



# RETAIN Resource: Strategies to Identify, Screen, Recruit, Enroll, and Retain Participants

## Retaining Employment and Talent After Injury/Illness Network (RETAIN)

SEPTEMBER 2020

**RETAIN** | Retaining Employment and Talent  
After Injury/Illness Network

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Network (RETAIN)

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## Introduction

The Retaining Employment and Talent After Injury/Illness Network (RETAIN) Demonstration Projects are testing the effects of early intervention strategies that improve stay-at-work and return-to-work (SAW/RTW) outcomes of individuals who experience an injury or illness while employed (United States Department of Labor [U.S. DOL], 2018). These injuries or illnesses may occur either off-the-job or on-the-job.

The success of the RETAIN projects relies heavily on being able to identify, recruit, enroll, and retain participants. Similar projects often face barriers to achieving enrollment and participation goals. In the context of RETAIN, enrollment challenges may be compounded by the need to engage patient-workers, clinicians, and employers in the processes.

This resource provides state RETAIN projects with examples of processes that may be used to identify, recruit, enroll, and retain participants. These examples include a mix of hypothetical strategies or processes and actual approaches that have been planned or implemented by RETAIN and other projects. This resource may be used by RETAIN projects either as a stand-alone resource to assist when brainstorming new approaches to consider, or may be used in conjunction with one or any of the following RETAIN Resources:

- [RETAIN Resource: Continuous Quality Improvement Strategies](#)
- [RETAIN Recruitment-to-Enrollment Pipeline Dashboard](#)
- [RETAIN How-to Video Modules](#)
- [Programmatic Considerations for Making Decisions About Sample Size Targets and Targeting Workers for RETAIN](#)

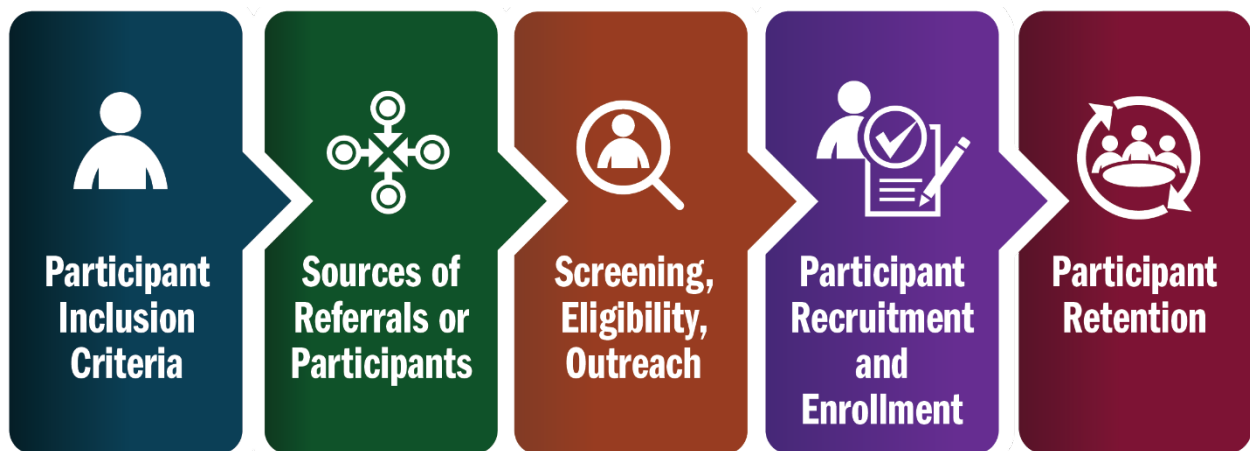
For example, as RETAIN projects work to enhance recruitment and enrollment efforts, this resource may be used in conjunction with the *RETAIN Recruitment-to-Enrollment Pipeline Dashboard* and the *RETAIN Resource: Continuous Quality Improvement Strategies*. The *Dashboard* may be used to assess which recruitment and enrollment strategies may be working well and which are not as effective. The *RETAIN Resource: Continuous Quality Improvement Strategies* may then be used to guide efforts to conduct a root cause analysis to identify potential root causes of recruitment challenges and to then implement quality improvement initiatives aimed at enhancing processes or expanding approaches. And, this *Strategies to Identify, Screen, Recruit, Enroll, and Retain Participants* resource can support the quality improvement process by providing ideas for improving project operations, such as adding new recruitment sources to those currently in use.

The RETAIN technical assistance team is available to assist you and your RETAIN project teams with using this resource and/or the other resources listed above and to provide support and guidance to help you address any program implementation questions. You may reach out to your Technical Assistance Liaison with questions about how to use this resource or to engage your TA Liaison in your planning and quality improvement processes.

## Content Sources

The strategies and examples in this resource were obtained from a variety of sources, including: state RETAIN project narratives, quarterly reports, and meeting notes; discussions with technical assistance state liaisons; prior project management and participant identification and recruitment experiences; brainstorming; and content from university-delivered presentations.

## Participant Inclusion Criteria, Sources of Referrals or Participants, Screening, Eligibility Assessment, and Outreach, Recruitment and Enrollment, and Retention



This resource discusses five sets of interconnected activities that are important to the success of RETAIN projects. These activities include specifying participant inclusion criteria; identifying sources of referrals or participants; specifying screening and eligibility criteria and establishing processes for conducting screening, eligibility assessment, and enrollment; planning and conducting participant recruitment and enrollment; and establishing processes to retain participants. Although the state RETAIN programs differ in their approaches to recruitment and enrollment—for example, they may differ in whether potential participants are identified by reviewing health services databases or by receiving direct referrals from clinicians—strategies in this resource may be applied in various settings and projects. This resource can provide strategies for each step of the process, but it can also be used as a reference to focus on a particular aspect in the process that may not be performing as planned.

Participant recruitment and enrollment processes generally involve a series of steps:

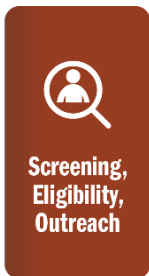


**Specify RETAIN participant eligibility and exclusion criteria:** These criteria should be aligned with those specified by the United States Department of Labor (DOL) and the Social Security Administration (SSA). The participant eligibility criteria your program chooses must yield an adequate number of eligible participants and target those who are likely to benefit most from RETAIN services, and should be documented using relevant, accurate operational terms.

**Identify and engage potential sources of participants or referrals:** To be successful, RETAIN programs must identify and develop robust referral pipelines to identify people who potentially meet eligibility criteria. Potential RETAIN participants can be identified from a variety of sources, including clinic and procedure appointment schedules, reviews of electronic health records or other health systems databases, clinicians, Family Medical Leave Act (FMLA) request forms, employers, Workers' Compensation insurers, short-term disability insurers, and/or self-referrals.



**Identify people who potentially meet the inclusion criteria:** RETAIN projects need to tap into the referral pipelines listed above to identify potential participants. This process may involve manually or electronically reviewing health records and/or appointment schedules, coordinating with clinicians and other health care personnel to assist with the process, establishing referral processes, and other approaches.



**Conduct screening to narrow down the pool of potential participants to those who may be eligible to recruit and enroll:** Screening may involve reviewing electronic health records, clinic schedules, billing databases, or other electronic databases using pre-specified screening or eligibility criteria; conducting interviews with potential participants in person, by phone, or by video; asking potential participants to complete an electronic or hard copy screening questionnaire; or using provider reminder systems or clinician decision support tools, embedded within the electronic health record, to facilitate screening by the clinician or other health care workers.



**Conduct outreach or meet with potential participants as part of the screening and eligibility assessment process and to recruit and enroll them:** The outreach process may be conducted by RTW coordinators, clinicians, or others in the RETAIN project and may be done in person or by phone, video contact, or electronic messaging, and/or by sending information by mail. Some of these responsibilities may be shared among various members of the RETAIN team.



**Support retention and engagement throughout the project participation period:** It is important for participants to engage with the RETAIN RTW coordinator and project, complete needed and scheduled follow-up appointments and check-ins—whether virtual or in person—and to achieve employment and health goals. Retention in projects may be facilitated by obtaining input on RETAIN operations and messages from patients and workers; engaging participants on a regular basis and addressing their needs using patient-centered approaches; anticipating common reasons why participants drop out of projects and addressing them in project planning; monitoring reasons that participants drop out and modifying the project to address those reasons; and structuring incentives to promote retention.

Within each of these steps, different strategies may be tried and tested to determine which approaches lead to the best outcomes. RETAIN projects are encouraged to implement continuous quality improvement strategies and experiment with different approaches to identify methods that support the achievement of stated goals and objectives. Each of the activities and steps are discussed in the sections below; and examples of strategies that may be employed to meet project objectives are provided.

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# Participant Inclusion Criteria

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## Participant Inclusion Criteria

**The process of identifying potential participants for RETAIN projects includes establishing clear participant eligibility and exclusion criteria.**

### **Develop Clear, Complete Participant Eligibility and Exclusion Criteria**

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As part of your RETAIN project plans or protocols and your institutional review board (IRB) application, you must specify your participant eligibility criteria and exclusion criteria. These criteria should be aligned with those specified by the Department of Labor (DOL) and the Social Security Administration (SSA). The participant eligibility criteria your program chooses must yield an adequate number of eligible participants, target those who are likely to benefit most from the RETAIN services, and should be documented using relevant, accurate operational terms.

In the Notice of Availability of Funds and Funding Opportunity Announcement for RETAIN Demonstration Projects, the eligible target worker participants are those “individuals who have sustained illness or injury while employed and who otherwise may be at risk of developing work disabilities (ODEP, 2018, p. 13).” “The proposed target population:

- Must be employed, or at minimum in the labor force, at the onset of the injury, illness, or condition (work-related or non-work-related) for which they are participating in RETAIN; and
- May not include individuals who have applications for federal disability benefits pending or who are already receiving such benefits at the onset of the injury or illness (ODEP, 2018, p. 13).”

The DOL and Social Security Administration (SSA) “are particularly interested in projects including workers at risk of musculoskeletal (MSK) injuries or with a focus on industries where the incidence of MSK injuries is high (ODEP, 2018, p. 13).” Examples of MSK injuries of interest are low back pain (LBP), sprains, or strains resulting from overexertion.

Persons “with existing disabilities or chronic conditions are also eligible to receive RETAIN services. They may be eligible to participate based on a new injury or illness unrelated to their pre-existing condition(s) or based on a new incident related to their pre-existing condition(s) (e.g., a multiple sclerosis flare-up) or worsening of a pre-existing condition (e.g., reduced functional capacity due to LBP) (ODEP, 2018, p. 14).”



The RETAIN projects may select “target populations based on any type of injury or illness or combinations of injuries and illnesses, or other characteristics, so long as there are sufficient numbers of worker participants available within that population to meet the requirements of the independent evaluation, and they meet the above described eligibility criteria (ODEP, 2018, p. 14).”

To give RETAIN projects greater flexibility during Phase 1 and increase enrollments, DOL and SSA sent further guidance on eligibility criteria in June 2019. Specifically, DOL and SSA jointly determined that only ONE question on the Baseline Participant Form Part 1 was required as a mandatory screening question to determine program eligibility for Phase 1 (Question 12 from Baseline Participant Form Part 1):

- “Do you currently have an injury or illness that limits the kind or amount of work you can do?”

RETAIN projects must abide by the required eligibility criteria set by DOL and SSA as well as take into consideration project-specific, geographic, and other factors to determine the best criteria option to enroll sufficient numbers of participants who are likely to benefit from RETAIN.

When developing RETAIN project eligibility criteria, there are a number of participant characteristics to consider, such as:

- Age
- Sex
- Diagnoses or types of injuries and/or conditions
- Timing of injury or illness
- Setting of injury or illness: on-the-job, off-the-job, or both
- Employment status and time away from work
- Activity limitations
- Geographic areas where participants live and/or work
- Health care systems where care will be or is being obtained
- Other criteria, as needed

Additionally, when developing eligibility criteria, it is often recommended that these criteria be specific enough so that the process of screening potentially eligible persons could potentially be replicated. When state RETAIN programs develop or revise eligibility criteria, consider the following guiding questions:

- Which clinical departments or specialists at the partnering health agency or agencies may be champions of RETAIN and indicate their interest in supporting recruitment and enrollment efforts? What types of patients do they care for on a routine basis?
- What types of patients may be most likely to benefit from RETAIN services?
- What types of health problems or conditions are likely to be amenable to interventions that result in positive SAW/RTW outcomes?
- Is there a reasonably efficient, effective, and feasible mechanism for identifying the potentially eligible participants?
- What health problems are frequently occurring within places of employment within the target geographic areas that result in extended periods of time off work or permanent separation from the workplace?
- What health problems are often associated with difficulty returning to work, even with appropriate case management and employer support and may be appropriate for exclusion criteria?

## Examples of Participant Eligibility Criteria

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Several examples of participant eligibility criteria, by category or type, are listed below. In some categories, multiple ways to describe a specific criterion are listed to demonstrate the wide range of project eligibility criteria in use in the RETAIN projects. For example, musculoskeletal injuries are listed in several ways, demonstrating the diversity in specifying similar criteria. In some categories below, you may consider selecting several eligibility criteria; in other categories, one criterion may be sufficient.

These examples may provide RETAIN projects with ideas for modifying or expanding eligibility criteria as needed, to achieve enrollment goals. First, examples of eligibility criteria are grouped by category, such as age, sex, and diagnosis. Then, examples of full sets of eligibility criteria are displayed.

### **Age:**

- Adults, ages 18 years or older
- Adults, ages 18 to 65 years

### **Sex:**

- Any sex

### **Diagnoses, Injuries, or Illnesses:**

- Musculoskeletal injury: Injury to one or more bones or joints, such as the arm, shoulder, knee, leg, neck, elbow, or other areas
- Any musculoskeletal injury or disorder

- Primary or secondary diagnosis: musculoskeletal injury
- Acute exacerbation of an underlying musculoskeletal condition resulting in inability to work
- Diagnosis of an acute musculoskeletal condition
- Any injury or illness that limits work
- Other injuries or illnesses that affect employment
- Mental health disorders
- Chronic diseases
- Surgery

#### ***Timing of Injury or Illness:***

- Within the prior three months, the injury limited the person's ability to work or to perform the job well
- Injury occurred or worsened in the past six months
- Acute injury is less than 12 weeks old; ideally, the injury is less than six weeks old
- Surgery within the past 12 weeks
- Away from work fewer than 12 weeks

#### ***Setting of Injury or Illness:***

- Injury or illness occurred while not at work or on the job
- Work-related
- Work-related or non-work related
- Work-related: no more than 10% of participants

#### ***Employment Status:***

- Currently employed or unemployed and seeking a job
- In the labor force
- Away from work fewer than 12 weeks
- Currently employed
- Currently employed or employed in past 12 months in job that paid more than \$1,000 per month
- Employed at least half-time by a single employer

#### ***Activity Limitations:***

- Within the prior three months, the injury or illness limited the person's ability to work or to perform the job well
- Been seen by care provider within three months of pain onset, with work limitation
- Acute exacerbation of an underlying musculoskeletal condition resulting in inability to work
- Restricted: Unable to work at all or able to work with restrictions, but unable to be accommodated by employer

#### ***Geographic Area:***

- Lives within the state and works within a specified geographic area

#### ***Other:***

- Has a valid Social Security number
- Legally authorized to work in the United States

- Patient has the capacity to give appropriate consent for himself or herself
  - Has legal representation
  - Concomitant disease that limits ability to work
  - Diagnosed with terminal illness
  - Employed seasonally or temporarily
  - Employed in jobs with routine seasonal layoffs
  - Fracture, spine injury, or other serious medical condition preventing return-to-work (RTW) within 90 days
  - Mild injury with an immediate return to normal function
- Examples of Exclusion Criteria**
- Worker with substance abuse disorder
  - Person using opioids for more than three months
  - Worker or person who has applied for Social Security Disability Insurance (SSDI)
  - Pregnancy
  - Primary diagnosis is not musculoskeletal injury

[Exhibit 1](#) displays several specific examples of sets of eligibility criteria.

**Exhibit 1. Participant Eligibility Criteria Examples**

Example #	Description of Approach
<p><b>Example 1</b></p>	<p><b>Inclusion:</b></p> <ul style="list-style-type: none"> <li>• Musculoskeletal injury: Injury to one or more bones or joints, such as the arm, shoulder, knee, leg, neck, elbow, or other areas</li> <li>• Within the prior three months, the injury or illness limited the person’s ability to work or to perform the job well</li> <li>• Injury or illness occurred while not at work or on the job</li> <li>• Currently employed or seeking a job</li> <li>• 18 to 65 years of age</li> </ul>
<p><b>Example 2</b></p>	<p><b>Inclusion:</b></p> <ul style="list-style-type: none"> <li>• Musculoskeletal injury</li> <li>• Injury occurred or worsened in the past six months</li> <li>• Work-related</li> <li>• In labor force</li> <li>• Away from work fewer than 12 weeks</li> <li>• Ages 18 years and older</li> </ul> <p><b>Exclusion:</b></p> <ul style="list-style-type: none"> <li>• Workers with substance abuse disorder</li> </ul>
<p><b>Example 3</b></p>	<p><b>Inclusion:</b></p> <ul style="list-style-type: none"> <li>• Any injury or illness that limits work</li> <li>• Non-work-related</li> </ul>

Example #	Description of Approach
	<ul style="list-style-type: none"> <li>• Currently employed or employed in past 12 months in job that paid more than one thousand dollar per month</li> </ul> <p><b>Exclusion:</b></p> <ul style="list-style-type: none"> <li>• Workers who have applied for SSDI benefits</li> </ul>
<b>Example 4</b>	<p><b>Inclusion:</b></p> <ul style="list-style-type: none"> <li>• Musculoskeletal disorder</li> <li>• Mental health disorder</li> <li>• Chronic disease</li> <li>• Other injury or illness that affects employment</li> <li>• Work-related or non-work related</li> <li>• In the labor force</li> <li>• Ages 18 to 65 years</li> <li>• Has a valid Social Security number</li> <li>• Legally authorized to work in the United States</li> </ul>
<b>Example 5</b>	<p><b>Inclusion:</b></p> <ul style="list-style-type: none"> <li>• Any injury or illness that limits work</li> <li>• Non-work related</li> <li>• 18 years of age or older</li> </ul>



## Sources of Referrals or Participants

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## Sources of Referrals or Participants

Developing robust referral pipelines to identify people who potentially meet eligibility criteria is critical for program success. Potential RETAIN participants can be identified from a variety of sources, ranging from clinic and procedure appointment schedules, review of electronic health records or other health systems databases, clinicians, Family Medical Leave Act (FMLA) request forms, employers, Workers' Compensation insurers, short-term disability insurers, and/or self-referrals. This section describes various potential sources of referrals or participants, including:

- Review Appointment and Procedure Schedules
- Review Electronic Health Systems Databases
- Referral to RETAIN by Clinicians or Other Health Care Workers
- Onsite Recruitment at Clinical Sites
- Identify Potential Participants through Insurance Companies, Workers' Compensation Programs, Disability Insurance, Family Medical Leave Act Request Forms, and Work Restriction Forms
- Referrals from Employers and Work Force Centers
- Self-Referrals

Several guiding questions may be asked when state RETAIN programs develop plans to identify and select potential sources of referrals or participants. The questions may include:

- What eligibility criteria have been established? Do the sources of referrals or potential participants align with the eligibility criteria?
- What potential volume of participants may be identified from the respective sources? What is the estimated percentage or yield of eligible persons from the total pool from each source?
- What processes are needed to access the potential sources of referrals and participants?
- How effective, sensitive, and specific are the potential sources and the respective processes to identify potential referrals and participants using those sources?
- How efficient are the processes to identify potential referrals or participants?
- What resources are needed to access and review these sources, including personnel time?



- What permissions and/or partnerships are needed to access these potential sources of referrals or participants? How likely is it that these permissions will be obtained? What is the potential burden associated with obtaining any necessary permissions?

The decision-making process in selecting sources of referrals or potential participants will likely involve weighing the potential volume and yield of the source, ease of access, efficiency and effectiveness of available processes, strength of partnerships with the source, and ability to secure permission to access information.

[For supplemental resources on sources of referrals or participants, see Appendix 2.](#)

## Review Appointment and Procedure Schedules

Appointment schedules for clinics and other health services may be reviewed or screened to search for potentially eligible participants. If these schedules are electronic, it is possible that specific screening criteria can be applied to generate a routine report that identifies potentially eligible participants. If schedules cannot be used to generate reports, they may be reviewed manually to identify potentially eligible participants. These schedules may be reviewed on a daily or weekly basis. Several examples of health services schedules that may be reviewed are displayed in [Exhibit 2](#). Examples of strategies or processes to review appointment and/or procedure schedules are described in the Participant Screening, Eligibility Assessment, and Outreach section of this resource ([Exhibit 7](#)).

### Exhibit 2. Possible Sources of Health Systems Schedules to Search for Participants

Clinic Appointment Schedules	Other Schedules
Orthopedics	Inpatient Surgery
Occupational Health or Occupational Medicine	Outpatient Surgery
Physical Medicine and Rehabilitation	Outpatient Orthopedic Surgery
Surgery	Radiology
Trauma or Trauma Surgery	Ultrasound
Internal Medicine	Physical Therapy
Family Medicine	Occupational Therapy

[For supplemental resources on sources of referrals or participants—review appointment and procedure schedules, see Appendix 2.](#)

## Review Electronic Health Systems Databases

Electronic health records or billing databases may provide another source for identifying potential RETAIN participants. Because these databases are likely to include very large numbers

of patients, both current and historic, it may be important to identify active cases, meaning patients who have recently visited or received services from health care providers. It may be useful to segment the population by type of service, focusing on those departments that most closely match your inclusion criteria. For example, if your recruitment focus is persons with injuries, you may narrow your search process to departments such as orthopedics, trauma, physical medicine, and emergency departments. When developing your search criteria, consider searching for data elements such as:

- Date of service
- Age
- Department or clinic where service was provided
- Primary diagnosis
- Type of service

Examples of strategies or processes to review electronic health systems databases to identify potential participants are described in the Participant Screening, Eligibility Assessment, and Outreach section of this resource ([Exhibit 8](#)).

[For supplemental resources on sources of referrals and participants—review electronic health systems databases, see Appendix 2.](#)

## Referral to RETAIN by Clinicians or Other Health Care Workers

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Potential RETAIN participants may be identified directly by clinicians or other health care workers. Because clinicians and other health care workers are frequently very busy with meeting the expectations of their patients, clients, or organizations, as well as clinical practice guidelines and other standards of practice, it may be difficult for them to add in one more activity to a clinical day. To help facilitate their engagement in the RETAIN participant referral process, it may be helpful to implement one or more strategies to support their efforts. Examples of processes to facilitate referrals to RETAIN by clinicians or other health care workers are listed below. These strategies may be used individually; however, using them in combination would be ideal, depending on the resources available and feasibility of implementing these strategies. These examples include the following:

- **Inform Clinicians about RETAIN:** Conduct outreach with clinicians and their staff by presenting at Grand Rounds and/or to groups of clinicians at the department level; and/or meeting with clinicians and/or their staff individually or in groups.
- **Identify Champions:** Identify clinician or nurse champions and engage them in the process of recruiting other clinicians to participate in RETAIN.

- **Develop and Disseminate Information:** Provide written materials to clinicians and other clinical personnel; create videos or podcasts and distribute promotional materials about these resources to clinicians, their clinical staff, or clinical departments by e-mail, health center newsletters, brochures, posters, social media, and/or other approaches.
- **Reminder Systems:** Use clinician decision support tools, provider reminder systems, and/or prompts that notify clinicians about potentially eligible patients using either electronic, paper, or other manual systems. This approach is described in greater detail in the Participant Screening, Eligibility Assessment, and Outreach section of this resource.
- **Identification by Nurses:** Train nursing staff to identify potential participants by reviewing appointment schedules or screening potential participants during the patient intake and assessment process.
- **Identification by Support Staff in Clinics:** Train check-in, front desk, and/or reception staff to screen patients, possibly using a paper screening form or an algorithm or assessment tool programmed into the check-in screen.
- **Computerized Self-Screening:** Use computers or tablets in the waiting rooms of specific clinics or other clinical settings to screen patients for potential eligibility for RETAIN and possibly for other projects.
- **Recruitment or Referral by Clinicians:** Encourage clinicians or office staff to discuss RETAIN with potential participants or to refer identified potential participants to RTW coordinators for recruitment.
- **Referral Processes and Systems:** Establish referral processes and systems for clinicians and/or their staff to refer potentially eligible participants to RTW coordinators; possible formats or methods may include direct referral through electronic health records or referral systems; electronic screening questionnaires that can be accessed by RTW coordinators; paper copy referral forms; or through written reports or lists.

### **Examples of Referrals from Clinicians or Other Health Care Workers to RETAIN**

Several specific examples of strategies to involve clinicians or other health care workers in identifying potential participants, screening for eligibility, recruiting participants, and/or referring participants to RETAIN projects are listed in [Exhibit 3](#). These examples vary in terms of the degree or extensiveness of effort and expectations of clinicians and other health care workers, with some examples being limited to conducting outreach to others involving establishing detailed processes.

**Exhibit 3. Examples of Processes Involving Referrals from Clinicians or Other Clinic Personnel**

Example #	Description of Approach
<b>Example 1</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Conducts outreach to clinicians, asking them to refer patients to RTW coordinators.</li> </ul>
<b>Example 2</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Requests assistance from clinicians with asking patients to participate in RETAIN.</li> </ul>
<b>Example 3</b>	The RETAIN medical director and/or other team members: <ul style="list-style-type: none"> <li>• Present RETAIN project to primary care providers.</li> <li>• Present the RETAIN project to medical directors and other clinicians at interested clinical practices.</li> <li>• Work with clinical practices to integrate the RETAIN referral process into their existing referral processes.</li> </ul>
<b>Example 4</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Solicits referrals from providers through a provider invitation letter, conducting provider trainings, and distributing provider brochures.</li> <li>• Provides step-by-step instructions for how clinicians can make referrals to RETAIN.</li> </ul>
<b>Example 5</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Conducts outreach to providers.</li> <li>• Attends meetings with clinicians.</li> <li>• Sets up booths at health fairs.</li> <li>• Instructs clinicians on processes to screen and recruit potential participants.</li> </ul>
<b>Example 6</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Disseminates information about RETAIN to outpatient therapy departments and physician offices.</li> <li>• Distributes signs to post in clinicians’ offices.</li> <li>• Conducts on-site trainings with practice managers of primary care practices and orthopedic departments.</li> <li>• Conducts outreach, presentations, and/or training sessions with rheumatology departments, physical therapists, occupational therapists, speech and language pathologists, psychologists, social workers, employee health nurses, admission and discharge planners or nurses, new residents, and occupational health clinicians at worksites.</li> <li>• Delivers presentations about RETAIN to medical center employees.</li> <li>• Solicits discharge planners to serve as ambassadors for RETAIN.</li> </ul>
<b>Example 7</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Conducts outreach sessions with various clinical departments to increase awareness of RETAIN. Examples of relevant departments include primary care, occupational medicine, emergency center, spine center.</li> </ul>

Example #	Description of Approach
	<ul style="list-style-type: none"> <li>• Provides educational sessions to clinicians about RETAIN and provide instructions on how to refer patients to programs.</li> <li>• Presents at Grand Rounds.</li> <li>• Meets with physician groups to discuss RETAIN.</li> <li>• Develops and informs care providers about referral processes: Providers can refer patients by contacting a study coordinator or RTW coordinator; or they can refer patients to RETAIN within the electronic health record system.</li> <li>• Offers electronic consultations to clinicians and occupational medicine physicians to assist with specifying work restrictions.</li> </ul>
<b>Example 8</b>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Develops and uses scripts to assist with outreach to providers.</li> <li>• Creates and uses promotional and outreach materials to inform care providers about the RETAIN project.</li> <li>• Conducts outreach and expands knowledge regarding occupational health practices for providers in designated counties; providers include occupational health providers, physical therapists, chiropractors, and others.</li> <li>• Teaches providers about the RETAIN participant eligibility criteria.</li> <li>• Informs providers of referral mechanisms, including referrals through the RETAIN website, by phone, or by fax.</li> </ul>

[For supplemental resources on sources of referrals and participants—referrals to RETAIN by clinicians or other health care workers, see Appendix 2.](#)

## On-Site Recruitment at Clinical Sites

Potential RETAIN participants may be identified by RTW coordinators or other project staff at clinical sites. For example, RTW coordinators may be based at specific clinic sites on specific days, screen patients for eligibility, and recruit them face-to-face. One example of on-site recruitment in a clinical setting is described in the Participant Screening, Eligibility Assessment, and Outreach section of this resource ([Exhibit 10](#)).

[For supplemental resources on sources of referrals and participants—on-site recruitment at clinical sites, see Appendix 2.](#)

## Identify Potential Participants Through Insurance Companies, Worker’s Compensation Programs, Disability Insurance, Family Medical Leave Act Request Forms, and Work Restriction Forms

Potential participants may be identified through partnering organizations or by capturing and reviewing worker requests for time off of work because of an injury of illness. Some of these

sources include primary health insurance companies, Workers' Compensation insurers or programs, disability insurance plans, Family Medical Leave Act (FMLA) request forms, and work restriction forms.

For example, some patients may be flagged at a health or medical center as being potentially eligible for RETAIN when they ask a clinician to complete the FMLA form, or more specifically, the Health Care Provider sections of the Certification of Health Care Provider for Employee's Serious Health Condition form, developed by the U.S. Department of Labor. The completion of this form could trigger a referral to RETAIN using several mechanisms. The following examples are independent referral strategies:

- The clinician or staff may screen the patient for eligibility when the patient requests time off from work.
- Create an FMLA form field in the electronic health record; this field is checked when an FMLA form is completed by the care provider; this field could be used to alert RTW coordinators about a possible referral to RETAIN.
- Create an electronic version of the FMLA form within the electronic health record; completion of these forms could be tracked and reported to RTW coordinators.
- The health center could establish a department that helps clinicians manage these requests centrally. This department could work with RTW coordinators to facilitate screening for eligibility.
- If a patient requests that a clinician complete this form, it may be feasible for the health system to use this request to trigger a referral to an RTW coordinator. This may involve setting up a centralized process for collecting copies of these requests within a health system.

### ***Examples of Participant Identification Through Insurance Companies, Worker's Compensation (WC) Programs, Disability Insurance, FMLA Request Forms, and Work Restriction Forms***

Several specific examples of strategies to identify potential participants through insurers, FMLA requests, and work restriction forms are listed in [Exhibit 4](#).

**Exhibit 4. Examples of Participant Identification Through Insurance Companies, WC, FMLA and Other, Similar Approaches**

Example #	Description of Approach
<p><b>Example 1</b></p>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Works with a Workers’ Compensation (WC) insurance company.</li> <li>• Develops and specifies criteria for screening the claims database.</li> <li>• Additional details about screening are documented in the <i>Participant Screening, Eligibility Assessment, and Outreach</i> section of this resource.</li> </ul>
<p><b>Example 2</b></p>	<p>The RETAIN team and partners:</p> <ul style="list-style-type: none"> <li>• Review completed FMLA forms and work restriction forms.</li> <li>• Identify completed FMLA forms in several ways, when a patient asks his or her provider to complete a FMLA form.</li> <li>• Create a centralized department for copies of all forms to be submitted. This department will offer to assist the clinician with completing the form.</li> <li>• Generate a list of FMLA forms each week and share this list with the RTW coordinators, who will screen for eligibility and conduct outreach as appropriate.</li> <li>• May create an electronic version of FMLA and/or work restriction forms and track forms within the electronic health records. A list of potentially eligible persons could be provided to RTW coordinators.</li> </ul>

**Referrals From Employers and Workforce Centers**

Potential participants may be referred to the RETAIN projects by employers and/or workforce centers. Referrals from employers may come from the employee’s supervisor, human resource management department, occupational health department, or others. Referrals from workforce centers may come from staff either directly or indirectly working with RETAIN.

Several strategies may be used to engage employers and workforce centers so they refer potential participants to RETAIN, including:

- Give presentations to employers, labor unions, and workforce boards. It is important that the presentations communicate the benefits to all parties of referring people to RETAIN.
- Provide brochures and other information to help employers and workforce centers identify potentially eligible workers.
- Provide employers and workforce centers with a link to a website with a participant screener or referral mechanism.
- Provide posters to employers and workforce centers to display in the worksites, breakrooms, employee health, and centers.

- Provide or list a telephone number for employees to refer potential participants to RETAIN through presentations, brochures, and posters.

Several specific examples of strategies to identify potential participants through employers and workforce centers are listed in [Exhibit 5](#).

**Exhibit 5. Examples of Referrals from Employers**

Example #	Description of Approach
<p><b>Example 1</b></p>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Meets with employer groups, such as a manufacturing group and employers.</li> <li>• Creates and distributes RETAIN brochures to employers.</li> <li>• Gives presentations to employers.</li> <li>• Encourages direct referrals from employers.</li> </ul>
<p><b>Example 2</b></p>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Conducts outreach to, and works with, local and regional workforce development boards to engage them in the process of identifying potential RETAIN participants.</li> </ul>
<p><b>Example 3</b></p>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Conducts outreach to health care providers and other employers to inform them about RETAIN and encourage participation in referring potentially eligible persons.</li> <li>• Presents to company occupational health nurses to promote RETAIN.</li> </ul>
<p><b>Example 4</b></p>	<p>RTW coordinators:</p> <ul style="list-style-type: none"> <li>• Participate in human resource management fairs at employer sites when employee benefits are being presented to employees to promote RETAIN.</li> <li>• Provide promotional materials that include the RETAIN website and a phone number for employer-based referrals.</li> </ul>
<p><b>Example 5</b></p>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Conducts direct recruitment of employers.</li> <li>• Distributes a RETAIN employer brochure to employers in the target area.</li> </ul>
<p><b>Example 6</b></p>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Targets large employers in the specified geographic area with employees who seek care at RETAIN-included health centers.</li> <li>• Conducts outreach with employers.</li> <li>• Provides information about RETAIN to employers.</li> <li>• Requests referrals from employers.</li> </ul>
<p><b>Example 7</b></p>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Develops promotional materials to distribute at work force or vocational rehabilitation centers.</li> </ul> <p>RTW coordinators:</p> <ul style="list-style-type: none"> <li>• Are placed at work force or vocational rehabilitation centers.</li> </ul>



Example #	Description of Approach
	<ul style="list-style-type: none"> <li>Recruit potential participants when they come to the work force centers to receive services.</li> <li>Conduct screenings.</li> <li>Schedule intake appointments with participants, for those who are eligible.</li> </ul>
<b>Example 8</b>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>Works to build partnerships with mid-size and large local businesses.</li> <li>Promotes and advertises directly to ill and injured workers within these companies through their human resource management departments and disability and inclusion offices.</li> <li>Requests that employers refer potential RETAIN participants to the RTW coordinators.</li> </ul>
<b>Example 9</b>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>Develops and distributes an infographic to provide to employers, including human resource management representatives.</li> <li>Encourages direct referrals from employers to RTW coordinators.</li> </ul>

## Self-Referrals

Potential RETAIN participants may self-refer to RETAIN. These self-referrals may occur through a range of mechanisms or systems; and workers may learn about RETAIN through various sources of information. Several generic examples of how potential participants may learn about RETAIN and self-refer are listed below.

### *Potential participants may learn about RETAIN through:*

- Newsletters from: Health centers; Employers; Employment or skills centers
- Websites: RETAIN; Health centers; Employers
- Posters and other notices in: Research bulletin board or display in medical center
- Brochures in: Clinic waiting rooms; Health centers; Worksites; Employment or skills centers; Human resource management benefits fairs
- Social media
- E-mail listservs at work

### *Several possible ways that participants may self-refer to the RETAIN study are:*

- Call a designated hotline or RTW coordinator phone line
- Submit an electronic request to talk with someone about RETAIN through a RETAIN website or another website

- Complete an online screening tool that may be advertised in various ways
- Complete a screening form accessible at their place of employment
- Complete a screening form available at the clinic, emergency department, urgent care center, physical or occupational therapy department, or other health care system setting, employment or skills centers, community settings

Several specific examples of how potential participants may learn about RETAIN and self-refer are listed in [Exhibit 6](#).

**Exhibit 6. Examples of Steps Taken to Facilitate Self-Referrals from Injured or Ill Workers or Patients**

Example #	Description of Approach
<b>Example 1</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Develops a nurse hotline that enables workers or employers to inquire about RETAIN.</li> <li>• Displays posters on the walls of clinic waiting rooms; patients can then directly contact RTW coordinators.</li> </ul>
<b>Example 2</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Creates promotional materials for workers.</li> <li>• Distributes promotional materials at employer sites.</li> <li>• Provides a toll-free telephone number and e-mail address, through promotional materials, that potential participants can use to inquire about RETAIN.</li> </ul>
<b>Example 3</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Promotes RETAIN directly to employees at employers’ human resource management benefit fairs.</li> <li>• Sets up a RETAIN booth or table to distribute materials.</li> </ul>
<b>Example 4</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Promotes RETAIN among workers and patients by posting and distributing materials on social media and at local health departments.</li> <li>• Displays posters in clinicians’ offices, employer break rooms, and other sites.</li> <li>• Provides a telephone number and website address for employees to contact the RETAIN office.</li> </ul>
<b>Example 5</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Develops a phone-based screening application for patients or workers.</li> <li>• Promotes this application through an outreach campaign.</li> <li>• Displays posters or signs at work sites, health care offices, vocational rehabilitation centers.</li> <li>• Uses television commercials for recruitment.</li> </ul>

[For supplemental resources on sources of referrals and participants—self-referrals, see Appendix 2.](#)

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**Screening,  
Eligibility,  
Outreach**

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## Participant Screening, Eligibility Assessment, and Outreach

After persons who are potentially eligible for participation in RETAIN are identified by a clinician, RTW coordinator, employer, workforce staff, other project partner, a search of a database, or self-referral, these persons should be screened and assessed for eligibility. Part of this process may involve reaching out and contacting the potential participant to obtain additional information that is not available in the data or referral source. The screening and/or eligibility assessment may be conducted by the persons or entities that identified the potential participants, if these persons are provided with the screening and/or eligibility criteria, necessary training, and processes for conducting these assessments. Alternatively, any of these partners or entities may provide the names, lists, or databases of potential participants to the RETAIN staff, such as RTW coordinators, so they may screen and assess these potential participants for RETAIN project eligibility. In some cases, the screening and eligibility assessment process may involve several steps or processes. In other situations, this assessment may be completed in one step, depending on the source and accessibility of data, extensiveness of the data elements in that source, and the ease of reviewing and extracting data. A wide range of approaches may be used to screen and assess eligibility of potential participants across RETAIN projects and within individual RETAIN projects.

Several examples of conducting screening for potential eligibility include:

- Reviewing electronic health records, clinic schedules, billing databases, or other electronic databases using pre-specified screening or eligibility criteria
- Conducting interviews with potential participants in person, by phone, or by video
- Requesting that potential participants complete an electronic or hard copy screening questionnaire in a range of possible settings
- Using a provider reminder system or clinician decision support tool, embedded within the electronic health record, to facilitate screening by the clinician or other health care workers

Your project plans may include the use of **screening criteria** that support, for example, screening large databases, patients being seen by a clinician in a clinic, or using clinic

appointment schedules or other sources to narrow down a list of potential participants to a smaller number that can be reviewed more carefully. Screening criteria may be similar to eligibility criteria; however, they are likely to identify some people who are not found to be eligible during a more detailed review or assessment process. The selection of a specific set of screening criteria for a data source will likely depend on what data elements are available. Ideally, it may be most efficient to use screening criteria that are as close to the project eligibility criteria as possible. However, data sets may be limited in terms of the data elements that are available. For example, it may be useful to screen a large dataset using variables such as patient or worker age, diagnostic category, and employment status. However, electronic medical records may not have discrete fields where employment status is documented. These data may be documented in a text field or not be documented at all. Therefore, screening criteria are likely to vary based on the data source, data elements available, and the structure of the data.

Several guiding questions may be asked when state RETAIN programs develop plans to conduct participant screening, eligibility assessment, and outreach. The questions may include:

- What data elements are needed to conduct screening and eligibility assessment?
- Which data sources have the data elements that are needed to conduct screening and eligibility assessment? How many distinct data sources are needed to obtain a sufficient amount of information?
- What sources of information will be used to identify potentially eligible participants?
- What data elements are available within the source of data? Are the data available as discrete data fields or in generic text fields?
- Who will conduct the screening steps or processes? Who is willing to conduct screening, eligibility assessment, and/or outreach? Which entities and persons have the time to conduct the screening?
- What steps are needed to protect the privacy and confidentiality of data being reviewed? How will the data be accessed? How will the data be securely stored? How will the data be securely transferred to the RETAIN staff? Who has permission to review these data?
- What resources are available to conduct screenings?
- Can parts of the screening process be automated? Which parts? How will this be conducted?
- What training may be necessary if the screening and/or eligibility assessment process is delegated to clinicians or other entities?

The specific screening, eligibility assessment, and outreach process will generally depend on the sources of referrals and potential participants that are selected. For example, if a RETAIN

project opts to screen large electronic health record databases, the most efficient process may involve computerized data analysis.

## Examples of Participant Screening, Eligibility Assessment, and Outreach Steps or Processes

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Several general examples of participant screening, eligibility assessment, and outreach processes are listed below:

- Review electronic health records, clinic schedules, billing databases or other electronic databases using pre-specified screening or eligibility criteria.
  - Use computer program to screen electronically using a set of pre-specified screening criteria.
  - Follow this level-one screening with additional review that may involve manually reviewing electronic health records and/or conducting telephonic or in-person follow-up to assess eligibility.
- Interview potential participants:
  - In clinic—Identify when the patient may be coming to clinic and meet with the patient in clinic to discuss the study and conduct screening.
  - By phone—Contact the potential participant by phone and screen for eligibility.
  - Off-site—May meet potential participants at other locations, such as an employment or skills development center.
  - By instant messaging—Work with the clinic to set up instant messaging on computers or tablets that can be used WITH patients. RTW coordinators can screen and discuss RETAIN using IM.
- Potential participant to complete an electronic or hard copy screening questionnaire:
  - At clinic—Conduct screening in the waiting room, at check-in, or in the exam room while waiting for the clinician.
    - » Ask the patient to complete a brief screening questionnaire on a tablet, computer, or hard copy.
  - Online—May provide a link to an online screening questionnaire.
    - » Provide the link to employers.
    - » Provide the link on promotional materials such as posters and brochures.
    - » Provide the link on the State’s RETAIN website.



- Use of provider reminder system or clinician decision support tool, within the electronic health record, to facilitate screening; details are briefly described below.

### **Use of Provider Reminder Systems to Support Screening**

An electronic provider reminder system may be used to remind providers to assess patient eligibility for RETAIN. This may involve different levels of participation by the clinician. Two possible options are:

- An electronic prompt or reminder asks clinicians to conduct broad screening. These questions may be programmed into the electronic health record; the clinician could then provide a list of potentially eligible persons to RTW coordinators.
- An electronic patient-screening process prompts the clinician to ask additional eligibility assessment questions only of those who meet broad eligibility criteria. This will likely require programming of the electronic health record to create a screening process defined by criteria that are “sensitive,” meaning that criteria identify a large percentage of those eligible, but not “specific,” meaning that some people may be identified who are then found by further assessment to be ineligible.

Manual reminder systems may be used to remind clinicians to assess the eligibility of all or subsets of patients. One approach to implementing this is:

- Front desk staff or nursing staff may create a list of patients who meet broad eligibility criteria and may provide this list to clinicians who then conduct further assessment.

### **Specific Examples of Participant Screening, Eligibility Assessment, and Outreach Steps or Processes, by Source of Referrals or Participants**

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More specific examples of participant screening and outreach processes are displayed in [Exhibits 7](#) through 12. These examples focus on:

- Strategies to Review Appointment and Procedure Schedules ([Exhibit 7](#))
- Examples of Processes to Review Electronic Health Systems Databases to Identify Potential Participants ([Exhibit 8](#))
- Examples of Involving Clinicians or Other Health Care Workers in Participant Screening ([Exhibit 9](#))
- Example of On-Site Screening at Clinical Sites ([Exhibit 10](#))
- Example of Conducting Participant Screening Through an Insurance Company ([Exhibit 11](#))
- Examples of Other Participant Screening and Outreach Processes ([Exhibit 12](#))

In addition, examples of several tools are listed that may be used to screen potential participants for biopsychosocial risk factors to identify whether or not they may be at risk of not returning to work or to assess patients’ activation levels or the degree to which they are involved in their own health.

**Examples of Strategies to Review Appointment and Procedure Schedules:**

The RETAIN teams and project partners may review appointment and procedure schedules using different approaches. A few examples of strategies for reviewing appointment and procedure schedules to screen and/or assess eligibility are listed in [Exhibit 7](#).

**Exhibit 7. Examples of Strategies to Review Appointment and Procedure Schedules**

Example #	Description of Approach
<p><b>Example 1</b></p>	<p>RTW coordinators or other team members or partners:</p> <ul style="list-style-type: none"> <li>• Review clinic or procedure schedules or calendars to identify patients who have scheduled appointments with clinicians and may meet RETAIN eligibility criteria.</li> <li>• Call potential participants before a clinic visit, scheduled surgery, or other procedure to inquire whether a patient may be interested in the project.</li> <li>• Alternatively, or in addition to placing a telephone call, meet in person with the patient when the patient comes to the clinic or health center for an appointment with a provider or for a surgery or other procedure.</li> </ul>
<p><b>Example 2</b></p>	<p>RTW coordinators or other team members:</p> <ul style="list-style-type: none"> <li>• Are placed in relevant clinics during specific timeframes.</li> <li>• Review appointment schedules to assess patients’ eligibility.</li> <li>• Recruit participants for the project in person.</li> </ul>
<p><b>Example 3</b></p>	<p>RTW coordinators or other team members or partners:</p> <ul style="list-style-type: none"> <li>• Obtain access to and screen health services appointment schedules electronically and use a set of diagnostic codes and/or procedure codes to identify potentially eligible participants who have scheduled clinic appointments, surgeries, or other procedures.</li> <li>• Review the list of patients identified in the screening process to further assess eligibility criteria.</li> <li>• Conduct outreach to the potential participant through one of several approaches, including: (1) clinician describes RETAIN at the visit; (2) RTW coordinator goes to the clinic at the time of the scheduled visit; (3) telephone outreach; (4) send introductory letter and brochure or packet of information to potential participants before the clinic visit; (5) use instant messaging (IM) to contact potential participants; or, (6) call to schedule a home visit.</li> <li>• IM option: The clinic(s) sets up a computer with IM capability. RTW coordinator establishes a process with the clinic so that study personnel can IM with potential participants attending clinic appointments if the RTW coordinator cannot meet on-site.</li> </ul>

Example #	Description of Approach
<b>Example 4</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Screens clinic appointment and surgery schedules to identify potentially eligible patients.</li> <li>• Reviews electronic health records to obtain additional information.</li> <li>• RTW coordinator contacts the potential participants to obtain additional information as needed.</li> </ul>

**Examples of Processes to Review Electronic Health Systems Databases to Identify Potential Participants:**

Several examples of participant identification and screening processes involving the use of electronic health records are listed in [Exhibit 8](#).

**Exhibit 8. Examples of Processes to Review Electronic Health Systems Databases**

Example #	Description of Approach
<b>Example 1</b>	<ul style="list-style-type: none"> <li>• Each day, a report is run that includes the names of and information on patients seen in outpatient provider offices or emergency departments with an ICD 10 diagnostic code that matches one from a pre-identified set of codes.</li> <li>• A team member obtains the report, reviews it, and removes duplicate names and patients whose providers have not signed the provider enrollment form.</li> <li>• The list is split into primary care and specialty care services.</li> <li>• Different team members work with the primary care list and specialty care list; a staff member is assigned to each patient.</li> <li>• The health records of each patient in the list are reviewed for a list of possible risk factors.</li> </ul>
<b>Example 2</b>	The RETAIN team: <ul style="list-style-type: none"> <li>• Obtains reports from the electronic health record to identify persons who have been seen in the emergency department.</li> <li>• Screens the data electronically to identify those in specific diagnostic categories, such as musculoskeletal injuries.</li> <li>• Reviews this report weekly.</li> <li>• Assigns study personnel to call potential participants to discuss RETAIN.</li> </ul>
<b>Example 3</b>	<ul style="list-style-type: none"> <li>• The RETAIN team collaborates with specific clinics.</li> <li>• Clinic personnel screen their databases to identify patients who may be eligible to participate in the program.</li> <li>• Identified cases are further reviewed to assess potential eligibility.</li> <li>• Records are checked to see if identified patients have upcoming appointment.</li> <li>• RETAIN is discussed with identified patients during appointments at the designated clinics</li> </ul>

Example #	Description of Approach
<p><b>Example 4</b></p>	<ul style="list-style-type: none"> <li>• Using a list of patients who had recent clinic or emergency department visits, a RETAIN team member initiates a recruitment phone call to the patient.</li> <li>• If the patient answers the phone, the RETAIN team member uses the recruitment script and assesses whether the person will join RETAIN.</li> <li>• If the patient is not interested, thank the person and document this action and result.</li> <li>• If the patient is interested, complete the screening process to assess whether or not the person is eligible.</li> <li>• If the patient is interested in participating and is eligible, the RETAIN team member then verifies the patient’s address and preferred method of returning the informed consent form, either by Survey Monkey, mail, or during an office visit.</li> <li>• The RETAIN team member establishes a date for a follow-up enrollment call and completes a recruitment form in the Access database.</li> <li>• A team member runs a patient packet mailing list and sends this list to printing services.</li> <li>• A consent packet is sent to the patient.</li> <li>• The planned enrollment follow-up telephone call is made; if the patient does not answer the phone, a brief message is left according to health center guidelines; the phone number for the local RETAIN office is included in the message.</li> <li>• The actions are documented in a database recruitment form.</li> <li>• A second attempt is made. If contact is not made, then this is documented as unsuccessful; three separate call-backs are attempted, three to five days after the previous call.</li> <li>• If the patient is not reached after three calls, document “No” in the patient-interested field of the enrollment form.</li> </ul>

**Examples of Involving Clinicians or Other Health Care Workers in Participant Screening Activities:**

Several specific examples of strategies to involve clinicians or other health care workers in screening patients for eligibility for RETAIN projects are listed in [Exhibit 9](#).

**Exhibit 9. Examples of Involving Clinicians or Other Health Care Workers in Participant Screening**

Example #	Description of Approach
<p><b>Example 1</b></p>	<p>The RETAIN medical director and/or other team members:</p> <ul style="list-style-type: none"> <li>• Work with clinical practices to integrate the RETAIN referral process into their existing referral processes.</li> <li>• Request that primary care providers screen patients for potential eligibility.</li> <li>• Request that primary care providers refer patients to RETAIN.</li> <li>• RETAIN RTW coordinator conducts outreach to potential participants.</li> </ul>

Example #	Description of Approach
<b>Example 2</b>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Instructs clinicians on processes to screen and recruit potential participants.</li> <li>• Requests that clinicians screen and recruit potential participants.</li> <li>• Requests that occupational health nurses assist with recruitment.</li> </ul>
<b>Example 3</b>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Creates a brochure for clinicians that describes RETAIN, the role of providers; request referrals.</li> <li>• Asks clinicians to assess whether patients are potentially eligible for RETAIN; then refer people who may be eligible to RTW coordinators.</li> </ul>
<b>Example 4</b>	<p>The RETAIN team collaboratively establishes the following process with clinicians:</p> <ul style="list-style-type: none"> <li>• Providers screen for potential eligibility of patients during clinic visits using a screening tool.</li> <li>• Providers refer potentially eligible patients to RTW coordinators.</li> <li>• RTW coordinators obtain additional details about referred patients.</li> <li>• RTW coordinators contact patients to further screen for eligibility, conduct informed consent, and enroll participants.</li> </ul>
<b>Example 5</b>	<ul style="list-style-type: none"> <li>• Clinicians assist with screening potential participants.</li> <li>• RETAIN team members provide clinicians with eligibility criteria, exclusion criteria, and the Örebro Musculoskeletal Pain Questionnaire (OMPQ10) screening forms.</li> <li>• Clinicians initiate initial discussions with the worker-patient.</li> <li>• Clinicians use the OMPQ10 musculoskeletal screener as part of the screening process.</li> <li>• A score of greater than 50 on the OMPQ10 indicates that the patient is potentially eligible for RETAIN.</li> <li>• The clinician reaches out to the RETAIN project personnel.</li> </ul>

**Example of On-Site Screening at Clinical Sites**

Potential RETAIN participants may be identified by RTW coordinators or other project staff at clinical sites. For example, RTW coordinators may be based at specific clinic sites on specific days, screen patients for eligibility, and recruit them face-to-face. One example of on-site screening in a clinical setting is described in [Exhibit 10](#).

**Exhibit 10. Example of On-Site Screening at Clinical Sites**

Example #	Description of Approach
<p><b>Example 1</b></p>	<ul style="list-style-type: none"> <li>• On designated days, place RTW coordinators in select clinics or physical therapy departments.</li> </ul> <p>The RTW coordinators:</p> <ul style="list-style-type: none"> <li>• Review appointment schedules for the respective department(s).</li> <li>• Screen potentially eligible patients for eligibility.</li> <li>• Alternatively, may have all patients complete an eligibility screening tool—either paper copy or electronic version—on a tablet or computer.</li> <li>• Recruit on site: Meet with potential participants face-to-face to screen, recruit, and enroll participants.</li> </ul>

***Example of Participant Screening Through and Insurance Company***

One specific example of a strategy to conduct screening of potential participants through an insurance company is described in [Exhibit 11](#).

**Exhibit 11. Example of Conducting Participant Screening Through an Insurance Company**

Example #	Description of Approach
<p><b>Example 1</b></p>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Works with a Workers’ Compensation (WC) insurance company.</li> <li>• Develops and specifies criteria for screening the claims database.</li> <li>• Guides the WC insurance company in applying the screening criteria.</li> <li>• Coordinates with the WC company to mail a recruitment packet to potential participants that meet the eligibility criteria.</li> <li>• Initiates next steps of the enrollment process, if the recruitment materials are completed and returned by the potential RETAIN participant.</li> </ul> <p>The partnering insurance company:</p> <ul style="list-style-type: none"> <li>• Conducts the initial screening using a claims database, searching for pre-specified conditions, or using an initial Workers’ Compensation report.</li> <li>• Mails recruitment packets to potential participants</li> </ul>

***Examples of Other Participant Screening and Outreach Processes***

Two other examples of participant screening and outreach processes are briefly outlined in [Exhibit 12](#).

**Exhibit 12. Examples of Other Participant Screening and Outreach Processes**

Example #	Description of Approach
<p><b>Example 1</b></p>	<p>RTW coordinator:</p> <ul style="list-style-type: none"> <li>• Calls the potential participant within 24 hours after receiving a referral.</li> <li>• Conducts screening using screening questions.</li> <li>• Schedules an intake appointment with the potential participant.</li> </ul>
<p><b>Example 2</b></p>	<p>The RETAIN team and project partners:</p> <ul style="list-style-type: none"> <li>• Screen clinic database to identify patients who are potentially eligible for RETAIN.</li> <li>• Apply a triage matrix to assess patient eligibility.</li> <li>• Refer eligible persons to RETAIN.</li> <li>• Conduct future screening and outreach.</li> <li>• Randomize participants to intervention or comparison groups.</li> <li>• Collect data from intervention participants, including use of an intake questionnaire.</li> <li>• Obtain additional data, such as diagnoses, work restrictions, and job requirements.</li> <li>• Assign an RTW coordinator.</li> </ul>

***Examples of Biopsychosocial Risk Factor and Patient Activation Screening Tools***

In addition to screening potential participants to determine if they meet the RETAIN eligibility criteria, it may be useful to screen for biopsychosocial risk factors to identify whether or not they may be at risk of not returning to work or to assess patients’ activation level, meaning their engagement in their health and health care and their ability to manage self-care and health problems. The decision about whether or not to employ one of these tools may be complex. And, if use of one of these screening tools tends to limit the size of a RETAIN project’s enrollment, it may not be recommended.

Several guiding questions may be asked when state RETAIN programs make decisions about whether or not to use screening tools that assess biopsychosocial risk factors or patient activation. The questions may include:

- Would use of one of these screening tools limit or reduce enrollment, making it difficult to achieve enrollment targets?
- Is it likely that use of one of the tools may help to narrow down a list of potential people to try to recruit and enroll, and therefore increase the efficiency of the project?
- Will use of one of the screening tools likely improve recruitment and enrollment results?
- Will use of one of the screening tools increase the success rate in helping people SAW or RTW?
- What are appropriate settings for administering the screening tool?

- Who could administer the screening tool?
- Can use of a screening tool be reasonably operationalized within the project and project settings?
- Can the screening tool be provided electronically to patients or workers? If so, under what circumstances?
- What are the barriers to administering a new screening tool? What are the competing data collection priorities in clinical or other settings?
- How will the results of the screening tool be applied to project processes? For example, if someone is not highly activated, will they be less likely to be prioritized for recruitment efforts? And, how would the project prioritize recruitment of people based on their biopsychosocial risk factor scores?
- How will the potential effectiveness of using a screening tool be monitored?

Some possible assessment tools or measures are:

- Adverse Childhood Experiences (ACE)
- Functional Recovery Questionnaire (FRQ)
- Örebro Musculoskeletal Pain Screening Questionnaire: 25 questions
- Short Örebro tool
  - 10-question version
  - May be applicable to three injuries: knee, back, and shoulder
  - 2-question version, including questions 15–16 from the full Örebro questionnaire
- STarT Back Screening Tool (SBST)
- FABQ from Dee Daley, lead educator at Workwell Systems, a work injury management company

### ***Patient Activation Measure (PAM)***

The Patient Activation Measure (PAM) may be used to assess the patient's activation level, which can help to predict the patient's role in self-care (Hibbard et al., 2007; Hibbard et al., 2004). The Patient Activation Measure (PAM) was created by Judith Hibbard, at the University of Oregon. She and her colleagues have demonstrated that if patients are activated in their own health and care, then they are more likely to change behavior. Patient activation, as assessed by the PAM, has been shown to be associated with: most health behaviors, many clinical outcomes, health or health trajectories, overall health care costs, and unnecessary costly



utilization (Hibbard, 2016). Therefore, the PAM may be useful as part of the RETAIN screening processes to help determine who may require more intensive interventions to help achieve SAW and RTW goals.

After assessing the patient's activation level, the care provider or RTW coordinator can tailor communication strategies to the patient's level of activation. There are four stages in the Patient Activation Model:

- **Stage 1:** Overwhelmed and disengaged; the patients don't grasp that they must play an active role in their own health (Hibbard et al., 2007); they may believe that they can be a passive recipient of care.
- **Stage 2:** Becoming aware, but still struggling; people may lack basic facts or have not connected facts into a larger understanding about their health or recommended health regimens.
- **Stage 3:** Taking action; people have key facts and are beginning to take action but may lack confidence and skill to support new behaviors.
- **Stage 4:** Maintaining behaviors; people have adopted new behaviors but may not be able to maintain them in the face of life stress or health crises.

More information about PAM can be found in several references listed in the appendices (Hibbard, 2016; Hibbard et al., 2007; Hibbard et al., 2004).

[For supplemental resources on participant screening, eligibility, assessment and outreach, see Appendix 2.](#)

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## **Participant Recruitment and Enrollment**

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## Participant Recruitment and Enrollment

Potential RETAIN participants may be recruited and enrolled by RTW coordinators, clinicians, or others in the RETAIN project. Some of these responsibilities may be shared among various members of the RETAIN team.

When developing or refining processes to recruit and enroll RETAIN participants, it is important to address these guiding questions:

- Which project partners have an interest in assisting with participant recruitment and enrollment?
- What processes are likely to be most efficient and minimize the burden of participating clinicians and other health care workers?
- Who may be most influential in encouraging eligible persons to participate?
- What outreach or communication strategies will be most effective in reaching eligible persons?
- What outreach or communication strategies are likely to be most effective or influential in encouraging eligible persons to participate?
- What coordination processes will be required to support the select participant recruitment and enrollment processes?
- What are the best ways to engage stakeholders, such as injured or ill patients, in the project planning to obtain their input on recruitment and enrollment strategies?
  - How often should stakeholders be engaged?
  - What format of engagement should be used: as an employee or consultant; stakeholder or advisory panel; key informant interviews; focus groups; and/or pretesting materials?
  - How will stakeholder input be used to inform project planning and implementation?

Several examples of participant recruitment and enrollment strategies are described below. In addition, examples of approaches for engaging patient or worker stakeholders in project planning, to enhance recruitment and enrollment, are listed or described. Possible approaches to engaging patient or worker stakeholders include: hiring an injured or ill worker to be part of the project team; developing and engaging a stakeholder panel; using focus groups or interviews of patients or workers to obtain ideas or feedback; and pretesting messages and/or materials. These approaches can be used by RETAIN projects to create operational processes that may best meet the needs of the target populations, and develop and/or refine recruitment

scripts, other messages, and recruitment materials that resonate with potential participants. It is important for RETAIN projects to consider engaging patient and worker stakeholders in the project planning and operations because they may provide insights into which messages, materials, and processes are more likely to be effective when recruiting and enrolling participants.

## Recruitment and Enrollment Steps That May Be Completed by RTW Coordinator, Clinician, or Other Team Member

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The RTW coordinator or other RETAIN team members or partners may be involved in many aspects of the participant recruitment and enrollment process. Some of the steps in this process may include:

- Engage the potential participant, develop rapport, learn about the person (Community Care of North Carolina [CCNC], n.d.)
- Reflect on what the person is going through and feeling; show empathy (Miller & Rollnick, 1991)
- Identify what the person believes he or she needs through use of open-ended questions, starting with “what” and “how (Duke Integrative Medicine, n.d.)”
- May use motivational interviewing techniques and/or health coaching strategies to engage the potential participant (Refer to: [Appendix 1](#)—References: Smith et al., 2013; Treasure, 2004; Miller & Rollnick, 1991, Community Care of North Carolina, n.d.; RETAIN Online Community resource: [Motivational Interviewing Part I: Introduction to the Spirit, Principles, Skills and Techniques of Motivational Interviewing](#) and [Motivational Interviewing Part 2: Demonstration of Motivational Interviewing Skills and Techniques](#)):
  - Identify patient’s vision and values for a healthy life (Smith et al., 2013)
  - Listen for patient ambivalence, identify the discrepancy, and use double-sided reflections (CCNC, n.d.)
- Try to provide some immediate benefit to the potential participant through supportive communication so that even if the person is assigned to the comparison group, he or she feels that something of benefit has been received
- Describe the project to the eligible participant, including the purpose, benefits to society, participant involvement, and random assignment process, if applicable:
  - Be a true believer in both the intervention and the project to help sell it
  - It is easy to lose a potential participant if there is any hesitation on the part of the recruiter when communicating about the project and intervention

- Appeal to altruism
- Describe the benefits of working in terms of health, emotional, and financial benefits
- Describe the benefits and assistance the RTW coordinator will provide
- Describe what will occur if the participant is assigned to the comparison group:
  - Indicate that the person will continue to receive usual care
  - Specify any other benefits that the person may receive, such as incentives
  - Emphasize that the participant will be contributing to a valuable project with minimal burden
- Conduct the enrollment process:
  - May use an electronic enrollment form or paper forms
- Conduct informed consent if the participant is eligible and interested; review the information, ask if the person has any questions or concerns, obtain signatures on consent and HIPAA authorization forms
  - If signatures are initially obtained electronically, a hard copy or wet signature may be obtained at a later date at a clinic visit, home visit, or by mail
- Complete intake documents
- Thank the participant for interest and participation in the project
- Describe the next steps to the participant
- Thoroughly document what occurred in a tracking system or electronic record that can be accessed by the RETAIN team and others involved in recruitment:
  - Recruitment process
  - Date(s) and time(s) of contact
  - Mode of contact
  - Statements used that seemed to interest the potential participant
  - Statements made by the potential participant that may indicate interest or disinterest
  - Specific refusal statements, including quotes
  - Whether or not a refusal seems final

One specific step-by-step example of participant recruitment and enrollment processes is displayed in [Exhibit 13](#).

**Exhibit 13. Example of Participant Recruitment and Enrollment Processes**

Example #	Description of Approach
<b>Example 1</b>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Conducts a follow-up telephone call after an informed consent packet has been sent to an interested and eligible potential participant.</li> <li>• Verifies whether or not the patient received the informed consent packet.</li> <li>• If the packet has been received, asks the patient if he or she has read the information.</li> <li>• Schedules a return call, if the person has not read the information.</li> <li>• If the person has reviewed the information, then reviews the study information with the patient, answers questions, and determines whether the patient will sign the consent forms.</li> <li>• If the patient will sign the forms, determines the method for signing and returning the forms.</li> <li>• Reminds the patient to bring the original signed consent forms to the next provider appointment.</li> <li>• Completes the Social Security Administration Participant Enrollment Information Form.</li> <li>• Completes additional enrollment form in an Access database.</li> <li>• Documents the process.</li> <li>• If the packet has not been received, verify the patient’s address and resends the packet; repeats for three attempts; then arranges to meet the patient in person.</li> </ul>

[For supplemental resources on sources participant recruitment and enrollment, see Appendix 2.](#)

## Engaging Patient or Worker Stakeholders in Recruitment and Enrollment Planning

Involving patients or workers in planning and implementing RETAIN projects may enhance the relevance of the projects and effectiveness of recruitment and enrollment strategies. Several strategies can be used to develop and/or refine recruitment scripts, other messages, recruitment materials, and operational processes, with the goal of improving the effectiveness and persuasiveness of messages and materials and the attractiveness of RETAIN to potential participants. Possible approaches to engaging patient or worker stakeholders include: hiring an injured or ill worker to be part of the project team; developing and engaging a stakeholder panel; using focus groups or interviews of patients or workers to obtain ideas or feedback; and pretesting messages and/or materials.



## **Engaging Patients or Workers in Stakeholder or Advisory Panels**

Injured or ill patients or workers, that may be similar to potential RETAIN participants, can be included as part of a multidisciplinary or patient-worker-specific RETAIN project stakeholder or advisory panel. These stakeholders may be involved in project planning throughout any or all stages of the project, including pre-implementation planning. Several potential areas in which these stakeholders may provide input are:

- Drafting or revising project materials, including recruitment scripts, informed consent forms, brochures, posters, and other materials
- Drafting or revising project protocols, including processes that involve or affect participant burden
- Participating in recruitment activities by assisting with conducting outreach to potential participants

Several tasks that may be involved in developing and sustaining a stakeholder panel are:

- Develop a group identity and or mission for the stakeholder group
- Define the responsibilities of the group and members
- Define and establish the structure of the group, including a smaller governing body for the group
- Form workgroups that are assigned to different tasks, activities, or materials development or review
- Maintain the engagement of the group
- Develop a plan for sustainability

## **Use of Focus Groups and Interviews**

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“A focus group is a small-group discussion guided by a trained leader. It is used to learn about opinions on a designated topic, and to guide future action” (Community Tool Box, 2019). Focus groups and interviews can be used to learn about the opinions and needs of people. For RETAIN, this could involve learning about the opinions and needs of people who are similar to those you are interested in recruiting. The information learned can be used to modify recruitment processes, messages, incentives, and participant processes.

## Types of Information to Potentially Collect for RETAIN Projects Using Focus Groups or Interviews

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Examples of questions that may be answered through engaging patients and workers in the project planning process are:

- What do patients or workers want or need from the RETAIN project?
- What are the concerns of injured or ill workers?
  - How they feel about returning to work?
  - What are their concerns about returning to work?
  - What are their concerns about not returning to work?
- What is important to workers who are injured or ill?
- What type of support do they need through the injury or illness?
- What types of incentives may encourage participation in the project?
- What are their feelings about participating in the project?
- What words or explanations may encourage them to participate in the project?
  - How early on in a discussion about the project should “study” or “research” be mentioned?
- What types of people or professionals do they trust the most?
  - Who may be most influential in encouraging them to participate in research?
    - » Doctors?
    - » Nurses?
    - » RTW coordinators?
    - » Physical or occupational therapists?
    - » Occupational health specialists?
    - » Other?
- What organizations do they trust most?
  - Types of organizations?
  - Ask about specific organizations, such as a health center in the RETAIN project.
- In what setting might they be most likely to agree to participate in this project?

- Home?
- Clinician’s office? Examination room? Waiting room?
- Physical therapist’s office?
- Workplace?
- Jobs Center?
- Community-based setting?
- Other?
- What method of contact would most encourage them to participate in this project?
  - In person
  - Phone
  - Text message
  - Mailed information
  - E-mail
  - Other
- What method of contact is least desirable or appealing if someone is asking them to participate in this project?
- How much time after an illness or injury do they think they may want to go back to some type of work?
  - Light duty?
  - Full duty?

[For supplemental resources on engaging patient or worker stakeholders in recruitment and enrollment planning, see Appendix 2.](#)

## Pretesting Communication Materials and Messages

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Pretesting is a process or technique that may be used by RETAIN projects when developing and refining recruitment and enrollment materials and messages. Pretesting is also referred to as field testing. Pretesting is often used to find out whether the intended audience understands the messages. “In pretesting, an interviewer shows the draft materials to members of the intended audience and asks open-ended questions to learn if the message is well-understood and acceptable—in sum, if it works (Ministry of Health, n.d., p. 2).”

Pretesting May Be Used to Assess Materials and Messages for:

- Comprehension—Clarity, understanding
- Attractiveness
- Acceptable
- Effective
- Motivation—Call-to-action
- Believable
- Convincing
- Persuasive
- Realistic
- Memorable
- Involvement—Identify with the materials

## Use of Information Obtained From Pretesting Messages and Materials

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The information obtained from pretesting messages and materials can be used to inform decision-making about messages and materials and designing new messages and materials.

## Examples of Pretesting Approaches

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Several examples of pretesting approaches are listed below.

- Ask participants about their preferences for alternative messages.
  - Examples of questions:
    - » Which of these messages do you prefer?
    - » Which of these messages is more convincing?
    - » Which of these messages would most lead to you agreeing to participate in the project?
    - » Which of the brochures do you think is easiest to read?
- Ask participants about their preferences for alternative formats of information.
  - Example: Participants may be asked about their preferences relative to how information is displayed graphically.
  - Which of these formats is most appealing to you?
  - Which of these brochures is most likely to convince you to contact someone to ask about participating in the study?
- Ask participants about how persuasive or convincing a message will be.
- Ask participants about how important specific factors may be in influencing a specific behavior, such as enrolling, such as:
  - Time involved in participating in the study
  - Incentives
  - Other

- Ask participants to assess messages or materials using a one-item or two-item assessment:
  - Example one—Use a rating system to rate various messages:
    - » “Rate how much this message would influence your agreement to participate in this [project].”
  - Example two—“Overall, I think this ad is effective for getting people to participate in the [project].”
    - » Use a 5-point response scale from Strongly Agree to Strongly Disagree.
  - Example three—“The images I just viewed are convincing.”
    - » Use a 5-point response scale from Strongly Agree to Strongly Disagree.
  - Example four—“The message I read would have the intended effect.”
    - » Use a 5-point response scale from Strongly Agree to Strongly Disagree.
- Ask participants to rank a set of messages in order of their effectiveness or persuasiveness.
- Ask participants to select the most effective message from a set of messages.
- Ask participants to rate how much each element in a set of factors influenced them to participate in the study, such as:
  - Time commitment, incentives, job satisfaction, other.

## Other Examples of Pretesting Approaches

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For additional examples of pretesting print materials, refer to page 4 of the Ministry of Health document: *Guidelines for Pretesting and Evaluating Communication Materials*.

[For supplemental resources on pretesting materials and messages, see Appendix 2.](#)

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## Participant Retention

Once participants are recruited and enrolled in RETAIN, it is important for them to continue to engage with the RETAIN RTW coordinator and project, complete needed and scheduled follow-up appointments and check-ins—whether virtual or in person—and to achieve employment and health goals. Retention in projects may be facilitated by: obtaining input on project development and communication strategies from patients and workers as described above; engaging participants on a regular basis and addressing their needs using patient-centered approaches; anticipating common reasons why participants drop out of projects and addressing them in project planning; monitoring reasons that participants drop out and modifying the project to address those reasons; and by structuring incentives to promote retention.

When developing or refining processes to retain participants in RETAIN projects, it is important to address these guiding questions:

- What strategies can our RETAIN project use to identify the needs of patient or participants?
- How can our RETAIN project best meet the needs of our participants to keep them engaged?
- What patient-centered approaches can be implemented in our RETAIN project?
- How can we minimize participant burden to promote project retention?
- What are common reasons that participants may not complete the project?
- What data do we need to track to monitor project completion, drop-outs, and reasons for dropping out?

## Patient-Centered Engagement of Participants

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Several patient-centered strategies may be used to engage participants in the RETAIN project over time ([Exhibit 14](#)). Examples of simple strategies include:

- Expressing appreciation of participants' involvement
- Maintaining confidentiality of information and reassuring participants about these efforts
- Obtaining and updating contact information regularly to minimize lost-to-follow-up
- Providing flexibility in participant involvement, as feasible
- Discussing potential or actual barriers to completing specific activities of the project and brainstorming solutions with participants

**Exhibit 14. Example of Patient-Centered Engagement of Participants**

Example #	Description of Approach
<p><b>Example 1</b></p>	<p>The RETAIN team:</p> <ul style="list-style-type: none"> <li>• Use the patient’s stated preferred method for checking in, such as in-person, phone, or video call, to contact participants regularly</li> <li>• Focus check-in calls on the needs of the individual participant</li> <li>• Identify areas of progress or recovery and provide positive reinforcement for progress</li> <li>• Schedule the next check-in meeting during the current check-in</li> </ul>

**Anticipate Reasons Participants May Drop Out and Address These Reasons**

Participants may drop out of projects for various reasons. Anticipating these potential reasons will provide RETAIN projects the opportunity to develop plans to address them. Some commonly documented reasons for drop-outs are:

- High project demands or participant burden
- Long duration of the project
- Travel and travel costs
- Concerns about the participant role in the project
- Being assigned to a placebo condition in a clinical trial
- Lack of social support

Some strategies to help address reasons for participant drop-out are:

- Conduct training of RETAIN team members who communicate with participants, such as RTW coordinators, to help them identify risks or signs that a participant may drop out; training may involve adherence assessment, and role playing scenarios in which a participant may be considering dropping out
- Educate participants about their role in the project in a candid yet supportive way
- Enlist the assistance of the patient’s clinician to discuss the project with the patient and provide support and reassurance
- Brainstorm ways to improve the convenience or project participation with the patient.

[For supplemental resources on participant retention, see Appendix 2.](#)

## Incentives

RETAIN projects may use monetary or non-monetary incentives to encourage potential participants to enroll in RETAIN and complete the project. Several guiding questions should be addressed when deciding whether to use participant incentives or not, and if so, what incentives to use, and how to structure and time the incentives. These questions include:

- Are the incentives expected to increase enrollment and encourage participants to remain in the program as long as needed and complete the required tasks?
- Are there other strategies or messages that may be more effective in encouraging enrollment and retention in the project in lieu of incentives?
- What level of incentive is considered to be acceptable and will not assert undue influence or be coercive?
- What are comparable incentives for similar projects conducted at your organization?
- What percent of the overall RETAIN budget can be used for incentives? How much money has been budgeted for incentives?
- What components of project participation should be incentivized? Enrollment? Completing a milestone in the project? Completing the full follow-up period?

Several examples of participant incentives are listed below in [Exhibit 15](#).

### Exhibit 15. Examples of Participant Incentives

Example	Description of Approach
<b>Example 1</b>	<ul style="list-style-type: none"> <li>• Provide \$50 gift card that can be used anywhere.</li> </ul>
<b>Example 2</b>	<ul style="list-style-type: none"> <li>• Participant incentives:                             <ul style="list-style-type: none"> <li>– Receive a \$25 gift card for completing intake.</li> <li>– Intervention group—Additional \$25 for a 3-month follow-up survey and a third \$25 for a 12-month follow-up survey.</li> </ul> </li> </ul>
<b>Example 3</b>	<ul style="list-style-type: none"> <li>• Potential enrollees receive a transportation subsidy for their visits. This reimbursement varies.</li> </ul>
<b>Example 4</b>	<ul style="list-style-type: none"> <li>• Potential enrollees receive a \$20 gift card during in-person meetings to discuss RETAIN.</li> </ul>
<b>Example 5</b>	<ul style="list-style-type: none"> <li>• Participants or Patients—\$25 gift card from a coffee house chain or other entity for completing intake forms and participating in an initial meeting with a RETAIN project team member.</li> <li>• May provide an additional token of appreciation for meeting other needs to stay involved with RETAIN.</li> </ul>

[For supplemental resources on participant retention incentives, see Appendix 2.](#)

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## Tracking Participant Identification, Recruitment, Enrollment, and Retention

It is important to track each step of the participant identification, recruitment, enrollment, and retention process for several reasons. First, this information can be used by team members to identify areas in the process that need improvement and to identify the relative effectiveness of each method of outreach, recruitment, enrollment, and retention. Second, it may provide valuable information that team members can use when attempting refusal conversion. In addition, the information can help to avoid repeated outreach to potential participants.

Information can be tracked within electronic health records, tracking databases, or other systems, including the RETAIN Recruitment-to-Enrollment Pipeline Dashboard, described in more detail below. Examples of data elements that may be collected are:

- Date(s) and time(s) of contact
- Potential participant information—Name, date of birth, diagnosis, employer
- Person conducting the outreach of making the contact
- Mode of contact
- Status of contact, whether reached or not
- Purpose of contact
- Actions taken to recruit, enroll, and retain participants
- Statements made to potential participants
- Reactions and statements made by potential participants
- Outcomes of the contact
- If the potential participant declines to participate:
  - Specific refusal statements, including quotes
  - Whether or not a refusal seems final
- Early withdrawal from the project and reasons for withdrawal
- Plan or action steps

Two examples of tracking processes are listed in [Exhibit 16](#):

**Exhibit 16. Examples of Tracking Methods**

Example #	Description of Approach
<p><b>Example 1</b></p>	<ul style="list-style-type: none"> <li>• The participant identification, recruitment, and enrollment processes are documented in an Access database on Enrollment forms.</li> <li>• Information about the next contact date is document in the Patient Outreach Section of the electronic health record.</li> </ul>
<p><b>Example 2</b></p>	<ul style="list-style-type: none"> <li>• Use a case management tracking system.</li> <li>• Track demographic characteristics, disability status, employment status, occupation, eligibility status.</li> <li>• Document enrollment in RETAIN: project personnel, participant information, case management notes, including work restrictions, participation, progress, collaboration, communication with participant.</li> <li>• Document an employment plan.</li> </ul>

**Using Information Technology to Support Recruitment, Enrollment, and Retention**

Information technology may help to support participant recruitment, enrollment, and retention-related activities. Several possible examples are:

- A RETAIN application that provides participants with information to support RTW activities and track participant self-progress.
- Information technology to support the informed consent process, such as conducting part of the consent process electronically.
- Use of a website and/or application that individuals, health providers, and employers could use for electronic referrals to the RETAIN project.
  - Data dashboard with charts to track data, such as enrollment, refusals, and reason for refusals; could stratify data by source of referral other; this could be tracked in a spreadsheet and/or presented in an interactive dashboard. The RETAIN Recruitment-to-Enrollment Pipeline Dashboard is available to RETAIN projects; if interested in this tool, contact your TA liaison at American Institutes for Research.

[For supplemental resources on sources of information for use of information technology to support recruitment, see Appendix 2.](#)

## Appendix 1. References

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- Ministry of Health. (n.d.). Guidelines for pretesting and evaluating communication materials. Retrieved from <https://www.nac.org.zm/sites/default/files/publications/Guidelines%20for%20pretesting%20and%20evaluating%20communication%20materials%20.pdf>
- Smith, L. L., Lake, N. H., Simmons, L. A., Perlman, A., Wroth, S., & Wolever, R. Q. (2013). Integrative health coach training: A model for shifting the paradigm toward patient-centricity and meeting new national prevention goals. *Global Advances in Health and Medicine, 2*(3), 66-74.
- Treasure, J. (2004). Motivational interviewing. *Advanced in Psychiatric Treatment, 10*, 331-337.
- United States Department of Labor, Office of Disability Employment Policy. (2018, May 24). Notice of availability of funds and funding opportunity announcement for: Retaining Employment and Talent After Injury/Illness Network (RETAIN) Demonstration Projects. Retrieved from <https://www.dol.gov/odep/topics/SAW-RTW/docs/FOA-ODEP-18-01-Published-on-Grants.gov.pdf>

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## Appendix 2. Supplemental Resources

### **References and Resources: Sources of Referrals or Participants—Review Appointment and Procedure Schedules**

Hale, D. E., Wyatt, S. B., Buka, S., Cherry, D., Cislo, K. K., Dudley, D. J., . . . Robbins, R. M. (2016). The National Children’s Study: Recruitment outcomes using the provider-based recruitment approach. *Pediatrics*, *137*(Supplement 4), S239–S247. Retrieved from [https://pediatrics.aappublications.org/content/pediatrics/137/Supplement\\_4/S239.full.pdf](https://pediatrics.aappublications.org/content/pediatrics/137/Supplement_4/S239.full.pdf)

This published report describes “the experience of the 10 study centers (SCs) taking part in provider-based recruitment (p. S240).” Different strategies were used, including placing brochures and posts in health care provider offices for participant self-referral, several levels of engagement by the care provider, and the presence of on-site study recruiters. Clinic appointment schedules were reviewed to identify potentially eligible participants.

### **References and Resources: Sources of Referrals and Participants—Review Electronic Health Systems Databases**

Beskow, L. M., Brelsford, K., M., & Hammack, C. M. (2019). Patient perspectives on use of electronic health records for research recruitment. *BMC Medical Research Methodology*, *19*, 42. <https://doi.org/10.1186/s12874-019-0686-z>

This study reports the results of focus groups conducted in Mississippi, North Carolina, and West Virginia to identify patients’ attitudes toward the use of electronic health records to identify people who may be eligible for research and the acceptability of researchers contacting patients directly versus physicians making contact to recruit patients for research studies.

Fraser, D., Christiansen, B. A., Adsit, R., Baker, T. B., & Fiore, M. C. (2013). Electronic health records as a tool for recruitment of participants' clinical effectiveness research: Lessons learned from tobacco cessation. *Transitional Behavioral Medicine*, *3*(3), 244–252. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3771013/>

This published paper describes the planning, processes, and lessons learned from a research team that developed an electronic health record (EHR) tool to recruit participants for tobacco cessation research. The authors also describe the steps in the recruitment process within the clinic, including the use of a nonburdensome script by the person rooming with the patient, the consent process, and other steps.

Mc Cord, K. A., Ewald, H., Ladanie, A., Briel, M., Speich, B., Bucher, H. C., & Hemkens, L. G. (2019). Current use and costs of electronic health records for clinical trial research: A descriptive study. *Canadian Medical Association Journal*, 7(1), E23-E32. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6375253/pdf/cmajo.20180096.pdf>

This review article summarized the use and costs of electronic health records in clinical trials. It examined more than 150 trials that used EHRs for assessing outcomes, supporting interventions such as clinical decision support tools, and for recruitment purposes (14 trials).

Pfaff, E., Lee, A., Bradford, R., Pae, J., Potter, C., Blue, P., . . . DeWalt, D. A. (2019). Recruiting for a pragmatic trial using the electronic health record and patient portal: successes and lessons learned. *Journal of the American Medical Informatics Association*, 26(1), 44–49. Doi: 10.1093/jamia/ocy183. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6308009/pdf/ocy138.pdf>

This published study compared four participant recruitment methods, with a major focus on querying electronic health records (EHRs) to identify patients who meet study eligibility criteria. The methods reviewed included “in-clinic recruitment by a research coordinator, letters, direct email, and patient portal messages (p. 44).”

Warner, E. T., Glasgow, R. E., Emmons, K. M., Bennett, G. G., Askew, S., Rosner, B., & Colditz, G. A. (2013). Recruitment and retention of participants in a pragmatic randomized intervention trial at three community health clinics: Results and lessons learned. *BMC Public Health*, 13(Article no. 192). Retrieved from <https://bmcpublichealth.biomedcentral.com/track/pdf/10.1186/1471-2458-13-192>

This published study reports on a two-step process for identifying potentially eligible participants by using diagnostic codes to search electronically in the first step, followed by a more thorough medical record review.

### **References and Resources: Sources of Referrals and Participants—Referrals to RETAIN by Clinicians or Other Health Care Workers**

Galvin, J. E., Meuser, T. M., Boise, L., & Connell, C. M. (2009). Predictors of physician referral for patient recruitment to Alzheimer disease. *Alzheimer Disease and Associated Disorders*, 23(4), 352–356. doi: [10.1097/WAD.0b013e31819e0cac](https://doi.org/10.1097/WAD.0b013e31819e0cac)

In this study, physicians in three states were asked to complete a survey to identify “attitudes, perceived benefits of and barriers to referral to clinical research and physicians use of the internet for medical information (p. 352).” Authors also identified factors that were associated with clinicians referring patients to clinical trials.

Harper, B., & Reuter, S. (2009). Paying fees to referring physicians. Ethical or not ethical? Retrieved from <http://clinicalperformancepartners.com/wp-content/uploads/2012/07/Physician-Referral-Fee-Final-ACRP-Monitor-2009.pdf>

This article discusses the issue of compensating non-investigator physicians for referring patients to research studies, including rationale and ethical considerations. The article also describes the results of a survey that was administered at the 2008 Association of Clinical Research Professionals Global Conference.

Korieth, K. (2016, June). Engaging healthcare providers as research facilitators. Underestimating and under-leveraging HCPs in study volunteer engagement. *The CenterWatch Monthly*, 23(6), 1–5. Retrieved from <https://www.ppd.com/-/media/Files/PPDI-Files/news/PPD-In-The-News/CenterWatch-Monthly-2016-June.ashx>

This five-page report discusses the results of a Tufts Center for the Study of Drug Development (CSDD) study, including the reasons that health care providers do not refer to research studies. The report also notes when physicians and nurses are most likely to refer patients to studies; for example, when they have confidence in the principal investigator or site conducting the study.

Mainous, A. G., Smith, D. W., Geesey, M. E., & Tilley, B. C. (2008). Factors influencing physician-referrals of patients to clinical trials. *Journal of the National Medical Association*, 100(11), 1298–1303. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2787404/pdf/nihms158567.pdf>

This published study conducted a survey of 200 physicians to identify their attitudes and beliefs about patient recruitment into clinical trials and identified clinician characteristics that were associated with referring patients to clinical trials.

Ramirez, A. G., Chalela, P., Suarez, L., Muñoz, E., Pollock, B. H., Weitman, S. D., & Gallion, K. J. (2012). Early phase clinical trials: Referral barriers and promoters among physicians [Webpage]. *Journal of Community Medicine and Health Education*, 2(8). Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3782313/>

This study conducted a survey of oncologists to identify barriers and promoting factors associated with physicians referring patients to early-phase clinical trials.

### **References and Resources: Sources of Referrals and Participants—On-Site Recruitment at Clinical Sites**

Chhatre, S., Jefferson, A., Cook, R., Meeker, C. R., Kim, J. H., Hartz, K. M., . . . Jayadevappa, R. (2018). Patient-centered recruitment and retention for a randomized controlled trial. *Trials*, *19*, 205–216. Retrieved from [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5870194/pdf/13063\\_2018\\_Article\\_2578.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5870194/pdf/13063_2018_Article_2578.pdf)

This published manuscript described a clinical trial that used a patient-centered recruitment and retention conceptual model. The model was informed by the patient-centered outcomes research (PCOR) model and includes four levels of factors that influence participant engagement, recruitment, and retention: patient, physician, hospital, and community. The recruitment processes emphasized the importance of involving clinicians initially and over time to help develop participant trust in the study.

Hale, D. E., Wyatt, S. B., Buka, S., Cherry, D., Cislo, K. K., Dudley, D. J., . . . Robbins, R. M. (2016). The National Children’s Study: Recruitment outcomes using the provider-based recruitment approach. *Pediatrics*, *137*(Supplement 4), S239–S247. Retrieved from [https://pediatrics.aappublications.org/content/pediatrics/137/Supplement\\_4/S239.full.pdf](https://pediatrics.aappublications.org/content/pediatrics/137/Supplement_4/S239.full.pdf)

This published report describes “the experience of the 10 study centers (SCs) taking part in provider-based recruitment (p. S240).” Different strategies were used, including placing brochures and posts in health care provider offices for participant self-referral, several levels of engagement by the care provider, and the presence of on-site study recruiters. Clinic appointment schedules were reviewed to identify potentially eligible participants.

### **References and Resources: Sources of Referrals and Participants—Self-Referrals**

Hale, D. E., Wyatt, S. B., Buka, S., Cherry, D., Cislo, K. K., Dudley, D. J., . . . Robbins, R. M. (2016). The National Children’s Study: Recruitment outcomes using the provider-based recruitment approach. *Pediatrics*, *137*(Supplement 4), S239–S247. Retrieved from [https://pediatrics.aappublications.org/content/pediatrics/137/Supplement\\_4/S239.full.pdf](https://pediatrics.aappublications.org/content/pediatrics/137/Supplement_4/S239.full.pdf)

This published report describes “the experience of the 10 study centers (SCs) taking part in provider-based recruitment (p. S240).” Different strategies were used, including placing brochures and posts in health care provider offices for participant self-referral, several levels of engagement by the care provider, and the presence of on-site study recruiters. Clinic appointment schedules were reviewed to identify potentially eligible participants.

Harvard Catalyst Regulatory Foundations, Ethics, & Law Program. (2017). *The use of social media in recruitment to research: A guide for investigators and IRBs*. Retrieved from [https://catalyst.harvard.edu/pdf/regulatory/Social\\_Media\\_Guidance.pdf](https://catalyst.harvard.edu/pdf/regulatory/Social_Media_Guidance.pdf)

This 22-page document describes the use of social media for recruitment to research and discuss laws and regulations, privacy and trust, managing communications, contrasting active and passive recruitment methods, and other topics.

### **References and Resources: Sources of Referrals or Participants**

*These resources may apply to any of the sources of referrals or participants described in the section.*

Agency for Healthcare Research and Quality. (n.d.). *Participant recruitment for research. Digital Healthcare Research—Archive*. Retrieved from <https://digital.ahrq.gov/ahrq-funded-projects/emerging-lessons/participant-recruitment-research>

This archived webpage discusses the challenges that are often encountered when recruiting participants, the relatively sparse published scientific literature on the effectiveness of recruitment strategies, and the information that was shared at an open forum sponsored by the Agency for Healthcare Research and Quality (AHRQ) National Resource Center. A group from nine funded projects discussed challenges and recruitment strategies. Some of this content is presented.

Note that the information from this webpage is available as a PDF document.

Chhatre, S., Jefferson, A., Cook, R., Meeker, C. R., Kim, J. H., Hartz, K. M., . . . Jayadevappa, R. (2018). Patient-centered recruitment and retention for a randomized controlled trial. *Trials*, 19, 205. Retrieved from [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5870194/pdf/13063\\_2018\\_Article\\_2578.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5870194/pdf/13063_2018_Article_2578.pdf)

This published manuscript described a clinical trial that used a patient-centered recruitment and retention conceptual model. The model was informed by the patient-centered outcomes research (PCOR) model and includes four levels of factors that influence participant engagement, recruitment and retention: patient, physician, hospital, and community.

Close, S., Smaldone, A., Fennoy, I., Reame, N., & Grey, M. (2013). Using information technology and social networking for recruitment of research participants: experience from an exploratory study of pediatric Klinefelter syndrome. *Journal of Medical Internet Research*, 15(3), e48. Doi: 10.2196/jmir.2286.

This 13-page paper describes the use of information technology (IT) strategies with social networking to recruit participants for a study. Participants were 8-year-old to 18-year-old males with Klinefelter syndrome. The recruitment methods discussed included teleconferencing with a support group, use of a Web-based commercial recruitment-matching company, and a research recruitment website with paid advertising on a social networking website.

Fraser, D., Christiansen, B. A., Adsit, R., Baker, T. B., & Fiore, M. C. (2013). Electronic health records as a tool for recruitment of participants' clinical effectiveness research: lessons learned from tobacco cessation. *Transitional Behavioral Medicine*, 3(3), 244–52. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3771013/>

This published paper describes the planning, processes, and lessons learned from a research team that developed an EHR tool to recruit participants for tobacco cessation research. The authors also describe the steps in the recruitment process within the clinic, including the use of a nonburdensome script by the person rooming with the patient, the consent process, and other steps.

Gelinas, L., Pierce, R., Wilkler, S., Cohen, I. G., Fernandez Lynch, H., & Bierer, B. E. (2017). Using social media as a research recruitment tool: Ethical issues and recommendations, *American Journal of Bioethics*, 17(3), 3–14. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5324729/pdf/nihms845256.pdf>

This article briefly reviews the use and effectiveness of social media as a recruitment tool, describes passive and active recruitment, and examines “the conceptual and ethical issues involved with the use of social media in recruitment to research and present a set of practical recommendations for investigators and IRBs” (p. 2).

Huang, G. D., Bull, J., Johnston McKee, K., Mahon, E., Harper, B., Roberts, J. N., & CITI Recruitment Project Team. (2018, March). Clinical trials recruitment planning: A proposed framework from the Clinical Trials Transformation Initiative. *Contemporary Clinical Trials*, 66, 74–79. Retrieved from <https://www.contemporaryclinicaltrials.com/action/showPdf?pii=S1551-7144%2817%2930753-X>.

This published six-page paper discusses recruiting planning for clinical trials. The Clinical Trials Transformation Initiative (CTTI) Recruitment Project Team conducted a literature review,

administered a survey, developing a planning framework and convened a multi-stakeholder group of experts “to describe the barriers and solutions for identifying, engaging, and enrolling patients in trials, and to identify methods and strategies to move recruitment planning upstream in the study development process, thereby facilitating more efficient recruitment (p. 75).” The authors present recommendations for recruitment of participants for clinical trials in Table 1 (p. 77).

Joseph, R. P., Keller, C., & Ainsworth, B. E. (2016). Recruiting participants into pilot trials: Techniques for researchers with shoestring budgets. *California Journal of Health Promotion, 14*(2), 81–89. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5231400/>

This paper discusses strategies for recruiting participants for pilot studies when money and other resources are limited. The authors discuss social networks, collaborations with community gatekeepers, recruitment platforms and venues, recruitment materials, and developing relationships with potential participants.

Kubicek, K., & Robles, M. (2016, November 11). *Resource for integrating community voices into a research study: Community Advisory Board toolkit* (Southern California Clinical and Translational Science Institute grant UL1TR001855). Retrieved from <https://sc-ctsi.org/resources/developing-a-community-advisory-board-for-research-toolkit>

This 32-page research recruitment toolkit discusses setting recruitment goals, roles for community partners, communication, compensation, digital platforms, large clinical trials, and addressing recruitment challenges. The appendices provide examples of recruitment fliers, a template for a study brief, and examples of study summaries.

Lai, Y. S., & Afseth, J. D. (2019). A review of the impact of utilizing electronic medical records for clinical research recruitment. *Clinical Research, 16*(2), 194–202. Retrieved from [https://journals.sagepub.com/doi/abs/10.1177/1740774519829709?rfr\\_dat=cr\\_pub%3Dpubmed&url\\_ver=Z39.88-2003&rfr\\_id=ori%3Arid%3Acrossref.org&journalCode=ctja](https://journals.sagepub.com/doi/abs/10.1177/1740774519829709?rfr_dat=cr_pub%3Dpubmed&url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&journalCode=ctja)

This 10-page paper presents a literature review that examined “the effectiveness and efficiency of the electronic medical record recruitment method (p. 194).” Thirteen articles met eligibility criteria. The authors conclude that using electronic medical records to identify potential participants for clinic trials is both effective and efficient.

Preston, N. J., Farquhar, M. C., Walshe, C. E., Stevinson, C., Ewing, G., Calman, L. A., . . . Todd, C. (2016). Strategies designed to help healthcare professionals to recruit participants to research studies. *Cochrane Database of Systematic Reviews, 2* (Art. No.: MR000036). Retrieved from [https://www.cochrane.org/MR000036/METHOD\\_strategies-designed-help-healthcare-professionals-recruit-participants-research-studies](https://www.cochrane.org/MR000036/METHOD_strategies-designed-help-healthcare-professionals-recruit-participants-research-studies)

This Cochrane Collaboration systematic literature review aimed to assess the effectiveness of strategies aimed at helping health care professionals recruit study participants. Eleven studies met the inclusion criteria. The authors concluded that “the most promising strategies appear to be those with a dedicated resource,” (webpage) such as a clinical recruiter who is specifically responsible for recruiting participants to the study, or use of some type system that alerts the care provider about the potential participant, such as an alert in the electronic health record or an alert provided by a nurse or screening coordinator.

The Michael J. Fox Foundation for Parkinson’s Research. (2011, March 29). *Clinical trials recruitment best practices manual*. Retrieved from [https://files.michaeljfox.org/MJFF\\_Recruitment\\_Best\\_Practices\\_manual.pdf](https://files.michaeljfox.org/MJFF_Recruitment_Best_Practices_manual.pdf)

This 11-page document was “developed by The Michael J. Fox Foundation (MJFF) Clinical Trial Strategies team” (MJFF, p.1). It summarizes tips for recruiting participants for clinical trials and discusses branding, messaging, and materials; talking with potential participants; finding potential participants within the organization; and recruiting participants in the community.

Zimmerman, L. P., Goel, S., Sathar, S., Gladfelter, C. E., Onate, A., Kane, L. L., . . . Kho, A. N. (2018) A novel patient recruitment strategy: patient selection directly from the community through linkage to clinical data applied. *Clinical Informatics*, 9(1), 114-121. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5843765/>

This eight-page research article describes an approach designed by the investigators to recruit study participants from the community. The approach involves identifying potential participants in the community, such as from community events, asking screening questions, using a questionnaire, and then using clinical data from electronic health records.

### **References and Resources: Participant Screening, Eligibility Assessment, and Outreach**

Besen, E., Young, A. E., & Shaw, W. S. (2015). Returning to work following low back pain: Towards a model of individual psychosocial factors. *Journal of Occupational Rehabilitation*, 25(1), 25–27. doi: 10.1007/s10926-014-9522-9.

This 13-page published study describes the development and testing of a “model of direct and indirect relationships among psychosocial predictors of RTW outcomes following the onset of low back pain (p. 25). The model and testing of it used “aspects of the ABC Model, the fear-avoidance model, and the Theory of Planned Behavior (p. 32).” The authors concluded that “Results suggest that if injured workers are struggling with fear avoidance, pain catastrophizing and confidence issues, they might benefit from the application of cognitive behavioral therapy techniques (p. 25).”



Greiner, K. A., Friedman, D. B., Adams, S. A., Gwede, C. K., Cupertino, P., Engelman, K. K., Meade, C. D., & Hebert, J. R. (2014). Effective recruitment strategies and community-based participatory research: Community Networks Program Centers' recruitment in cancer prevention studies. *Cancer Epidemiology, Biomarkers and Prevention*, 23(3), 416–423. doi: [10.1158/1055-9965.EPI-13-0760](https://doi.org/10.1158/1055-9965.EPI-13-0760). PMID: PMC3971731

This 14-page paper describes five cancer screening and prevention trails that used community-based participatory research (CBPR) approaches in three states, targeting diverse populations. The recruitment strategies used by the centers “were associated with low refusal and high enrollment ratios of potential subjects (p. 416).”

Hibbard, J. H., Mahoney, E. R., Stock, R., & Tusler, M. (2007). Self-management and health care utilization. Do increases in patient activation result in improved self-management behaviors? *Health Services Research*, 42(4), 1443–1463

This paper presents a study that assesses whether patient activation changes or can be changed and whether changes to activation are associated with changes in health behaviors. The authors conclude that “Results suggest that if activation is increased, a variety of improved behaviors will follow (p. 1443).”

Hibbard, J. H., Stockard, J., Mahoney, E. R., & Tusler, M. (2004). Development of the patient activation measure (PAM): Conceptualizing and measuring activation in patients and consumers. *Health Services Research*, 39(4), 1004–1026.

This paper describes the development and validation of the patient activation measure. It presents the domains and the questions that were tested.

Hopkins, M., (2018, November 9). *A new alternative to the pain scale* (Website). Retrieved from <https://www.concentra.com/resource-center/articles/a-new-alternative-to-the-pain-scale/>

This website describes Concentra's® alternative to the traditional pain scale, called the FReSH scale, which stands for Functional Restoration/Status of Healing. Concentra reports positive results from using this scale in lieu of the traditional pain scale.

Schultz, I. Z., Crook, J., Meloche, G. R., Berkowitz, J., Milner, R., Zuberbier, O. A., & Meloche, W. (2004). Psychosocial factors predictive of occupational low back disability: towards development of a return-to-work model. *Pain*, 107(1–2), 77–85.

The study described in this nine-page paper aimed to “validate a multivariate predictive model that identified injured workers at heightened risk of occupational low back pain disability (p.

78).” The authors studied multiple factors and reported on “individual and workplace-related psychologic factors (p. 78).”

Shaw, W. S., Reme, S. E., Pransky, G., Woiszwilllo, M. J., Steenstra, I. A., & Linton, S. J. (2013). The pain recovery inventory of concerns and expectations. A psychosocial screening instrument to identify intervention needs among patients at elevated risk of back disability. *Journal of Occupational and Environmental Medicine*, 55(8), 885–894.

This 10-page paper describes a study aimed at reducing the number of questions included in a low back pain psychosocial screening questionnaire, the Pain Recovery Inventory of Concerns and Expectations (PRICE) measure.

### **References and Resources: Participant Recruitment and Enrollment**

Greiner, K. A., Friedman, D. B., Adams, S. A., Gwede, C. K., Cupertino, P., Engelman, K. K., Meade, C. D., & Hebert, J. R. (2014). Effective recruitment strategies and community-based participatory research: Community Networks Program Centers’ recruitment in cancer prevention studies. *Cancer Epidemiology, Biomarkers and Prevention*, 23(3), 416–423. doi: [10.1158/1055-9965.EPI-13-0760](https://doi.org/10.1158/1055-9965.EPI-13-0760) PMID: PMC3971731

This 14-page paper describes five cancer screening and prevention trails that used CBPR approaches in three states, targeting diverse populations. The recruitment strategies used by the centers “were associated with low refusal and high enrollment ratios of potential subjects (p. 416).”

Goldman, V., Dushkin, A., Wexler, D. J., Chang, Y., Porneala, B., Bissett, L., . . . Delahanty, L. M. (2019). Effective recruitment for practice-based research: Lessons from the REALHEALTH-Diabetes Study. *Contemporary Clinical Trials*, 15, 100374. Retrieved from <https://reader.elsevier.com/reader/sd/pii/S2451865418301662?token=C80B78FE71B6AFA25E2A8A0E07625C407A53DC570CF8CD1A54D44699A81857E0F93344D76872AFF11E39DEAA84A00C9B>

This six-page paper describes four recruitment strategies from a diabetes trial, including: mail and telephone outreach, direct referrals from providers, holding orientation sessions with potential participants in the clinical setting, and using media and advertising.

## **References and Resources: Engaging Patient or Worker Stakeholders in Recruitment and Enrollment Planning**

Community Tool Box. (2019). *Chapter 3. Section 6. Conducting focus groups*. Center for Community Health and Development, University of Kansas. Retrieved from <https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/conduct-focus-groups/main>

This resource describes what focus groups are, when to use them, and how to conduct them.

Agency for Healthcare Research and Quality. (2011, November). Step 2: Form an advisory group. Retrieved from <https://www.ahrq.gov/cahps/surveys-guidance/helpful-resources/planning/Form-an-Advisory-Group.html>

This website provides tips for developing an advisory group, including regarding membership, roles, formulation of the group, meeting schedules, and logistics.

Agency for Healthcare Research and Quality. (2014, July). Step 3: Build the stakeholder group structure. Retrieved from <https://www.ahrq.gov/policymakers/chipra/demoeval/what-we-learned/implementation-guides/implementation-guide1/impguide1step3.html>

This webpage describes the major tasks or steps in building a stakeholder group structure.

Ministry of Health. (n.d.). Guidelines for pretesting and evaluating communication materials. Retrieved from <https://www.nac.org.zm/sites/default/files/publications/Guidelines%20for%20pretesting%20and%20evaluating%20communication%20materials%20.pdf>

This nine-page document provides specific guidance on how to pretest health communication materials and evaluate communication materials. It includes a pretesting observation guide, assessment criteria, and other concrete tips.

O’Keefe, D. J. (2018). Message pretesting using assessments of expected or perceived persuasiveness: Evidence about diagnosticity of relative actual persuasiveness. *Journal of Communication*, 68, 120–142.

This 23-page article summarizes research related to pretesting of messages or message concepts. It assesses “whether such pretest data are dependably diagnostic of differences in actual message persuasiveness (p. 121).

### **References and Resources: Participant Retention**

Zweben, A., Fucito, L. M., & O'Malley, S. S. (2009). Effective strategies for maintaining research participation in clinical trials. *Drug Information Journal*, 43(4), 10.1177/009286150904300411. Retrieved from

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3848036/pdf/nihms527870.pdf>

This 11-page article describes strategies for retaining participants in clinical trials. Table 1, on page lists various retention strategies, stratified based on level of risk for project non-adherence.

### **References and Resources: Participant Retention Incentives**

Iowa State University Institutional Review Board. (2016). *Recruitment of research participants*. Retrieved from

<https://www.compliance.iastate.edu/sites/default/files/imported/irb/guide/docs/Recruitment%20of%20Research%20Participants.pdf>

This eight-page document, developed by one university's IRB, provides an overview of the ethical considerations when recruiting study participants. Topics include privacy, lack of undue pressure or undue influence, accurate and unbiased study descriptions, who may be recruited, content of recruitment materials, and special issues in recruitment such as social media and recruitment of vulnerable populations. The issue of avoiding undue inducements is mentioned.

Parkinson, B., Meacock, R., Sutton, M., Fichera, E., Mills, N., Shorter, G., W., . . . Bower P.

(2019). Designing and using incentives to support recruitment and retention in clinical trials: a scoping review and a checklist for design. *Trials*, 20 (Article 624). Retrieved from <https://trialsjournal.biomedcentral.com/track/pdf/10.1186/s13063-019-3710-z>

This 14-page scoping review summarizes literature about the use of incentives for research, pay-for-performance, and health behavior changes. The authors synthesized the evidence and made recommendations for use of incentives in different contexts.

Singer, E., (2012, October). *The use and effects of incentives in surveys*. Presentation prepared for the National Science Foundation, Washington, DC. Retrieved from [https://iriss.stanford.edu/sites/g/files/sbiybi6196/f/singer\\_slides.pdf](https://iriss.stanford.edu/sites/g/files/sbiybi6196/f/singer_slides.pdf)

This set of 23 slides describes the use of incentives, why people respond to surveys, effects of incentives on response rates and sample composition, and points out the importance of pretesting incentives to determine what type of incentive may be appealing to certain target populations.

### **References and Resources: Use of Information Technology to Support Recruitment**

Phillippi, J. C., Doersam, J. K., Neal, J. L., & Roumie, C. L. (2018). Electronic informed consent to facilitate recruitment of pregnant women into research. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 47(4), 529–534. Retrieved from [https://www.jognn.org/article/S0884-2175\(18\)30199-0/pdf](https://www.jognn.org/article/S0884-2175(18)30199-0/pdf)

This study “evaluated the feasibility and utility of e-consent in the first year of a multiyear clinical trial involving pregnant women (p. 529).”



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