

Academic Plan 10/22/08

Center for Rural Health Research and Education

Mission statement and aspiration

The mission of the Center for Rural Health Research and Education (CRHRE, pronounced "share") is to provide tools, technology, and support services that enable practitioners, administrators, educators, researchers, policy makers, and students to improve the quality of health care and services in rural areas.

The CRHRE is recognized throughout the state as a leading resource in health information technology (HIT), and our aspiration is to further develop our expertise and experience and increase our support for the development and deployment of HIT throughout the health care community in Wyoming. Our main functions are (1) to provide expertise and services to the College, University, and State for using technology in health research and education and (2) to create strategic partnerships in support of decision making and policy development in the area of rural health care, particularly with regard to HIT.

The primary goal for the CRHRE in 2009-2014 is to establish the Center as an integral, permanent unit in the College of Health Sciences (CHS). As all positions in the CRHRE except that of the Director are supported by external funding (over \$1.75 million in 2007-8), it is often difficult to extend our activities beyond those specifically supported in the grants and contracts. We have been fortunate to assemble a loyal and talented group of research scientists who continue to work in the Center despite the uncertainty of continued support, but we have much more that we can offer the College and University in terms of expertise in HIT, policy development, and research collaboration.

2004 Academic Plan response

Two items in the 2004 College of Health Sciences Academic Plan were directed at the CRHRE.

The first item proposed investigating *the feasibility of integrating more effectively the research and service functions of the Center for Rural Health Research and Education, the Wyoming Statistical Analysis Center and the Survey Research Center.* These latter two organizations have since merged into a single organization, the Wyoming Survey and Analysis Center (WySAC), directed by Dr. Burke Grandjean. At the time of the merger, Dr. Grandjean and Dr. Gantenbein, CRHRE director, in cooperation with Dean Kelley from CHS and Dean Walter from A&S, carefully delineated the different strengths and missions of the CRHRE and WySAC. It was agreed that WySAC and CRHRE would cooperate on projects when there was a need in one group's projects for the expertise and resources of the other's. Since that time, a good relationship has been established between WySAC and CRHRE, and the two organizations have collaborated on a number of projects, largely through external funding obtained by CRHRE.

The second item proposed examining *the desirability of developing the CRHRE as an academic unit for biomedical and health informatics in the College*. At this time, the resources needed to develop the CRHRE as an **academic** unit are not in line with the overall priorities of the College. The CRHRE supports a course in health informatics for the College that is part of the Health Sciences minor and also provides support for teaching and research in biomedical informatics for other colleges. As noted in the action items below, however, this is still a priority for the CRHRE and will continue to be studied.

Significant institutional Issues

In *Creation of the Future 3* (August 2008), the “Leadership” motif identifies health care as one of the professions critical to the region’s future. There are several issues within this area to which the CRHRE’s expertise can be applied.

1. A comprehensive clinical education plan in the College of Health Sciences.

It is our conviction that a modern clinical education plan must include some education in health information technology, including instruction on biomedical and health informatics, electronic health records, and telemedicine/telehealth. Currently, no access to these topics exists within the College except through the (optional) Health Informatics course supported by the CRHRE. We propose that these topics be included in the clinical education plan and support be provided to the CRHRE for developing and delivering instruction in them.

2. UW’s involvement in statewide policy discussions related to health care.

The CRHRE is already providing significant policy leadership to the state, not only in HIT areas, but also (in cooperation with WySAC) with data analysis and reporting. One staff member in the CRHRE, Ryan Sandefer, has been on contract with the Wyoming Health Care Commission for research on health care workforce issues and other topics. The CRHRE has the capacity to expand its role in policy leadership in health care and should be considered a key player in any discussion of UW’s role in rural health policy.

3. Recruitment, training, and career placement of physicians.

It has been clearly demonstrated that telehealth/telemedicine has significant impact not only in improving access to health care for rural residents, but also in supporting recruitment and retention of practitioners in rural communities. Access to specialists or support services in distant locations can be an attraction for providers not accustomed to the isolation and lack of local resources in a small town. Furthermore, telehealth technology can help provide training and continuing education to rural practitioners in situ, allowing them to develop professionally without interrupting the critical services they provide to their community. Given the CRHRE’s already established leadership role in telehealth for Wyoming, we propose that the CRHRE further develop UW’s capacity in these areas.

4. An interdisciplinary mental health collaborative.

Telehealth/telemedicine is also shown to be particularly effective in providing access to mental or behavioral health services in rural communities where local resources are scarce. The CRHRE is currently supporting the development of a statewide tele-mental health network that will provide access to almost every hospital and behavioral health center in Wyoming. We propose that the CRHRE, along with other units in the College with behavioral health emphases, be involved in the development of this collaborative.

5. Continued institution-level funding from the federal INBRE program.

Dr. Gantenbein has served as Bioinformatics Core Director for both the BRIN and INBRE I programs, and he will continue to do so under INBRE II. Through the previous programs, significant progress has been made in developing the bioinformatics infrastructure at UW through faculty hires in other colleges and the acquisition of sophisticated computational equipment that has been managed by the CRHRE. In addition, through funding from other sources, the CRHRE has created a foundation for interdisciplinary collaboration among the Western INBRE universities and is developing both plans and tools for resource sharing among biomedical researchers at these and other institutions. This work also relates to the emphasis in CF3 on the University-wide areas of excellence in computation science and life sciences, particularly molecular and cellular life science. We propose that the CRHRE continue to support collaboration related to INBRE and bioinformatics.

Action Items

In support of our mission and these institutional issues, the CRHRE proposes the following action items for the 2009 Academic Plan.

1. Establish the CRHRE as a resource for education in HIT and related areas.

Create resources for professional and faculty development in HIT and related topics. Little opportunity for training in HIT exists within the state at this time. We will develop short courses or training sessions for both practicing providers and CHS faculty and deliver them in person, live via distance technology, or asynchronously using podcasts or recordings. (Institutional issue #3)

Create curricula for HIT within the College of Health Sciences. Similarly, students in CHS programs, particularly Nursing and Social Work, should have exposure to HIT as part of their learning experience. We will create, in cooperation with College faculty, curriculum modules that emphasize hands-on practice and can be incorporated into these and other programs. We also will investigate the feasibility of a CHS minor/certificate program in Health Informatics. (Institutional issue #1)

Increase the number of seminars on HIT available at UW and throughout the state. Awareness of the benefits and barriers to HIT is critical to its widespread

adoption. We will increase the number of seminars offered on- and off-campus addressing topics relevant to HIT and use distance technology to assure their availability to all interested parties. (Institutional issues #1 and #3)

2. Establish strategic partnerships within and beyond UW for advancement of HIT in Wyoming.

Explore avenues for communication with policymakers throughout the state. Through existing projects such as the workforce data analysis being conducted for the Wyoming Health Care Commission in cooperation with WySAC, the CRHRE already has significant experience in supporting policy discussions relating to health care. We propose that the CRHRE and other units in the College be involved with WYSAC and other units campus-wide in discussions regarding development of a policy research center and clearinghouse for service to the state, particularly in regard to health care issues. (Institutional issue #2)

Provide leadership in the UW interdisciplinary mental health collaborative. Telehealth technology should be an important component of any efforts to improve mental health care in Wyoming, particularly if the efforts involve UW personnel delivering care to remote areas. The CRHRE is already working on several projects related to tele-mental health and has the capacity to provide the leadership and coordination of this area. We will convene interdisciplinary discussions about this collaborative and provide leadership regarding telehealth as a foundation for its work. (Institutional issue #4)

Promote regional collaborations among biomedical researchers through INBRE bioinformatics core. Through the connections established via our Western Biomedical Research Collaboratory planning grant from NLM, we have identified areas of common research interest among the Western INBRE schools and a number of researchers interested in collaborations and research exchanges. With the advent of INBRE II and the possibility of other support, we will continue to develop these relationships and facilitating inter-institutional research and education in biomedical areas. (Institutional issue #5)

3. Establish a strong, permanent identity for the CRHRE. This action item relates directly to our aspiration to become an integral, permanent part of the College. We intend to create a strong identity for the CRHRE as the resource for expertise in technology to support rural health, not only within UW but for the entire state as well.

Diversify funding sources. With essentially all of the CRHRE's funding coming from external grants and contracts, we necessarily have to "follow the money" rather than be driven by our mission and goals. We will explore other options for funding, including development and Section I support for staff positions critical to the operation of the CRHRE but not apportioned to particular grants or projects. As the upper administration considers centralized staff position management, we believe that non-traditional units – particularly those operating on soft money –

should have the same opportunity to receive Section I funds for support staff as do academic units.

Update the CRHRE strategic plan and create a sustainability plan. Having a written strategic/sustainability plan is critical to the CRHRE's future, as it helps to define our vision and provide a benchmark against which progress can be measured. We will develop a five-year plan and review it regularly.

Increase research output. Another important part of creating an identity for the CRHRE is to produce research that both records our successes and provides information for others to build upon. This research could include white papers, conference posters or abstracts, and journal articles. We will produce more research publications that will enhance the CRHRE's status as a center for expertise in HIT.

Involve CHS faculty in CRHRE projects and pursue more joint research opportunities. While the CRHRE has been extremely successful in its various efforts to promote and deploy HIT in Wyoming, very few CHS faculty or students have been involved with our projects. We will identify "champions" among the various units of the College and find opportunities to include them in existing projects and/or new research programs.

Timeline

Most of the above action items are already in progress to some degree. Emphasis in the first year of the five-year period will be on developing the strategic/sustainability plan and identifying new funding sources. Initiating discussions on the mental health collaborative and policy support will also take place during this first year.

Development of educational resources for practitioners will be the primary focus for the second year of the period, including exploring the best communication channels with which to make these resources available. Educational development for faculty and students will be addressed during the third and fourth years.

All other activities will be ongoing throughout the period. Specific outcomes and deliverables will be defined as part of the strategic plan.