2018 YEAR END REPORT

February 15, 2019
Office of Health Disparities Research
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OVERVIEW

Background
The Mayo Clinic Office of Health Disparities Research (OHDR) was created in 2012 by the Mayo Clinic Research Committee to serve as the “front door” for Mayo Clinic investigators and other interested personnel to obtain information about health disparities and to receive support in the development and pursuit of research in the areas of health disparities, health equity, and community engaged research.

VISION
The Office of Health Disparities Research will support and advance the Mayo Clinic mission of providing the best care every day to every patient from every cultural, racial, and ethnic background.

GOALS

**Goal One**
To foster, facilitates, and supports meaningful Mayo Clinic research collaborations and programs to identify, develop, and deploy strategies to eliminate health disparities.

**Goal Two**
To ensure that Mayo Clinic research subjects and patients reflect the diverse communities that form the mosaic of our nation.

**Goal Three**
To engage with the people, populations, and service agencies in the communities it serves and (when appropriate) joins with them as Research Collaborators, to include their perspectives, to leverage mutual resources, and to advance OHDR’s goals, realize OHDR’s vision, and support Mayo Clinic’s institutional and global commitment to health equity.

MECHANISMS

OHDR accomplishes its broad goals using a four-part strategic plan:

I. **OHDR engages** with the communities surrounding Mayo Clinic, and collaborates to include their perspectives and to leverage resources for health improvement.
   - A. Community Advisory Boards
   - B. Community Outreach Engagement
   - C. Community Partnerships

II. **OHDR supports and expands** the participation of minorities and women in Mayo Clinic research studies and clinical trials.
   - A. Track Research Minority Accrual and Patient Demographics in research
   - B. Facilitating Accrual of Minority and Female Research Participants
   - C. Catalogue Disparities Research Metrics
III. OHDR communicates information on health disparities and community engagement developments.
   A. To Mayo Clinicians, Educators, Investigators, and Administrators
   B. To Mayo Clinic Patients
   C. To the Community Mayo Clinic Serves and to the General Public

IV. OHDR promotes and expands the health disparities research portfolio at Mayo Clinic.
   A. Direct Funding to Investigators
   B. Consultations and Collaborations
   C. Grant Application and Study Support

ORGANIZATIONAL CHART
OHDR LEADERSHIP AND PERSONNEL (2018)

Clinical and Translational Science

Dean
Sundeep Khosla, MD

Administrator
Heidi Dieter

OHDR Co-Directors

Gloria Petersen, PhD

David Warner, MD

OHDR Steering Committee

Donald Northfelt, MD
Gerardo Colon- Otero, MD
Gloria Petersen, PhD
David Warner, MD
Virginia Miller, PhD
Carmen Radecki Breitkopf, PhD
Sean Phelan, PhD
Christie Patten, PhD
Richard White, MD
Sumedha Penheiter, PhD
Jennifer "Jenny" Weis

OHDR Program Managers

Farhia Omar, MPH
(Arizona)

Sumedha Penheiter, PhD
(Enterprise)

Monica Albertie, MHA
(Florida)

OHDR Research/Program Coordinators

Elizabeth Pantoja
(Florida)

Shantel Williams
(Florida)

Isabelle Santana
(Arizona)

Erika Martinez
(Arizona)

OHDR Administrative Support Professionals

Catherine Ruix
(Florida)

Michelle Pearson
(Rochester)

Danielle Wright
(Arizona)
I(A). Community Advisory Boards

The Office of Health Disparities Research has directly funded and facilitated two disparities-focused Community Research Advisory Boards, one at Mayo Clinic Florida (2012-present) and one Mayo Clinic Arizona (2013-present). At Mayo Clinic Rochester, these activities have been conducted since OHDR’s inception by the Office of Community Engaged Research (OCER) and its Community Engaged Research Advisory Board (CERAB). Soon, OHDR and OCER will merge these community engagement efforts as they come together to form the new Center for Health Equity and Community Engagement Research in 2019.

The purpose of these Advisory Boards has been to directly connect with individual stakeholders in the communities Mayo Clinic serves in order to:

- Gain understanding of the health and wellness needs of the communities;
- Dialogue with community members and organizations for potential new research ideas and opportunities;
- Vet research ideas, designs, and protocols; and to
- Build research capacity in the community by providing education as to the value and opportunities around research, especially for minorities.

Altogether, 71 strategic community champions are members of above mentioned Community Advisory Boards in 2018. Members represent underserved communities, state and local healthcare organizations, community-based and social services agencies serving underrepresented populations, health advocates, lay health workers, community members, and representatives from local school districts.

By the end of 2018, OHDR Community Research Advisory Boards had reviewed 33 protocols, providing feedback and assistance with study design, implementation, and participant recruitment.

Also in 2018, OHDR provided substantial assistance to two Mayo Clinic Centers in the planning, assembling, and launching of new advisory boards. First, OHDR in Rochester helped the Mayo Clinic Comprehensive Cancer Center in developing a new advisory board, made up of stakeholders throughout the Mayo Clinic Health Systems area, to provide input, guidance, and direction specifically related to cancer research at Mayo Clinic Rochester. The new Midwest Cancer Research Advisory Board held its inaugural meeting at the Stephen and Barbara Slaggie Family Cancer Education Center in the Gonda Building on July 16, 2018. Uniquely, each member of the new Research Advisory Board has been personally involved in the fight against cancer, either as a survivor of the disease, as the parent or spouse of a cancer survivor, as a physician, nurse, or oncologist who has treated cancer patients, or as a volunteer with a cancer-related organization in their community.
18 Members
Farhia Omar, Mayo Clinic Liaison

Sara Wilson
President and CEO
Home Assist Health

Anna Alonzo
Community Health Integration Director
Dignity Health

Dianne Aguilar
Community Connections Coord
Missions of Mercy

Lloyd Asato
Executive Director
Asian Pacific Community in Action

Rhoshawndra Carnes
Family Services Director
Pilgrim’s Rest Baptist Church

Emery Tehy
Tribal Epidemiology Center
Inter-Tribal Council of Arizona

Maria Valenzuela
Community Health Coordinator
Esperanza

Sister Adele O’Sullivan, MD, CSJ
Founder and Medical Director
Circle the City

Seth Fritsch
HIPMC Coordinator
Maricopa County Health Dept.

Bishop Eduardo Nevares
Aux. Diocese
Phoenix Diocese
Roman Catholic Church

Susan Levy
Outreach Coord.
Native Health

John Hitt, MD
Chief Medical Officer
Maricopa Integrated Health System

Maurice Lee, MD, MPH
Medical Director,
St. Vincent de Paul

Matt Jewett
Assoc. Dir. Grants
Mountain Park Health Center

San Karuppana, MD
Chair, Family Medicine Dept.
Adelante Healthcare

Constance James
Director
Tribal Relations
Phoenix Indian Medical Center

Jason Gillette
Office Chief, Tobacco Prevention
AZ Dept. of Health Services
20 Members

Monica Albertie, Mayo Clinic Liaison

CRAB
FL
MINNESOTA

18 Members
Miguel Valdez, Mayo Clinic Liaison
14 Members
Sumedha Penheiter, PhD Mayo Clinic Liaison

Midwest Cancer CAB

Kathy Scheld
Patient Navigation, Senior Manager at American Cancer Society

Whitney Butlin
President, Join the Journey breast cancer survivors

Kendra Roland
Research Manager, American Indian Cancer Foundation

Rachel LaValley
Health Interventions Director at YMCA La Crosse

Michael Ojelabi, MD,
Oncologist, Gunderson Health System Oncology Program, La Crosse

Deb Teklope,
RN, BSN
Survivor, Celebration of Life of Winneshiek County - Decorah, IA

Ann Vogel, MD
Provider at New Ulm Medical Center Clinic in New Ulm, MN

Mohamed Ibrahim
Community Health Worker, MCC Refugee Services

Mia Erickson
Community Member, Volunteer

Steve Dickes
Volunteer, Brains Together for a Cure

Stacey Schultz
Survivor, Educator, and Volunteer at “Child Life with Cancer” - Fillmore County

Chuck Van Wey
Survivor and ‘Tint Connection’ for the Leukemia & Lymphoma Society; Albert Lea

Shari Van Wey, RN
‘Relay For Life’ organizer; Albert Lea

Marielynn Herrera
Program Manager for the New American Families Program YMCA, Mankato

Curt Johnson
Volunteer, Brighter Tomorrows
Due to the geographic remoteness of the members, the Advisory Group meets in person twice yearly and by teleconference/internet during interim periods. To ensure ongoing communication with the group, OHDR also assisted the Cancer Center with preparation and dissemination of a monthly Advisory Board newsletter.

In Florida OHDR staff also assisted the Community Outreach and Engagement Core of Mayo Clinic’s Alzheimer’s Disease Research Center (ADRC) in developing an African American Advisory Board and preparing engagement strategies to involve African American members in improving awareness and access to clinical trials focusing on memory disorders. As part of the creation of the ADRC African American Advisory Board, OHDR facilitated ADRC giving a presentation focused on Memory Disorders in African Americans at one of the Wellness Rx events, consulted with ADRC on data collection strategies, and, when ADRC received a CHAMP Community Engagement Award, facilitated introductions to New Town community leaders and residents and several focus groups as part of the project. New Town residents formed several work groups and are currently working to implement initiatives and activities that focus on increasing awareness of dementia and dementia.

I(B). Community Outreach Engagements

In addition to financially supporting community engagement events sponsored and hosted by Mayo research collaborators and community partners, OHDR directly engages with individuals and agencies in the communities in which Mayo Clinic serves in order to involve their perspective in health equity research and leverage mutual resources to address health disparities. The following highlighted OHDR-sponsored community outreach/engagement activities were held in 2018:

**FLORIDA WELLNESS RX**

In partnership with MCF Community Relations, Wellness Rx was developed to address the results of the Jacksonville Community Health Needs Assessment that were released in April 2016. Health disparities amongst African Americans were one of the several gaps that were identified in Jacksonville. Wellness Rx was created as a health education/outreach partnership between Mayo Clinic and community stakeholders. Wellness Rx was created as a collaborative effort between Mayo Clinic and community stakeholders to provide opportunities for residents in Health Zone 1 (particularly...
those living in New Town Success Zone) to participate in various health related activities, including research.

In 2018, OHDR Florida began Year 2 of the initiative. There were 22 educational events, focused on wellness topics, including, but not limited to, heart health, memory disorders, HIV/AIDS, and cancer. A monthly healthy food distribution continues in partnership with Feeding Northeast Florida. Wellness programming is held on the 1st Tuesday and 4th Saturday of each month. Attendance from the community and our non-profit partners continue to be high and there is a study to understand the impact of this initiative on health knowledge and behaviors of the New Tow Success Zone residents.

### Attendance by Month

<table>
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<tr>
<td>Dec</td>
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</tr>
</tbody>
</table>

### 2018 Program Topics

- 1/27: Tobacco Cessation
- 7/28: Heart Health & Blood Pressure
- 2/6: Heart Health
- 8/7: Hypertension, Diabetes, Obesity, Stress & Memory Disorders
- 2/24: Heart Health
- 8/25: HIV/STI Testing
- 3/6: Medication Safety
- 9/4: Nutrition and Health
- 3/17: Colorectal Cancer
- 9/15: Healthy Heart & Vision Screenings
- 4/3: End of Life Care & Minority Awareness
- 10/2: Medication Safety
- 4/28: Health for All: Prevention, Detection, & Treatment
- 10/27: Breast Cancer
- 9/1: Mental Health
- 11/6: Memory Disorders
- 5/19: Lupus
- 11/17: Diabetes Awareness
- 6/5: Men's Health
- 12/8: HIV/AIDS Education & Testing
- 6/23: Summer Health
- 11/6: Memory Disorders
- 7/10: Epilepsy
- 6/23: Summer Health

### HOPE² (Health Outreach Program en Español) Para La Comunidad Initiative

In an effort to build stronger partnerships with the local Hispanic community, we developed the HOPE² (Health Outreach Program en Español) Para La Comunidad initiative. This is a collaborative initiative with local Hispanic-led and Hispanic-serving churches and organizations with a focus on working together to bring health education and research to the Hispanic community. Dr. Richard White is leading the overall efforts. The health education component includes quarterly “community health talks” focused on topics that are of most concern to the community.

In 2018, the focus of the talks was mental health and its impact on individuals and families. Community organizations led the presentations and there were a total of 75 in attendance. In partnership with two community investigators (Pastor Angel Santiago-First Baptist Church-Spanish Services and Dr. Lisa Hamilton-
Coalition of Community Health Workers), Dr. White submitted and was awarded a PCORI Eugene Washington Engagement Award. The project entitled “HOPE in ACTion” is focused on capacity building in the local Hispanic community to improve awareness and access to research that addresses conditions that disproportionately impact Hispanic communities. An advisory panel with prominent leaders in the Hispanic community has been developed and they are meeting regularly. A workshop to educate stakeholders the PCOR process is scheduled for September 2019. Health Education will continue in 2019 and will focus on addressing chronic conditions in the Hispanic community. Clinical staff and residents will be providing presentations throughout 2019.

**ALZHEIMER’S DISEASE RESEARCH CENTER (ADRC)**

In September, OHDR Florida assisted the Alzheimer’s Disease Research Center and its African American Advisory Board in planning and organizing a community showing of “Forget Me Not,” a stage play about Alzheimer’s Disease in an African American family. There were over 350 in attendance and more than 100 audience members expressed interest in learning more about ADRC’s studies.

**ARIZONA HEALTH EQUITY CONFERENCE**

The 5th Annual Arizona Health Equity Conference was held at the Desert Willow Conference Center on October 11th, 2018. The conference was a great success with 320 attendees. The inaugural conference was first held in 2014 with high acclaim and has grown each year since. Mayo Clinic is the original founder and lead for this exciting conference. The purpose of the conference is to build bridges between communities by bringing health equity professionals together around the areas of research, practice, prevention, and policy. The conference itself highlights current health equity research, outreach, and policies taking place within Arizona. This year’s theme was: Equitable Access to Care for All. It is an opportunity to connect partners who are working in the field of health equity or interested in reducing health disparities.

The Arizona Health Equity Conference is a one-day event, but leaves a lasting impact: awareness is raised about health equity and disparities through topics focused on research, clinical applications, behavioral health, prevention, public health, and policy; meaningful networking opportunities occur; attendees leave with clear outcomes, new partnerships, and new ideas for research; and paths to the improvement of community health and systems change are identified. In order to ensure equitable access to care for populations facing social and/or cultural barriers, we encourage health equity/public health professionals to use this conference as an opportunity to
share their efforts and successes in addressing access to care and health equity in the work that they do in their respective communities. The 6th Annual Arizona Health Equity Conference will be held on Thursday October 10th, 2019 at Phoenix’s Desert Willow Conference Center.

PHOENIX INDIAN MEDICAL CENTER COLLABORATION RENEWAL

Mayo Clinic proudly shared a milestone 10-year anniversary with its valued partner, Phoenix Indian Medical Center (PIMC). The collaboration was originally initiated by Dr. Tom Fitch in 2006 during his tenure as the chair of the division of Hematology and Medical Oncology at Mayo Clinic, Arizona campus. The contract with the Indian Health Service was recently renewed and now involves a team of five Mayo Clinic oncologists (Donald Northfelt, Harshita Paripati, Mahesh Seetharam, Parminder Singh, Daniel Ahn). As part of the agreement, a Mayo hematologist/oncologist is on-site at PIMC every Wednesday throughout the year. The Mayo consultants serve as staff physicians in the “Oncology Center of Excellence” at PIMC and see 100 – 200 tribal members annually with new diagnoses of cancer or blood disorders.

The collaboration demonstrates that high-quality oncologic clinical care can be provided via unique collaborations between an academic oncology program (Mayo) and an UMP (Underrepresented Minority Patient)-focused care provider (PIMC). This mechanism allows access to cancer clinical trial opportunities for UMP. UMP are underrepresented in cancer clinical trials, thus limiting the generalizability of the research. As a National Cancer Institute-Comprehensive Cancer Center, Mayo Clinic embraces the responsibility to ensure that its cancer care reaches a diverse patient population, and our relationship with PIMC is a key component of that commitment.

Between 2008 - 2017, 356 breast cancer patients and 259 colorectal cancer patients were seen by Mayo Clinic oncologists and the PIMC nurse practitioner, with a subset of those patients referred from PIMC to Mayo Clinic cancer clinical trials. Prior to the established collaboration, there were no Native American patients referred to clinical trials from PIMC, showing the critical pathway that has been forged. Importantly, this is the only known program of its kind in the country. By embedding the cancer provider in the community, Mayo Clinic physicians are able to build trust with the underserved community and create a pathway to quality care and clinical research.
THE FOSTERING AFRICAN-AMERICA IMPROVEMENT IN TOTAL HEALTH (FAITH!) PROGRAM

Mayo Clinic is collaborating with communities in just this way, using research as a bridge to better health. Coordinated by Mayo Clinic’s Office of Health Disparities Research, teams are using a methodology called community-based participatory research to collaborate with faith communities in Minnesota, Florida and Arizona. In many African-American communities, church is at the center of spiritual and social life. Nearly half of African-Americans (47 percent) attend services at least weekly, according to the Pew Research Center. In 2013, Mayo Clinic cardiologist LaPrincess Brewer, M.D., was invited by members of a Rochester, Minnesota, church to help them address a specific concern: cardiovascular disease — the No. 1 cause of death for African-Americans.

Partnering with three churches, Dr. Brewer’s team developed a 16-week educational program to improve prevention of cardiovascular disease. The Fostering African-American Improvement in Total Health (FAITH!) program, previously established by Dr. Brewer in Baltimore, Maryland, focuses on healthy lifestyle promotion. Within the FAITH! program, Dr. Brewer used an American Heart Association’s strategy called Life’s Simple 7 that targets major cardiovascular risk factors: diet, smoking, physical inactivity, obesity, hypertension, diabetes and cholesterol. Church members were the primary voice for deciding not only the goal of the research collaboration, but where, when and how to achieve it. In particular, church leaders requested that the program incorporate African-American traditions. FAITH! included healthy cooking demonstrations focused on Southern dishes, and participants received a cookbook of low-fat, low-calorie recipes customized to traditional African-American cuisine.

The program also included interactive seminars by health professionals, weekly fitness classes, and videos on heart health topics. As incentives, participants received gift cards to a local supermarket, and YMCA memberships. The researchers used questionnaires and health data to measure how well these interventions worked. At the outset, data showed that the community members matched the African-American population in general, with high risk factors for cardiovascular disease, and high rates of obesity and hypertension. At the end of the study, participants showed an increase in cardiovascular health knowledge, and better scores related to the Life’s Simple 7 risk factors. The results were published in the Journal of Racial and Ethnic Health Disparities and the Journal of Health Psychology.

Church members wanted a way to share the health education information with family and friends, so the researchers developed a mobile health (mHealth) intervention — an app featuring multimedia education modules and a participant “sharing board.” Results of a pilot study were published in JMIR Research Protocols and the Journal of General Internal Medicine. The mHealth intervention supports sustainability of FAITH! and has made the program readily adaptable for distribution in any community. The program has now expanded to the Minneapolis-St. Paul area. Working with churches is a unique and fulfilling experience — and a “symbiotic partnership” that requires an investment in face time, says Dr. Brewer. “If we would have just skipped over that step and come in with a research project, surveys, lab draws and exams — without
developing a relationship with the congregation, we would not have been as successful. … They grew to know me, saw my face consistently, and knew that I had their best interests at heart.”

The FAITH! program has laid the foundation for sustainable partnerships between the African-American churches and Mayo Clinic, as well as the University of Minnesota at Rochester. The project has also provided leverage for other Mayo researchers to become involved in community-based participatory research.

**PATH TOWARD BETTER HEALTH ADVISORY BOARD CONFERENCE**

As a lasting outcome of its ground-breaking 2017 Native Health Symposium, A Path Toward Better Health for Bemidji Area American Indians, OHDR’s Native American Research Outreach (NARO) Program spent 2018 developing a panel of Native American health providers, Tribal leaders and representatives, and Mayo Clinic researchers and personnel, to work collaboratively toward the development of a Mayo-Tribal Advisory Board. These efforts culminated on October, 2018, when NARO staff, Mayo clinicians and Researchers, and tribal health directors met for a two day conference at Breezy Point Resort for an open dialogue Advisory Board organizational meeting.

The **Path Toward Better Health Advisory Board Conference** was attended by representatives of the Bemidji Area Health Service (which provides service and support to 34 Federally-Recognized Tribes and 4 Urban Indian Health Programs), seven Tribal communities, and 20 Mayo Clinic representatives. Tribes in attendance were the Bois Forte Band of Chippewa, Fond du Lac Band of Chippewa, Leech Lake Band of Ojibwe, Lower Sioux Indian Community, Mille Lacs Band of Ojibwe, Red Lake Nation, and White Earth Nation. Mayo Clinic participants included Drs. Robin Lloyd, Christi Patten, Gloria Petersen, Carmen Radecki Breitkopf, Jon Tilburt, Sumedha Penheiter, and Wesley Petersen.

Organizers envision the Advisory Board will ultimately impact research design, patient care, cultural competence, health equity, and other significant topics across the Mayo enterprise.

(Left: Members, Healthy Nations Advisory Board and Mayo Clinic Staff)
Native American Research Outreach (NARO) Program

Research collaborations with Native populations are unique, involving at least two additional aspects not typically considerations in standard research: a legacy of trauma and betrayal, and a complex bureaucracy, which adds to already-existing state and federal regulations concerning research practices, healthcare standards, and privacy requirements, layers of rules and regulations imposed by each tribal sovereignty and by the federal Indian Health Service (IHS).

Building on a foundation of patience, true listening, genuine collaboration, and cultural humility, OHDR’s Native American Research Outreach (NARO) Program has been specifically developed to engage with Midwest Native Americans, their tribal governance, and their health service agencies in a trust-first fashion. NARO’s goal is to create cooperative partnerships with Native populations that will be most conducive to the truly open assessment of the community’s healthcare needs, to the mutual development of culturally-appropriate solutions that directly address those needs, and to the genuine improvement—as the community measures it—in both individual and community wellness.

For nearly 20 years, NARO Program Director Wesley Petersen, PhD, has worked one-on-one with Native health providers, tribal health agency directors and staff, and tribal leaders and elders, to build trust with Native American communities in Minnesota, South Dakota, North Dakota, Wisconsin, and nationally. His efforts have led to close working relationships with dozens of tribes across the plains states, and Mayo Clinic now has nine formal Memorandum of Understanding (MOU) with nine tribes or tribal agencies. In addition to having built an institutional reputation of integrity and trustworthiness with the midwest Native communities, NARO has also assembled an institutional mastery of the complexities of tribal sovereignty and the multitude of governing structures and decision-making employed by the various Midwest tribes. It has also learn to nimbly navigate the intricacies of the federal Indian Healthy System (IHS).

For Mayo Clinic investigators, NARO is a “Fast Pass” to community-based, participatory research with midwest Native American communities. NARO provides researchers with the benefit of pre-existing relationships with dozens of individual tribes, helpful introductions to tribal health staff and tribal personnel that will facilitate biomedical research, support in navigating tribal and federal decision-making, assistance with collaborative grant submissions, and guidance in facilitating requests from tribes.

NARO maintains its capacity and responsiveness, and works to reach its primary goal, through the following mission-relevant initiatives:
NARO DEVELOPS AND NURTURES TRIBAL PARTNERSHIPS

While NARO has close working relationships with many Midwest tribes, and 9 formal MOU, it nonetheless works hard to nurture existing relationships, transition information relationships to MOU’s, and to add new relationships to its cohort. In 2018, for example, NARO traveled hundreds of miles to visit the Red Lake, White Earth, Mille Lacs, Leech Lake, Fond du Lac, and Lower Sioux tribes to meet in person with various tribal health leaders and tribal health center directors. Those tribal health leaders and agency directors who were unable to meet in person, NARO met with by teleconference or computer to ensure person-to-person engagement (Prairie Island, Shakopee Mdewakanton, Upper Sioux, Grand Portage, Spirit Lake, Crow Creek, and Urban Indian Health Board of Minneapolis). These 14 tribal health leadership meetings helped nurture each collaboration, by allowing for the partners to update one another on recent accomplishments and initiatives in development, and to share progress reports on ongoing projects.

NARO also continued to foster and nurture relationships with Native leaders and Indian health service providers and agencies, by attending Tribal leadership events, Health Service meetings, state Native health agencies’ regular meetings, and by working one-on-one with tribal health directors with numerous Native sovereign nations throughout the Midwest.

NARO ENGAGED INDIRECTLY IN NATIVE COMMUNITY HEALTH EDUCATION AND WELLNESS OUTREACH

In 2018, NARO directly connected with more than 2,500 individuals at tribal-sponsored Native American events, such as health fairs (e.g. Red Lake, Fond du Lac, Crow Creek), wellness festivals, and community health screening activities. At many of these events, NARO is able to recruit nurses or other providers to staff free blood pressure or other screenings, thereby encouraging Mayo Clinic staff to become involved in NARO and its community engagement activities.

In 2018, NARO also assisted in facilitating direct medical relationships between Mayo Clinic and various tribes. These efforts included:

- Transplant care and tissue and organ donation for Native Americans;
- Diabetes awareness, prevention, and treatment in adolescent and young adult Native Americans;
- Providing a Lakota/Dakota spiritual healer (MN) or Native complementary medicine doctor (AZ);
- Housing and meal assistance for Native American patients;
• Investigating Medicare-par rates for Minnesota tribal members seeking care at Mayo Clinic;

**NARO SPONSORS THE MAYO CLINIC NATIVE AMERICAN INTEREST GROUP (NAIG)**

The OHDR-sponsored Native American Interest Group (NAIG) Speaker Series hosted ten presentations in 2018, with a total audience of 353 (averaging 35 attendees per meeting (25 in person, 10 remote access) for the series). Call-in attendees came from 18 different states, Canada, and Australia, with attendees represented the tribes or tribal health agencies of the Ho Chunk, Red Earth, White Earth, Fond du Lac, Lower Sioux, Leech Lake, Nez Perce, Klamath, Tanana, Cheyenne, Arapaho, and Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indian nations. Presenters provided information on topics ranging from Effective Strategies for American Indian and Alaska Native Health Equity, to Keeping the Spirit of EAGLES Promises, and Jordan’s Principle: What is Jordan’s Principle? What Does Jordan’s Principle Look Like in Manitoba?"

**NARO FACILITATES AND FOSTERS COMMUNITY-BASED, PARTICIPATORY RESEARCH**

In 2018, NARO directly facilitated community-based participatory research between Mayo Clinic investigators and Midwest Native American communities in the following ways:

NARO wrote letters of support for tribal health projects seeking funding support from government agencies, including for the Lower Sioux, Leech Lake, and White Earth tribes, for projects such as a Chemical Dependency Program and a Family Diabetes Program.

NARO directly facilitated at least nine new research projects by negotiating relationships between investigators and tribes, facilitating previously negotiated projects, and assisting with grant applications and submissions. In 2018, NARO directly facilitated the following projects:

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<thead>
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<td>White Earth, Leech Lake, Fond du Lac, Mille Lacs, and Mayo Clinic</td>
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<td>Cancer Supplement – HPV Survey</td>
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</table>
COMMUNITY PARTNERSHIPS

OHDR maintains dozens of community partnerships—many of them decades old—across the enterprise involving outreach, education, community engagement, and research collaboration. These partnerships allow OHDR to maintain direct access with underserved populations, prospective research participants, potential collaborators, prospective community advisory board members, and allies in health equity advocacy. In 2018, OHDR both nurtured its existing 125+ community partnerships, especially by working with a few of its long-standing partners to develop new health equity initiatives, and developed new partnerships with both established and upstart community service agencies.

New OHDR supported partners in 2018 include:

- African Americans Against Alzheimer’s (FL)
- AARP – Jacksonville (FL)
- The Balm in Gilead, Inc. (MN, AZ, FL)
- Coalition of Community Health Workers (FL)
- First Baptist Church Jacksonville (FL)
- ASU Southwest Interdisciplinary Research Center (AZ)
- Lifetime Foundation (AZ)
- Pima Salt River Indian Community (AZ)
- Smoke-Free Public Housing Coalition (AZ)
- American Lung Association (AZ)
- Urban Indian Health Institute (AZ)
A partial list of Mayo Clinic's ongoing community partners in 2018 includes:

* OHDR Supported

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelante Health Care, Arizona</td>
<td>Arizona, Arizona</td>
</tr>
<tr>
<td>Alliance of Chicanos, Hispana Latino American, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>American Cancer Society Hope Lodge of Rochester, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>American Indian Cancer Foundation, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>American Red Cross of Southeast Minnesota</td>
<td>Arizona</td>
</tr>
<tr>
<td>Antioch Church of God in Christ, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Arizona Cancer Coalition, Arizona</td>
<td>Arizona</td>
</tr>
<tr>
<td>Arizona Language Access Alliance, Arizona</td>
<td>Arizona</td>
</tr>
<tr>
<td>Arizona State University, Arizona</td>
<td>Arizona</td>
</tr>
<tr>
<td>BEACON: Southeastern Minnesota Community Health IT Collaboration, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Blue Cross and Blue Shield of Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Boys and Girls Clubs of Rochester, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Bridge of Northeast Florida</td>
<td>Florida</td>
</tr>
<tr>
<td>Cambodian Association of Rochester, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Christ's Church of the Jesus Hour, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Christway Full Gospel Ministries, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Circle the City Homeless Respite of Phoenix, Arizona</td>
<td>Arizona</td>
</tr>
<tr>
<td>Coalition of Blacks Against Breast Cancer, Arizona, Florida</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Coalition of Community Health Integration, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Coalitions of Community Health Integration, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td><strong>Mission of Mercy Free Clinic (AZ)</strong></td>
<td>Arizona</td>
</tr>
<tr>
<td><strong>Mille Lacs Band of Ojibwe (MN)</strong></td>
<td>Minnesota</td>
</tr>
<tr>
<td><strong>Boise Forte Band of Chippewa Indians (MN)</strong></td>
<td>Minnesota</td>
</tr>
<tr>
<td>Community Alliance of Rochester for Equality, Minnesota</td>
<td>Rochester Public Schools’ Health Science Career Center, Minnesota</td>
</tr>
<tr>
<td>Community Health Service, Inc., Minnesota</td>
<td>Ronald McDonald House of Rochester, Minnesota</td>
</tr>
<tr>
<td>Duvall County Health Department,* Florida</td>
<td>St. Albans Church of God in Christ, Minnesota</td>
</tr>
<tr>
<td>East Valley Men’s Center,* Arizona</td>
<td>St. Peter Community Center, Minnesota</td>
</tr>
<tr>
<td>Edwards Waters College,* Florida</td>
<td>St. Vincent de Paul Medical and Dental Clinic,* Arizona</td>
</tr>
<tr>
<td>Elder Network Southeast Minnesota</td>
<td>St. Vincent’s Hospital,* Florida</td>
</tr>
<tr>
<td>Family Service Rochester, Minnesota</td>
<td>Schell-Sweet Community Resource Center,* Florida</td>
</tr>
<tr>
<td>First Coast YMCA, Florida</td>
<td>Sisters Networks, Inc.,* Florida</td>
</tr>
<tr>
<td>Florida Department of Health,* Florida</td>
<td>Somali American United Council of Arizona*</td>
</tr>
<tr>
<td>Gift of Life Transplant House, Minnesota</td>
<td>Somali Community Barwaqqo Organization, Minnesota</td>
</tr>
<tr>
<td>Good Samaritan Medical and Dental Clinics Good Samaritan Pharmacy, Minnesota</td>
<td>Somali Community Resettlement Service, Minnesota</td>
</tr>
<tr>
<td>Halifax Center for Oncology (Daytona Beach),* Florida</td>
<td>Southern Minnesota Center for Independent Living, Minnesota</td>
</tr>
<tr>
<td>Hawthorne Education Center, Minnesota</td>
<td>Southside Community Health Services, Minnesota</td>
</tr>
<tr>
<td>Health Improvement Partnership of Maricopa County,* Arizona</td>
<td>Spirit of EAGLES, Minnesota, Arizona, Florida</td>
</tr>
<tr>
<td>Hennepin County Medical Center, Minnesota</td>
<td>University of Florida Health,* Florida</td>
</tr>
<tr>
<td>Homeless Community Network of Olmsted County, Minnesota</td>
<td>University of Minnesota – Rochester, Minnesota</td>
</tr>
<tr>
<td>Indian Health Board,* Minnesota</td>
<td>Vision Church, Minnesota</td>
</tr>
<tr>
<td>Indian Health Service,* Minnesota, Arizona, Florida</td>
<td>Volunteers in Medicine,* Minnesota</td>
</tr>
<tr>
<td>Jacksonville Hispanic Church of God,* Florida</td>
<td>Winona State University, Minnesota</td>
</tr>
<tr>
<td>The Links, Incorporated,* Minnesota, Arizona, Florida</td>
<td>Word of Life Church of God In Christ, Minnesota</td>
</tr>
<tr>
<td>Mankato Islamic Center, Minnesota</td>
<td>Youth Interventions Program Association, Minnesota</td>
</tr>
<tr>
<td>Maricopa Integrated Health System,* Arizona</td>
<td>Zumbro Valley Health Center,* Minnesota</td>
</tr>
<tr>
<td>Memorial Medical Center (Ormond Beach),* Florida</td>
<td>Mountain Park Health Center,* Arizona</td>
</tr>
<tr>
<td>Minnesota Assistance Council for Veterans, Minnesota</td>
<td>Minnesota Indian Women’s Resource Center, Minnesota</td>
</tr>
<tr>
<td>Minnesota Council of Churches, Minnesota</td>
<td></td>
</tr>
</tbody>
</table>

**COMMUNITY EVENT SPONSORSHIPS & OUTREACH**
By financially supporting health education, health screening, and general wellness events organized by its community partners, OHDR further cements its ties both to the collaborating agencies but, more importantly, to the people and communities they serve. In 2018, OHDR spent ~$20,000 in event sponsorships supporting third-party health and wellness events in the communities Mayo Clinic serves. In addition to the advertising and program visibility accompanying these sponsorships, OHDR is often provided the opportunity to give a presentation or to invite a Mayo Clinic researcher or clinician to speak at the event, to pass out patient education materials, and to distribute promotional products (i.e. tote bags, pens, or notepads with the Mayo Clinic and OHDR logo). Just some of the events sponsored in the past year include:

- **Minnesota Cancer Alliance** 2018 Cancer Summit
- **Midwest Alliance of Sovereign Tribes** 2018 Partnership for Wellness Conference
- **Esperanca** 2018 Hope Breakfast
- **Catholic Charities** 2018 World Refugee Day
- **Arizona HEC Committee** 2018 Arizona Health Equity Conference
- **American Indian Cancer Foundation** 2018 Powwow For Hope
- **Jacksonville Hispanic Church of God** 2018 Multi-Cultural Health Fair
- **Twin Cities Black Churches** Red Dress/Red Tie Event for Cardiovascular Health

Some of these community outreach activities/events included:

<table>
<thead>
<tr>
<th>SITE</th>
<th>EVENT</th>
<th>ATTENDEES</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ</td>
<td>11th Annual Tribal Collaborative – Speaker on kidney cancer</td>
<td>300</td>
</tr>
<tr>
<td>AZ</td>
<td>Komen Foundation – Community Partner meeting re: Cancer screenings for underserved populations</td>
<td>40</td>
</tr>
<tr>
<td>AZ</td>
<td>Esperanca (Global Health Outreach) Hope Breakfast – Speaker provided</td>
<td>150</td>
</tr>
<tr>
<td>AZ</td>
<td>Arizona Health Equity Conference</td>
<td>325</td>
</tr>
<tr>
<td>AZ</td>
<td>Mayo Clinic Global MERG</td>
<td>30</td>
</tr>
<tr>
<td>AZ</td>
<td>Arizona Resettlement Agencies World Refugee Day</td>
<td>125+</td>
</tr>
<tr>
<td>FL</td>
<td>Wellness Rx – Speaker Series</td>
<td>1,211</td>
</tr>
<tr>
<td>FL</td>
<td>HOPE Para La Comunidad – Community Health Talks</td>
<td>225</td>
</tr>
<tr>
<td>FL</td>
<td>ADRC “Forget Me Not” Screening</td>
<td>350+</td>
</tr>
<tr>
<td>MN</td>
<td>FAITH! 10-Year Anniversary Event</td>
<td>100+</td>
</tr>
<tr>
<td>MN</td>
<td>Red Dress! Red Tie! Twin Cities church events</td>
<td>400+</td>
</tr>
<tr>
<td>All</td>
<td>Healthy Churches 2020</td>
<td>500+</td>
</tr>
<tr>
<td></td>
<td>Fon Du Lac Health Fair</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Crow Creek</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Pow Wow for Hope</td>
<td>3000</td>
</tr>
<tr>
<td></td>
<td>Minnesota Cancer Alliance</td>
<td>400</td>
</tr>
</tbody>
</table>
II(A). Track Research Participants Accrual and Patient Demographics

RESEARCH PARTICIPANTS

With the assistance of the Office of Clinical Trials Management & Support, OHDR tracks minority and female accrual in enterprise-wide studies:

DEMOGRAPHICS OF RESEARCH PARTICIPANTS IN PTRAX:

* Increases in numbers reflective of both increased minority participation and/or increase in documented studies enrolled in PTrax

---

Category capped at n=1,500 for graphing purposes.

Above numbers from PTrax Database.
### 2018 Research Enrollment (Combined) by Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Florida</th>
<th>Arizona</th>
<th>Minnesota</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>255</td>
<td>780</td>
<td>1,547</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>5,883</td>
<td>7,008</td>
<td>88,155</td>
</tr>
<tr>
<td>Unknown/Unreported</td>
<td>362</td>
<td>567</td>
<td>8,847</td>
</tr>
</tbody>
</table>

Category capped at n=10,000 for graphing purposes.

### 2018 Research Enrollment by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Florida</th>
<th>Arizona</th>
<th>Minnesota</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1,988</td>
<td>2,747</td>
<td>37,188</td>
</tr>
<tr>
<td>Female</td>
<td>4,493</td>
<td>5,523</td>
<td>60,110</td>
</tr>
<tr>
<td>Unknown/Unreported</td>
<td>59</td>
<td>25</td>
<td>1,251</td>
</tr>
</tbody>
</table>

Category capped at n=6,000 for graphing purposes.
Thus, of those patients enrolled in Mayo studies and clinical trials (via PTrax) in 2018 whose genders and racial/ethnic identities were known, the overall rates of female and minority participation were as follows:

- Percentage of Study Participants that are Ethnic Minority = 2.5%
- Percentage of Study Participants that are Racial Minority = 5.0%
- Percentage of Study Participants that are Female = 63.0%

### DEMOGRAPHICS OF MAYO CLINIC PATIENTS:

- **SEX**
- **ETHNICITY**
- **RACE**

Mayo Clinic’s patient population serve as the best available potential pool of Mayo Clinic research participants, therefore the sexual, racial, and ethnic diversity of Mayo Clinic’s patient population is tracked by Office of Health Disparities Research. With the assistance of the Office of Health Equity and Inclusion (OHEI) and using CCaTs tool i2b2, OHDR monitors and tracks Mayo Clinic patient demographics, particularly as to minority and underserved populations. Throughout 2018, approximately 1,137,928 patients, whose demographic information was reported/known, were served at Mayo Clinic campuses--MN (Olmsted County, Minnesota), AZ (Maricopa County, Arizona), and FL (Duvall County, Florida) or the Mayo Clinic Health System (MCHS). The patient reported demographics are as follows:

### 2018 Mayo Patient Demographic Distribution (by location)-SEX

<table>
<thead>
<tr>
<th>Sex</th>
<th>Rochester</th>
<th>Arizona</th>
<th>Florida</th>
<th>Mayo Clinic Health</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Total (In MCR)</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
<td>213,478</td>
<td>189,316</td>
<td>402,794</td>
<td>66,937</td>
<td>59,048</td>
</tr>
<tr>
<td>Male</td>
<td>189,316</td>
<td>213,478</td>
<td>402,794</td>
<td>66,937</td>
<td>59,048</td>
</tr>
</tbody>
</table>
This graph represents the total numbers of patients seen at Mayo Clinic in 2018 by sex. Patient demographic data were obtained from Mayo Clinic patient data base.

### Ethnicity (Graph Page 27)

<table>
<thead>
<tr>
<th></th>
<th>Rochester</th>
<th>Arizona</th>
<th>Florida</th>
<th>MCHS</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Hispanic or Latino</td>
<td>351,961</td>
<td>109,235</td>
<td>111,545</td>
<td>467,191</td>
<td>974,689</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>11,248</td>
<td>9,335</td>
<td>6,544</td>
<td>20,236</td>
<td>47,363</td>
</tr>
<tr>
<td>Choose Not to Disclose</td>
<td>6,590</td>
<td>3,159</td>
<td>3,602</td>
<td>18,42</td>
<td>49,410</td>
</tr>
<tr>
<td>Unable to Obtain/Provide Info</td>
<td>25</td>
<td>6</td>
<td>189</td>
<td>445</td>
<td>2,001</td>
</tr>
<tr>
<td>Unknown or Unreported</td>
<td>32,981</td>
<td>4,252</td>
<td>2,746</td>
<td>45,013</td>
<td>52,005</td>
</tr>
</tbody>
</table>

### Race (Graph Page 27)

<table>
<thead>
<tr>
<th></th>
<th>Rochester</th>
<th>Arizona</th>
<th>Florida</th>
<th>MCHS</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>342,850</td>
<td>107,089</td>
<td>103,371</td>
<td>474,382</td>
<td>962,728</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>1,518</td>
<td>1,182</td>
<td>242</td>
<td>1,241</td>
<td>4,010</td>
</tr>
<tr>
<td>Asian</td>
<td>3,425</td>
<td>4,009</td>
<td>3,425</td>
<td>5,782</td>
<td>22,348</td>
</tr>
<tr>
<td>Black or African American</td>
<td>10,225</td>
<td>3,373</td>
<td>10,228</td>
<td>10,581</td>
<td>33,238</td>
</tr>
<tr>
<td>Native Hawaiian/Pacific Islander</td>
<td>315</td>
<td>323</td>
<td>158</td>
<td>549</td>
<td>1,299</td>
</tr>
<tr>
<td>Choose Not to Disclose</td>
<td>3,847</td>
<td>2,073</td>
<td>2,836</td>
<td>916</td>
<td>9,410</td>
</tr>
<tr>
<td>Unable to Obtain/Provide Info</td>
<td>108</td>
<td>3</td>
<td>175</td>
<td>1,784</td>
<td>2,001</td>
</tr>
<tr>
<td>Unknown or unreported</td>
<td>21,314</td>
<td>3,798</td>
<td>2,256</td>
<td>25,648</td>
<td>52,005</td>
</tr>
<tr>
<td>Other or “Mixed”</td>
<td>12,906</td>
<td>4,137</td>
<td>1,935</td>
<td>13,934</td>
<td>31,091</td>
</tr>
</tbody>
</table>
2018 Mayo Patient Demographic Breakdown - Ethnicity

Total Number of Mayo Clinic Patients by Ethnicity across Mayo Clinic (2018)

![Graph showing ethnic distribution of patients](image)

This graph represents the total numbers of patients seen across Mayo Clinic in 2018 by ethnicity. Patient demographic data were obtained from Mayo Clinic patient data base.

2018 Mayo Patient Demographic Breakdown by Race

Total Number of Mayo Clinic Patients by Race across All Sites (2018)

![Graph showing racial distribution of patients](image)

This graph represents the total numbers of patients seen at Mayo Clinic in 2018 by race. Patient demographic data were obtained from Mayo Clinic patient data base.


This graph represents the percentages of the races and ethnicities of patients seen at Mayo Clinic Florida in 2018 and percentage race and ethnicity of populations residing in the county where the site is located. Percentage numbers were determined over the total number of patients/population present at Mayo Clinic Florida and Duval County. Patient demographic data were obtained from Mayo Clinic patient database and county population data, an average of years 2013-17, were obtained from American Community Survey 5 year estimates.
II(B). By Facilitating Accrual of Minority and Female Research Participants

DIRECT MINORITY ACCRUAL IN RESEARCH

Throughout 2018, OHDR’s health disparities-dedicated research coordinators provided direct support on more than three dozen research projects across the enterprise, from data projects to participant recruitment and enrollment support projects. A few Examples are listed below.

<table>
<thead>
<tr>
<th>Study</th>
<th>Site</th>
<th>Participants</th>
<th>Accrual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Views of Women With Uterine Fibroids on Fertility Preservation and Restoration</td>
<td>MN</td>
<td>47</td>
<td>14% minority</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100% female</td>
</tr>
<tr>
<td>Factors Affecting African American Participation in Cancer Research and Response to Return of Hepatitis Viral Load Research Findings</td>
<td>FL</td>
<td>30</td>
<td>50% minority</td>
</tr>
<tr>
<td>Mayo Clinic Cancer Center Midwest Research Community Advisory Board</td>
<td>MN</td>
<td>15</td>
<td>40% minorities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>60% women</td>
</tr>
<tr>
<td>Healthy Churches 2020 Nation Conference – Community</td>
<td>MN</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>Engagement</td>
<td>State</td>
<td>Count</td>
<td>Minority Participation</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Recruiting African-Americans to Participate in Medical Research: Methods, Models, and Experiences [HC2020 Pre-conference Survey Follow Up]</td>
<td>MN</td>
<td>26</td>
<td>100% minority</td>
</tr>
<tr>
<td>High Incidence and Mortality from Gallbladder Cancer in Native Americans</td>
<td>AZ</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Red Dress-Red Tie Event for Cardiovascular Health (Minneapolis African American Churches)</td>
<td>MN</td>
<td>400+</td>
<td>100% minority</td>
</tr>
<tr>
<td>MN Department of Health Grant Mammography Study</td>
<td>MN</td>
<td>500+</td>
<td>100% minority</td>
</tr>
<tr>
<td>Wellness Rx2-A Pilot Study to Understand the Impact of a Community Engaged Wellness Program</td>
<td>FL</td>
<td>54</td>
<td>100% minority</td>
</tr>
<tr>
<td>Understanding patient distress and quality of life on day 100+ of allogeneic stem cell transplant</td>
<td>AZ</td>
<td>24</td>
<td>30% minority</td>
</tr>
<tr>
<td>¡Viva Maryvale! Family-Focused Diabetes Prevention!</td>
<td>AZ</td>
<td>45</td>
<td>100% minority (Latinos)</td>
</tr>
<tr>
<td>Behavioral and Psychological Impact of Returning Breast Density Results to Latinas</td>
<td>AZ</td>
<td>568</td>
<td>100% minority (Latinas)</td>
</tr>
<tr>
<td>PIMC Radiology Survey</td>
<td>AZ</td>
<td>41</td>
<td>100% minority</td>
</tr>
<tr>
<td>Enhancing Culturally-Informed Health Care Services for Women Affected by Female Genital Cutting in Arizona</td>
<td>AZ</td>
<td>300</td>
<td>100% female</td>
</tr>
<tr>
<td>Qualitative Assessment of the Process of Kidney Transplantation Among American Indians</td>
<td>AZ</td>
<td>10</td>
<td>100% minority</td>
</tr>
<tr>
<td>Employment, Insurance, and Financial Experiences of Patients with Chronic Graft-vs-Host Disease in North America</td>
<td>AZ</td>
<td>330</td>
<td>50% minority</td>
</tr>
</tbody>
</table>

**FUNDING MINORITY FOCUSED STUDIES**

OHDR’s **Pilot Project Awards, Special Project Funding, Indirect Support Awards, and Cost Share Grants** historically fund health equity and health disparities research, which tends to strongly target specific underserved populations, rendering representation of minorities in the research quite high, far exceeding national representation, with substantial minority accrual. In 2018, the three OHDR funded Pilot Projects, had **14% minority participation** (Dr. Megan Allyse’s pilot), **85% minority participation** (Dr. Mark Wieland’s pilot), and **100% minority participation** (Dr. Samuel Antwi’s pilot). When OHDR Pilot Funding and Special Project funding for 2018 is combined, **84% of the combined study participants were racial/ethnic minorities (1,890 of 2,250).**

**SUPPORTING AND FUNDING RESEARCH ON SEX AND GENDER DIFFERENCES**

OHDR has also worked to facilitate the accrual of women in research studies and clinical trials by entering into **formal collaborations with Mayo Clinic’s Center for Women’s Health and Mayo Clinic’s**
Office of Women’s Health Research. Through these collaborations, OHDR helps spread awareness of women’s health and sex-difference related research studies being conducted across Mayo Clinic.

Additionally, in 2018, OHDR contributed as a collaborator in a significant grant application, submitted by Mayo Clinic’s Office of Women’s Health Research, seeking NIH funded Specialized Center of Research Excellence (SCORE) Grant from the Office of Research on Women’s Health and the National Institute on Aging. Mayo Clinic was ultimately awarded the SCORE, totaling $7.3 Million, based in part, on OHDR’s collaboration. The SCORE will fund three individual research projects related to the impact of bilateral oophorectomy on physical and cognitive aging.

As an outcome of the above mentioned in collaboration with the Office of Women’s Health, launched a new pilot funding mechanism aimed at funding a one-year study specifically at eliminating health disparities in the areas of women’s health and/or sex-differences. The OHDR-SCORE Pilot Project Award provided in 2019.

II(C). By Cataloguing Mayo Clinic Health Disparity Research Metrics

(1) the output of Mayo Clinic investigators; (2) the type and number of health equity related events organized or arranged by OHDR and Mayo Clinic; and (3) the regional and national health disparities events in which OHDR and Mayo researchers participate.

MAYO CLINIC HEALTH DISPARITIES RESEARCH OUTCOMES

To assess the ongoing and developing needs of health disparities researchers and health equity advocates across the enterprise, and to obtain correlative indicia of the success of its efforts to support, facilitate, and promote health disparities research at Mayo Clinic, OHDR monitors and catalogues a number of research outcomes, namely:

- the number of health disparities research grants submitted and received by Mayo Clinic investigators;
- the number of health disparities or health equity related articles published in peer-reviewed journals by Mayo Clinic authors; and
- the number of abstracts, posters, and/or presentations on health disparities or health equity topics submitted or given by Mayo Clinic clinicians, scientists, educators, etc.

Health Disparities or Health Equity Related Articles Published by Mayo Clinic Authors

In 2018, there were 139 health disparities manuscripts published by Mayo Clinic authors.

The top three fields in which the 2018 health disparities articles were published were:

- Oncology
- Cardiovascular Disease
- Health Science Research

The total number of health disparities publications by Mayo Clinic authors between 2012 and 2018 to at least 850. A complete list of all 2018 health disparities related publications by Mayo Clinic authors can be found on the Office of Health Disparities Research internal website.
For a complete list of all 2018 health disparities related publications, visit the OHDR internal website.
Abstracts, Posters, and Presentations on Health Disparities and Health Equity Topics Submitted or Given by Mayo Clinicians, Scientists, Educators, Etc.

In 2018, Mayo Clinic researchers submitted over 250 posters, abstracts and presentations for special publications, conferences, symposia, and special events across the country and around the world related to local, regional, national, and global health disparities and health equity.

HEALTH EQUITY RELATED EVENTS ORGANIZED BY OHDR AND MAYO CLINIC

A clear measure of Mayo Clinic and OHDR’s dedication to health equity, pledge to reduce health disparities, and commitment to diversity and inclusion, is the number of events devoted to these subjects that are organized and hosted each year. Monitoring and cataloguing these events has helped establish an ongoing institutional trend of increase in the number of these events each year, related to patient outcomes, quality of care, and other health equity topics. A sample of these events held in 2018 includes:

Office of Diversity and Inclusion 2018 Enterprise Wide Retreat (Jan. 24-25)

Mayo Clinic School of Medicine hosts “Pathways to Physician Diversity: A National Summit” to encourage a nationwide dialogue on expanding medical education opportunities for students traditionally underrepresented in medicine (Feb 9-10)

“Health Disparities and the Impact Nutrition Can Have on Health,” Black History Month Discussion presented by African Descendant’s MERG (Feb. 15)

Mayo Clinic Celebration of Women in Science Lecture (May 1), presented by Jennifer Pietenpol, PhD

“Investigating Cancer Health Disparities in Latinos Through Genetic Analysis,” a special research presentation at Mayo Clinic Florida by Dr. Luis G, Carvajal-Carmona. (June 12)


2nd Annual Celebration of Women’s Health Research (Sept. 14)

Mayo Clinic Festival of Cultures (Oct. 16)

“Establishing Trust in Health Care: How the Transgender Community is Building a New Ecosystem for Health,” Kern Center Innovation and Design Series of Unexpected Conversation, presented by Charlie Blotner, MSW candidate, University of Washington (Nov. 27)
OHDR also catalogues—via Mayo Clinic News, Inside Mayo Clinic Research, departmental newsletters, center announcements, department blogs, email, event agenda/abstract listings, and self-reporting—the participation by Mayo Clinic scientists in national and international health disparities and health equity organizations, conference, seminars, symposia, and meetings. Mayo Clinic’s representation at these events, often via poster/abstract presentations, speakers, panel members, or session chairs, and membership in these organizations, often in leadership positions, reflects an ongoing commitment to health disparities research and health equity at the institutional level. A sample list of such events attended by Mayo Clinic researchers in 2018 includes:

**National Advancing the Science of Cancer in Latinos Conference (February 21-23)**
- Edith Perez, MD
- Carmen Radecki Breitkopf, PhD
- Gerardo Colon-Otero, MD
- Narjust Duma, MD

**National Society of Behavioral Medicine Conference (April 11-14)**
- Lila Finney Rutten, PhD
- Sean Phelan, PhD
- Carmen Radecki Breitkopf, PhD
- Lauren Bangterter, PhD
- Matthew Schumann, PhD
- Xuan Zhu, PhD
- Joan Griffin, PhD
- Kwesi Adjei

**American Association of Cancer Research – Cancer Health Disparities Conference (November 2-5)**
- Lewis Roberts, MC, ChB, PhD
- Wesley Petersen, PhD
- Narjust Duma, MD

**Healthy Churches 2020 (November 14-17)**
- LaPrincess Brewer, MD
- Erika Martinez
- Christopher Pullins, MD
- Corinna Sabaque
- Floyd Willis, MD
- Marion Kelly
- Elizabeth Pantoja

**American Public Health Association Annual Meeting (November 10-16)**
- Donald Northfelt, MD
- Aaron Spaulding, PhD
- Joyce Balls-Berry, PhD
- Monica Albertie
- Luz Molina
- Judith Kaur, MD
- Sarah Carstens
- Andre Watkins
- Farhia Omar
- (list incomplete)
- Michelle Holm, Pharm.D.
- Alan Bryce, MD
- Sumedha Penheiter, PhD
- Graziela Porraz Capetillo

**Minnesota Cancer Alliance**
- Sumedha Penheiter, PhD – Steering Committee Member; Policy Committee Member
- Carmen Radecki Breitkopf, PhD – Steering Committee Member
III. OHDR PROMOTES AND EXPANDS HEALTH DISPARITIES RESEARCH AND THE HEALTH DISPARITIES RESEARCH PORTFOLIO AT MAYO CLINIC

OHDR carries out its first goal—that of promoting and expanding health disparities research and the health disparities research portfolio across the Mayo Clinic enterprise—using three fundamental tactics:


OHDR provides seven different funding opportunities for Mayo Clinic health disparities researchers: Pilot Project Awards, Special Project Funding, Gap Funding, Indirect Costs Support, Travel Awards, Grant Cost Shares, and Event Sponsorship.

These funding mechanisms, which support both new and established research efforts, have historically provided pilot data for extramural funding applications, and have resulted in numerous peer reviewed published manuscripts.

In 2018, OHDR awarded $441,067 in direct funding. This funding included:

- **Pilot Awards totaling $157,565**
  - Megan Allyse, PhD  
    Views of Women With Uterine Fibroids on Fertility Preservation and Restoration ($62,667)
  - Samuel Antwi, PhD  
    Factors Affecting African American Participation in Cancer Research and Response to Return of Hepatitis Viral Load Research Findings ($29,898)
  - Mark Wieland, MD  
    Closing the Gap: Improving Cancer Screening in Patients With Limited English Proficiency ($65,500)

- **Special Project funding of $45,876**
  - LaPrincess Brewer, MD  
    Healthy Churches 2020 National Conference 2017 Community Engagement
  - LaPrincess Brewer, MD  
    Recruiting African-Americans to Participate in Medical Research: Methods, Models, and Experiences [Pre-conference Survey Follow Up
  - Christopher Pullins, MD  
    Analysis of above survey
### 2018 Year End Report

<table>
<thead>
<tr>
<th>Irene Sia, MD</th>
<th>Social Network Analysis, MN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ping Yang, MD, PhD</td>
<td>High Incidence and Mortality from Gallbladder Cancer in Native Americans</td>
</tr>
<tr>
<td>LaPrincess Brewer, MD</td>
<td>Red Dress-Red Tie Event for Cardiovascular Health (Minneapolis African American Churches)</td>
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<tr>
<td>Samir Patel, MD</td>
<td>Incentives for PIMC Research Project (AZ)</td>
</tr>
<tr>
<td>Donald Northfelt, MD</td>
<td>Spanish Translation for Digital Storytelling Research Project at Yuma Regional Medical Center</td>
</tr>
<tr>
<td>Richard Caselli, MD</td>
<td>Space and Personnel support for Alzheimer’s Research Project at Adelante Healthcare</td>
</tr>
<tr>
<td>Donald Northfelt, MD</td>
<td>Follow up support for Health Equity promotional video related to cancer patient storytelling videography (AZ)</td>
</tr>
<tr>
<td>Carmen Radecki Breitkopf, PhD</td>
<td>Expense support for Research Coordinator technology needs related to LLEAD Study at Mountain Park Health Center (AZ)</td>
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<tr>
<td>Mayo Clinic Cancer Center</td>
<td>MCCC Midwest Cancer Research Advisory Board Support</td>
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**Sponsorships totaling $18,240**

<table>
<thead>
<tr>
<th>Agency</th>
<th>Event</th>
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<tbody>
<tr>
<td>Minnesota Cancer Alliance (MCA)</td>
<td>2019 Cancer Summit, MN</td>
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<tr>
<td>American Indian Cancer Foundation</td>
<td>Powwow For Hope Fundraiser, MN</td>
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<tr>
<td>Mayo Clinic – Office of Diversity &amp; Inclusion</td>
<td>Native Voices Exhibit Visit, MN</td>
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<tr>
<td>Midwest Alliance of Sovereign Tribes (MAST)</td>
<td>2018 Partnership for Wellness Conference (via NARO), MN</td>
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<tr>
<td>Mayo Clinic Office of Diversity &amp; Inclusion</td>
<td>2018 Festival of Cultures, MN</td>
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<tr>
<td>2018 American Public Health Association</td>
<td>Sponsorship and Exhibitor’s Booth at 2018 Conference</td>
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<tr>
<td>Mayo Clinic – Women's Health Center and Office of Women's Health Research</td>
<td>Celebration of Women in Research Event, MN</td>
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<tr>
<td>Arizona Health Equity Conference</td>
<td>Gold Level Sponsorship, AZ</td>
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<tr>
<td>Esperança</td>
<td>Hope Breakfast – Phoenix, AZ</td>
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<tr>
<td>Catholic Charities</td>
<td>World Refugee Day – Phoenix, AZ</td>
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<tr>
<td>Jacksonville Hispanic Church of God</td>
<td>Annual Multi-Cultural Health Fair Sponsor, FL</td>
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DIRECT FUNDING SUMMARY

Historically OHDR has awarded....

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<tr>
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<tbody>
<tr>
<td>Pilot Projects</td>
<td>$157,565</td>
<td>$322,285</td>
<td>$182,469</td>
<td>$227,791</td>
<td>$185,415</td>
<td>$103,083</td>
<td>$143,238</td>
</tr>
<tr>
<td>Special Projs</td>
<td>45,876</td>
<td>37,574</td>
<td>146,913</td>
<td>29,767</td>
<td>31,843</td>
<td>18,603</td>
<td>170,686</td>
</tr>
<tr>
<td>Other Funds</td>
<td>218,386</td>
<td>372,198</td>
<td>128,413</td>
<td>164,949</td>
<td>469,107</td>
<td>302,475</td>
<td>104,167</td>
</tr>
<tr>
<td>Sponsorships</td>
<td>18,240</td>
<td>18,063</td>
<td>9,750</td>
<td>23,767</td>
<td>18,593</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Total Direct</td>
<td>$441,067</td>
<td>$750,120</td>
<td>$467,545</td>
<td>$446,274</td>
<td>$704,958</td>
<td>$424,661</td>
<td>$418,591</td>
</tr>
</tbody>
</table>

Cumulatively, between 2012 and 2018, OHDR funding:

- has supported more than **50** individual health disparities researchers and their teams
- has supported **41** successfully funded NIH grants [through funding/infrastructure support]
- has resulted in more than **100** published manuscripts
- has resulted in over **200** abstract and poster submissions

Thus, in its seven year history, the **Office of Health Disparities Research** has awarded **more than $3.65M in direct funding and financial support** to Mayo Clinic health disparities research and investigators

REPORTED FUNDING OUTCOMES

Reported funding outcomes from the entirety of 2018 include:

- **3** funded pilot projects
- **6** special projects funded in Rochester
- **5** special projects funded in Arizona
- **2** funded cost share projects

III(B). Through Consultations and Collaborations

CONSULTATIONS

In 2018, OHDR provided approximately **252 consultations across the three sites**—both to Mayo Clinic personnel and outside inquirers—related to health disparities research, minority enrollment/accrual, grant support, health disparities data, and research funding opportunities (MN=158; AZ=64; FL=30).

COLLABORATIONS

- Across Mayo Clinic campuses
- Across disciplines
- Across the nation
III(C). Through **Grant Application and Study Support** to Health Disparities Investigators.

OHDR provides assistance to Mayo Clinic researchers across the entire spectrum of minority health and health disparities. This includes resources and support to investigators directly involved in health disparities research, as well as researchers in basic and applied sciences, and all research appropriate representation of minorities, women and children.

In support of extramural research funding applications, OHDR provides subject-specific information, study feasibility assistance, women and minority accrual insight, study design support, institutional data, and coordinator support as available through:

- consultations with programmatic teams in Arizona, Florida, and Rochester,
- research coordinator support for health disparities studies,
- direct minority recruitment assistance,
- outreach to undeserved communities, and
- Letters of Support highlighting OHDR and other Mayo Clinic resources and infrastructure available for research,

**LETTERS OF SUPPORT**

OHDR provides letters of support to researchers applying for NIH, NCI or other extramural funding to help demonstrate their commitment to meeting the ‘women and minority inclusion’ mandate. These letters of support both highlight Mayo Clinic’s institutional commitment to health disparities research and enumerate the range of resources and infrastructure that Mayo Clinic provides, through OHDR, to facilitate research collaboration, minority enrollment, study implementation, and staffing that advances health equity. OHDR has worked closely with the Office of Special Projects Administration to advise all investigators, in all fields of research, to send Letters of Support from OHDR as a means of evidencing the investigator’s adherence to sex and minority inclusion standards. In 2018, OHDR submitted 5 letters of support for federal grant applications. Since 2012, OHDR has submitted approximately 36 letters to federal agencies in support of Mayo Clinic researchers’ grant applications.

OHDR is the institutional resource for Mayo researchers seeking to fulfill the federal funding mandate that requires the planned inclusion of minorities and women in clinical research.
IV(A). To Mayo Clinicians, Educators, Investigators, and Administrators

ENTREPRISE-WIDE HEALTH DISPARITIES RETREAT

The Office of Health Disparities Research Annual Retreat provides an intense, two-day opportunity for Mayo employees from across the enterprise to learn more about: health disparities in general; national and regional trends in health disparities research and interventions; Mayo Clinic specific studies in health disparities; and efforts across the shields to increase diversity in Mayo patient population and in clinical research. Post-retreat surveys reveal the majority of attendees find the event either very or extremely informative, and report it improved or greatly improved their understanding of health disparities and their knowledge of Mayo Clinic’s efforts in health disparities research.

OHDR’s sixth consecutive event was the largest ever, with 175 scientists, clinicians, educators, and administrators from all three Mayo campuses and MCHS attended the Office of Health Disparities Research’s annual enterprise-wide Retreat. 2018’s event was held August 7-8 in Rochester, MN, and kicked off with an informal social and networking event the evening of August 6th.

The first session of the Retreat was the much-anticipated Keynote Address, delivered by Dr. Kimberly Arriola of Emory University, entitled Embodying Injustice: Understanding the Role of Racism in Health. Key points of Dr. Arriola’s address included:

■ Acute and institutional racism are a social determinant of health.
■ Experienced racism have an immediate impact on physical and mental health, as well as an impact on physiological and emotional wellness over time.
■ Race-related stress can be isolated as a factor in disease, and her work is doing so in the area of chronic kidney disease.

The Retreat also featured a special presentation by Pernessa Seel, PhD, founder of the Balm in Gilead, Inc., which sponsors the Healthy Churches 2020 National Conference, a capacity building event for those involved in health ministries offered by African American faith communities. OHDR has long supported the participation and attendance of Mayo Clinic researchers and community members in this annual event, and Dr. Seele’s presentation on faith-based institutions as an alternative delivery mechanism for health and wellness education and interventions was enlightening and engaging.
In addition to these feature presentations, the Retreat included scientific presentations by OHDR's 2017 Pilot Project Awardees, informational session on Community Engagement and Minority Recruitment, Institutional Tools for Health Disparities Research, an update on Enterprise-Wide Health Equity efforts, a health disparities Poster Session, and many networking opportunities.

**OHDR RETREAT KEYNOTE SPEAKERS THROUGH THE YEARS**

Paula Braveman, MD  
**2014**  
Director, Center on Social Disparities in Health, University of California, San Francisco  
[PubMed](#)

Vence L. Bonham, JD  
**2015**  
Director, Health Disparities Unit, National Human Genome Research Institute (NHGRI)  
[PubMed](#)

Eliseo Pérez-Stable, MD  
**2016**  
Director, National Institute on Minority Health and Health Disparities (NIH)  
[PubMed](#)

David R. Williams, PhD  
**2017**  
Florence and Laura Norman Professor of Public Health, Harvard University  
[PubMed](#)

Kimberly J. Arriola, PhD  
**2018**  
Professor, Rollins School of Public Health, Emory University  
[PubMed](#)

The Keynotes at the OHDR Annual Retreat are internationally acclaimed as leaders and trend-setters in the field of health disparities research. Their presence at Mayo Clinic has raised Mayo Clinic’s visibility in the field of Health Disparities Research. Additionally, their presentations have encouraged interest and enthusiasm amongst research at Mayo Clinic and surrounding community members.
PROMOTE HEALTH DISPARITIES RESEARCH AND SCIENTIFIC COMMUNITY AT MAYO CLINIC

In addition to its annual enterprise-wide Retreat, OHDR promotes Mayo Clinic’s health disparities research and scientists to an enterprise audience through a variety of communication and messaging venues, including but not limited to:

- A weekly newsletter that shares research interests and accomplishments of Mayo Clinic’s staff in health disparities space
- Active internal and external websites, regularly updated with news, funding opportunities, meeting and conference announcements, and researcher profiles.
- A quarterly Journal Club led by Mayo Clinic health disparities scientists
- Institutional presentations.
- Features and articles in enterprise magazines and news resources, such as Inside Mayo Clinic Research and Advancing the Science, TWAMC.

The Health Disparities Weekly Update

2018 marked OHDR’s sixth year of publishing a weekly newsletter containing national, local, and enterprise news on health disparities research, including trends and topics in health disparities, upcoming conferences and events, funding opportunities, new health disparities publications by Mayo Clinic authors, and a health disparities related Video-of-the-Week.

In 2018, 42 issues of the weekly newsletter were distributed directly via email to a listserv of approximately 4,750 Mayo Clinic personnel, and was also posted in PDF format on OHDR’s Mayo Clinic intranet website.
Mayo Clinic Intranet – OHDR Weblink

The Office of Health Disparities Research maintains a robust intranet website, containing a variety of information and resources for the Mayo Clinic audience. Information for Mayo researchers, practitioners, administrators and educators interested in finding out more about health disparities in general, or specific information about Mayo Clinic’s health disparities research efforts is housed on the website. OHDR’s efforts to increase minority participation in clinical trials, can be found via a helpful cache of data, tools, research guides, and links to resources.

The intranet site also serves as the electronic host for OHDR’s Weekly Health Disparity Update, contains the archive of past OHDR and NARO sponsored speaker recordings and presentation materials, maintains a list of active health disparities funding opportunities, the latest health disparities publications by Mayo Clinic authors, and profiles the Mayo Clinic health disparities researchers for those seeking collaborative partners. In 2018, OHDR’s Intranet site had almost 13,000 pageviews.

OHDR Journal Club

OHDR presents its own Journal Club, featuring 3-4 meeting per year on topics related to health disparities research methodology, recruitment, and findings. These are attended by participants across the institution, both in-person and remotely via teleconference and interactive web connection. The 2018 Journal Club presentations were:

### Susanna Basappa
MD/PhD Student
P450 Pharmacogenetics in Indigenous North American Populations

### Aaron Mangold, MD
Dermatology, AZ
Perceptions and Reality – The Characterizations of Skin Lesions, Attitudes Toward Malignancy, and Body Awareness in Hispanics

### Chandrika Manjunath
A Community-Partnered Approach to Developing Church-Based Interventions to Reduce Health Disparities Among African-Americans and Latinos
Institutional Presentations
Throughout the year, the Office of Health Disparities Research is often asked to present information on health disparities and/or the work of the Office to student groups, administrative committees, clinical practice groups, and various leadership bodies. **OHDR gave more than a dozen of these presentations** in 2018.

OHDR Communicates Through Articles in Enterprise Magazines and News Sources
Working in collaboration with the Office of Public Affairs, OHDR prepares and contributes to articles related to health disparities research and health disparities investigators at Mayo Clinic, as well as articles highlighting the services and resources OHDR offers to Mayo Clinic investigators and others interested in health equity issues, which are then placed in enterprise magazines, publications, and news sources. In 2018, **eleven OHDR-specific articles** and dozens of health disparities related articles appeared in Mayo Clinic publications, including but not limited to *This Week in Mayo Clinic, Inside Mayo Clinic Research, Advancing the Science,* and *Mayo Alumni Magazine*.

IV(B). To Mayo Clinic Patients
OHDR generates communication that directly reaches Mayo Clinic patients to spread information about health disparities research, minority accrual to clinical trials, and health equity. For example, as a means of increasing participation by minority populations in clinical trials, OHDR-Arizona has designed a patient information brochure, in both English and Spanish, which encourages research participation by answering questions concerning issues that Mayo Clinic researchers have found pose the greatest barriers to clinical trial participation for minority/underserved populations. The pamphlet, created by the OHDR-Arizona team and distributed to Mayo Clinic patients and to the public at health fairs, wellness expos, and other events, serves as an important—and culturally welcoming—introduction to clinical trial involvement.

IV(C). To The General Public
Social Media Feeds
OHDR was an active presence on **Twitter in 2018**, retweeting breaking health disparities news, forwarding health equity information from the NIH and NIMHD, and sharing important insights live from national health disparities conferences and events. By the end of 2018, OHDR had **sent 500 Tweets** and posted **162 photographs and videos**, which were retweeted **1704 times**.

Print and Electronic Media
Altogether, **37 articles** related to OHDR, health disparities research, investigators, awards, or minority accrual efforts appeared in Mayo Clinic’s primary self-prepared news outlets: *Advancing the Science, This Week at Mayo Clinic, Inside Mayo Clinic Research,* or *Discovery's Edge*. Additionally, OHDR and Mayo health disparities research was the subject of at least **two dozen external news stories** with national distribution:

- **2018 NPR (National Public Radio) Weekend Edition** feature piece “Researchers Gather Health Data For ‘All of Us,’” on Mayo Clinic hosting the biorepository for the NIH’s ground-breaking racially and ethnically diverse 1 million person collection of medical data and samples;
• Article in *Chicago Tribune* on Mayo clinic research study led by Dr. Shannon Laughlin-Tommaso, showing women undergoing hysterectomy (even those retaining their ovaries) are at greater risk of heart disease and other health problems, potentially impacting the rate of hysterectomy, the second most common gynecological surgery, which is often prescribed for benign reasons because physicians believe it has minimal long-term risks;

• Article syndicated by *Reuters* reporting study, led by Dr. Matteo Fabbri, showing that patients with poor health literacy had a nearly two-fold higher risk of death, and a 30% increased likelihood of hospitalization, than health literate populations;

• *Healio* article on Mayo study, led by Dr. Sikander Ailawadhi, finding racial disparities persist in stem cell transplant for multiple myeloma;

• *MedPageToday* article on SCAD treatment featuring Mayo cardiologist, Dr. Sharonne Hayes, who discusses that SCAD occurs overwhelmingly in women and accounts for 35% of myocardial infarctions in women under age 50;

• *New York Times* article “Black Cancer Matters” featuring research by Mayo Clinic’s Dr. Narjust Duma on minority underrepresentation as cancer research participants;

• *US News & World Report* article, “Want to Know Gender Identity? Ask Away, Patients Say,” reporting on study led by Mayo Clinic researcher, Dr. Joan Griffin, on patients’ reactions to being asked questions about their sexual orientation and gender identity on intake forms;

• Article in *MedPageToday* on creating policies and practices to protect healthcare staff from abusive, sexist, or racist patients;

• Feature on *NBC News* related to training physicians in implicit bias improving health outcomes for minority mothers, featuring Mayo Clinic medical school training on implicit bias;

• *US News & World Report* article, featuring three Mayo Clinic physicians, on extra challenges faced by female physicians;

• *Medscape* article, featuring Mayo Clinic researcher Michelle Mielke, PhD, on need for more inclusion of sex and gender differences in risk, clinical presentation, and progression of Alzheimer’s Disease; and

• *Chicago Tribune* article on HPV vaccination, featuring research and commentary by Mayo scientist Dr. Robert Jacobson, three Mayo Clinic physicians, on extra challenges faces by female physicians.

**OHDR External Website**

OHDR’s public-facing website provides information on ongoing research projects, researcher profiles and interests, Mayo Clinic health disparities efforts, the Community Advisory Boards, and the activities at specific sites (Rochester, Florida, and Arizona). Some of the most popular pages on the external-facing site, which received 9,728 pageviews in 2018, were:

- Health Disparities Researcher Profiles
- Community Advisory Boards
- Native American Research Outreach
Community Outreach

The Office of Health Disparities also communicates about health disparities with the general public through community outreach events, directly connecting with individuals on a one-on-one basis. Not including events where OHDR was a hosting sponsor or co-sponsor, not including study recruitment support, and not including OHDR’s weekly newsletter, OHDR’s community outreach efforts directly reached at least 5,000 additional individuals in 2018.