



CENTER FOR
HEALTHCARE ENGINEERING & PATIENT SAFETY
UNIVERSITY OF MICHIGAN

Providing Better Healthcare Through Systems Engineering: Seminars and Discussions

Driving Innovation, Implementation, and Sustainability in a Learning Health System

Amy Kilbourne, PhD, MPH

Monday September 9 at 4:30PM in 1123 LBME



Health systems strive to deliver high-quality, patient-centered care by ensuring that evidence-based, cost-efficient, and acceptable treatment innovations get off the research-academic shelf and into the hands of patients and their providers. However, tracking of this “research-to-practice” translation has found that it can take 17 years for treatment innovations to reach frontline care settings. Moreover, only 1 in 5 of these treatments are ultimately sustained in real-world practice. This research-to-practice gap wastes millions of dollars that are invested in research on treatment discoveries that do not make it into the hands of patients who can ultimately benefit from them. Key barriers to implementing treatment innovations into routine practice include lack of planning to prepare frontline clinicians in their adoption, lack of opportunities to adapt innovations across diverse patient populations, and limited incentives for health care organizations to sustain innovations once the research study ends. This talk will describe novel research approaches to help close the gap between innovation and implementation, notably the new VA Quality Enhancement Research Initiative (QUERI) Implementation Roadmap and accompanying Implementation Strategy Training Hubs. We also describe novel designs such as sequential multiple assignment randomized trial (SMART) and adaptive designs, that can help determine which implementation strategies are most effective in overcoming provider and organizational barriers to treatment adoption, and how these designs and implementation strategies can be applied to settings outside the clinic walls such as schools. We also describe the challenges in conducting these studies to determine the best implementation strategies and the active ingredients for such studies to ultimately inform health systems in the successful spread of innovations to ultimately improve patient outcomes.

Dr. Amy M. Kilbourne, PhD, MPH is Director of the VA Quality Enhancement Research Initiative (QUERI) and Professor of Psychiatry at the University of Michigan (UM) Medical School. With over 40 centers across the U.S., the mission of QUERI is to improve Veteran health by accelerating the implementation of research findings into real-world practice. Dr. Kilbourne’s goal is to improve Veteran health through implementation science, i.e., the use of strategies to help providers scale up and spread effective practices in real-world treatment settings. She has led several national improvement initiatives including a VA national population management program to provide outreach services for Veterans with serious mental illness (Re-Engage) and a community care implementation research roadmap. Dr. Kilbourne is the recipient of several awards including the Presidential Early Career Award for Scientists and Engineers (PECASE) and the Gerald L. Klerman Research Award from the Depression and Bipolar Support Alliance (DBSA). Dr. Kilbourne received her bachelors of arts at the University of California at Berkeley (double major in molecular biology and rhetoric), and her masters in epidemiology and PhD in health policy from the University of California Los Angeles.

1123 LBME is room 1123 in the Ann & Robert H. Lurie Biomedical Engineering Building (LBME). The street address is 1101 Beal Avenue. A map and directions are available at: <http://www.bme.umich.edu/about/directions.php>.

This seminar series is presented by the U-M Center for Healthcare Engineering and Patient Safety (CHEPS): Our mission is to improve the safety and quality of healthcare delivery through a multi-disciplinary, systems-engineering approach.

For additional information and to be added to the weekly e-mail for the series, please contact genekim@umich.edu. Photographs and video taken at this event may be used to promote CHEPS, College of Engineering, and the University.