

## *Ardmore Institute of Health*

### **Report Abstract for Awarded Grant**

#### Organization Name

University of Oklahoma Foundation on behalf of the OU-Tulsa School of Community Medicine

#### Project Title

Healthy Lifestyles, Healthy Communities: Culinary Medicine Implementation at the OU-TU School of Community Medicine

#### Amount Awarded

\$74,581.00

#### Project Start Date

11/01/2017

#### Project End Date

08/31/2018

#### Anticipated Number of People Impacted

216

#### Actual Number of People Impacted

315

#### Project Overview

This project executed the first phase of a three-year plan to longitudinally integrate lifestyle medicine into the OU-TU School of Community Medicine curricula, which included structured culinary medicine academic lesson plans for: 1) medical students (as supplementary extracurricular activities);

- 2) medical residents (as required activities); and
- 3) second year physician assistant (PA) students (as a new required academic credit course).

Culinary medicine community classes were also piloted for OU-Tulsa staff and community members at large. Between January 2018 and June 2018, the pilot curriculum reached 315 unduplicated persons, exceeding the project's goal of 216 people. Current and future healthcare provider participants included 45 medical students, over 100 medical residents/faculty, and 24 PA students. Community participants included 48 OU-Tulsa staff, 40 community members at large, and 57 Tulsa Police Department officers.

## Results

We focused evaluation efforts on the PA student course and the medical student classes. In our formal evaluation of PA students participating in the 4-week long lifestyle medicine course that included weekly culinary medicine classes, we identified statistically significant gains in self-reported knowledge and self-efficacy for nutrition counseling compared to the control group of PA students not receiving the curriculum. Self-reported knowledge and confidence for the 5As of counseling for the other four lifestyle behaviors that we assessed similarly improved among the intervention group compared to the control group, but to a lesser extent.

Medical students completed baseline and follow-up surveys that were similar to those completed by the physician assistant students. Final outcomes data are currently being analyzed, however baseline data indicate that medical students report the knowledge and confidence in nutrition counseling as the lowest compared to other lifestyle behaviors including alcohol, tobacco, weight loss, and physical activity. We also found that students who adhere to healthier diets report higher confidence and knowledge in nutrition counseling. Qualitative feedback from medical student and resident classes further indicate the pilot program is filling a need for nutrition education in OU-TU SCM medical training curricula, including requests for expansion of culinary medicine class offerings and additional lifestyle medicine topics.

## Use of Funds

Proposed budget: \$ 118,525.99

Actual Expenses: \$ 118,134.01

Actual Revenue: \$ 115,725.99

Over budget: \$ 2,408.02

Our initial budget included \$2800 in food cost expenses, which were to be covered as a donation from a local grocer. Unfortunately, we were unable to secure this donation as anticipated. This resulted in a slight deficit for total 2017-2018 program operating costs.

## Key Challenges

The project's leadership team was presented with several unanticipated growth opportunities within the first few months of the project timeline that could only be partly accommodated with existing project resources. Therefore, the major challenge faced for this program is developing a long-term expansion plan that is sustainably responsive to these needs.

Additional challenges have been minor, and none have served as significant barriers to achieving project activities as proposed in the initial grant submission. These challenges do relate to the project's ability to expand, and include:

- 1) Use of a shared kitchen space that is owned by a community partner. The kitchen has space and functional limitations and there have been occasional scheduling conflicts.
- 2) Community classes for YMCA members are well-attended, but attendance does not consistently meet capacity.
- 3) Although they were highly attended, some medical students stated they felt conflicted between attending a voluntary class versus studying for their STEP 1 exam.
- 4) Community class graduates are requesting ongoing support to integrate culinary medicine into their daily lives, yet we do not have the current staffing or resources to accommodate these requests.
- 5) Completion of a single culinary medicine class is not an effective "dose" for meaningful behavior change.

6) Similarly, medical resident learners need additional exposure to evidence-based literature on lifestyle medicine and nutrition than can be covered in a single culinary medicine class.

7.) Some class participants lack fundamental cooking skills and require additional assistance during class than can be accommodated by two instructors.

8.) Securing sponsorship of direct food costs has been difficult. We anticipated food costs would be covered through a grant from a local grocery store, which was not awarded.

## Key Learnings

We have organized key learnings into four major themes.

First, medical culture can change to promote food as medicine, but it is a process. We learned after the very first class with medical students that the level of culinary and basic nutrition knowledge was even lower than we expected. However, skills and confidence grew quickly with each class and we were pleasantly surprised by how many medical students volunteered to help teach the community classes. This “train the trainer” model is ideal because it further enforces medical students’ personal commitment to lifestyle medicine, while also allowing the project to stretch its resources through a volunteer workforce.

Second, students, faculty, and school leadership are supportive of change. All groups that participated in the pilot project reported high satisfaction with the experience and are requesting expansion of the initiative. Knowing we will need infrastructure to meet these growing demands, we have recognized the need to explore how departmental resources can be used to further support project growth. Administration of the respective participating programs have each committed resources to sponsoring future food costs for classes.

Third, ongoing participant support is needed. Community participants have consistently asked for more classes and additional resources as they work to implement new lifestyle changes. Additionally, academic participants have requested resources that they can use to support patients in making behavior changes. As a result, our next phase of the project will include a new framework for keeping participants engaged, including an infrastructure for delivering participants with access to evidence-based information, motivation and support for their journey.

Finally, further lifestyle medicine curriculum development is needed for medical and PA students at OU-Tulsa. Findings that support this conclusion are detailed in our attached manuscript.

## Recommendations for Future Projects

We would like to continue our partnership with the AIH to further advance our shared vision for a U.S. health system that integrates Lifestyle Medicine as a mainstream component of clinical medical practice.

If funded, the second year of our three-year “Healthy Lifestyles, Healthy Communities” lifestyle medicine implementation project will involve further expansion of culinary medicine course offerings for medical students and residents, as well as additional lifestyle medicine teaching initiatives for medical students, medical residents, and PA students that meet the American College of Lifestyle Medicine competencies for primary care providers. We plan to coordinate with the American Board of Lifestyle Medicine as we work to revise existing courses and introduce new curricula to align with their eligibility requirements for their board certification exam. We are also in the process of exploring our options to collaborate with the OU College of Allied Health to provide physical therapy, occupational therapy, and dietetic students with access to this project.

## Project Lead Name and Title

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