A NATIONAL PUBLIC HEALTH AGENDA FOR

OSTEOARTHRITIS: 2020 UPDATE

OA | OSTEOARTHRITIS ACTION ALLIANCE

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

CDC Centers for Disease Control and Prevention

Arthritis Foundation®

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A National Public Health Agenda for Osteoarthritis

I. INTRODUCTION

Public Health Challenge

Osteoarthritis (OA), the most common form of arthritis, is a serious chronic disease that affects 1 in 7 US adults—32.5 million people.[1] OA is associated with aging and is more common among people with other chronic conditions, such as heart disease, diabetes, and obesity. Yet, over half of adults with OA, 18.7 million, are of working age (18–64 years).[2]

OA causes pain, stiffness, and swelling, which can limit function and mobility. These limitations interfere with the ability to perform routine tasks of daily living, such as holding a cup, lifting a grocery bag, or walking to a car.[3] During 2008–2014, on average, adults with OA earned $4,274 less than those without OA, specifically because of their OA. The annual total of lost work earnings attributable to OA was $71.3 billion in the United States.[1]

As the population ages and obesity trends continue, the number of adults with OA is expected to increase during the years ahead. During 2008–2014, annual medical costs attributable to OA were $65.5 billion per year.[1]

The effects of OA are felt by those with the disease, and by their friends, families, employers, and communities. However, OA is not the inevitable result of aging, and there are public health strategies that can help to prevent and manage it.

What is osteoarthritis?

Osteoarthritis is the most common form of arthritis, occurring most frequently in the hands, hips, and knees. The cartilage within the joint begins to break down, and the underlying bone begins to change. These changes typically develop slowly, worsen over time, and cause pain, stiffness, and swelling.

There are 3 modifiable risk factors for OA:

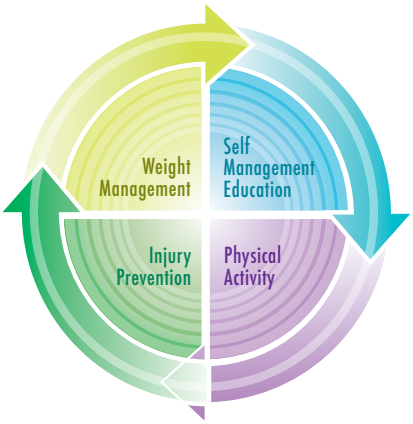
- Joint injury or overuse, such as knee bending and repetitive stress on a joint.
- Occupations that require repetitive knee bending and squatting.
- Extra weight, which puts more stress on joints, particularly weight-bearing joints (e.g., hips, knees), and may also have metabolic effects that increase the risk of OA.

Other nonmodifiable risk factors include gender, age, genetics, and race.

Source: www.cdc.gov/arthritis/basics/osteoarthritis.htm

Public Health Interventions for OA

Four evidence-based public health interventions are considered the first line of therapy for OA: self-management education, physical activity, weight management, and injury prevention.



- **Self-management education** workshops help people manage a variety of chronic conditions, including OA. These workshops have been proven to reduce pain, fatigue, and depression.[4]
- **Physical activity** is important for managing OA, as well as other chronic conditions that commonly occur among adults with OA, such as diabetes and heart disease. Physical activity can reduce arthritis pain and improve physical functioning.[5]
- Achieving and maintaining a **healthy weight** is important for reducing joint pain associated with OA. In addition, people who maintain a healthy weight are less likely to develop knee OA and, therefore, less likely to need major surgery to treat OA symptoms.[6]
- **Preventing injuries** can help avoid OA later in life, particularly injuries to the knee. These injuries can occur from a fall, a motor vehicle collision, sports activities, or work requirements. Individuals with a history of knee injury are 3–6 times more likely than those without knee injury to develop knee OA.[7] Repetitive motion injuries to the hand can also lead to OA, especially if they are not treated. Muscle strengthening and balance training can reduce the risk of falls and fractures.[8]

First National OA Agenda in 2010

Recognizing the high prevalence of OA and its rising health impact and economic consequences, the Centers for Disease Control and Prevention (CDC) and the Arthritis Foundation (AF) collaborated with other partners on *A National Public Health Agenda for Osteoarthritis, 2010*. The primary audience included both the public and private sectors: federal, state, and local governments and policy makers; business and industry, nonprofit organizations, foundations, and associations; insurers and health care providers; and patient advocacy and community organizations. To coordinate implementation of A National Public Health Agenda for Osteoarthritis, CDC and AF established the OA Action Alliance (OAAA), a coalition of organizations concerned about OA.

During the past decade, several developments compelled adjustments to the 2010 Agenda.

- Despite its growing prevalence, **OA is still an under-recognized chronic condition**, which may be because OA does not result in death, despite its significant impact on morbidity and quality of life. The recognition that physical activity helps with heart disease, diabetes, obesity, and OA offers synergistic opportunities. Reducing the overall burden of OA requires ongoing partnerships with a wide variety of individuals, groups, networks, organizations, and agencies working to help with these other comorbidities. Addressing health disparities in access to services (e.g., because of geography, race or ethnicity, or socioeconomic status) and the unique needs of certain groups (e.g., veterans, senior adults, people in high-risk occupations) is also paramount.

> More studies have focused on arthritis in general than on OA specifically. However, OA is the most common form of arthritis. To the extent possible, OA data are presented here, supplemented with more general arthritis data, when needed.

- The **explosion of Internet access and advancements in mobile communications** have boosted digital connectedness. Vast amounts of information are readily accessible, easily shared, and quickly updated. Similarly, the advent of e-technology offers opportunities to reach people in new ways through cell phones, telemedicine, and the ever-expanding inventory of "apps." Health communication has been transformed, resulting in health-related online social networks, discussion forums, and online versions of packaged intervention programs for self-management education and physical activity. Further growth and creativity are anticipated in this arena, along with more reliable connectivity in rural and remote areas.

- Several **key reports and policy initiatives** have changed the landscape for addressing the public health burden of OA. These include:

  - Healthy People 2020;[9]
  - Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities;[10]
  - Physical Activity Guidelines for Americans (2nd edition);[11]
  - Updated clinical and related guidelines (from the American College of Rheumatology);[12]

- Osteoarthritis Research Society International;[13]
- US Bone and Joint Initiative;[1]
- Environmental and Policy Strategies to Increase Physical Activity Among Adults with Arthritis;[14]
- Several injury prevention policy statements;[15]
- HHS National Pain Strategy;[16]
- HHS Pain Management Best Practices;[17] and
- CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016.[18]

- The **public health community's interest in OA** has grown considerably. The OAAA, which was founded in 2011 with approximately 40 organizational members, now boasts a coalition of more than 100 member organizations.
- There are significant **gaps in delivering the four public health interventions** for OA. Although much progress has been made, many adults with OA have yet to experience these interventions' proven benefits. Additional treatments for OA, such as with opioids and other drugs, have gained recent media attention and interest. The safety and efficacy of these additional treatments and their role in managing pain need to be explored.

Creation of the 2020 Update

In early 2019, OAAA, CDC and AF teamed up to assess and update the 2010 Agenda and refocus national attention to OA. This process began by soliciting input from CDC, AF, OAAA and relevant OAAA workgroups, key organizations with expertise in OA, and CDC state and national arthritis awardees. They were asked to review the 2010 Agenda and consider what had occurred during the past decade.

Structured questions were offered to guide their feedback:

- What did we get right? What did we get wrong?
- Are the strategies still relevant? Do any strategies need to be modified?
- What is missing? What new strategies can move us forward during the next 5 or 10 years?

Responses were compiled and analyzed to determine whether strategies should be retained, deleted, or modified, and what additional new strategies might be considered. An initial draft agenda was then developed and reviewed by a broader group of stakeholders (see Acknowledgments for complete list), and a further refinement presented to the OAAA, including CDC and AF, during its September 2019 Strategic Planning Meeting. This 2020 Update is the result of that process.

Agenda Overview

The 2020 Update continues to be guided by the vision, goals, and guiding principles set forth in 2010, and its primary audience is the public health community. However, **the goals can only be achieved by involving the broadest array of stakeholders: health care providers, policy and other decision makers, communication and marketing specialists, the business community, insurers, nongovernmental agencies, and researchers**.

Although focused specifically on OA, the updated strategies have wide-ranging applicability to other types of arthritis and chronic conditions. Many adults with OA also have other chronic diseases, such as diabetes, heart

disease, and obesity. Taking steps to prevent and manage OA will have the added multiplier effect of improving the lives of adults with these other chronic diseases.

Consistent with the 2010 Agenda, the 2020 strategies are not presented in priority order. Their collective implementation is paramount to improving the quality of life for millions of people in the United States.

A useful list of OA resources for implementing currently recognized, evidence-based programs can be found at: https://oaaction.unc.edu/resource-library/.

2020 Agenda Overview

Our Purpose

We envision a nation in which adults with OA are able to live full lives with less pain, stiffness, and disability; greater mobility; and preserved function and independence.

This can best be accomplished if we:

- Ensure the availability of evidence-based interventions to all US adults with OA.
- Establish supportive policies, communication initiatives, and strategic alliances for OA prevention and management.
- Pursue needed research to better understand the overall burden of OA, its risk factors, and effective strategies for prevention and intervention.

Our Strategies

1. Promote evidence-based, self-management programs and behaviors (i.e., self-management education, physical activity, weight management, injury prevention, and health care engagement or provider visits) as nondrug interventions for adults with symptomatic OA.
2. Promote low-impact, moderate-intensity physical activity for adults with OA that includes aerobic, balance, and muscle-strengthening components.
3. Promote weight management for prevention and treatment of OA.
4. Promote, implement, and monitor existing policies and interventions that have been shown to reduce falls and OA-related joint injuries.
5. Expand systems for referral and delivery of evidence-based interventions for adults with OA.
6. Assure equity in access and delivery of interventions that prevent onset and improve management of OA.
7. Establish and implement a public health policy agenda for OA.
8. Strengthen communication and partnerships around OA prevention and treatment.
9. Pursue OA research and evaluation to enhance surveillance, better understand risk factors, explore early diagnosis and treatment, evaluate and refine intervention strategies, and examine emerging data on additional promising interventions.

II. BLUEPRINT FOR ACTION

Strategy 1: Promote evidence-based, self-management programs and behaviors as nondrug interventions for adults with symptomatic OA.

Increase Awareness, Access, and Adoption of Effective Self-Management and Health Behaviors

- Promote the early initiation of arthritis-appropriate, proven self-management interventions among adults with OA that together can reduce pain, stiffness, fatigue, disability, physical limitations, and falls; slow OA progression; and improve mood, quality of life, sleep, balance, and confidence.
- Promote self-management in a variety of formats (e.g., group classes, home-based instruction, online options, self-directed guides, mobile health technologies using smart phones, and wearable tracking devices); and settings (e.g., the community, work sites, health care system, and home).
- Develop and disseminate unified messages to increase awareness of OA, its severity, and locally available, evidence-based, self-management education and physical activity programs.
- Expand existing, arthritis-appropriate, self-management education and physical activity health communication campaigns to promote adoption of self-management interventions and create new campaigns for underserved ethnic or racial populations and persons with disabilities.
- Foster partnerships with public health professionals working to address self-management of other chronic diseases to share and leverage referral networks, tools, and technologies.

Self-management refers to a variety of activities adults can use to manage their OA and stay healthy:

- Self-management education
- Physical activity
- Weight management
- Injury prevention
- Health care engagement or provider visits

For a current list of recognized programs, visit https://oaaction.unc.edu/resource-library/

Packaged programs are well-defined and structured, recognized, arthritis-appropriate, evidence-based interventions, such as:

- Active Living Everyday
- Chronic Disease Self-Management Program and its Spanish version, Tomando Control de Su Salud
- Enhance®Fitness
- Fit & Strong!
- Walk With Ease

https://oaaction.unc.edu/resource-library/living-with-osteoarthritis/healthy-lifestyle/

Expand Availability of Recognized Packaged Self-Management Education and Physical Activity Programs

- Increase geographic availability of and participant access to packaged self-management education and physical activity programs.
- Expand the menu of recognized options for evidence-based, packaged, community-based, self-management education and physical activity programs overall, including alternative, low-cost, flexible delivery options (e.g., online self-directed guides, low-tech phone contact, self-help program books and tool kits).
- Collaborate with health system partners to integrate referrals into their clinical protocols and workflows for adults with OA to proven self-management education and physical activity programs.

Build Supportive Environments and Systems

- Identify the core elements of effective self-management education and physical activity programs for adults with OA.
- Maintain an updated list of recognized, evidence-based, self-management education and physical activity programs that incorporate identified core elements.
- Use databases or create systems to remind providers to initiate or recommend evidence-based interventions when an OA diagnosis appears or progresses.
- Develop mechanisms to reimburse for referral and delivery of evidence-based, self-management education and physical activity programs for adults with OA, (including use of generic codes that would be applicable to multiple chronic conditions).
- Create and disseminate guidelines, handbooks, and other tools targeting health care providers and insurers that support effective and efficient adoption, use, and maintenance of proven self-management strategies.
- Work with specific targeted employers to offer self-management programs as a covered benefit at the workplace or off-site through a community-based organization.

Key Research Priorities: Improve Self-Management Education

- Identify effective mechanisms and systems to enhance referral, program delivery, and reimbursement of self-management education programs for diverse populations with OA.
- Determine the cost effectiveness of self-management education programs among OA populations to support the adoption and referral of the programs by work sites and health insurance organizations.
- Encourage research into OA-specific health outcomes, particularly clinically relevant outcomes, and benefits potentially associated with existing self-management education programs recognized as evidence-based and reimbursable for common OA-comorbidities, such as diabetes (e.g., Diabetes Prevention Programs and Diabetes Self-Management Education) or heart disease.
- Conduct an international review of self-management education programs and their translatability to the United States.

Strategy 2: Promote low-impact, moderate-intensity physical activity for adults with OA that includes aerobic, balance, and muscle-strengthening components.

Support National Physical Activity Guidelines

- Endorse and fully implement the Physical Activity Guidelines for Americans (2nd edition), and encourage the development and implementation of strategies to increase physical activity and reduce inactivity among adults with OA.
- Help communicate recommendations from the Physical Activity Guidelines for Americans (2nd edition) to the public by sharing resources from the Move Your Way campaign.
- Communicate the arthritis-specific benefits of being active by implementing the *Physical Activity. The Arthritis Pain Reliever* campaign.
- Seek opportunities to partner with new and emerging initiatives to support a comprehensive approach to physical activity, such as CDC's Active People, Healthy Nation℠.

Build Supportive Environments and Systems

- Pursue and fully embrace the strategies outlined in the OAAA's Environmental and Policy Strategies to Increase Physical Activity Among Adults with Arthritis and Physical Activity Implementation Guide.

Key research priorities for other self-management interventions are listed under Strategies 2, 3, and 4. Whenever possible, existing literature reviews and environmental scans should be leveraged or expanded to address the OA research priorities in this 2020 Update.

Key Research Priorities: Increase Physical Activity

- Implement and evaluate community-based behavioral change, social support, built environment, mobile health, and policy interventions aimed at improving the physical activity behaviors of large populations of adults with OA.
- Identify the optimal dose of activity (e.g., intensity, frequency, duration) that produces improvements in clinically and person-relevant OA outcomes.
- Implement and evaluate strategies that enhance health care provider prescriptions for physical activity, and improve the health care provider-patient interaction to successfully promote greater physical activity among adults with OA.
- Determine cost-effectiveness or value on investment of different formats and delivery options of physical activity interventions among OA populations to increase the likelihood of reimbursement.

- Support built-environment, land use and design policies, and other policy and environmental designs that promote physical activity, such as those found in the Guide to Community Preventive Services, Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities, and OAAA Walkability Audit for Arthritis because these population-based approaches also affect adults with OA.
- Promote physical activity as a vital sign, with counseling for adults with OA about the benefits of physical activity to manage OA; reduce pain, depression, and anxiety; and prevent or manage common chronic comorbidities.

Strategy 3: Promote weight management for prevention and treatment of OA.

Support National Guidelines for Obesity and Nutrition

- Promote the recommendations of the Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity and the Recommended Community Strategies and Measurements to Prevent Obesity in the United States: Implementation and Measurement Guide.
- Encourage widespread adoption of the Dietary Guidelines for Americans by all adults with OA.

Build Supportive Environments

- Promote built environment, land use and design policies, and other policy and environmental changes proven to support weight loss among adults who are overweight or obese and maintenance of a healthy weight, (such as those found in the Guide to Community Preventive Services and other evidence-based sources), because these population-based approaches also affect adults with OA.
- Support workplaces to create on-site environments that support weight loss among adults who are overweight or obese and management of a healthy weight, including classes, counseling, cafeteria offerings, walking paths and groups, as well as reimbursement, incentives, and flex time to encourage participation.

Key Research Priorities: Manage Weight and Prevent Obesity

- Advance our understanding of the extent to which attenuating weight gain through appropriate weight management strategies prevents OA progression.
- Evaluate effective multi-modal strategies (e.g., community-based, web-based, mobile health) to promote successful long-term weight management among persons with OA, particularly younger individuals who have obesity.
- Assess whether there are roles for specific dietary components, nutritional supplements, dietary restrictions, or modified nutrient sources in the prevention and management of OA.

Strategy 4: Promote, implement, and monitor existing policies and interventions that have been shown to reduce falls and OA-related joint injuries.

Promote Existing Policy

- Promote the widespread adoption of evidence-based rules, policies, and legislation in all appropriate settings and venues that reduce musculoskeletal injuries, which may accelerate or cause progression of OA.
- Integrate injury prevention into the policy agendas of other federal agencies (e.g., Department of Defense Joint Forces, National Highway Traffic Safety Administration, Occupational Safety and Health Administration), work sites, and state and local school systems.
- Promote widespread implementation of activity-specific rules and policies for organized sports, recreation, and school athletics to prevent causes of joint injuries that can lead to OA or accelerate progression of OA.

Implement Proven Interventions

- Adopt and implement proven injury prevention strategies, such as those found in the Guide to Community Preventive Services.
- Incorporate balance training, Tai Chi, and other forms of dynamic exercise into physical activity programs to help prevent falls and fall-related injuries among older adults with OA.

Key Research Priorities: Prevent Injury and Associated Consequences

- Describe the epidemiology of injuries that may accelerate progression to OA, specifically:
  - Identify how (mechanism) and where (bodily location) OA-related injuries occur, and characterize the severity of functional limitations associated with these injuries.
  - Identify modifiable risk factors that contribute to progression to OA after an injury.
- Investigate the efficacy and cost effectiveness of primary and secondary injury prevention strategies (e.g., biomechanical modifications, weight management, policy changes) to delay or prevent OA.
- Promote the development, evaluation, implementation, and dissemination of injury prevention strategies for OA-related injuries that occur in a variety of settings (e.g., work site, sports and recreation, schools, home and leisure, motor vehicle or transportation).

Strategy 5: Expand systems for referral and delivery of evidence-based interventions for adults with OA.

Establish Infrastructure

- Work with state and national organizations to scale up capacity to deliver evidence-based programs among a multitude of community-based agencies and settings in all 50 states, the District of Columbia, and US territories.
- Share treatment guidelines for OA with health care providers to inform them of available evidence-based treatment options, including pain management.
- Develop systems to assure the quality of the implementation of public health interventions directed toward reducing the impact of OA.

Integrate with Other Chronic Diseases

- Promote the early initiation of lifestyle modifications to reduce risk, injury, and pain by using effective nonpharmacological approaches and proven self-management education and physical activity programs.
- Integrate OA messages into current state and federal efforts addressing overlapping audiences with comorbid conditions (e.g., heart disease, diabetes, obesity).
- Bundle evidence-based OA interventions with other evidence-based health promotion programs to provide more comprehensive and long-term approaches to managing related chronic conditions.

Assure Financing

- Develop the business case for evidence-based, self-management interventions.
- Work to provide public and private financing and reimbursement for participation in evidence-based, self-management education and physical activity programs among community and workplace settings, particularly for those on Medicare.
- Encourage targeted insurers to offer incentives for adopting prevention strategies that target multiple risk factors for OA and other chronic conditions.

Strategy 6: Assure equity in access and delivery of interventions that prevent onset and improve management of OA.

- Identify and address health disparities in OA burden, prevention, intervention, research, and treatment.
- Promote strategies to ensure that evidence-based interventions for OA are available to adults who need them in a variety of community-based settings, with particular attention to cultural sensitivity and geographic challenges.
- Identify and collaborate with partners who routinely serve populations disproportionately affected by OA.
- Establish policies and built environments that address transportation barriers to programs for persons with arthritis, such that they can access the program destinations by using safe pedestrian, bicycling, or public transportation routes (e.g., complete streets).

Strategy 7: Establish and implement a public health policy agenda for OA.

Support Existing National Policies Relevant to OA

- Endorse and support the Social Determinants of Health topic area within Healthy People 2020 to identify ways to create social and physical environments that promote good health for all across multiple sectors, such as housing, education, parks, recreation, fitness, and transportation.

Develop a Policy Agenda for OA

- Establish an ongoing process that builds on the 2020 Agenda and continuously identifies gaps, opportunities, and policy goals and objectives that would serve to prevent the onset of OA or progression of disease, and promote adoption and use of evidence-based interventions.
- Engage multi-sector partners to develop an overarching public health policy agenda and coordinated implementation approach for achieving OA goals and objectives.
- Continue to grow and nurture a coalition of partners committed to implementing the 2020 Update.

Strategy 8: Strengthen communication and partnerships around OA prevention and treatment.

Engage Health Care Providers

- Target primary care and other health and allied health care providers to increase awareness of OA as a common comorbidity with heart disease, diabetes, obesity, and other chronic conditions; educate providers about effective evidence-based interventions; and enable providers and clinical care systems to refer and support participation in these programs.
- Create messaging, tools, and supports to increase awareness of OA, and help create desired health care provider counseling and referral behaviors.
- Incorporate training about the existence and appropriate use of evidence-based OA interventions into relevant health care professions and medical school curricula, as well as curricula for primary care residents and subspecialty fellows.

Engage Decision Makers

- Continue refining a message platform that reaches policy and other decision makers.
- Create a strategic plan for educating decision makers that includes targeted information-sharing, educational visits, media messages, grassroots efforts and partnership integration.
- Identify and engage champions for OA in policy, business, and community arenas.
- Support existing federal, state, local, and organizational policies that further OA goals, including reduced joint injury, reduced obesity, improved physical activity and weight management, and expanded access to packaged self-management education and physical activity programs.

Engage Business Community and Insurers

- Create and promote incentives for implementing evidence-based programs in the work site and for increasing employee participation in them.
- Encourage employers and business groups to support state and local programs and services designed to increase mobility and reduce the economic and social costs of OA (e.g., job accommodations, job retraining, vocational rehabilitation, return-to-work transition support).
- Increase use and acceptance of existing efforts to evaluate and address individual workplace risk factors for the onset and progression of OA.
- Promote strategies and tools to attract employers and insurers to set up policies for referrals to evidence-based programs, reimbursements, or health communication strategies for helping with OA.
- Expand workplace wellness programs that promote a culture of good health and management-level commitment to worker mobility, health, and safety by using tools, such as the CDC Worksite Health ScoreCard.

- Expand workplace wellness programs to include evidence-based, self-management education and physical activity programs, and greater use of workplace accommodations, particularly as outlined by the Job Accommodation Network for arthritis.
- Support work sites in creating environments that support on-site physical activity, nutrition, and weight management, including classes, counseling, cafeteria offerings, walking paths, and groups, as well as flextime to encourage participation, reimbursement, and incentives.

Engage Public Health and Other Community Organizations

- Identify and engage community organizations (e.g., faith-based and cultural or ethnic groups; neighborhood associations; senior centers; and parks, recreation, fitness, health, and wellness organizations) that may not be aware of or using the effective intervention strategies or offering evidence-based programs to help with OA.
- Create and share information about OA prevention and treatment to community organizations.
- Develop or tailor existing grassroots materials with a focus on how to implement and market effective interventions and programs.
- Support community-level policy and system change efforts that improve nutrition, physical activity, and injury prevention environments.
- Increase information sharing, awareness, dissemination, and use of existing and new communication campaigns and tools to reduce OA symptoms and improve OA management.

Strategy 9: Pursue OA research and evaluation to enhance surveillance, better understand risk factors, explore early diagnosis and treatment, evaluate and refine intervention strategies, and examine emerging evidence on additional promising interventions.

Enhance Surveillance and Investigation of Characteristics Associated with OA

- Create survey questions with reasonable accuracy in classifying OA among populations.
- Adapt existing health care use surveys (e.g., National Ambulatory Medical Care Survey) to reliably reflect OA among the population to assess functional limitations and costs related to OA, and to determine how adults with OA use the health care system.
- Determine the utility of electronic health records for OA surveillance.
- Identify modifiable risk factors that affect the course of well-being, knee pain, and the development or progression of structural damage.
- Identify mechanisms underlying chronic pain from OA.
- Advance the understanding of the co-occurrence of OA and other conditions by adding questions about OA to large, randomized clinical trials that examine other chronic diseases, such as heart disease, depression, or diabetes.

Explore Early Diagnosis and Treatment

- Identify valid and responsive early markers of OA pain and structural damage via state-of-the-art approaches, such as machine learning, to identify OA risk factors and guide interventions to avoid the progression to OA (e.g., disease-modifying therapies).
- Develop novel end-points integrating real-world data to assess the efficacy of interventions.

Refine Interventions for OA

- Help guide a review of arthritis-appropriate, evidence-based interventions by the Community Preventive Services Task Force (CPSTF) or other neutral scientific bodies, and draw from practice experience and program implementers to refine and adapt these interventions to help with barriers to participation and to be more efficacious and salient among adults with symptomatic OA.
- Create or identify new, evidence-based, community programs to expand the selection of evidence-based intervention options for OA.
- Evaluate the cost-effectiveness, or value on investment, of ongoing, evidence-based interventions and the design of new interventions.

Evaluate Workplace Interventions

- Develop an in-depth understanding of the underlying mechanisms involved with work-related OA onset and progression to develop effective interventions and policies that improve the work environment for OA prevention and management.
- Investigate the occupation-specific progression of OA during the occupational lifespan of workers.
- Evaluate the dissemination and implementation of known effective interventions in occupational settings, such as physical activity programs and self-management education.

Evaluate Biomechanical Interventions

- Test community implementation of biomechanical interventions that reduced OA symptoms in clinical trials, entailed little risk, and substantially affected public health settings (e.g., motor learning interventions, footwear, orthotics).
- Develop musculoskeletal modeling to determine movement patterns related to OA to guide interventions to counter OA progression.

Evaluate Symptom Management Interventions

- Determine the potential feasibility and benefits of implementing symptom management interventions among samples of adults with OA across different age groups, different races or ethnicities, persons with disabilities, and different workplace environments.
- Examine how delivering symptom management techniques are affected by the training and proficiency of the qualified professional and participant.
- Determine effective methods for evaluating and ensuring core competencies for managing OA symptoms among the health care professional workforce.
- Conduct pragmatic trials and studies of pain, fatigue, and mental health outcomes by using big-data approaches to evaluate multimodal care.

Develop, Implement, and Examine Components of Emerging Personal Health Plan Approaches

- Evaluate new interventions for OA, by the Community Preventive Services Task Force (CPSTF) or other neutral scientific body, to establish the interventions' credibility as effective for adults with symptomatic OA.
- Continue developing and investigating OA-specific, well-being programs (e.g., self-care, skill building and support, complementary and integrative health, health partner support).
- Partner with stakeholders to review implementation pathways for whole health system models to efficiently carry out whole health care for adults with symptomatic OA, including in health care settings that are not part of an existing integrated network.
- Investigate personal and social determinants of health within a whole health care approach to personalize care for adults with symptomatic OA.

III. NEXT STEPS

Next Steps

Tackling the complex challenges of OA requires a concerted effort among multiple and diverse public and private sector partners. Many organizations are already committed; others have yet to join this national collaboration. The OA Action Alliance is uniquely positioned to coordinate the translation of the 2020 Update into action. Planned next steps include:

- Establishing a small group of stakeholders to monitor implementation of the Agenda and share progress.
- Soliciting endorsements of the OA 2020 Update from relevant strategic partners.
- Designing and implementing an evaluation plan to measure progress and outcomes.
- Developing supplementary materials (e.g., short briefs, tips for implementation) targeted to employers, decision makers, health care professionals, insurers, public health professionals, and other stakeholders.

Strategic Partners

- Federal, state, and local agencies
- Aging networks and agencies
- Community organizations
- Employers and businesses
- Community park and recreation agencies and organizations
- Professional associations
- Foundations
- Nonprofit organizations
- Minority organizations
- Health care systems
- Provider networks
- Insurers and health care payers
- Sports and fitness organizations
- Faith-based and religious organizations
- Organizations serving or representing underserved populations

Endnotes

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