MOVEMENT IS LIFE: A CATALYST FOR CHANGE

ADDRESSING MUSCULOSKELETAL HEALTH DISPARITIES
Is arthritis turning America into a sick and disabled nation?

Arthritis cripples millions of Americans. The physical, psychological, and economic toll of this health crisis requires immediate action and priority status on the national health agenda. Arthritis is the single greatest cause of chronic pain and disability among Americans. In 2003, it cost the nation more than $128 billion in medical care and lost earnings. Eighty percent of Americans either have or know someone with arthritis and the numbers continue to escalate.¹

Joint pain is a faceless concept, but just imagine what happens to people’s lives when arthritis begins to rob them of mobility and takes them down a path of disability and illness. They can’t work or it gets harder to function at work. They become inactive and rapidly gain weight. They are constantly told to exercise as a way to manage their diabetes or heart disease but it hurts to get out of bed. It gets harder to perform basic tasks for themselves or their family. Soon the debilitating pain and immobile joints cause them to lose their independence. They become home bound—perhaps depressed—and throughout this cycle, the cost of their healthcare escalates.

One in five Americans suffer from doctor-diagnosed arthritis, but among three segments of the population, the impact is worse. Women, African-Americans, and Hispanics have more severe arthritis and functional limitations. These same individuals are more likely to be obese, diabetic, and have higher incidence of heart disease—medical conditions that can be improved with physical activity. Instead of moving, however, these groups have an inactivity rate of 40–50 percent... and this rate is going up!²

The crippling effect of arthritis is contributing to these inactivity levels, and musculoskeletal health disparities has a little-known but serious impact. Physical inactivity contributes to 300,000 preventable deaths a year in the United States. We must address growing disability and physical inactivity due to arthritis among women, African-Americans, and Hispanics because of its profound effect on chronic disease management and the health of this nation. A physically inactive, obese, and immobile body can head down a path toward chronic disease and illness, medication dependency, disability, and depression.
Musculoskeletal Health Disparities must gain priority status in the national health dialogue. Early intervention is the key.

Movement is Life! Our mantra drives our mission:

BEYOND SILO THINKING – The entire continuum of care—healthcare providers, patient advocates, community and faith based organizations, health advocacy organizations, academia and medical schools, researchers, private foundations, public policy officials, federal agencies, and government leaders—must sit at the same table so we can harness the power of collaboration and develop priority actions that can make an impact now, while continuing to work toward long-term solutions.

NO MORE ACTIVITY INSTEAD OF ACTION – We must convert activity into action that halts the worsening health statistics and has measurable and sustained impact on people’s health, restoring their ability to fully contribute to their family, community, and the nation. Let’s find ways to make an impact now while we develop long-term strategies to break the cycle and begin a journey towards NO MORE MUSCULOSKELETAL HEALTH DISPARITIES and a healthier nation.

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Joint pain, arthritis, and other musculoskeletal health issues are rapidly disabling America. Women and racial/ethnic minorities disproportionately bear the burden of impaired daily living. Across the nation, the physical and economic toll grows every day.

Together we must move… or suffer the consequences. Patients, providers, researchers, and community leaders need to take measurable steps to increase awareness, broaden understanding, and implement best practices in improving musculoskeletal care.

The time for action is now.
The landmark 2010 *Movement is Life* Summit brought together patients, providers, researchers, and community leaders to work on issues pertaining to musculoskeletal health and mobility disorders. Several key themes were discussed in keynote presentations and breakout sessions including:

- Racial/ethnic musculoskeletal disparities and the role of culture
- Gender musculoskeletal disparities and the role of social/psychological factors
- Communication processes – creating activist patients and responsive providers
- Community programs, faith-based outreach, research, and funding
- Cultural competency, pipeline issues, and education
Arthritis and musculoskeletal conditions are at dire levels in the U.S.

- Arthritis affects 46 million Americans, and that number will rise to 67 million by the year 2030.³
- In 2003, arthritis cost the nation more than $128 billion a year in medical care and lost earnings.⁴
- Twenty-seven million Americans suffer from osteoarthritis (OA),⁵ the most common form of the disorder,⁶ making it the leading cause of disability in the U.S..
- Obesity accelerates the onset of arthritis: 70 percent of obese adults with mild OA of the knee at age 60 will develop advanced end-stage disease by age 80. In contrast, just 43 percent of non-obese adults will have end-stage disease over the same time period.⁷
- Obesity and other chronic health conditions exacerbate the debilitating impact of arthritis,⁸ leading to inactivity, loss of independence, and a perpetual cycle of comorbid chronic conditions.⁹
Women are living longer but in poorer health due to arthritis and obesity

- Sixty-one percent of arthritis sufferers are women.\(^ {10} \)
- Women represent 64 percent of an estimated 43 million annual visits to physicians’ offices and outpatient clinics where arthritis was the primary diagnosis.\(^ {11} \)
- Women represented 60 percent of approximately one million hospitalizations that occurred in 2003 for which arthritis was the primary diagnosis.\(^ {12} \)
- Women ages 65 and older have up to 2½ times more disabilities than men of the same age. Higher rates of obesity and arthritis among this group explained up to 48 percent of the gender gap in disability, above all other common chronic health conditions.\(^ {13} \)
- Of people with a disability, 22.4 percent of women—as opposed to 11 percent of men—identify arthritis or rheumatism as the main cause of their disability.\(^ {14} \)
- Among adults with arthritis, 33 percent of women—as opposed to 23 percent of men—report frequent anxiety or depression.\(^ {15} \)
- The odds of a family practice physician recommending total knee arthroplasty (TKA) to a male patient with moderate arthritis are twice that of a female patient.\(^ {16} \)
- The odds of an orthopaedic surgeon recommending TKA to a male patient with moderate arthritis are 22 times that of a female patient.\(^ {17} \)
- Osteoporosis, which is characterized by loss of bone mass leading to increased risk of fracture, affects 8 million women, four times the number of men affected.\(^ {18} \)
Racial/ethnic minorities are hampered by poor musculoskeletal health

- African-Americans with doctor-diagnosed arthritis have a higher prevalence of severe pain attributable to arthritis, compared with Whites (34.0 percent vs. 22.6 percent).\(^\text{19}\)

- African-Americans, compared to Whites, report a higher proportion of work limitations (39.5 percent vs. 28.0 percent) and a higher prevalence of arthritis-attributable work limitation (6.6 percent vs. 4.6 percent).\(^\text{20}\)

- **Hispanics are 50 percent more likely than non-Hispanic Whites to report needing assistance with at least one instrumental activity of daily living and to have difficulty walking.**\(^\text{21}\)

- African-Americans and Hispanics were 1.3 times more likely to have activity limitation, 1.6 times more likely to have work limitations, and 1.9 times more likely to have severe joint pain than Whites.\(^\text{22}\)

- There is also a wide range reported among Hispanic subgroups for different mobility issues including arthritis-attributable activity limitations (21.1 percent among Cubans/Cuban-Americans to 48.5 percent among Puerto Ricans), arthritis-attributable work limitations (32.9 percent among Central/South Americans to 41.6 percent among Mexican-Americans), and severe joint pain (SJP) (23.7 percent among Cubans/Cuban-Americans to 44.1 percent among Puerto Ricans).\(^\text{23}\)

- In 2003, the Institute of Medicine reported that the rates of TKA and total hip arthroplasty (THA) among African-American and Hispanic patients are significantly lower than for Whites—even for those with equitable health insurance coverage such as Medicare and Veterans Affairs.\(^\text{24}\)

- **According to the Centers for Disease Control, in 2000, African-American Medicare enrollees were 37 percent less likely than White Medicare enrollees to undergo total knee replacements. In 2006, the disparity increased to 39 percent.**\(^\text{25}\)

- Even after adjusting for insurance and health access, Hispanics and African-Americans are almost 50% less likely to undergo total knee replacement than Whites.\(^\text{26}\)
Poor cultural competence and unconscious provider bias prevent optimal care

- Even though African-American and White patients with knee and hip OA are equally likely to be referred for specialist care, referral rates to orthopaedists trend toward favoring Whites.\(^\text{27}\)

- Studies have reported that compared to African-American men, White men were two to five times more likely to undergo total knee replacement and two to three times more likely to undergo total hip replacement.\(^\text{28}\)

- Joint arthroplasty is underutilized for female patients at a rate three times greater than male patients.\(^\text{29}\)

Lack of orthopaedic training in medical school curriculum hinders treatment effectiveness

- Over half of family practice physicians rate their training in orthopaedics as inadequate for their current patient needs.\(^\text{30}\)

- Residents identified orthopaedics as the primary area in which they believed their education was inadequate.\(^\text{31}\)

- Eight-two percent of medical school graduates fail to demonstrate adequate competency of fundamental orthopaedic concepts.\(^\text{32}\)

African-Americans and Hispanics have lower use of surgical and medical interventions and rely more heavily on alternative and faith-based approaches to care

- African-Americans are more likely to use praying and hoping as a primary means to manage their osteoarthritis pain than Whites.\(^\text{33}\)

- Among some Hispanics, there is a belief that prayer is an empowering action (i.e., something that gives one stability, something that increases health protection, and something that greatly contributes to a cure) that should be combined with herbal remedies or seeking medical attention.\(^\text{34}\)

- When it comes to the uptake of proven medical treatments for OA, such as total joint replacement (TJR), differences in perceptions contribute to a situation in which African-Americans are less likely than Whites to have heard of TJR as a treatment for OA or to have had a family member or friend who had benefited from TJR.\(^\text{35}\)

- Due to higher rates of obesity and routinely delayed utilization of surgical interventions, Hispanic and African-American patients have worse preoperative hip and knee function before arthroplasty than White patients.\(^\text{36}\)
Individuals, families, providers, communities, researchers, and policymakers must fulfill their role in reducing disparities and promoting musculoskeletal health. As a group, the overarching recommendations and immediate next steps hold great promise for improving care and quality of life.
**Sound the Alarm - Research and Disseminate Information to Energize People to Address Musculoskeletal Health Disparities**

**Priority Action:** Quantify the economic impact of musculoskeletal health disparities by gathering data on the individual and societal impact of poor musculoskeletal health and the impact of delayed intervention on communities disproportionately impacted by arthritis (women and racial/ethnic minorities). Review current data sources, methods, and analogues to determine the best approach.

**Long-Term Objective:** Communicate economic impact as well as key facts and figures that quantify the debilitating impact of non-action to policymakers and the public to garner priority focus. Educate influencers (i.e., faith-based leaders, primary care physicians, employers, payers, community groups, and patient advocates) targeting African-Americans, Hispanics, Asians, Native Americans, and women.

**Long-Term Objective:** Construct an ongoing annual report targeting the general public, media, and policymakers that includes key data and figures on the health, social, and economic burdens of poor musculoskeletal health and disparities among women and racial/ethnic minorities (key musculoskeletal health indicators).

**Long-Term Objective:** Identify and execute on partnerships to maximize scalability of communication campaign that considers constituencies such as policymakers, academic institutions, employers, organized labor, and consumer advocacy organizations.

**Priority Action:** Gather further evidence on patient health seeking behavior preferences through surveys, focus groups, registries, observational research, case studies, and local community dialogues. Documenting unmet patient needs is an essential way to present patient perspectives on the care they want and need. Practices should actively monitor referral patterns to ensure that treatment planning reflects patient needs.

**Long-Term Objective:** Determine most effective media (i.e., traditional, social, grassroots) that resonates with target audience using culturally relevant materials to communicate consequence of non-action with the intent of spurring change.
Long-Term Objective: Publish more data quantifying the impact of cultural competency on the use of optimal treatments and patient outcomes and the role that gender and racial/ethnic diversity plays in the delivery of care by healthcare professionals, including nurses and social workers. It is vitally important that information on health profession diversity be connected to its influence on improving patient outcomes and that the information be disseminated more broadly.

Priority Action: Measure the impact of co-morbidities and multiple chronic conditions on the activities of daily living of people with musculoskeletal health symptoms and conditions. Multiple providers seek to address root causes like obesity and physical inactivity. However, the link between musculoskeletal health and diseases like diabetes and cardiovascular disease that are better managed with physical exercise are not well understood.

Long-Term Objective: Collect case examples of provider treatment recommendations and patient engagement in health management and the importance of early intervention. Further evidence on provider’s techniques in meeting a complex patient’s need and individual’s health seeking behaviors and preferences across the entire continuum of care can be gathered through surveys, focus groups, registries, and other means.

Long-Term Objective: Create a focused educational campaign targeting primary care providers and specialists (including orthopaedists) to make the link between musculoskeletal health, joint pain, inactivity, obesity, and the impact of co-morbid health conditions on exacerbating gender and racial/ethnic health disparities. The education materials will present a range of treatment options focused on addressing the root causes of poor musculoskeletal health across the entire care continuum.

Long-Term Objective: Build an awareness program targeting women and racial/ethnic minorities that focuses on the consequences of non-action on musculoskeletal health, impact of co-morbid conditions, and the role that behavioral and medical interventions can play in managing the risk and severity of their condition.
Mirror Success - Accelerate Development and Adoption of Solutions that Address Disparities

Priority Action: Develop an inventory of communication tools (materials, templates, and models) used by healthcare providers (primary care physicians, orthopaedists, nurses, and others) and patient advocates to address musculoskeletal health that supports effective women’s and racial/ethnic minorities’ health, culturally competent care, and community engagement.

Long-Term Objective: Create a peer-to-peer education program targeting providers that advance knowledge of musculoskeletal health disparities and an understanding of social/psychological and cultural factors that impact the health of their patients and the effectiveness of communication tools.

Priority Action: Define framework and attributes of successful models using an inventory of communication tools based upon current practices. Standards for effective programs and models must be established in order to define characteristics of successful solutions to combating musculoskeletal health disparities for women and racial/ethnic minorities.

Long-Term Objective: Validate framework, attributes, and models among an expert blue-ribbon panel to ensure that models identified and evaluated are truly successful programs that measure behavioral change. The panel’s role will be to review objectively the attributes of programs and models to make certain that they adequately address musculoskeletal health and associated disparities in a culturally competent manner.

Priority Action: Perform a stakeholder audit on effectiveness of existing patient education programs/resources. As trusted sources, faith-based organizations and patient advocates are critical. Local leaders must be engaged to support awareness of the consequences of non-action and assist in identifying and creating the most effective tools that will encourage behavior change with input from patients, caregivers, and providers.

Long-Term Objective: Spur the creation of a repository of successful interventions, programs, and community-based initiatives focused on musculoskeletal health and implement protocols to facilitate information sharing between stakeholder groups.

Long-Term Objective: Conduct a needs assessment and create a process for making successful interventions scalable and replicable on a national scale. Institutionalize government, faith-based, and community-based models that demonstrate positive impact on consumer’s health seeking behaviors by memorializing program best practices. Clearly demonstrate their sustained impact on improving musculoskeletal health.
Open Communication Lines - Facilitate Better Patient and Provider Understanding of the Unique Needs of Women and Racial/Ethnic Minorities

**Priority Action:** Facilitate increased provider understanding of the unique needs of women and racial/ethnic minorities. Support increased communication among primary care physicians and orthopaedists, to ensure that patients are receiving appropriate care coordination for arthritis and its co-morbid conditions like obesity and diabetes.

**Long-Term Objective:** Share best practices of patient-provider communication and disseminate them to patients, providers, and community and faith-based organizations. Pilot programs should be focused in regional areas where patients disproportionately impacted by arthritis are highly concentrated. This should be fueled by a collaborative community where providers are willing to engage, community leaders are ready to act, and academic/research partners have the will to participate.

**Long-Term Objective:** Inform and educate patients prior to primary care and orthopaedic appointments, through the use of easy-to-understand pre-visit checklists and evidence-based multi-media tools that resonate with patients and caregivers. Patients need better information to be active participants in their care. Feedback of the effectiveness of the resources should be provided by patient advocates, faith-based and community organizations.

**Long-Term Objective:** Research institutions and medical providers need to increase information sharing with community and religious leaders. Traditional relationship barriers must be broken. For example, methods for building trust with patients, such as having patients communicate their treatment successes to potential patients, is a tactic often employed by hospital-based joint camps that include input from the communities they serve.

**Priority Action:** Support student and provider education and engagement in addressing the unique musculoskeletal health needs of women and racial/ethnic minorities. Engage stakeholders (providers, students, patients, and caregivers) in a dialogue on the unique needs of people with musculoskeletal health conditions and discuss best practices and successful communication techniques.
Long-Term Objective: Bolster efforts to improve cultural competency training in medical education. Identify effective awareness and education programs and engage current and future providers in the training. Enhance the provider pipeline and workforce by promoting greater diversity among individuals entering premedical, medical, residency, fellowship, and licensure programs. Current orthopaedic providers need to actively engage in programs targeting women and racial/ethnic minorities among potential and current medical students.

Long-Term Objective: Conduct regional programs to improve orthopaedic gender and cultural competency among existing orthopaedists as well as proactive training of incoming orthopaedists. Coordinate regional strategy in areas disproportionally impacted by arthritis. Identify early pipeline opportunities that engage women and racial/ethnic minority medical students prior to specialty selection.

Long-Term Objective: Educate policymakers, with a focus on state legislators, about musculoskeletal health and associated health disparities to help create incentives for better education and certification of current and future providers. Training providers in cultural competency and in gender and racial/ethnic diversity will help to improve care delivery.
HEALTH LEADERS ISSUED INSTITUTIONAL, STRUCTURAL, POLITICAL, SOCIAL, AND ECONOMIC CALL TO ARMS

In keynote presentations, expert leaders challenged the audience and the greater healthcare community to address disparities and musculoskeletal care.
DEMAND GREATER DIVERSITY IN THE HEALTHCARE WORKFORCE: By 2025, the U.S. will need an additional 160,000 doctors and 1,000,000 nurses. Dr. Louis Sullivan, President Emeritus of Morehouse School of Medicine and former Secretary of the U.S. Department of Health and Human Services (HHS), noted that 40 percent of college students will be minorities by 2020, representing a promising avenue for bridging the diversity gap among health professions.

PUSH FOR PROACTIVE POLICY SOLUTIONS: Patient education programs on diet and exercise must be combined with policies that have incentives for creating healthier communities so that health risks are not concentrated in particular geographic areas, said Dr. Brian Smedley, Vice President at the Joint Center for Political and Economic Studies. He noted that between 2003 and 2006, 30.6 percent of medical expenditures for minorities were excess costs due to baseline health and socioeconomic inequalities.

TACKLE DISPARITIES BY EMPOWERING THE NEXT GENERATION OF LEADERS: Dr. Cato Laurencin, Vice President for Health Affairs at the University of Connecticut and Dean of the University of Connecticut, School of Medicine, made the case for increasing programs that educate youth on healthy lifestyles and promote science and medical education. Targeted efforts to strengthen diversity in the provider “pipeline” will yield more providers to address the needs of women and racial/ethnic minorities.

UNDERSTAND AND FOSTER BETTER PATIENT DECISION MAKING: Improving patient and provider communication is vital to reducing disparities. Shared decision making, said Dr. Maria Suarez-Almazor, Rheumatology Section Chief at the M.D Anderson Cancer Center, offers an opportunity to utilize patient aids and other customizable tools to bridge communication gaps between patients and providers.

PRODUCE AND DISSEMINATE MEANINGFUL RESOURCES: In partnership with the Arthritis Foundation, CDC released a 2010 National Public Health Agenda for Osteoarthritis (http://www.arthritis.org/osteoarthritis-agenda.php), which gives recommendations for how the entire healthcare system can work to improve musculoskeletal care. Dr. Wayne Giles, Director of the Division of Adult and Community Health at the Centers for Disease Control and Prevention (CDC), described the document as a resource to help understand the state of osteoarthritis.

FOSTER PUBLIC-PRIVATE PARTNERSHIPS TO RAISE ARTHRITIS AWARENESS: As an example, Dr. Stephen Katz, Director, National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), highlighted the Osteoarthritis Initiative, a collaboration between NIAMS, the Food and Drug Administration (FDA), and the Arthritis Foundation to stimulate the creation of predictive tools that will aid researchers in better identifying people that will eventually develop arthritis to better target preventive treatment.

LEVERAGE THE COLLABORATIVE POWER OF PHILANTHROPIES: Jeffrey Lewis, President and Chief Operating Officer of the Heinz Family Philanthropies, gave an illustrative example of community partnership by discussing collaboration between Welvista (non-profit health service provider), Merck, and Abbott to give HIV/AIDS medications to low-income Americans who do not qualify for Medicaid. The example highlighted critical roles that philanthropies can play as catalysts among uncommon parties.
SUMMIT BREAKOUT SESSIONS FOCUSED ON CRITICAL AND COMPLEX ISSUES

Active, discussion-based sessions helped to articulate fundamental issues and successful strategies for improving musculoskeletal health and addressing disparities among women and racial/ethnic minorities.
Racial/Ethnic Musculoskeletal Disparities and the Role of Culture

While TJR is just one potential remedy for musculoskeletal disease, it is an appropriate proxy for understanding sources of racial/ethnic disparities in musculoskeletal care generally because it is so widely studied. Although TJR is a proven effective treatment option for end-stage lower extremity OA, African-Americans are less likely than Whites to have heard of TJR as a treatment option for OA or to have had a family member or friend who benefited from TJR. Patient preference is the biggest cause for TJR disparity; African-Americans are more likely than Whites to prefer non-surgical ways of coping with OA. Underlying factors may include differences in religiosity, social networks, and doctor-patient communication among ethnic groups.

Knowing that disparities are rooted in both provider bias and disparate patient preferences rather than differences in clinical appropriateness, communication with primary care physicians (PCPs), patients and families is vital in order to improve patient and provider dialogue about all appropriate treatment options and affect patient decision towards those treatment options. For the majority of TJR patients, the decision to see a surgeon is due to recommendations from their primary care providers and word-of-mouth communication from friends, families, and community members. In regards to TJR surgery, one physician recounted a study he did with a sociologist in which he found that African-American patients who were properly informed about TJR as an option were just as likely to choose surgery as White patients. This finding indicates that low TJR utilization rates amongst African-Americans may, in part, be due to the level of education providers give to African-American patients.

Education for a range of stakeholders is the key vehicle for reducing and eliminating racial/ethnic disparities in musculoskeletal care. Providers noted that proper care must encompass much more than just surgery—patients need information about all the available treatment options to manage their care. Two areas for improvement are with patient education and orthopaedist coverage of chronic conditions. Over the last decade orthopaedists have increasingly joined, and advocated for, hospital-based ‘joint camps’ that emphasize the entire patient care pathway from pre-op education to post-op care at home. Joint-camps may provide a more welcoming and trusting

DISCUSSION QUESTION 1:
How do we communicate to the community and stakeholders about the significance of this disparity?

DISCUSSION QUESTION 2:
What can be done for patients, doctors, and the healthcare system to reduce and/or eliminate this disparity?
environment for African-Americans hesitant or unknowledgeable about TJR. Education plays a central role in these ‘joint camps’, and could be tailored to various racial/ethnic communities. More recently, orthopaedists who treat minority populations are also becoming generalists to tackle diabetes, obesity, and other co-morbidities associated with musculoskeletal diseases. To that end, there is a need to connect orthopaedists with primary care doctors in a more systematic manner so they can communicate best practices in serving arthritis patients. As new payment systems emerge that incentivize coordinated care amongst physicians, as well as the treatment of chronic conditions, an opportunity may exist to promote and in some cases formalize coordinated care for potential TJR patients with co-morbidities.

**DISCUSSION QUESTION 3:**

What is the role of research in this disparity and what should be studied?

Evidence points to a number of causes of disparity. In arthritis explanatory models, African-Americans tend to attribute arthritis to the general aging process, while Whites tend to cite accidents/injuries and resist aging as an explanation. This attitude most likely underlies the preferences that emerge when presented with options to treat arthritis. More evidence is needed, perhaps through patient surveys and focus groups, to understand where this difference in attitude comes from.

Furthermore, research suggests that African-Americans and Hispanics are more likely than whites to use praying or hoping and diverting attention to control their pain, which must be considered in the context of offering other treatment options like medical management or surgery. As a result of delay in surgical intervention, more significantly advanced arthritis will develop, usually with accompanying obesity, such that Hispanic and African-American patients have worse preoperative hip and knee function before arthroplasty than White patients. The social and psychological root causes of racial/ethnic disparities are an important area for further research.
SESSION 2

Gender Musculoskeletal Disparities and Social/Psychological Factors

INTRODUCTION:

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Gender-based musculoskeletal disparities are rooted in many causes, as illuminated by studying knee replacement surgery. Women are more physically disabled and in greater pain at the time of surgery as compared to men. As a result, their pain outcomes following operation lag behind that of men, a phenomenon known as the “never catch up syndrome.” In addition, social and psychological patient factors may also play a role, as women’s familial obligations may cause them to delay major procedures. Finally, unconscious bias on the part of the provider is an under-studied but prevalent barrier to achieving equal care. An orthopaedic surgeon is 22 times more likely to recommend surgery to a male patient than to a female patient with moderate knee arthritis.

DISCUSSION QUESTION 1:

How do we prevent women from developing knee arthritis or how do we slow down the progression?

Discussion participants agreed that a particularly effective way to slow the progression of arthritis in women is to ensure that education regarding co-morbid conditions (such as obesity and diabetes) is appropriately targeting women. For example, women should be made aware of community options that exist for exercising, should be encouraged to exercise and should be educated that exercise is not only important but can be fun.

Furthermore, social networks are especially important among women in communicating healthy habits and seeking out treatment at the appropriate time. Providers noted several instances in which a woman who has had a positive experience in screening or treatment has referred their female friends and family members to the same provider. Women who have gone through treatment tend to be the best advocate and source of advice for other women.

DISCUSSION QUESTION 2:

Are women delaying intervention or not being offered treatment?

Participants agreed that while there is robust anecdotal evidence of both trends, more research is needed to determine whether patient or provider factors have the greater impact on gender-based disparities. In addition, the burdens of co-morbid conditions like obesity and diabetes need to be better understood. The group expressed concern that women’s propensity towards the caretaker role within their families certainly causes them to delay care. Even as they bear more pain before they seek treatment, women tend to finally seek out a provider not mainly due to the pain but rather because limited mobility has affected their ability to care for their family.
Even though research suggests that women and men improve in pain outcomes at the same rate following surgery, the fact that women start off with a worse status before treatment means that they do not achieve the same outcome. Longer follow-up studies suggest that women “never catch up” and do not continue to improve to reach the same final outcome level as men. Therefore, participants suggested that the best way to improve outcomes in women after treatment is to take a long-term view and tackle the issues that arise before treatment. Many of the prevention strategies noted above, such as the use of social networks by groups of women, are just as important following treatment.

Providers’ decreased tendency to offer treatment (especially surgery) as an option for women may be rooted in education. A relative lack in female educators and curricula focused on female-centric care at medical schools may have a long-term impact. Furthermore, there is a lack of coordination among providers; a PCP may be more likely to recommend surgery than the orthopaedist to whom a woman is referred. Finally, providers noted the lack of educational materials that highlight the disparity; many suspected that their own colleagues were not even aware of the stark gender-based musculoskeletal disparities.

In addition, unconscious racial/ethnic bias and stereotyping impacts the delivery of care. Implicit associations that are made between patients and providers prevent effective communication and discussion on treatment options. It is important that providers are aware of stereotypes and the fact that discrimination permeates the environment, even in healthcare, in both conscious and unconscious ways. A commitment to recognizing different values, language barriers, and attitudes of patients by providers can improve how healthcare is ultimately delivered.
Communication Processes and Creating Activist Patients

Observing clinical communication breakdowns shows areas in which providers must improve to meet patient needs. Two dramatic, hypothetical clinical scenarios were reviewed. First, a Spanish-speaking woman and her daughter, acting as translator, are presented a surgery option by an orthopaedist. The provider appears to aggressively advocate for surgery without asking the patient about barriers that may prevent her from consenting (e.g., her understanding of the recovery time involved). Second, an African-American man with significant knee pain visits an office, but the provider is more interested in presenting novel treatment approaches and enrolling him in a clinical trial than in offering treatment to alleviate pain. The provider seems focused on the novel procedure and does not heed the concerns expressed by the man. Upon observing the scenarios, participants identified key characteristics of the patient-provider communication and potential methods to improve both provider and patient understanding.

All breakout participants mentioned the need for targeted pre-visit preparation materials that may be useful for patients before they first seek treatment. These resources range from those readily available on the Web (e.g., those by the Mayo Clinic and WebMD) to specific “pre-visit checklists” that some providers have developed at a local level. These checklists may ask patients to be ready with information regarding their current medications/allergies and their potential need for a translator. This also applies to the cycle of chronic conditions where diabetes, obesity, inactivity, and arthritis inflame one another and exacerbate the deterioration of a person’s health status. Furthermore, specific networks exist (e.g., the Women’s Health Network) to connect patients with each other so that they are better educated before they enter a physician’s office.

Many physicians are wary of their ability to communicate well with patients of different racial/ethnic backgrounds. Participants highlighted several real-world examples that demonstrated successful strategies. For instance, a Bay Area orthopaedic practice located in a predominantly Hispanic area found success in getting prospective patients to seek appropriate treatment by first having a physician assistant or social worker visit the home of the patient.
and explain treatment options to the entire family. By visiting the family and managing expectations, the providers fostered a trusting relationship. This and other examples also highlight the importance of utilizing the whole healthcare team – including physician assistants and social workers – in effective patient/family communication.

**DISCUSSION QUESTION 3:**

What are the roles of government, accrediting agencies, health plans, or others in administrative capacities to improve communication processes between patients and providers?

Government agencies (such as the National Institutes of Health or the Agency for Healthcare Research and Quality) and health plans may play a larger role in developing and disseminating “pre-visit checklists” and other similar tools for patients to prepare for their encounters. Under health reform, agencies are expected to pilot models for shared decision making that will likely include cultural competency components. Several providers noted that due to the threat of malpractice, many specialists are wary of taking on complex cases especially in patients who may not trust them for culturally based reasons. Pilot programs to offer tort relief may help, but providers are generally wary of too much government regulation on their practice patterns. However, quality improvement and care management initiatives have the ability to increase the accountability of providers in contributing to the total management of a patient’s multiple conditions.

Efforts are underway to increasingly tie effective communication to medical education. California recently ruled that every physician must incorporate cultural competency into their Continuing Medication Education (CME). Other states would be well served to follow suit, and many providers stated that cultural competency can play a larger role in medical school curricula.
Community Programs and Faith-Based Outreach

Two successful programs highlight how racial/ethnic and gender-based disparities may be tackled at the community level. Project Brotherhood encourages African-American men in Chicago to seek appropriate care by creating a comfortable environment centered on discussion groups, counseling, and education via the barbershop. Sister Talk Hartford harnesses the power of women’s groups within Black churches to encourage women to change their lifestyles to promote health. Women who may not have access to other sources of healthcare advice benefit from support from their peers, and research suggests that they respond better to lifestyle changes with support from culturally and religiously competent programs. Both of these programs have garnered significant local and national press reporting on their successes. While both programs deal with health issues broader than musculoskeletal health, they each serve as promising models for Movement is Life initiatives.

Discussing Project Brotherhood and Sister Talk, participants noted that both programs were successful because the clients themselves had a large role in developing them. They also effectively utilize existing environmental structures that are sources of trust (barbershops in the case of Project Brotherhood, churches in the case of Sister Talk) and cater to the whole patient rather than specializing in a particular disease area. By targeting primary issues like inactivity, and root causes like obesity, these programs represent a vital way to address musculoskeletal health. Any successful program can utilize these components in their own locality. The main barriers are in communication and coordination among programs. Providers from Chicago who began the Chicago Musculoskeletal Initiative were previously unaware that Project Brotherhood was catering to a similar client base in the same city. They suggested working together to identify clients who were potential candidates for musculoskeletal treatment, and to communicate successes with each other.
DISCUSSION QUESTION 2:
What organizations would be most effective in encouraging program adoption?

Efforts that have attempted to coordinate efforts between multiple organizations, and include those organizations that do not normally focus on healthcare but which are important for minority communities, have met with success. For example, when the NIH was developing patient-centered diabetes educational material, it partnered with the National Urban League and prominent African-American fraternities and sororities to develop effective descriptions and dissemination techniques. The success of Sister Talk and other similar programs show that the church can be a central resource for reducing racial/ethnic disparities. As multiple discussion participants from faith-based organizations noted, churches are a promising vehicle to reach people about health-related concerns because people attend church much more frequently than they go to the doctor.

DISCUSSION QUESTION 3:
How to get and keep people involved in current programs?
What is the role of the government?

Programs need to be developed and tailored in a transportable way. Sister Talk has developed a training model and DVD that it hopes will encourage providers and faith-based organizations to transport their models to other regions of the country. Discussants also noted the importance of utilizing technology to increase awareness of community-based programs. Providers in the Chicago area, for example, have used YouTube testimonials from patients to demonstrate satisfaction with musculoskeletal treatments. In areas with little access to the internet, gospel radio and church newsletters have proven to be successful vehicles. The most effective way to promulgate successful programs is to produce evidence that they work; testimonials from patients during educational sessions are a proven method to encourage other patients to seek appropriate treatment. Data on improved well-being, medication adherence, and return on investment may convince other communities to consider existing models when developing their own.
Cultural Competence, Pipeline and Education

The changing demographics of the U.S. population drives the need for culturally competent care, which is the ability of providers to understand, relate to, and treat patients whose beliefs, values, and histories are significantly different from their own. Medical training must include culturally competent care in order to keep pace with these changing demographics. As the clinical community re-focuses investments in PCPs, new opportunities for improving and promoting culturally competent care arises. An example would be Harvard Medical School’s recent $30 million investment in a Center for Primary Care focused on innovation in education and care delivery. In current medical school curricula, women’s health topics are taught in a number of areas, but minority health issues are not specifically addressed in courses. The pipeline demographics of future healthcare providers, especially in surgery and orthopaedic surgery, will impact racial/ethnic and gender-based disparities in care.

The legal system creates a foundation for provider and patient decision making, and providers should understand how the law might work to both improve and exacerbate disparities in care. Laws of informed consent and informed refusal, as well as the growing trend of cultural competency statutes in several states, incentivize providers to stay accountable regarding their consideration of patients’ wishes.

Participants agreed that educating providers and aspiring providers on culturally competent care should be coupled with greater research into whether that care is producing better outcomes in patients. Longitudinal studies tracing the impact of culturally competent care on patients will address the concern that cultural competency is currently an “abstract” concept that is too theoretical as taught. Furthermore, education of providers can be enhanced by getting regular feedback from their patients on whether their strategies for providing culturally competent care are actually having an effect on the patients’ attitudes and behavior.
Several participants noted that clinical rotations for medical students might be enhanced by exposing students to patients of different minority populations. Some suggested that the process for selected medical students could be reformed in order to pick a pool of potential providers who are more likely to practice culturally competent care (i.e., students who have taken medical sociology or related courses may become more culturally competent providers). In regards to specific fields, efforts can be taken to encourage more women (especially minorities) to enter surgery, especially orthopaedics. For example, schools could publicize the numbers of female students going into these programs in order to highlight the problem.

Session participants reviewed a case scenario of a 70 year old African American male, who was depressed by limited mobility due to pain in knees and hips. The man also refused the family doctor’s suggestion to see an orthopaedic surgeon, explaining: “I do not trust white doctors and I believe that whatever happens now is God’s will. I have led a good life.” He gets up to leave and the doctor encourages him to “think about it and be sure to call if you change your mind.” In this situation, the role of the primary care doctor, the nurse, the orthopaedic surgeon, the minister, and the family all influenced the health seeking behaviors of the man. Discussants wrestled with the responsibility of each person in the scenario. Despite the fact that no one person was culpable, the exercise illustrated the need for activation of cultural and social networks to improve an individual’s care decision making.

DISCUSSION QUESTION 2:
What is the best way to enhance curricular content? Should testing bodies drive this nationally, or by locally successful curricula?

DISCUSSION QUESTION 3:
What, if anything, should the law do to help to reduce musculoskeletal health disparities?
Endnotes


8. Ibid.


11. Ibid.

12. Ibid.


15. Ibid.


17. Ibid.


20. Ibid.


22. Ibid.


31. Ibid.

32. Ibid.


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Addressing musculoskeletal health disparities