10 Key Ingredients Exercise

These are sample grants that are publicly available on the NCI Implementation Science Webpage. This educational handout is for this workshop only. The full grant can be accessed via the link above. <mark>Please do not distribute this copy.</mark>

Example #1

R01: Implementing Tobacco Use Treatment Guidelines in Community Health Centers in Vietnam

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FOA**

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Almost half of adult men in Vietnam are current smokers, a smoking prevalence that is the second highest among South East Asian countries (SEACs). With a population of approximately 90 million, Vietnam also has the second largest total number of adult smokers (over 16 million) in SEA. According to the World Health Organization (WHO), most reductions in mortality from tobacco use in the near future will be achieved through helping current users quit. Tobacco use treatment, as defined by the U.S. Preventive Health Service Guideline (Guideline) on *Treating Tobacco use and Dependence*, is evidence-based and highly cost-effective. The Guideline, which is endorsed by the WHO, provides strong evidence that asking all patients about tobacco use, advising smokers to quit, assessing readiness, providing assistance (i.e., counseling) and arranging follow-up (the 5As) can significantly increase smoking abstinence rates. Yet, in the U.S. and globally, adoption of recommended care into routine clinical practice is suboptimal. This is in large part due to a lack of research on strategies for implementing evidence-based tobacco use treatment guidelines.

The long-term goal of the project is to develop a generalizable model for implementing evidence-based tobacco use treatment within existing health systems locally and globally. The objective of this proposal is to fill the current research-to-practice gap by conducting a randomized controlled trial that compares the effectiveness and cost of two practical and highly replicable strategies for implementing evidence-based guidelines for the treatment of tobacco use in public health clinics in Vietnam. The proposed implementation strategies draw on evidence-based approaches and the WHO's recently released guidelines for implementing Article 14 of the Framework Convention on Tobacco Control (FCTC). The FCTC is an evidence-based treaty that was developed by the WHO in response to the globalization of the tobacco epidemic Article 14 specifies the need to integrate clinical best practices for treating tobacco use and dependence into routine preventive care. The proposed implementation strategies also build on

the growing literature that supports the effectiveness of integrating community health workers as members of the health care team to improve access to preventive services.

Vietnam ratified the FCTC in 2004 and has since reached several milestones, primarily in the area of smoke free air and tax policies. But like other low middle-income countries (LMICs), they have not taken steps to implement Article 14. This research proposal will leverage a unique partnership of academic, public health and government investigators, including researchers at New York University, Johns Hopkins University, University of North Carolina, the Ministry of Health in Vietnam, the WHO, researchers from the Hanoi Medical University and the Vietnam Institute of Social Medical Sciences (ISMS). It builds on prior NIH funded research collaborations and on Dr. Nguyen's (Co-PI and Director, ISMS) extensive experience in conducting large-scale research and evaluation projects across all levels of the Vietnam health care delivery system, including implementing preventive service guidelines in public health clinics. The proposal also leverages local expertise and supports the objectives of the Vietnam National Action Plan for implementation of all components of the FCTC. The trial will be conducted in 26 public health clinics in two districts in Vietnam.

The specific aims are to:

1) Conduct a formative evaluation to assess the contextual factors of the intervention settings (i.e., district level policies and organizational level characteristics) that may influence tobacco use treatment in CHCs and to inform necessary modifications to the proposed implementation strategies.

2) Compare the effectiveness and cost effectiveness of two multi-component strategies for implementing tobacco use treatment guidelines: a) Technical assistance, training, plus clinical reminder system (TTC) vs. b) TTC + referral to a community health worker (CHW).

The primary outcome is provider adherence to tobacco use treatment guidelines (i.e., implementation effectiveness) and the secondary outcome is biochemically verified six month smoking abstinence.

3) Use a mixed methods approach to explore potential theory driven mechanisms, at the organizational level, hypothesized to explain the comparative effectiveness of the implementation strategies.

Guided by an organizational model of innovation implementation, our central hypothesis is that the addition of a referral system (the community health worker) will be superior to training, technical assistance and clinical reminders alone in increasing implementation effectiveness. The ultimate goal of the proposed research is to provide critical new knowledge to facilitate the widespread implementation, dissemination and sustained utilization of evidence-based tobacco use treatment strategies globally and locally.

R21: Effective Training Models for Implementing Health-Promoting Practices Afterschool

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Over the past two decades, excess dietary intake and low physical activity have contributed to an increase in the prevalence of childhood obesity in the United States, affecting a third of children and disproportionately impacting minority and economically disadvantaged children. (1-3) Given that obesity is a risk factor for health outcomes later in life, including cancer (4, 5), early obesity prevention efforts are critical for population health. (3) Out-of-school time (OST) programs are an important setting for addressing childhood obesity given that 10.2 million U.S. children are enrolled in afterschool. (3, 6) Moreover, OST settings have the potential to address disparities; the highest afterschool participation rates are among low income, African-American, and Latino children. (7) Evidence for OST nutrition and physical activity interventions has grown in recent years; (8-13) the Out-of-school Nutrition and Physical Activity (OSNAP) group-randomized trial recently demonstrated improvements in: children's vigorous physical activity (14), the healthfulness of foods and beverages served (15) and consumed (16, 17), and health-promoting program policies. (18) OSNAP is a multilevel learning collaborative intervention designed to build the skills and knowledge of OST staff for creating health-promoting policy and practice changes. Over one school year, teams set data-driven action plans around 10 health goals and share implementation experiences. Now that the OSNAP intervention has been rigorously tested and effectiveness has been established, there is a *critical need* to evaluate training models to disseminate this intervention for broad population reach and impact.

Our *long-term goal* is to investigate the implementation and dissemination of evidence-based prevention interventions in OST settings. The *overall objective* is to establish the effectiveness of two existing training models for scaling up the OSNAP intervention and understand the influence of context on effective implementation. In collaboration with the YMCA and following the Consolidated Framework for Implementation Research (CFIR) (19), we will conduct a 3-arm group randomized trial to compare two methods of delivering the learning collaborative with a control group. *Our central hypothesis* is that both a facilitated, online training and an in-person training delivered via a train-the-trainer model will produce healthy changes compared to the control group. We seek to test an online training, given its potential to reach a geographically dispersed, largely part-time and low-wage workforce at a lower cost and with greater flexibility than traditional in-person models. The proposal will explore how implementation outcomes (20), such as cost and acceptability, and contextual influences, such as

organizational resources, differ and influence the effectiveness of each training type. Our *rationale* for this proposal is that identifying effective training models will help to scale up OSNAP to improve the nutrition and physical activity of the millions of children served by OST programs each day. The primary outcome is an aggregate healthy practice score derived from a validated observational measure. (21) Secondary outcomes are items from the aggregate score including: offerings of physical activity, screentime, fruits and vegetables, water, juice, whole grains, and sugary drinks from outside the program. Process outcomes include cost, reach, fidelity, feasibility, acceptability, and adaptability. Qualitative and quantitative data on the implementation context (e.g. inner setting, outer setting, and characteristics of individuals) will also be collected. This application addresses the following *specific aims:*

1.Compare the effectiveness and implementation cost of two learning collaborative training models for the OSNAP intervention. We hypothesize that both training models will produce healthy changes in the OST nutrition and physical activity environment, compared to the control group. Secondary outcomes of specific healthy practices and process outcomes, such as cost, will vary by training model.

2.*Use mixed methods to identify actionable factors within the implementation context that influence the effectiveness of the OSNAP intervention delivered by two learning collaborative training models.* We hypothesize that programs with more supportive implementation contexts will more effectively implement OSNAP than programs with less supportive contexts. Qualitative data will help *explain how* aspects of the implementation context influence effective implementation of each training model in greater depth.

We anticipate the following ***expected outcomes.*** First, we will establish the effectiveness of two training models and determine the "best buy" for future dissemination. Next, we will describe actionable aspects of the OST implementation context that influence the uptake of OSNAP and can be incorporated into the design of future training models for maximum impact. These outcomes are expected to have a ***positive impact*** as they will identify effective training models for working with diverse OST programs and staff to scale up for greater population reach and better understand the OST setting for situating future childhood prevention interventions.