What is Implementation Science?

Implementation science focuses on the question: how can we effectively and efficiently get people to use research results and evidence-based practices and programs in a consistent, high quality way? These could include adoption of clinical best practices by service providers, implementation of processes in facilities, or the acceptability of interventions in communities.

Implementation research studies focus on outcomes that are "upstream" of clinical or public health outcomes such as reach, fidelity, quality and sustained use. In order to achieve successful health outcomes, practices and programs need to be implemented well, and implementation research focuses on developing an evidence base on the information, interventions, practices and policies that facilitate implementation.

The types of outcomes typical for implementation research and their link to health outcomes are shown below (Proctor et al., 2011)[1].

Types of outcomes in implementation research

Implementation research projects may propose innovative ways of defining and measuring these outcomes in a variety of public health settings, may develop studies to identify individual, organizational, community or environmental (policy) determinants that affect

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[1]

Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., … Hensley, M. (2011). Outcomes for Implementation Research: Conceptual Distinctions, Measurement Challenges, and Research Agenda. *Administration and Policy in Mental Health*, *38*(2), 65–76.

these outcomes, or test strategies to improve the quality of implementation and adoption of evidence-based interventions.

Some examples of Implementation Science projects conducted by UNC faculty are shown below:

Researcher: Brian Pence
Title: "Treating depression to improve HIV care outcomes in Malawi"
Description: Integrating a depression care management model into HIV treatment programs in Malawi and evaluating reach, fidelity, sustainability, and impact on mental health and HIV outcomes

Researcher: Vivian Go
Title: "Finding what works: Identification of implementation strategies for the integration of methadone maintenance therapy and HIV services in Vietnam"
Description: This study applied identified implementation strategies that address barriers to scale-up of service integration using a two-phase process including key informant interviews and a vote among an expert panel. This process was based on Expert Recommendations for Implementing Change (ERIC) protocol.

Researcher: Rohit Ramaswamy
Title: "Program to improve mental health care in India"
Description: Developing and testing implementation and improvement strategies to integrate mental health into the primary healthcare system and evaluating acceptability, feasibility and cost of alternate strategies.

Researcher: Sarah Birken
Title: "Identifying Strategies for the Successful Implementation of Survivorship Care Plans in Practice"
Description: Using qualitative comparative analysis to identify strategies that have been successful in promoting the implementation of survivorship care plans in cancer programs.

Researcher: Chris Shea
Title: "Identifying determinants and outcomes of implementing enhanced medication management services in community pharmacies"
Description: This project will use survey and administrative data to identify organizational characteristics, processes, and strategies that promote effective implementation of enhanced services within community pharmacies.

Researcher: Byron Powell
Title: "Organizational and System-Level Influences on Evidence-Based Practice (EBP) Implementation in Public Mental Health"
Description: This research occurs within the context of Philadelphia's efforts to transform their behavioral health system. The specific aims are: 1) to assess system-level barriers to EBP implementation and identify strategies to overcome them, and 2) to determine the impact of organizational factors on the use of EBPs.