Implementation Research: A Significant Step in the Right Direction to Advance Health Outcome in Nigeria

During my fellowship training, I was required to complete a hypothesis driven research in order to become eligible for board certification by the American Board of Pediatrics. I started the process by meeting with my mentor who asked me what type of research I was interested in. I gave him a little history of my background in research. I had no significant training in laboratory-based research (so-called bench research), and I have only then performed research to seek "Knowledge, Attitudes, and Practices" of a population. I have always been fascinated by research that sought to understand human behavior and how that behavior can be used to design effective interventions to improve health outcomes. So, I told him about my passion for population-based studies that focuses on interventions to promote health outcomes. He asked me to look into health services research as it might fit into what I would like to do.

I took his advice and looked into health services research. I found many definitions of similar research process. Research to improve health systems tends to be defined as implementation research, operations research or sometimes health systems research. Operations research tends to focus on operational problems within a local context while health systems research focuses on the macro-level system issues. Implementation research typically falls between the two and aims to develop strategies for available health practices to improve access to, and the use of, these interventions. Closely related to implementation science is dissemination science defined as the study of how evidence-based practices, programs, and policies can best be communicated to an inter-organizational societal sector of potential adopters and implementers to produce uptake and effective use. One definition articulated implementation research as the study of what happens after adoption occurs, especially in organizational settings.

During the period I was trying to define my research focus, I found some literature on the quality enhancement research

Access this article online	
Quick Response Code:	Website: www.amhsr.org
	DOI: 10.4103/2141-9248.133361

initiative (QUERI) developed by the United States Veterans Affairs. The six-step QUERI process fitted exactly the projects I like to perform due to its measurable and direct impact on health outcomes. Some define it as a quality improvement project while others call it a "quasi-research."

- Step 1: Identify and prioritize high risk/high burden clinical conditions
- Step 2: Identify evidence-based guidelines/recommendations
- Step 3: Determine quality/performance gaps
- Step 4: Develop or adapt quality improvement strategies
- Step 5: Implement and Assess intervention impacts on patient, family and system outcomes
- Step 6: Assess improvement program impacts on health outcomes.

Modified from the Veteran Affairs Quality Enhancement Research Initiative

In recognizing the importance of implementation science and research, the United States National Institutes of Health states that "One of the most critical issues impeding improvements in public health today is the enormous gap between what we know can optimize health and healthcare and what actually gets implemented in every day practice. The science of dissemination and implementation seeks to address this gap by understanding how to best ensure that evidence-based strategies to improve health and prevent disease are effectively delivered in clinical and public health practice." No matter what it is called, I found research that utilizes implementation science principle to improve health quality and enhance health outcome to best describe what I would like to focus my research career on and it has since formed the bedrock of my scholarly activities. There are many diseases in Nigeria and the rest of Africa where we already know what works. There are many research studies in Nigeria that sought to identify what the problems are, and we know these problems and barriers. There are few studies in Nigeria that sought to test interventions that work in the Nigerian context using adaptations of evidence-based interventions. We need Nigerian researches to broaden their scholarly activities to seek the best methods to implement evidence-based interventions to enhance health outcomes. African researchers have a very unique position of understanding both the science, research practices as well as the social context of the environment that will make up each intervention.

The Fogarty International Center went further to state that because the social context of a low and middle income countries (LMIC) will influence the research designed to answer these evolving research questions, LMIC institutions and their researchers, who intimately understand the social context of their country and with the research capacity to design and conduct the research, are best positioned to conduct the most relevant research, disseminate the results in-country, and influence policymakers, program managers, and medical/public health practice.

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How to cite this article: Ezeanolue EE. Implementation research: A significant step in the right direction to advance health outcome in Nigeria. Ann Med Health Sci Res 2014;4:291-2.