Spicing up Graduate Medical Education

Culinary Medicine
Kristi Artz, MD, CCMS, dipABLM
Werner Absenger, PhD, MS
September 2019
Learning Objectives

• Current state – Culinary Medicine education at Spectrum Health
• Collaboration is critical – partnerships paving the way to success
• The “why” – urgent need driving change in GME
• Building the workforce – growing and sustaining Culinary Medicine
Werner Absenger, PhD, MS

Secchia Institute of Culinary Education
Grand Rapids Community College (GRCC)
Grand Rapids, MI

Saybrook University
College of Integrative Medicine and Health Sciences, Oakland, CA,
Ph.D. Mind-Body Medicine

University of Bridgeport
Nutrition Institute Bridgeport, CT
Masters of Science in Human Nutrition

The University of Texas
MD Anderson Cancer Center, Houston, TX
Department of General Oncology: ABC’s of Integrative Medicine
Clinical Trials Internship

Harvard University, Cambridge, MA
Fundamentals of Neuroscience (Part I), certificate obtained through a course of study offered by HarvardX, an online learning initiative of Harvard University

The University of California San Diego School of Medicine Center for Mindfulness, San Diego, CA
ME-CL Mindful Eating-Conscious Living | A Foundational Professional Training

Center for Mind-Body Medicine, Washington, DC
Cancer Care Fundamentals: Integrative Science & Wisdom
Advanced Training Program in Mind-Body Medicine
Professional Training in Mind-Body Medicine

Mind & Life Institute, Charlottesville, VA
Mind & Life 2019 Summer Research Institute, Exploring Mental Habits: Contemplative Practices and Interventions for Individual and Social Flourishing, Garrison, NY
Spectrum Health GME in Culinary Medicine

- Program launched fall 2017 as a two-week elective for residents in Internal Medicine and Pediatrics
- To date, over 80 residents and fellows have been trained in Culinary Medicine
- Implemented as required curricula for Family Medicine residents and cardiology fellows 2018; Internal Medicine and Pediatrics 2019
- 20 classes planned for this academic year with scope to potentially reach nearly 200 residents/fellows with cumulative 60+hrs of hands-on nutrition education
Doctors schooled in nutrition

Medical residents cook up lessons—and sample the results—in a new Culinary Medicine program.

https://healthbeat.spectrumhealth.org/eat-well-and-be-healthy-resident-doctors-learn-nutrition/
Current GME CM curriculum

Licensed through Tulane University’s Health Meets Food.

Delivery of content tailored to the training program.

Internal Medicine:
- Fats in the Diet (focus on CVD)
- Carbohydrates in the Diet (focus on DM)
- Anti-inflammatory (focus on chronic pain)
Current GME CM curriculum

Family Medicine:
- Year 2 of required CM. Both Residents and Attendings participate.
- Began with introductory topics.
- Condition focused topics this year:
  - CHF
  - Nutrition in pregnancy
  - Sports nutrition
  - Food and neurocognition
Current GME CM curriculum

Internal Medicine:

- Original content created for this group of learners.
- WFPB nutrition for disease reversal, metabolic health, prevention.

Ditching the doughnuts at didactics

Plant-based food generously funded by the “Taste of Lifestyle Medicine” microgrant
What residents are saying…. 

“The relationship between food and health was SO well explained, I learned so much. Thank you!”

“I appreciated the hands-on nature of the learning.”

“It was so much fun and I really enjoyed doing this with my colleagues.”

“All of the lessons were things I could very easily share with patients.”

“It was a good blend of information, education, skill sharpening, and good food.”
Building a Culinary Medicine program for medical education
How it all began…

…lofty ideas on a whiteboard!
Culinary Medicine

Culinary medicine blends the art of cooking with the science of medicine.

The objective is to educate about the powerful influence that food has on health and disease, and through hands-on cooking classes teach skills for preparing meals with nutritional health benefits toward preventing, managing, and reversing chronic disease.
Necessary ingredients

Culinary Medicine faculty including a CM trained clinician (MD or RD) and chef

Operational support

Curriculum and recipes (original or licensed)

A teaching kitchen

Partners:
- Internal and community

https://journals.sagepub.com/doi/10.1177/0890117119845711c
How we grew Culinary Medicine

Defining our shared vision.

Relying on each other’s strengths and competencies.

Assessing community needs.

Determining important areas for growth.

Assessing impact.
Define shared vision

Knowledge + skill.

The science and skill of cooking is critical.

Diet, nutrition & medicine address problems shared by chefs and physicians.

When you bring together chefs and docs with the goal to solve health problems:

- “….then people think differently about food, diet and nutrition and that is the goal!” (Tim Harlan, MD)
Rely on strengths and competencies

Example: shared endeavor between Tulane School of Medicine and Johnson and Wales.

Our version: Spectrum Health Lifestyle Medicine and GRCC Secchia Institute for Culinary Education in partnership with the Grand Rapids Downtown Market.

Just knowledge and/or just skills not enough, but power for change lies in combining the two.
• GRCC faculty, over 89% of whom hold a Master’s Degree or Ph.D.

• As an open access institution, GRCC provides learning opportunities to students at all levels of preparation.

• Our developmental programs help students become college–ready and our Honors Program challenges and motivates high-achieving students to even greater success.
• 26,165 students served in 2017-2018 in credit classes (76%), customized training (21%), job training (1%), apprenticeship (1%), and GED/ESL (1%).

• Over 130 career, transfer and certificate programs.
Impact on Business Community

During the analysis year, GRCC and its students added $413.5 million in income to the Kent County economy, approximately equal to 1.0% of the county’s total gross regional product (GRP).
Student Perspective

In return for their investment, students will receive a present value of $561.9 million in increased earnings over their working lives.

This translates to a return of $4.70 for every $1 that students invest in their education.

The average annual rate of return for students is 16.4%.
Return on Investment to Students, Taxpayers, and Society

For every $1 spent by...

<table>
<thead>
<tr>
<th>Students</th>
<th>Taxpayers</th>
<th>Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4.70</td>
<td>$4.00</td>
<td>$12.40</td>
</tr>
</tbody>
</table>
Assess community needs and resources

Childhood obesity top priority for Kent county.

Spectrum Health pivot toward providing true “healthcare” not just “sickcare.”

Uncover resources that require low investment:

- Partner with local culinary school.
- Community centers with kitchens.
- Grand Rapids Downtown Market with full hands-on teaching kitchen.
Downtown Market Teaching Kitchen
Identify growth potential and align

Culinary students need nutrition education.

Doctors and healthcare professionals need culinary education.

Invite stakeholders into the kitchen to experience firsthand and garner support!!!
Engage health system leaders and teams

Offer team building events.

Create CME opportunities.

Seek grant funding to scale.

The GRCC America’s Promise grant and Michigan Health Endowment Fund Nutrition and Healthy Lifestyle grants critical to growth of our program.
Assess impact

As a Tulane partner site, we utilize a validated tool to assess medical professional as well as community members on the following:

- Attitudes and behaviors around healthy eating
- Abbreviated FFQ
- Competencies and comfort around providing dietary education (med professionals only)
# Assess acceptability

## Table 1. Acceptability Results of Culinary Medicine Programming at Spectrum Health.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average ratings on a scale of 1 = strongly disagree to 5 = strongly agree (N = 296)</td>
<td></td>
</tr>
<tr>
<td>The instructor(s) presented the material clearly.</td>
<td>4.89</td>
</tr>
<tr>
<td>The instructor(s) demonstrated he or she knew the subject matter well.</td>
<td>4.95</td>
</tr>
<tr>
<td>The recipes were easy to follow.</td>
<td>4.73</td>
</tr>
<tr>
<td>The food was flavorful and tasted good.</td>
<td>4.82</td>
</tr>
<tr>
<td>The facilities were appropriate and acceptable for the class.</td>
<td>4.95</td>
</tr>
<tr>
<td>I learned valuable information.</td>
<td>4.89</td>
</tr>
<tr>
<td>I learned valuable skills.</td>
<td>4.77</td>
</tr>
<tr>
<td>The class could help me be healthier.</td>
<td>4.84</td>
</tr>
<tr>
<td>The class could help me make changes related to my diet.</td>
<td>4.70</td>
</tr>
<tr>
<td>I would recommend this class to others.</td>
<td>4.90</td>
</tr>
<tr>
<td>Overall class evaluation average</td>
<td>4.84</td>
</tr>
</tbody>
</table>
Addressing the knowledge gap in medical education
The “why” of Culinary Medicine

- Poor nutrition is a significant risk factor for chronic disease conditions\(^1\)
- In 1997, a survey of 19 US hospitals concluded that >$1000 per patient would have been saved with higher-quality nutrition care\(^2\)


The “why” of Culinary Medicine

• Nutrition education and training is inadequate\(^3\)

• Recommended minimum 25 hours nutritional education\(^1\)

• 71% of medical schools in the US fail to provide this recommended 25 hours of nutrition education to their students\(^1\)

• 36% provide less than half of that\(^1\)


How We’re Addressing This

- Lack of nutritional education for medical students and doctors-in-training must change
- Health systems and medical schools must commit to building these clinician competencies
- Challenge the status quo with research, show results:
  - Congestive Heart and Nutrition Go Excellent – the CHANGE study
  - Medically Tailored Meals study
Our team of rock stars
Our Programming in Action
Our Programming in Action, cont.
Our Programming in Action, cont.
Our Programming in Action, cont.
THE FOLLOWING INTERVIEWS HAVE BEEN APPROVED FOR NEWBS AND PROS ALIKE

THE FOLLOWING INTERVIEWS HAVE BEEN RATED

NEWBS AND PROS

THE INTERVIEWS YOU ARE ABOUT TO SEE ARE BASED ON ACTUAL EVENTS IN KITCHEN LABORATORIES

N & B

THE EVENTS ARE DESCRIBED BY REAL PHYSICIANS, NOT ACTORS. NO PHYSICIANS, DIETITIANS, OR CHEFS WERE HARMED DURING THE KITCHEN LABS
Feedback Thus Far
Feedback Thus Far, Cont.
Feedback Thus Far, cont.
Feedback Thus Far, cont.
Feedback Thus Far
About Culinary Medicine at Spectrum Health

Culinary Medicine
Blending the art of cooking with the science of medicine through hands-on cooking classes.

https://youtu.be/YMxbsBF5v58
### Spectrum Health Nutrition Services: Culinary Boot Camps

<table>
<thead>
<tr>
<th>Culinary Boot Camp Module 1:</th>
<th>Culinary Boot Camp Module 2:</th>
<th>Culinary Boot Camp Module 3:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employability Skills for Food Service - 8 hrs</td>
<td>ServSafe Certification - 16 hrs</td>
<td>Basic Knife Skills - 12 hrs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Culinary Boot Camp Module 4:</th>
<th>Culinary Boot Camp Module 5:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culinary Math – 6 hrs</td>
<td>Introduction to Culinary Medicine – 4 hrs</td>
</tr>
</tbody>
</table>
Join one of our 2020 Plant-Based classes!

**Enter discount code FFH10 when registering**
Mindfulness Skill Training in Medicine (MSTM):
A 4-Session Evidence-Based Self-Care Training Program
for Medical Professionals

Werner Absenger, PhD, MS and Kristi Artz, MD, CCMS, dipABLM

SPECTRUM HEALTH