

NACDD Convenes Arthritis Expert Panel and Design Team to Co-Create a Public Health Framework for Collaborative Arthritis Management and Wellbeing

Key partners are developing an evidence-informed public health framework for healthcare providers to conduct function, pain, and physical activity screenings; patient counseling on the benefits of physical activity; and referrals to arthritis-appropriate, evidence-based interventions and other non-pharmacological interventions to help patients manage their arthritis and improve their wellbeing.

Background/Challenge

According to the Centers for Disease Control and Prevention (CDC), an estimated 53.2 million adults in the U.S. have been diagnosed with arthritis.¹ Arthritis limits physical function and quality of life. Additionally, it frequently co-occurs with other chronic conditions that are common causes of death, such as heart disease, diabetes, and obesity, and can interfere with management of these conditions through its effects on limiting physical activity.² Physical activity, self-management education programs, and other non-pharmacological approaches can potentially decrease the impact of arthritis; however, there is no consistent or standardized approach for healthcare providers to integrate these interventions throughout the clinical healthcare delivery system.³ Under the CDC-RFA-DP21-2106 five-year cooperative agreement, CDC awarded funding to the National Association of Chronic Disease Directors (NACDD) in September 2021 to develop a clinic-to-community framework for arthritis care that enhances healthcare provider awareness, knowledge, and skills in promoting self-management interventions, including physical activity and lifestyle change, as effective, drug-free ways to relieve or manage arthritis pain, improve function, and limit arthritis progression. Key partners in this work include [CDC Arthritis Management and Wellbeing Program](#), [Leavitt Partners](#), [Comagine Health](#), and the [Dartmouth Institute for Health Policy and Clinical Practice](#).

Approach

NACDD, CDC, and other key partners convened the Arthritis Expert Panel and Design Team in November 2022 to provide guidance on the development of an evidence-informed public health framework for healthcare providers to conduct function, pain, and physical activity screenings; patient counseling on the benefits of physical activity; and referrals to community-based Arthritis Appropriate, Evidence-Based interventions (AAEBI) and other non-pharmacological interventions. [AAEBIs](#) are scientifically tested programs that have been shown to improve arthritis management and quality of life. Expert panelists used the results from a landscape assessment conducted by Leavitt Partners to guide the discussion. Panelists were identified and selected by NACDD based

¹ Centers for Disease Control and Prevention, National Statistics | CDC," November 28, 2023, https://www.cdc.gov/arthritis/data_statistics/national-statistics.html.

² Centers for Disease Control and Prevention, "FAQs about Arthritis | CDC," October 12, 2021, <https://www.cdc.gov/arthritis/basics/faqs.htm>.

³ Leavitt Partners landscape assessment "Key Considerations and Barriers to Creating an Evidenced-Informed Approach for Screening, Counseling, and Referral to Arthritis Appropriate Evidence-Based Interventions: A Landscape Assessment," https://chronicdisease.org/wp-content/uploads/2022/10/Arthritis-Landscape-Assessment_Final-Report_10.27.22.pdf

on professional experience and innovation in the field of arthritis and/or lifestyle interventions. See Table 1 for a complete list of Expert Panel and Design Team members.

Table 1: Arthritis Expert Panel and Design Team Members

Name	Organization	Name	Organization
Dr. Adam Burch	New Hampshire Department of Health and Human Services	Dr. John Andrawis	Torrance Memorial Medical Center & Harbor-UCLA Medical Center
Alisa Vidulich	Arthritis Foundation	Dr. Jonathan Kirschner	Hospital for Special Surgery/USBJI
Dr. Anita Bemis-Dougherty	American Physical Therapy Association	Katie Huffman	Osteoarthritis Action Alliance
Carrie Harnish	Consultant	Lesha Spencer-Brown	Administration for Community Living
Dr. Clifton Bingham	Johns Hopkins Arthritis Center	Mamta Gakhar	YMCA of the USA
Dr. Elizabeth Fallon	CDC	Nick Turkas	Arthritis Foundation
Dr. Elizabeth Joy	Intermountain Healthcare	Dr. Paul Woods	Orcinus Health Solutions
Dr. Erica Anderson	Humana	Robyn Stuhr	Exercise is Medicine®
Dr. Erica Odom	CDC	Starla Blanks	American College of Rheumatology
Gail Hirsch	Massachusetts Department of Public Health	Dr. Tamara Huff	Vigeo Orthopedics, LLC
Dr. Gregory Welk	Iowa State University	Timothy McNeill	Freedmen's Health
Heather Hodge	YMCA of the USA	Tiff Cunin	National Recreation and Park Association
Dr. Heather Kitzman	UT Southwestern Medical Center	Yvonne Dorsey	Humana
Jennifer Raymond	AgeSpan		

Impact

Since the kickoff meeting in November 2022, members of the Arthritis Expert Panel and Design Team participated in three Human-Centered Design (HCD) and eight design sessions to share barriers, discuss solutions, and brainstorm and gain consensus on key considerations for the public health framework for arthritis management and wellbeing.⁴ Refer to Table 2 for additional details about the sessions.

Table 2: Arthritis Expert and Design Team Sessions

Date	Topic	Meeting Overview
November 18, 2022	Kickoff Meeting – Arthritis management and wellbeing strategy and objectives	Discuss key elements of the public health arthritis framework for collaborative arthritis management and wellbeing.

⁴ Human-centered design methodology. Accessed January 2023 from <https://www.designkit.org/>

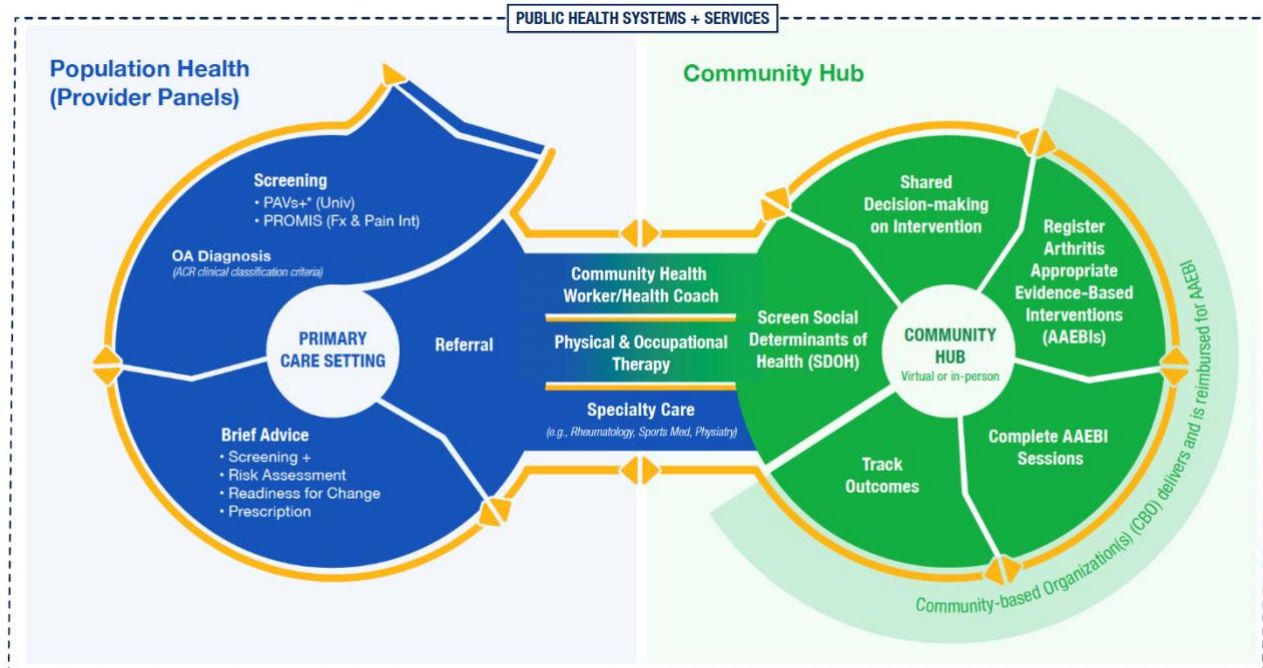
January 10, 2023	HCD Session 1 – Generating solutions for public health arthritis framework	Create a shared understanding of the problem and environment, create empathy for the individuals of focus, and begin to brainstorm potential stakeholder involvement.
February 14, 2023	HCD Session 2 – Generating solutions for public health arthritis framework	Continue to brainstorm potential stakeholder involvement, identify the tools that each stakeholder has that might influence behavior change, review, and add to the journey maps, and begin to determine areas of opportunity.
March 14, 2023	HCD Session 3 – Generating solutions for public health arthritis framework	Explore key opportunities to increase self-management interventions that are viable, feasible, and desirable. Align on care team member involvement and end outcomes that would indicate success.
May 9, 2023	Design Session 1 – Screening	Discuss options for Public Health Arthritis Framework and screening tools and proposed workflow.
May 23, 2023	Design Session 2 – Screening and brief advice/counseling	Examine methodology to support brief advice/counseling and assess how PROMIS® and Physical Activity Vital Sign (PAVS) thresholds might drive care pathways.
June 13, 2023	Design Session 3 – Brief advice/counseling	Refine care pathway for the counseling component and explore potential referral mechanisms to physical activity and self-management interventions.
June 27, 2023	Design Session 4 – Care coordination	Explore potential referral mechanism and refine care pathway for the Public Health Arthritis Framework.
July 11, 2023	Design Session 5 – Reimbursement mechanisms	Explore referral mechanisms and assess implications to Public Health Arthritis Framework.
July 25, 2023	Design Session 6 – Refining the care pathway, change package, and evaluation framework	Solicit input on core measures of the draft implementation plan and review change package components.
August 8, 2023	Design Session 7 – State and health system criteria	Review and discuss state and health system criteria for pilot demonstration project.
September 12, 2023	Design Session 8 – Evaluation framework	Solicit feedback on the evaluation framework and determine next steps for the pilot demonstration project.

Arthritis Expert and Design Team members were asked to provide feedback on the sessions by completing anonymous Qualtrics surveys and adding feedback via the virtual meetings. Overall feedback was positive and evaluation data suggests that participating in the Arthritis Expert and Design Team was an influential experience. Refer to Figure 1 for the latest iteration of the Public Health Framework for Collaborative Arthritis Management and Wellbeing that was co-created by the expert panel. This visual depiction captures the latest thinking of the expert panel around healthcare provider screening, counseling, and referral protocols and the importance of a community care hub in referring patients to appropriate evidence-based interventions and beyond.

- 100% of respondents agreed they can clearly describe the key elements that impact arthritis care as a result of attending the HCD sessions.

- 100% of respondents agreed they were able to contribute to the development of the public health arthritis framework and the care pathway for the screening, counseling, and referral protocol.
- 100% of respondents agreed the sessions encouraged them to think in a new way.
- Panelists enjoyed hearing multiple perspectives, collaborating with others from multiple disciplines, and the overall thoughtful and comprehensive nature of the sessions design.
- Participants appreciated the great organization and facilitation by NACDD staff.
- Panelists noted that the participatory approach allowed everyone a chance to participate and provide feedback and influence.

Figure 1: Public Health Framework for Collaborative Arthritis Management and Wellbeing



At A Glance

The NACDD Arthritis Team and key partners are working with diverse stakeholders to develop and implement an evidence-informed public health framework for healthcare providers to conduct function, pain, and physical activity assessments, patient counseling on the benefits of physical activity, and referrals to arthritis-appropriate physical activity and self-management education programs. The public health framework for collaborative arthritis management and wellbeing is guided by the landscape assessment conducted in year one and the recommendations of the expert panel in year two. NACDD will pilot the framework in at least one health system in 2024, in the state of Iowa.

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The [Arthritis Portfolio](#) is part of the [Center for Advancing Healthy Communities](#)