

## Planning Grant White Paper – Grand Challenges Initiative

### Nature of Problem

“**Building Access to Rural Healthcare in Wyoming**,” directly addresses the Rural Health Issues Grand Challenge while also addressing Public Trust in Research and Information and the Quality of Democracy and Equality. Wyoming is a highly rural and frontier state facing unique challenges to overcome disparities in access to healthcare for communities. Wyoming has high rates of substance abuse correlated with its ranking as third in the nation for liver disease, the highest rate of suicide in the nation, and the sixth highest rate of low birthweights in the nation (National Center for Health Statistics, 2020). The state also faces challenges from an aging population, costly air ambulance transportation, and limited financial access to healthcare (Klamann, 2019; Parks, 2018). These issues persist as the healthcare system continues to consolidate and retract from rural communities. Following hundreds of hospital closures between 1990-2010, an additional 98 rural hospitals closed across the US since 2010, and another 21% of rural hospitals are at high risk of closing due to their current financial state (Mosley & DeBehnke, 2019). Providing healthcare access to underserved Wyomingites is further complicated by national industry trends, counteracting and compounding local influences, and heterogeneous community needs and challenges.

Our long-term research goal is to improve Wyoming’s rural community health provision through improved patient-provider- health network linkages and decrease health outcome disparities across the population. The **primary goal** of this planning grant proposal is to increase public engagement and deliberation in establishing common ground around strategies to address rural community health challenges. This will allow us to gather information about the effectiveness of public engagement strategies to be used in future planned research projects. Community responses from the Wyoming Department of Health’s recent State Health Assessment (SHA) highlight the importance of this goal. Residents cite access to care, attitudes, social determinants, and community connection as some of the top barriers to health in the state (Wyoming Department of Health, 2018). Our plan of work directly addresses these established community concerns by engaging diverse populations in developing community specific healthcare improvement strategies.

This proposal will lead to information dissemination and decision-making tools to assist local and state community health leaders in making more informed and effective decisions revolving around healthcare access, investments, and planning. We will do this using a transdisciplinary approach drawing upon the University of Wyoming’s applied economists, health scientists, WWAMI (a multi-state medical education program), and Extension educators, as well as extramural partners including Wyoming Department of Health (WDH) professionals. Through this digital and transdisciplinary approach, we aim to reach an inclusive stakeholder audience across the state and within the university to strategize around communities’ perceptions, concerns, and visions to improve the physical, financial, and social access to healthcare in Wyoming.

We have identified three specific **objectives** to achieve this goal:

- 1) identify barriers and strategies to increase diverse public engagement;
- 2) identify barriers and strategies to increase public trust; and
- 3) identify tools, programs, analyses, or data that will assist communities achieve their local goals in a collaborative manner.

## **Team Members**

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## **Work Plan**

Over the last decade, digitization in healthcare created opportunities to expand data and analytics for more precise healthcare delivery, but the benefits of these advances are not shared equally across all members of the population. Unfortunately, health disparities have arisen, especially in rural communities, where there has been a decline in resident healthcare providers and decreasing patient trust in providers and healthcare networks (Wyoming Department of Health, 2018). As rural communities work to overcome long-standing and novel challenges to their local healthcare systems, it is key to embody the diverse spectrum of stakeholders in the conception of research and outreach programs to improve local healthcare delivery and trust. Different community, demographic, and socioeconomic groups within Wyoming likely not only share different values and goals, but also receive their information from different sources and in different forms. The foundation of any possible consensus thus becomes precarious unless an inclusive deliberative process allows stakeholders to not only identify collective similarities but also recognize the introspective formative process through which they and others develop their own knowledge, preferences, and opinions (Saltelli et al., 2020). Empirical evidence suggests such deliberative democratic processes lead to greater tolerance, broader program support even under conditions of disagreement, and enhanced understanding of one's own, as well as others', opinions (Kuyper, 2018). Therefore, our targeted outreach is likely to have a greater impact on local development of health access and investment planning if communities have a role in being active contributors to the decision-making process and informing the design of tools and information they receive.

The **first objective** of this project will identify barriers and strategies to increase the engagement of diverse groups in decision making. To increase stakeholder engagement, we propose a two-pronged approach to circumvent common barriers to public engagement. First, we will work with the WDH to identify underrepresented and relevant audiences. The WDH recently completed a State Health Assessment (SHA), and is working collaborative to develop a State Health Improvement Plan (SHIP). The WDH has identified a diverse set of partners to identify engagement barriers. Second, we will use a portion of the grant award to develop marketing tools that are designed to inform and engage underrepresented groups in Wyoming (e.g., low income, informal caretakers, Native Americans, etc.). These marketing materials may include digital advertising, emails, and mail flyers and could be directed at state-wide groups or specific communities within the state.

The **second objective** is to assess barriers and strategies to increase public trust through virtual roundtables and field interviews conducted by Wyoming's future health professionals. The virtual public roundtables will provide a constructive space for Wyomingites to share

stories, rank issues, and work through a deliberation process to identify common challenges and goals. Through these roundtables we hope to explore how public engagement builds trust in data and how this trust is impacted by the ways public entities utilize the information. The virtual public roundtables will minimize the cost of participation by not requiring individuals to travel and by offering alternative times and days to accommodate individual scheduling conflicts. We have allocated a portion of the grant award to integrate Zoom with Common Ground for Action, a public opinion software that easily manages large amounts of real-time data and facilitates communication and understanding as participants progress through the session.

After each of the roundtable deliberations, the data will be organized and analyzed to identify participation rates across Wyoming groups and communities. Given our findings, we will target specific stakeholder groups by hiring student Field Moderators to delve deeper into local health issues and provide nuanced, on the ground, observations. These Field Moderators will be WWAMI medical students who are involved with the WWAMI Health Equity Circle student organization and this work will be part of their community health projects as part of the WWAMI Rural Underserved Opportunity Program (RUOP). The specific activities that Field Moderators will be engaged in will depend upon our roundtable findings as well as the targeted audience, but examples could include intercept surveys, interviews, and listening sessions. Dr. Timothy Robinson is the director of the WWAMI medical education program at UW and will lead the organization of the student Field Moderators. This represents a dual opportunity to not only understand the nuances of underrepresented community health needs and concerns, but will also allow future Wyoming physicians develop a deeper connection and understanding of the communities that they will ultimately serve.

The **third objective** of this planning grant is to identify possible tools, programs, analyses, or data that will assist communities achieve their local goals in a collaborative manner. This objective will be achieved by first compiling and organizing the data from the roundtable deliberations and Field Moderator activities. Communities and groups might not only have different health issues and information concerns but may also be more, or less, receptive to different types of engagement and strategies to address health concerns. Thus, the goal is not to identify a one size fits all potential tool or analysis, but rather to allow unique communities to guide the specific types and vehicles of information they need to achieve greater local health access and equity. However, we will also work with our partners to ensure the stakeholder group-specific outreach prescriptions are developed in tandem to allow for a cohesive and collaborative approach that works for Wyoming as well as individual communities or groups. Possible outreach materials include online mapping-tools, Extension bulletins, industry listening sessions, educational programs on how to engage diverse audiences regarding health issues, and topic-specific webinars among others.

The actual construction of outreach tools and the information they contain will be achieved through detailed data analysis and is beyond the scope of this planning grant. Indeed, this planning grant is meant to guide the construction of these analyses and tools by creating channels of communication to effectively disseminate information that could increase healthcare access and equity. Pursuant of this greater goal, the planning program will culminate in at least one external grant submission. Dr. Anders Van Sandt, a new Assistant Professor in Agricultural and Applied Economics, has identified an integrated New Investigator grant RFA through the USDA that prioritizes rural communities, health, and outreach driven proposals. This external grant proposal will focus on exploring physical, financial, and social healthcare access issues across the US and over time using restricted federal administrative data from the Census Bureau,

Internal Revenue Service, and National Center for Health Statistics. This micro dataset allows researchers to explore the community impact of healthcare establishments beyond hospitals, including, urgent cares, non-employer physicians, mental health specialists, and ambulance services. We believe the findings from this planning grant will serve as a guide for future research, including the choice of statistical model, variables, and resultant tools or reports. The due date for this grant proposal is June 17<sup>th</sup>.

**Partners**

Extramural: Wyoming County Health Departments, Wyoming Department of Health, Wyoming Rural and Frontier Health Unit

Intramural: WWAMI, Health Equity Circle, Extension, Agriculture and Applied Economics, Mathematics and Statistics (biostatistics)

Granting Agencies: Agriculture and Food Research Initiative – USDA, Integrated (Research and Extension) New Investigator grant (application deadline: June 17<sup>th</sup>)

**Budget:**

<b>Activity/Purpose</b>	<b>Amount</b>
Integration of Common Ground for Action and Zoom	\$10,000
5 Field Moderators (WWAMI-Health Equity Circle students)	\$2,500
Travel and conferences	\$3,000
Marketing efforts for underrepresented groups/communities	\$2,000
Salary for Anders Van Sandt	\$1,000
Salary for Juliet Daniels	\$500
Salary for Timothy Robinson	\$500
Salary for Mariah Ehmke	\$500
<b>Total Amount Requested</b>	<b>\$20,000</b>

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