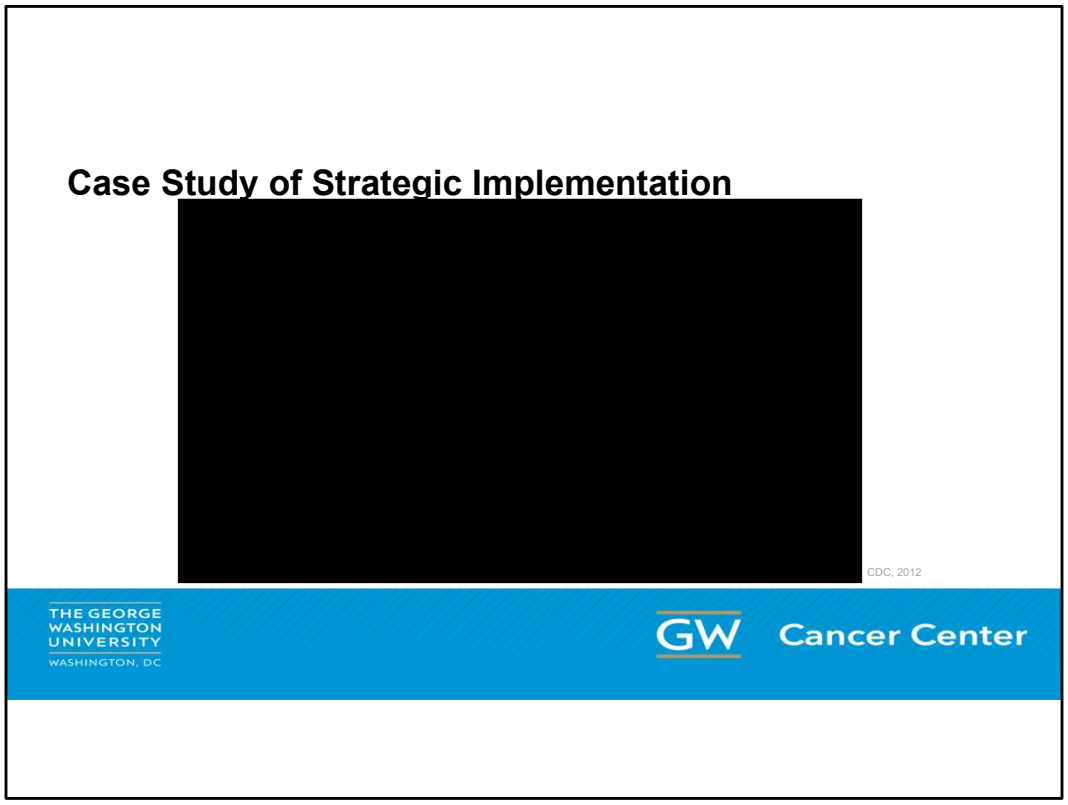
Session Agenda

1. **Introduce implementation strategies**



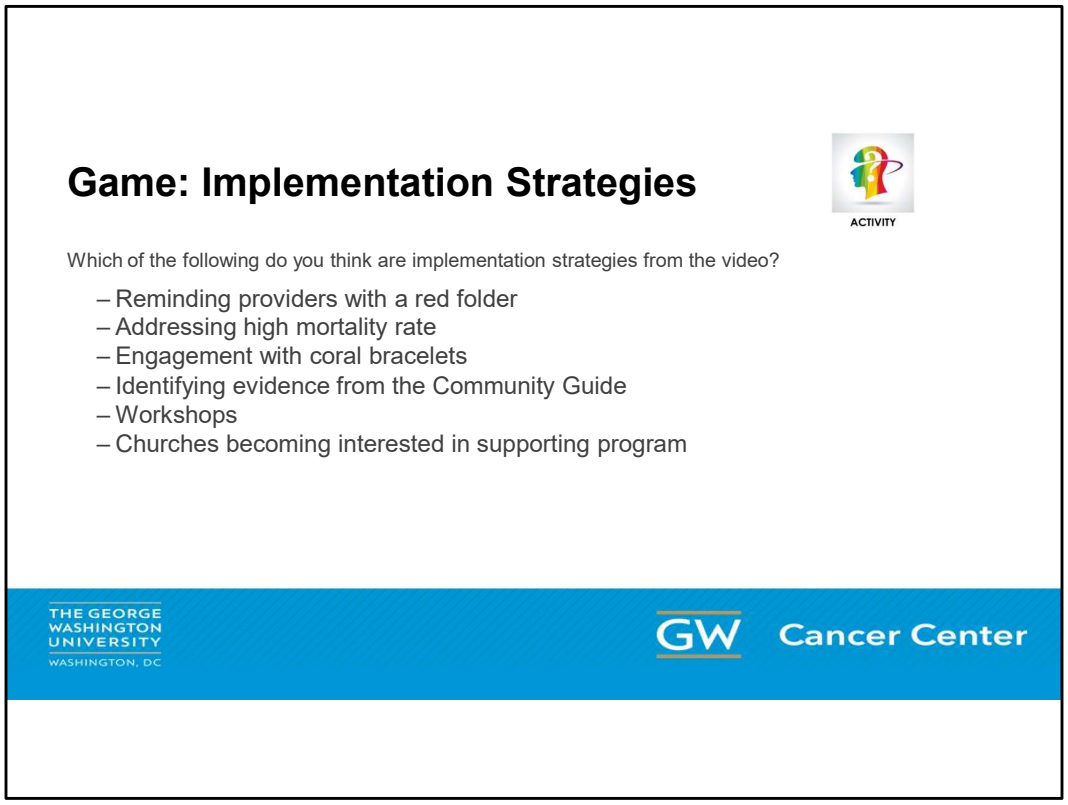
Implementation strategies are:

Approaches or techniques used to enhance the adoption, implementation, sustainment, and scale-up (or spread) of EBIs

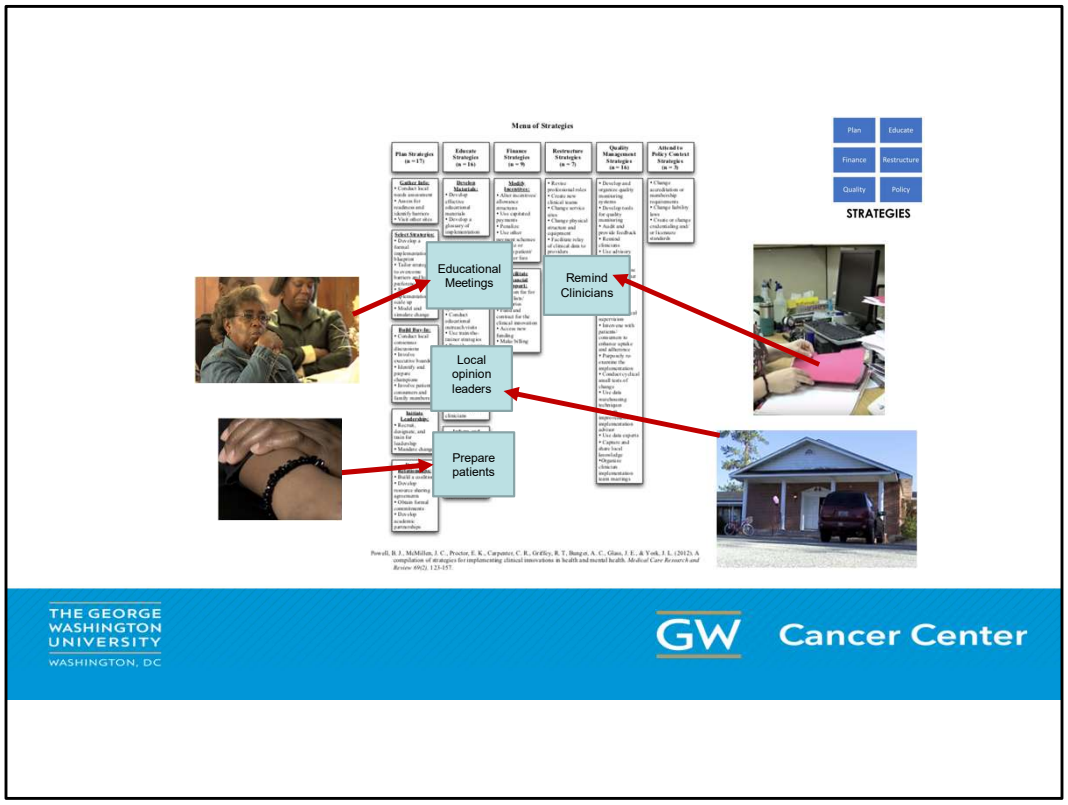


We would now like to play a short video about an evidence-based program that uses some well-known implementation strategies. In the course companion material, you will also find a link to this Black Corals program video.

Video link: https://www.youtube.com/watch?v=bn4aATMCfiw



- Which of the following do you think are implementation strategies from the video?
- Let's take a look at the next slide to review



Here you see a very important table (that is also located in your companion guide) identifying common implementation strategies. We pulled out some of the ones that were found in the Black Corals video.

Reminding providers to ask about screening-this is a great example of an implementation strategy.

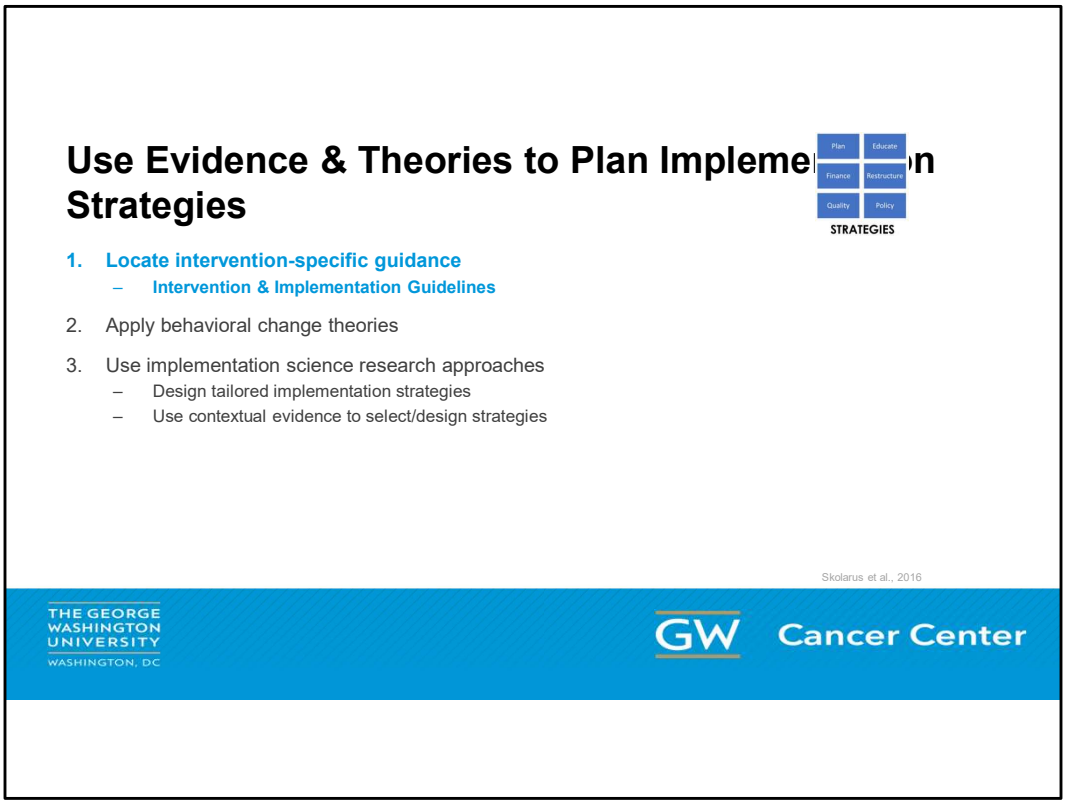
Preparing patients to be active participants-another example.

Conducting educational meetings-a commonly used strategy.

Inform & involve local opinion leaders-our last example.

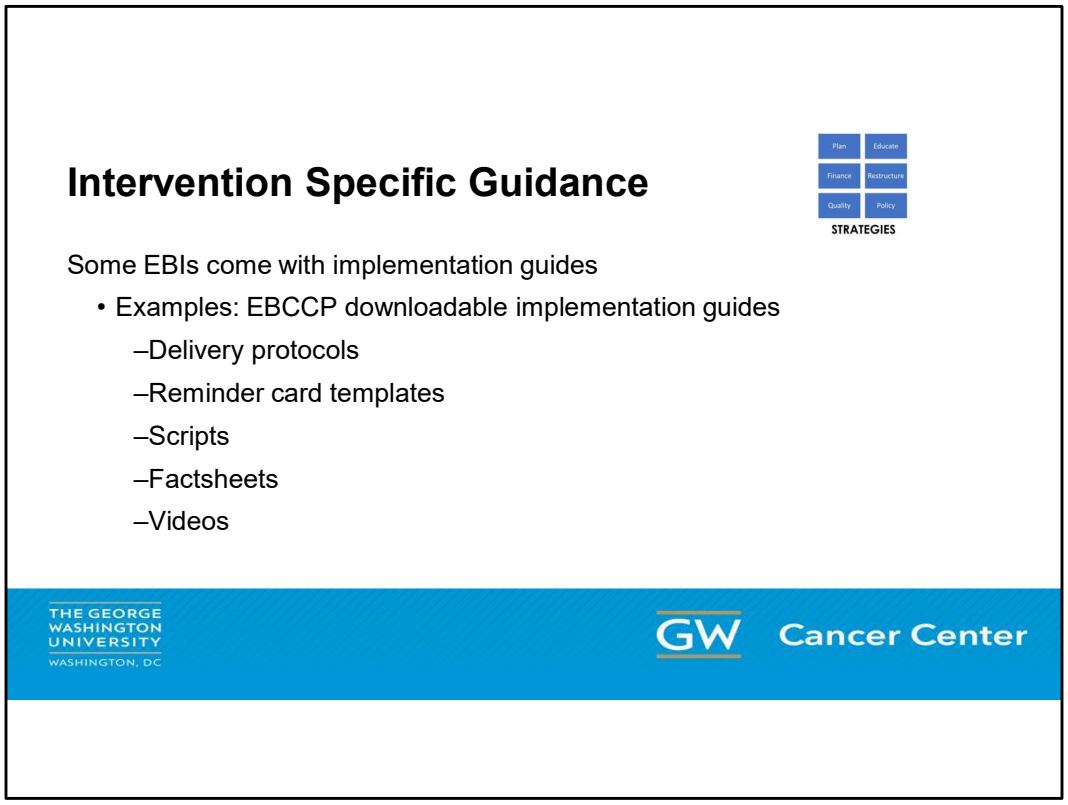
- Some of the things from the video that are important, but NOT implementation strategies:
    - Addressing high mortality rate—this is a great goal for a program, but not really a strategy to implement an intervention.
    - Identifying evidence from the Community Guide—this is an important step in planning an intervention, but not actually a strategy for implementing.

    - Are you starting to see the distinction of implementation strategies within the general process of planning an EBI?



There are many ways to plan your implementation strategies.

First, you can location intervention-specific guidance. This might be bundled with a pre-packaged intervention, which contains implementation guidelines.



Some EBIs come with implementation guides.

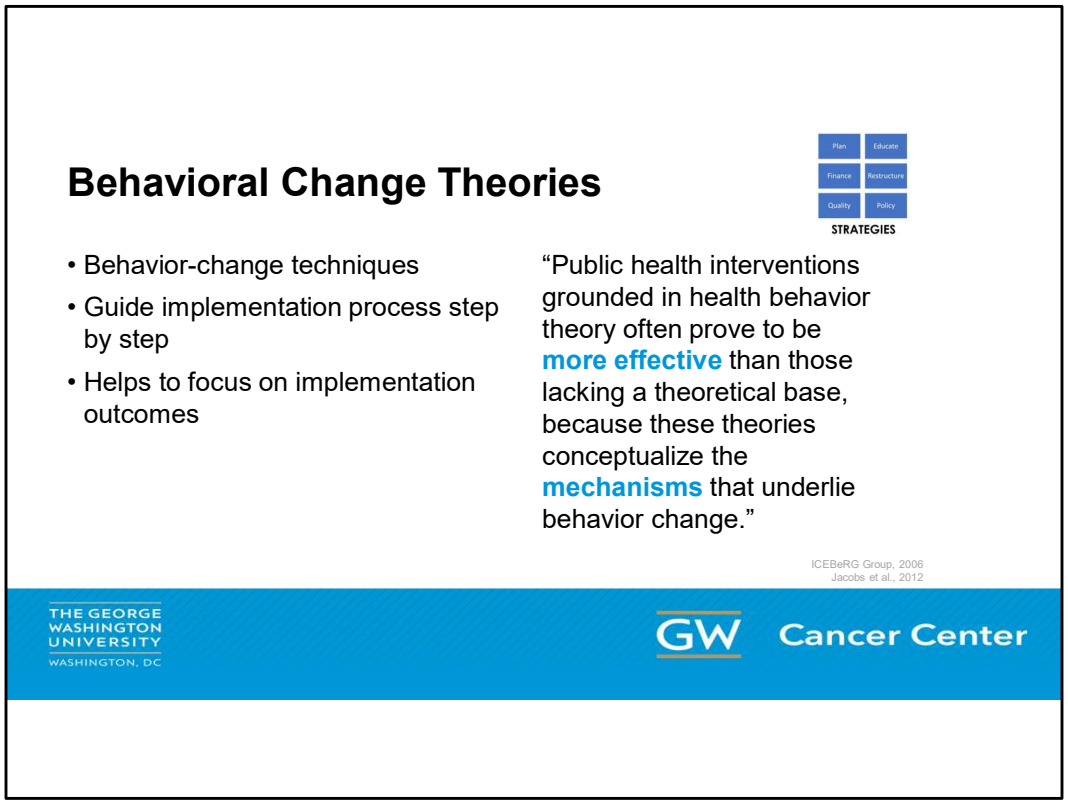
- Examples: Some Evidence-based cancer control programs come with downloadable implementation guides
    - These may contain protocols, templates, scripts, etc.

Use Evidence & Theories to Plan Implementation Strategies

1. Locate intervention-specific guidance
   - Intervention & Implementation Guidelines
2. **Apply behavioral change theories**
3. Use implementation science research approaches
   - Design tailored implementation strategies
   - Use contextual evidence to select/design strategies

Skolarus et al., 2016

Next, we will return to theory.



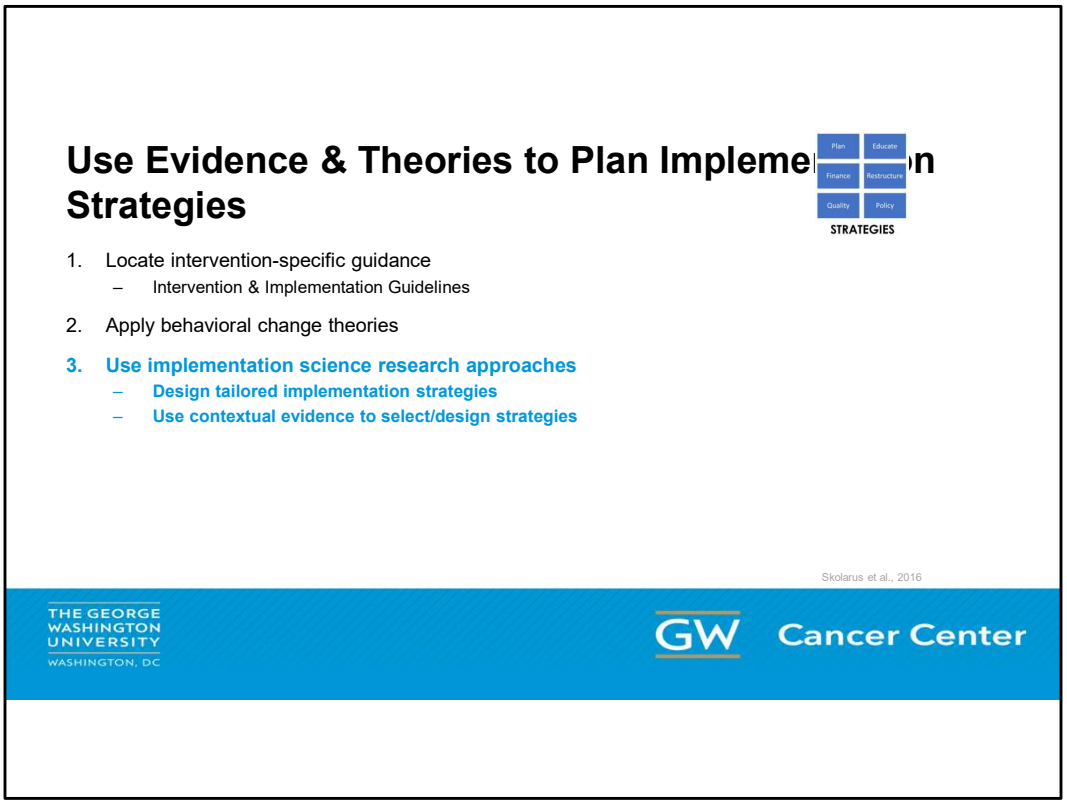
Similar to theories lying underneath an EBI, implementation should also be guided by theories of behavioral change.

This might include behavior-change techniques that help:

Guide implementation process step by step, which:

Helps to focus on implementation outcomes

Remember from before, interventions grounded in health behavior are often more effective than those lacking a theoretical base.



Last, we will introduce implementation science approaches to designing these strategies.

Implementation Science Approaches

Implementation science provides us with evidence completely focused on optimizing the implementation process

- Toolkits
- Journal articles
- Systematic reviews

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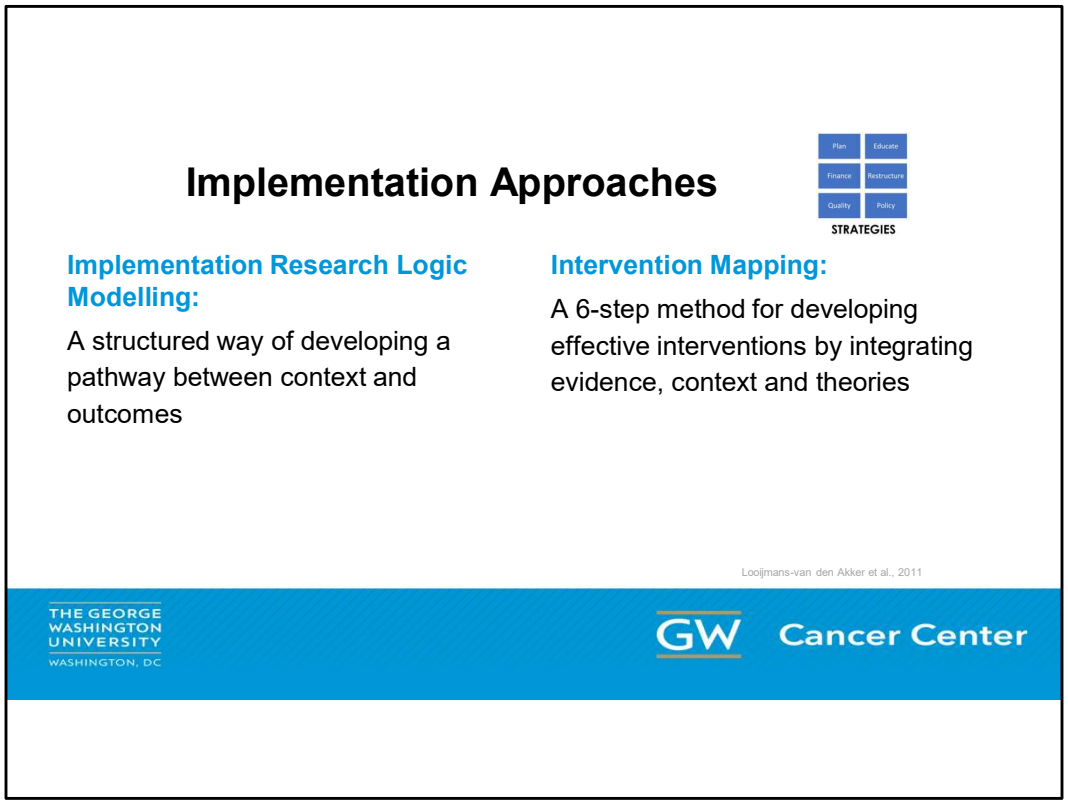
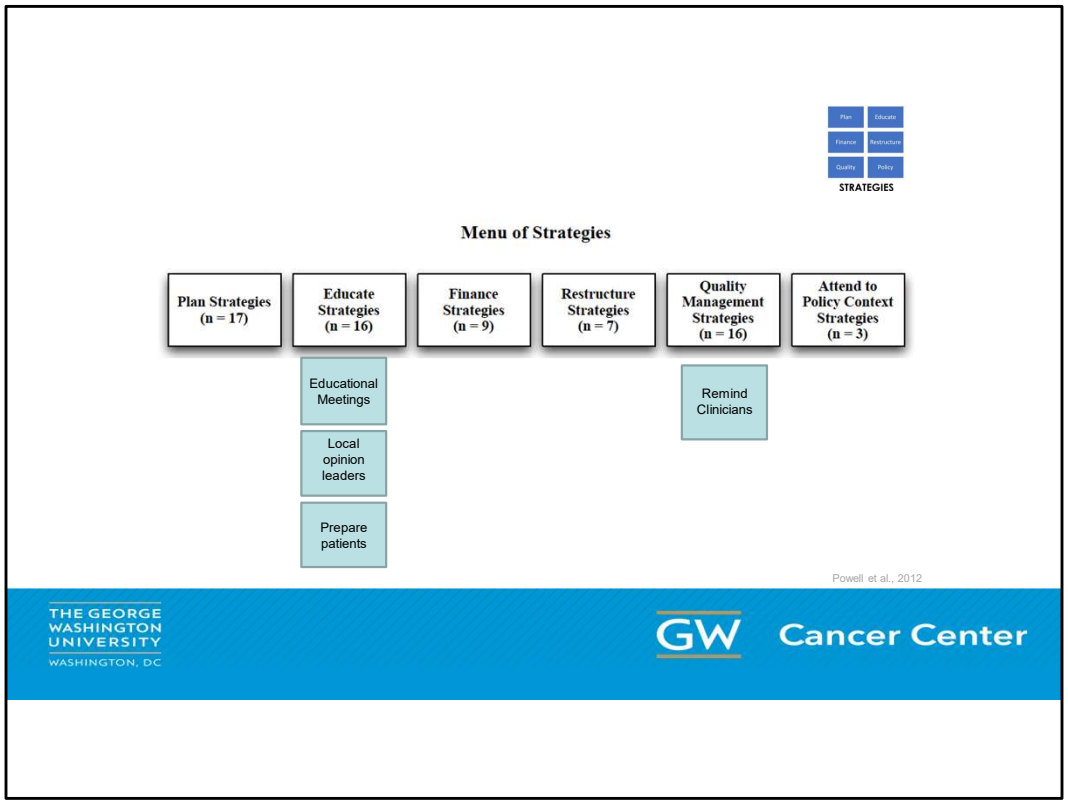
Implementation Science provides us with evidence completely focused on optimizing the implementation process.
These come in the form of:

-Toolkits
-Journal articles
-Systematic reviews



- There are many approaches to co-designing Implementation strategies collaboratively between researchers and stakeholders like yourselves.

- We are using the first way (implementation logic modelling) during this training, but there is also a well-known method called intervention mapping that is linked in your supplemental tools list.



Here is a commonly used model (called the Expert Recommendations for Implementation Change) that categorizes strategies to optimize implementation. The top row includes headings such as planning, educating, financing, restructuring, quality management, and policy-oriented actions you can take to implement an EBI. These are the "meat" of Implementation Science--the specific actions tested and enacted to bring change to both healthcare and public health organizations, as well across levels and sectors.

You will remember some of the strategies we highlighted from the video; now you can see where they fit in the model.

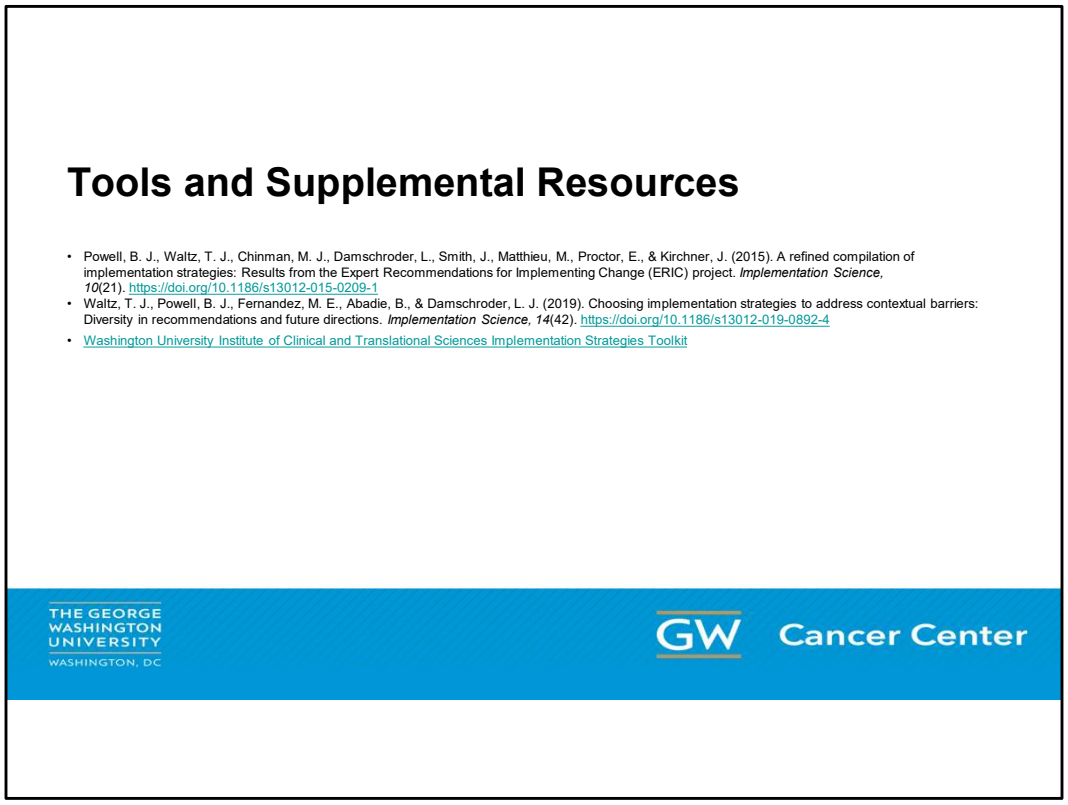
- There is much research on each of these strategies available and more still coming out.
- Implementation science can help broaden the range of health disparity studies by providing methods to test each of these different strategies and determine if and how they actually reduce disparities.

Incorporating social determinants of health in the development and testing of each of these implementation strategies may help drive population health goals for achieving equitable implementation of interventions.

For example, restructuring strategies based around adaptations to workflow in settings with disparities might improve health outcomes. Possibly attending to

financial contexts that enact changes as to what is allowed to be covered by insurance may incentivize which EBIS are practiced.

- You will find this table in detail (with a complete list of the strategies listed below each category) in Appendix E in the companion guide.



Tools listed here are all located in your companion guide.

References

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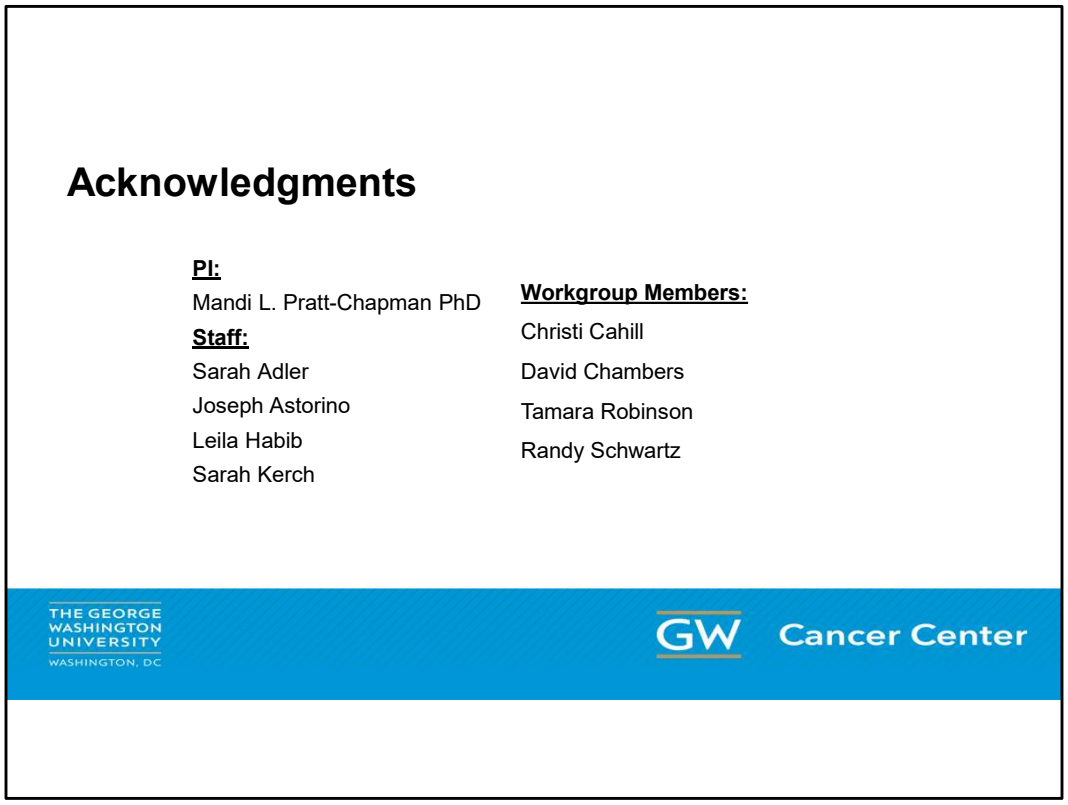
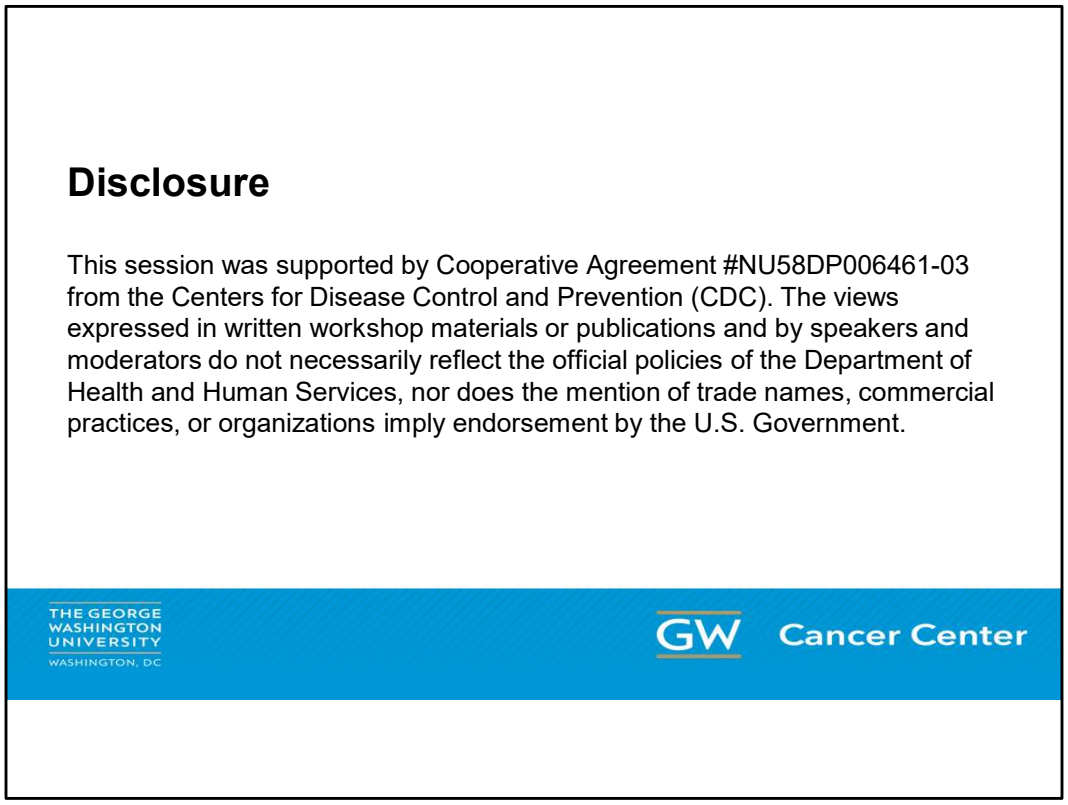
As well as references



Thank you to all those listed here who helped in developing this training.

Welcome to an exciting session of Base Camp.



Disclosures listed here.

Learning Objectives

1. Determine implementation strategies based on context
2. Identify needed adaptations to optimize success
3. Identify approaches to quality improvement

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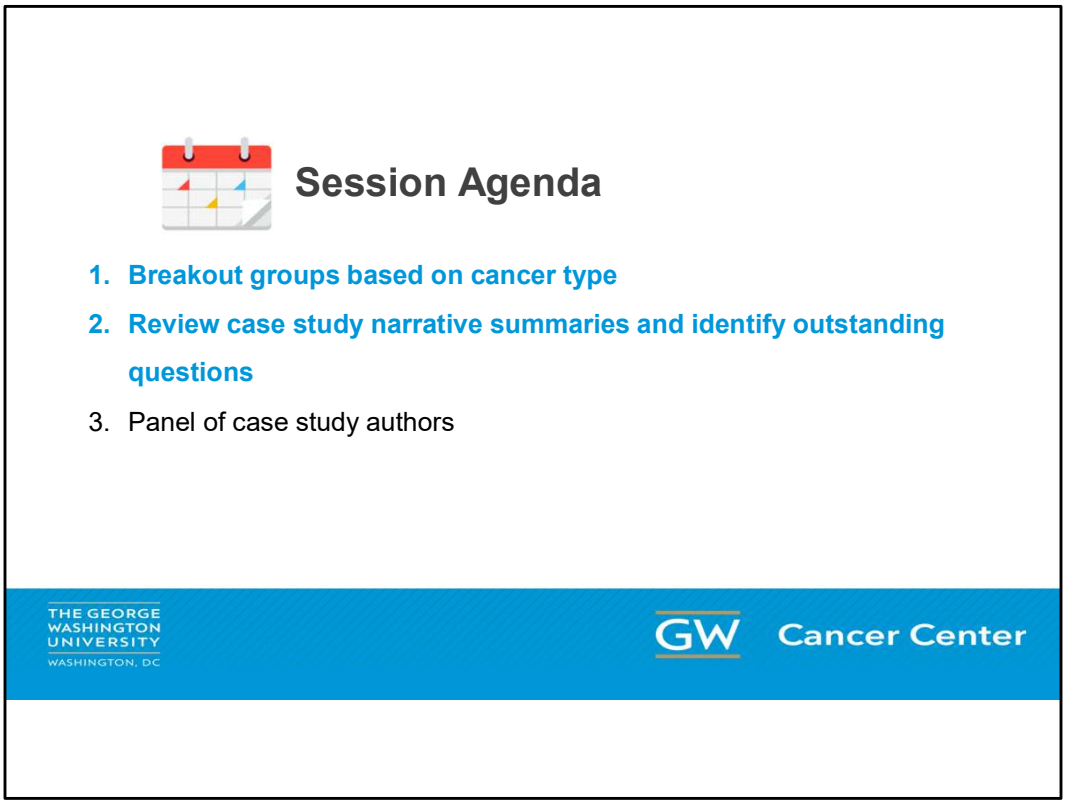
Our 3 main learning objectives for this session are listed here and we aim to bring these to life with breakout group discussions and a panel of 3 case studies.

- All panelists included today come from cancer screening projects
- They are from diverse settings and contexts
- They demonstrate a range of implementation strategies also represent various approaches to evaluation and quality improvement

Here is the map for the session.
First, we will go into breakout groups.
You will be hosted by a subject matter expert in cancer screening, who will facilitate a discussion about the case studies you read about last night.
The goal is to have your team come up with some questions for the authors of the case studies you read, who will then present and answer questions for the last part of the session.



Let’s break into teams now.

Breakout Group Instructions

You should have already read the narrative summaries about your case study last night or this morning

1. Review the case your group is assigned (See Appendix C in Companion Guide)
2. Develop questions for the panel that follow this session made up of the researchers from the case study narratives (See Pages 24 and 41 in Companion Guide)

Session Agenda

1. Breakout groups based on cancer type
2. Review case study narrative summaries and identify outstanding questions
3. **Panel of case study authors**

Panel of Case Examples

Allen et al. 2020
Henderson et al. 2020
Zoellner et al. 2020

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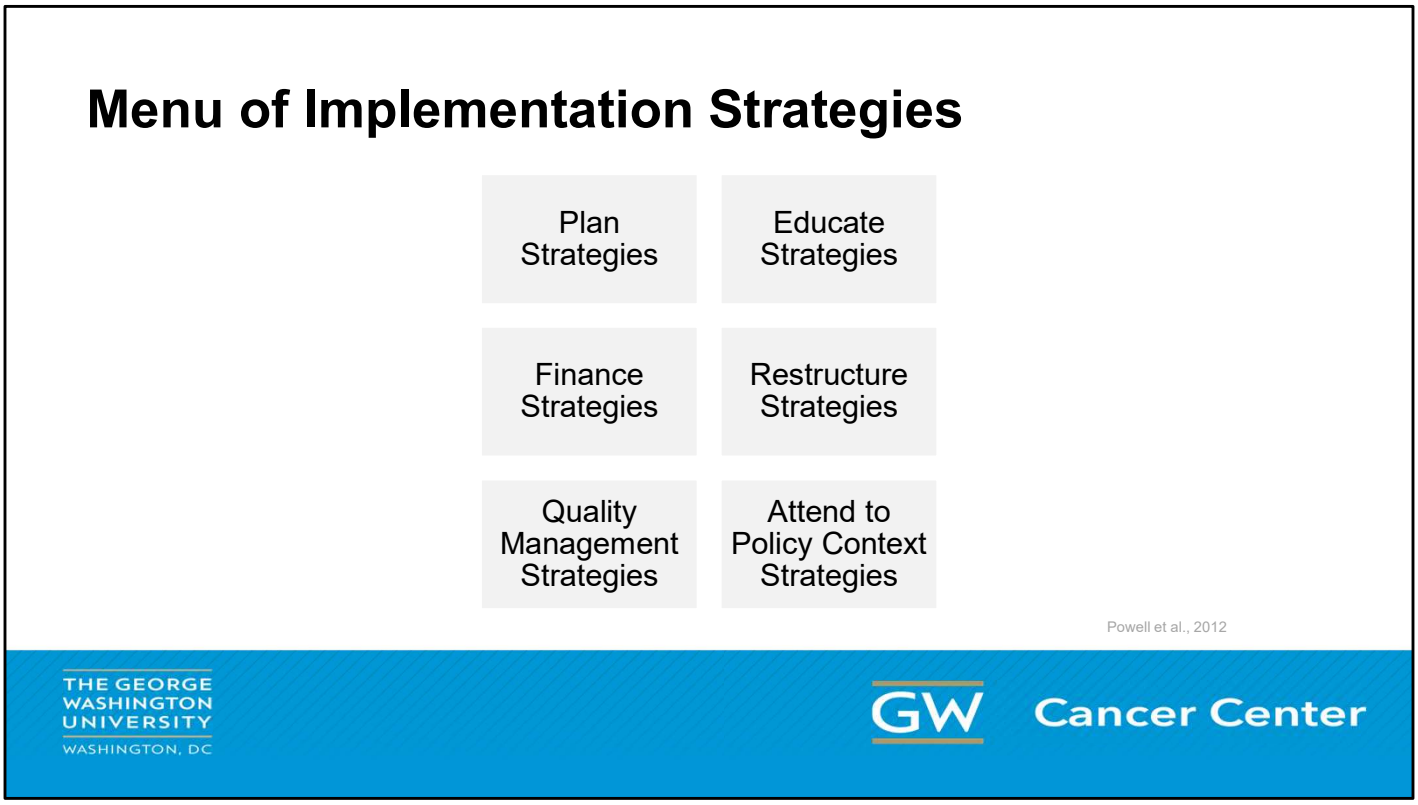
Now we will introduce our panelists.

Names and Bios here:

Questions for Panelists

1. How did **health equity** factor into the goals of your project?
2. Which **stakeholders** were critical to achieving your intervention objectives?
3. How did you address **resistance** to change?
4. What did you need to **adapt** and how did you go about doing that?
5. How did your project complement ongoing **quality improvement** work at your site?
6. What has happened since the intervention began? How has the intervention been **sustained**?



Just a quick reminder of the strategies discussed in the previous session on using evidence. These are essentially the nuts and bolts of facilitating implementation. Can you recognize any of these coming through from your conversations in breakout groups as well as from our panelists?

Tools and Supplemental Resources

- Community Tool Box: Developing Strategic and Action Plans
- National Implementation Research Network: Active Implementation Hub Module 4
- Oregon Social Learning Center: Stages of Implementation Completion

References

Allen, C. G., Cotter, M. M., Smith, R. A., & Watson, L. (2020). Successes and challenges of implementing a lung cancer screening program in federally qualified health centers: A qualitative analysis using the Consolidated Framework for Implementation Research. *Translational Behavioral Medicine, 2020 Dec 8*;ibaa121

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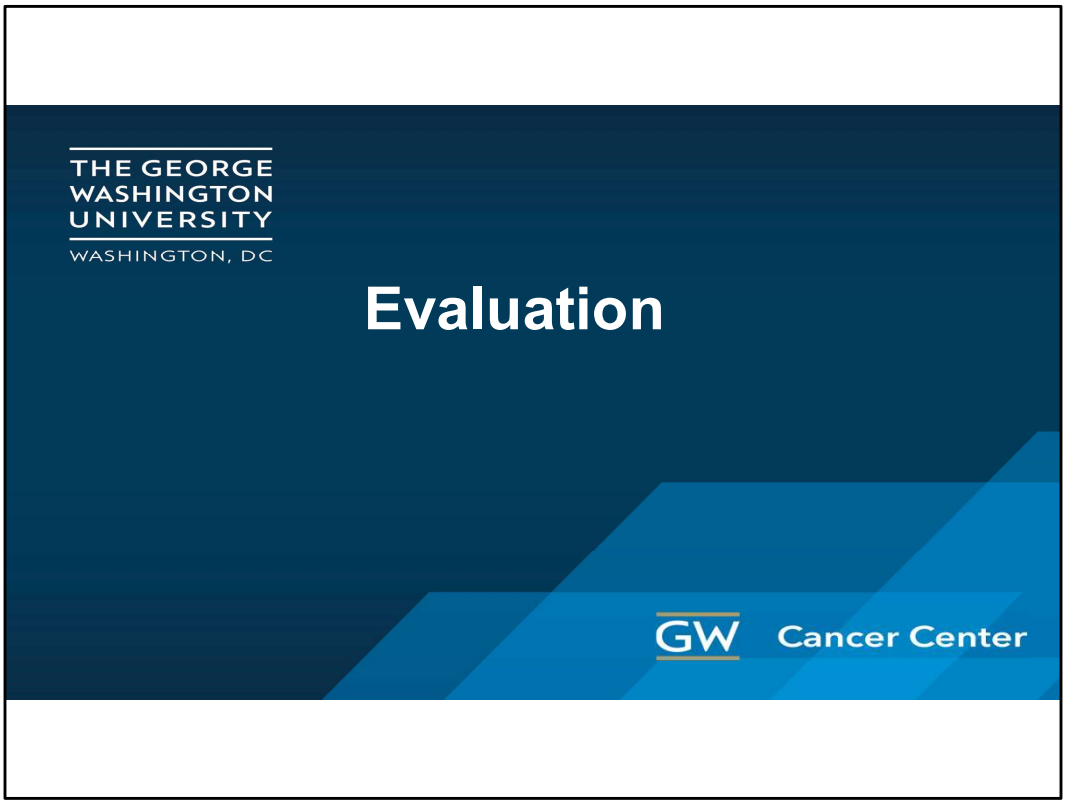
Acknowledgments

PI:
Mandi L. Pratt-Chapman PhD

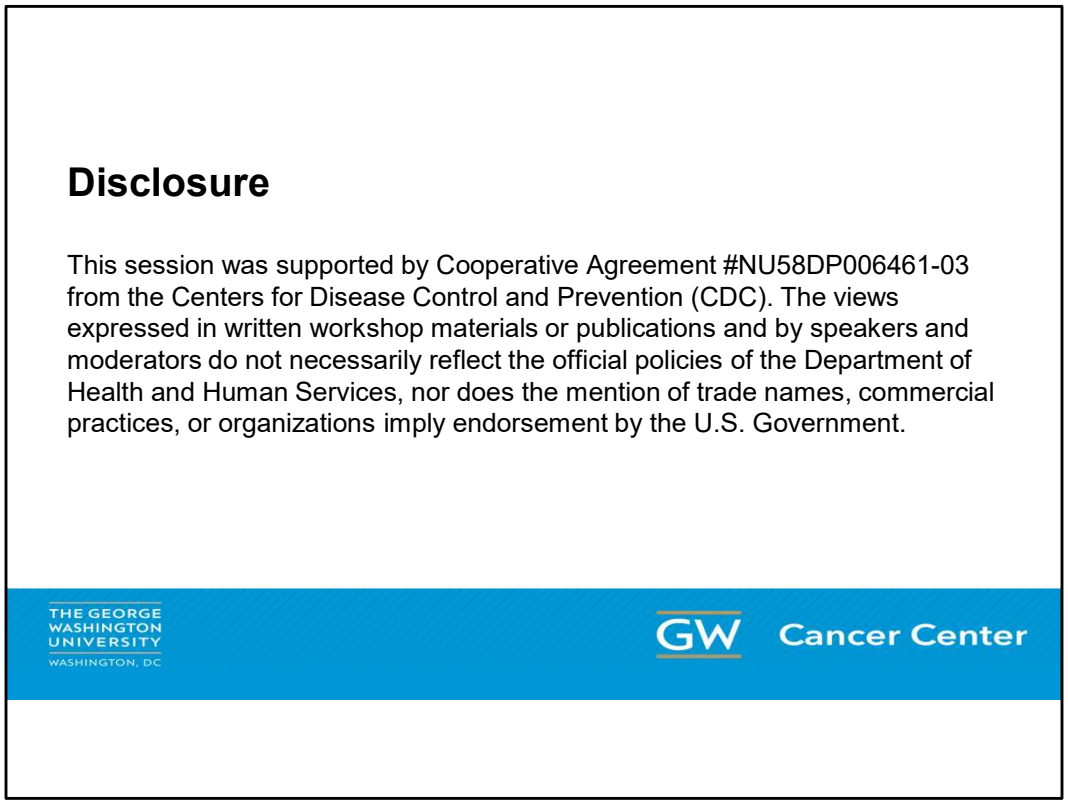
Staff:
Sarah Adler
Joseph Astorino
Leila Habib
Sarah Kerch

Workgroup Members:
Christi Cahill
David Chambers
Tamara Robinson
Randy Schwartz



Greetings everyone. My name is Polly Hager, and I am the Cancer Prevention and Control Section Manager for the Michigan Department of Health and Human Services.

Welcome to the Evaluation session of the Base Camp.



This session was supported by a Cooperative Agreement from the Centers for Disease Control and Prevention (CDC). The views expressed in written workshop materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

Learning Objectives

1. Describe a framework's use in evaluation
2. Explore and identify measurable outcomes of implementation quality

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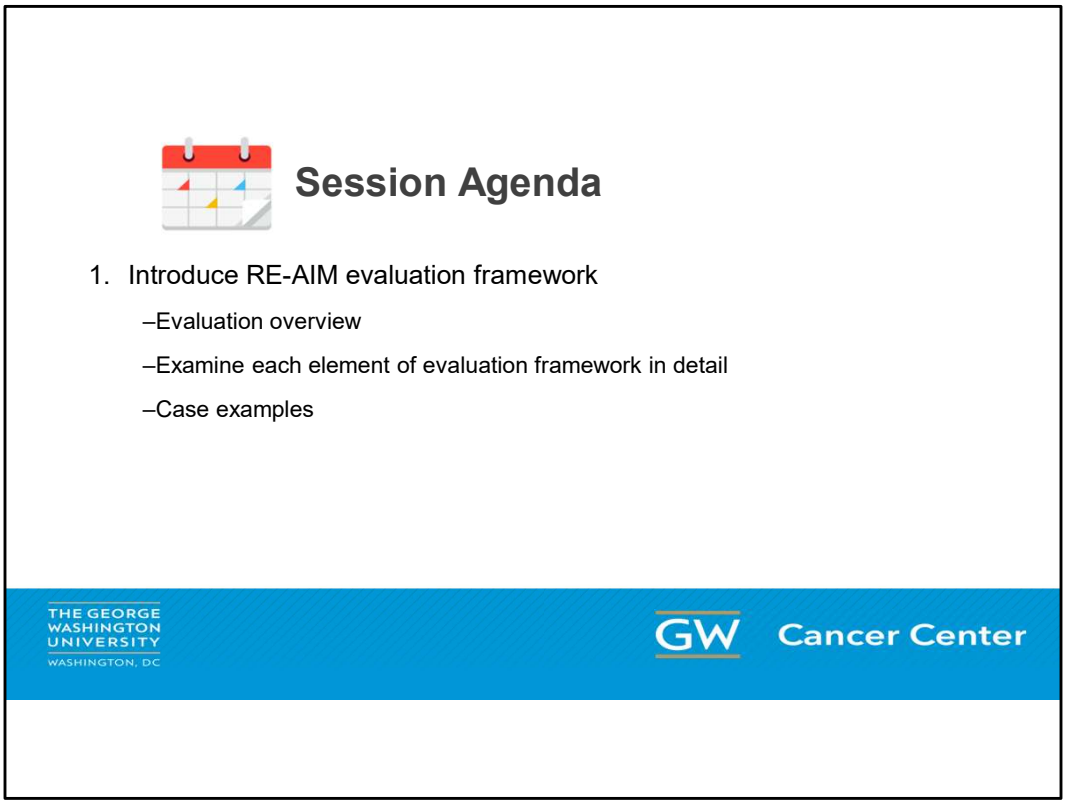
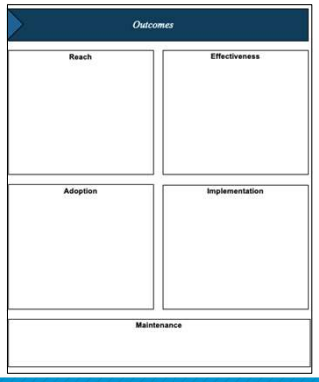
- Our main learning objectives are to describe a framework's use in evaluation and to explore and identify measurable outcomes of implementation quality.



Here is the map for the session.
First, we will introduce the RE-AIM framework for evaluation.

Implementation Logic Model



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- Here is the section of the blueprint we will be working through.

Reminder: Practitioners to Involve in Evaluat Process

- Comprehensive Cancer Control Program Director
- National Breast and Cervical Cancer Early Detection Program project level staff
- National Colorectal Cancer Control Program project level staff
- Coalition member/leader
- Clinician
- Executive leadership
- Researchers and evaluators
- Anyone else critical to implementation of your objective

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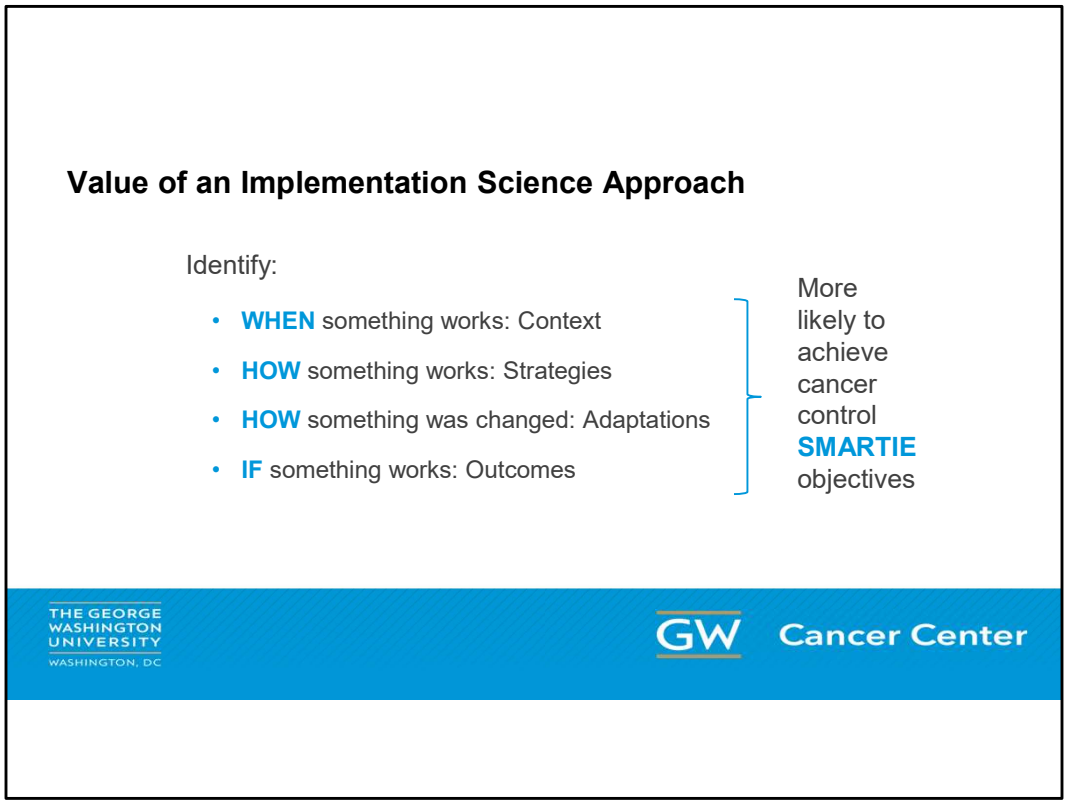
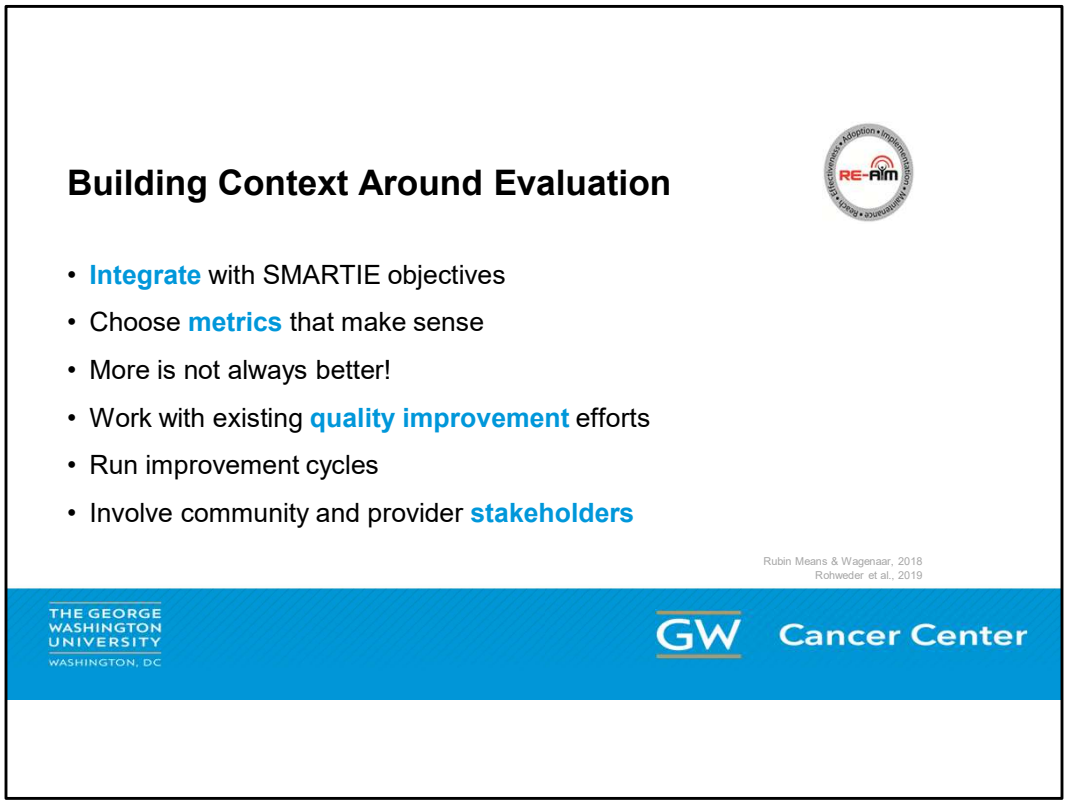
Polly:

Listed here are the practitioners you can involve in evaluating your implementation. Reminder: You can invite any other stakeholders critical to implementation to become involved in evaluation process.



The value of implementation science approach is that it helps you map out when something works, how something works, and document any changes made as part of the adaptation process.

Now, one of the most important elements—if your intervention worked! Let's look at outcomes.



To build a context around evaluation activities you can:

Integrate any evaluation work with SMARTIE objectives

Choose metrics that make sense

Remember that more is not always better!

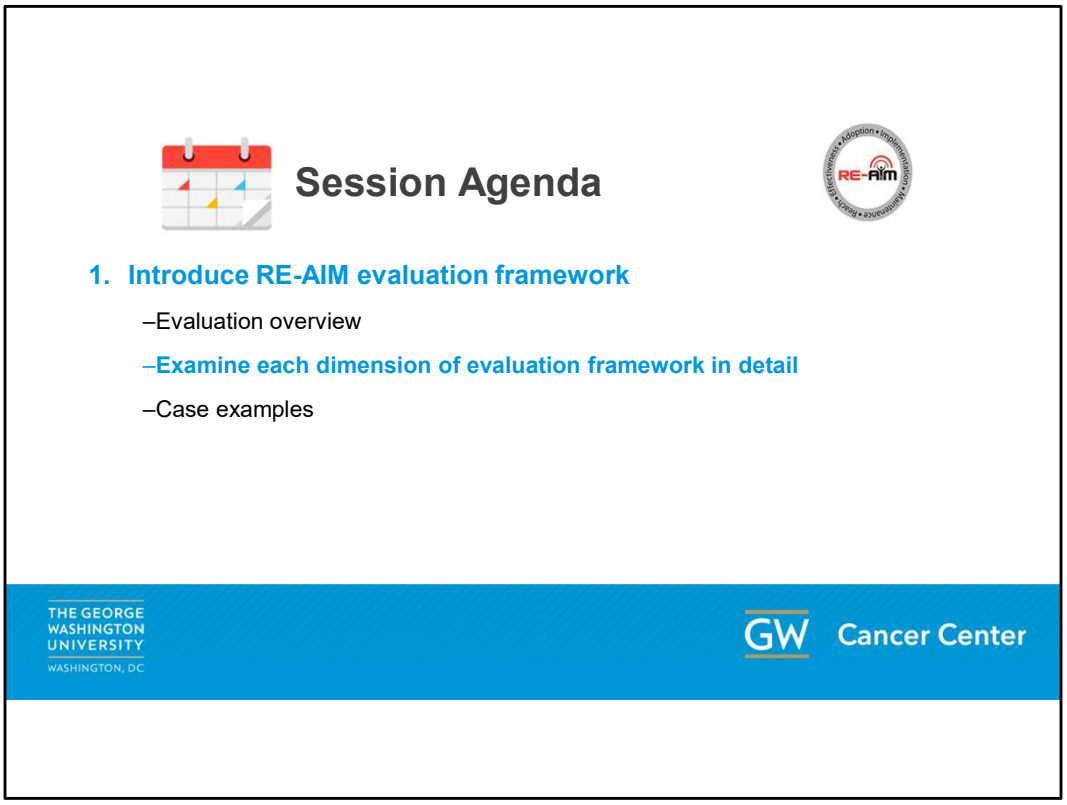
Work with existing quality improvement efforts

Run improvement cycles

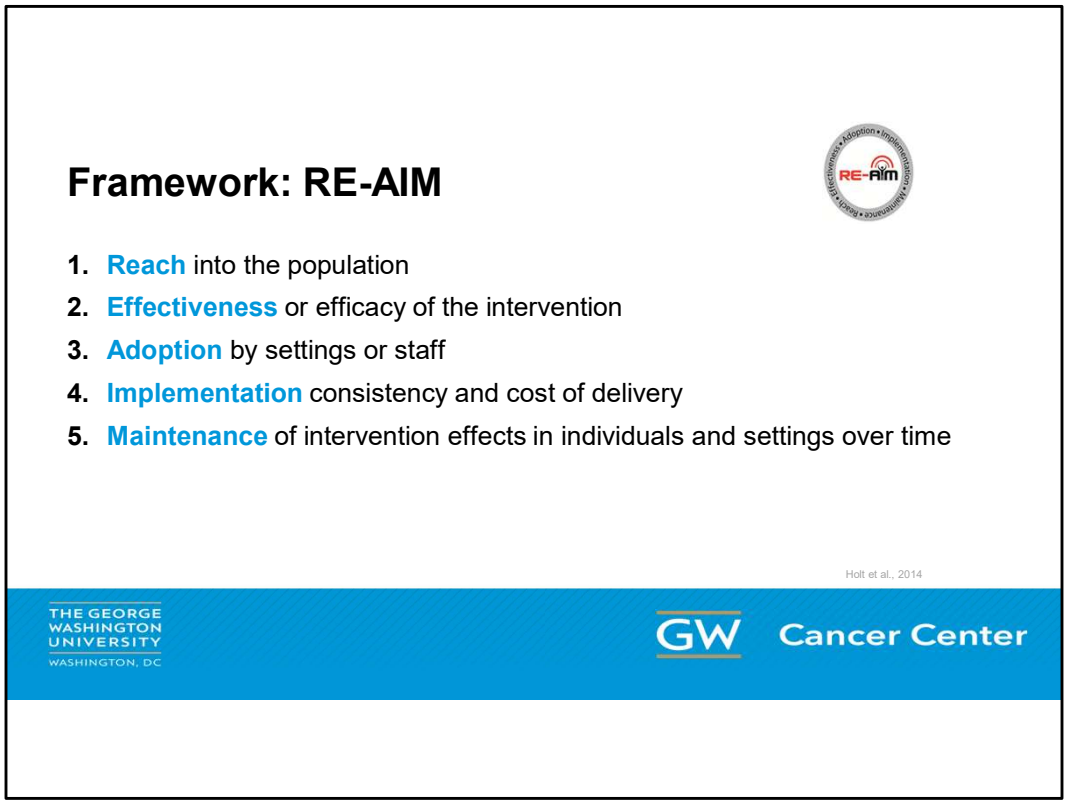
Involve community and provider stakeholders

- Also:
  - You also don't have to address every category of an evaluation framework. Think about where you are in your program – do you know it is effective already?
  - Are you mostly concerned with sustaining the intervention? If so, focus on evaluating maintenance.
  - Focus on the implementation outcomes most important to your evaluation questions. If you already know the innovation is acceptable, focus on cost or penetration for example.
  - You don't want your eval to take more time than the intervention

itself!



Next, we will examine each dimension of the RE-AIM framework in detail.



- A framework can help you decide which aspects of implementing an intervention are important to understanding so you can uncover why something worked or didn't work. We will introduce RE-AIM here, a very common framework in public health.

R stands for Reach, reach into the population

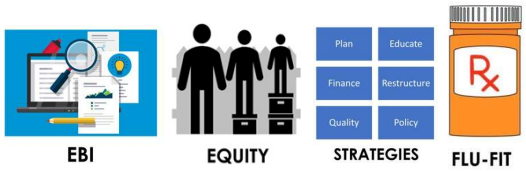
E is for Effectiveness or efficacy of the intervention

A is for Adoption by settings or staff

I is for Implementation consistency and cost of delivery

And M is for Maintenance of intervention effects in individuals and settings over time

Case Example



EBI: FLU-Fecal Immunochemical Test (**FLU-FIT**)

Implementation Strategy: **Train-the-Trainer** for Pharmacists

SMARTIE Objective: Increase colorectal cancer screening among Black residents in Ward 7 of Washington D.C. from 48% to 63% in one year by conducting a train-the-trainer program with 10 pharmacists across 5 pharmacies and including partnerships with 5 community leaders to overcome institutional racism causing colorectal cancer disparities

Chatterjee et al., 2015

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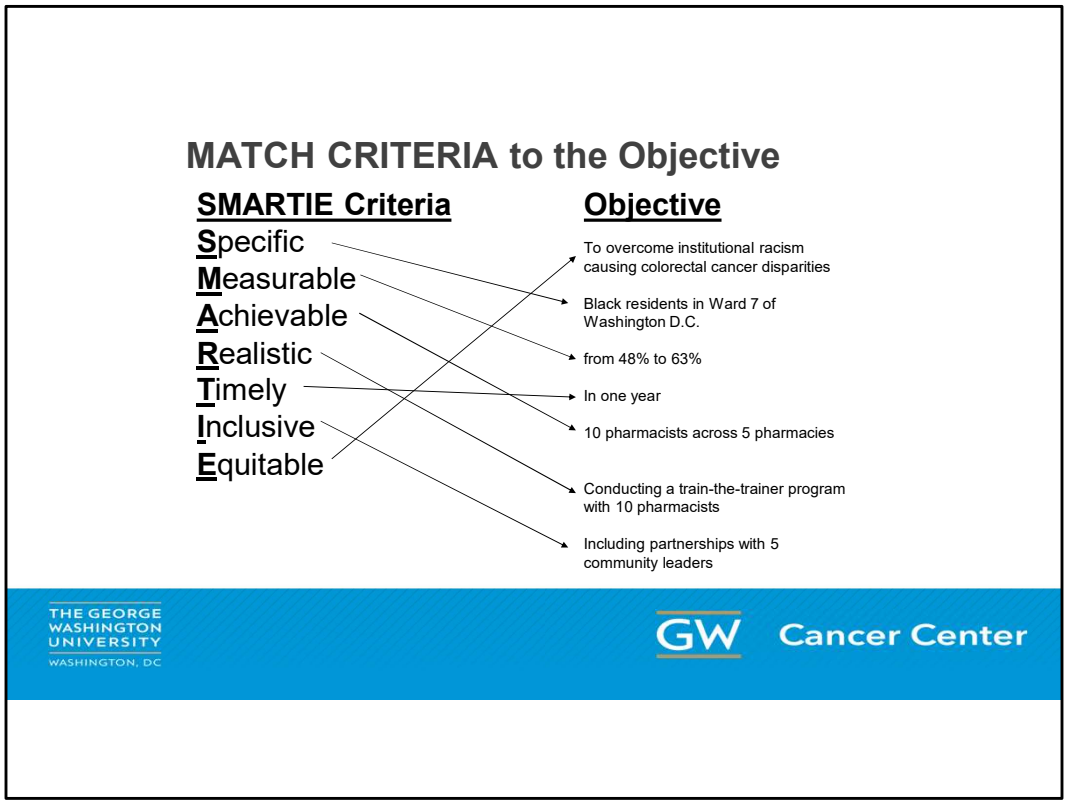
- For our case example:

The EBI is the: FLU-Fecal Immunochemical Test (FLU-FIT)

The Implementation Strategy is the: Train-the-Trainer for Pharmacists

And our SMARTIE Objective is: Increase colorectal cancer screening among Black residents in Ward 7 of Washington D.C. from 48% to 63% in one year by conducting a train the trainer program with 10 pharmacists across 5 pharmacies and including partnerships with 5 community leaders to overcome institutional racism causing colorectal cancer disparities



Let's work through matching the SMARTIE criteria with the objective.

Case Example: FLU-FIT Intervention REACH

You are evaluating the FLU-FIT intervention.

How do you start?

FLU-FIT

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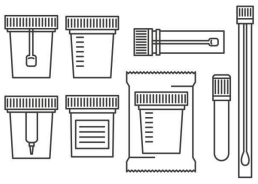
Each of the aspects of RE-AIM can be addressed using several relatively simple techniques I will speak about next.
These are just models of tracking tools used to teach – you might want to add more detail or less.

Kit and Intake Form

EBI

FLU-FIT



EXAMPLE: Participant Intake for FLU-FIT Program

Date: __/__/____

First Name: _____ Last Name: _____

Date of Birth: __/__/____

Address: _____

Phone number: _____

Email address: _____

Race/Ethnicity

- American Indian, Alaska Native, Pacific Islander
- Asian
- Black
- Hispanic or Latino
- White
- Other

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Some elements of your evaluation to consider:
The kits themselves and the intake forms.

Tracking Logs for Pharmacy and Train- the-Trai Program

FLU-FIT

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Pharmacy Name:													
2	Pharmacist:													
3	Kit#	Date Provided	Last Name	First Name	Age	Race	Gender / Gender Identity	Sexual Orientation	Date Returned	Results	Date of Follow Up with Participant			
4														
5														

	A	B	C	D	E
1	Pharmacy Name	Address	Setting Agrees to Training?	Total Number of Pharmacists at Location	Number of Pharmacists Trained
2	Unity Health Care Pharmacy	4414 Benning Road NE			
3	CVS #22	320 4th Street NE			
4	CVS Store #1335	3240 Pennsylvania Ave SE			
5	Reliance Pharmacy	4047 Minnesota Avenue NE			
6	Apex Care Pharmacy	3839 Minnesota Avenue NE			
7	Velima Pharmacy	4514 Benning Road SE			
8	Heritage Pharmacy	5820 Dix Street NE			
9	Seat Pleasant Drugs	354 Eastern Avenue NE			
10	Flexcare Pharmacy	3861 Alabama Avenue SE			
11	CVS Store #1360	2834 Alabama Ave SE			
12	Safeway	2845 Alabama Ave SE			
13	Unity Health Care	765 Kenilworth Terrace NE			
14			Total Trained/13 x 100	Total Pharmacists	Total Trained/Total Pharmacists x 100
15					

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Also, Tracking Logs for evaluating the adoption of the program by pharmacists and the training program for pharmacists.

Ward 7 & Population of Focus

Black: 91.7% of the population
Families Below Poverty: 23.3% of the population

Colorectal Cancer Screening Rate in Ward 7: 48%
Colorectal Cancer Screening Rate at each pharmacy location in Ward 7: Unknown at this time

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Remember that early on, we spoke about the case study context being that the Federally Qualified Health Center was too overwhelmed to take on a new screening program at the moment. This choice of partnering with pharmacies came with one weakness being a lack of baseline screening rate data.

Health Equity Outcomes

1. Who was included as the **Population(s) of Focus**?
2. How did your project consider the **history** of the issue within the community?
3. How is the Population(s) of Focus:
   - **Affected**?
   - **Engaged and included** in the planning?
   - Included in the **dissemination** of results?

Comprehensive Cancer Control National Partnership, 2021

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- Remember to reflect on equity early on in the process.
- How would you evaluate if your intervention moved the needle on health equity? You can ask yourself and your team:

Who was included as the **Population(s) of Focus**?

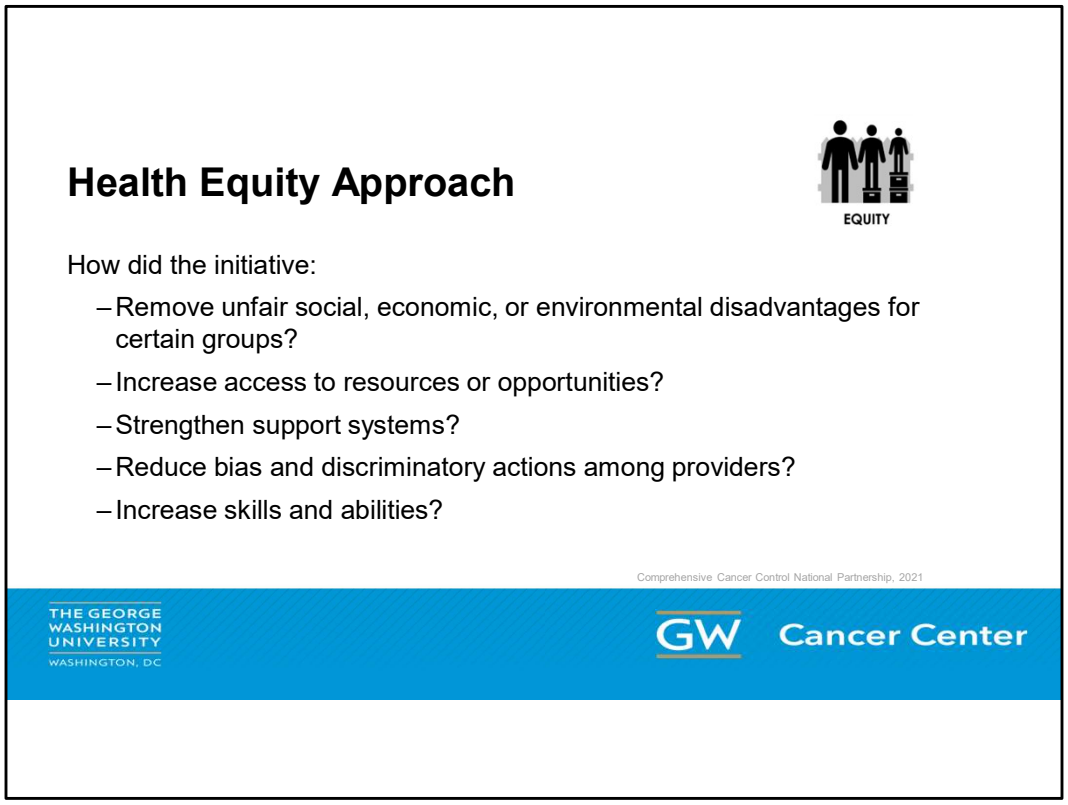
How did your project consider the **history** of the issue within the community?

How was the Population(s) of Focus: **Affected**?

Engaged in the planning?

Included in the **dissemination** of results?

You can also reflect on who wasn't involved in this specific project but should be included now that we know what we know.



Also, some some more complex questions should be asked.

You can ask: how did the initiative:

Remove unfair social, economic, or environmental disadvantages for certain groups?

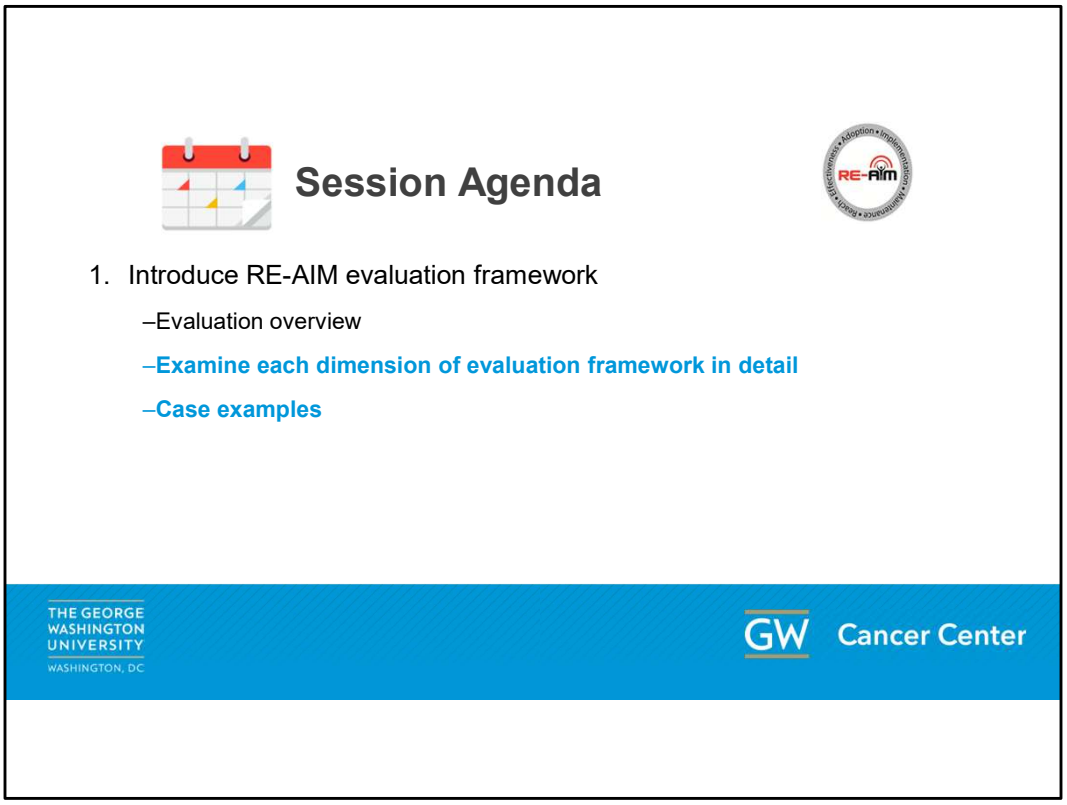
Increase access to resources or opportunities?

Strengthen support systems?

Reduce bias and discriminatory actions among providers?

Increase skills and abilities?

- **Transition between Polly and Gloria**



- Hi Everyone! My name is Gloria Coronado and I serve as the Distinguished Investigator of Health disparities at the Kaiser Permanente Center for Health Research.

- What does RE-AIM stand for?
- What do you think the R in RE-AIM stands for?

Evaluate Reach

- Characteristics for eligibility in program
- Characteristics of participants in program
- Characteristics of participants vs. non-participants
- Understanding why some people participate and others do not

National Cancer Institute, 2012

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Reach examines

Characteristics for eligibility in program/population of focus
Characteristics of participants in program: age, race, gender/gender identity, sexual orientation
Characteristics of participants compared to non-participants
Understanding why some people participate and others do not

Case Example: Eligibility Criteria

What are your **eligibility** criteria?

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Pharmacy Name:													
2	Pharmacist:													
3	Kit#	Date Provided	Last Name	First Name	Age	Race	Gender / Gender Identity	Sexual Orientation	Date Returned	Results	Date of Follow Up with Participant			
4														
5														

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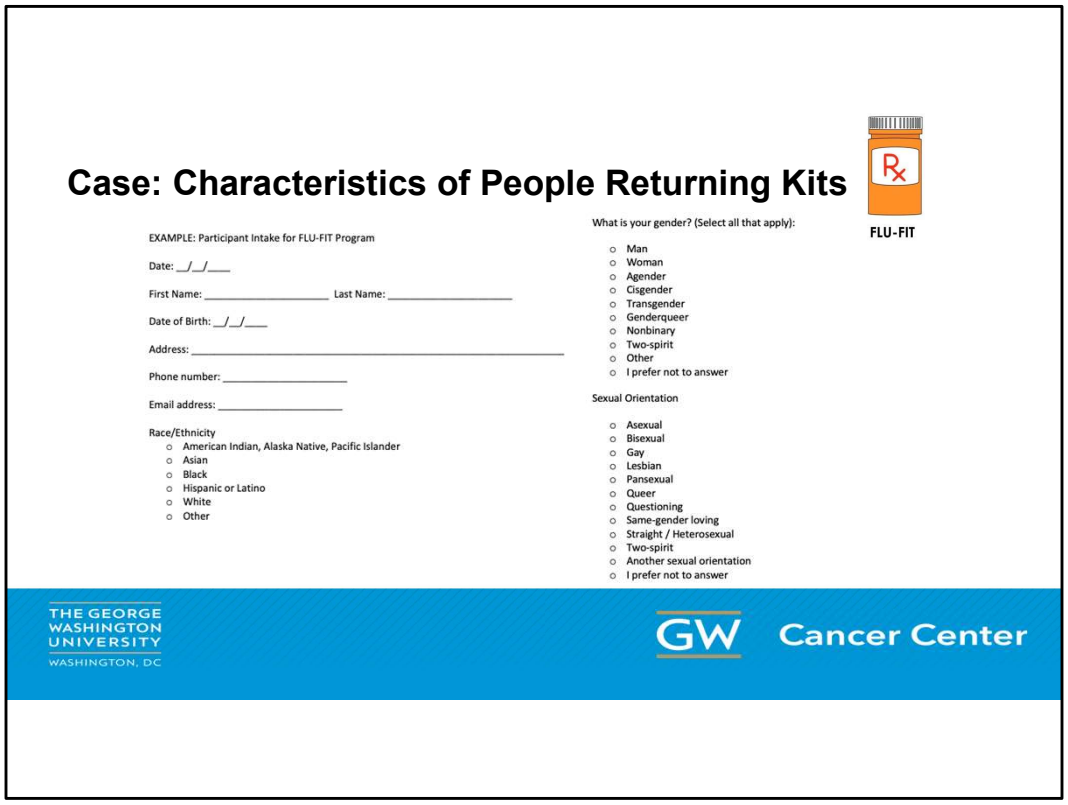
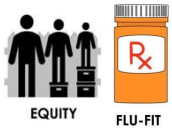
- A tracking log example is shown here. Based on your eligibility criteria, you might track race, gender/gender identity, and sexual orientation for example.



- Here is an intake form or survey (paper or electronic) to collect demographic information
- Reminder that we are still talking about the case example so remember these are examples and not specifically what you have to be doing in your projects!
- For example, you may be interested in screening for social determinants of health and want to include questions related to housing instability, food insecurity, employment status, and transportation challenges.

Case: Subpopulation Reach



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- Here is a Tracking log example:
- Here you see year 1 with 501 Black individuals screened and year 2 at 871 showing an increase

Why do some people participate?
Why do some people return the kits & others do not?

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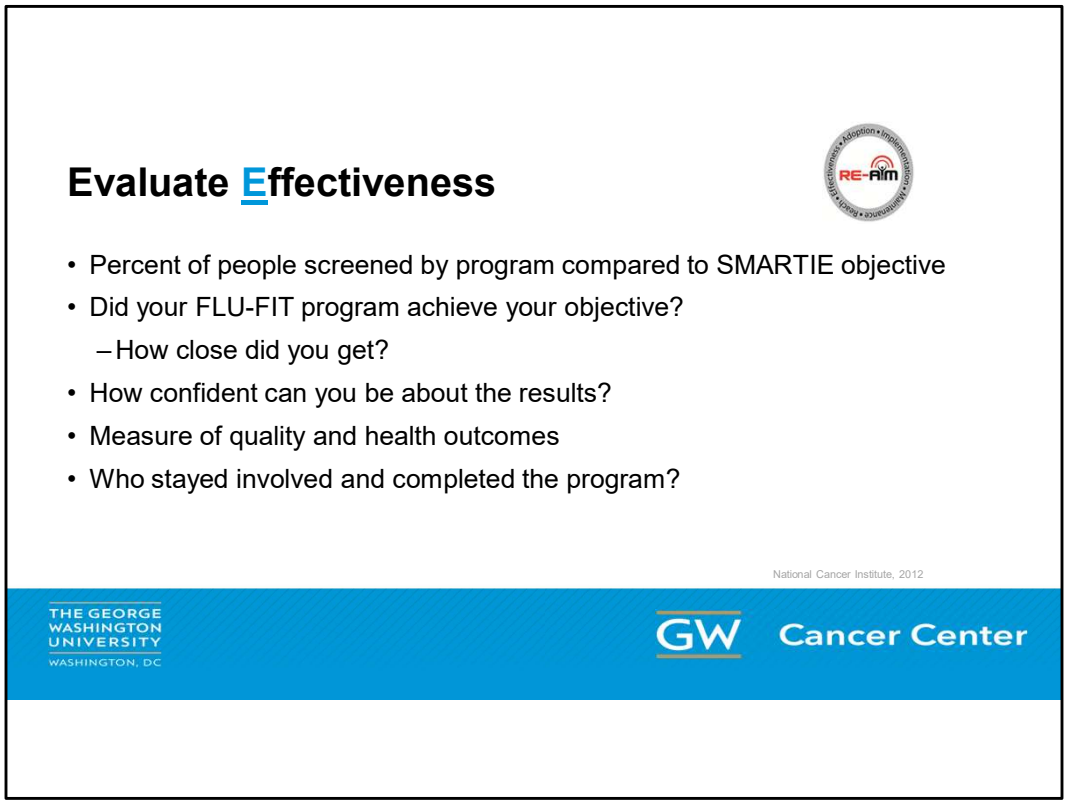
Focus Groups can uncover the reason why some return the kits and others do not.

Next slide--What do you think the E in RE-AIM stands for?



Effectiveness gauges:

Percent of people screened by program compared to SMARTIE objective

Did your FLU-FIT program achieve your objective?

How close did you get?

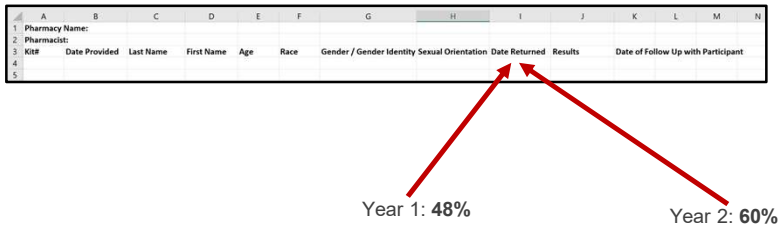
How confident can you be about the results?

Measure of service and patient outcomes

Who stayed involved and completed the program?

Case: Effectiveness & SMARTIE Objective Achievement

FLU-FIT



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Pharmacy Name:													
2	Pharmacist:													
3	Kit#	Date Provided	Last Name	First Name	Age	Race	Gender / Gender Identity	Sexual Orientation	Date Returned	Results		Date of Follow Up with Participant		
4														
5														

Year 1: **48%**

Year 2: **60%**

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- Here is the area of the Tracking log where you can see effectiveness data:
- One pharmacy was able to share data with an insurance company to gather the 48% baseline rate for returning CRC FLU-FIT Kits among their patients before the intervention (i.e. before there was a pharmacy partnership program).

Case: Did you reach your SMARTIE objective?

FLU-FIT

SMARTIE Objective: To increase colorectal cancer screening among Black residents in Ward 7 of Washington D.C. from 48% to 63% in one year by conducting a train-the-trainer for 10 pharmacists across 5 pharmacies

SMART Objective: 63%	Actual: 60%

EQUITY

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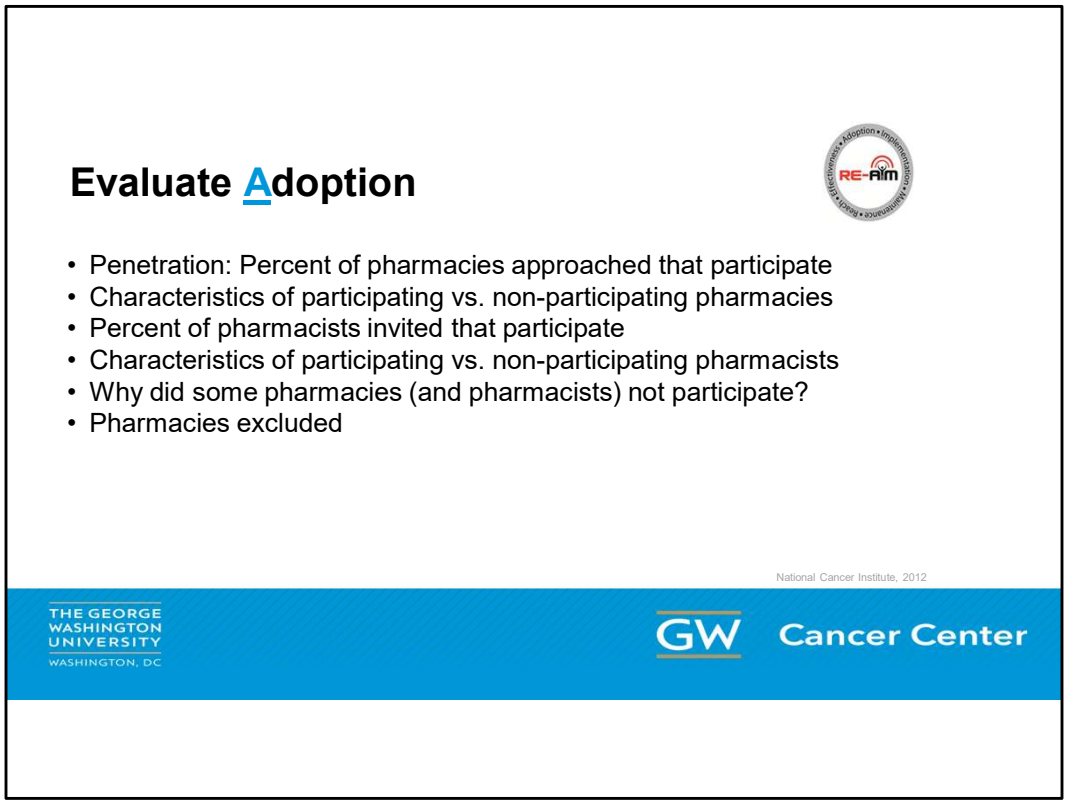
- The percentage of people being screened have increased, but the project did not reach goal-it was very close though!

Next, we are going to focus on the second aspect of the objective, that of reaching 10 pharmacies.
What do you think the A in RE-AIM stands for?

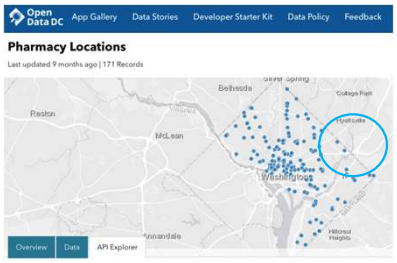


Adoption: is the decision to make full use of an innovation, intervention, or program as the best course of action available.

Some ways to think about this include:

Penetration: Percent of pharmacies approached that participate
Characteristics of participating vs. non-participating pharmacies
Percent of pharmacists invited that participate
Characteristics of participating vs. non-participating pharmacists
Why did some pharmacies (and pharmacists) not participate?
Pharmacies excluded for any reason

Inventory Pharmacies in Ward 7



- Unity Health Care Pharmacy
- CVS
- Reliance Pharmacy
- Apex Care Pharmacy
- Velima Pharmacy
- Heritage Pharmacy
- Seat Pleasant Drugs
- Flexcare Pharmacy

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A map is shown here of Ward 7 Pharmacies.

Case Example: Penetration

	A	B	C	D	E
1	**Pharmacy Name**	**Address**	**Setting Agrees to Training?**	**Total Number of Pharmacists at Location**	**Number of Pharmacists Trained**
2	Unity Health Care Pharmacy	4414 Benning Road NE			
3	CVS #22	320 4th Street NE			
4	CVS Store #1335	3240 Pennsylvania Ave SE			
5	Reliance Pharmacy	4047 Minnesota Avenue NE			
6	Apex Care Pharmacy	3839 Minnesota Avenue NE			
7	Velima Pharmacy	4514 Benning Road SE			
8	Heritage Pharmacy	5820 Dix Street NE			
9	Seat Pleasant Drugs	354 Eastern Avenue NE			
10	Flexcare Pharmacy	3861 Alabama Avenue SE			
11	CVS Store #1360	2834 Alabama Ave SE			
12	Safeway	2845 Alabama Ave SE			
13	Unity Health Care	765 Kenilworth Terrace NE			
14			**Total Trained/13 x 100**	**Total Pharmacists**	**Total Trained/Total Pharmacists x 100**
15					

Percent of pharmacies trained

Percent of pharmacists trained

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You can see here the percent of pharmacies and pharmacists trained. This penetration metric can help us understand the degree of adoption of the program.

What do you think the I in RE-AIM stands for?

Case Example

EBI: FLU-Fecal Immunochemical Test (FLU-FIT)

Implementation Strategy: **Train-the-Trainer** for Pharmacists

SMARTIE Objective: Increase colorectal cancer screening among Black residents in Ward 7 of Washington D.C. from 48% to 63% in one year by conducting a train-the-trainer program with 10 pharmacists across 5 pharmacies.

Chatterjee et al., 2015

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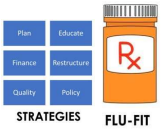
- Next, we will look at how to evaluate the implementation process itself, rather than the EBI.

Case: Implementation Strategy



Train-the-Trainer for Pharmacists about FLU-FIT

- Develop or identify highly visual, low literacy educational materials on FIT
- Conduct train-the-trainer
- Make training dynamic
- Conduct outreach visits
- Provide ongoing consultation

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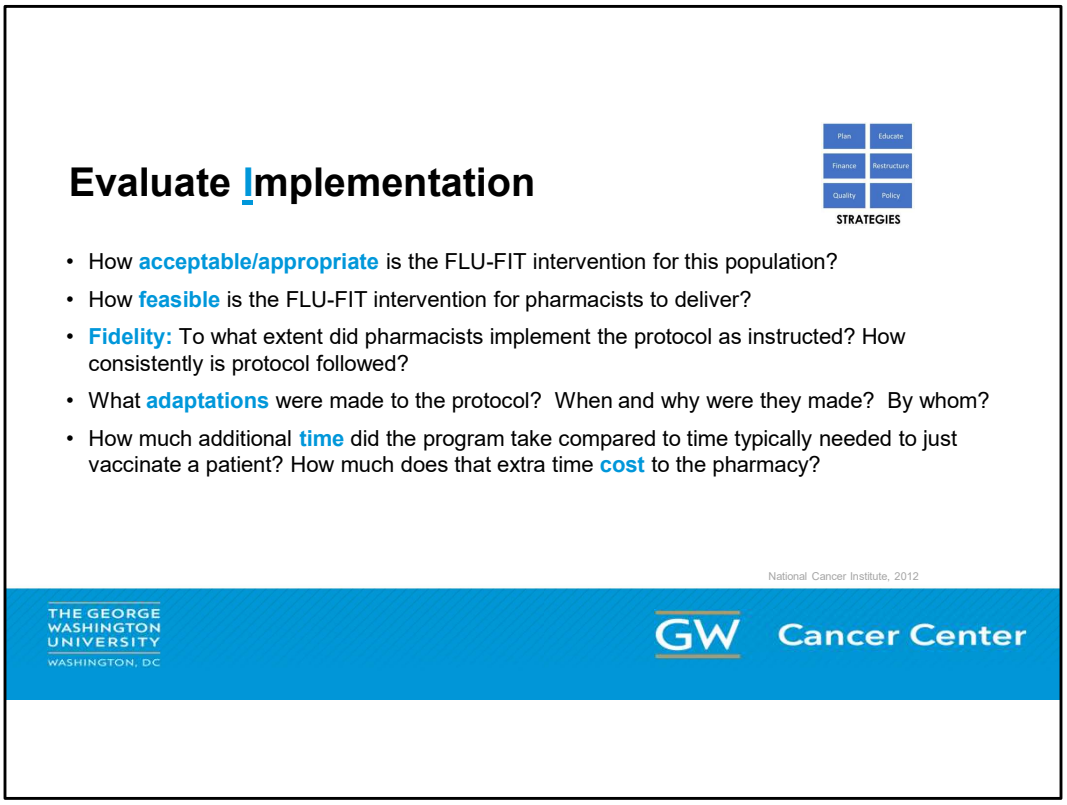
- For this example, our hypothetical implementation team chose to use strategies to educate pharmacists. Specifically, they used the concept of a Peer Training Program. The five tactics listed here were used in the implementation intervention approach.



Some questions to ask about evaluating the implementation of the intervention:

How acceptable/appropriate is the FLU-FIT intervention for this population?

How feasible is the FLU-FIT intervention for pharmacists to deliver?

Fidelity: To what extent did pharmacists implement the protocol as instructed? How consistently is the protocol followed?

What adaptations were made to the protocol? When and why were they made? By whom?

How much additional time did the program take compared to time typically needed to vaccinate a patient? How much does that extra time cost to the pharmacy?

Case Example: Feasibility

Focus: Pharmacist's experience of intervention

	Completely Disagree	Disagree	Neither Agree nor Disagree	Agree	Completely Agree
The FLU-FIT program is user-friendly.	1	2	3	4	5
Our pharmacy is equipped to carry out the FLU-FIT program.	1	2	3	4	5
Our pharmacy is satisfied with FLU-FIT.	1	2	3	4	5
There are barriers to the adoption of the FLU-FIT program in our site.	1	2	3	4	5

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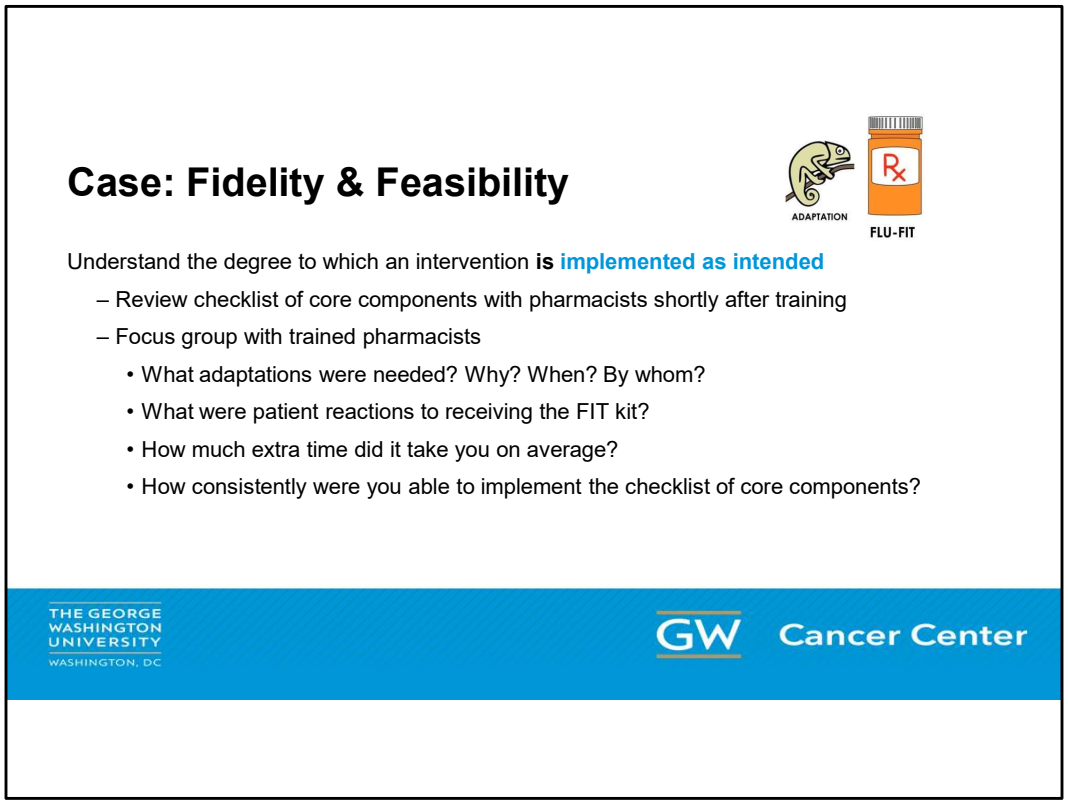
Here is an example of a way to measure feasibility. This survey could be given to pharmacists and asks them to confirm their level of agreement with some statements.
For example: Our pharmacy is equipped to carry out the FLU-FIT program.



Understanding the degree to which an intervention is implemented as intended is important.

You could review a fidelity checklist with pharmacists shortly after the training

You could host a focus group with trained pharmacists. This might ask:

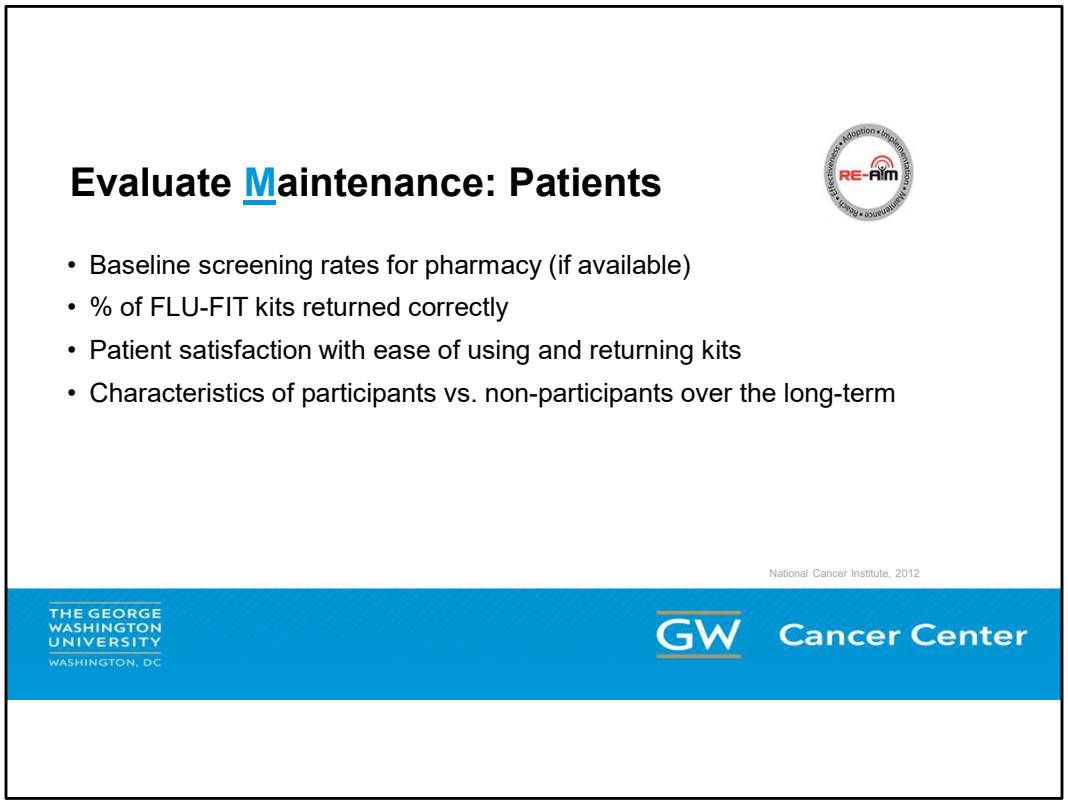
What adaptations were needed? Why? When? By whom?

What were patient reactions to receiving the FIT kit?

How much extra time did it take you on average?

How consistently were you able to implement the protocol?

What do you think the M in RE-AIM stands for?



Maintenance is the next dimension of RE-AIM. It can help understand:

Baseline screening rates for pharmacy (if available)

% of FLU-FIT kits returned correctly

Patient satisfaction with ease of using and returning kits

Characteristics of participants vs. non-participants over the long-term

Remember you don't have to track EVERYTHING. If you want data about who and to what extent pharmacists are continuing the intervention after the official program ends, ask pharmacists to continue their tracking log and to send you the log without patient names 6 months after the end of your intervention. This will tell you which pharmacies and pharmacists are still providing FIT kits and how often

Because this is a seasonal program, so you might also send a reminder the following year and assess maintenance based on response to repeat the program without your support

Acceptability & Feasibility - Part 1

	Completely disagree	Disagree	Neither agree nor disagree	Agree	Completely agree
FLU-FIT meets my approval.	①	②	③	④	⑤
FLU-FIT is appealing to me.	①	②	③	④	⑤
I like FLU-FIT.	①	②	③	④	⑤
I welcome FLU-FIT.	①	②	③	④	⑤
FIT kit instructions were easy to follow.	①	②	③	④	⑤
FIT kit return was easy.	①	②	③	④	⑤
I would like to participate in FLU-FIT again next year	①	②	③	④	⑤

Weiner et al., 2017

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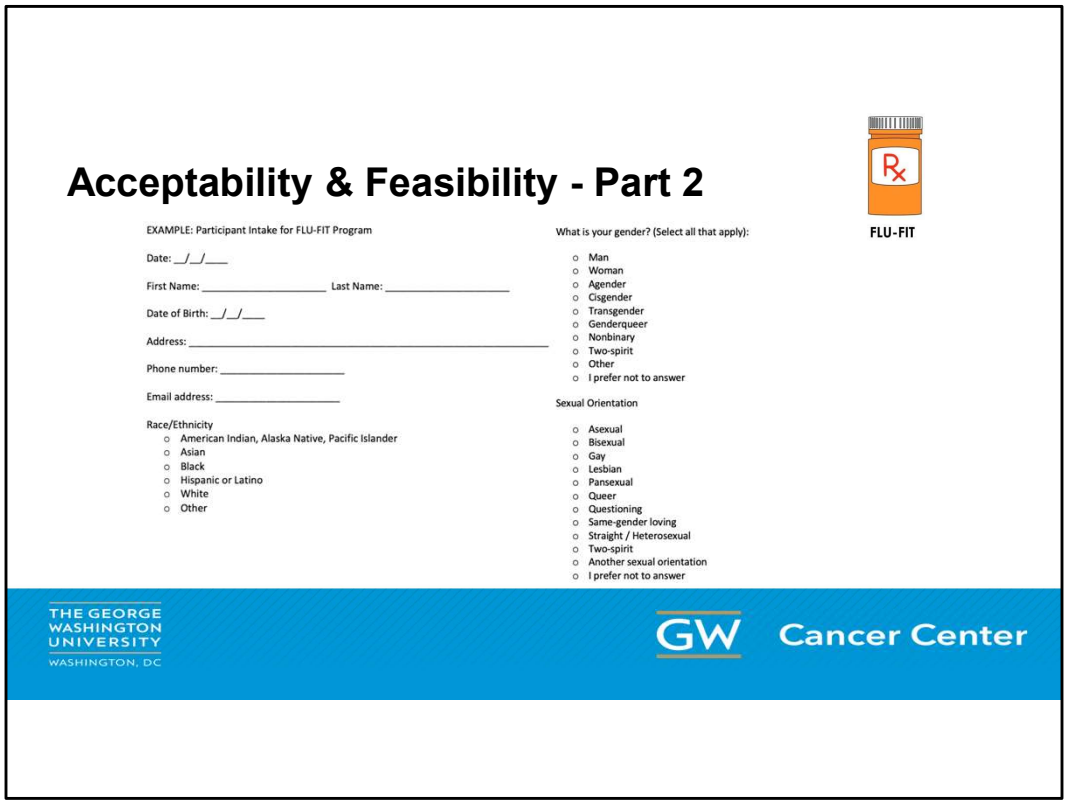
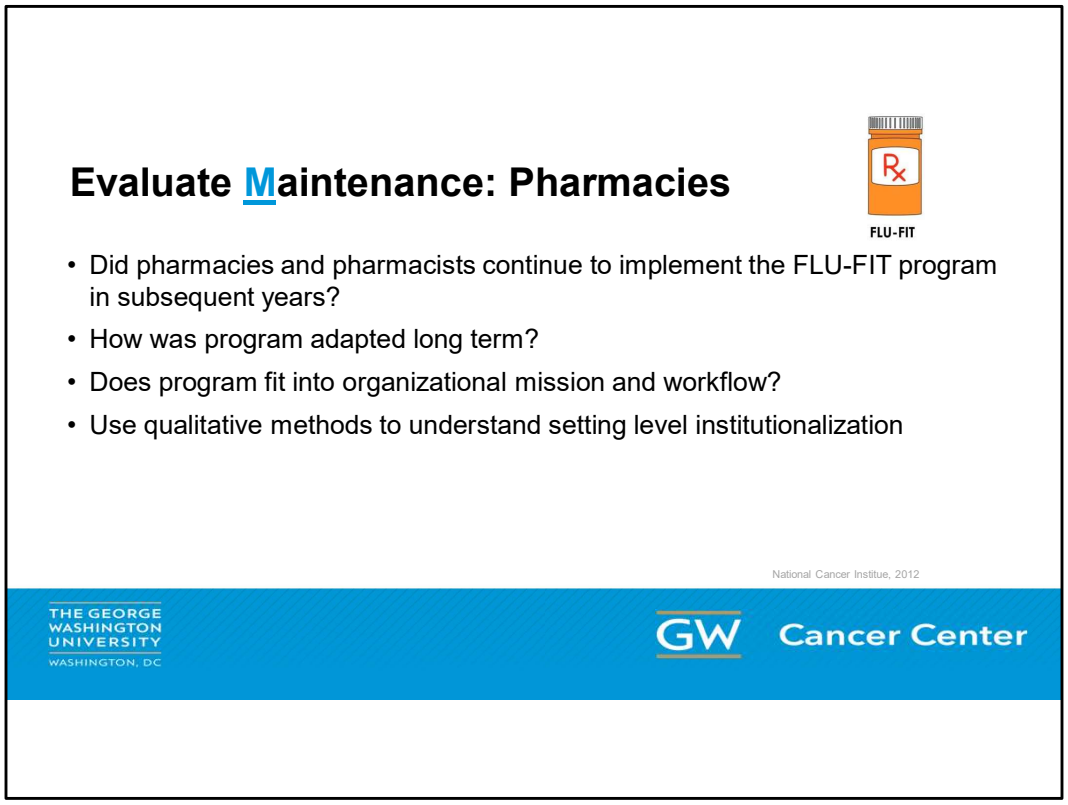
Example of a validated measure: Weiner BJ, Lewis CC, Stanic C, et al.

Validated questions have been tested with a sample representative of the general population and have been shown to have consistent results when given repeatedly. They also are demonstrated to be accurate ways to actually measure what you are trying to measure.

- If you want to add new questions based on your intervention, have other team members review them for clarity and relevance. More is not always better with a survey.



- Use the same intake form to collect demographic information to measure acceptability and feasibility.



Some questions you can ask to understand the long-term maintenance of your intervention:

Did pharmacies and pharmacists continue to implement the FLU-FIT program in subsequent years?

How was the program adapted long term?

Does the program fit into the organizational mission and workflow?

Use qualitative methods to understand setting level institutionalization

Survey Pharmacy Leads

- Does this program align with your pharmacy's mission?
- Has an administrative-level individual within pharmacy been actively involved in advocating for this program's continuation?
- Have permanent staff been assigned to implement this program?
- What adaptations have been needed to integrate FLU-FIT into your workflows?

Goodman et al., 1993

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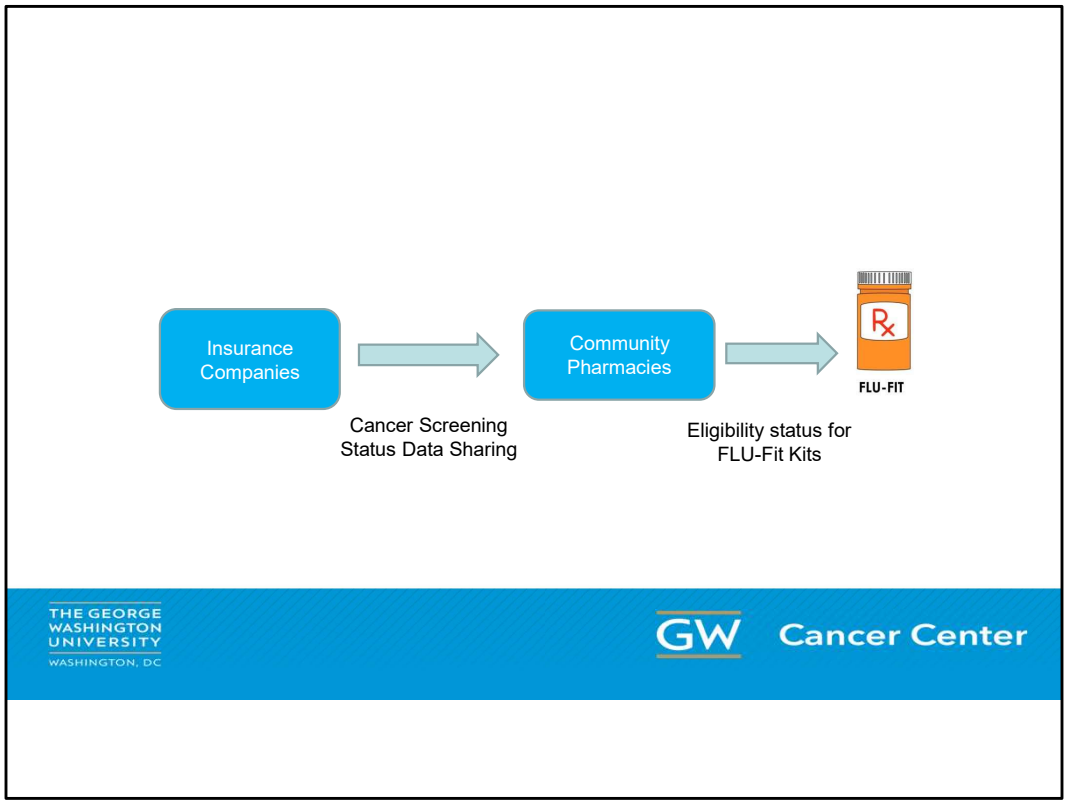
This was taken from a larger survey of level of institutionalization of change that available in the supplemental tools. While maintenance is similar to sustainability, it is not the same thing. Rather, it is a shorter-term measure of institutionalization, and can be seen as on the way towards long term sustainability.

Does this program align with your pharmacy's mission?

Has an administrative-level individual within the pharmacy been actively involved in advocating for this program's continuation?

Have permanent staff been assigned to implement this program?

What adaptations have been needed to integrate FLU-FIT into your workflows?



Not all pharmacies may not have baseline data to compare colorectal cancer screening rates before and after the intervention. If this is the case, you may determine whether you could build infrastructure to share data between insurance companies and pharmacies and help build capacity for quality improvement and evaluation in the future.

Having the pharmacy and insurance company share data could be a daunting and expensive undertaking, but there could be benefits for both the pharmacy and overall patient health.
Examples: Brings patients to the pharmacy and potentially allows them to bill for new services
Reduces the health system demand for GI specialists given the need to catch up from limited screening during COVID and the likelihood of reducing the age for CRC screening from 50 to 45 (adding 5 more years worth of patient population)

Using Evaluation Data & Results

Use data to measure whether you are achieving goals

Use results to inform which implementation strategies to use in future

Distribute results to stakeholders to improve future implementation

Metz et al., 2020

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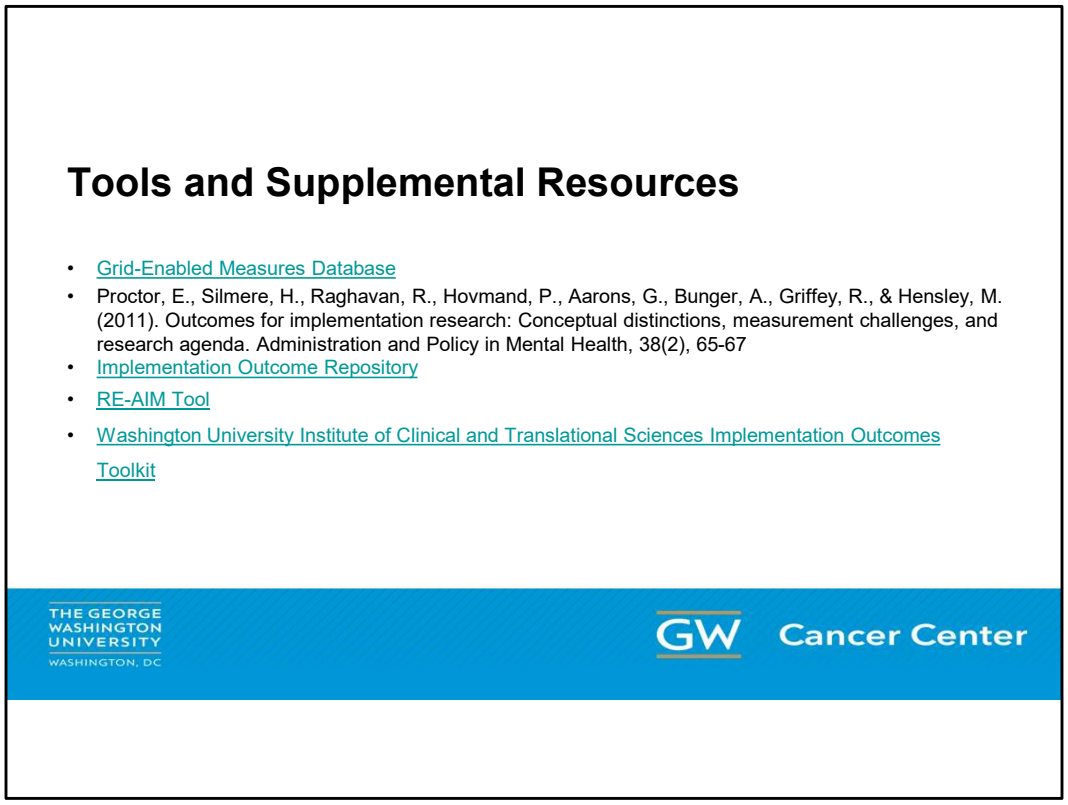
Most important is how you use evaluation data once it is collected and analyzed. For example, you could:

- Use data to regularly measure whether you are achieving goals
- Use results to inform which implementation strategies to use in future
- Distribute results to stakeholders to improve future implementation



Tools listed here are all located in your companion guide.

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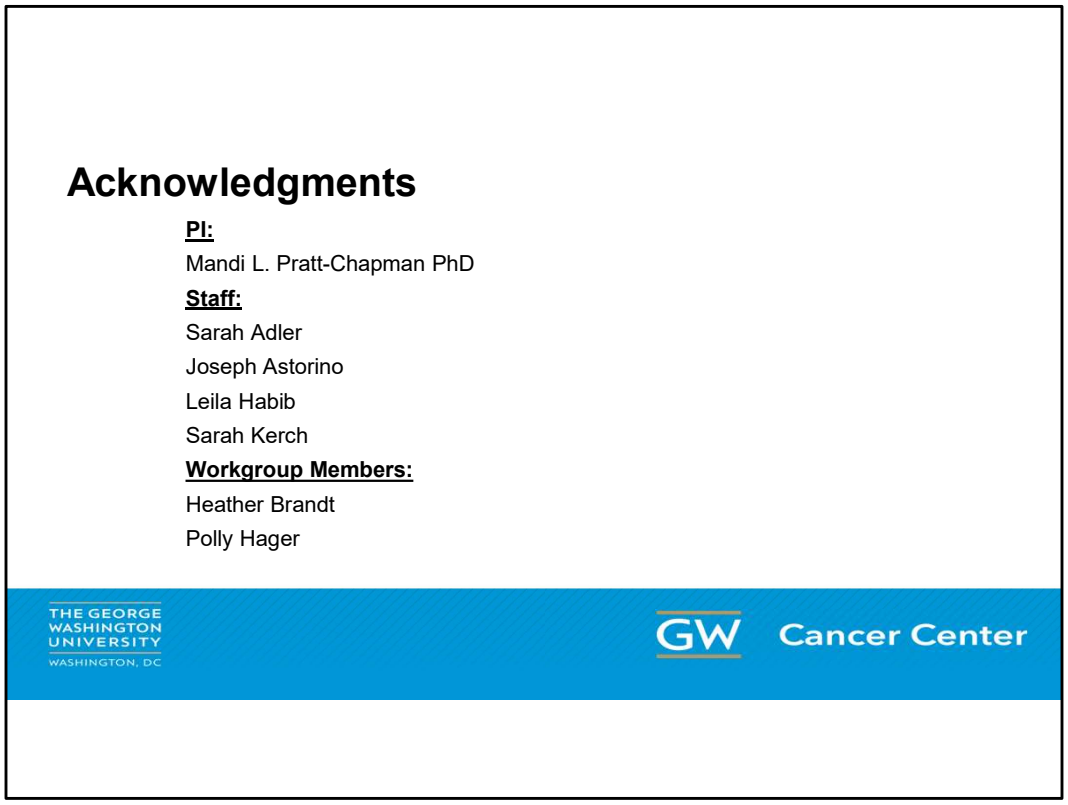
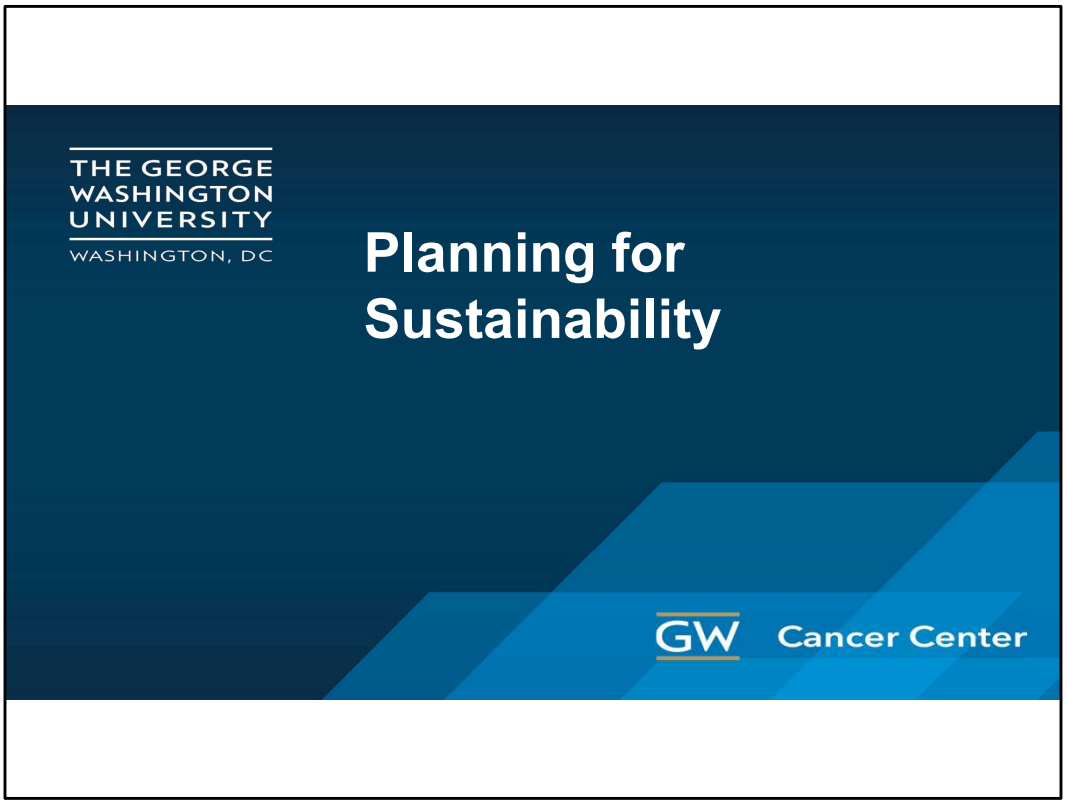
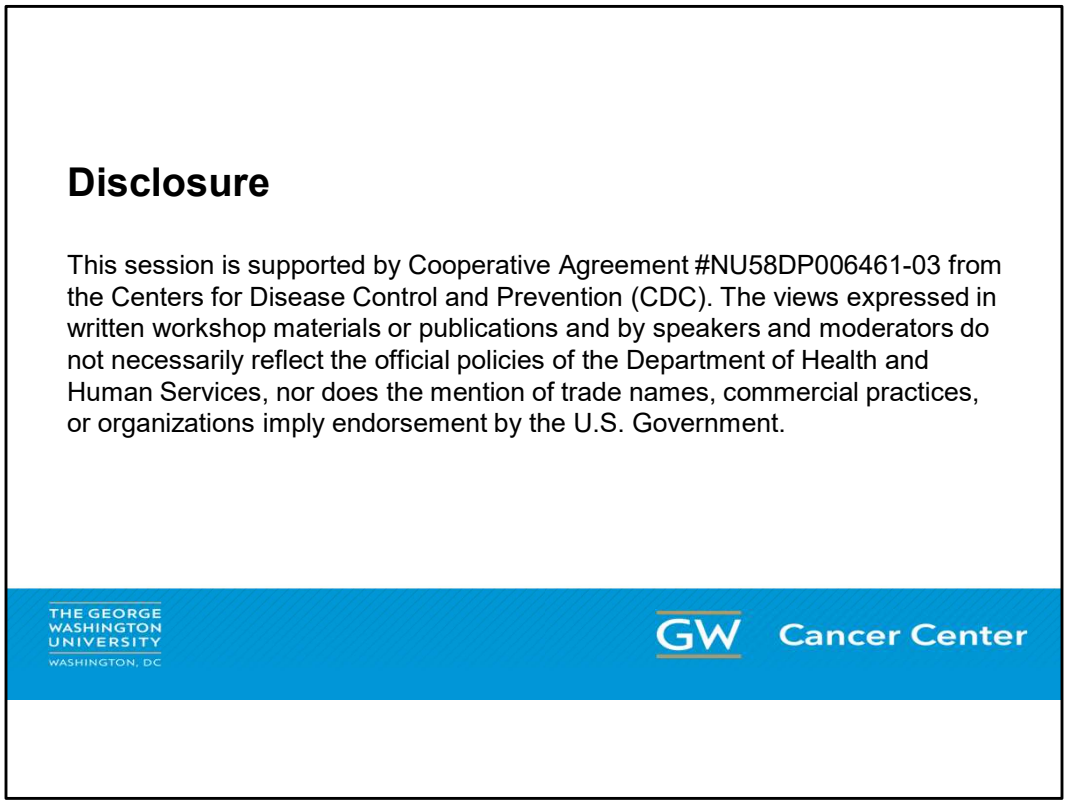


Thank you to all those listed here who helped in developing this training.



Welcome to the last session of Base Camp.

- My name is Tamara Robinson, and I am the program director for the Nebraska Cancer Coalition, also known as NC2.



- This session is supported by a Cooperative Agreement from the Centers for Disease Control and Prevention (CDC). The views expressed in written workshop materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

Learning Objectives

1. Identify elements critical for sustaining an intervention
2. Describe how to integrate a sustainability tool into cancer screening implementation planning

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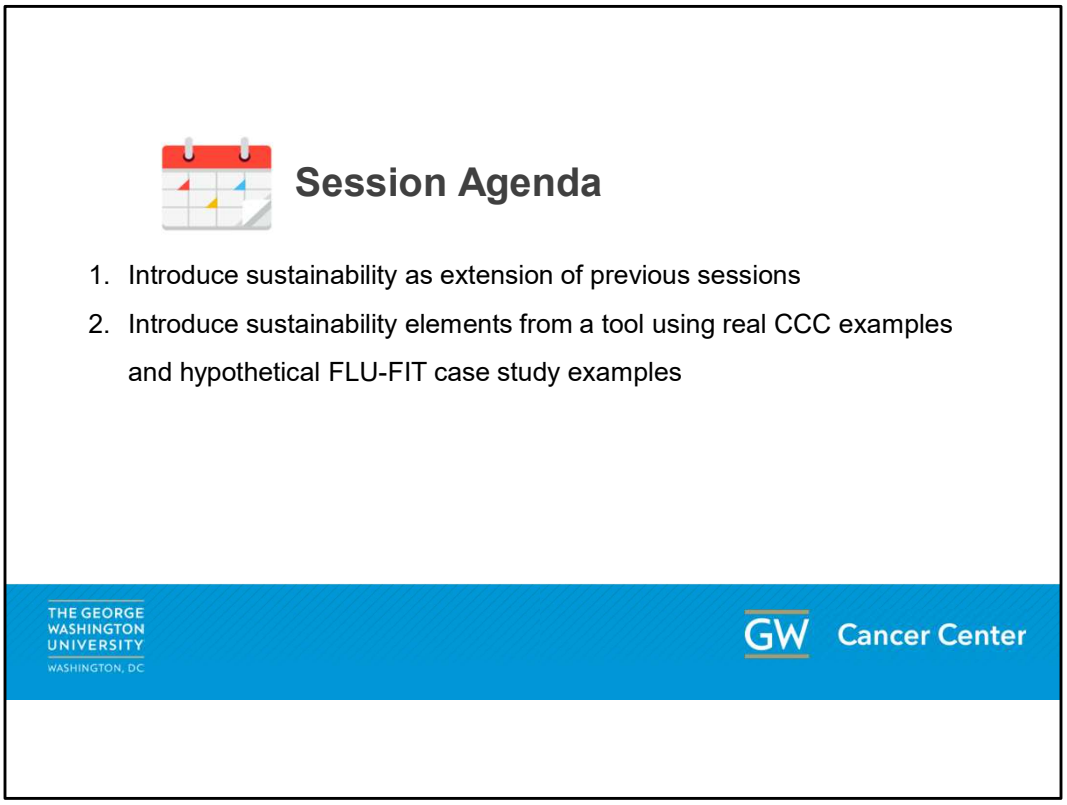
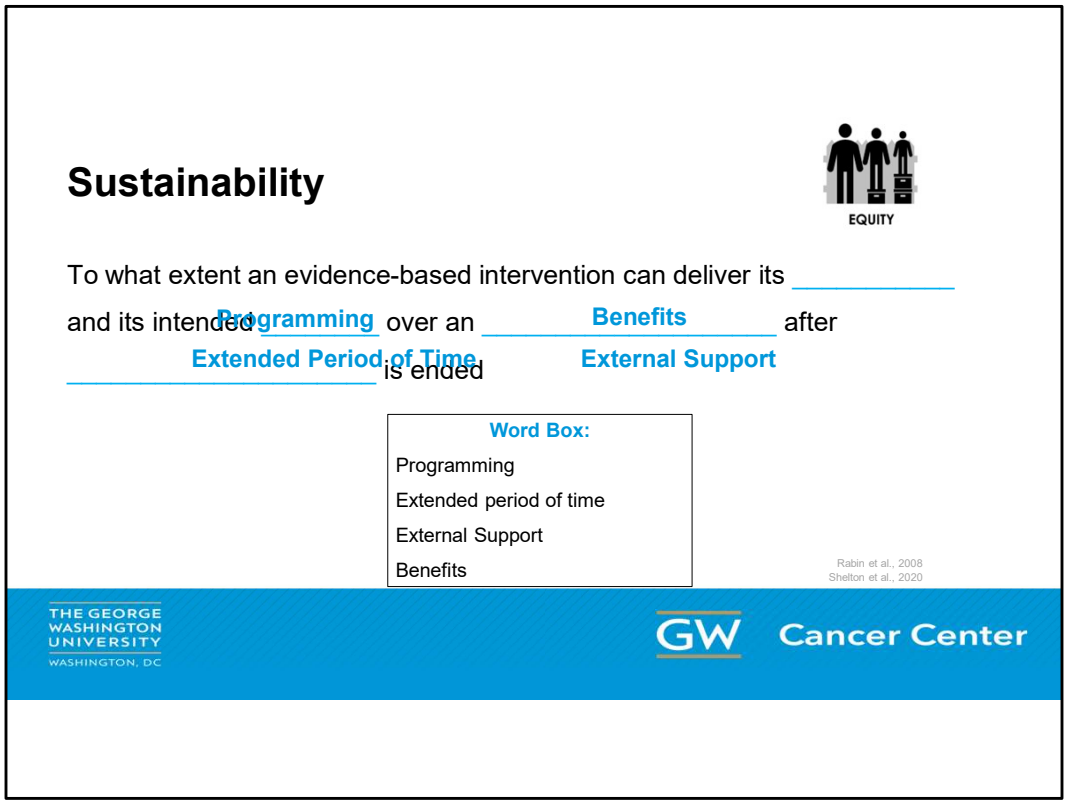
Here are our main learning objectives for this session.

1. Identify elements critical for sustaining an intervention
2. Describe how to integrate a sustainability tool into cancer screening implementation planning



And our map for the session:

1. Introduce sustainability as extension of previous sessions
2. Introduce sustainability elements from a tool using real CCC examples and hypothetical FLU-FIT case study examples



Let's fill in the blanks here to define sustainability. I will pause for each blank while you think about the correct word from the word bank.

Sustainability can be defined as: to what extent an evidence-based intervention can deliver its **programming** and its intended **benefits** over an **extended period of time** after **external support** is ended

- EBIs can only succeed at the population health level if they are appropriate to the Populations of Focus, affordable across most settings, feasible for workflows that vary across settings, and are delivered consistently and equitably over time across diverse settings and populations

What are you sustaining?

- Evidence-based interventions
  - Example: FLU-FIT Intervention
- Implementation strategies supporting those EBIs
  - Examples:
    - "Train the Trainer" education strategy
    - Restructuring strategies
    - Quality management strategies
    - Policy strategies

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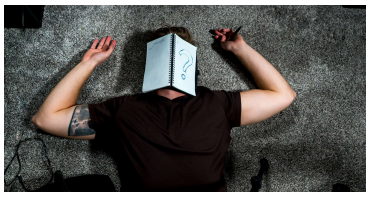
First, you should get clear about WHAT you are actually sustaining.

From our case example:
You want to sustain the Evidence-based intervention
Example: FLU-FIT Intervention

You also want to sustain the implementation strategies supporting those EBIs
Examples:
"Train the Trainer" education strategy
Restructuring strategies
Quality management strategies
Policy strategies

Comprehensive Cancer Control & Sustainability Planning

92% of CCC plans mention sustainability, but often without detailed action plans



Ory et al., 2015
Photo: @ryansnaadt

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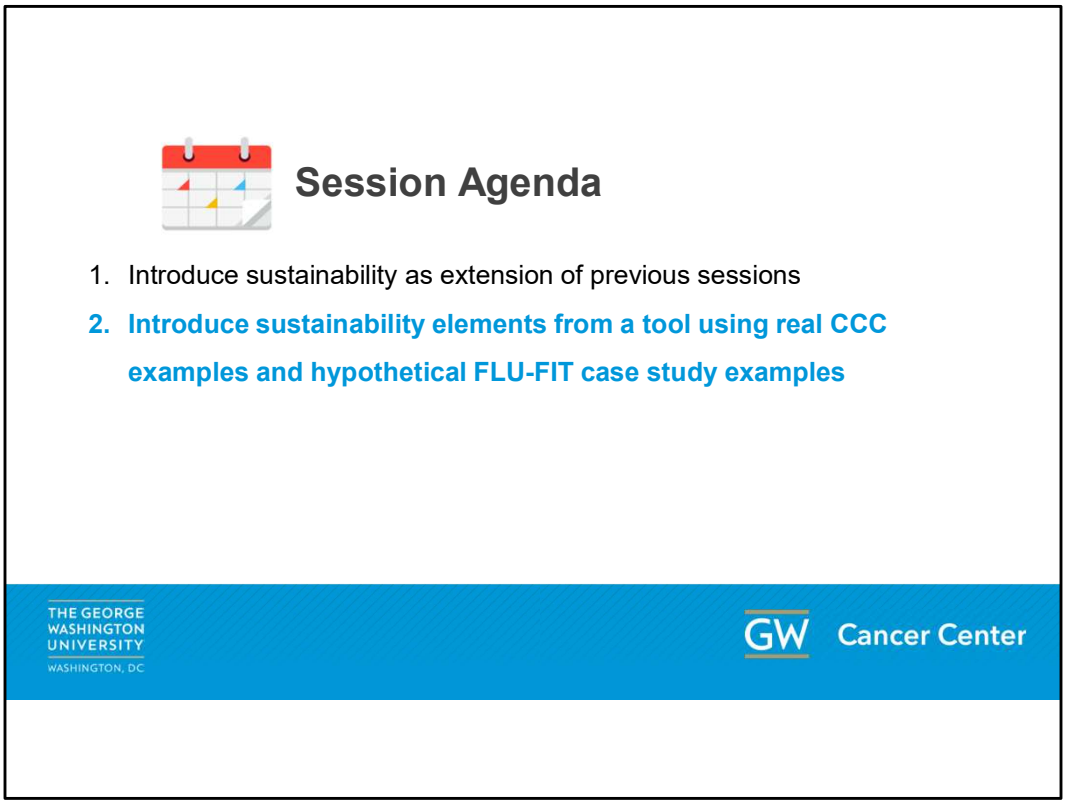
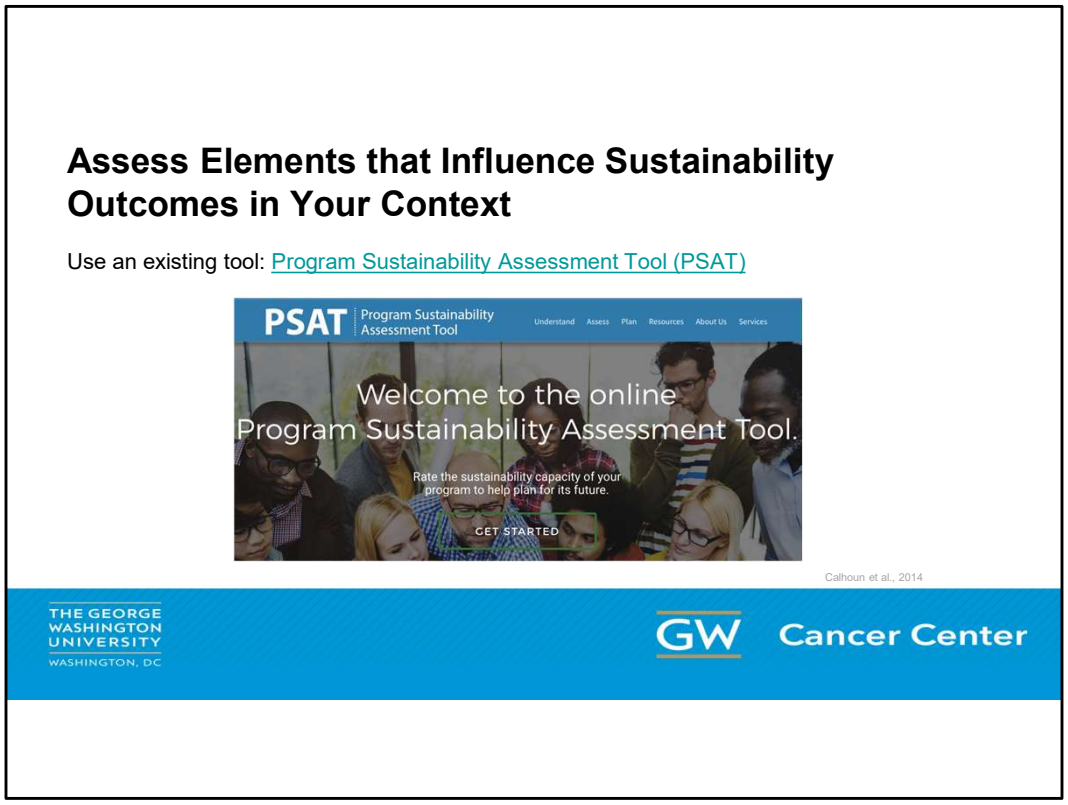
In terms of Comp Cancer Control---92% of CCC plans mention sustainability, but often without detailed action plans

Sample details for more actionable plans: Can you determine--

Which agencies will take the lead in seeking funding? Which will be involved in carrying out the intervention and implementation?
How will funds be administered and managed?



Next, we will introduce sustainability elements from a tool using real world and hypothetical case study examples.



- The PSAT, or Program Sustainability Assessment tool, will allow you to assess your current capacity for sustainability, identifying specific strengths and weaknesses in regards to sustainability.
- You can then use results to guide sustainability action planning for your program.

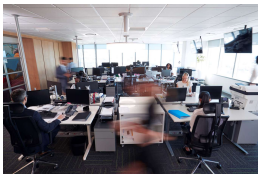
This tool has been designed for use with a wide variety of programs, both large and small, across different settings. Given this flexibility, it is important for you to think through how you are defining your program, organization, and community before starting the assessment.
Below are a few definitions of terms that are frequently used throughout the tool.

Program refers to the set of formal organized activities that you want to sustain over time. Such activities could occur at the local, state, national, or international level and in a variety of settings.
Organization encompasses all the parent organizations or agencies in which the program is housed. Depending on your program, the organization may refer to a national, state, or local department, a nonprofit organization, a hospital, etc.
Community refers to the stakeholders who may benefit from or who may guide the program. This could include local residents, organizational leaders, decision-makers,

etc. Community does not refer to a specific town or neighborhood.

PSAT Elements

Next, we're going to learn about the eight (8) PSAT elements



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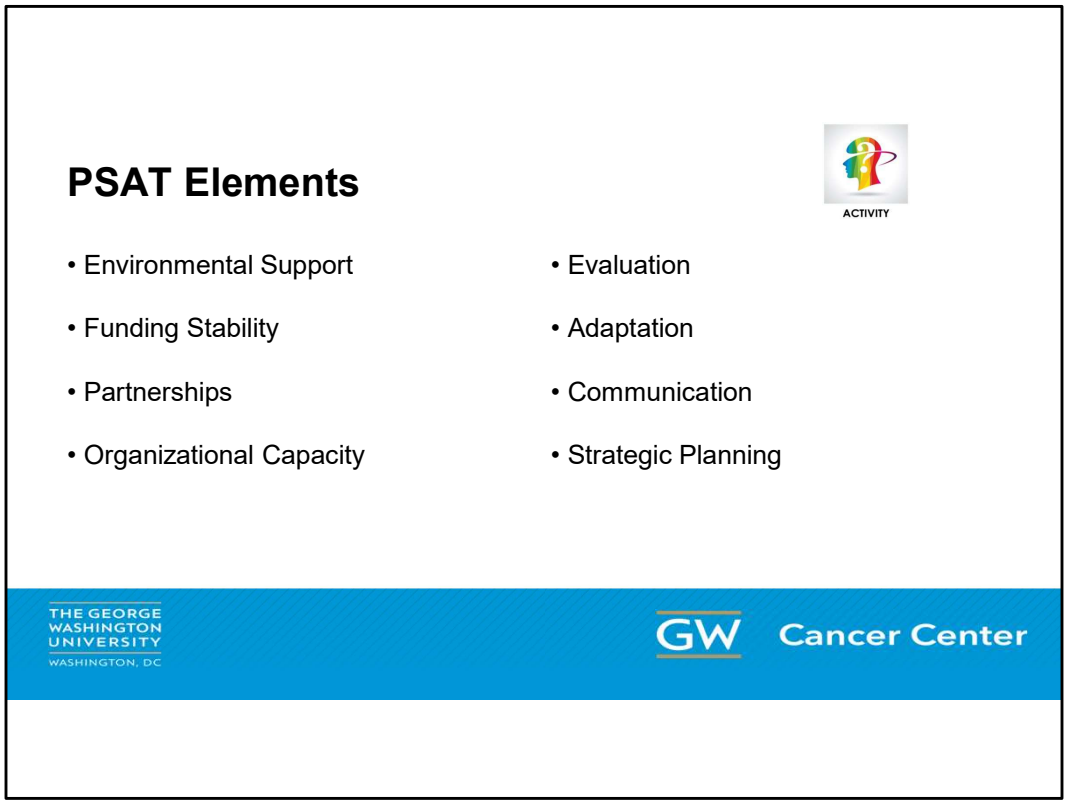
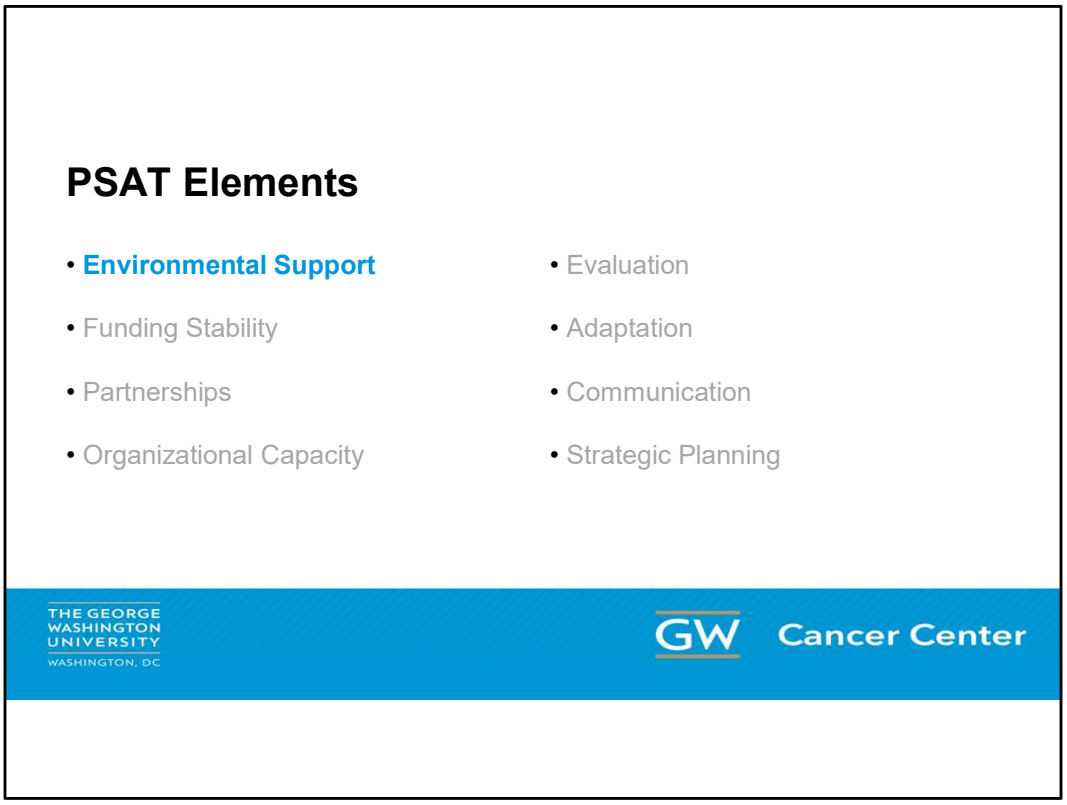
- Next we're going to learn about the eight (8) PSAT Elements.



Hi everyone, My name is Mandi Pratt-Chapman, and I am the Associate Center Director in charge of Patient-Centered Initiatives and Health Equity for the George Washington University Cancer Center.



First, we will examine environmental support.

Environmental Support

ENGAGEMENT

- Identify supportive clinical and community champions with:
  - Decision-making ability
  - Resources
- Gain leadership support within organization
- Proactively foster
  - Community support
  - Public policy and educating on policy

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For example – if we wanted to bolster environmental support ,we would want to work with stakeholders to:

Identify supportive clinical and community champions with:

Decision-making ability

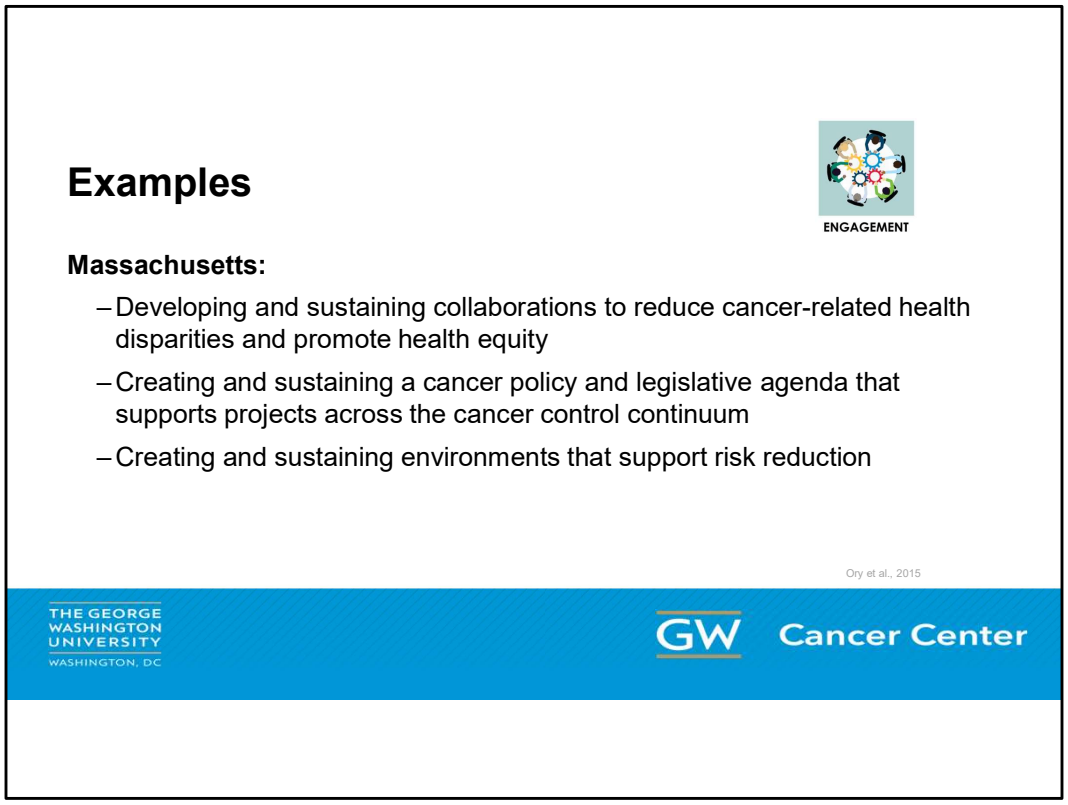
Resources

We can also foster environmental support by gaining leadership support within organization

We can also proactively foster

Community support

We might also educate policymakers on supportive policies



A real world example is the Comp Cancer program in Massachusetts:

To bolster environmental supports, they

Developed and sustained collaborations to reduce cancer-related health disparities and promote health equity

Created a cancer policy and legislative agenda that supports projects across the cancer control continuum

Advocated for environments that support risk reduction

Case Study Example

- Partnerships with pharmacy champions
  - Invitation to comprehensive cancer control coalition meetings
  - Increased engagement from pharmacy sector

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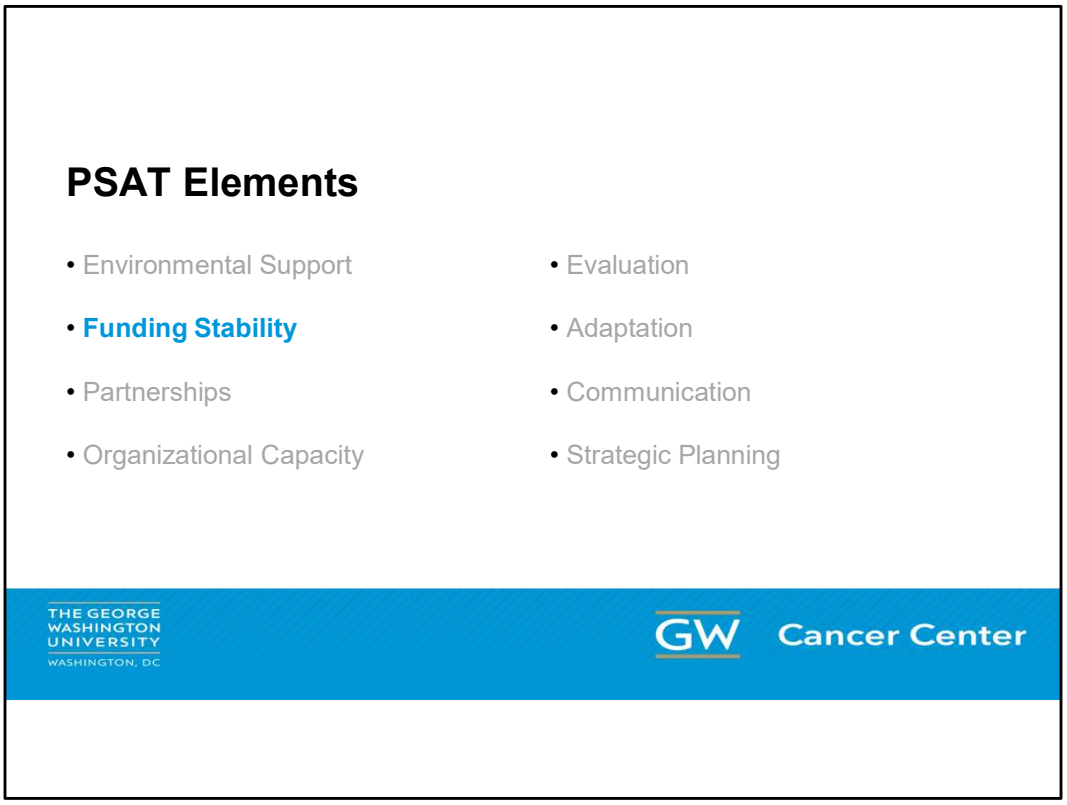
Let's think about our case study… To build environmental supports, we would want to create or strengthen partnerships with pharmacy champions

Invitation to comprehensive cancer control coalition meetings – or if they are too busy in practice, consider ad hoc engagement to use their time most efficiently. This might mean direct community outreach to pharmacists.

Increased engagement from this sector



Next, we will look at funding stability.

Funding Stability

- Create policies and systems that sustain ongoing funding
- Diversify funding streams, including stable and flexible funding

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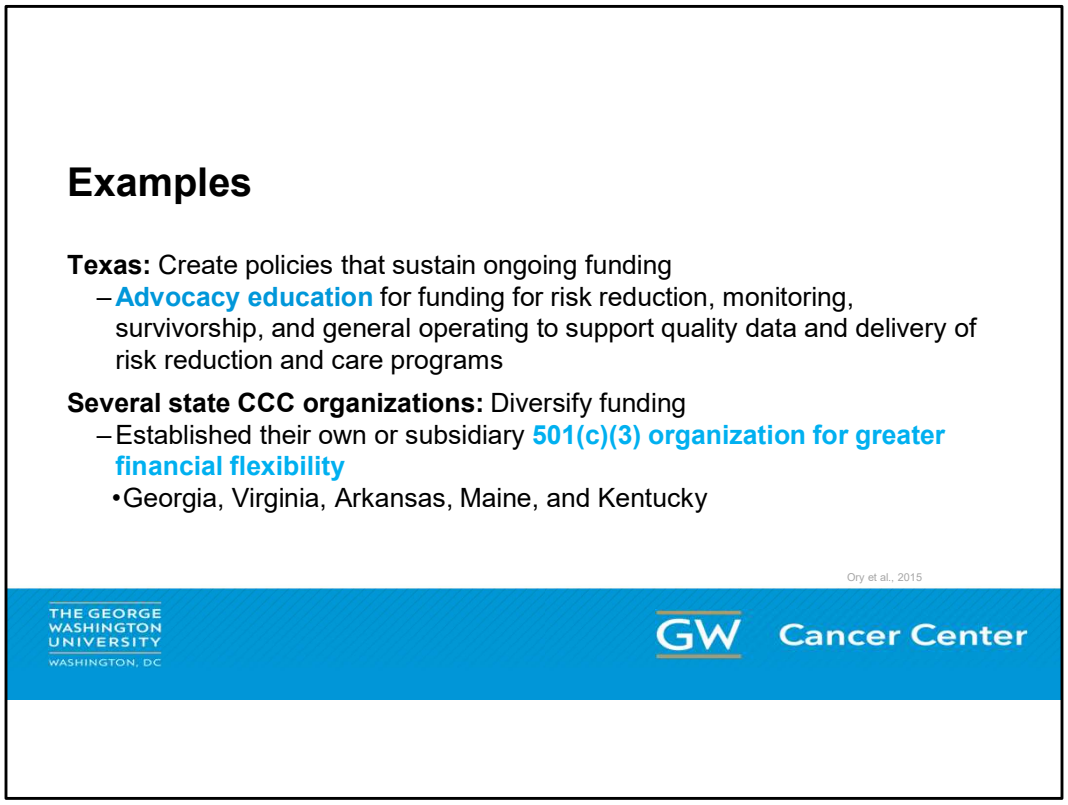
Create policies and systems that sustain ongoing funding

Diversify funding streams, including stable and flexible funding



Example from:

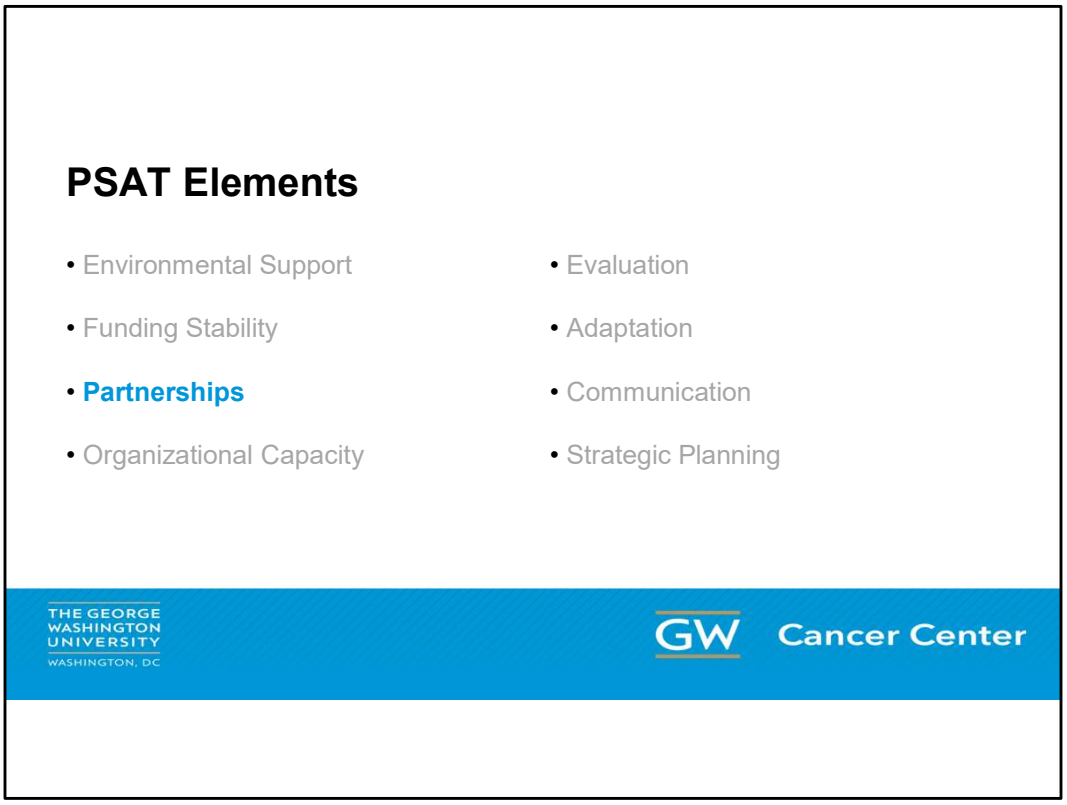
Texas: Create policies that sustain ongoing funding

Advocacy education for funding for risk reduction, monitoring, survivorship, and infrastructure supporting quality data and delivery of risk reduction and care programs

Several state CCC organizations: Diversify funding

Established their own or subsidiary 501(c)(3) organization for greater financial flexibility

Georgia, Virginia, Arkansas, Maine, and Kentucky



Next is partnerships.

Partnerships

- Identify community leaders who are passionate about your cancer screening goals and cultivate buy-in
- Engage diverse organizations and groups in planning, implementation, and measuring success
- Engage partners from multiple levels

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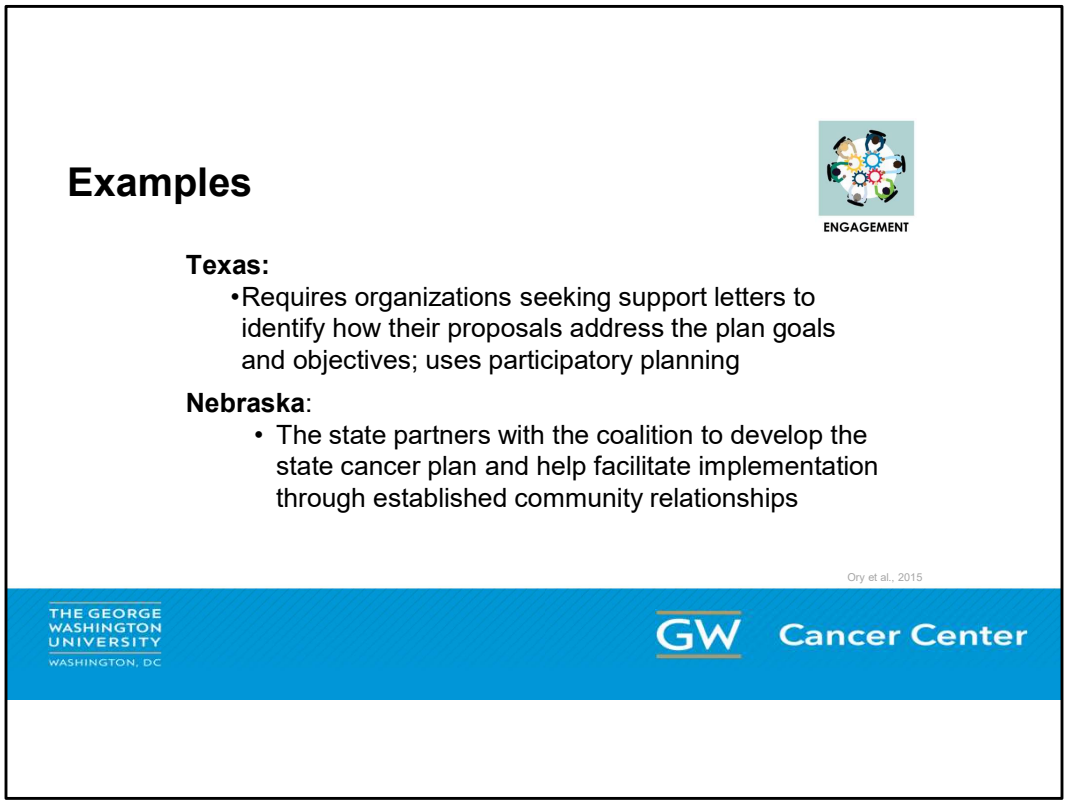
Identify community leaders who are passionate about your cancer screening goals and cultivate buy-in

Engage diverse organizations and groups in planning, implementation, and measuring success

Engage partners from multiple levels



Here are two real-world examples

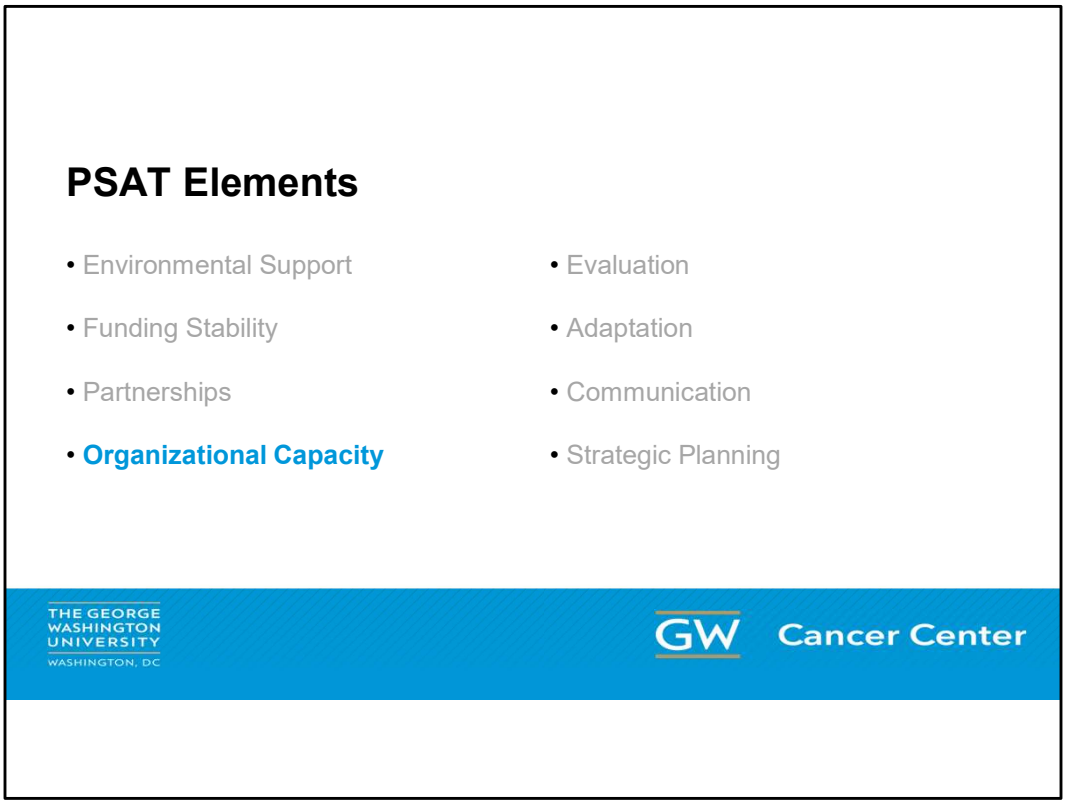
Texas:

Cancer Alliance of Texas

Requires organizations seeking support letters to identify how their proposals address the plan goals and objectives and uses participatory planning

Nebraska:

The state partners with the coalition to development the state cancer plan and help facilitate implementation through established community relationships



Organizational capacity is next.

Organizational Capacity

Assess strengths and needs related to general operations

- Provide **training** & show its **value** to daily work
- Ensure adequate **management and staffing**
- Articulate your **vision** to external partners

Metz et al., 2020

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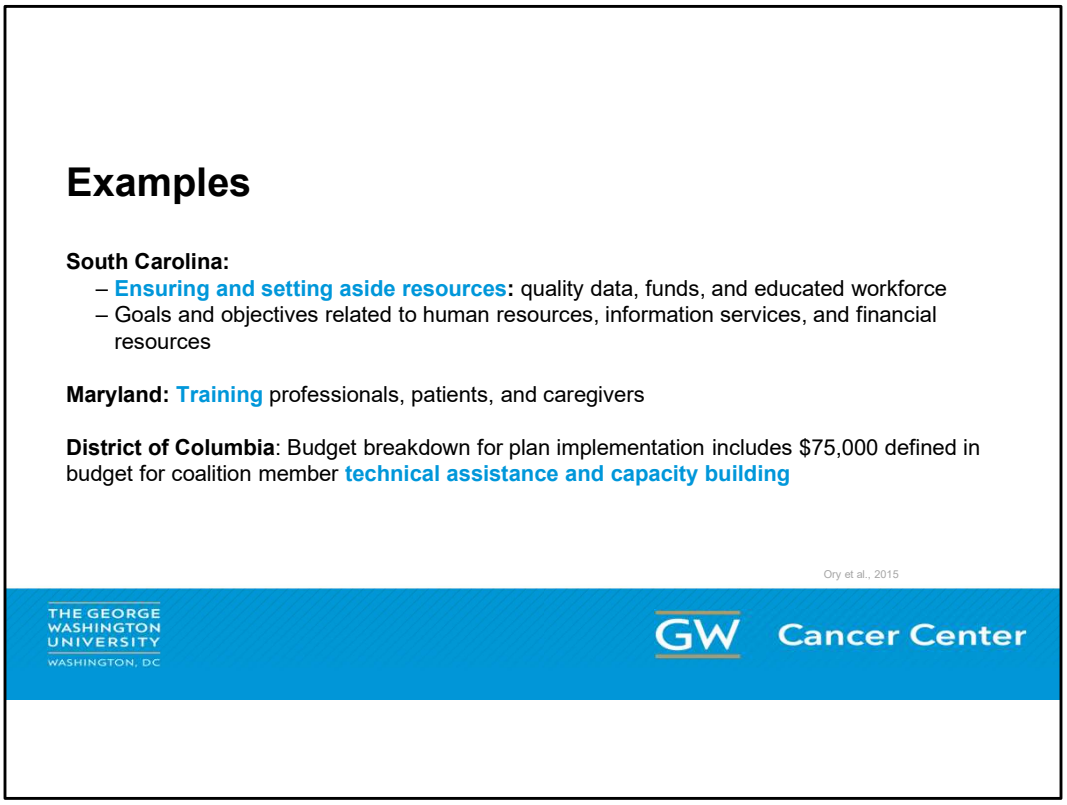
Assess strengths and needs related to organizational systems

Provide training to improve capacity and network; show its value to daily work

Ensure adequate management and staffing for ongoing implementation

Articulate your vision to external partners



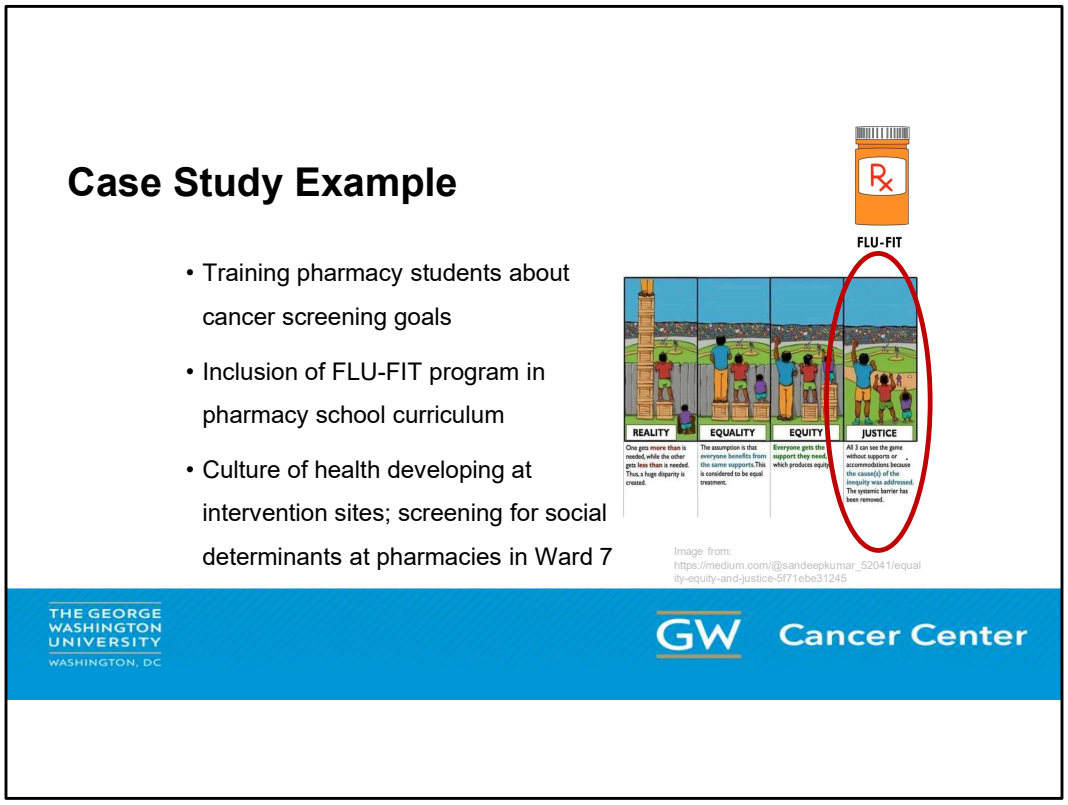
Examples:

South Carolina:

- Ensuring and setting aside resources for quality data, funds, and educated work-force
- Goals and strategies related to human resources, information services, and financial resources

Maryland: plan addresses training professionals, patients, and caregivers in several sections of the document

District of Columbia: budget breakdown for plan implementation, which includes a $75,000 specifically defined for coalition member technical assistance and capacity building



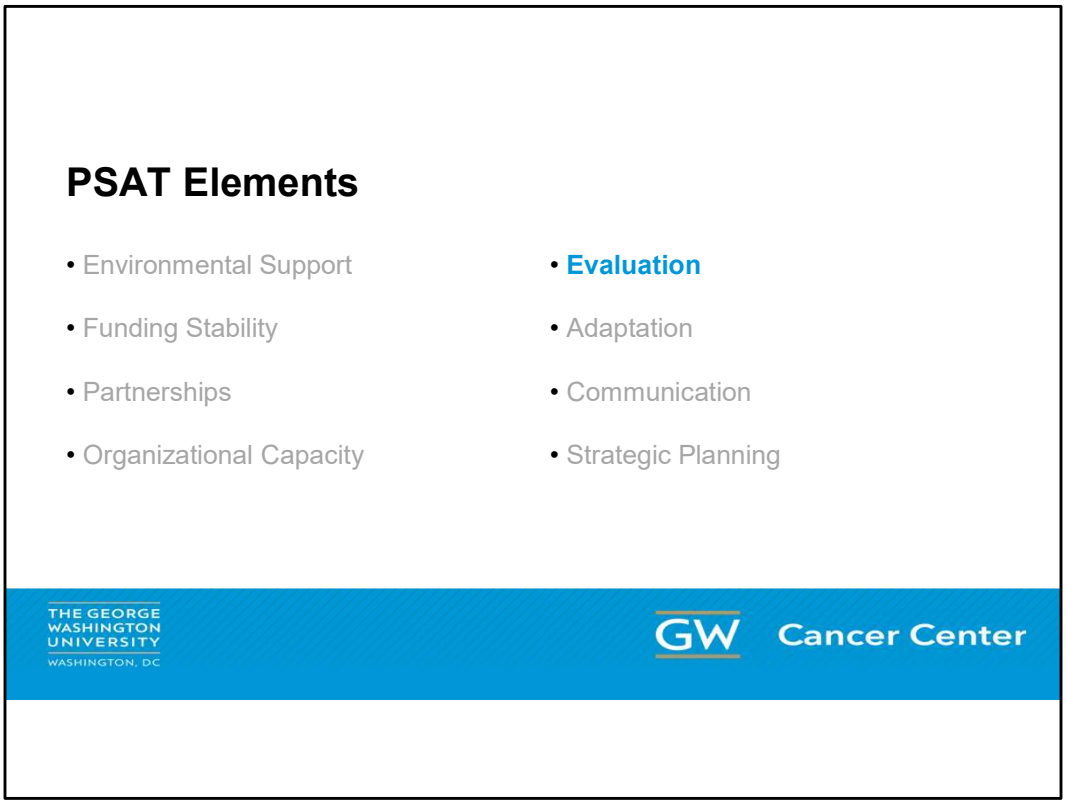
Some more hypothetical examples from the FLU-FIT case study:

Maybe the program leads to:

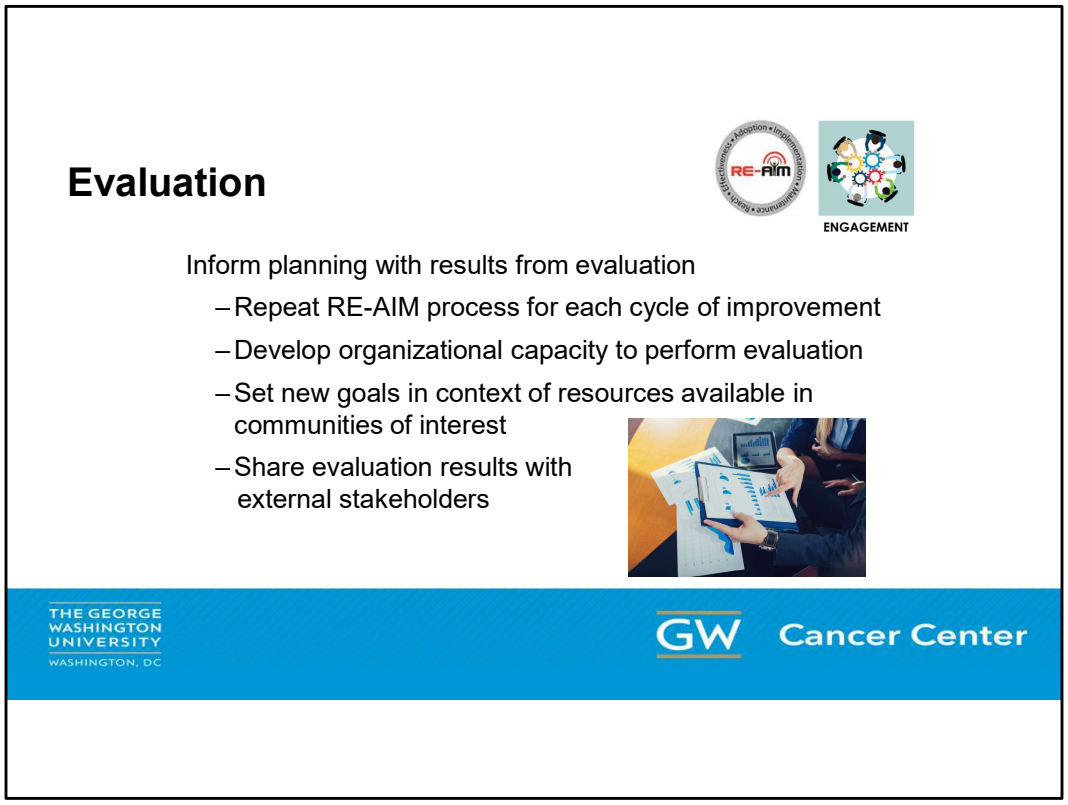
Training pharmacy students about cancer screening goals

Inclusion of FLU-FIT program in pharmacy school curriculum

- Culture of health developing at intervention sites; screening for social determinants and cancer screening status at pharmacies in Ward 7 as a result of community leadership inclusion. This can be seen as an extension of equity coming from the momentum of equitable implementation. This leads to the path of justice, where systemic barriers are removed.



Next, we will examine Evaluation.



You heard lots about RE-AIM in the last session.

- The main goal of evaluation is to inform the next round of planning
    - You can repeat aspects of RE-AIM process for each cycle of improvement

You can also develop organizational capacity to perform evaluation

Work to set new goals with communities of interest to help with sustainability – so that interests are aligned

Make sure you **share** evaluation results with external stakeholders to increase buy-in and show feasibility

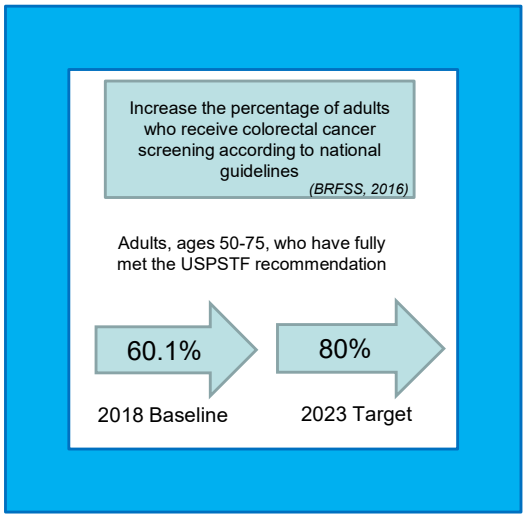
- In this case, when showing value for stakeholders concerned most about sustainability, you may want to highlight effectiveness and maintenance.

Remember, you don't have to evaluate all of these constructs all the time. Your activities should fit with the bigger picture of your context.

Examples

Texas

- **Define SMART objectives based on review of initial and ongoing data**, with consideration of factors such as available resources, barriers, and capacity for implementation of strategic actions



CPRIT, 2018
Ory et al., 2015

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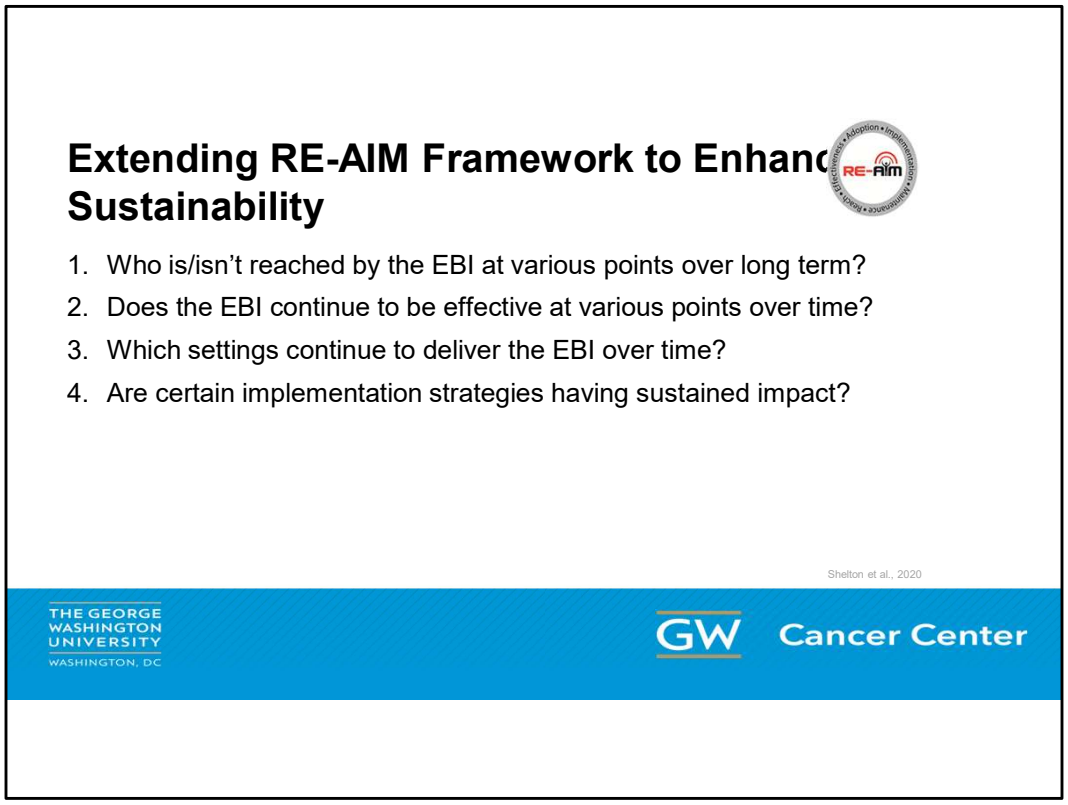
A real-world example: Texas included in their cancer plan SMART objectives based on a review of initial and ongoing data, with consideration of factors such as available resources, barriers, and capacity for implementation of strategic actions.

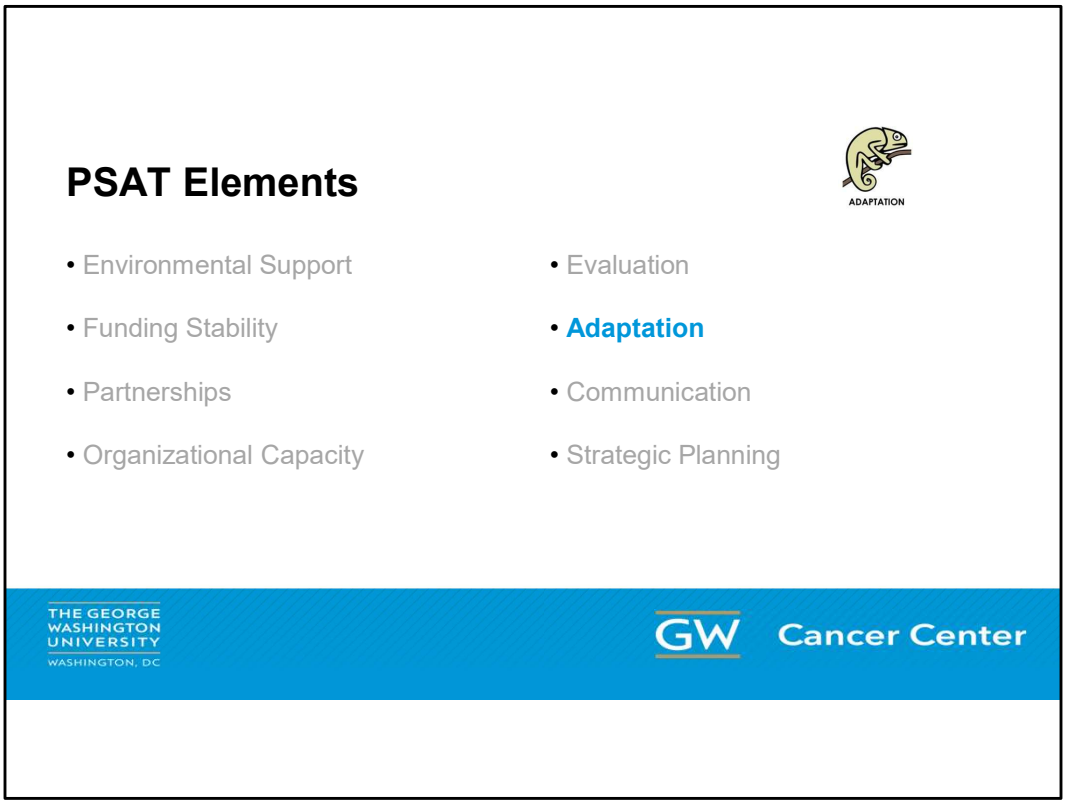
Here you see from the Texas plan the Baseline and Target percentages for colorectal cancer screening very clearly laid out. They had around a 60% baseline colorectal cancer screening rate and set a target of 80% by 2023.

So their evaluation was focused on the R of RE-AIM—a 20% increase in reach of CRC screening



We need to be evaluating from the beginning to show value and to show the importance of maintaining and sustaining an initiative, but you can use RE-AIM to structure your description of sustainability.

1. Who is/isn't reached by the EBI at various points over long term?
2. Does the EBI continue to be effective at various points over time?
3. Which settings continue to deliver the EBI over time?
4. Are certain implementation strategies having sustained impact?



Adaptation is another important element of sustainability.

Program Adaptation

Periodically:

- Review evidence and contextual changes
- Assess fit between context and EBI

Chambers et al., 2013

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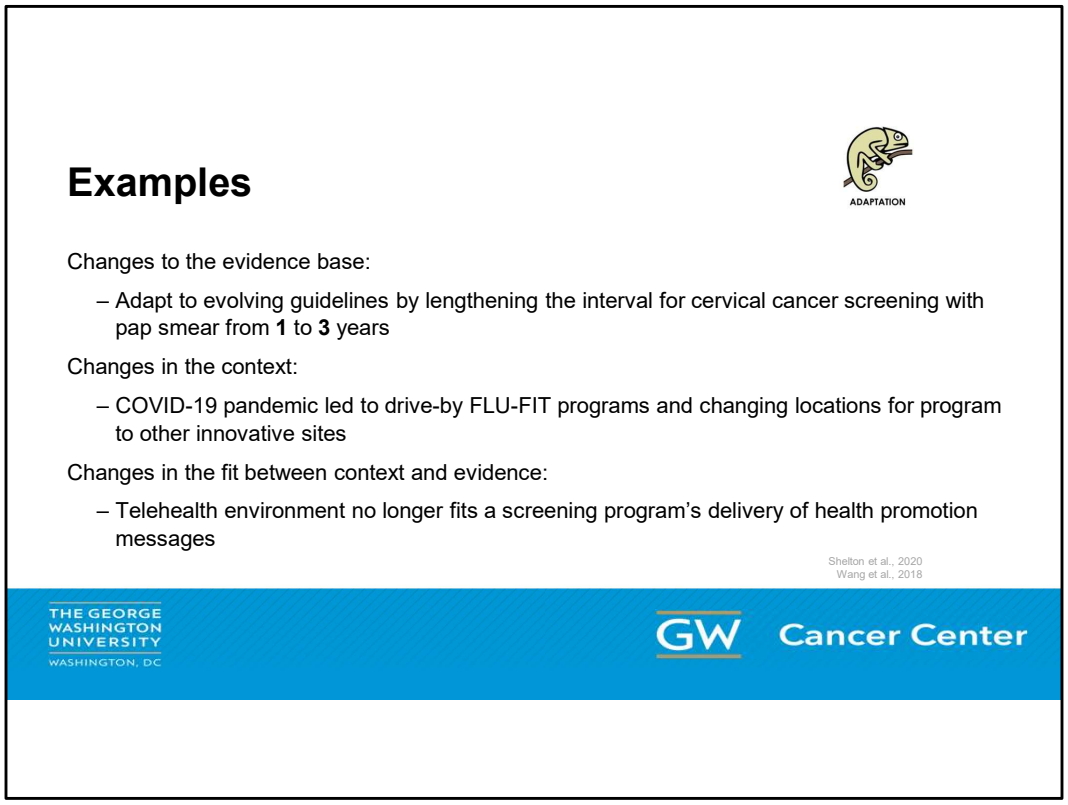
"Real-world" contexts require adaptation, capacity building, responsiveness

- Choose what you're sustaining; pay attention to what you are putting your effort towards sustaining

Periodically review the evidence base and compare it to what you are currently doing in practice.

Assess how well the EBIs that are institutionalized fit your changing context and adapt accordingly



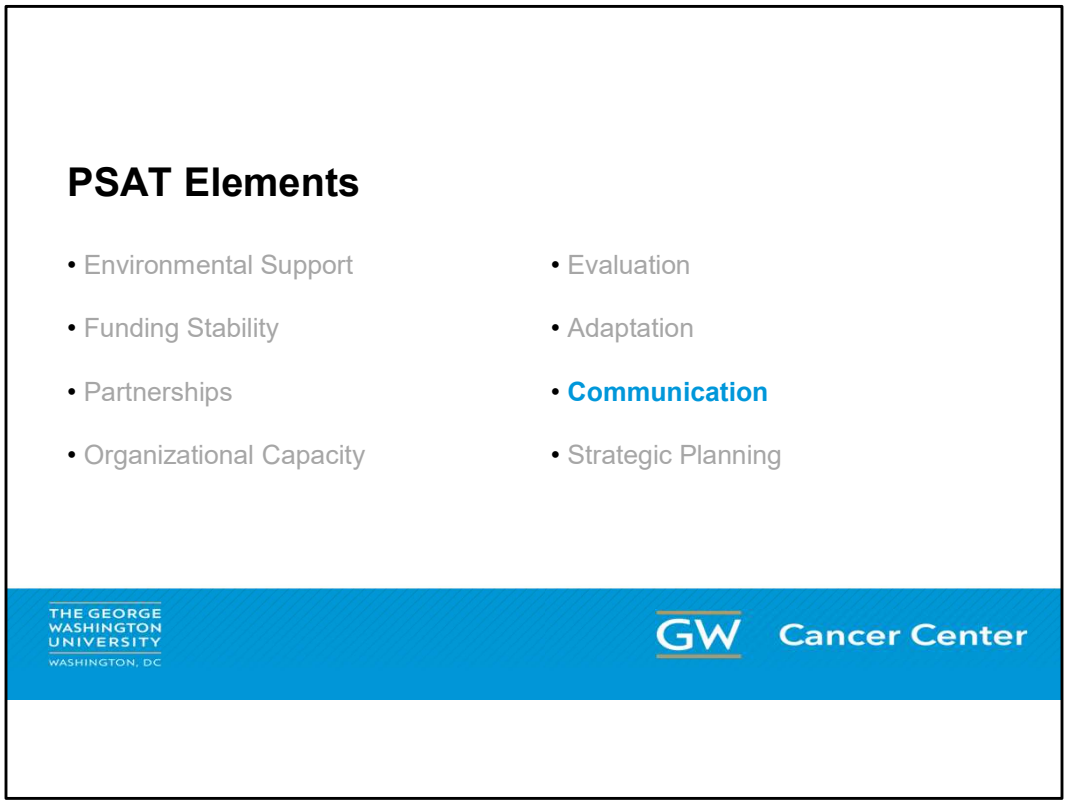
- You don't have to sustain everything at all times for all people.

For example, there may be changes to the evidence base. For example--

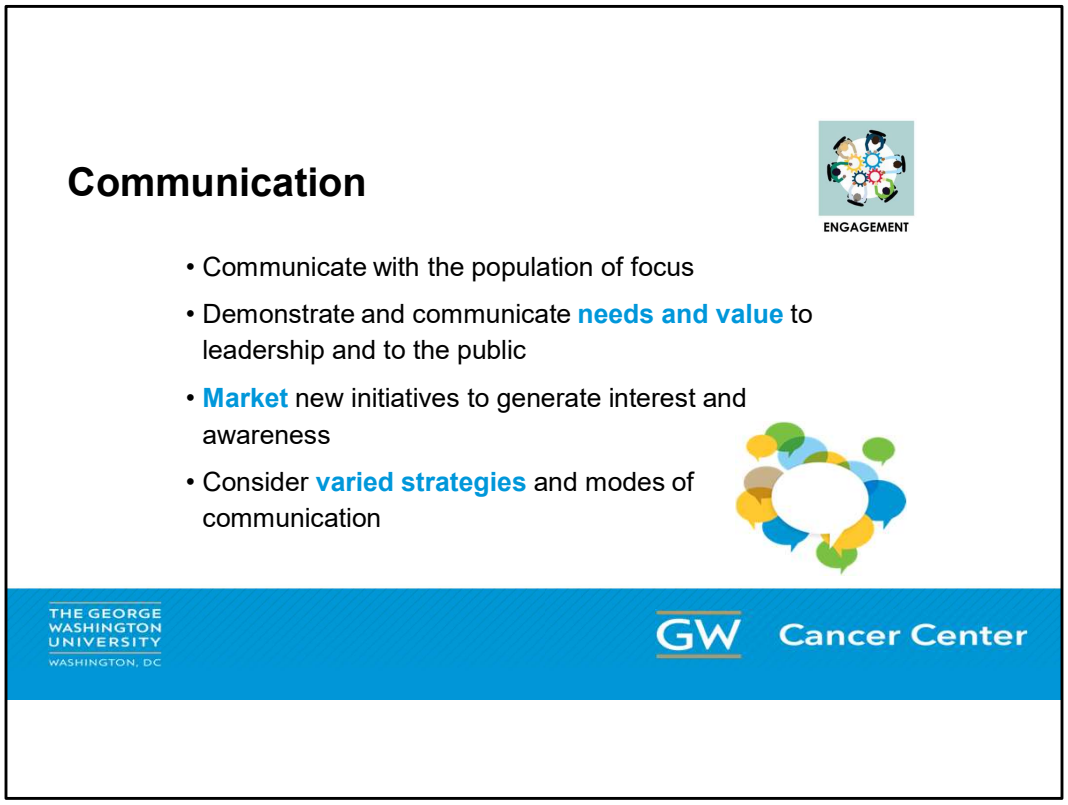
Adapt to evolving guidelines by lengthening the interval for cervical cancer screening with pap smear from **1** to **3** years

There may be changes in the context: COVID-19 Pandemic: Drive by FLU-FIT Programs and changing locations for program to other innovative sites

Lastly, there may be changes in the fit between context and evidence: Maybe the telehealth environment no longer fits a screening program's delivery of health promotion messages



Communication is another key element of sustainability.



Make sure to communicate with the population of focus

Demonstrate and communicate needs and value to leadership and to the public

Market new initiatives to generate interest and awareness

Consider varied strategies and modes of communication

Examples

Nebraska: Developed state-wide CRC screening messaging campaign for 2 years

Go to: FightBackNE.org

California: Participated in media efforts regarding policy education

Educating about policy can help public, healthcare professionals, and policy makers garner support for funding

Ory et al., 2015

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Examples:

NE: Development of state-wide messaging campaigns – they are doing it a third year

California: Participated in media efforts regarding policy education encouraging increased cancer control funding

Educating about policy can help public, healthcare professionals, and policy makers garner support for funding

Case Study Example

Shared advertisements to recruit more pharmacies and customers to participate

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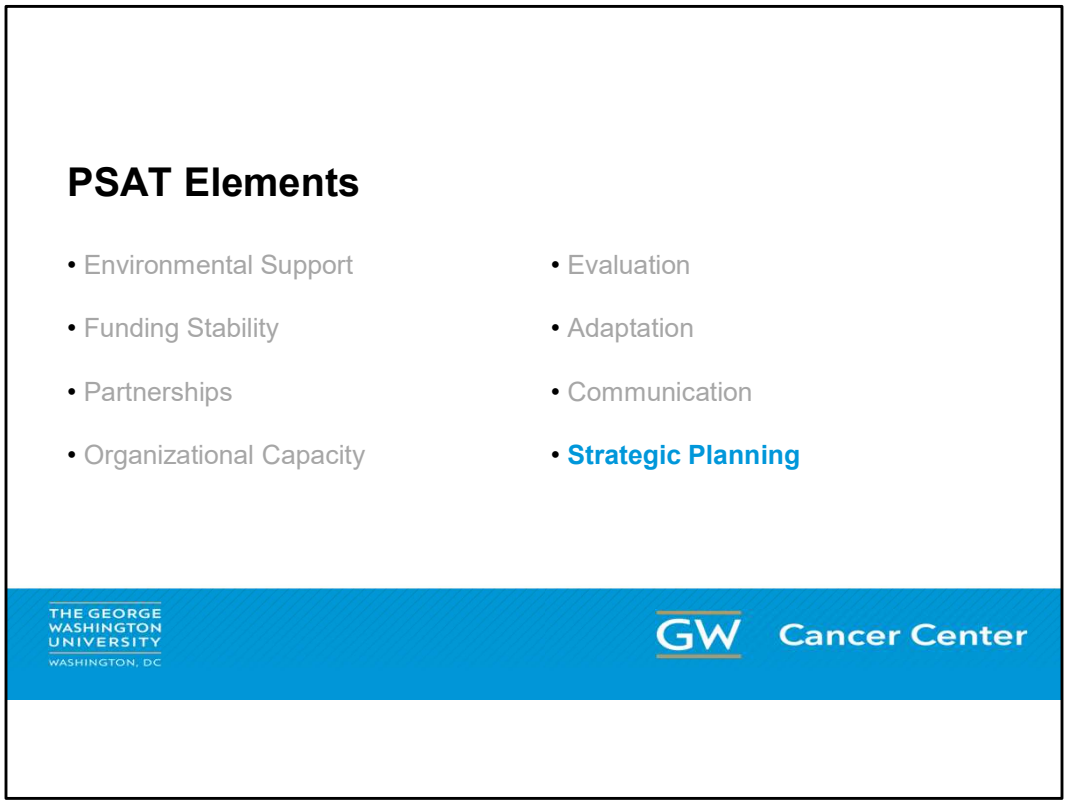
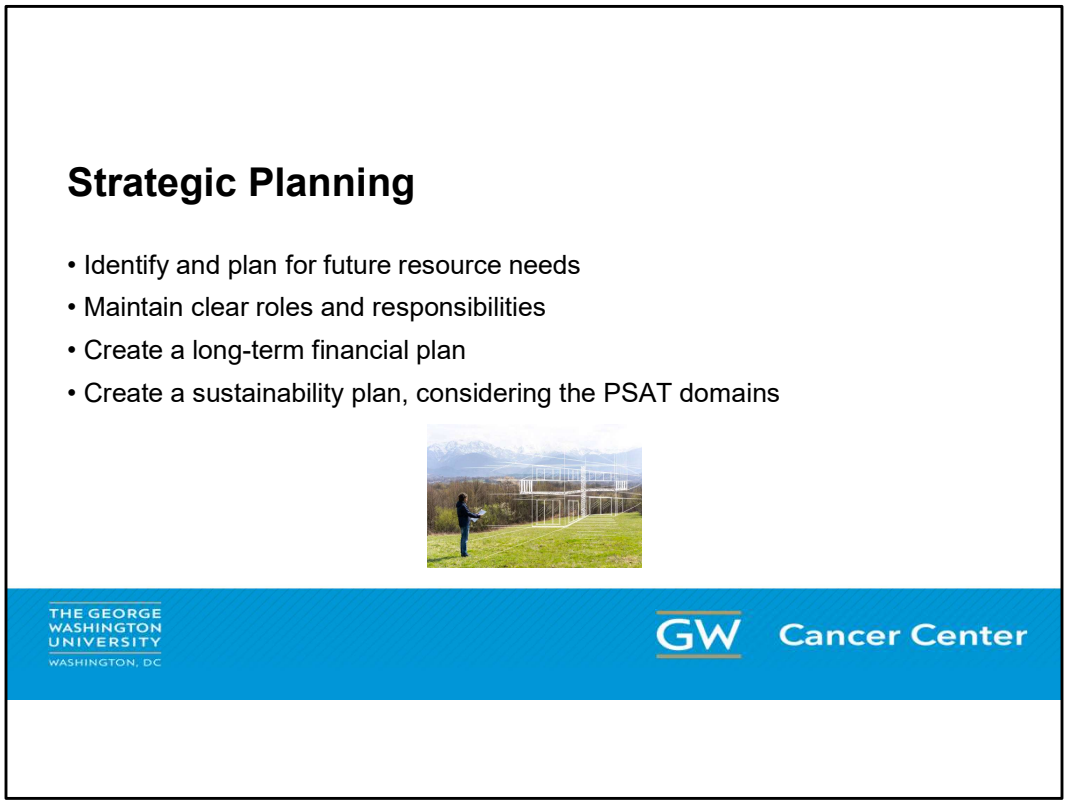
From our case study: A communication strategy would be to share advertisements to recruit more pharmacies and customers to participate



Last, we will examine the role of Strategic Planning as a sustainability element.



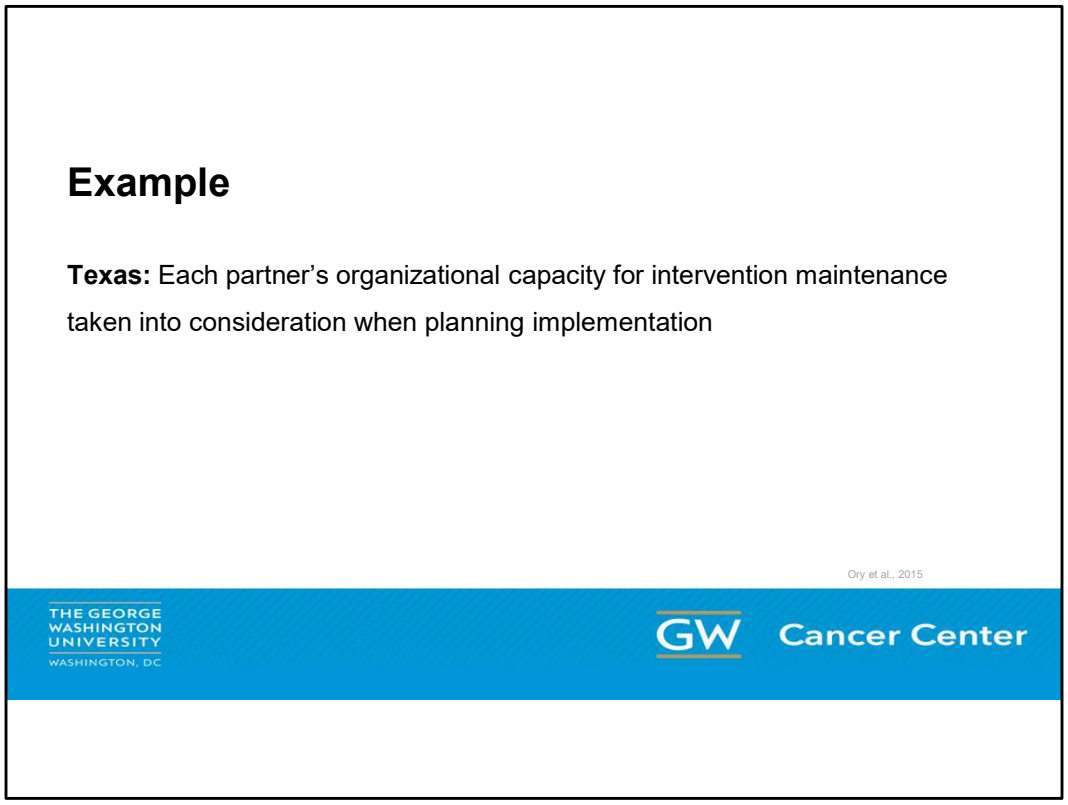
These four points help with strategic planning:

Identify and plan for future resource needs

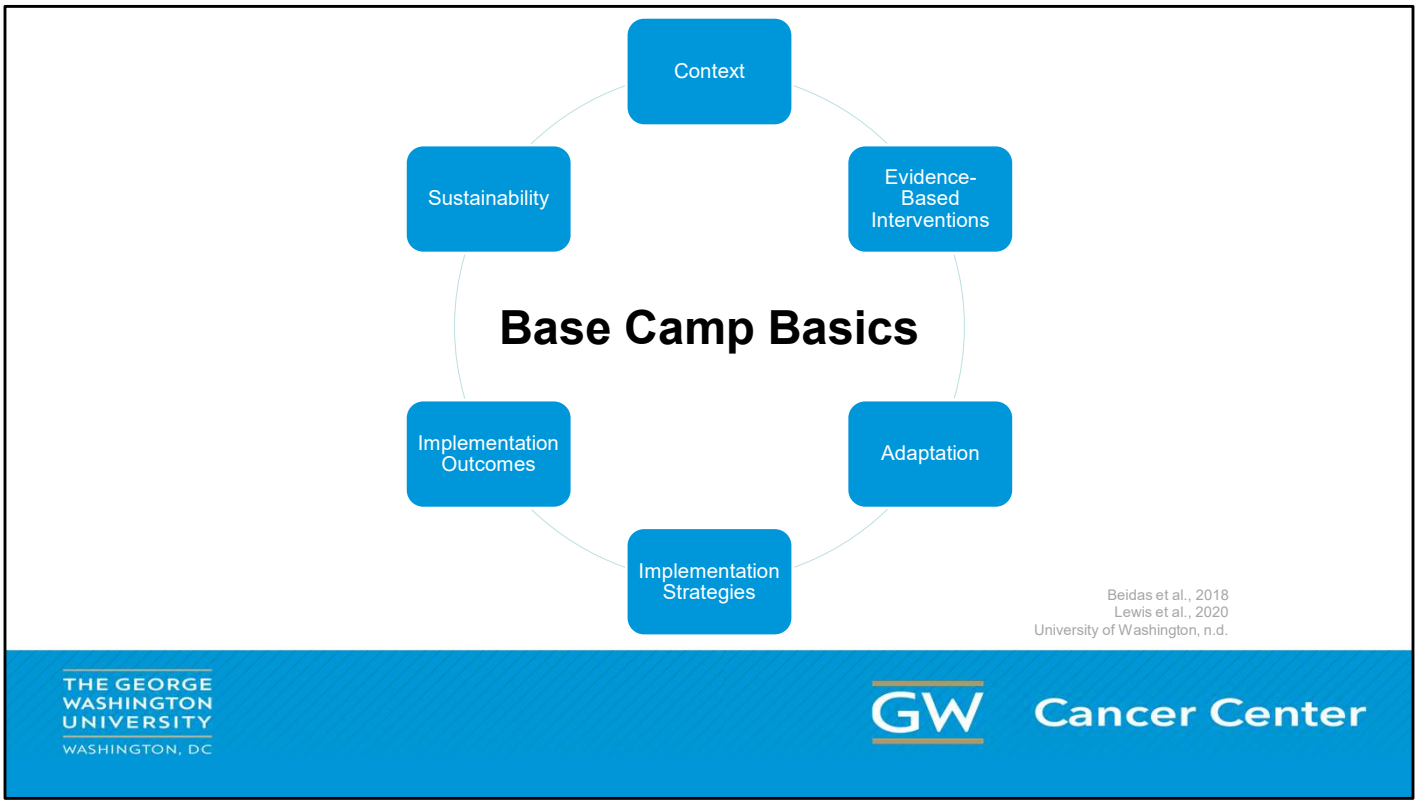
Maintain clear roles and responsibilities

Create a long-term financial plan

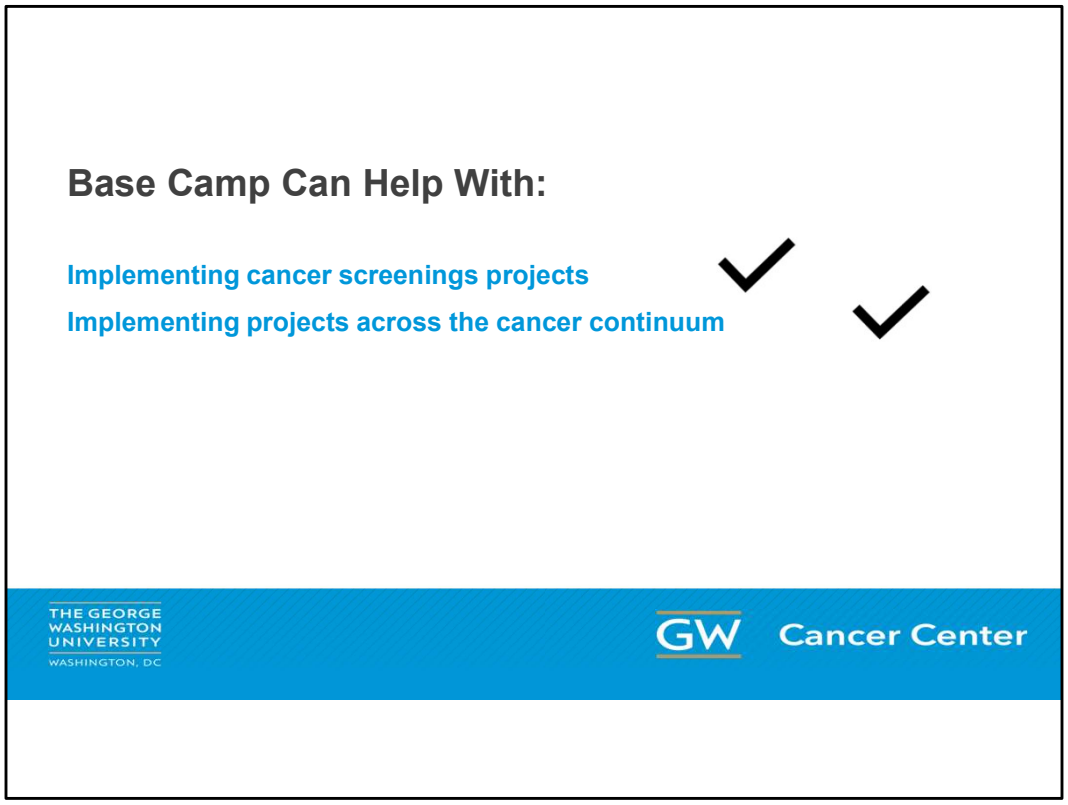
Create a sustainability plan, considering the PSAT domains we just spoke about.



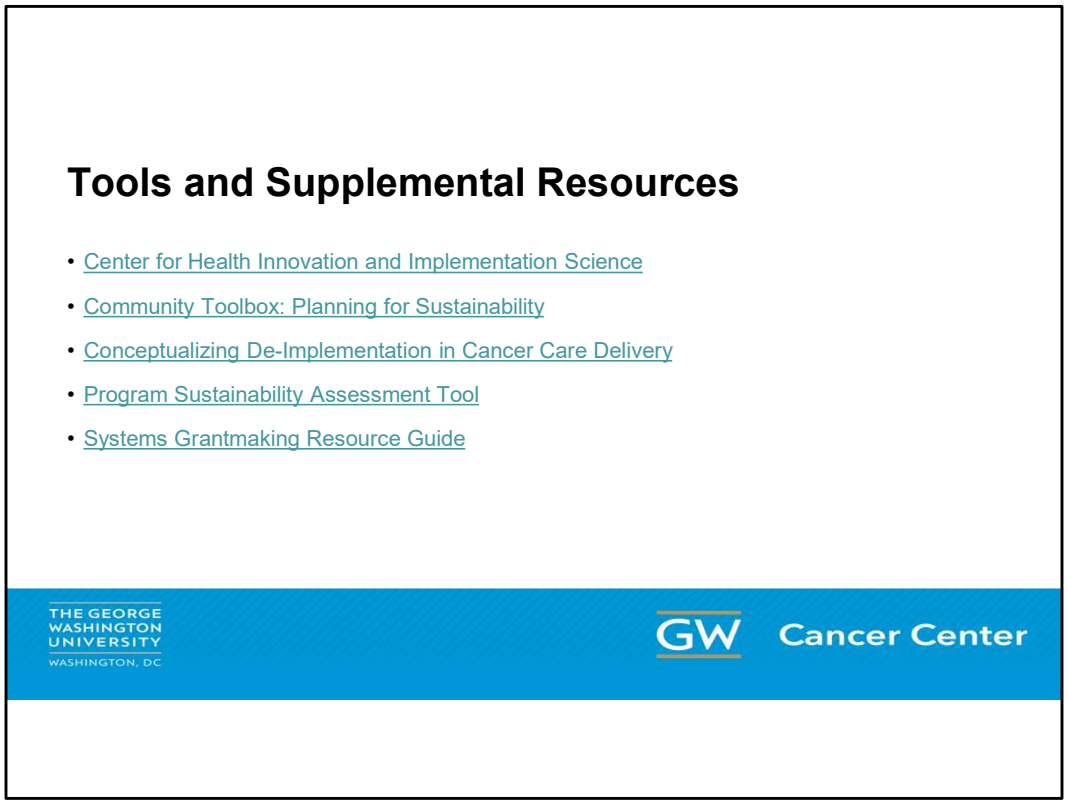
- **For example:**
- **Texas:** Each partner's organizational capacity for intervention maintenance is taken into consideration when planning implementation



- The past sessions of the training were built around the following skill bundles. We have made it back to the beginning with context, which is always changing and will continually needed assessed as an extension of your sustainability plan.



Remember that although this training is focused on improving cancer screening, the ideas in implementation science can be used for many other areas across the cancer continuum such as risk reduction, treatment, survivorship, and palliative care.



Tools listed here are all located in your companion guide.

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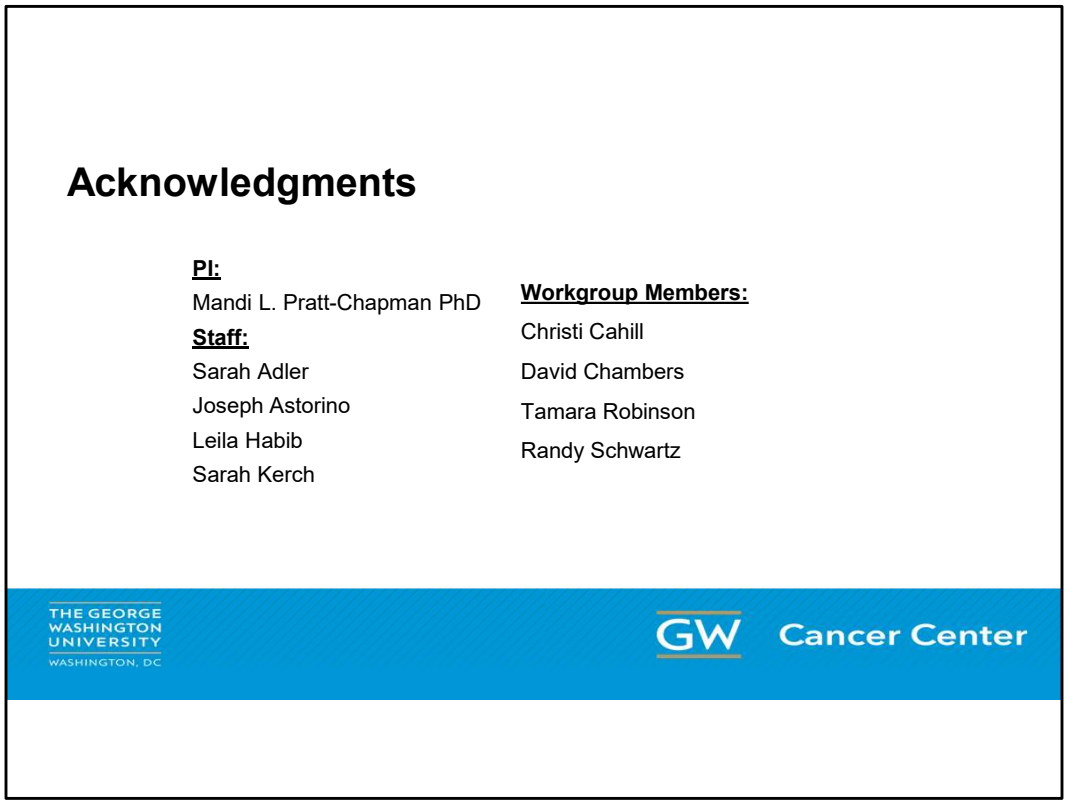
- As well as references.



Thank you to all those listed here who helped in developing this training.