Community-Centered and Compassionate Scholarship Symposium
September 6, 2018, 4-8:30pm.
Strand Union Ballrooms
Sponsored by the MSU College of Education, Health & Human Development.

4:00 – 5:15pm Campus-wide poster session (including EHHD, Nursing, Arts & Architecture, Letters & Sciences and Extension)

5:15 - 5:30pm Break and food

5:30 – 7:10pm Talks on Community-Based Participatory Research (CBPR):
1. Beth Rink & Suzanne Held
   Community Based Participatory Research: The Importance of Context and Collaboration in Community Engagement to Advance Science
2. Sandra Bailey
   Montana Grandparents Raising Grandchildren
3. Rebecca Koltz & Dawn Tarabochia
   Living Well in Later Years: Focusing on Men’s Well-being
4. Tena Versland, Nick Lux, Joe Hicks, John Melick
   Recruiting and Retaining Outstanding Teachers for Eastern Montana’s Rural Communities: The Rural Practicum Experience (Parts 1 and 2)
5. Christine Stanton, Jioanna Carjuzaa, Lucia Ricciardelli, Brad Hall, Gerald Gray, Sr., Veronica Willeto
   Digital Storywork Project for Revitalization of Indigenous Language
6. Alexandra Adams
   Promise and Pitfalls of CBPR

7:10 - 7:30pm Break and food

7:30 – 8:30pm 20-20 Talks on Compassion in Work and Life

1. Kayte Kaminski- The Compassion Project
2. Tia Goebel- Meditations on Living Compassionately
3. Lorca Smetana- Radical Compassion and Social Courage
4. Kelsey McPherson- An Exploration into Self-Compassion
5. Alison Harmon PhD RD LN – $3 A Day—Building Empathy and Compassion for the Food Insecure

This event kicks off EHHD’s MSU 125th Anniversary events for September. Come enjoy fascinating information, great networking connections, and excellent food throughout the evening.

Community-Based Participatory Project Presentations - Abstracts
1. Suzanne Held, PhD & Elizabeth Rink, PhD, MSW (MSU-Health & Human Development). *Community Based Participatory Research: The Importance of Context and Collaboration to Advance Science.*

Community Based Participatory Research (CBPR) is an orientation to conducting research that involves extensive collaboration and reciprocity between community members and university researchers. CBPR consists of five primary stages: capacity building, identification of the research problem and research design, data collection, data analysis and interpretation and dissemination of the research results. These stages take place in an iterative process over time in which community members and researchers proactively engage in mutual decision-making and knowledge exchange to promote the health and well-being of the community where the research is taking place. Based on decades of research using a CBPR approach by EHHD’s faculty, staff and students, several common threads have emerged that highlight the importance of understanding the context in which CBPR evolves and the collaborations that develop: 1) being in long-term trusting relationships; 2) working from your heart; 3) learning to dance with community and academic dynamics; 4) privileging methods that come from the community; and 5) understanding that the process is the outcome.

2. Sandra Bailey, PhD (MSU-Health & Human Development). *Supporting Communities Working with Grandparent Caregivers.*

Community-based work is the heart of MSU Extension. Across Montana, there are 92 Agents and 32 Specialists in Extension who are MSU faculty members, living and working in more than 60 offices and communities statewide. These professionals serve in their local communities and counties, responding to emerging needs of constituents. The Montana Grandparents Raising Grandchildren Project was developed in 2002 as Extension Agents reported a growing number of grandparents taking on the sole responsibility of raising their grandchildren. Using the Extension model the Family and Human Development Specialist sought out evidence-based models for serving this population. Funds from EHHD were used to train Extension Agents and others in communities on how to support and work with grandparent caregivers, and to provide $500 mini-grants to assist with the community-based work using two evidence-based programs, Parenting a Second Time Around (PASTA) and GrandCares. PASTA is an 8-week parenting education curriculum for grandparent caregivers. GrandCares is a pilot of an adaptation of a self-care curriculum Powerful Tools for Caregivers. Results of the evaluations of these programs will be discussed as well as how providing mini-grants to communities can assist with service delivery.

3. Tena Versland, EdD, Joe Hicks, MPA, Nick Lux, EdD, John Melick, MEd (MSU-Education). *MSU EHHD Land Grant Mission CBPR Seed Grant 2017-18 Recruiting and Retaining Outstanding Teachers for Montana’s Rural Communities: The Rural Practicum Experience Part II*

The aim of this project was to continue expanding MSU’s Teacher Education Program clinical partnerships into rural Montana schools. More specifically, the research focused on the impact of having students complete their practicum experience in rural schools in and around North Eastern and North Central Montana. We also made inroads via Sophomore Tech Club students, sending several to South Eastern and Central Montana. Last spring over 20 students were exposed to rural schools and teaching during these clinical experiences. The primary goals were to aid those school districts’ recruitment of teachers, and provide MSU teacher education...
students experience in and appreciation of rural community living. Our methodological approaches focused on better understanding the needs of rural schools and teachers and providing authentic rural experiences to deepened preservice teachers’ understandings of teaching in rural communities. Data collection strategies included interviewing rural educators about the feasibility of the model impacting recruitment/retention, as well as interviewing students about their experience in the rural context. Findings suggest that rural teachers and leaders believe the model holds promise for assisting with recruitment and retention. Data also suggest that preservice teachers also report having a more positive view of teaching and working in rural communities following their rural clinical experiences.

4. Christine Stanton, PhD (MSU-Education), Lucia Ricciardelli, PhD (MSU-School of Film & Photography), Jioanna Carjuzaa, PhD (MSU-Education, Center for Bilingual & Multicultural Education), Brad Hall, Ed.D. (Blackfeet Community College), Gerald Gray, Sr. (Little Shell Nation), Veronica Willeto (Director, Pryor 21st Century Community Learning Center). The Digital Storywork Partnership: Combining Indigenous Research and Filmmaking to Revitalize Community Knowledge.

To advance culturally revitalizing scholarship and education, the Digital Storywork Partnership (DSP) integrates filmmaking with community-based participatory research (CBPR), Indigenous Research Methodologies (IRMs), and place-conscious practices. Partners include Indigenous youth and educators; MSU and tribal college students, faculty, and alumni; and language teachers, leaders, and knowledge keepers from multiple Indigenous nations. This poster overviews the DSP process and highlights lessons learned from projects focusing on language revitalization work with Little Shell elders, youth-led research into traditional Apsáalooke tobacco use, and place-conscious documentation of Piikani oral histories. The DSP process includes three phases:

1. **Pre-production**, which includes identifying community research interests, cultural protocol needs, and methodological/technical/creative approaches;
2. **Production**, which applies culturally responsive and place-conscious methods to investigate community interests and collect audiovisual data; and,
3. **Post-Production**, which focuses on analyzing data using IRMs, creating films and other products to share findings, and planning for future action.

Throughout these phases, Indigenous partners make all major decisions regarding research questions, participants, data sources, methods of analysis, filmmaking practices, editing, and dissemination, while non-Indigenous partners provide technical research and filmmaking support. This emphasis on community control protects culturally sensitive content, such as endangered languages, locations of sacred sites, and information about ceremonies.


Living Well in Later Years began as a collaborative partnership between a local assisted living residential community and faculty in the community health and counseling programs. The purpose of this qualitative research project was to understand wellbeing opportunities in an assisted living setting and to provide an 8-week intervention to older adults led by counseling students to increase well-being. A well-being model was utilized to create the intervention. Individual interviews, focus groups, and student journals were used to collect data. Results from this study has led to additional collaborations and partnerships. An overview of the original
program and subsequent collaborations, project outcomes, lessons learned, and community partnerships will be addressed.

6. Alexandra Adams, MD, PhD (Director, MSU Center for American Indian and Rural Health Equity). *Promise and Pitfalls of CBPR.*

Abstract

**20-20 Talks on Compassion in Work and Life - Biographies**


Dr. Kayte Kaminski is the Assistant Dean of the College of Education, Health and Human Development at MSU as well as the Executive Director of The Compassion Project. A recent doctoral graduate in the Adult and Higher Education program at MSU, her research focused on student conduct processes and the possibilities of implicit bias. She has been a Peace Corps Volunteer in China, Assistant Dean on the Semester at Sea program. Kayte is a strong supporter of compassion whenever humanly possible and enjoys hiking, camping, and traveling in her free time.


Tia Goebel first learned about compassion from her parents and their example. Growing up in the Black Hills of South Dakota, her parents instilled in her a deep love and appreciation for the natural world, upon which all of us rely. Just before her last year at MSU, Tia heard about the The Compassion Project and she has been involved ever since. Currently, she serves as an Assistant Director because she believes in the transformative and restorative power of compassion to uplift individuals, communities, and society as a whole. With painting, conversation, and introspection as the mediums of discovery, she is thrilled to bring her knowledge of art, education, leadership, and design thinking to this group. Tia graduated from MSU in May and is finishing up a summer internship with the Bozeman-based, public art nonprofit, Mountain Time Arts. With Mountain Time Arts, Tia works to inspire a more open-minded, resilient, and sustainable community through large-scale, temporal, and place-based public art works. One day, Tia hopes to attend graduate school and attain a degree in Art Therapy so she can fuse her passion for art with a professional skill set that prepares her to work with our society's most vulnerable populations for long-term, positive change. Tia wishes to thank everyone in attendance, with a special thank you to her teammates from The Compassion Project and her partner, Joey. They have empowered her to speak and share today.


Lorca Smetana is a human resilience expert, developing the human capacity to recover, sustain and build new growth and health from crisis, change and burnout. She is a survivor of school tragedy, a joy researcher and an architect of resilience in education, businesses and
communities. She is on the faculty of the Leadership Fellows Program at Montana State University. Her work incorporates systems thinking, therapy creatures, deep play, deep rest and radical compassion. You can visit her to learn more at www.lorcasmetana.com


Kelsey McPherson is a former East Coaster who traded the ocean for the Rocky Mountains. Kelsey has recently graduation from Montana State University with a Masters in School Counseling. She is working in the Bozeman School District as a SAFE-TI Counselor. Kelsey is passionate about combining compassion into her personal and professional life to further develop a positive experience for the students she works with as well as for herself. Through her own counseling journey, she has turned to compassion to become curious about offering kindness during the highs and lows of life. Professionally, Kelsey has observed that schools can be a difficult place for students to thrive if academics do not come naturally or if their home life prevents them from stepping into the classroom ready to learn. Compassion can be taught to all ages and used as a tool to foster self-love when a student’s circumstances feel out of their control. Kelsey used an act of self-compassion to get out of her comfort zone – when she applied for the Compassion 20x20 to dig into herself and to inspire others to add compassion to their daily practice. She believes that compassion is a lifelong tool that can be used to offer hope and a safe space to grow.

5. Alison Harmon, PhD RD LN. $3 A Day—Building Empathy and Compassion for the Food Insecure.

Dr. Alison Harmon joined the food and nutrition faculty at Montana State University in 2004, where she is currently Dean of the College of Education, Health & Human Development. She is also a professor of food and nutrition and sustainable food systems in the Department of Health and Human Development and a registered dietitian nutritionist. Her research is related to curriculum development and educator guidance around food systems and sustainability. She has provided leadership in the development of innovative curricula at Montana State University including the Sustainable Food & Bioenergy Systems Degree program, the Montana Dietetic Internship, Towne's Harvest Garden, and Hospitality Management & Culinary Arts, with an emphasis on farm to table, food enterprise, and rural hospitality.

Poster Presentations - Abstracts

1. Alexandra Adams (MSU-CAIRHE), Sue Higgins, James Burroughs. Center for American Indian and Rural Health Equity.

The mission of the Center for American Indian and Rural Health Equity at Montana State University is to reduce significant health disparities in Native and non-Native rural communities through community-based participatory research (CBPR) that is considerate of and consistent with their cultural beliefs. CAIRHE (“Care”) serves the people of Montana as a robust, interdisciplinary research center with strong engagement in communities across the state. Through respectful CBPR partnerships, the Center and its investigators conduct groundbreaking
health equity research and interventions that make a profound, sustainable difference in the lives of Montanans. CAIRHE is an official State of Montana research center designated by the Montana University System Board of Regents. The poster and presenters will highlight the Center’s research and pilot projects for 2018-19.


*Medical Homes* are clinics that use a Community-Based Participatory Approach (CBPR) to deliver child- and family-centered services and are described as a “home-base” within the community—where families are connected to supports and services for their children. Although all children rely on their families for ensuring their health, development, and overall well-being, for Children with Special Health Care Needs (CSHCN), the role of the family is even more critical. CSHCN have chronic physical, developmental, emotional, or behavioral conditions and need or use *health* and related *services* of a type or amount beyond that typically required by children (McPherson et al., 1998). In a medical home, feedback regarding families’ and children’s needs, care coordination experiences, personal goals, and medical care satisfaction remains in a continual improvement cycle, ensuring all families are involved in all aspects of service delivery (CMHI, 2001; Turnbull, Friesen, & Ramirez, 1998). The findings of three studies conducted in a clinic that was shifting from a traditional service delivery model to the medical home model are presented. Highlights include collaboration between families, medical professionals, educators, and community members to provide all children accessible, continuous, comprehensive, compassionate, and family-centered health care they deserve.

3. Carmen Byker Shanks (MSU-Health & Human Development), Selena Ahmed, Mary Stein, Kate Wright. *Collaborating Cross-sector to Enhance the Sustainability of Montana’s Local Food Systems*

This project uses community engagement to collaboratively identify food system challenges and potential solutions through an evidence-based research and learning approach. Project partners include stakeholders in the local food system represented by Open & Local and faculty, staff, and students in EHHD and MSU more broadly. Open & Local is an emerging coalition of professionals and organizations working to strengthen the local food economy in southwest Montana. To accomplish the project goals, a Critical Dialog series will be hosted to identify: (1) opportunities for MSU scholarship to engage with the local food system, (2) the need for local food collectives, coalitions, and policy councils, and (3) next steps for Open & Local. In our ongoing work, we have identified the following themes for local food systems research and initiatives: (1) consumer research / marketing, (2) food waste / resources, (3) processing, (4) local food consumption and health effects, (5) shared voice for policy.

4. Carmen Byker Shanks (MSU-Health & Human Development), Katie Bark, and Molly Stenberg. *Smarter Lunchroom Strategies Decrease Vegetable Waste in Montana High School Cafeterias*

High school food service directors face challenges to enticing teens to enjoy a nutritious lunch, especially with open campus policies. A pilot project with five Montana high schools was conducted to determine if behavioral economic strategies nudge teens to select and consume more fruits and vegetables. A pre- and post-intervention plate waste study was used to
determine students’ selection, consumption and waste of school meals. The project team developed a school nutrition plate waste protocol for waste of collecting meal components on a lunch tray. Each school formed a Smarter Lunchroom Advisory Council (SLAC) to engage students in implementing Smarter Lunchrooms strategies focusing on fruits or vegetables. Plate waste data (9,943 trays) results demonstrated a significant decrease in vegetable and fried potato product waste. Meat waste significantly increased. No significant differences were found in fruit, grain, mixed foods, or overall waste. Chocolate milk waste was significantly less than white milk waste. Mean milk waste was low at 1 ounce per student. Applicable outcomes include: correct implementation of offer versus serve of vegetables decreases waste; increasing convenience and visibility of vegetables and milk may impact waste; and offering a large amount of menu choices to students may increase food waste overall.

5. Carmen Byker Shanks (MSU-Health & Human Development), Katie Bark, and Molly Stenberg. Smarter Lunchroom Strategies Increases Vegetable Selection at Salad Bars

Fruit and vegetable consumption among high school students remains low in the United States. Salad bars in school cafeterias provide an opportunity to increase fruit and vegetable selection and consumption among students. The purpose of this project was to implement and measure salad bar strategies in the high school cafeteria to “nudge” students to choose and consume more fruits and vegetables. Five high schools across Montana participated. Schools developed Smarter Lunchroom Advisory Councils (SLACs) and selected Smarter Lunchrooms strategies that targeted the salad bar. SLACs strategies included moving the salad bar to a more visible location, expanding offerings, and enhancing appeal of the salad bar through improved signage, marketing, or serving dishes. Researchers measured salad bar selection and waste at pre and post. There was a significant increase in the percent of vegetable and of all foods at the salad bar selected per student. There was no significant difference in the amount of salad bar waste per student. This project provides a framework for including high school stakeholders in efforts to improve the salad bar. Continuing high school SLACs is a simple and low-cost strategy that could be implemented broadly to improve vegetable selection from salad bars among teens.

6. Yoshi Colclough (MSU-Nursing) and Gary M Brown (Eagle Shield Center). The View Changes on Crossing-Over Among American Indians Living on a Reservation

American Indians have a shorter life expectancy than Whites. This contributes to recurring losses in the community, which affects emotional well-being and causes prolonged grief or depression. Hospice services could ease such difficulties. However, the core barrier to use hospice services in the past was the cultural hesitance to talk about death and dying due to fear of making such talk prophetic. A tribe-academic collaborative research team was formed in 2007 to improve end-of-life experiences among the tribal people. Using mixed methods, we interviewed 10 tribally recognized elders and surveyed 102 tribal members who were over 18 years old using a modified Duke End-of-Life Care Survey. The elders stated that a discussion about end-of-life care among families was not against tradition. A survey (n=92) showed that 90% of the respondents think dying is a normal part of life and 76% feel comfortable talking about death. There is a shift in the American Indian’s attitudes from reluctance to a desire for knowledge about and being open to discussion regarding end-of-life care. In response, the team will conduct a workshop to introduce the hospice concept and create a tribally appropriate home-hospice care service.
7. Stephanie Davison (MSU-Extension), Pretty Eagle School, Jack Joyce, Genesta Luther, Tracy Novak, Gregg Switzer. **Linking Youth to Agricultural and Environmental Practices Using STEM Technologies**

Students at the Pretty Eagle school in St. Xavier on the Crow Reservation are learning STEM skills through a longstanding partnership among the school’s administrators and middle school teachers, MSU faculty and staff, and private-sector content/technical experts. In its ninth year, the project’s activities are co-created with a goal of sustainability and community development through engagement. Results from a mixed-methods evaluation indicate a shift in students’ understanding of and enthusiasm for STEM, from less understanding and enthusiasm to greater understanding and enthusiasm. In addition, quantitative and qualitative evidence indicates a significant increase in the ability to understand and use technology (computer-aided design, video-editing, mapping software) and to apply acquired engineering skills to build robots, kites for aerial photography, and drones. While the research approach is not purely CBPR in that the quantitative measures are defined and required by the funder, the school community is and has been very involved in the evolution of the project based on the qualitative data (interviews, technology assessments, video, photographs).

8. Kalli B. Decker (MSU-Health & Human Development) with Jacie Meldrum, Emma Williams, Alexandra Corcoran, Kami Horner, Ellerey Jorgensen, Makenzie Fry, Rachel Kepl, Chloe Nease. **Past, present, and future community-centered early intervention research in Montana**

This poster reports ongoing research and collaboration with early childhood intervention stakeholders across Montana, including the Department of Public Health & Human Services, early intervention agencies, diverse professionals, and families of children with delays or disabilities. Past research was informed by guidance documents created by community partners who represent state-, regional-, and local-level early intervention professionals; this research included a longitudinal study of 30 families who had infants or toddlers receiving early intervention services. Present research includes partnering with physical, occupational, and speech therapists to directly observe early intervention therapy and better understand therapists’ perspective regarding the provision of family-centered early intervention. Future research will include working with Family Support Specialists in Montana’s early intervention system in an attempt to create a unified vision of their role, needed in order to build partnerships amongst early childhood stakeholders in Montana. This poster will also include information about lessons learned regarding strengths and challenges associated with this type of research.

9. Lauren Dotson Davis (MSU-Education) and Rebecca Buchanan. **The Case for Trauma-Informed Care: Perspectives and Approaches in Rural Education**

Many children find it difficult to succeed academically when their experiences outside the classroom involve mental and physical health challenges interconnected with other issues such as socioeconomic status and/or traumatic childhood experiences (Cook-Cottone, 2017). In Washington County (VA) Public Schools, 46.5% of students were eligible for free and reduced lunch during the 2016-2017 academic year (datacenter.kidscount.org). In terms of traumatic childhood experiences, there were 146 cases of abuse in Washington County in this same time frame. Even youth not experiencing these types of challenges attempt to cope with stress related to standardized testing and over-scheduled lives. Therefore, it is imperative to provide students...
with tools for stress reduction and self-regulation. According to research, yoga and mindfulness can greatly benefit all students in these areas (Butzer et al., 2015; Cook-Cottone, 2017; Khalsa et al., 2012). The purpose of this study was to provide instructional guidance and collect data regarding how yoga and mindfulness can assist with self-regulation and stress reduction. More specifically, the study explored whether a relationship exists between a trauma-informed approach and academic, social, and emotional behaviors. The project seeks effective strategies for creating wellness-oriented and trauma-sensitive educational environments (Souers & Hall, 2016).


Disparities in access to safe public drinking water are increasingly being recognized as contributing to health disparities and environmental injustice for vulnerable communities in the United States. As the Co-Directors of the Apsaalooke Water and Wastewater Authority (AWWWA) for the Crow Tribe, with our academic partners, we present here the multiple and complex challenges we have addressed in improving and maintaining tribal water and wastewater infrastructure, including the identification of diverse funding sources for infrastructure construction, the need for many kinds of specialized expertise and long-term stability of project personnel, ratepayer difficulty in paying for services, an ongoing legacy of inadequate infrastructure planning, and lack of water quality research capacity. As a tribal entity, the AWWWA faces additional challenges, including the complex jurisdictional issues affecting all phases of our work, lack of authority to create water districts, and additional legal and regulatory gaps—especially with regards to environmental protection. Despite these obstacles, the AWWWA and Crow Tribe have successfully upgraded much of the local water and wastewater infrastructure. We find that ensuring safe public drinking water for tribal and other disadvantaged U.S. communities will require comprehensive, community-engaged approaches across a broad range of stakeholders to successfully address these complex legal, regulatory, policy, community capacity, and financial challenges.

11. Megkian Doyle (MSU-TRiO) with members of the Raising Places Team and Community of Lodge Grass, Montana. Becoming a Child-Centered Community through a Social-Labs Process

A team of 14 Montana residents in cooperation with Greater Good Studio, funded by the Robert Wood Johnson Foundation, walked with the community of Lodge Grass (Valley of the Chiefs) through a human-centered design process, to shift the trajectory of the community by focusing on the needs and experiences of its most vulnerable population – children. The community-centered project collected and organized information from residents about the assumptions surrounding their challenges, the breadth of their assets, and their aspirations for their children’s futures. Out of this 9-month conversation, the community took on 9 pilot areas of work to restructure the environment in which they will raise their young leaders.

12. Edward T. Dunbar (MSU-Health & Human Development) and Holly Priscu. Good Neighbors Transitional Care Pilot Program
The Good Neighbors Transitional Care Pilot Program was developed to provide counseling to people with addiction and mental health issues during their transition from the Gallatin County Detention Center to the Bozeman community. The goal of the program is to reduce recidivism and build good neighbors through providing addictions and mental health counseling to people with criminal offenses, and promote successful community reintegration. Additionally, this program aims to increase graduate students’ knowledge, skills, and empathy toward people within the criminal justice system through supervision, training, and experiential learning. This pilot program, developed in collaboration with program leaders at the Gallatin County Detention Center and MSU The Human Development Clinic, coaches graduate students to develop a counseling relationship with residents prior to residents being released, and maintaining this relationship throughout residents’ transitional process. Individual and group counseling sessions are led or co-led by graduate student interns. By forming the counseling relationship while participants are incarcerated, we hope to increase treatment participation by reducing participants’ anxieties relating to initiating mental health and addictions counseling. Graduate students will receive individual and group clinical supervision specific to the needs of people within the criminal justice system with addiction and mental health issues.

13. Margaret J. Eggers (MSU-Center for Biofilm Engineering), John T. Doyle, Myra J. Lefthand, Sara L. Young, Anita L. Moore-Nall, Larry Kindness, Roberta Other Medicine, Timothy E. Ford, Eric Dietrich, Albert E. Parker, Joseph H. Hoover and Anne K. Camper. Community-engaged cumulative risk assessment of exposure to inorganic well water contaminants, Crow Reservation, Montana

BACKGROUND: Exposure to unsafe levels of hazardous metals and nitrate through consuming home well water is a potential health risk for more than 11 million US residents. The national scope of the health risk has not been assessed as comprehensive data on home well water treatment and consumption are lacking. OBJECTIVES: Reduce Crow environmental health risks from consumption of contaminated well water by conducting a community-engaged, cumulative risk assessment, community education and safe water mitigation. METHODS: The Crow Environmental Health Steering Committee and partners conducted well water testing, surveys and interviews to assess well water contamination, well water treatment methods and consumption, and well and septic maintenance practices. Statistics and GIS mapping were used to analyze data. Water and health education and mitigation were conducted with participants and the community. RESULTS: Hazard Index calculations indicate the water in > 40% of wells is unsafe due to inorganic contaminants. Despite widespread poor taste, 80% of families consume their well water. Tribal members identify lack of community health education about well water safety, pre-existing health conditions and limited environmental enforcement as also contributing to their vulnerability. CONCLUSIONS: Ensuring access to safe drinking water is a public environmental health priority for Crow families.


Engaging diverse community stakeholder groups is always a challenge for any design/build project. The conventional strategy is to make something where one size fits all, which often can result in a lack of ownership or appreciation of the space. Our project seeks to meet this
challenge in collaboratively designing a recreational trail on the Fort Peck Buffalo Ranch that includes “story poles” as artistic and culturally meaningful living artifacts at multiple points. Each story pole can be interacted with in multiple, specific ways and with different meaning representations, of course include design elements that provoke story telling. The Vision Tower Pole can be used as well to assess if buffalo are within sight, or it provides an interesting structure for children to explore. The Stars Pole enables participants to understand orbits of stars and planets, or tell cultural stories about star constellations. The Woven Willow Pole offers a facsimile of a talking stick, or a device for gathering buffalo hair. The Wind Pipes Poles reveal the sounds of Mother Earth, or provide a social game for friends manipulating their aural apertures. Finally the trail itself both expresses an ancient trade route from Canada to Mexico, a tribe’s annual migration, and an opportunity to improve physical fitness.

15. Laurel Fimbel (MSU-Health & Human Development), Mark Schure, Suzanne Held, Shannen Keene, Mikayla Pitts. Messengers for Health Báa nnilah program: Evaluating strategies for program adherence and participant retention in a randomized controlled trial of a chronic illness management program for Apsaalooke tribal members

The overall goal of this study is to assess barriers and facilitators of study adherence and retention. Thus, the specific aims include: 1) tracking participant attendance at all program and data collection gatherings; 2) Identifying barriers to study attendance and retention; and 3) Identifying strategies that led to improved study adherence and retention. These data will be obtained using a mixed methods design (qualitative and quantitative data). Specific Aim 1: Identify barriers to study attendance and retention. Barriers will be assessed as part of the post-intervention survey for all participants. These data will be obtained via an open-ended question asking participants whether they experienced any barriers to participating, and if so, why. If study participants are lost to follow-up, this information will be obtained from the mentor, who is asked to track this information via notes. Specific Aim 2: Identify strategies that led to improved study adherence and retention. The effectiveness of each strategy will be assessed as part of the post-intervention survey for all participants. Specifically, we will use a Likert scale to quantitatively assess the agreement in which participants perceived each strategy was effective in motivating them to maintain participation in the study.

16. Mary Anne Hansen (MSU-Library). The Tribal College Librarians Professional Development Institute: Building a Network of Librarians to Grow and Strengthen Lifelong Learning Communities in Tribal Lands

Join this poster session to learn about the MSU Library’s Tribal College Librarians Institute (TCLI), an annual weeklong niche professional development opportunity for librarians serving Tribal communities across the US, Canada and beyond, nearing its 30th year of existence. Tribal college librarians serve in dual roles: they serve the information needs of students, faculty, and staff at their respective colleges, while also serving as public librarians. As librarians serving their tribal communities, they provide after-school programming, summer reading programs, job-seeking resources, intergenerational cultural programming, and more. Learn how TCLI has helped to form a tightly-knit network of tribal college librarians from dozens of institutions distributed across multiple nations.

17. Matt Herman (MSU-Native American Studies). ‘At the Level of Ideas’: Indigenous Documentary Film as/and Indigenous Research
My project, “At the Level of Ideas: Indigenous Documentary Film as/and Indigenous Research” examines mutual relevance and applicability between Indigenous Research, Indigenous Research Methodologies, and the Indigenous Humanities through case-study examinations of locally produced indigenous documentary films and Linda Tuhiwai Smith’s “indigenous project” concept developed in Decolonizing Methodologies. The objectives of the project are to demonstrate how Indigenous Research is applicable to work in the Indigenous Humanities (and not just the social sciences) and how Indigenous Research can build toward human compassion, cross-cultural understanding, and liberation by advancing theory and method with respect to decolonization—the effort to dismantle colonialism in all its forms.

18. Kara Hurt-Avila (MSU-Health & Human Development) and Joelle Starr. Maternal Mental Health in Gallatin Valley

Maternal mental health is an emerging focus in Gallatin Valley. This presentation will describe the initial process of conducting CBPR with perinatal and postnatal mothers, their children, and their care providers with a focus on mental and emotional well-being. The traditional treatment focus has been on care providers providing resource referrals for mental health. However, the aim of this project is to develop a postpartum care model that incorporates emotional well-being that is informed by mothers themselves. The projects additionally seeks to incorporate and embrace the crucial role of children in the experience of postpartum mental health.

19. Rachel Juel (MSU-Health & Human Development), Mary Stein, Aubree Pierce, Hadley Barnard. Bounty of the Bridgers Campus Food Pantry Tackles Food Insecurity and Food Waste

Through a student initiative, led by the Food Resource Council student club at Montana State University, a campus food pantry, Bounty of the Bridgers (BoB), was established in October 2017, with the dual mission of lessening the incidence of food insecurity within the MSU community and redirecting surplus food that would otherwise end up in the landfill. Community partnerships with the Gallatin Valley Food Bank (GVFB), area grocery stores, Northwest Farm Credit Services, along with MSU partners (Towne’s Harvest Garden, Office of Health Advancement, Office of Student Engagement, Greek Life, Family and Graduate Housing, College of EHHD, Montana Campus Compact) have resulted in a successful inaugural year of this pantry project. Since October 2017 the BoB Pantry has distributed 10,290 pounds of food to 1648 beneficiaries. Over 22,000 pounds of food were diverted from the landfill to food insecure individuals (BoB and GVFB clients). In 2018-19, the BoB pantry will expand, offering important food security and food rescue services in two different campus locations, and expanding the variety of food offered to pantry clients.

20. Gilbert Kalonde (MSU-Education), Fenqjen Luo, Bill Ruff. Native American STEM Teachers’ Project

This project proposes to recruit, retain and encourage talented students and professionals to become K-12 STEM teachers serving in American Indian communities. Through the recruitment and development of creative and innovative scholars the project addresses a critical need for culturally responsive K-12 STEM instructors at Indian Reservation schools. It builds upon established expertise at MSU in rural education and expands this model into preparing STEM
teachers. The expansion intends to create special skills that will incorporate traditional STEM teaching with culturally responsive teaching. The project aims to graduate 15 new STEM teachers with both STEM and culturally responsive pedagogical strategies ready to interact and engage American Indian K-12 students in STEM subjects.

21. Shannen Keene (MSU-Health & Human Development), Alma Knows His Gun McCormick, Suzanne Held, Lucille Other Medicine, Mark Schure, Mikayla Pitts, Laurel Fimbel. *Monitoring Treatment Fidelity in an Indigenous Chronic Illness Self-Management Program*

Indigenous communities experience disproportionate rates of chronic illness (CI) compared to Whites. Existing CI management interventions are not adapted to the diversity of Indigenous cultures which limits their effectiveness. To address this gap, the Apsáalooke (Crow) Nation and Montana State University partnered using a community-based participatory research approach to develop the Báa nnilah CI self-management intervention. The program is tailored to the cultural strengths of the Apsáalooke Nation and consists of seven gatherings led by mentors (Aakbaabaaniilea), who are identified by the community as successful managers of their CI. To increase the effectiveness of Báa nnilah, it is important to monitor and improve treatment fidelity. Despite its significance, treatment fidelity remains underreported in health behavior interventions, particularly among Indigenous communities. To address this issue, a culturally-tailored treatment fidelity monitoring plan was developed to enhance two areas identified by the National Institutes of Health Behavioral Change Consortium: 1) provider (Aakbaabaaniilea) training and 2) treatment delivery. The fidelity monitoring plan included strategies such as support surveys, tailored ongoing support and feedback, skill-building activities, and direct observation using a checklist. The goal of these strategies is to increase confidence and comfort levels among Aakbaabaaniilea in delivering the intervention. Ultimately, optimizing treatment fidelity can advance the reliability and validity of this intervention, further promoting health equity among Indigenous populations.


Resilience has become a focal point for scientific research in recent years. Although initially studied by developmental scientists, resilience is now becoming a prime focus in several fields, including psychology, public health, and Native American Studies. Different researchers approach the study of resilience in different ways, making it difficult to make valid and reliable conclusions about what resilience is or how it can be improved. To better understand the ways researchers are conceptualizing and studying resilience, we examined the most common theories, definitions, and measurements of resilience represented in the current scientific literature. We searched the PsycINFO and Proquest Central databases using the following terms: resilience, health, addiction, culture, and interventions. There were varying definitions and measurements of the construct between studies, with most defining resilience as a person’s capacity to overcome adversity. American Indian perspectives, however, suggest that resilience may be better understood as the interaction of risk and protective factors within a specific social and cultural context. It is unclear whether resilience is best understood as a characteristic of an individual or as a combination of factors that depend on the situation. For the field to make progress, a common definition of resilience and better measurements are needed.
23. Katie Landis (MSU-Nursing), Laura Larsson, Emily Salois. *Trauma Awareness and Resiliency Training for Opioid Addiction Recovery*

Opioid addiction and overdose deaths have reached epidemic status in the U.S. American Indian community members have been exposed to chronic trauma and grief that may account for increased rates of substance use disorders (SUD). In response to this epidemic, community resiliency training was offered to provide education on the biological responses to trauma and strategies to buffer against its harmful effects (e.g., suicide, depression and failure of youth to thrive). Participants from a rural, American Indian community ($n = 34$) attended a three-day resiliency training that included the roots of historical trauma and expert-guided training on six resiliency skills. Participants scored their confidence regarding their new skills on a six-point scale: tracking ($n = 31$, $m = 4.84$, $sd = 1.19$), resourcing ($n = 31$, $m = 4.48$, $sd = 1.34$), grounding ($n = 31$, $m = 5.03$, $sd = 1.33$), help now ($n = 30$, $m = 4.57$, $sd = 1.43$), gesturing ($n = 30$, $m = 4.63$, $sd = 1.25$), and shiftstay ($n = 30$, $m = 4.70$, $sd = 1.15$). All participants (100%) recommended resiliency training to their friends and family. Community resiliency trainings may be one among many public health strategies to be employed in addressing the national opioid crisis.


The Morocco Sustainable Community Development Program is an international community engagement program that offers Montana State University students in the field of architecture the opportunity to participate in ongoing community development projects in the rural communities of the Zawiya Ahansal region located in the Central High Atlas Mountains of Morocco. Between 2013 and 2016, students and faculty from MSU, in collaboration with the Atlas Cultural Foundation and SMNID (‘forward’ in Berber) a local NGO, completed a series of four, community determined, design/build projects in Morocco. The projects include a refuse oven (2013) to control the recent influx of trash in the area, two wash stations (2014-15) for women to wash clothes that provide a safe, ergonomic, low-pollution alternative to washing clothes in the Ahansal River and finally, a public water fountain (2016) which provides access to safe drinking water for residents without running water in their homes. Within the School of Architecture, this ongoing program effectively addresses our curricular values, ‘Discover, Explore and Make’, while simultaneously responding to our mission statement which challenges students to critically engage in the complexities of society and the natural environment.

25. Christine Martin (Little Big Horn College), John Doyle, Sara Young, Myra Left Hand, Mari Eggers, JoRee LaFrance. *Integrating TEK and Climate Change Science to get a better understanding of Climate Change impacts*

Members of the Crow tribe have been living in South Eastern Montana for many generations. Understanding how they perceive changes in weather patterns, culturally significant plants and animals as well as the change in land, will provide a better understanding of how to address and prepare for future generations. 26 Crow tribal members were interviewed to gain a deeper insight into the changes they have noticed in weather patterns, animals & plants and the land where they live. Interviews were transcribed and analyzed by the Crow Environmental Health Steering Committee using content analysis. Participants described how over their lifetime they have noticed declining snowfall, milder winters, hotter summers, more frequent wildfires and
changes in the uses and appearance of the land, rivers and springs with which they are most familiar. They related how the weather patterns have caused some impacts on the wild animals, aquatic life and plants, and how the tribal communities seem to have strayed from their connection to the earth and its energy. Some subsistence food resources are scarcer and harder to obtain. They feel loss from the changes that impact our tribal community.

26. Christine Martin (Little Big Horn College), Myra Lefthand, John Doyle, Vanessa Simonds, Margaret Eggers. Perceptions of Safe Water

Members of the Crow tribal community have been using the Little Big Horn River for generations. The river is an important part of culture and ceremony as well as recreation uses. Understanding individuals’ perceptions of their drinking water will give a better understanding to researchers to address the water issues. We recruited 30 home well owners for in-depth interviews designed to gain a deeper insight into home well owner’s perception of wanting safe water quality and why they believe their drinking water is safe or not. Interviews were transcribed and analyzed using content analysis. We initially examined the transcripts to determine which themes, related to home well owners’ perceptions of their water, were most common. Interviews were reviewed and coded by community advisory board members. Discrepancies were reviewed and resolved by an in depth discussion. A master list of themes was recorded once a consensus was reached. The resulting six themes were: Water/Sacredness (e.g., ceremonial use of water), Risks associated with water, Knowledge (e.g., how to take care of their home well), Power related to trust and knowledge (e.g., lack of resources to solve their water crisis), Loss (e.g., of the river), and Hardship (e.g., usage when compared to previous years).

27. Tara Mastel (MSU-Extension), Micky Zurcher, Tom Harrington, Daniel Clark. Community Rebranding: Making Boulder’s Future Bright

Rural communities struggle to keep vibrancy and economic impacts local. Challenges are increased when the community’s largest employer closes. Boulder, Montana, was faced with this challenge. Two options existed:
• accept the economic impacts
• assemble community citizens to create a community rebranding

Citizens overwhelmingly report the process had educational value and had a positive economic consequence.

28. Collen McMilin (MSU-Health & Human Development), Anna Diffenderfer, Coleen Kaiser, Marcy Gaston. Inter-professional Education: Farm-to-Clinician, a Culinary Medicine Approach to Healthcare

Supported by a College mini-grant, faculty in MSU Health and Human Development and the Montana Dietetic Internship have collaborated with WWAMI and the School of Nursing to develop farm-to-clinician culinary workshops for medical and nursing students. The project emphasizes inter-professional education (IPE) to strengthen patient-centered care. Utilizing a community based participatory research framework we have worked with partners to (1) conduct exploratory research to determine understanding and interest in IPE and assess current IPE activities; (2) identify key stakeholders to serve as members of a community advisory board (CAB); and (3) create an outline for the culinary medicine workshops to support dietetic interns
in their delivery of the workshops. Throughout the process we have embraced the importance of taking the time to get to know each partner, to better understand all the students’ needs, and to ensure that the workshops are meeting each program’s accreditation standards. Eight workshops covering four topics will be piloted in the fall of 2018. In year two, evaluation of the pilot workshops will take place and the CAB will meet to review outcomes and finalize a Culinary Medicine curriculum, providing a unique and promising approach for future inter-professional practice teams.

29. Virginia L. Mohr (MSU-Education). “Who I Am”: Supporting Pre-Service Teacher Integrity Within an Evidence-Based Student Teaching Assessment Program

At one western, land-grant university, a student teaching exit survey given spring 2016 suggested that teacher candidates were falsifying data on their final student teaching projects—teacher work samples. Rather than simply responding to the data with increased threats and sanctions, we attempted to achieve compassionate understanding via an intrinsic case study on pre-service teacher integrity, which for this research, was defined not as adherence to an outside set of standards but, rather, as inner/outer individual wholeness. Framed by Parker Palmer’s work, Courage to Teach, this work was undertaken via 13 weeks of interactive, online journaling and followed by face-to-face discussions when the candidates had completed their experiences. Five female pre-service teachers revealed several elements that they experienced as crucial during their student teaching experiences in order to maintain integrity to whom they were as individuals and whom they were becoming as educators. These were collected and categorized as paradoxical themes that included vulnerability/comfort (confidence), challenge/courage, isolation/community, imbalance/balance, and labor/calling. Results had ramifications not only for needs of teacher candidates during student teaching but also for teacher educators needing to examine their own integrity as university instructors of the next generation of this nation’s educators.

30. Mikayla Pitts (MSU-Health & Human Development), Suzanne Held, Alma Knows His Gun McCormick, Mark Schure. Messengers for Health Baámilah program: Understanding community context when recruiting study participants in an American Indian community

Many American Indian communities face continued social and economic conditions that may impact participation in many community health studies. Researchers at Montana State University are collaborating with Messengers for Health, a non-profit Apsaalooke (Crow) organization, in order to implement a culturally-appropriate chronic illness program, called Baámilah, which is designed to successfully improve health care behaviors and outcomes for tribal members living with chronic illnesses. This study uses a randomized waitlist controlled trial design with community members as program leaders. Ten program leaders were assigned the responsibility of recruiting 20 community members each to participate in the trial (n =200). We will describe how the actual recruitment process unfolded and reflect on lessons learned. We will also discuss the ethical implications of using traditional based recruitment methods in American Indian communities. This will inform researchers on alternative methods for culturally-consonant recruitment of American Indian to chronic illness management studies.

Cultural consciousness is central to purposeful and appropriate health care delivery (Korton & Sahtouris, 2001). **BACKGROUND:** Research suggests that cultural consciousness is strengthened through self-reflection (Gay & Kirkland, 2003; Rew, 2014), dialogue about race (Murray-Garcia, Harrell, Garcia, Gizzi, & Simms-Mackey, 2014), and experience within other cultures Kozub, 2013). **METHOD:** Two cohorts of senior level nursing students participated in a one-week cultural immersion service learning (CISL) experience in an isolated, rural American Indian community. Student reflections and White Racial Identity Attitude Scale (WRIAS) data were collected and analyzed. **RESULTS:** The CISL experience facilitated culturally consciousness in two-thirds of the participating student nurses. Differences in WRIAS scores were significant (p<.0001) with an effect size of 1.9. **CONCLUSIONS:** Implementing CISL experiences into the undergraduate curriculum may help student nurses recognize societal privilege and improve cultural consciousness. Recommendations are provided to assist educators to develop partnerships with Indigenous nations which make CISL experiences possible.

32. Vanessa **Simonds** (MSU-Health & Human Development), Deb LaVeaux, Frances L. Kim, Jason D. Cummins, Christine Martin. *Guardians of the Living Water: Apsáalooke (Crow Indian) Children as Change Agents in their Community.*

In the U.S., Native American communities, already experiencing considerable health inequities, are also more likely to be exposed to environmental contaminants. Consequently, community members of the Apsáalooke (Crow) Nation identified the lack of water-related environmental knowledge among children as an area of concern. The purpose of this study was to provide a feasibility evaluation of an increasingly sophisticated environmental health literacy program for children. A community-academic partnership developed and piloted the *Guardians of Living Water* program to increase environmental health literacy among children and their families on the Crow reservation. Nutbeam’s framework for health literacy, a schema based on functional, interactive, and critical literacy, shaped the program evaluation. Interviews with children and parents were used to assess the feasibility of the program, while pre/posttests assessed changes in knowledge, skills, and behavior. The program and the evaluation benefited from both the health literacy framework and from our integration of Apsáalooke values. Our findings suggest a community-based intervention designed to increase environmental health literacy among youth and their social networks in a rural public school is feasible and acceptable.

33. Christy **Sofianek** (MSU-Education, Health & Human Development) and Emelyn Albright. *MSU LIFE, Learning Is For Everyone, Scholars*

As a land grant university, Montana State University is committed to widening access to higher education and ensuring equality of opportunity for all; committed to inclusion, social justice, equity, and diversity by creating and sustaining an environment that welcomes, respects and nurtures all students, staff, faculty and community; and believes that a more diverse and inclusive institution will contribute to the highest level of excellence that ultimately benefits the entire university community toward becoming outstanding citizens and leaders in local to global communities. As part of that commitment, the university launched the LIFE (Learning Is For Everyone) Scholars program in the fall of 2018. The Mission of this program is to “educate and provide students with intellectual and development disabilities a fully inclusive college experience.” Nationally, there is a growing interest in postsecondary education as a way to improve employment and other key life areas for individuals with intellectual and developmental disabilities. 268 universities and
The LIFE Scholars program provides opportunities for eligible students to gain knowledge through coursework, expand social networks, explore careers and obtain meaningful, competitive employment upon graduation.

34. Rebekah VanWieren (MSU-Plant Sciences & Plant Pathology), Diana Hammer, Ashleigh Weeks, Students in HORT 432 Advanced Landscape Design in Fall 2017, Participants from Fort Peck Tribes community. *Envisioning Community with Green Infrastructure: Revitalizing Community and Environment through Reimagining Vacant Land.*

This poster will share a partnership among the Assiniboine and Sioux Tribes (Tribes), Montana State University (MSU) landscape design, and the US Environmental Protection Agency (EPA) to create visible, concrete, and collaborative actions to revitalize the Town of Poplar, located on the Fort Peck Reservation. Poplar is challenged by the complexities of blighted properties in transition from past industrial uses and disinvestment. Many of these properties are vacant, brownfields, or simply not maintained, creating community spaces that feel unsafe, underutilized, and contribute sediment and potential contaminants to the local watershed. The regeneration of these properties has immense potential to improve ecological and social conditions at a community-scale. In 2017, partners utilized green infrastructure as a planning and design approach for envisioning futures of two blighted properties downtown. The collaborative design process and working site plans for a downtown plaza and a neighborhood-scale sports park will be discussed with a focus on the multitude of values created through green infrastructure for semi-arid bioregions beyond storm water management. This partnership and project provide applied planning and design examples where green infrastructure is shaping the way in which communities’ rethink what they want their communities to look like, function like, and demonstrate to future generations. Community-centered work – participatory design, community assessment, seeking funds to build the green infrastructure demonstrations – is key to increasing the awareness and use of green infrastructure in the northern great plains.

35. Reisa A. Walker (MSU-Nursing) and Laura S. Larsson. *Improving Oral Health Literacy in Cheyenne Country*

Early Childhood Caries (ECC), also known as “baby bottle” tooth decay, is a rapid form of tooth decay in children 0-5 years old. Sugars found in breastmilk, formula, cow’s milk, fruit juice or soda, feed acid producing oral bacteria. If left on teeth, softening occurs leading to rotting enamel. American Indian/Alaskan Native (AI/AN) children are particularly vulnerable to ECC. (54% occurrence rate between 1-5 years of age, four times higher than white, non-Hispanic children). 400 ECC educational pamphlets, “First Tooth First Visit”, were created by a local community member and distributed to 5 health care settings in a predominately AI/AN community -- the goal being to expand oral health literacy of AI/AN parents and caregivers of young children. Short-term evaluation included identifying project champions within distribution sites to provide pamphlets for parents and caregivers. Long-term outcomes will be measured by comparing the age of first dental attendance in the post-intervention period with pre-intervention rates. The First Tooth, First Visit campaign is a culturally relevant educational intervention that steps toward improved oral health in this AI/AN generation and the ones to come.