Session 1: Building Empathy and Creating Context Summary

OBJECTIVE: The overall objective of this session is to set the focus, align expectations, ensure the Advisory Panel members have a shared understanding of the problem and environment, create empathy for the individuals of focus, and begin to brainstorm potential stakeholder involvement.

TIME: Tuesday, January 10, 2023, 10:00am – 12:00pm ET

RECORDING LINKS:
- Group discussion
- Workgroup 1
- Workgroup 2
- Workgroup 3

MIRO BOARDS:
- Context Canvas (link)
- Empathy Maps & Stakeholder Framework (Group 1 link, Group 2 link, Group 3 link)

Overall Summary

The first human-centered design session focused on aligning on the context and vision, building empathy, and brainstorming the different stakeholders that could increase the role of physical activity for patients with arthritis. Activities included reviewing the context canvas and vision, empathy mapping, and stakeholder mapping, the Advisory Panel was introduced to human-centered design, the rules of brainstorming, and the Miro platform in order to set the stage for this and future sessions.

During the Context Canvas activity, the Advisory Panel members discussed the addition of Health-Related Quality of Life Outcomes (HRQOL) to the vision statement to emphasize not only the importance of physical activity-based interventions, but the impact of symptom or weight management on lifestyle change behaviors. The members also recommended identifying a way to include prevention efforts within the vision statement, suggesting replacing the word "patient" with "adults with or at risk for arthritis."

The Advisory Panel members later broke into three groups to engage in an empathy mapping activity to see through the lens of the patient and to better understand the patient experience. Key themes that came out of the empathy mapping activity included:

- The need for extensive communication with the patient
- Engaging in person-centered care
- Considering social determinants of health when developing a care management plan
- Understanding that patients may experience embarrassment due to low mobility or pain

Continuing into the stakeholder mapping activity, the three groups of Advisory Panel members created an exhaustive list of possible stakeholders that could support patients with arthritis and later categorized them by their perceived ability to be integrated in the care team and their potential impact on behavior change. The groups discussed high impact stakeholders such as health coaches, close contact relationships (e.g., family, friends, or caregivers), and the potential impact of community organizations if leveraged appropriately. Two-way communication with primary healthcare providers is a key factor in integration considerations and will influence decisions between a medical model and a community population health model. The groups also considered that some organizations and individuals may be more difficult to integrate as stakeholders due to either large scale or fragmented training and coordination needs.

Key Themes

- Care plans for adults with or at risk for arthritis should center on patient-driven outcomes. Clinicians should understand patient goals and develop a care plan (and care team) to meet their goals, not shuttle them through a pre-determined care journey.
- Treating arthritis patients shouldn't be a set plan, but should be an iterative process that aligns with the patient's goals and pivots when treatments aren't working for patients. If a proposed care plan doesn't work for a patient after a few weeks, then that flexible care model should adapt and try a different approach.
- There is an opportunity to address how different kind of physical activity could benefit individuals. For some, it may be addressing how to incorporate more movement into their daily life. For others, it might be addressing how weight training, rather than cardio exercise, can improve strength and reduce pain.
- High impact stakeholders include health coaches, close contact relationships, and community organizations.
- When integrating stakeholders, consideration should be given to the ability to communicate and the ability to train/organize.

Context Canvas

The goal of the Context Canvas was to get Advisory Panel members on the same page, while channeling creativity and various perspectives, expertise, and experience.

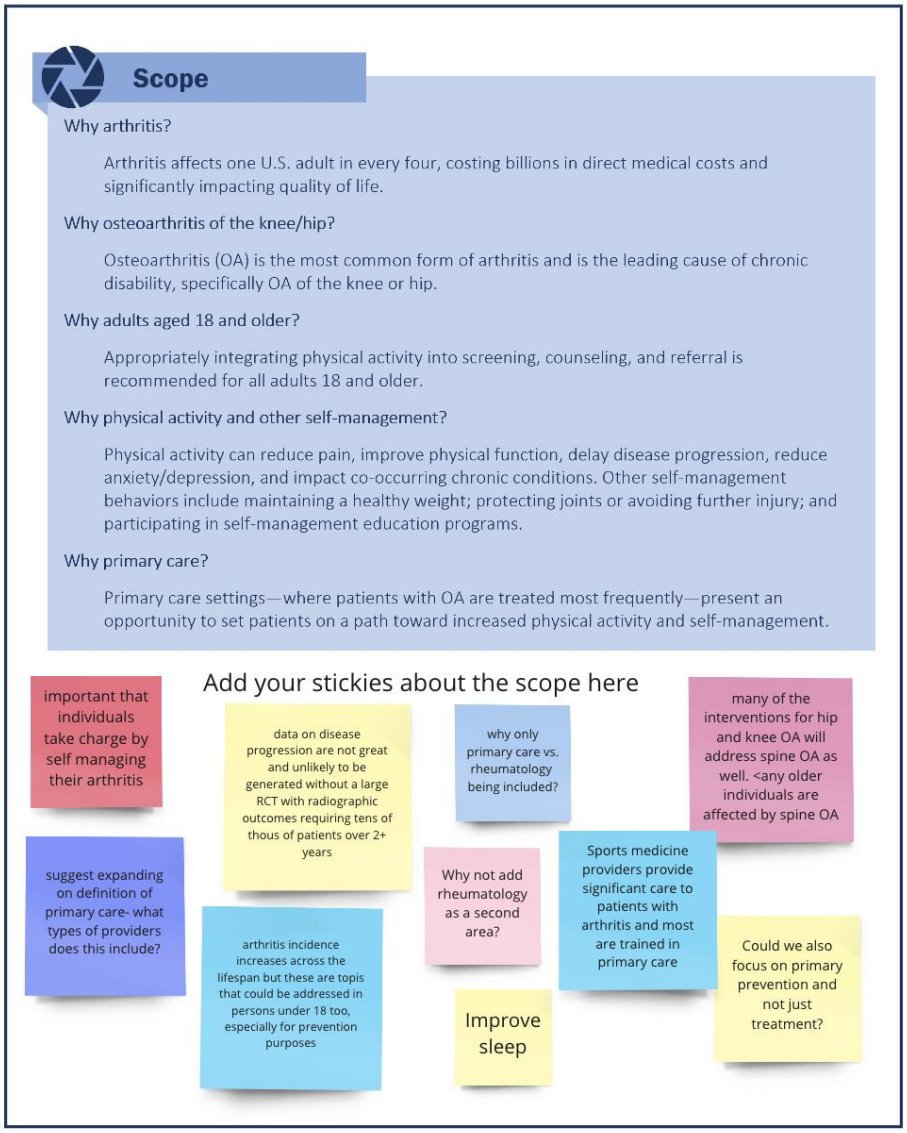
Vision

Advisory Panel members appreciated certain components of the vision statement, such as the inclusion of shared decision-making. Some members questioned whether the word "patient" in the vision statement could be replaced with language like "adults with or at risk for arthritis," explaining that this could also incorporate people who are not yet diagnosed with arthritis or make the vision statement broad enough to capture prevention efforts. Multiple Advisory Panel members suggested adding health-related quality of life to the vision statement and the scope, citing that though relieving pain and limiting arthritis progression are important, individuals are motivated by their overall quality of life as well. Other comments from the discussion on the vision statement are shown below.

Scope

Some Advisory Panel members wondered why rheumatology was not included as a secondary area in scope. Members agreed that rheumatologists would most likely use the developed tools, and that they are often very engaged with their patients. Leavitt Partners shared that primary care can often cast the widest net for identifying a specific patient population, but noted that primary care physicians should be used as a launching point for more tailored care. However, the current work to develop a model of care should be considered a framework that can be expanded to other settings, including rheumatology and sports medicine.

Other comments from the discussion on the Scope portion of the context canvas are shown below.



Ideal State vs. Current State

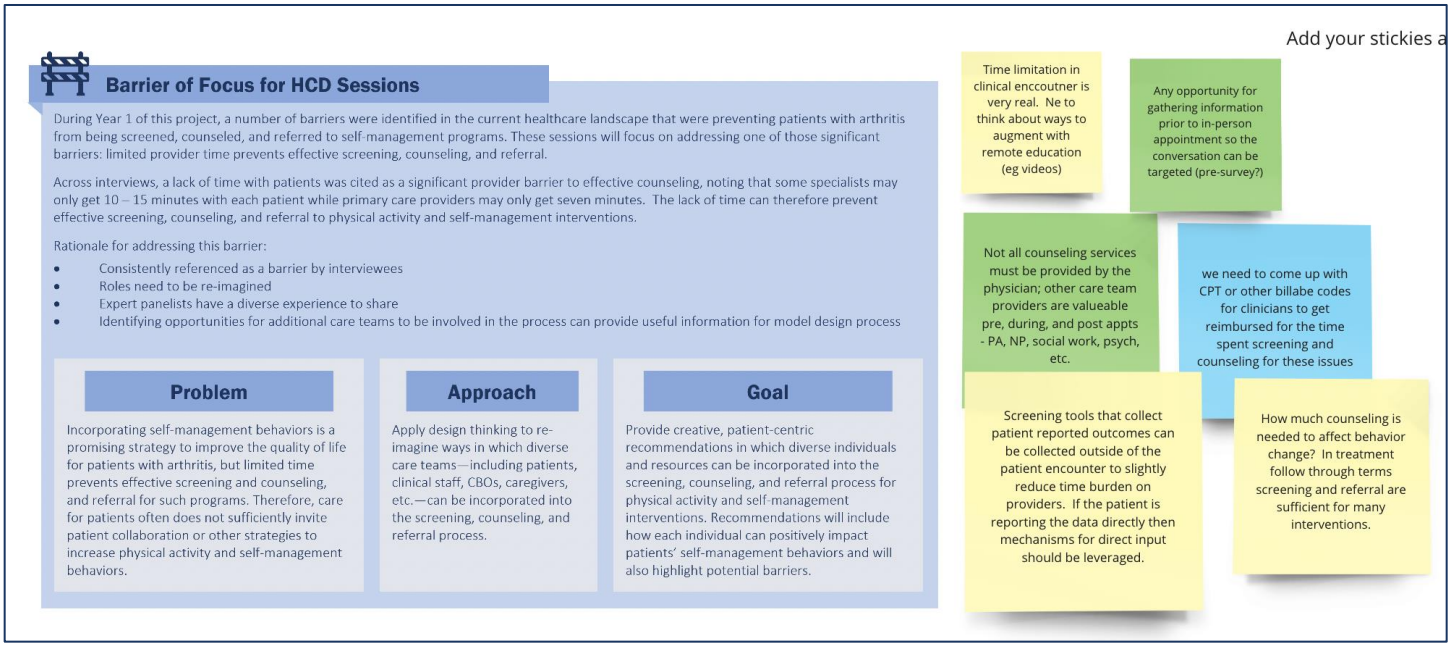
The group did not discuss this section of the Context Canvas; comments from the group are shown below.

Key themes include the need to center patients and their caregivers in care plans, the need (but difficulty) in incorporating community resources, and using additional tools to increase self-management (including health coaches and virtual programs). Although the current barrier of focus centers on the lack of provider time, several comments mention the lack of time for other key stakeholders, including clinical staff (nurse practitioners and physician's assistants) and patients themselves.

Barrier of Focus for HCD Sessions

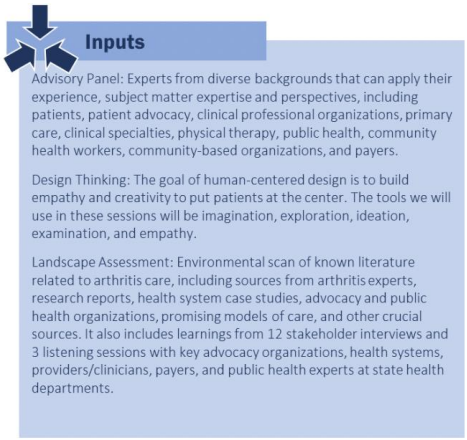
The group did not discuss this section of the Context Canvas; comments from the group are shown below.

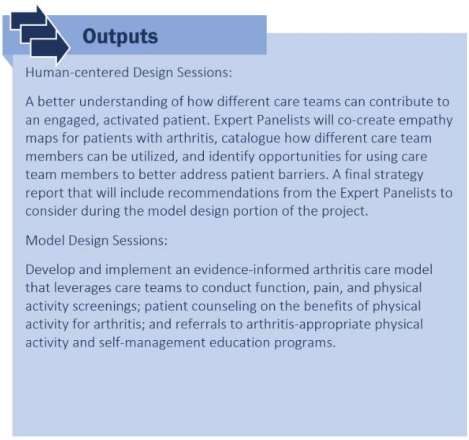
Key themes include addressing time limitations during a clinical encounter, including a pre-survey or person-centered data input mechanism to gather necessary information for the in-person appointment or augmenting remote arthritis-related education. One comment noted the importance of reimbursement strategies to compensate clinicians for the time spent screening and counseling.



Inputs & Outputs

No comments were left regarding Inputs or Outputs.





Empathy Maps

The goal of the Empathy Map activity was to build empathy for patients, giving more insight into what they are experiencing in their day-to-day lives and how that might impact their care needs. The exercise began with the use of personas, a realistic depiction of typical patients with arthritis. Leavitt Partners oriented the Advisory Panel to the empathy map activity, and NACDD introduced the personas. The Advisory Panel members were split into three workgroups to complete the activity.

Key Themes

- Communication: Communication with the patient is critical. Identifying the "trusted voice", whether that is a family member or clinician, is essential when working toward a lifestyle change to help manage misperceptions of pain or clinical arthritis care.
- Person-Centered Care: Person-centered care is complex because patients are complex. Care plans shouldn't be static but build upon themselves or pivot when something isn't working for a patient. Creating unique care plans that align with a patient's goals, and their perception of how they would attain those goals, could promote long-term adherence and improved quality of life.
- Lived Experience: It is essential to try and understand a patient's lived experience and current life situation before prescribing a care plan. A flexible care model should start each new patient interaction with zero assumptions. Empathy mapping can help care providers better understand their patients and create care plans that align with their patients' day-to-day lives.
- Social Determinants of Health: Social determinants of health (SDOH), also referred to as environmental factors, should be taken into consideration. Factors include income, transportation, location, family support, and access to mental healthcare, among others. These factors will impact a person's ability to access a program or care and should be taken into consideration when developing a care management plan.
- Embarrassment: People can feel embarrassment or shame resulting from their lack of mobility or pain. Fear of embarrassment can also lead to isolation, and ultimately depression, which compounds on a patient's inability to engage with programs and other individuals alike. Embarrassment can prevent people from gaining skills needed to become more mobile.

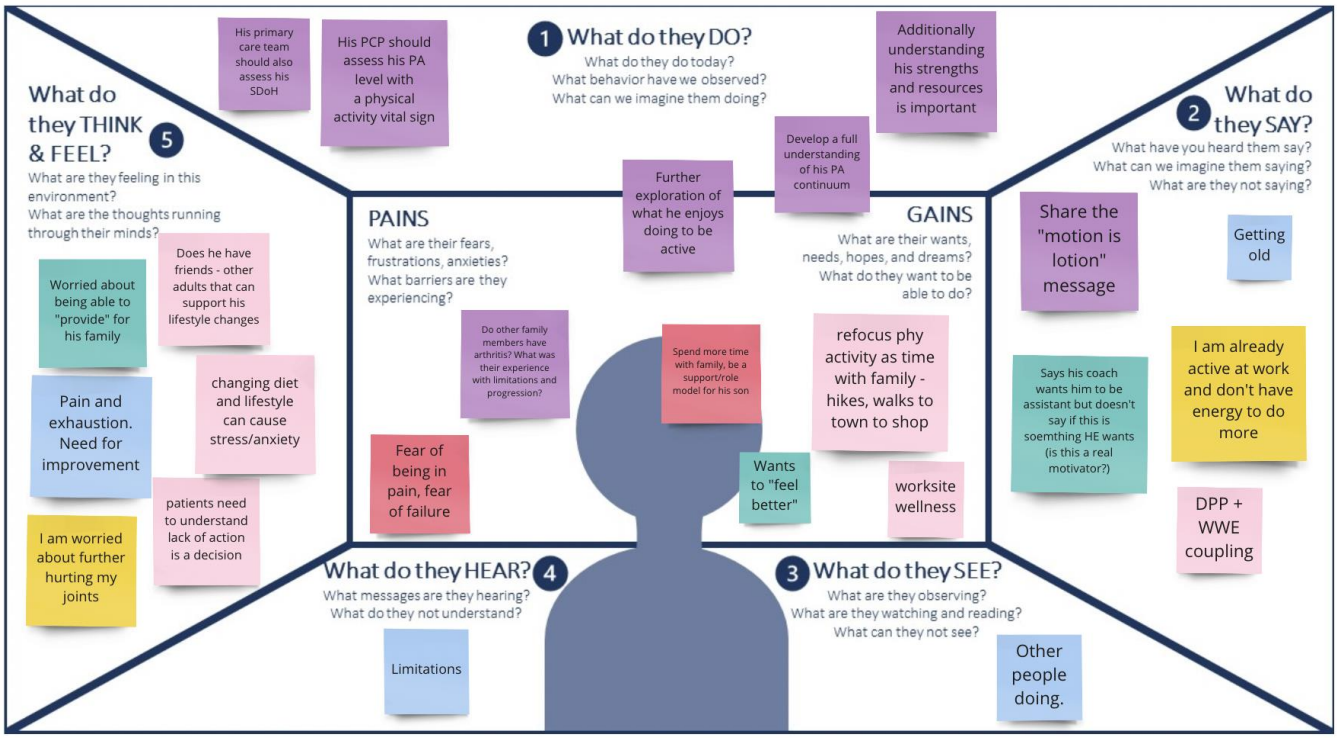
Group 1: Joe – Hard Worker

"Joe – Hard Worker" was the persona of focus for Workgroup 1 (see Persona 1: Joe the Hard Worker). The group generally agreed that it may be hard to diagnose a 45 – 50-year-old individual presenting with arthritis-related symptoms. From a clinical perspective, this would be a big assumption, and it would present as a critical opportunity for physicians to decide if this is pre-osteoarthritis (OA), or OA. One member from the group suggested that with this persona, this would be more of an opportunity to address OA prevention. The group agreed, suggesting that the care team, or attending physician, would need to understand where on the continuum of physical activity this persona currently is before making a diagnosis or recommendation. For many individuals, "physical activity" is perceived as intentional workouts, at a gym for example. However, activities of daily living often provide great opportunities for physical activity. A care plan should account for movement already in someone's life. It would also be imperative to understand what primary or secondary social determinants of health (SDOH) have a role, and how that might influence health management or subsequent recommendations.

The group also discussed the importance of understanding this persona's goals and their perception of how they would attain those goals, or their perceived timeline for "fixing" or addressing their pain. Pain can be a significant barrier for patients, and it seemed, to the group, that pain management was the goal of this persona. The group considered that this persona may not have the flexibility to take time off work, and he may prioritize pain among his work and family commitments. It may be important to consider the role that family members or significant others can play in Joe's life and his perception of attaining his goals and/or his perception of pain management. For example, does Joe want to change his

lifestyle, or does he want a more immediate solution to manage his pain (such as medication or an operation)? The group concluded that for Joe, and for others in similar situations, it often comes down to communication with the patient. Understanding who the "trusted voice" is, whether that be family members or a clinician, would be key to his care management and helping to fix those misperceptions on pain or pain management (although not entirely clear how or when to involve these types of individuals, given they aren't often present during appointments and may not be advisable to do so).

The following comments were added by workgroup members.



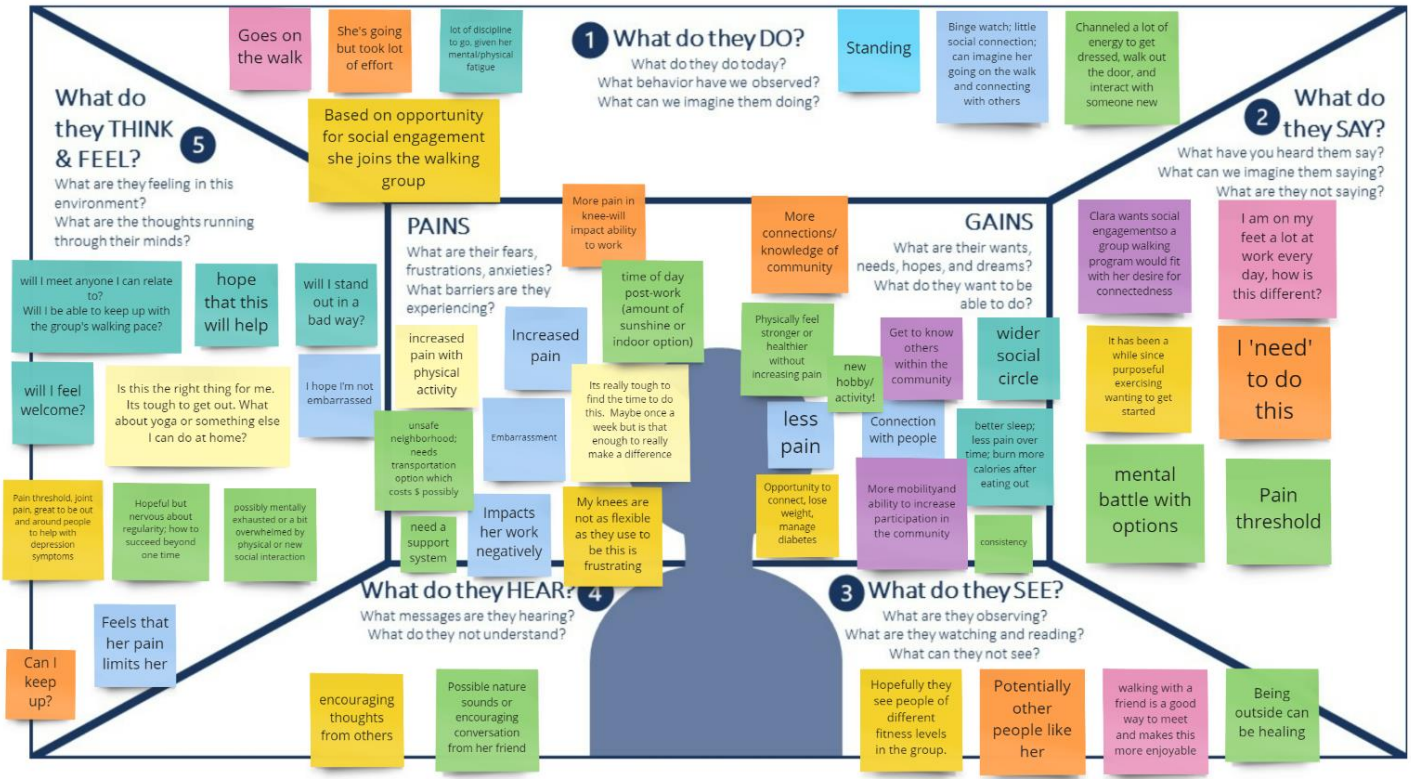
Group 2: Clara – Social RN

"Clara – Social RN" was the persona for Workgroup 2 (see Persona 2: Clara the Social RN). The group discussed some mixed emotions that Clara could be experiencing. While joining a walking group would require extra effort, Clara would likely find value in social interaction. The group noted that she may feel some excitement to get out in a group setting, but also battling the mental and physical fatigue from her long shifts as a nurse. Given that Clara spends 12 hours a day on her feet at work, she may also wonder how walking will benefit her and she may have some trepidation about increasing pain. A group member noted that walking, in fact, may not be a great option for Clara, and she could benefit more from strength training. There was consensus that treating arthritis patients shouldn't be a set plan, but should be an iterative process that aligns with the patient's goals and pivots when treatments aren't working for patients.

Group members then discussed how empathy maps could be useful in better serving patients with arthritis and promoting a flexible care model. One member stated that person-centered care is complex because the patient themselves are complex. Patients have their own lived experiences and life situations that influence how they can receive care and manage their symptoms. Another member commented that because Clara lives a busy, unpredictable life, creating a self-management plan that reflects this reality is crucial for long-term adherence. Patients can get discouraged if an intervention doesn't work immediately, and clinicians should work with patients to continuously review their plan (and communicate early on that this is an iterative process). The individuals involved in this care plan should adjust to reflect the current strategies, involving, for example, an occupational therapist and a physical therapist when appropriate. There was agreement from the group that care teams shouldn't assume that they understand a patient and their care

needs but try to understand a patient's goals through communication and co-create a care plan that meets them. Person-centered care within a flexible care model should start with getting to know the needs and goals of the patients rather than applying a standard set of recommendations. Each step of the care journey should reflect the patient.

The following comments were added by workgroup members.

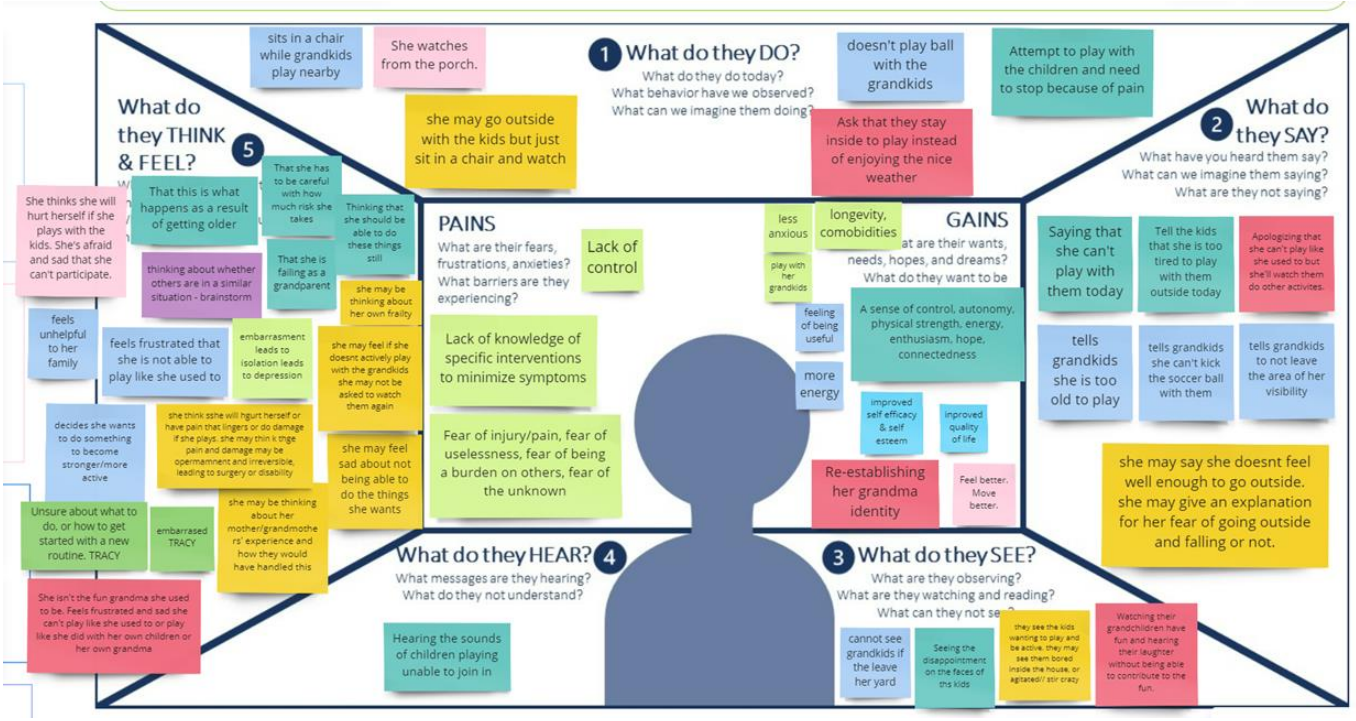


Group 3: Dorothy – Active Retirement

"Dorothy – Active Retirement" was the persona for Workgroup 3 (see Persona 3: Dorothy Active Retirement). The group discussed possible responses Dorothy would have given this scenario, ultimately causing Dorothy to avoid potential pain and feeling embarrassment and frustration at her inability to play with her grandkids. Extending from this, the group had a longer discussion surrounding what Dorothy may think or feel, with personal anecdotes from Advisory Panel members. One member had experienced her mother feel shame, not wanting to do things due to embarrassment from her lack of mobility. She highlighted this as a major barrier to her mother getting to a place where she has the skills to be mobile. Another member added his experience, referring to a "cascading of events," where a fear of embarrassment can lead to isolation and ultimately depression, compounding an inability to engage with programs and people. A third member suggested that Dorothy may be thinking about her friends and whether they are in a similar situation; she added it would be helpful for Dorothy to know about others in a similar situation, as they could brainstorm about what to do and support one another.

The group also discussed considerations for Dorothy, including pains and gains. The group highlighted pains including lack of knowledge of specific interventions, fear of injury and pain, loss of independence, and lack of control. In direct contrast, Dorothy's gains included being less anxious overall, a sense of control or autonomy, connectedness, improved quality of life, and hope. One member indicated that, for Dorothy, getting more active could also lead to more longevity and reduce the risk of other comorbidities. Another member suggested that a model of care should take into account Dorothy's home life or environmental factors, including income, transportation, location, family support, and access to mental healthcare. The group agreed that Dorothy would have a lot to gain if she were to overcome her barriers.

The following comments were added by workgroup members.



Stakeholder Maps

The goal of the Stakeholder Map was for Advisory Panel members to create an exhaustive list of everyone that could be involved in integrating physical activity screening, counseling, or referral for a patient with OA, and then categorizing each stakeholder based on their potential impact on patient behavior change and perceived level of effort to integrate into the care team. Each breakout facilitator began the activity by defining a "care team" as "an interdisciplinary group of individuals responsible for managing a patient's health while keeping the patient's experience and outcomes top of mind." The facilitators highlighted "typical" care team members, including primary care physicians, medical assistants, physician assistants, specialists, and nurses. This definition was then expanded to include other nontraditional individuals that can influence a patient's health decisions, such as physical therapists, community health workers, and payers.

The following examples of the Year 1 Environmental Report were shared of how such individuals were being incorporated:

Community Health Workers (CHWs)

Ways CHWs could be involved:

- Conducting basic physical activity-related screenings,
- Providing proactive patient outreach,
- Identifying various physical activity-related, self-management, or Arthritis-Appropriate Evidence-Based Interventions for referral.

Payers

Ways payers could be involved:

- Incentivizing prevention through value-based care models or shared risk arrangements,
- Using predictive or data analytics to identify patients who may be good candidates for a self-management or physical activity-related intervention,
- Employing outreach teams to share physical-activity related benefits with providers, healthcare systems, or members.

CHWs in Action

- Baylor Scott & White: one representative noted that community health workers (CHW) are integral to identifying and overcoming barriers that people in the community experience, especially those who are uninsured. Rather than waiting for patients to seek care at Baylor Scott and White clinics, CHWs work with local champions and the community to conduct outreach and encourage individuals to receive screening or to participate in one of the various programs available at the Baylor Scott and White Health and Wellness Center.
- MA DPH: The Massachusetts Department of Public Health has been encouraging different health systems to include CHW salaries as part of their core-operating budget, moving away from reimbursement models and towards team-based care.

Payers in Action

- United Healthcare: RenewActive is a program at United available to their Medicare Advantage members. The primary benefit included in Renew Active is free access to a network of 23,000 gyms across the country, but patients also gain access to digital workout videos, virtual classes, and a personalized fitness plan. Outreach teams at UnitedHealthcare work with providers to ensure they are aware of the benefit and can offer it to eligible patients.
- Humana: A representative from Humana noted the payer utilizes care managers and social workers to connect patients to resources and guide them to community programs. Humana Kansas partners with providers to refer members to the National Diabetes Prevention Program lifestyle change program.

Key Themes

- High-impact Stakeholders
  - Health coaches are uniquely trained and positioned to help patients succeed in behavior change. There may be opportunities to couple health coaches with other evidence-based interventions.
  - Close contact relationships (such as friends, family members, and care givers) could increase the impact on behavior change due to the strength of the relationship. However, more communication during clinician/patient encounters is likely needed to better integrate this stakeholder. Integrating them into a care team and flexible care model could have a high impact with a lower effort of integration, depending on the ability to reach these individuals.
  - Community organizations (such as libraries, churches, and other organizations) could be leveraged for their community spaces and ability to offer free classes, resources, and guidance to patients with arthritis. These community-based spaces are geared toward suburban and retirement communities, as well as individuals with more time and less money.
- Integration considerations
  - The ability to communicate with primary healthcare providers is a large factor in integration considerations. Some stakeholders will have two-way communication with primary healthcare providers to coordinate care. Other stakeholders may have additional access to patients but lack the ability to communicate with providers. Two-way communication will influence decisions between a medical model and a community population health model.
  - The ability to train and organize organizations and individuals may make it difficult to integrate stakeholders. Independently owned organizations such as bars or barber shops would be difficult to organize and train. Federal or national-level organizations, such as the United States Postal Service, would likely involve large-scale training and coordination. Large groups of individuals, such as neighbors, would involve individual-level training across fragmented groups.

Group 1 Summary

Group 1 largely discussed health coaches, healthcare leadership, and family members or caregivers.

One Advisory Panel member emphasized that many providers aren't trained in behavior change, while health coaches have specific expertise in helping people achieve behavior change goals. For example, Lifestyle Coaches for the National Diabetes Prevention Program (DPP) lifestyle change program are crucial in promoting long-term behavior change. One member explained that the virtual delivery of the Walk With Ease program (an evidence-based intervention) coupled with health coaches has made a significant positive impact in their area. Health coaches could be integral to many components of the vision statement for the HCD sessions; however, there currently isn't a strong reimbursement model for health coaching.

Healthcare leadership could potentially have a large impact on individuals with arthritis but may be more difficult to integrate, given that they have many priorities and may not have the desire or ability to add an emphasis on arthritis. Many health systems are large, and not only facilitate clinical care, but have a local impact on public health.

Lastly, several group members felt that family members may be easier to integrate and could have a large impact on individuals with arthritis. However, one clinician noted that they haven't had the experience of talking about supportive family members during a patient encounter but felt that having more communication about supportive family members or care takers during patient encounters would be beneficial. A challenge to integrating family members is figuring out how and when to involve them. One Advisory Panel member noted taking her elderly mother to a Garden Club where she was able to participate in physical activity via an activity she particularly enjoys. This not only highlights an opportunity for family member involvement, but a potential strategy to encourage increased physical activity.

Group 2 Summary

Group 2 discussed how friends and caregivers could have an immediate impact on a patient. For example, one member shared that they would not have gone on a recent walk had their husband not joined them. Another participant proposed that a flexible care model should be thinking about who to engage in a patient's social circle, and about what resources to provide them to make an impact on their life. However, there was also mention that care teams should be considering how to manage caregiver fatigue before integrating them as a stakeholder.

The group also spent a considerable amount of time discussing the use of libraries as a way to influence patients. Libraries are locations within communities that provide free access to educational resources, such as self-help books. Multiple members from the group mentioned that libraries also often have community rooms and classes that could be leveraged to offer information and guidance on arthritis care and self-management. Furthermore, libraries usually share information on other community resources and community-based organizations that might be of interest or need to a patient. Other notable mentions included leveraging affinity/interest groups to encourage healthy behaviors, partnering with barbershops, and reaching people through faith leaders and their churches.

Group 3 Summary

Group 3 suggested stakeholders such as healthcare-related providers and organizations (e.g., community health workers, dieticians, skilled nursing facilities), local organizations and programs (e.g., public libraries, fitness professionals, social clubs, Meals on Wheels, church staff), and personal connections (e.g., family members, coworkers, neighbors). The group also discussed alternative medicine providers, such as acupuncturists and chiropractors, as individuals may try any method to reduce pain. He added that bars could represent a stakeholder opportunity, as individuals will self-medicate with alcohol. The group discussed the public library as a natural space to reach folks, via events and activities in suburban and retirement communities for people with more time and less money. Meals on Wheels and mail carriers were highlighted as potential stakeholders due to their consistent interactions with neighborhoods and individuals, which could improve a patient's feeling of isolation.

The group discussed that some local organizations and programs would be difficult to integrate, as some are independently owned and would need to be convinced to discuss arthritis care (e.g., bars). Other difficult stakeholders to integrate included mail carriers and neighbors, as integration would involve federal- or individual-level training. However, close contact relationships could heighten the impact on behavior change, due to the strength of the relationship. Strong relationships are seen with family as well; however, one member noted that the ease of integration is dependent on the ability to reach various family members.

Appendix A: Attendees

Group 1

Name	Organization
Brooke Zollinger	LP
Morgan Wilson	LP
Lisa Erck	NACDD
Elliot Fisher, MD, MPH, (absent)	The Dartmouth Institute and Community and Family Medicine at the Geisel School of Medicine, Dartmouth College
Theresa Kreiser, MS	Comagine Health
Margaret Kaniewski, MPH	Centers for Disease Control and Prevention
Elizabeth A. Joy, MD, MPH, FACSM, FAMSSM	Intermountain Healthcare
John Andrawis, MD/MBA	Torrance Memorial Medical Center & Harbor-UCLA Medical Center
Heather Kitzman, PhD (absent)	UT Southwestern Medical Center
Jennifer Raymond	AgeSpan, Massachusetts
Nick Turkas, MS	Arthritis Foundation
Heather Hodge, M.Ed (absent)	YMCA of the USA
Erica Anderson (absent)	Humana
Gregory J. Welk, Ph. D.	Iowa State University
Kirsten Ambrose	Osteoarthritis Action Alliance.

Group 2

Name	Organization
Patricia Doxey	LP
Anthony De Cicco	LP
Shalu Garcha (absent)	NACDD
Vish Vasani	NACDD
Karen E. Schifferdecker, PhD, MPH	The Dartmouth Institute and Community and Family Medicine at the Geisel School of Medicine, Dartmouth College
Beth Fallon, MPH, Ph.D., CHES®	Centers for Disease Control and Prevention
Anita Bemis-Dougherty, PT, DPT, MAS	American Physical Therapy Association
Clifton O Bingham, III, MD	Johns Hopkins Arthritis Center

Paul Woods, MD MS CCFP	Orcinus Health Solutions
Alisa Vidulich, MPH	Arthritis Foundation
Starla H. Blanks, MBA, MPH	American College of Rheumatology
Serena Weisner (absent) sitting in for Lesha Spencer-Brown, MPH, CPH, PMP (absent)	Administration for Community Living
Lisa Gabel	Humana

Group 3

Name	Organization
Kerstin Edwards	LP
Chloe Wilcox	LP
Kathy Carluzzo, MS (absent)	Center for Program Design and Evaluation at Dartmouth (CPDE)
Katrina Seipp-Lewington, MPH	Comagine Health
Heidi Milby	NACDD
Tracy Carver, MPA	Comagine Health
Cheryl Schott, MPH	Centers for Disease Control and Prevention, Contractor
Erica L. Odom, DrPH, MPH	Centers for Disease Control and Prevention
Gail Hirsch	Massachusetts Department of Public Health
Adam Burch, DC, MPH	New Hampshire Department of Health and Human Services
Robyn M. Stuhr, M.A., ACSM-CEP, FACSM	Exercise is Medicine®
Mamta Gakhar, MPH (absent)	YMCA of the USA
Jonathan S. Kirschner, MD, RMSK	Hospital for Special Surgery/ USBJI
Tamara Huff, MD, MBA, FAAOS, FAAHKS	Vigeo Orthopedics, LLC.
Katie Huffman	Osteoarthritis Action Alliance.
Tiff Cunin (absent)	National Recreation and Park Association
Timothy P. McNeill	Freedmen's Health

Appendix B: Personas

Persona 1: Joe the Hard Worker

Joe – Hard Worker

Seeking reduction of pain and weight, so he can earn income for the family and be around for fun with his family.

Brief Description

- Age: 45
- Gender: Male
- Race & Ethnicity: Hispanic
- Highest Education: Trade School; Construction Site
- Location: Rural New Mexico
- Living Situation: Lives in a duplex with his wife Maria and 4 kids (ages 8, 10, 15, 18)
- Income: $27,000 per year
- Insurance: Medicaid

Client Story (Personality/Hobbies)

- Joe has pain in his knees and it has gotten in the way of daily living (climbing stairs/chores around the house/playing sports with children) and has caused him to call in sick on multiple occasions at the construction site.
- He is worried about being able to provide for his family and relies on heavy doses of pain medications to get him through the day.
- Maria his wife cooks most of the food for the entire family. She cooks traditional food including homemade tortillas (with lard), beans, rice, and "the best desserts" for her family.
- Joe has been counseled on being overweight many times, but he does not know how to make a change.
- Maria is worried about her husband and encourages him to go to a primary care provider to talk about the pain.
- Joe is reluctant to go seek help, worried he may need surgery. He feels like he cannot afford to take time off work or pay for medical expenses.

Physical Activity

- Joe is disinterested in exercise, claiming he has "never been into it." He does not want time spent exercising to take away from his "regular life," and feels he is on his feet all day at work already.
- He likes being physically active with his family, which could be a motivator.
- He does not know that daily living and physical activity counts as movement.

Health Status

- Osteoarthritis of the knee (Repetitive Motion)
- Obesity
- Pre-diabetes

Pains

- He feels tired all the time.
- His family is worried about him.
- He's concerned about kids' future.
- He lives 30 minutes outside of town.
- Struggles with health literacy, and doesn't feel he could register for programs on his own.
- He has competing priorities, feeling his "real life" is more important.
- He doesn't want to come off his pain meds for fear of missing work.

Gains

- Wants to feel better
- Would like to reduce pain in his knees, so he can continue to work and play with his kids
- Joe could benefit from virtual evidence-based interventions such as a Chronic Pain Self-Management Program, Walk with Ease, or the National Diabetes Prevention Program
- Joe could make walking and stretching a family activity, which would benefit not only him but his family as well

Persona 2: Clara the Social RN

Clara – Social RN

Seeking increased mobility and decreased pain, so she may continue to do the activities she loves and stay active in life.

Brief Description

- Age: 62
- Gender: Female
- Race & Ethnicity: Non-Hispanic/Black
- Highest Education: Nursing
- Location: Urban New York
- Living Situation: Lives alone in in an apartment in the Bronx
- Income: $90,000 per year
- Insurance: Commercial Insurance through the FQHC

Client Story (Personality/Hobbies)

- Clara wakes up each morning for an early shift at the local federally qualified health center.
- She is on her feet for 12-hour shifts four days per week. Her shifts can change at a minute's notice, which has taken a toll on her physical and mental health.
- She is new to the area and is interested in meeting new people outside of work.
- Clara enjoys trying new restaurants, spending time at church, and being active in the community.
- She has not able to develop a social network in her new community given her long work days and the pain in her knees.
- She has started living a more sedentary lifestyle outside of work (binge watching TV and ordering in carry out), causing depression and increase in blood sugars.
- After a long day at work, it can be hard to wind down and fall asleep or stay asleep, and her pain sometimes gets in the way.

Physical Activity

- Clara enjoys the company of others when being active.
- Although she recognizes the potential benefits of physical activity, she is always on her feet and has a hard time feeling motivated to exercise. has not connected the need for physical activity to support her chronic diseases.

Health Status

- Osteoarthritis of the knee
- Depression
- Pre-diabetes

Pains

- Some days Clara gets home from work late and there isn't sufficient daylight to get outside for a walk.
- The area she lives is not always safe for a walk.
- She is sometimes called in to work on her days off to cover for other staff or is asked to be on-call from home on her days off.

Gains

- She could develop a friend circle through physical activity as a potential motivator, potentially with neighbors in her apartment community.
- Walk With Ease – Self Directed Enhanced (WWE-SDE) may help increase mobility at her own pace and provide social opportunities.
- The National Diabetes Prevention Program could help increase physical activity and improving nutrition.
- Program to Encourage Active Rewarding Lives (PEARLS) could help address depression.

Persona 3: Dorothy Active Retirement

Dorothy – Active Retirement

Increased energy and mobility, so she can best care for herself.

Brief Description

- Age: 78
- Gender: Female
- Race & Ethnicity: White
- Highest Education: Finance Degree
- Location: Suburban Oregon
- Living Situation: Lives in a house with her husband
- Income: $2,000 per month from social security
- Insurance: Medicare

Client Story (Personality/Hobbies)

- Dorothy used to love gardening and walking, but she gets too tired now. She feels so limited. She is nervous to do things because of how it might affect her health issues.
- Her husband, William, helps her out with meals and cleaning up around the house, but he too needs help and support.
- Dorothy worries about the pain in her hip and potentially falling.
- Dorothy is discouraged she must rely on others for help, especially because she doesn't feel comfortable driving.
- She has lost touch with her friend circle given her more sedentary lifestyle and she would like a way to regain control of her health and confidence to be active again.
- Her son and her grandkids live 30 minutes away, but they are busy with their lives. They stop by once of month to check in on their parents.

Physical Activity

- Dorothy loves to take walks outdoors but is afraid to do this given the fear of falling.
- She wants to feel less tired all the time.
- She would like to gain control of her health and be more active with her friend circle again.

Health Status

- Osteoarthritis of the hip
- Hypertension
- Falls risk
- Anxiety

Pains

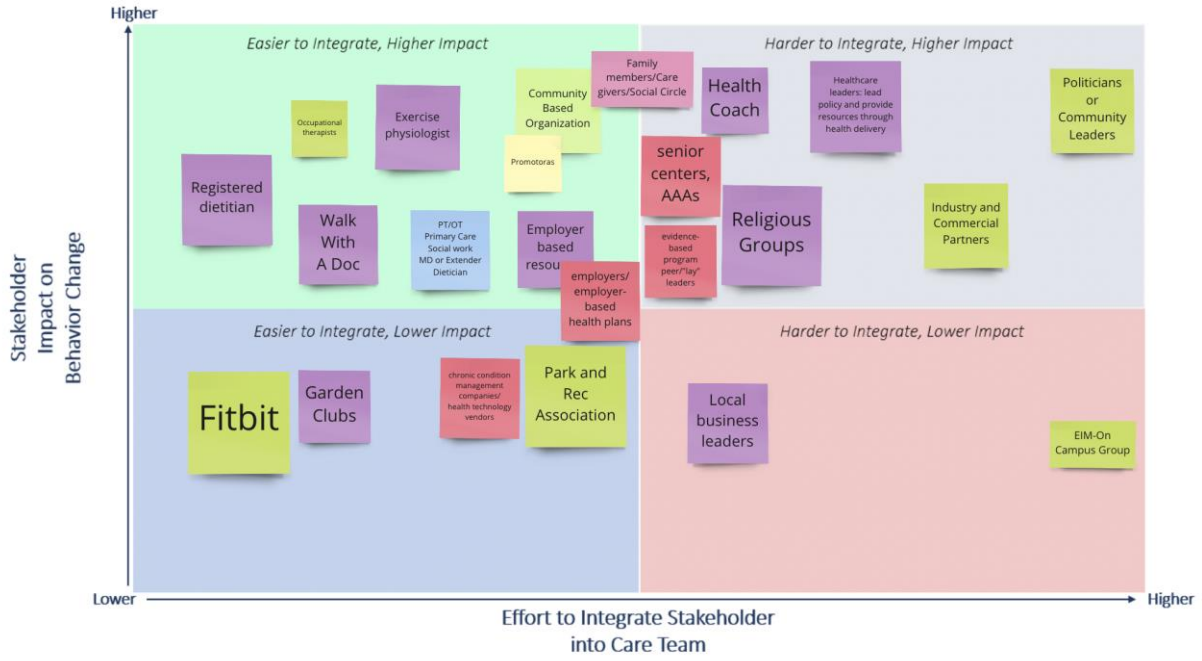
- Dorothy has aches, pains, and increasing anxiety.
- She doesn't like to drive, especially at night.
- She feels like a burden on others.
- She has a fear of physical activity due to the pain and potentially falling.

Gains

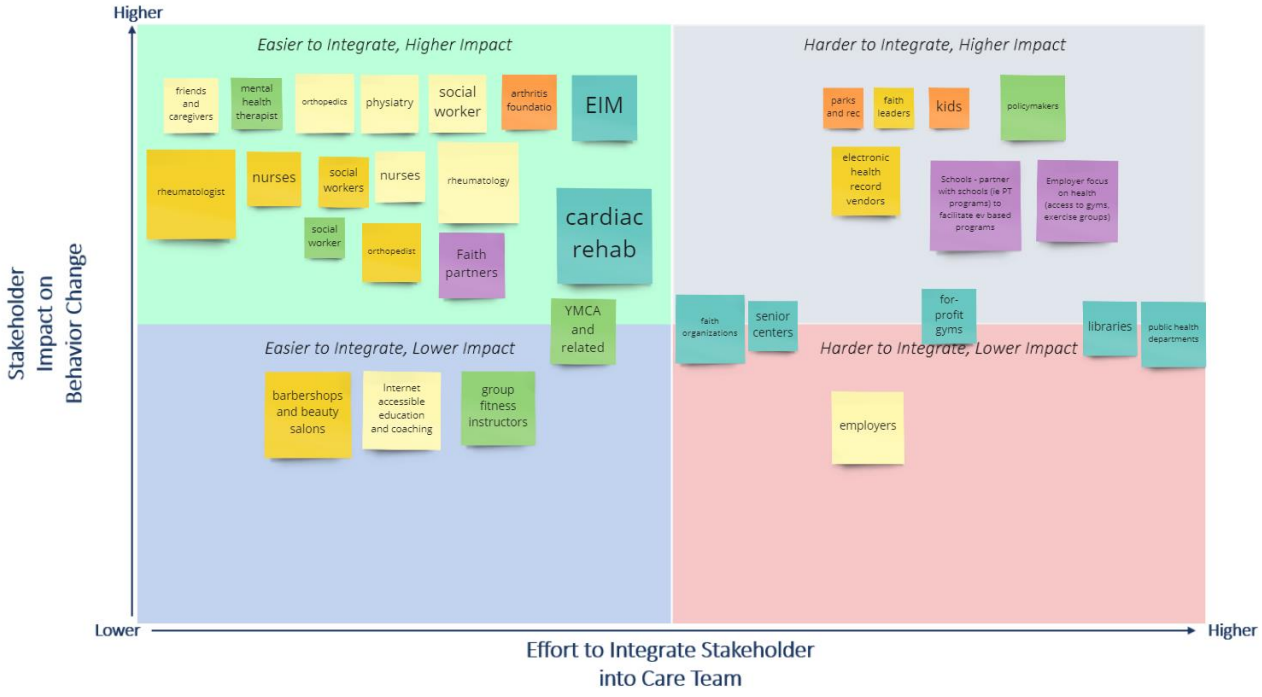
- Feeling less anxious about her health
- Not being a burden on family and caregivers
- Dorothy could benefit from a group class like Tai Chi for Arthritis and Falls Prevention or Tai Ji Quan: Moving for Better Balance, that provides an opportunity to increase physical activity while also providing a social connection
- Her caregiver, William, may benefit from Stay Active and Independent for Life (SAIL)

Appendix C: Completed Stakeholder Integration Charts

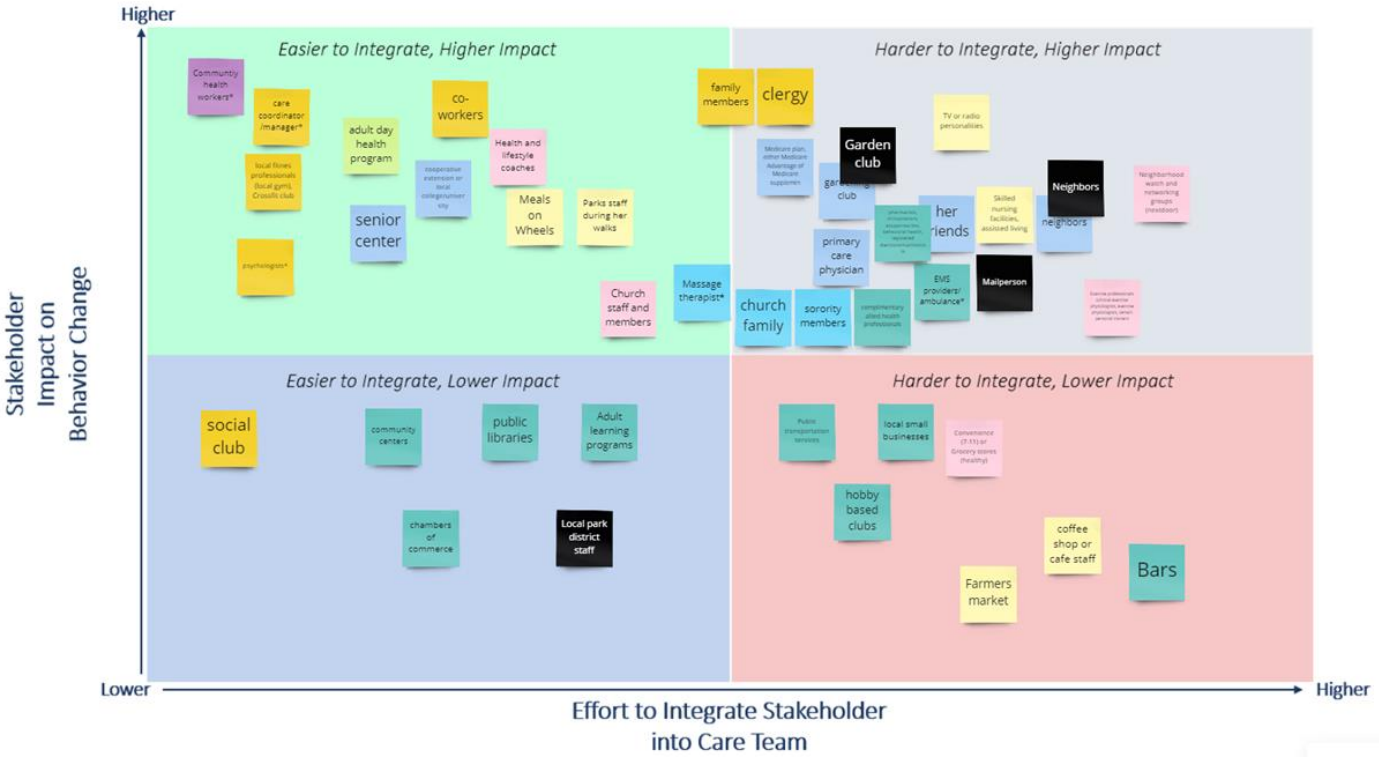
Workgroup 1



Workgroup 2



Workgroup 3


Higher
Easier to Integrate, Higher Impact
Harder to Integrate, Higher Impact
Easier to Integrate, Lower Impact
Harder to Integrate, Lower Impact
Stakeholder Impact on Behavior Change
co-workers
adult day health program
Health and lifestyle coaches
senior center
Meals on Wheels
Parks staff during her walks
Church staff and members
Massage therapist*
family members
clergy
Garden club
primary care physician
church family
sorority members
EMS providers/ ambulance*
Mailperson
Neighbors
social club
public libraries
Adult learning programs
Local park district staff
local small businesses
hobby based clubs
coffee shop or cafe staff
Bars
Farmers market
Lower
Higher
Effort to Integrate Stakeholder into Care Team

Appendix D: Exhaustive Stakeholder List

Easier to Integrate, Higher Impact

- Adult Day Health Program
- Arthritis Foundation
- Cardiac Rehab
- Care Coordinator/Manager
- Church Staff and Members
- Co-Workers
- Community Based Organization
- Community Health Workers
- Cooperative Extension or Local College/University
- Employer based resources
- Exercise is Medicine (EIM)
- Exercise Physiologist
- Faith Partners
- Friends and Caregivers
- Health and Lifestyle Coaches
- Local Fitness Professionals (local gym), CrossFit Club
- Massage Therapist
- MD or Extender Dietician
- Meals on Wheels
- Mental Health Therapist
- Nurses (listed 2x)
- Occupational Therapist (Listed 2x)
- Parks Staff during her [Dorothy – Active Retirement Persona] walks
- Physiatry
- Physical Therapist
- Promotoras (Spanish equivalent for Community Health Workers: Source)
- Psychologists
- Registered Dietician
- Rheumatology/Rheumatologist
- Senior Center
- Social Work (Listed 4x)
- Walk With a Doc
- For-Profit Gyms
- Public Health Departments

Harder to Integrate, Higher Impact

- Family members and caregivers (Listed 2x)
- Acupuncturists
- Behavioral health registered dieticians/nutritionists
- Chiropractors
- Church Family
- Clergy
- Complimentary/ Allied Health Professionals
- Electronic Health Record Vendors
- Employer Focus on Health (Access to Gyms, Exercise Groups)
- EMS providers/ ambulance
- Evidence-Based Program Peer/ "Lay" Leaders
- Exercise professionals (clinical exercise physiologists, exercise physiologists, certain personal trainers)
- Faith Leaders
- Garden Club (listed 2x)
- Health coach
- Healthcare Leaders; lead policy and provide resources through health delivery
- Industry and Commercial Partners
- Kids
- Mailperson
- Medicare Plan, either Medicare Advantage or Medicare Supplement
- Neighborhood watch and networking groups (i.e., NextDoor)
- Neighbors (listed 2x)
- Parks and Rec
- Pharmacists
- Policymakers
- Politicians or Community Leaders
- Religious Groups
- Schools- Partner with schools (i.e., PT programs) to facilitate evidence-based programs)
- Senior Centers, Area Agencies on Aging
- Skilled nursing facilities, assisted living
- Sorority Members
- TV or Radio Personalities

Easier to Integrate, Lower Impact

- Adult Learning Programs
- Barbershops and Beauty Salons
- Chambers of Commerce
- Chronic Condition management companies; health technology vendors
- Community Centers
- Fitbit
- Garden Clubs
- Group Fitness Instructors
- Internet Accessible Education and Coaching
- Local Park District Staff
- Parks and Rec Associations
- Public Libraries
- Social Club

Harder to Integrate, Lower Impact

- Bars
- Coffee Shop or Café Staff
- Convenience (i.e., 7-11) or Grocery Stores (healthy)
- EIM-On Campus Group
- Employers
- Farmers Market
- Hobby-Based Clubs
- Local Business Leaders
- Local Small Businesses
- Public Transportation Services
- Employer/Employers-Based Health Plans
- YMCA and Related