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Alaska Native Activities

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This report provides selected highlights of American Indian and Alaska Native (AI/AN) research accomplishments and activities at the National Institutes of Health (NIH) during fiscal year 2015.

A Primary Prevention Trial to Strengthen Child Attachment in a Native Community:

Research has shown that attachment security in infancy and early childhood promotes resilience in children who grow up under stressful circumstances. In FY 2015, the University of Washington Partnerships for Native Health, in collaboration with the Fort Peck Tribes in northeastern Montana, made progress in adapting the Promoting First Relationships (PFR) program to ensure cultural appropriateness. Once completed, researchers will use this program to test the effectiveness of PFR in promoting sensitive caregiving and child attachment.

AI/AN Health Outreach Activities:

NIH continues to collaborate with AI/AN national organizations and IHS field offices in providing easy access to NIH materials related to AI/AN elders and aging. NIH also continues to support the [Native Elder Research Center](#) in Seattle, Washington. The Center promotes the health and well-being of aging AI/AN individuals by pursuing research, training, continuing education, technical assistance, and information dissemination within a biopsychosocial framework that recognizes the unique cultural contexts of AI/AN populations.

Alcohol Abuse/Dependence and its Consequences for Indigenous Adolescents:

This project investigates the development of alcohol abuse and dependence disorders (AUDs) among Ojibwe adolescents. Analysis of a longitudinal, one-of-a-kind, eight-year panel study that surveyed indigenous young people at eight time periods through their teen years will advance understanding of developmental processes regarding AUDs in this population and inform innovative, empirically-driven, cultural interventions. The study focuses on the emergence of AUDs across time among Ojibwe young people; the influence of internalizing and externalizing behaviors; protective factors, including group membership; co-morbidities; potential mediators between alcohol use and antisocial behaviors; and the effects of community characteristics on AUDs.

American Indian, Alaska Native, and Native Hawaiian 2015 Health Planners:

As part of an NIH National Multicultural Outreach Initiative (<http://www.niams.nih.gov/multicultural/>), a set of 2015 health planners was developed and distributed, including a planner tailored for AI/AN populations and Native Hawaiians. NIH partnered with IHS, the Administration on Aging/Administration for Community Living, other HHS agencies, and tribal partners to distribute these culturally tailored planners to Native communities nationwide. The planners will be distributed again in 2016.

American Indian and Alaska Native Substance Abuse Research Scholars Network:

This research scholars network met in August 2015 to discuss necessary steps to advance AI/AN substance abuse research. The network is working to develop a guide on best practices for

AI/AN substance abuse research, including grant writing information and considerations for grant reviewers. The group is also continuing work to identify measurement issues and the best measures for work in this field. Treatment and prevention research remain major priorities.

Arsenic, Epigenetics, and Cardiovascular Disease in American Indians:

Increasing evidence supports the role of arsenic exposure in cardiovascular disease development. This research is evaluating whether epigenetic modifications and their interactions with genetic markers mediate the association of arsenic with cardiovascular disease in American Indian communities. This study may provide insight into the arsenic-cardiovascular relationship and inform recommendations for arsenic levels in drinking water and food.

Assisting the Narragansett Tribe with Emergency Preparedness:

In 2015, the Superfund Research Program (SRP) continued a collaborative relationship with the Narragansett Tribe to address the Tribe's need for emergency planning and response, as well as assess the impacts of environmental contamination on tribal lands. To investigate potential health effects, land and watershed contamination are being examined through the collection of fish and mussels from two Narragansett tribal ponds in Charlestown, RI. In addition, the Namaus (All Things Fish) Project was launched to translate research findings to the Narragansett tribal community and educate the community about the risks of eating potentially contaminated fish. More information can be found [here](#).

Banner Alzheimer's Institute Center of Excellence:

The Banner Alzheimer's Institute Center of Excellence (BAI) is committed to improving people's lives through biomedical research. In FY 2015, BAI engaged in raising awareness of Alzheimer's disease and related dementia with 16 Federally-recognized tribes; served community participants and family caregivers through distinct outreach and education programs, including an annual conference on Alzheimer's disease in AI; and enrolled participants in the Alzheimer's Disease Clinical Core, a longitudinal study on cognitive aging. This study may determine if there are measures that are predictive of Alzheimer's disease or dementia.

CBPR Initiative in Reducing Infant Mortality in American Indian Communities:

AI/AN individuals have 1.5 times the infant mortality rate as non-Hispanic Whites and AI/AN babies are twice as likely as non-Hispanic White babies to die from sudden infant death syndrome (SIDS). An even greater disparity exists on the Northern Plains where the infant mortality rate for American Indians is 6.4 times the overall U.S. SIDS rate. Since infant mortality rates are largely driven by post-neonatal mortality, this research is investigating the influence of post-natal factors on infant mortality, including parental knowledge, cultural beliefs, and access to resources that inform decision-making on infant sleep environments. In FY 2015, this project added a focus groups for fathers to the research protocols and securing IRB approvals through the Sanford IRB/Sioux Tribe Research Review Board. The project also established a community advisory board and completed cultural competency training.

Center for American Indian and Alaska Native Health Disparities:

This Center addresses the health impacts that high rates of psychological trauma have on AI/AN populations. One project at this Center used a community-based participatory approach in the creation of a screening for trauma among AI/AN adults. Through work with key stakeholders

from the Cherokee Nation in Oklahoma and Southcentral Foundation in Alaska, this methodology was considered and developed as a means to systematically screen for trauma, then refer affected individuals for intervention in two AI/AN health care settings. A pilot program of the trauma screening and referral then assessed the acceptability and feasibility of a future large-scale trial in both settings. A second project focused on technology-based health services for AI/AN individuals. This project uses a community-based participatory approach to engage stakeholders in the development of electronic tools to support providers in assessing and treating trauma. These tools would reinforce and augment in-person interventions offered to customer-owners, and augment care-management structures.

Centers of Excellence on Environmental Health Disparities Research:

In FY 2015, NIH funded two new Centers of Excellence that are focused on AI/AN health issues. The Center for Indigenous Environmental Health Research will partner with tribal communities on environmental exposure research, and build Native community capacity to address environmental health inequities. Research will examine the impact of contamination of traditional food and water from environmental uranium and arsenic among the Navajo and determine the magnitude of exposures to particulate matter, arsenic, and uranium among the Hopi. The Center for Native American Environmental Health Equity Research will examine and compare mechanisms of toxicity in mining waste metal mixtures across three tribal populations (Navajo, Hopi, and Sioux) who are exposed to contaminants from over 4,000 abandoned uranium mines. Research will assess the relationship of metal exposures with immunologic outcomes and test whether supplemental zinc is protective against metal exposure and toxicity.

Chickasaw Health Information Center:

The Chickasaw Health Information Center (CHIC) is a public-private project jointly supported by NIH, the Chickasaw Nation, and Computercraft, a Chickasaw-owned science and technology company. The CHIC is a consumer health information center located in the Chickasaw Nation Medical Center in Ada, Oklahoma. Computercraft developed and hosts the CHIC website, and also developed a mobile kiosk. The website provides patients and citizens of the Chickasaw Nation with access to health information. NIH also trains staff and health care providers and provides guidance about effective information provision practices. In FY 2015, a program evaluation began in the summer with the goal of 100 completed surveys. Plans to expand the CHIC to onsite locations in Tishomingo and Ardmore, Oklahoma health clinics began. It is anticipated the new CHIC locations will open in 2016. Online at: <http://www.chicresources.net/>.

Clinical Trials Network American Indian and Alaska Native Interest Group:

NIH conducts ongoing monthly meetings with this interest group, comprised of substance abuse treatment researchers focused on AI/AN populations. Recent activities have included a focus on further development of the AI/AN research portfolios related to substance abuse and strategies to assist AI/AN investigators to develop competitive grant applications.

Collaborative Research Center for American Indian Health:

The goal of the Collaborative Research Center for American Indian Health (CRCAIH) is to bring together Tribal communities and health researchers to conduct transdisciplinary research on the social determinants of health that are significant to health disparities experienced by AI communities in South Dakota, North Dakota, and Minnesota. A major focus of activities has

been the development and strengthening of tribal research capacity and infrastructure. CRCAIH has been working with communities to conduct health needs assessments, developing research review capacity using an Institutional Review Board (IRB) Toolkit developed for use by Tribes wanting to have their own research review boards, and developing data management protocols and programs for Tribes seeking a way to manage data ownership and track data use. This work resulted in the establishment of the Turtle Mountain Tribal Nations Research Group and the launch of the Oglala Sioux Tribal IRB submission system. Online at: <http://www.crcaih.org/>

Cultural Night at the Exhibit of *Genome: Unlocking Life's Code*:

The Native American Youth and Family Center (NAYA), together with NIH and the Oregon Museum of Science and Industry, hosted a cultural night at the *Genome: Unlocking Life's Code* exhibit while it was on view in Portland. The event was attended by nearly 250 AI/AN individuals, and offered participants the opportunity to explore the museum, experience the Genome exhibit, and hear from a Native storyteller about ancestry, origins, and identity. In addition to the cultural night, NAYA brought students on fieldtrips to the exhibition during the day as part of their curriculum on genetics. Online at: <http://www.unlockinglifescode.org/>

Dental Care Delivery System Intervention in American Indian and Alaska Native Populations:

NIH is supporting research to improve the existing oral health care system by assessing the benefits of a risk-based, dental care delivery system in which oral health prevention and treatment will be delivered by different dental team members in alternative and conventional dental care settings. This multilevel intervention study is incorporating evidence-based dental treatments into routine care delivered by a dental team to the AI/AN population served by the South East Alaska Regional Health Consortium. The long term goal is to design, implement, and evaluate a series of dental care delivery system changes to improve oral health while reducing costs.

Developing a Diabetes Numeracy Intervention for American Indians and Alaska Natives:

Patients with diabetes must engage in a variety of self-care behaviors, including appropriate dietary practices, blood glucose self-monitoring, and medication management. Important to each of these behaviors is the capacity to understand and use numbers (e.g., counting carbohydrates). This project is developing and pilot testing a culturally-appropriate intervention to improve diabetes-related numerical skills among AI/AN individuals. After the intervention, the project will assess change in numeracy skills and change in diabetes self-efficacy, self-care behavior, and clinical outcomes to assess whether change in numeracy predicts change in these secondary outcomes.

Developing Effective Proximal Care to Prevent Rural Alaska Native Youth Suicide (PC-CARES):

The annual rate of death by suicide among AI/AN youth is significantly higher than that of other young Americans. This project is developing a community-based, capacity-building intervention to reduce suicidal behavior in AI/AN youth in Northwest Alaska. Leveraging the experience and insight of the Northern Alaska Wellness Initiative (a collaborative effort that engages Tribal representatives to assess the development and evaluation of behavioral health services and programming), the study pairs mental health professionals with Tribal leaders to reduce stigma

associated with help-seeking and to promote earlier interactions between providers and community members. This project takes a public health approach, aiming to shift from crisis intervention to selective outreach and community-integrated care of youth at risk for suicide. The first six months of this project completed outreach to Alaska Native villages, established a Tribal steering committee, launched a research advisory board and completed a photo census in two villages. It also developed a curriculum and train-the-trainers training in the PC-CARES intervention. The next year will be devoted to providing the intervention. The intervention holds promise for decreasing suicide risk and bolstering protective factors in Tribal communities.

Diabetes Prevention Program:

The Diabetes Prevention Program (DPP) clinical trial and its follow-up study, the Diabetes Prevention Program Outcome Study (DPPOS), have shown that certain interventions could prevent or substantially delay the onset of type 2 diabetes in overweight or obese adults with pre-diabetes. Forty-five percent of the participants in these studies belong to underrepresented racial or ethnic groups, including AI/AN individuals that have increased risk of type 2 diabetes. After 15 years of follow-up, the DPPOS study recently reported that lifestyle and the medication metformin continued to be effective at reducing diabetes incidence. It is noteworthy that the Indian Health Service, through a Special Diabetes Program for Indians demonstration project, has now delivered the DPP lifestyle intervention to over 6,000 AI/AN individuals nationwide.

Diet Intervention for Hypertension: Adaptation and Dissemination to Native Communities:

Reducing intake of salt and fats can prevent cardiovascular disease and further the goals of *Healthy People 2020*. Sustainable, cost-effective dietary interventions are needed for high-risk populations such as urban AI individuals. This clinical trial is adapting an existing heart-healthy diet for AI individuals with high blood pressure with a cohort of 400 participants, answering the American Heart Association's call for interventions that address household dietary practices. In FY 2015, recruitment was in the planning stages.

Emergency Department Screen for Teens at Risk for Suicide:

Intentional self-harm is one of the leading causes of youth emergency room visits. This project working to improve identification of youth at risk for suicide. The Emergency Department Screen for Teens at Risk for Suicide (ED-STARS) study is developing and prospectively validating an instrument to screen for suicide risk. It will also refine algorithms capable of predicting which youth are most likely at risk for attempting suicide in the future. ED-STARS is being conducted in 13 hospital emergency departments affiliated with the Pediatric Emergency Care Applied Research Network and the White River Public Health Service Indian Hospital. In FY 2015, investigators completed work on study documents and protocols, as well as staff training, and final IRB approval is expected to be completed soon.

Enhancing the Diversity of the NIH Funded Workforce:

NIH awarded nearly \$50 million in FY 2015 to invest in innovative approaches to training and mentoring researchers, including those from backgrounds underrepresented in biomedical sciences. These awards are part of a five-year program to support more than 50 awardees and partnering institutions in establishing a national consortium to develop, implement, and evaluate approaches to encourage individuals to pursue and persist in biomedical research careers. Each of these initiatives has components addressing AI/AN populations and collectively, these awards

aim to enhance representation of people from diverse groups, including AI/AN individuals, in the NIH-funded workforce. Online at: <http://commonfund.nih.gov/diversity/overview>

This consortium is composed of three integrated initiatives:

Building Infrastructure Leading to Diversity:

Building Infrastructure Leading to Diversity (BUILD) is a grant system incorporating interventions in research training at the student, faculty, and institutional-level. Through a set of 10 experimental training awards, BUILD programs prepare students to become future contributors to the NIH-funded research enterprise. Institutions are encouraged to incorporate additional innovative methods to engage and prepare students for success, including those who might otherwise not choose biomedical research careers. The BUILD awardees work with multiple partnering institutions to provide robust research training and mentorship experiences for students and faculty. Two BUILD awardee institutions and their partners aim to serve significant numbers of AI/AN students: University of Alaska, Fairbanks and Portland State University, and their partners which include University of Alaska-Southeast, Ilisagvik College, and University of Alaska-Anchorage.

The National Research Mentoring Network:

The National Research Mentoring Network (NRMN) has developed a nationwide network of mentors and mentees spanning all biomedical disciplines, and will continue developing best practices for mentoring, mentor training, and professional development opportunities for mentees and mentors. The NRMN grantees' leadership team includes investigators with demonstrated commitment to serving AI/AN populations and partnerships with organizations, including: the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS), American Indian Science and Engineering Society, Association of American Indian Physicians, Northern Arizona University Center for American Indian Resiliency, Washington State University Behavioral Health Collaborative in Rural American Indian Communities, and the University of Washington Regional Native American Community Networks Program.

The Coordination and Evaluation Center:

The Coordination and Evaluation Center (CEC) coordinates consortium-wide activities and assesses the efficacy of the training and mentoring approaches developed by the BUILD and NRMN awardees. Given the wide range of geographical, racial, ethnic, linguistic, and cultural diversity represented by the BUILD and NRMN awardees and their partners, the CEC allows for the rigorous analysis of which interventions are most effective in different contexts and for which populations. These findings will have implications for recruiting, training, and mentoring of diverse groups nationwide, including AI/AN.

Environmental Health Information Partnership:

The Environmental Health Information Partnership (EnHIP) strengthens institutional capacity to reduce health disparities through use of information technology and environmental health information. The program includes institutions with high AI/AN enrollment including Oglala

Lakota College (South Dakota), Diné College (Arizona), Haskell Indian Nations University (Kansas) and the University of Alaska, Anchorage (Alaska). EnHIP helps institutions incorporate NIH resources in their curricula and community outreach projects. Faculty, staff, and students receive training in information resources and participate in meetings about scientific issues and funding opportunities. The program also supports local information projects related to environment and disaster preparedness. In FY 2015, EnHIP representatives met at NIH on March 16-17, 2015. The theme of the meeting was *Challenges of Emerging Infectious Diseases* and topics included Ebola, vaccine development, climate change and emerging diseases, public health department responses, and NIH resources about emerging infectious diseases. Online at: <https://sis.nlm.nih.gov/outreach/enhip.html>.

Family Investigations of Diabetes and Nephropathy:

The Family Investigations of Diabetes and Nephropathy (FIND) project is researching the genetic susceptibility to kidney disease in patients, especially those with diabetes, in a variety of racial and ethnic groups, including American Indians, who appear to have an increased incidence and prevalence of diabetic renal disease. In FY 2015, researchers identified a novel region of DNA that was strongly linked with diabetic kidney disease risk in AI participants, and more weakly in other groups.

Fish Consumption Advisory to Promote Anishinaabe Environmental Health Literacy:

The Anishinaabe-Ojibwe (Chippewa) have a long tradition of fishing culture. Due to concerns regarding exposure to Persistent Bioaccumulative Toxics (PBTs) in the Upper Laurentian Great Lakes, many individuals have reduced their fish consumption to one-third of the recommended daily intake. This research project is working to better understand and reduce the health risks associated with PBTs while maximizing the nutritional benefits associated with fish consumption. Ojibwe communities are particularly vulnerable to morbidities associated with PBTs and poor nutrition, including metabolic diseases, inflammatory diseases, childhood neurological development, and cancer. The interactive risk/benefit educational materials from this study will promote clean, healthy diets.

Genetics of Obesity and Metabolism in Yup'ik and Other Native Peoples of Rural Southwest Alaska:

This research program in rural southwest Alaska uses a community-based participatory research framework to identify genetic risk factors for obesity and metabolic diseases like type 2 diabetes, and seeks to understand how this risk is modified by environmental and behavioral factors. Recently, novel gene regions associated with obesity and metabolic hormones have been identified. Researchers also found that dietary intake of a group of polyunsaturated fatty acids characteristic of the traditional Yup'ik diet modulate these genetic effects. Another project found that genes that impact the dosing of warfarin, an anticoagulant widely prescribed for prevention of thrombosis and thromboembolism, are widespread through the Yup'ik population. This may improve treatment for cardiovascular disease in Yup'ik individuals.

Guiding Indigenous Students in Next-Generation Genomic Studies with the Summer Internship for Native Americans in Genomics (SING):

The SING workshop is a six-day, summer short course on genomics for AI/AN college and university students with a background and interest in genomics. SING works to train AI/AN

students in next-generation genomic and bioinformatics analyses and to build capacity for scientific research in AI/AN communities. The program creates an interdisciplinary learning environment with learners and instructors from diverse backgrounds and a curriculum that empowers AI/AN students to take leadership roles in addressing current and future challenges of genomic research and sovereignty of AI/AN communities. The program provides "hands-on" training in molecular biology, bioinformatics and ELSI strategies. Online at: <http://conferences.igb.illinois.edu/sing/home>.

Intertribal Talking Circle for the Prevention of Substance Abuse in Native Youth:

This project evaluates an after-school substance abuse prevention intervention, the Intertribal Talking Circle (ITC), targeting 6th grade AI youth in three AI communities: Ojibwe/Chippewa in Minnesota, Choctaw in Oklahoma, and Lumbee in North Carolina. A community-based participatory research approach is used to culturally and technologically adapt the ITC. The project is evaluating how effective the ITC is in increasing AI youth self-reliance while decreasing AI youth substance use. An adult training program will also train tribal personnel from the three regional tribes on how to implement the Intertribal Talking Circle intervention as a tribal program beyond the study period.

Health Disparities Research Framework:

The promise of health disparities research depends largely on scientific rigor that builds on past findings and aggressively pursues new approaches for priority populations such as American Indians, Alaska Natives, and Native Hawaiians. [The NIA Health Disparities Framework](#) provides a landscape for stimulating interdisciplinary approaches, evaluating research productivity, and identifying opportunities for innovative health disparities research related to aging. The NIA Health Disparities Research Framework highlights important factors for health disparities research related to aging, provides an organizing structure for tracking progress, stimulates opportunities to better delineate causal pathways, and broadens the scope for targets for intervention, aiding in our efforts to address health disparities in the aging population. The NIA Health Disparities Research Framework has been used to stimulate four funding opportunity announcements (FOA) for research focused on AI/AN and Native Hawaiians. FOAs online [here](#), [here](#), [here](#), and [here](#).

Health Information Resources and Technologies That Address Health Disparities:

NIH develops and maintains culturally-appropriate websites that focus on information to address health disparities that affect AI/AN populations. The American Indian Health Web Portal (<https://americanindianhealth.nlm.nih.gov/>) is dedicated to issues affecting the health and well-being of all North American AI/AN and includes current research information and traditional healing resources. NIH will be releasing a redesigned, mobile-enabled portal in the summer of 2016. The Arctic Health website (<http://arctichealth.nlm.nih.gov/>), in collaboration with the Alaska Medical Library at the University of Alaska, Anchorage, brings together reliable information on diverse aspects of the Arctic environment and the health of northern peoples. A new partnership with the Alaska Native Tribal Health Consortium (ANTHC) was formed to help gather and report on research in the Arctic region. Additionally, a Native American Health page on MedlinePlus.gov (<https://www.nlm.nih.gov/medlineplus/nativeamericanhealth.html>), NIH's main consumer health website, facilitates access to information on specific health concerns that affect AI/AN peoples.

Healthy Children, Strong Families: American Indian Communities Preventing Obesity:

The obesity rate among AI children is high and, once established, this early obesity often persists through adulthood, which increases the risk of cardiovascular disease and type 2 diabetes. This project is testing a community-based intervention in six diverse rural and urban AI communities nationally to address the problem of AI childhood obesity, primarily in families with preschool age children. The study will evaluate body mass index scores, adult and child waist circumferences, fruit and vegetable consumption, sugar intake, time spent watching television, physical activity level, amount of sleep, and, in adults, the psychosocial factors of stress and depression. The short term goal of this project is to develop successful obesity interventions that are practical and easily replicated, while the long-term goal is to incorporate successful interventions into AI health programs and to disseminate them nationally in order to assist communities in preventing and reducing obesity. In FY 2015, the recruitment phase of the project was completed.

Historical Trauma Practice and Group Interpersonal Psychotherapy for American Indians:

Disparities in socioeconomic factors, including income, health insurance, and education, contribute to low mental health treatment engagement among American Indians. This project is addressing low treatment engagement among AI/AN individuals by developing and refining a culturally-tailored intervention, the Historical Trauma and Unresolved Grief Tribal Best Practice (HTUG), combined with group Interpersonal Psychotherapy (IPT), for treatment of depression and other mental disorders. The project, conducted in partnership with outpatient behavioral health clinics in Albuquerque, New Mexico and Pine Ridge Reservation in South Dakota, includes a pilot, randomized clinical trial comparing HTUG/IPT to standard IPT alone in both rural and urban clinical settings. This intervention holds promise for reducing disparities in mental health treatment engagement in AI/AN and other underserved populations.

Improving Native American Elder Access to and Use of Healthcare through Effective Health System Navigation:

American Indian elders suffer from poorer quality of life and lower life expectancies compared to all other aging populations in the United States and are negatively affected by gaps in insurance and lack of access to healthcare. This community-driven research is examining insurance-related outreach activities under the Affordable Care Act, help-seeking behavior, and the healthcare experiences of American Indian elders in New Mexico. In 2015, the project convened a Community Advisory Board (CAB) of eight Native elders and allies and worked with the CAB to develop data collection instruments and a qualitative interview guide for health care discussions with AI elders. The project has also prepared an application to the Southwest Tribal Institutional Review Board to undertake human subjects research and conducted extensive community outreach across the 22 Pueblos and tribes in New Mexico.

Increasing AI/AN Research Engagement through a Culturally Adapted Ethics Training:

This project is developing an ethics training curriculum focusing on Indigenous human subjects' research. The goal is to remove barriers to the participation of AI/AN communities in the design, implementation, and dissemination of the outcomes of health-related research conducted in Indian Country. The draft curriculum—adapted from a pre-existing curriculum—has been reviewed by an expert community panel to identify content with little relevance for AI/AN

communities and gather information about content that should be included. A scientific/academic panel, covering 10 geographical cultural areas and rural and urban settings across Indian Country, reviewed the changes recommended by the community panel and worked to achieve consensus around terms, concepts, and ethical concerns.

Indigenous Wellness Research Institute National Center of Excellence:

The goal of this Center is to improve AI/AN health and eliminate health disparities through transdisciplinary research partnerships focused on behaviorally-rooted health conditions that disproportionately affect AI/AN populations, including cardiovascular disease, obesity, diabetes, HIV/AIDS, substance abuse, and mental illness, while emphasizing the importance of historical context as well as co-occurring factors of violence, substance use, and psychological distress. In FY 2015, the Center successfully implemented a study on the links between cardiovascular disease and depression at TCUs, a randomized controlled trial on links between diabetes and depression, and an HIV prevention study using virtual reality. The project also developed an American Indian Alaska Native Health Disparities Scholar program for AI/AN students at the high school and undergraduate level, sponsored quarterly health disparities lectures for university and tribal communities, and launched an annual three-day community-based participatory research training institute.

Innovative Multigenerational Household Intervention to Reduce Stroke and Cardiovascular Disease:

This project is determining the effectiveness of a household-based motivational counseling intervention to reduce stroke risk in 360 households where Strong Heart Family Study members reside. The Strong Heart Family Study is a population-based cohort of 4,549 AI individuals from 12 tribes in Arizona, Oklahoma, North Dakota, and South Dakota. The intervention is working to demonstrate household-level improvements in stroke risk score for adults over 45 years old as well as a change in modifiable risk factors like smoking, physical activity, diet, and blood pressure for all participants. Recruitment is in process.

Institutional Development Award:

The Institutional Development Award (IDeA) program broadens the geographic distribution of NIH funding for biomedical research. The program fosters health-related research and enhances the competitiveness of investigators at institutions located in states in which the aggregate success rate for applications to NIH has historically been low. The program also serves unique populations, such as rural and medically underserved communities in these states. The IDeA program consists of IDeA Networks of Biomedical Research Excellence (INBRE), IDeA Program Infrastructure for Clinical and Translational Research (IDeA-CTR), and Centers of Biomedical Research Excellence (COBRE). Grants supported by the IDeA program work with tribal nations and colleges on a variety of projects. For example, INBRE grants in Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, and South Dakota work with 16 different TCUs on building research capacity and infrastructure for projects ranging from building STEM education programs at the TCU to research on West Nile virus infection frequencies. Additionally, the IDeA program supports a Center of Biomedical Research Excellence in Montana focused on building research capacity and conducting research in Montana AI and rural communities.

Intervention Research to Improve Native American Health (IRINAH):

IRINAH brings together a network of researchers who are funded through the trans-NIH Interventions for Health Promotion and Disease Prevention in Native American Populations program. The group's goal is to assist communities and scientists in their research endeavors and share best practices for conducting research in AI communities. This network holds a monthly conference call, as well as an annual, in-person meeting to promote and discuss research. Further information can be found online at:

<http://cancercontrol.cancer.gov/nativeamericanintervention/funded.html>.

Intramural NIAID Research Opportunities (INRO) Activities:

The INRO program, an annual outreach program for underrepresented populations in biomedical research, provides a platform for potential trainees and future employees to learn about research. INRO marketing efforts were directed to AI/AN, Hispanics, African Americans, and Native Hawaiians and Other Pacific Islanders through a nationwide strategy via e-mail, phone, and direct mail to AI/AN contacts affiliated with U.S. colleges and universities and targeted website and journal advertisements. There were five American Indians who participated in FY 2015 – the most that have participated in a single year.

Multilevel Program and Policies to Reduce Chronic Disease for American Indians:

OPREVENT2 is a chronic disease prevention program that works at multiple levels (tribal, worksites, food stores, schools, households) in six AI communities in Wisconsin and New Mexico with a total cohort of 954 participants. The program is partnering with tribal leaders to develop, enact, and enforce policies and programs to reduce chronic diseases. The ultimate goal is to lead to significant and sustained reductions in obesity and other chronic diseases, such as diabetes and cancer. Recruitment is at the beginning stage.

National Diabetes Education Program Multicultural Campaigns:

In partnership with the CDC, NIH launched the National Diabetes Education Program (NDEP) in 1997 to change the way diabetes is treated. Since its inception, NDEP has taken a multicultural approach to achieve the goals of improving diabetes management, developing community-based interventions, implementing health system changes, and forging an inclusive partnership network. With the help of AI/AN representatives, the program has developed a range of materials on type 2 diabetes prevention and control that are adapted specifically for the AI/AN population. The program provides ideas and encourages the creation of activities in AI/AN communities to provide education about diabetes prevention and treatment. Online at:

<http://www.niddk.nih.gov/health-information/health-communication-programs/ndep/Pages/index.aspx>

National Native American Youth Initiative Program (NNAYI):

On June 25-26, 2015, NIH hosted 30 participants for the annual National Native American Youth Initiative (NNAYI), a program sponsored by the Office of Minority Health (OMH) and NIH. This program introduces AI/AN high school student scholars to the possibilities, realities, and benefits of pursuing a career in biomedical research, especially in health disparities and minority health research. A wide variety of NIH researchers, postdoctoral scientists, and extramural staff served as role models in biomedical science, research, and health careers. NIH staff introduced NNAYI high school scholars to career opportunities and scholarship in

biomedical research, as well as the academic skills required for a biomedical/science-focused admission to colleges or health profession schools. On research lab provided a lecture on the Ebola vaccine research and NIH's role in this effort. The students, suited up in protected gear, were able to enact a simulation of research field work during an outbreak. NIH scientific pamphlets and other resources were given to the students during their visits.

Native American Engagement in HIV Clinical Research:

The NIH-funded Office of HIV/AIDS Network Coordination's (HANC) Legacy Project is working to build relationships with AI/AN communities and increase awareness of HIV/AIDS clinical research by building on the Native American Engagement in HIV Clinical Research (NAEHCR) project, which was funded by NIH from 2011-2014. In 2015, the HANC/ Legacy Project and the NorthEast Two-Spirit Society presented a poster at the National HIV Prevention Conference on "Improving Knowledge of HIV Prevention Research among Native American/Two-Spirit Communities." The HANC/Legacy Project also supported a presentation and dialogue on HIV/AIDS in AI/AN communities and the cultural importance of Two-Spirit identities in Native communities throughout North America. This conversation with Native Seattle community members and leaders explored what is happening in the area to support greater wellness around HIV prevention and care.

Native American Research Centers for Health:

The Native American Research for Health (NARCH) program is a trans-NIH collaboration with the IHS that supports collaborations between federally-recognized AI/AN Tribes or Tribal organizations and research-intensive academic institutions that support health research projects prioritized by the Tribal communities. The NARCH initiative is encouraging competitive research linked to the health priorities of AI/AN organizations and health disparities; increasing the capacity of both AI/AN organizations and research-intensive institutions to reduce distrust by AI/AN communities and people toward research; and developing a cadre of AI/AN scientists and health professionals engaged in biomedical, clinical, behavioral, and health services research who will be competitive in securing NIH funding. In FY 2015, NIH and IHS supported 56 NARCH projects and cores totaling \$10.2 million dollars. NARCH projects range from STEM education to research on diabetes protocols, alcohol abstinence, childhood trauma, and effects of environmental exposures. Online at

<https://www.nigms.nih.gov/Research/CRCB/NARCH/Pages/default.aspx>.

Native American Research Centers for Health Principal Investigator Meeting:

NIH, in collaboration with the IHS, conducted the annual Native American Research for Health (NARCH) Program Principal Investigator (PI) meeting on October 30, 2015 in Washington DC. The purpose of the meeting was to provide updates on the NARCH-funded research projects and student and faculty development projects with a secondary goal of creating collaborative efforts across NARCH programs. The NARCH PIs were also provided information on current NIH funding opportunities applicable to the AI/AN communities, the newly-formed NIH Tribal Consultation Advisory Committee, and NIH intramural research opportunities for students and young investigators. NIH presented information regarding the future of NARCH and the move of administrative functions from IHS to NIH.

Native Voices: Native Peoples' Concepts of Health and Illness Traveling Exhibition:

In FY 2015, NIH completed pilot testing of a traveling version of the *Native Voices: Native Concepts of Health & Illness* exhibition at 27 different sites in 10 states. The sites included the Southcentral Foundation Valley Native Health Center (Alaska Native), Wasilla, AK; Sealaska Heritage Institute (Tlingit/Alaska Native), Juneau, AK; and Three Rivers Health Center (Cherokee), Muskogee, OK. Several other sites served a significant AI/AN population, including the Northeast Oklahoma College (various Northeast Oklahoma tribes); University of Washington (outreach to Pacific Northwest tribes in the Seattle area); University of New Mexico (outreach to the Pueblo, Navajo, and Apache tribes); and University of Utah (outreach to the Ute and Great Basin area tribes). Exhibition iPads allow full exploration of the video content of the exhibition, including hearing the voices of the American Indian/Alaska Native/Native Hawaiian individuals who were interviewed for the exhibition. The visitor feedback was overwhelmingly positive, and onsite observations indicated no major implementation issues. The evaluation results and lessons learned are being incorporated into the next phase of the Native Voices traveling exhibition program. Over the next five years, the exhibition is scheduled to travel to more than 100 locations. Online at: <https://www.nlm.nih.gov/nativevoices/traveling/>

Network for Cancer Control Research among American Indian and Alaska Native Populations:

NIH and the Mayo Clinic share the responsibility for supporting the Native Network for Cancer Control Research among AI/AN, which meets twice yearly. This group of Native and non-Native researchers and educators exchange information on cancer control research and improve community links to researchers at federal agencies, including NIH, IHS, and CDC. The Network strives to increase the number of AI/AN researchers, scientists, and medical students involved in cancer control activities in AI/AN communities; develop curricula and mentor students in the Native Researchers' Cancer Control Training Program; and convene national conferences on "Cancer in Indian Country."

NIH Visit Week:

NIH Visit Week is an annual program to expose AI/AN students to biomedical research and health career opportunities. Undergraduate AI/AN students are invited to attend an intensive enrichment program at NIH for one week during the summer. In FY 2015, fifteen students participated; seven students came from research-intensive universities, six students came from tribal or community colleges, and one student from a primarily undergraduate institution. During the week, the students participated in science career workshops, networking opportunities, and hands-on laboratory experiences. The laboratory experiences ranged from basic science to clinical. The students also attended a lecture by the Deputy Director of NIH and met with students in the NIH chapter of the Society for Advancement of Chicanos and Native Americans in Science. NIH is currently in the process of receiving applications for the summer of 2016.

Oral Health Status in Native Head Start Children:

Results from a clinical trial being conducted by the NIH-supported Center for Native Oral Health Research show that poor oral health remains a major problem for AI/AN children, in particular severe dental decay called Early Childhood Caries (ECC). There are a number of psychosocial, environmental, and cultural factors that are associated with ECC, but few studies have included AI/AN populations. This clinical trial is examining whether the sociodemographic and

psychosocial characteristics of children and their parents/caregivers are important factors in determining the oral health status of preschool children in the Navajo Nation. Data being collected include the amount of caries present in children and information submitted by parents/caregivers on the child's social and cultural environment. Factors significantly associated with a higher risk of caries were older child age, male gender, and poor oral health behaviors of the parent/caregiver in caring for their children's teeth. This research demonstrates that intervening to improve parent/caregiver practices in caring for the teeth of their children would likely improve the oral health of AI/AN children.

Outreach to AI/AN Students:

The 38th National Conference of the American Indian Science and Engineering Society (AISES) was held November 19-21, 2015, in Phoenix, AZ. The theme of the conference was Strive, Rise, and Thrive. Nearly 1800 participants attended, including STEM professionals, teachers, and students interested in STEM-related fields. NIH was an exhibitor at the event, providing materials on research training and the NIH scientific portfolio. NIH staff engaged in one-on-one conversations with students interested in applying for fellowship programs and the Intramural Research Opportunities program (INRO) and provided information about how to work towards a biomedical research career.

Partner Violence and Reproductive Coercion among Native American Women:

Twenty people per minute are victims of intimate partner violence (IPV) in the United States; and AI/AN women are at particularly high risk for experiencing unintended pregnancy, IPV, and sexual assault. This project is a qualitative study with adolescent and adult AI/AN women designed to advance understanding of the relationships among unintended pregnancy, violence, ethnicity, and contraceptive decision-making while identifying targets for intervention in three diverse tribal communities—the Hoopa tribe in Northern California, the tribal nations and Pueblos of New Mexico, and the Maliseet and surrounding tribes in Maine. In FY 2015, nearly 20% of the planned interviews have been completed. Although the data are limited, some key findings include (i) the extent to which reproductive coercion is common among women experiencing IPV in tribal communities, (ii) the limited resources available to women for support related to partner violence, and (iii) the extent to which pregnancies are overwhelmingly unintended. These findings may help determine new interventions to improve AI/AN women's lives and health.

Partnership to Prevent Childhood Obesity on the Flathead Indian Reservation:

Approximately 57% of the children and adolescents living on five rural Indian reservations in Montana are overweight or obese, and no obesity prevention trial, to date, has been successful in preventing childhood obesity in this high-risk population. This project capitalizes on the dual government and health care services systems on the Flathead Indian Reservation to build capacity and develop partnerships aimed at developing and testing culturally appropriate intervention strategies that will achieve sustainable childhood obesity reduction through a shared vision, community outreach, and education. Data collected across eight communities show low readiness for preventing childhood obesity. Planning is ongoing for a forum that will focus on: identifying strategies for raising awareness about childhood obesity, identifying action steps for decreasing obesity, raising awareness of the role for communities in preventing childhood obesity, and connecting community champions for obesity prevention efforts.

Prenatal Alcohol and SIDS and Stillbirth Network: The Safe Passage Study:

The Safe Passage Study, conducted by the PASS Network is a community-based study investigating the role of prenatal alcohol exposure in the risk for sudden infant death syndrome (SIDS) and adverse pregnancy outcomes, including stillbirth and fetal alcohol spectrum disorders. Information gained will help towards the reduction of fetal and infant mortality and improve child health in communities of the Northern Plains, including American Indians.

Perinatal Assessment of At-Risk Populations:

AI/AN babies are twice as likely as non-Hispanic White babies to die from sudden infant death syndrome (SIDS). An even greater disparity exists on the Northern Plains where the infant mortality rate for American Indians is 6.4 times the overall U.S. SIDS rate. This project is assessing between 80 and 100 infants/year over the next 5 years in the Northern Plains and in New York City. The research will examine the late fetal through early newborn period to identify physiological indicators that can help identify infants who may be at risk for SIDS. In the Northern Plains, 140 preterm infants were assessed and data from over 273 sleep studies have been analyzed. Low heart rate variability in late preterm infants compared to full term infants may suggest a mechanism that could underlie learned responses to physiological challenges during sleep, which may be critical adaptations to promote infant survival.

Promoting Behavioral Change for Oral Health in American Indian Mothers and Children:

The NIH-funded Center for Native Oral Health Research is focusing on reducing early childhood caries in young AI children living on reservations. One study uses a motivational interviewing technique intended to improve maternal oral health behaviors. As part of the trial, the investigators explored challenges faced by the research team in engaging new mothers in this community. These challenges included lack of knowledge about oral health and distrust of the research team. The project developed and applied many strategies to address these barriers to engagement with new mothers, including conducting home visits, new communication strategies, and interacting with the community at various venues. These strategies were successful for engaging mothers in the study, and emphasize the importance of community participation when developing clinical trials.

Qungasvik (Toolbox): Prevention of Alcohol/Suicide Risk in Alaska Native Youth:

One in 13 Alaska Native deaths are alcohol-related, a rate three times the general population in Alaska. Southwest Alaska has a suicide rate almost 6 times that of the U.S. general population (61.3/100,000 versus 10.84/100,000). Yup'ik communities in southwest Alaska and researchers at the Center for Alaska Native Health Research have worked jointly for the past decade to develop a prevention intervention and research infrastructure that harnesses the protective action of traditional activities to enhance the resiliency of Yup'ik youth against alcohol use and suicide in hard-to-reach Alaskan communities. The current large scale test of the intervention is evaluating the effectiveness of the Qungasvik (a Yup'ik word meaning 'toolbox') intervention, aimed primarily at reducing the incidence of alcohol use disorder and suicide in Yup'ik youth.

Research Clinic in Guadalupe, Arizona:

NIH supports an outpatient research clinic in Guadalupe, Arizona, a small town whose residents are primarily AI/AN or Hispanic. This clinic provides a convenient place where research volunteers, primarily AI/AN individuals, are seen. It is also accessible to volunteers from an

urban area who have previously been minimally represented in research studies. Currently, two NIH programs, Look for Action for Health in Diabetes (Look AHEAD) and the Family Investigation of Nephropathy and Diabetes (FIND) are conducted in this clinic, and other new programs may be offered there in the future.

Risk Factors for Alcoholism in Native Americans:

This research is identifying risk and protective factors related to alcohol use disorders in reservation-dwelling Mission Indians of Southern California. The purpose is to elucidate the genetic, clinical, and neurobehavioral factors related to alcohol use and associated health problems in a high-risk population. Findings suggest that the Mission Indians have a distinct cluster of biological and behavioral risk factors, and that early initiation of alcohol use is particularly malignant for this population. The study of factors associated with risk for alcohol-related problems in this unique population can guide the development of targeted prevention and intervention activities.

Smokeless Tobacco Cessation among American Indians Using in-Person Groups:

AI individuals have the highest rates of smokeless tobacco (SLT) use of any major racial or ethnic group in the United States, contributing to higher and rising incidence and disproportionate mortality in SLT-related cancers, including oral, esophageal, and pancreatic cancers. While there is wide variation by region of the country and tribal affiliation, Southern and Northern Plains Indians have the highest SLT use rates, reaching 25% among some tribes. This project developed a culturally-tailored SLT cessation program, *All Nations Snuff out Smokeless*, for a multi-tribal AI population using a community-based participatory research approach and begins pilot testing in FY 2016.

Society for Advancing Chicanos and Native Americans in Science Meeting:

The Society for Advancing Chicanos and Native Americans in Science (SACNAS) meeting took place October 15-18, 2015 in Los Angeles, California. Native Hawaiian and AI/AN students and investigators, as well as students and investigators who work within these communities, participated in the meeting. NIH staff presented talks and ran several sessions regarding NIH training programs, as well as grant opportunities and collaborative research opportunities.

Strong Heart Study (SHS):

The SHS is the largest multi-center longitudinal study of cardiovascular disease (CVD) among AI individuals. The goal of the study is to improve health in the areas of CVD and diabetes, with the use of genetics as one of the approaches. The partners in this study include 12 American Indian tribes and communities in three geographic areas: an area near Phoenix, Arizona, the southwestern area of Oklahoma, and western and central North and South Dakota. The initial data collection in this study has been completed and now the research will continue to monitor the morbidity and mortality of the original cohort and the family cohort over time. Participants are being asked whether they will provide consent for the study of additional disease of concerns for AI individuals, such as cancer. Given that the SHS participants have high rates of obesity and diabetes, both known risk factors for cancer, the study is a great resource for trying to identify the common link between these diseases.

Study of Radiation Doses and Cancer Risks Resulting from the 1945 Trinity Test:

NIH, in partnership with the Albuquerque Area Indian Health Board, Southwest Tribal Institute Review Board (IRB), the University of New Mexico, the New Mexico Tumor Registry, and Las Mujeres Hablan, is carrying out a study to quantitatively estimate the number of cancer cases in New Mexico (past and future) that may be related to the nuclear test of the first atomic weapon in south-central New Mexico, code-named Trinity. The Mescalero Apache and Picuris Pueblo Tribal leadership have issued tribal resolutions in support of the research. The Southwest Tribal IRB and University of New Mexico IRB have also approved the study. During FY 2015, the pilot study and plans for the main study were reviewed and clearance to move forward was obtained from NIH. The main data collection is expected to take place in FY 2017 and OMB clearance is currently in process. Further information online at:

<http://dceg.cancer.gov/research/how-we-study/exposure-assessment/trinity>

Substance Abuse Prevention Campaign for American Indian Youth:

This study assesses the efficacy of a substance abuse intervention that adapts an existing campaign (Be under Your Own Influence; BUYOI) that has been found to be effective in reducing substance use and that uses campaign messages that are congruent with AI culture. The intervention will be adapted using significant contributions from tribal members, including youth, teachers, parents, elders, and other community members. Ultimately, the goal is to develop a turnkey package for the broader population of reservation-based AI youth and schools and to develop components that can incorporate flexibility and creativity in their delivery.

Summer Program in the Neurological Sciences:

The annual Summer Program in the Neurological Sciences provides academically talented and diverse high school, undergraduate, graduate, and medical students with a stimulating and rewarding research experience and to encourage their pursuit of advanced education and future careers in neurological science research. This program supports students from diverse backgrounds and has achieved substantial success recruiting AI/AN by developing relationships with schools and tribal councils and through extended outreach and visits to areas densely populated by Native students. The director of the program has established relationships with Red Cloud High School on the Pine Ridge Reservation in South Dakota, and St. Michael Indian High School, a school serving the Navajo population in Arizona and New Mexico. The institute hosted ten Native students during the 2015 Program, including five Lakota, one Navajo, two students from the Pauma Band of Luiseno, one Rosebud Sioux student, and one White Earth Ojibwe. Students from the class of 2015 were involved in activities with the NIH Native Scholars, who provided cultural support, workshops on research poster design, and weekly tutoring in college math and chemistry. In addition, the students were invited to participate in the first White House Tribal Youth Gathering and also participated in the 2015 National UNITY Conference. Since 2007, NIH has supported 46 slots for AI/AN students (some students have gone through the program twice), and 14 students have gone on to present research data at scientific meetings. Most of the AI/AN participants have been tracked; of those, all but five remain in scientific fields. NIH plans to continue this program and the associated outreach with AI/AN communities. In addition, NIH continues efforts to maintain relationships with the alumni in order to facilitate their potential future participation in NIH-funded neuroscience training and development programs. Online at: http://www.ninds.nih.gov/jobs_and_training/summer/

Supporting AI/AN Mothers and Daughter in Reducing Gestational Diabetes Risk:

AI/AN women are twice as likely to develop gestational diabetes mellitus (GDM) and type 2 Diabetes (T2D) as any other population. Reducing the onset of GDM is critical in reducing both maternal and child complications as well as the development of T2D. In this study, adolescent females from a multi-tribal community (including Navajo, Cherokee, and 40 Oklahoma tribes) were provided with an opportunity to participate with a preconception counseling program, the STOP-GDM program, around the same time as coming-of-age rituals. Over the course of 15 months, researchers will examine the effects of receiving the STOP-GDM intervention, as compared with educational prenatal counseling materials, on mother-daughter psychosocial and behavioral outcomes and family planning decisions. The final online training program will be provided to the Indian Health Service for dissemination to all IHS sites.

Surveillance, Epidemiology, and End Results Data Linkages to the IHS Medical Records System:

The Surveillance, Epidemiology, and End Results (SEER) program at NIH works to provide information on cancer statistics in an effort to reduce the burden of cancer among the U.S. population. Every year, the SEER data are linked to the IHS medical records system in order to identify additional AI/AN individuals in the cancer registries. The linkage is used to improve the accuracy of cancer rates for AI/AN populations, and is performed at the IHS headquarters in Albuquerque, New Mexico. The concept of linking the records originated in the New Mexico SEER registry and is now conducted for all of SEER and the CDC's registry system, the National Program of Cancer Registries.

***Streptococcus mutans* and Dental Caries among Native American Children:**

AI children suffer from the highest levels of severe early childhood caries (S-ECC) in the United States. Children typically acquire the caries-causing bacteria, *Streptococcus mutans*, from mothers, and early acquisition is often associated with higher levels of tooth decay. An NIH-funded study followed babies from birth to five years of age and examined in detail how *S. mutans* is transmitted from mother to child in a Northern Plains tribal community. In preliminary analyses, investigators identified 17 unique types of *S. mutans* in the population and 12 of these types were found in more than one individual. *S. mutans* colonization occurred by 16 months old in 58% of the children and early colonization was associated with more severe caries. Children and mothers shared the same type of *S. mutans* 48% of the time. This research emphasizes the need for early interventions to prevent S-ECC in these children.

Technology Innovations for Supporting Health in Alaska Native People:

This study is evaluating the efficacy of two culturally-tailored, technology-mediated disease prevention interventions for supporting change in multiple risk behaviors in rural AN men and women. These interventions are informed by the research team's fieldwork over the past 6 years in rural Alaska and built on continued community partnerships with Tribes. The interventions are tailored to AN health needs and values to target 5 of the American Heart Association's 7 Strategic Impact Goals for 2020. One intervention will target tobacco use and physical activity. The other intervention will target hypertension and hypercholesterolemia using medication adherence and nutritional changes. Both groups will use computerized interventions, delivered via telemedicine by Native-focused counselors located in Anchorage reaching AN people in their rural home villages. Recruitment is in process.

The Center for American Indian and Alaska Native Diabetes Translational Research (CAIANDTR):

AI/AN individuals are at greater risk of becoming diabetic than any other segment of the U.S. population, suffer high rates of serious complications due to diabetes, and die prematurely as a consequence. The CAIANDTR works to increase scientific knowledge about the types of diabetes prevention and management interventions that have been proven effective in both clinical and community settings, with the goal of improving the diabetes-related health of AI/AN individuals. In FY 2015, one CAIANDTR project assessed how the *Special Diabetes Program for Indians-Diabetes Prevention Demonstration Project* affected dietary and activity changes, as well as factors that affected retention and participation, and how outcomes were affected by psychosocial and socioeconomic factors. Another research project explored the pernicious effects of discrimination against AI/AN individuals related to diabetes outcomes, and how serious psychological stress can complicate diabetes management. Online at: <http://www.ucdenver.edu/academics/colleges/PublicHealth/research/centers/CAIANH/cdtr/Pages/CAIANDTR.aspx>

Trans-NIH American Indian and Alaska Native Health Communications and Information Work Group:

With colleagues at IHS and the Administration on Aging's Administration for Community Living (AoA/ACL), this Work Group launched an electronic newsletter, [Honoring Health: Resources for American Indians and Alaska Natives](#), to increase awareness of health information and resources from NIH and other Federal agencies. The e-newsletter aims to reach AI/AN intermediaries, specifically IHS Community Health Workers and ACL Title VI grantees, but it is available to anyone working with AI/AN people. Each issue features a different health topic of interest to Native communities. The inaugural issue, distributed in July 2015, featured the topic of [healthy aging](#) and the second issue, distributed in November 2015, focused on [diabetes](#) in recognition of Diabetes Awareness Month. Meetings of the work group in 2015 included discussion of AI/AN programs at the HHS Office of Minority Health, the Centers for Medicare and Medicaid Services, and the Substance Abuse and Mental Health Services Administration.

Trans-NIH American Indian/Alaska Native/Native Hawaiian Research Interest Group:

The Trans-NIH American Indian/Alaska Native/Native Hawaiian Research Interest Group convened on a monthly basis to share current research priorities and innovative ideas for facilitating CBPR, as well as highlight and discuss challenges with advancing research in Native communities. IHS colleagues regularly participated in the group with NIH members and discussed best practices and lessons learned about outreach activities for providing health care in several AI communities.

Tribal Colleges and Universities Behavior Wellness Study:

The TCU-BeWell project has developed and is implementing a culturally-contextualized version of an alcohol prevention intervention at TCUs. This research is examining whether a culturally-contextualized adaptation of the Screening and Brief Intervention, developed in conjunction with TCU partners, will have better results in reducing hazardous or harmful drinking and alcohol-related negative consequences, as well as improve academic outcomes. It is anticipated that the intervention will have a significantly greater effect at TCUs that also receive a policy intervention to move them from a zero-tolerance to harm reduction stances and improve capacity

to integrate services for improved referral and treatment for high-risk TCU students. This project has surveyed over 3,000 participants at TCUs, providing epidemiological data on the largest sample of Native college-aged individuals to date.

Tribal Health and Resilience in Vulnerable Environment Study:

The Tribal Health and Resilience in Vulnerable Environment (THRIVE) study is assessing correlates and outcomes of food insecurity in the Chickasaw and Choctaw Nations in Oklahoma. A telephone survey is being administered to 500 American Indian adults randomly sampled from Tribal registries. Clinical measures will be validated for 200 of those surveyed using Tribal clinic electronic health records. Perceptions of food environments will be compared to objective store measures using geographic information systems data. The project also is designing, implementing, and evaluating a convenience store intervention to increase the availability and intake of vegetables and fruits among Tribal members. It will use a cluster-randomized design with 20 matched Tribally-owned convenience stores. The project is creating a multimedia manual, co-developed with Tribal members, guiding Tribes in food environment changes, which will be disseminated through an open-source website. Recruitment is near completion.

Tribal Turning Point: Pilot Study for Prevention of Type 2 Diabetes in American Indian Youth:

The Tribal Turning Point Program (TTPP) is a pilot program developing a translational intervention and generating data on diabetes prevention in AI/AN youth. The TTPP targets diet and physical activity behaviors through motivational interviewing with child/parent pairs to facilitate problem solving and behavioral goal attainment. TTPP also uses culturally-appropriate, active-learning modification of the Diabetes Prevention Program for AI/AN parents and youth delivered in a group setting. The culturally-appropriate Turning Point Toolbox is used to support the motivational interviewing and active-learning components. Partnerships have been established between the Cherokee and Navajo Nations, several academic institutions, and a diverse Advisory Board.

Worker Training Program:

The Worker Training Program (WTP) funds a national network of over 100 non-profit safety and health training organizations to provide training to workers who handle hazardous materials, hazardous waste, or are involved in emergency response to hazardous materials incidents. Through its awardees, the WTP has trained over 1,500 AI individuals, including tribal employees of natural resource, law enforcement, emergency medical, fire service, and public works agencies. In FY 2015, the Alabama Fire College (AFC) Workplace Safety Training Program (WST) along with Native American Fish and Wildlife Society and the United South and Eastern Tribes worked to promote training to tribal emergency response personnel. In FY 2015, AFC trained 380 American Indians from 16 tribes. One highlight was the ability of AFC to respond to a request to provide a 40-hour Hazmat Awareness and Operations Course to the Shoshone Tribe of Duck Valley, Nevada. The tribe was at a distance outside of AFC's driving range, but because of their role as primary responders in a remote part of the state, AFC created a system to ship equipment and provide instructors for this course. The WST staff developed efficient ways to provide the training at a distance, potentially opening opportunities other tribes in remote locations. NIH also funded the Western Region Universities Consortium (WRUC). WRUC provided training and technical assistance, in conjunction with the EPA Region 10 Tribal Office,

which effectively doubled the spill response capacity in the watershed region. This training included emergency response, hazardous materials transport, and oil spill cleanup, and was delivered in partnership with the Yukon River Inter-Tribal Watershed Council, an indigenous grassroots organization comprised of 52 tribes in the U.S./Alaska region and 14 First Nations in Canada, covering an estimated 321,500 square miles. A total of 20.3% of the 3,411 workers training by this consortium were AI/AN; overall, approximately 682 workers from the Navajo and Hopi Nations, White Mountain Apache Tribe, Kawerak Native Corporation, Native Villages of Savoonga, and the Yukon River Intertribal Watershed Council were trained.

Yappalli Choctaw Road to Health:

This culturally-focused project is working to address the dual burden of obesity and alcohol and other drug use among Choctaw women. 150 at-risk adult Choctaw women will participate across 5 regions of the Choctaw Nation of Oklahoma, where Native women have some of the highest obesity, physical inactivity, and excessive drinking prevalence in the country. Yappalli Choctaw Road to Health uses a strengths-based, outdoor experiential obesity and alcohol and other drug risk prevention and health leadership program. This includes stress-coping models as well as motivational behavior skills via meetings, group sessions, culturally-based boot camp, and a 10-day walk of the Choctaw Trail of Tears. Online at <http://iwri.org/choctaw/>.

List of Acronyms

AI/AN – American Indian or Alaska Native

CBPR – Community-based Participatory Research

CDC – [Centers for Disease Control and Prevention](#)

IHS – [Indian Health Service](#)

HHS – [Department of Health and Human Services](#)

NIH – [National Institutes of Health](#)

OMB – [Office of Management and Budget](#)

TCU – Tribal Colleges and Universities