

Contact: Rachel Boon

**REQUEST FOR NEW CENTER AT THE UNIVERSITY OF IOWA:
IMPLEMENTATION SCIENCE CENTER**

Action Requested: Consider approval of the request by the University of Iowa to create the Implementation Science Center in the Office of the Vice President for Research.

The Council of Provosts and Board office support approval of this request.

Background: To establish a central home for the emerging field of implementation science building on the current strengths in the Colleges of Medicine, Public Health, Nursing, Pharmacy and other colleges at the University of Iowa (SUI). The Implementation Science Center (ISC) at SUI would serve to build a cadre of scientists and practitioners that create new paradigms in the field of implementation as well as add valuable support to research teams that are seeking to incorporate implementation research into their own areas of study.

Implementation science is a growing field in the health sciences defined by NIH as “the study of methods to promote the adoption and integration of evidence-based practices, interventions, and policies into routine health care and public health settings to improve our impact on population health.” Several reviews have found it takes 17 years for the latest evidence-base to reach routine use among patients and in their communities. Implementation science focuses on closing that gap.



Figure 1. Engagement, Integration, and Implementation Model

The central premise of ISC is that engagement with key partners and communities is a critical first step toward implementation of impactful scientific discoveries and innovations. In between, integration of innovative research questions and rigorous scientific discovery happens due to thoughtful engagement focused on the end goal of more rapid implementation of research into real-world practice. (See Figure 1: EII Model.)

A key area of focus will be on implementation science to support evidence-based practice in rural health. While implementation science is rapidly expanding, less attention has been paid to the uptake of evidence-based practices and the latest research in rural settings. SUI is well-situated to contribute to expanding implementation science into rural health due to its geographic location and the rural focus of many of its centers and institutes on campus (e.g., Prevention Research Center for Rural Health, Rural Policy Research Institute, etc.). However, none have a specific focus on the science of implementation—studying the organization and behavioral factors that contribute to ensuring research and evidence reaches all who could benefit.

A truly transformative goal is to develop strategies to rapidly undertake this change to meet the real time, real world needs of healthcare and public health. Rapid ethnographic assessment and consultation is an innovative approach to support rapid change. Rapid ethnographic assessment will provide the foundation of ISC's interactions with researchers and practitioners across campus. Rooted in central tenants of anthropology, rapid ethnographic approaches will be:

- 1) Holistic – Think big, be expansive.
- 2) Cultural relativistic – Listen first and don't judge.
- 3) For the emic perspective – Walk in other's shoes.

Rapid ethnographic assessment and consultation is mixed methods. The core methodological building blocks of ISC will be the ethnographers and the statisticians with expertise in rapid cycle tests of change.

Need for proposed center. Many funding agencies from National Institutes of Health, Agency for Healthcare Research Quality, Centers for Disease Control and Prevention, Patient-Centered Outcomes Research, Department of Veterans Affairs, Department of Defense, and Health Resources and Services Administration are all supporting a growing number of implementation science requests for applications. ISC will assist faculty and staff across the university in preparing and applying for these funding opportunities.

One metric of the growth of this field is through the number of related citations which has rapidly increased from 400 publications in 2006 to 11,000 in 2022. SUI has seen similar growth in implementation science publications and its impact on the field is above the national average. A center would allow us to support this growth and the national impact, while also supporting implementation science in rural health.

In addition, there is growing emphasis in the field to support practitioners. SUI and its hospitals and clinics have a 30-year history of mentoring and training nurses in evidence-based practice through the Iowa Model. In the past, the field of evidence-based practice and implementation science have rarely intersected. We have the opportunity to build on the strengths and experiences of disseminating the Iowa Model into the field of implementation science and creating a pathway for implementation practitioners across healthcare.

Activities and objectives of proposed center. The ISC will be primarily focused on innovation and discovery, but will grow to provide educational opportunities (training, courses, mentored projects, and potentially innovative degree and certificate programs) to grow new scientists and practitioners in the field of implementation science.

Relationship to mission and strategic plan. ISC is directly related to SUI's strategic plan as a center in the middle of "Innovative Research and Creative Discovery." Implementation science is a rapidly growing field and SUI has the unique opportunity to contribute to innovations in the field through the approach of Rapid Ethnographic Assessment, a focus on rural health, and leveraging the deep experience with the Iowa Model to create a pathway for implementation practitioners. The ISC will strive for a "Transformative Societal Impact" through these unique innovations to ensure all Iowans have access to evidence-based healthcare and public health.

Relationship to other centers/institutes at the university. Multiple institutes and centers have asked for consultation on integrating implementation science into their programs of research. The newly renewed Institute for Clinical and Translational Science (ICTS) worked with Dr. Reisinger to successfully integrate implementation science into their reapplication. In addition, the College of Nursing has a keen interest in the ISC from the Csomay Center of Gerontological Excellence's

focus on implementation to the Iowa Model at Office of Nursing Research and Evidence-Based Practice in the University of Iowa Health Care. College of Public Health also has many centers who are interested in building collaborations and growing their implementation science strength, including the Prevention Research Center for Rural Health, Injury Prevention Research Center, Environmental Health Sciences Research Center, and Iowa's Center for Agricultural Safety and Health, among others. Finally, the National Cancer Institute has one of the strongest emphases on implementation among all of the National Institutes of Health and ISC will support the growth of implementation research at the Holden Comprehensive Cancer Center and with the Iowa Cancer Registry.

Relationship to centers/institutes at other universities in Iowa and potential for collaboration. SUI is unique in that it has a comprehensive health sciences campus. With ISC's emphasis on health-related implementation, there is no research center or institute in the state of Iowa with a similar emphasis. However, Dr. Reisinger has begun to have conversations about implementation science with leadership at the Iowa State University Outreach and Extension and the University of Northern Iowa's Institute for Decision Making to ensure we are reaching Iowans across the state on community, prevention, and public health implementation research.

Resources, facilities and equipment required. The University of Iowa is the only site in the state that has a comprehensive basic-to-clinical research enterprise situated within the only academic medical center and it has the only College of Public Health. This environment, in combination with personnel with deep expertise in implementation science, makes SUI an ideal place to host this center that is likely to have far reaching impact across the state. Required faculty to maintain the center are already present in each of the health sciences colleges. Colleges of Public Health, Nursing, and Medicine have also committed to additional hires in support of the center. Staff will be hired to support the administrative and training needs of the center. The required facilities already exist within the institution and office space has been designated for the center.

Expected funding sources. There is significant internal investment to start the center. It will grow through external funds. There are a wide-range of external funders who have interest in supporting this area of research, which will allow for diversification of funding sources. In addition, it is anticipated that the center will attract philanthropic interest from donors who will want to play a vital role in supporting access to evidence-based practices across Iowa's healthcare and public health. It is anticipated the center will partner with the UI Center for Advancement to secure major philanthropic gifts.

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
Center Support**						
CCOM* Center Infrastructure Support	\$332,324	\$332,324	\$332,324	\$332,324	\$332,324	\$1,661,620
HCCC [^] - Post Doc Support	\$69,000	\$69,000	\$69,000			\$207,000
OVRP ⁺ - pilots and travel	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
Total						\$2,118,620

* Carver College of Medicine; [^]Holden Comprehensive Cancer Center; ⁺Office of the Vice President for Research

Evaluation plan. Center faculty and staff will meet yearly with an external advisory board to track progress towards: 1) total implementation science grants at SUI, 2) scholarly metrics of impact through sources such as SciVal, and 3) progress towards programmatic grants. The standard center review schedule will apply to the ISC.

Date of implementation. July 2024.