ADVANCING ARTHRITIS PUBLIC HEALTH PRIORITIES THROUGH NATIONAL ORGANIZATIONS (CDC-RFA-DP21-2106)

Arthritis Advisory Panel

Tuesday, September 12, 2023, 10:00-11:30 A.M. ET

NATIONAL ASSOCIATION OF CHRONIC DISEASE DIRECTORS

Promoting Health. Preventing Disease.

Funding Attribution

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Arthritis Care Model Design Partners

Hospital for Special Surgery/ USBJI	Johns Hopkins Arthritis Center	Intermountain Healthcare	Torrance Memorial Medical Center & Harbor-UCLA Medical Center	Vigeo Orthopedics, LLC.	Orcinus Health Solutions	UT Southwestern Medical Center
Iowa State University	AgeSpan	New Hampshire Department of Health and Human Services	American Physical Therapy Association	Arthritis Foundation	Osteoarthritis Action Alliance	Exercise is Medicine®
Massachusetts Department of Public Health	American College of Rheumatology	National Recreation and Park Association	Administration for Community Living	YMCA of the USA	Freedmen's Health	Humana
	Centers for Disease Control and Prevention	National Association of Chronic Disease Directors	Dartmouth College, Center for Program Design and Evaluation at Dartmouth (CPDE)	Comagine Health	Leavitt Partners	

Design Sessions

1. May 9 **Screening Arthritis Pt's for QoL**
2. May 23 **Brief Advice / Counseling**
3. June 13 **Referral**
4. June 27 **Care Coordination**
5. July 11 **Reimbursement and Beyond**
6. July 25 Design Recap/ **Evaluation**

Expert Panel on 8/9

- Health System Selection Criteria
  - Reimbursement & Incentive Debrief
- State Criteria to host pilot

Expert Panel on 9/12

- Final Evaluation Framework (Dartmouth)
- Evaluation & Wrap-up

Agenda

- Welcome and Agenda Review
- Final Evaluation Framework
- Arthritis Model Diagram
- Next Steps on Health System Pilot
- Thank you and Evaluation of Process

Arthritis Care Model

Aim 1: Evidence-Informed Arthritis Care Model

Develop and implement an evidence-informed arthritis care model to conduct function, pain, and physical activity screenings; patient counseling on the benefits of physical activity; and referrals to arthritis-appropriate physical activity and self-management programs and other evidence based "treatments."

Aim 2: Demonstrate / Pilot

Pilot the arthritis care model in a healthcare system that serves diverse populations; demonstrate clinical outcomes and total cost of care savings; and reimbursement pathways and incentives for provider screening, counseling, and referral.

Aim 3: Scale & Spread

Disseminate learnings on a national level and enhance healthcare provider awareness, knowledge, and skills to promote physical activity as an effective, drug-free way to relieve arthritis pain, improve function, and limit arthritis progression among adults with arthritis.

Final Evaluation Framework

Karen Schifferdecker, PhD, MPH and Kathy Carluzo, MS

The Dartmouth Institute for Health Policy and Clinical Practice

Center for Program Design & Evaluation

CPDE | Dartmouth College

Arthritis Care Model Evaluation Framework

September 12, 2023

Karen Schifferdecker, PhD, MPH
Kathleen Carluzzo, MS

Abbreviations

- AAEBI is Arthritis-appropriate Evidence-based Intervention
- AWV is Annual Wellness Visit
- CBO is Community-Based Organization (or Community Hub)
- EHR is Electronic Health Record
- HRQOL is Health-related Quality of Life
- LPA is Light Physical Activity
- MVPA is Moderate to Vigorous Physical Activity
- PA is Physical Activity
- PAVS is Physical Activity Vital Sign
- PROMIS is the Patient Reported Outcome Measurement Information System

Project Aims

1. Improve PA and HRQOL of adults with OA-K/H	**Patients**
2. Patients who are screened, counseled, and who are referred to and participate in PT/AAEBIs are representative of the practice's eligible population	
3. Implementing the Arthritis Care Model is acceptable/ feasible/incentivized for the primary care team	**Providers/ Practices**
4. Referral to and implementation of AAEBIs is acceptable/feasible/incentivized for the community-based partner(s)/Hub	
5. Implementing screening, counseling, and AAEBI referrals provides revenue return on investment (ROI) for practice(s) and cost savings	**System**

Proposed pathway (Version: May 23)

For patients age ≥18…

Screening → Brief Advice/ Counseling → Referral to PA / EBI → Care Coordination → Bi-directional Feedback

All patients (Universal Prevention for Patient Vital Signs)

No OA

Every Visit

PAVS +(intensity) Muscle strengthening

Assess Readiness for Change, Risks, & Provides Brief Advice

Prescribe PA & Refer to Community Programs

Coaching to support patient

Update on Patient Progress

Patients w/ Diagnosis of OA Knee /Hip

Yes OA

1. Annual Physical
2. Medicare AWV
3. Knee/hip joint pain visit

+PROMIS

+ modifications for OA

+Triage based on OA severity

Chief Complaint of Knees/Hips Pain & Function Limitation (no diagnosis)

Knee/hip joint pain visit

+PROMIS +Clinical Diagnosis

Evaluation framework primarily focuses here

Definitions

- Pilot evaluation period: 12-mo period that commences (e.g., upon day 1 of pilot implementation) – referred to here at “pilot period”
- Pilot site: eligible clinics/locations at the health system selected to pilot the arthritis care model
- Eligible visit (baseline): Annual Physical, Medicare AWV, Knee/hip joint pain visit during the pilot period
- Eligible patient: Patients seen at an eligible visit at the pilot site who meet eligibility criteria during the pilot period
- Eligibility criteria: set of criteria (TBD)* that determine whether a patient is eligible for *each component* of the intervention (screening, counseling, referral)
- Numerator: Note, this is always a subset of the denominator
- Denominator: Total number of eligible patients with OA-K/H with an eligible visit at site during pilot period

Mixed Methods Evaluation Design

Quantitative – RE-AIM Framework

- Clinical/EHR data and QI tools (e.g., run charts)
- Billing code usage
- Surveys
- Tracking (e.g., participation)

Qualitative – CFIR Framework (*select domains*)

- Document review (e.g., meeting notes)
- Semi-structured Interviews and/or Focus Groups
  - Qual methods will focus on implementation factors that influence fidelity, facilitators, and barriers

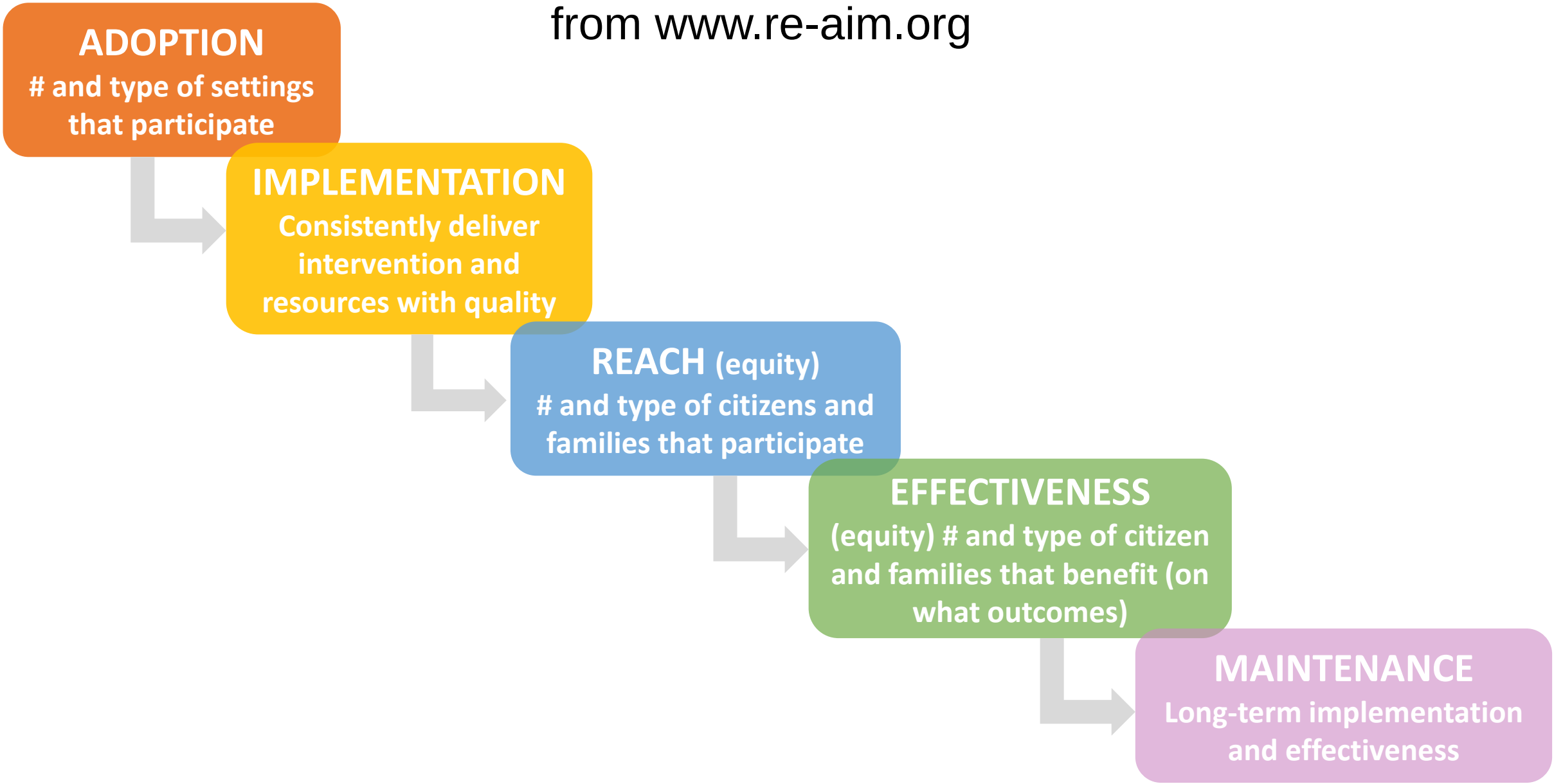
RE-AIM Framework

Domain	Description
REACH	Number, proportion, and representativeness of individuals willing to participate in the intervention; reasons why or why not.
EFFECTIVENESS	Impact of an intervention on key individual outcomes, including potential negative effects, and broader impact including QOL and economic outcomes; and variability across subgroups
ADOPTION	Number, proportion, and representativeness of settings and intervention agents (who deliver the program) willing to initiate a program, and why.
IMPLEMENTATION	Fidelity to intervention's key components (consistency of delivery, time and cost of implementation, adaptations, implementation strategies)
MAINTENANCE	*Setting*: Extent to which program becomes institutionalized / routine *Individual*: Long-term effects of program on outcomes post-program

*Adapted from Holtrop et al 2021 and Glasgow & Estabrooks 2018

RE-AIM Outcomes Cascade

from www.re-aim.org



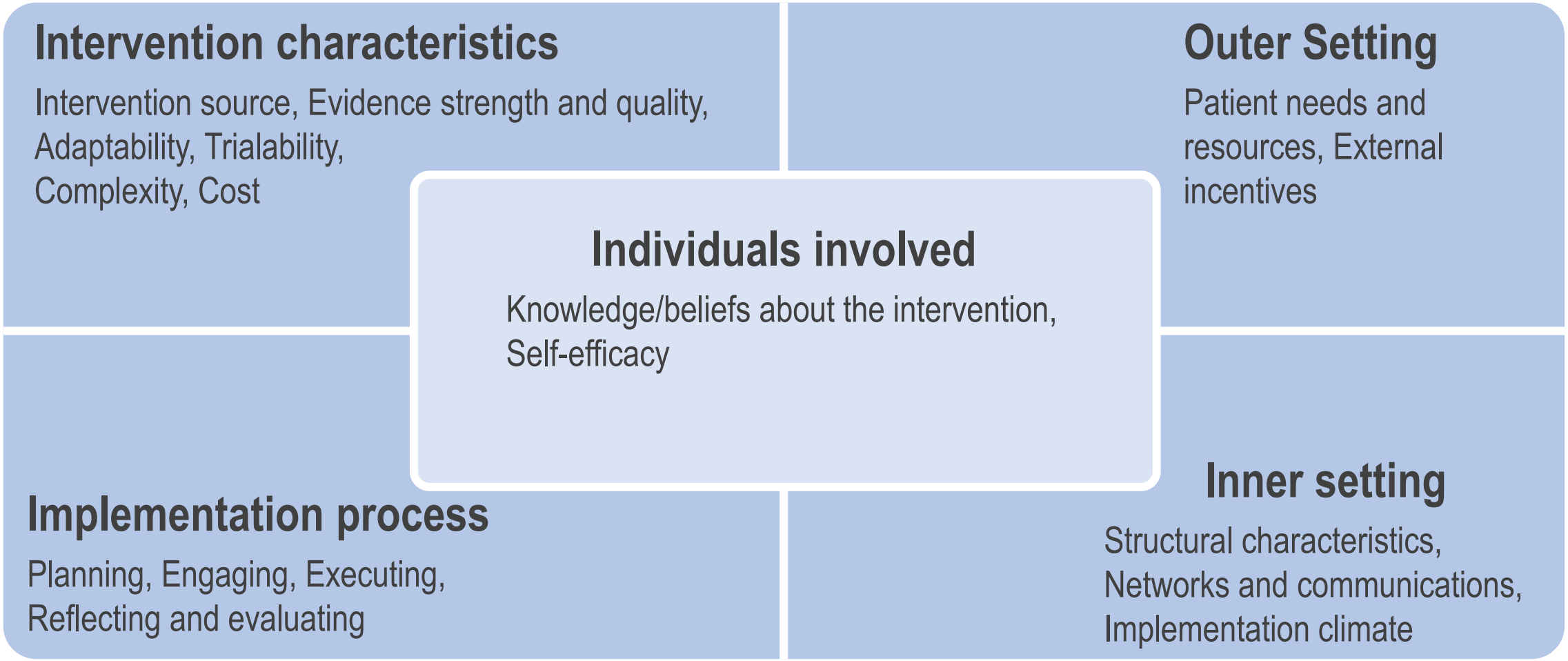
Aims Evaluation using RE-AIM

Aims	R REACH	E EFFECTIVE.	A ADOPTION	I IMPLEMENT.	M MAINT.
1. Overarching: Improve HRQOL of adults with OA-K/H	X	X			X
2. Patients who are screened, and who are referred to and participate in PT/AAEBIs are representative of the practice's eligible population	X			X	
3. Implementing the Arthritis Care Model is acceptable/ feasible/incentivized for the primary care team	X		X	X	X
4. Referral to and implementation of the AAEBI is acceptable/feasible/incentivized for the community-based partner(s)/Hub			X	X	X
5. Implementing screening and AAEBI referrals provides revenue return on investment (ROI) for practice(s)		X		X	X

Consolidated Framework for Implementation Research (CFIR)

Damschroder et al, 2009

Selected domains from the Consolidated Framework for Implementation Research (CFIR)



Damschroder et al, 2009

CFIR – Example domains to explore

Complexity

How 'easy' is it to implement the arthritis care model into current work flows?

Knowledge/beliefs about the intervention

How much do the medical assistants believe that screening for physical activity is important?

Structural characteristics

Does the practice already collect PROs prior to visits?

Executing

Are all relevant team members involved in implementing the arthritis care model?

Patient needs and resources

How many patients in the practice have hip/knee OA? Do they have access to places or spaces to participate in or carry out AAEBIs?

Data Sources- triangulation and summaries by Dartmouth

Data Source	Responsible for collection
Quantitative	
EHR (PROs, pt. demos, referrals)*	Clinic/IT staff
QI run charts: screening, counseling, referrals	NACDD
Health care team surveys	Dartmouth
AAEBI enrollment / participation*	Hub/Community-based partner
Billing code usage change(?)*	Clinic admin staff
Qualitative	
Patient interviews	Dartmouth
Provider/staff interviews or FGs	Dartmouth
Implementation meeting notes (e.g., with sites, hub, etc)	Dartmouth

Primary measure: physical activity

PAVS + intensity + muscle strengthening

Use to screen <u>all patients</u> (age ≥18) at <u>all visits</u>; <30 sec to complete

Physical Activity Vital Sign (PAVS) – formerly, "Exercise Vital Sign"

1. On average, how many days per week do you engage in physical activity?
   ___ days
2. On average, how many minutes do you engage in physical activity at this level?
   ___ minutes
3. Rate the intensity of your weekly physical activity:
   light (casual walk); moderate (brisk walk), vigorous physical activity (jog)?

Calculation #1 x #2 = Minutes/week light or mod/vig.; (National guideline = 150 min/week MVPA)

4. How many days a week do you perform muscle strengthening exercises, such as bodyweight exercises or resistance training? ___ days

Primary measures: HRQOL

Physical Function (PROMIS, 4 items)

Response options (5): Without any difficulty (5) → Unable to do (1)

In the past 7 days, are you able to…

- Do chores such as vacuuming or yard work?
- Go up and down stairs at a normal pace?
- Go for a walk of at least 15 minutes?
- Run errands and shop?

Calculation: Raw score is the sum of all 4 items, can be converted to t-scores. Impairment is rated as: Within Normal Limits (18-20), Mild (15-17), Moderate (7-14), or Severe (4-6)

Pain Interference (PROMIS, 4 items)

Response options (5): Not at all (1) → Very much (5)

In the past 7 days… How much did pain interfere with

- Your day-to-day activities?
- Work around the home?
- Your ability to participate in social activities?
- Your household chores?

Calculation: Raw score is the sum of all 4 items, can be converted to t-scores. Symptoms are rated as: Within Normal Limits (4-7), Mild (8-11), Moderate (12-18), or Severe (19-20)

Primary measures: ROI and cost

Relevant billing code(s) use

Numerator: Total number of eligible patients for whom intervention-related billing codes are used

Denominator: Total number of eligible patients with OA-K/H with an eligible visit at site during pilot period

Falls reduction

Explore: patient self-report vs. available clinic data on patients

Data Collection

(estimate 18 months, 2024-26)

Ongoing	PAVS + intensity, Strengthening, PROs, Falls (baseline, post – timing TBD)
Monthly	Screening, Counseling, Referral, AAEBI counts Participation tracking (PT, AAEBIs)
1-2 times	Interviews or Focus Groups Billing code usage review (baseline, post)

Detailed Evaluation Plan

Aim	Measure/Source	Method	Timing/ Frequency
Increase screening/ counseling/referral	Proportion of eligible patients screened, counseled, referred per EHR data	Run charts	Monthly

Detailed Evaluation Plan

Aim	Measure/Source	Method	Timing/ Frequency
Implementing the Arthritis Care Model is acceptable/feasible/ incentivized for the primary care team	Primary Care team	Interviews or focus group	1-2 times during pilot period
	Primary Care team	Survey (brief)	1-2 times during pilot period
	Meeting notes	Review	Monthly

Detailed Evaluation Plan

Aim	Measure/Source	Method	Timing/ Frequency
Referral to and implementation of AAEBIs is acceptable/ feasible for the community-based partner/Hub	Hub leader or referral lead	Interview	1 time during pilot period
	Meeting notes	Review	Monthly
	Proportion of pilot practice referrals received per practice referral data and Hub data	Summary comparison	1-2 times during pilot period

Detailed Evaluation Plan

Aim	Measure/Source	Method	Timing/ Frequency
Patients who are screened, counseled, and referred are representative of the practice's eligible population	Proportion of eligible patients in selected demographic characteristics per EHR data	Summary comparison	1 time during pilot period
Patients who participate in PT/AAEBIs are representative of the practice's eligible population	Proportion of referred patients in selected demographic characteristics per Hub data	Summary comparison	1 time during pilot period

Detailed Evaluation Plan

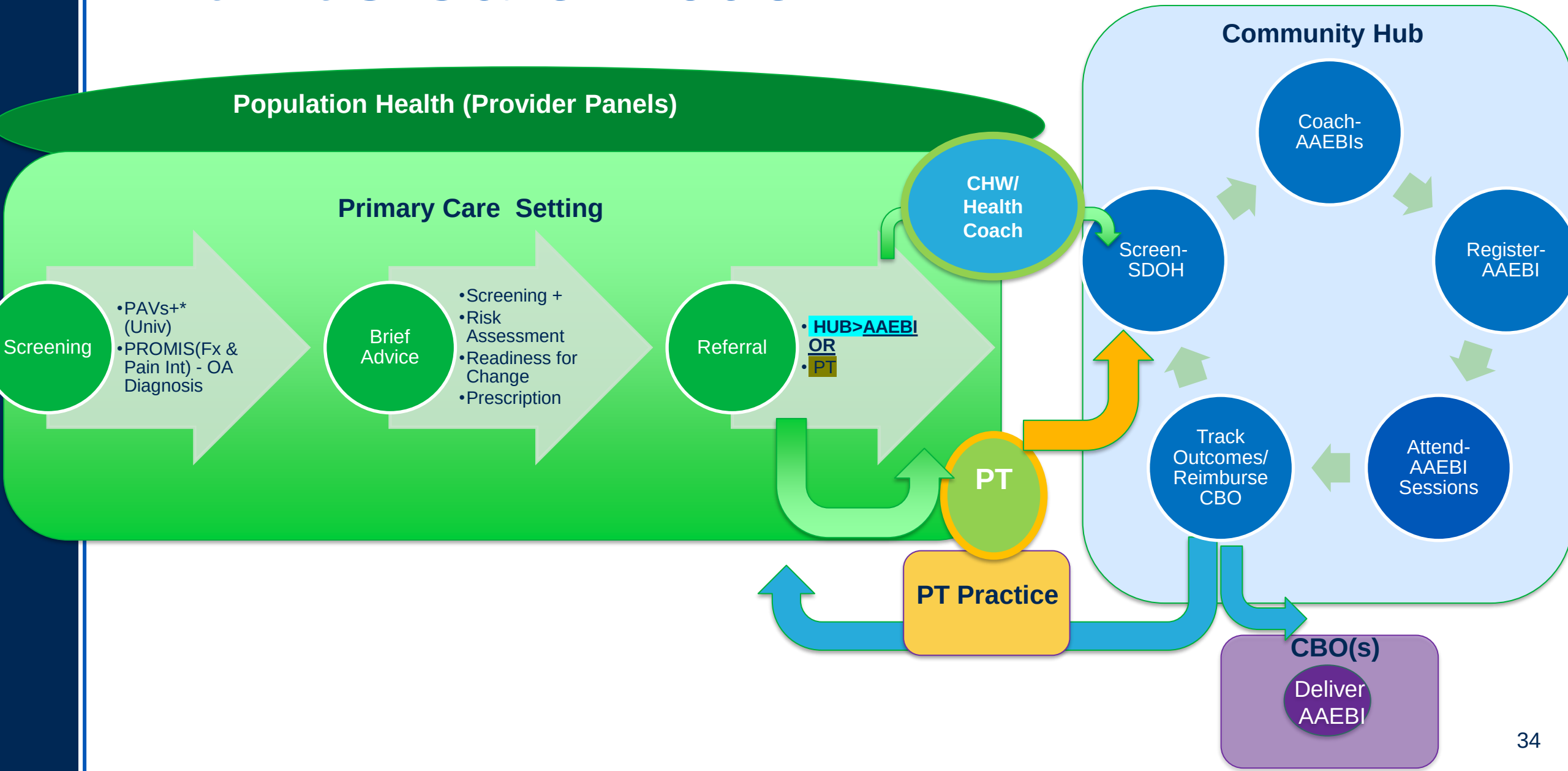
Aim	Measure/Source	Method	Timing/ Frequency
Improve PA and HRQOL of adults with OA-K/H	Proportion of referred patients who enroll/ complete AAEBI or PT per Hub or EHR data	Summary comparison	1-2 times during pilot period
	Improved PAVS and PROMIS through EHR data (individual-level)	Baseline and post referral assessments	Data collection ongoing; summary analyses 2-3x per pilot period

Detailed Evaluation Plan

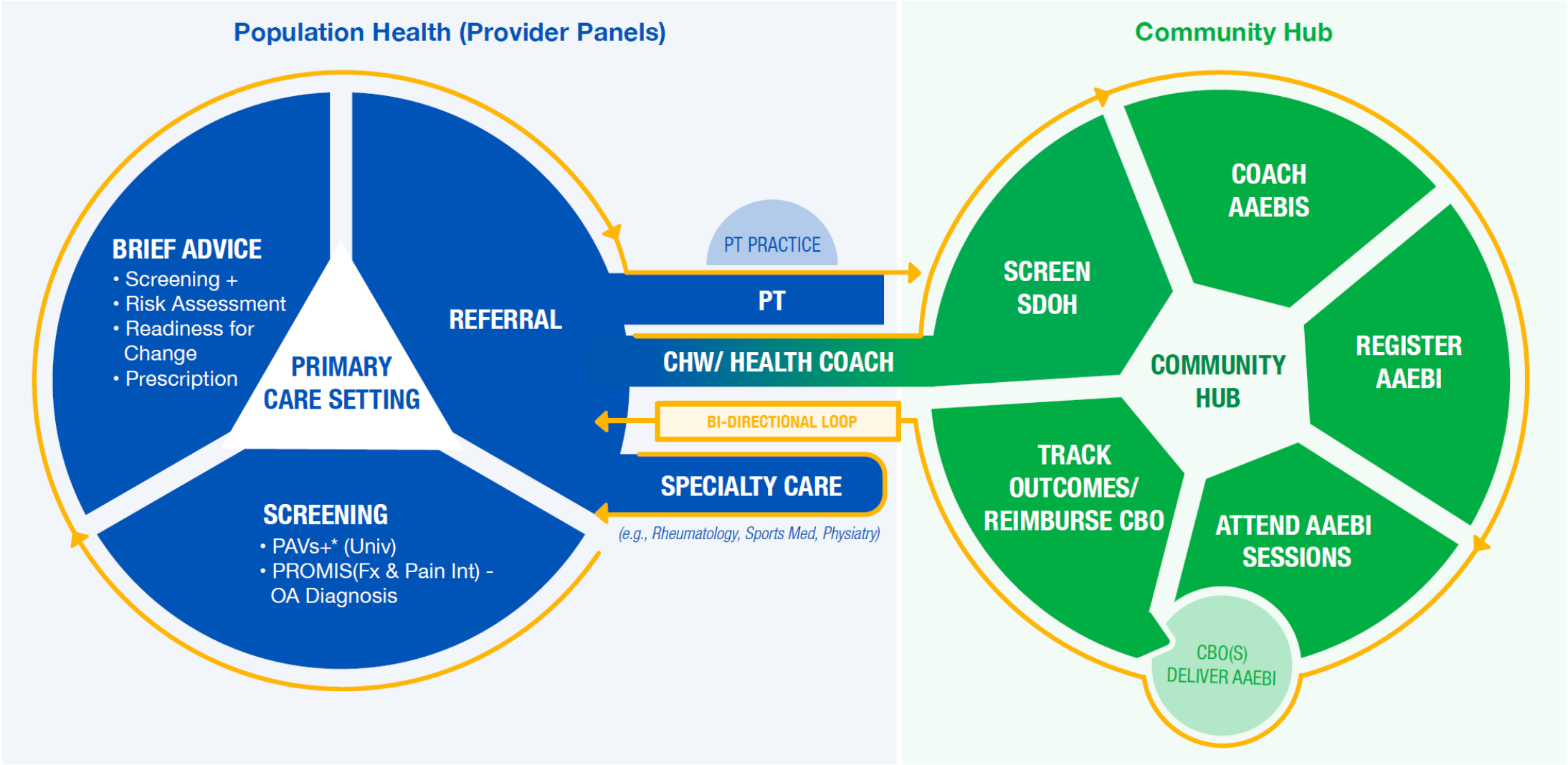
Aim	Measure/Source	Method	Timing/ Frequency
Implementing screening, counseling, and AAEBI referrals provides revenue return on investment (ROI) for practice and cost savings	Proportion of qualifying visits that use intervention-related billing codes (TBD)	Summary analysis	1 time during pilot period
	Falls data through EHR (individual-level)	Baseline and post referral assessments	Data collection ongoing; summary analysis 1x

Arthritis Model Diagram

Arthritis Care Model



Arthritis Care Model



Next Steps on Health System Pilot Selection

Selection Process, Steps & Timeline:

- **Sept 7, 2023 - Solicitation sent to CDC & ACL Grantee Recipients**
- **Sept 14, 2023 - 12:30-1:30 pm ET -** There will be an informational session to address any questions.
- **By Oct 13, 2023 -** Entity to submit brief application electronically
- **By Oct 31, 2023 -** Informational Interviews of Entities to clarify entity and healthcare system capabilities and capacities.
- **By Nov 17, 2023 -** Selection and notification of Entity/Health System Pilot for demonstration pilot.

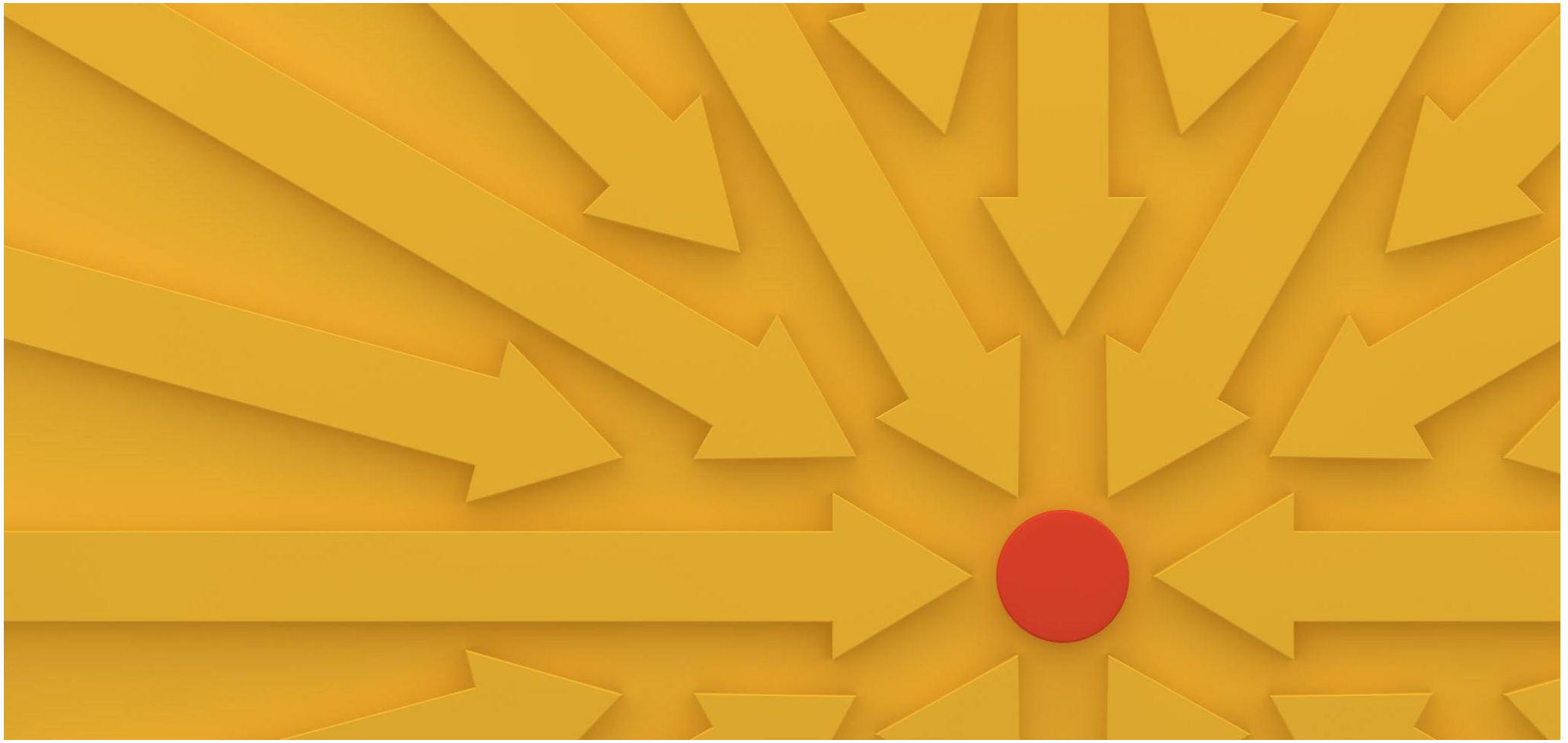
Eligibility Criteria - Entity

1. **Current AAEBI capacity with the ability to add capacity for the health system pilot as necessary (e.g., patient volume, demographics, and severity of osteoarthritis).**
    a. At minimum entity must offer at least 2 Physical Activity & 1 Self-Management Education AAEBI to allow for shared decision making; at least one AAEBI, but not all, should be offered remotely.
2. **Internal capacity to sustain health system pilot through September 2025 and is seeking strategies for sustainment beyond 2025.**
3. **Partnerships with Community Care Hubs, as defined by the Partnership to Align Social Care** (https://www.partnership2asc.org/).
    a. In collaboration with the Community Care Hub(s), the entity will ensure the following:
        1) Social Determinants of Health (SDOH) Screening
        2) Individual-level coaching and counseling for AAEBI selection
        3) Ability to track participation and outcomes in evidence-based interventions
        4) Sustainable reimbursement pathways for AAEBI/health system
    b. In partnership with the community care hub(s), leverages community health technology enablers (e.g., AAEBI locator, social care plan, billing, workshop management, bi-directional referral)
4. **Entity will ensure health system can collect and share key data according to data standards to be provided, including ability to:**
    a. Collect and report screening, counseling, and referral data
    b. Collect and utilize patient reported outcome data

Eligibility Criteria – Health System

1. **Signed agreement with entity**
2. **Serves diverse, Medicare/Medicaid Populations**
    a. Ability to work with entity to gather and share diversity and payer mix data.
3. **Ability to dedicate the appropriate program infrastructure and leadership including:**
    a. Executive Sponsor
    b. Physician Champion
    c. Project Leader
4. **Integration of key data elements into EHR and share key data according to data standards to be provided, including ability to:**
    a. Collect and report screening, counseling, and referral data
    b. Collect and utilize patient reported outcome data
5. **Participation in monthly Quality Improvement team meetings with appropriate resources allocated.**
6. **Maximize payment arrangement(s) that are geared toward value and prevention.**
7. **Alignment of provider incentives. (encouraged)**
8. **Capability to send and receive referral information with social care entities (e.g., Community Care Hubs) and will ensure the platforms are used for this effort.**

Evaluation of Process



Thank you!