



Culinary Medicine in a Food Is Medicine Framework

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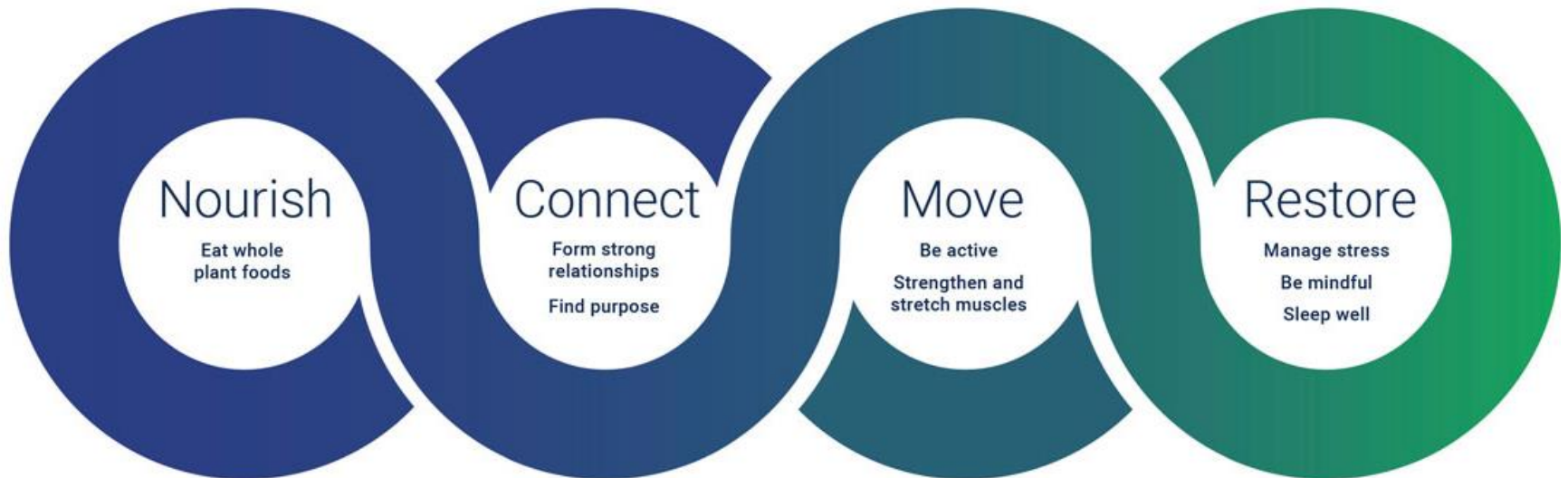
OCTOBER 27, 2023



Lifestyle
Medicine HQ

Pillars of Health

Lifestyle Medicine applies evidence-based lifestyle approaches as the primary modality to treat, reverse, and prevent chronic disease.



TIME 2030
← BACK TO HOME

How Nutrition Education for Doctors Is Evolving



FOOD & DRINK HEALTH DIET FOOD AND COOKING

With Culinary Medicine, Doctors Are Finally Learning About Food

It picks up where basic (and brief) med school nutrition education leaves off, and it's making doctors better at their jobs.

YOUR HEALTH

If Doctors Learned To Cook, They Might Give Better Advice

December 26, 2015 · 6:05 AM ET

By Christina Farr

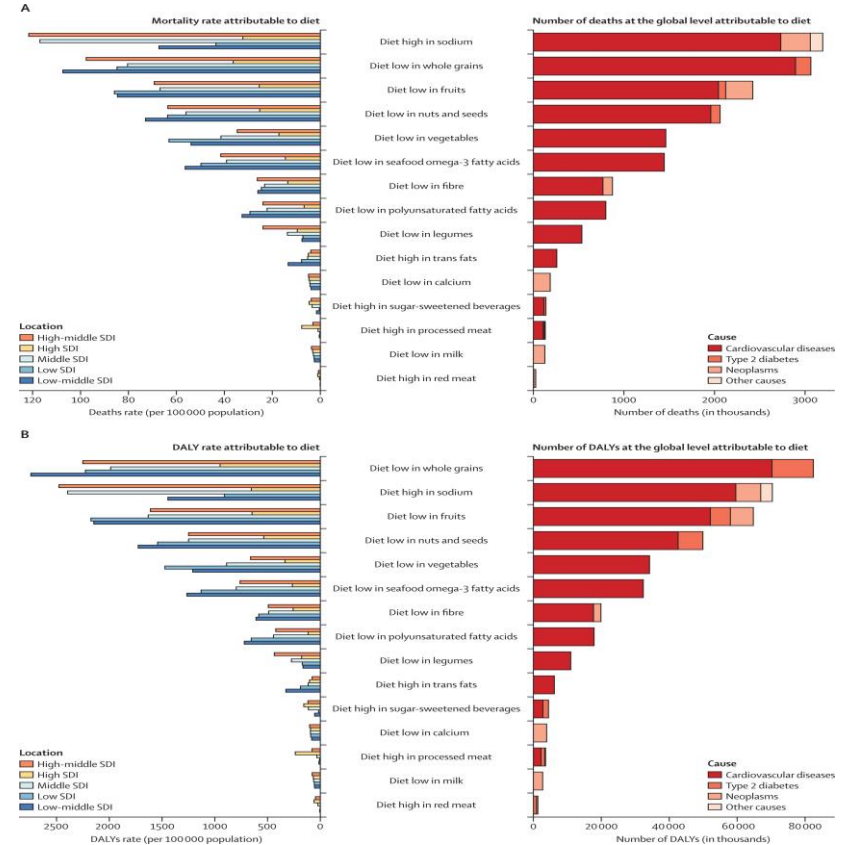
FROM KQED



On average, how many hours of nutrition education do doctors receive in medical school?

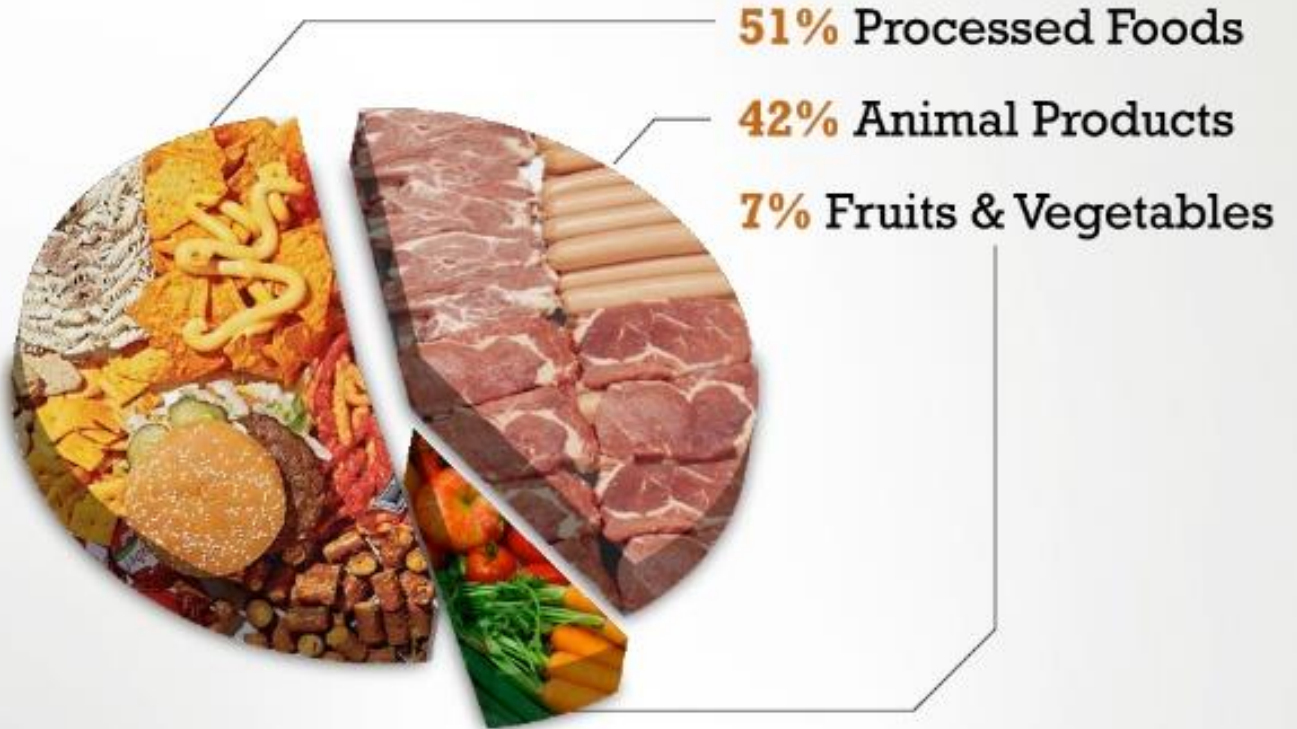


Death and Disability Adjusted Life Years affected by poor diet quality

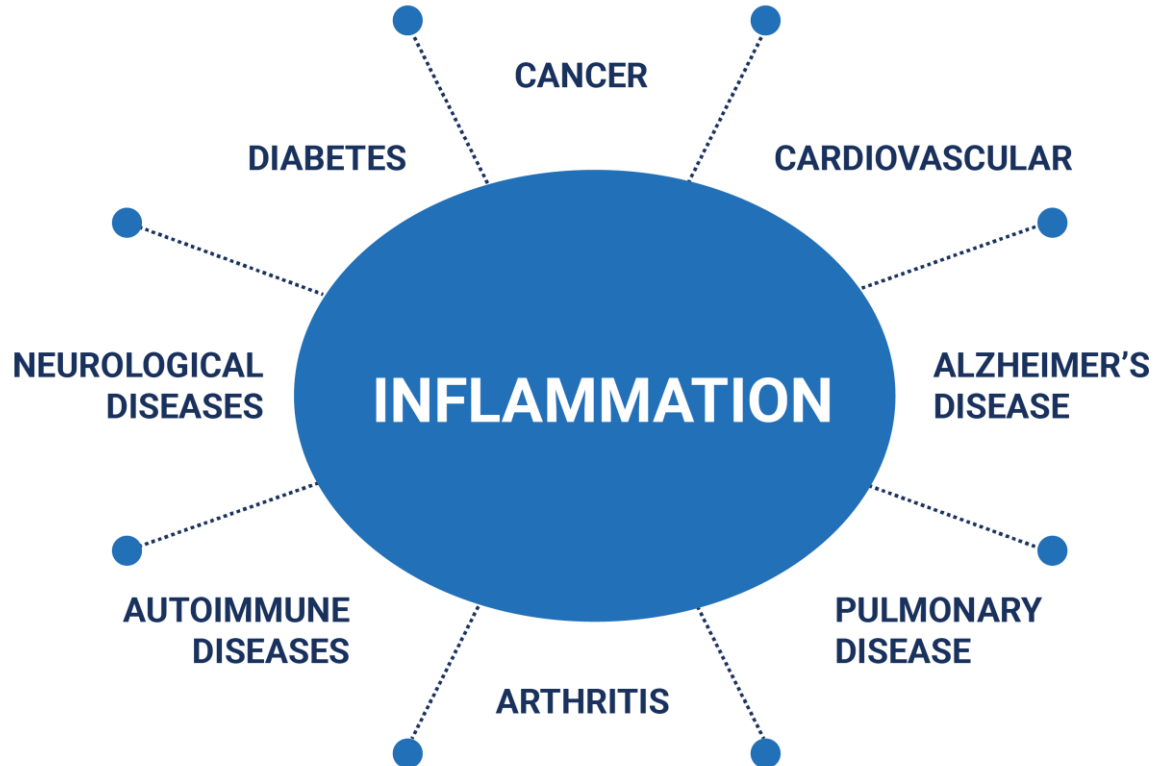


The S.A.D. diet

The
lose-lose
diet.



Diet-related disease and inflammation





Evidence-based



Health-promoting



Planet-friendly



Low-cost



Delicious



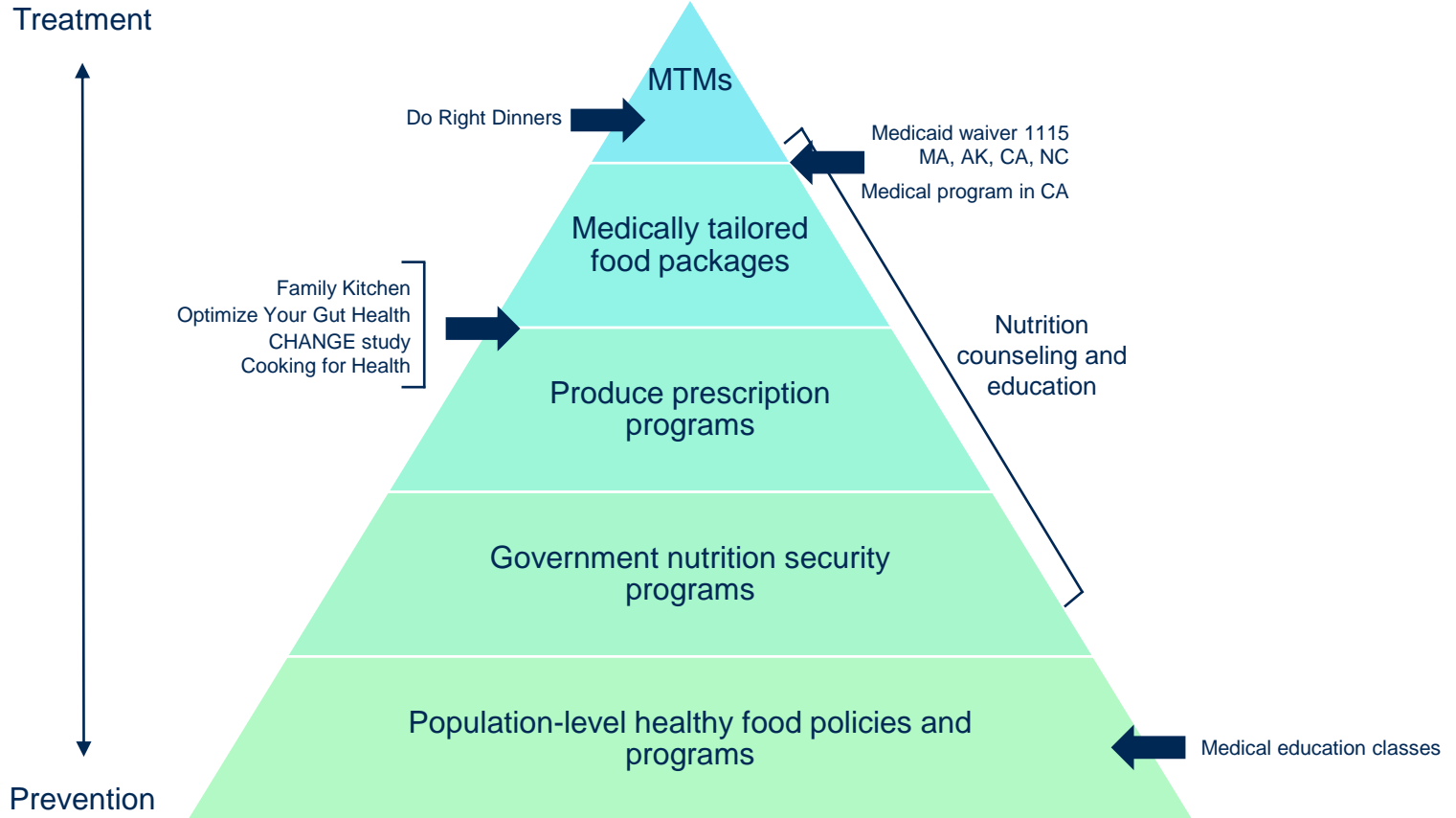
Hands-on

Food Is Medicine

What is Food is (as) Medicine?

It is the intersection of public health, nutrition, and healthcare.





A quick primer on Value Based Care

“Value-based care encompasses a broad variety of payment models in which health care providers are incentivized to provide better care at lower costs.”
(Muhlestein et al, 2022)



Value = excellent patient outcomes at the lowest possible cost



Payment models are changing to promote value over volume

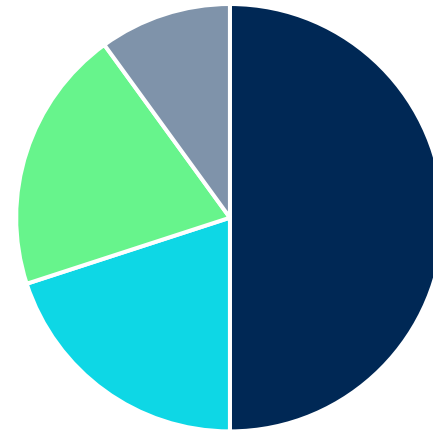


Understanding “biological cohorts” to drive impact

Right level of intervention for the right patient population

- 10% of the population accounts for 65% of health care spending within Complex Episodes of Care
- Full Onset Chronic Condition spend ~\$34k/year, about 8x more than Early Onset CC
- Healthy Majority spend on average \$250/year (difficult to demonstrate value here)

Biological Cohorts within a Population



- Healthy Majority
- Early Onset CC
- Full Onset CC
- Complex Episodes of Care

Health plans are taking action

Blue Cross of NC + Pack Health partnered on 6-month medically tailored groceries for food insecure members with diabetes (Lumpkin et al., 2023)

NEJM
Catalyst

JOURNAL ▾ EVENTS ▾ INSIGHTS COUNCIL ▾ TOPICS ▾ ABOUT 🔍

ARTICLE

f t in e

Impact of Food Delivery and Health Coaching on Outcomes and Costs of Care: A Payer's Perspective

Authors: John R. Lumpkin, MD, MPH, Lori H. Taylor, Aiko Hattori, PhD, and Jenefer M. Jedele, PhD, MSc [Author Info & Affiliations](#)

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Summary

Blue Cross and Blue Shield of North Carolina (Blue Cross NC) launched a 6-month food delivery and health coaching pilot among low-income members with type 2 diabetes as a proof-of-concept of the feasibility and potential efficacy of a payer-delivered food insecurity intervention. Participants received \$60 in groceries delivered to their home twice per month. Health advisors provided weekly support to identify, refine, and advance toward achieving one or more health goals. Baseline and 3- and 6-month



Food Is Medicine is having a moment...finally!



What is Culinary Medicine?

Combines the
culinary arts with
the science of
medicine

“...a heightened urgency to identify novel strategies whereby individuals, families and communities can learn how to *access and prepare* affordable and nutritious foods in combination with *evidence-based guidance* about diet and lifestyle to help improve health status while *addressing rising health care costs* and issues of nutrition insecurity. ”



Current State of the Evidence for Culinary Medicine



Academic-Community Collaboration using a train the trainer model with Family Medicine residents and local middle schools. N=23 residents using asynchronous + hands-on curricula. Improvement in confidence in nutrition counseling (P=.004), cooking skills (P=.018), and knowledge of PB diet (P=.002) (Shannahan et al., 2023)



vCulinary Medicine intervention for patients with diabetes and food insecurity N=35 involved in 9-month food rx plus culinary education showing reduction in Hba1c (-1.82, P=.028) with improvement in a variety of behavioral outcomes including meal planning, cooking at home and increase in F/V intake (Sharma et al., 2021)



Medical trainees and vTeaching Kitchen for counseling on CVD risk factors with N=1433 (519 in vCM, 914 in traditional nutrition education); those involved with vCM had higher proficiency in counseling on lifestyle factors including Med Diet (Razavi et al., 2022)

Factors influencing food choices



Lack of nutrition knowledge



Lack of availability and price of high quality, healthful food



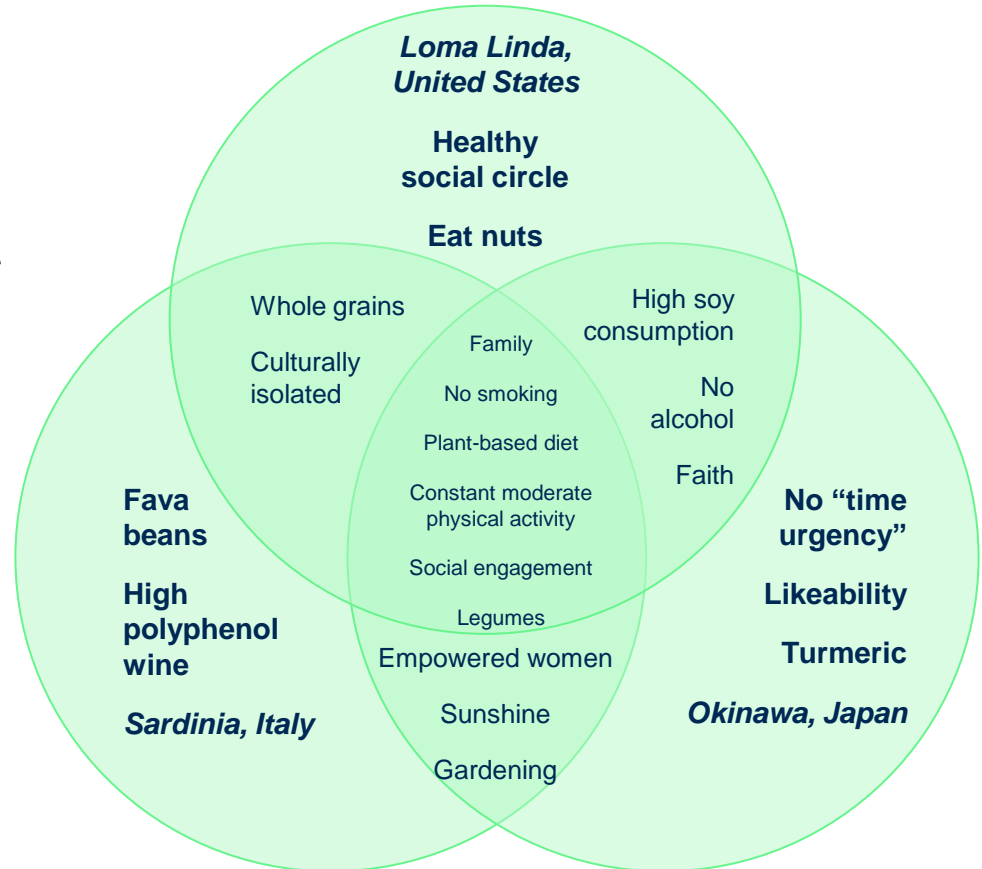
Palatability



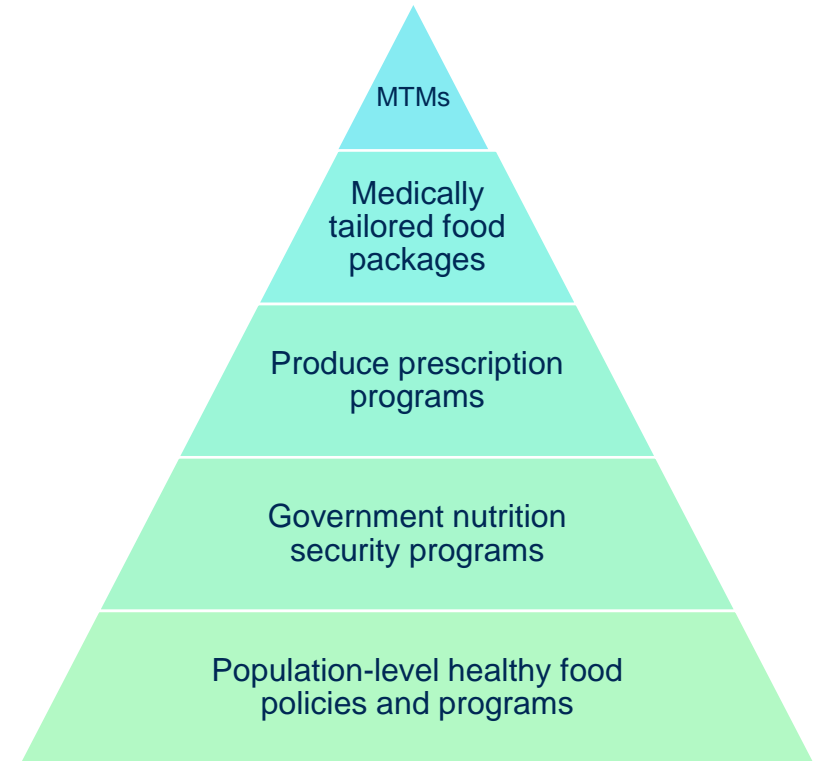
Cultural and community norms

Creating health

Lessons learned from *Blue Zones*



Examples of Food Is Medicine at Corewell Health



Grant funded MTM demonstration project for patients with CHF

**Statistically significant
improvement in quality-of-
life scores and sodium-
related food quality
scores**

Goals of “Do Right Dinners”

- Improve access to nutritious foods
- Reduce food insecurity
- Increase knowledge of following a low sodium diet
- Reduce hospital readmission rates
- Improve quality of life markers

Cooking for Health Shared Medical Appointment Series

- Designed for individuals with obesity and/or chronic disease
- 6-month physician and chef led program inclusive of 5 Shared Medical Appointments with coaching from Registered Dietitian
- Implements a food as medicine treatment plan to better manage or reverse chronic disease



Family Kitchen Program

- Developed from the 2017 Community Health Needs Assessment (CHNA)
 - Childhood obesity
 - Poor health behaviors around energy balance
 - Food insecurity
- Aligns with the 2020 CHNA
 - Health inequalities
 - Access to healthcare
- **Over \$2 million dollars invested in the program to date**
 - With generous support from Michigan Health Endowment Fund, Rite Aid Healthy Futures and in-kind contributions from Corewell Health



Family Kitchen

Making healthy eating easy, fun and delicious for the whole family!

- Purpose: improve diet quality and reduce risk for chronic disease
- Tailored to reach underserved families with children aged 7 to 17
- Partner with providers and community agencies to reach and engage participants
- 3 programs:
 - 1) English, 5-class program, offered virtually and in-person
 - 2) Spanish, 5-class program, offered in-person
 - 3) Graduate classes, 1-off classes for program graduates, offered virtually and in-person



The 5-class programs include:

- Four hands-on cooking classes
- Nutrition education and health coaching
- Support from other families to share progress and celebrate success
- A healthy and delicious meal at the end of each cooking class!

Developing Culturally Relevant Recipes

- Partnered with local culinary school
- Team led by Chef Wilfredo Barajas and Dr. Miranda Hillard
- Developed 40 culturally relevant recipes
 - Hibiscus Water
 - Huevos Rancheros
 - Mushroom Tacos Al Pastor
 - Patatas Bravas with Smoky Tomato Sauce
 - Chayote and Apple Salad
 - Pozole
 - Jicama Salad
 - Rice with Pigeon Peas
 - Fruit Juice Spritzer



Referral Pathways

- 1) Medical Provider Referral
- 2) Community Partner Referral
- 3) Self-Referral



Family Kitchen

Family Kitchen makes healthy eating fun, easy, and delicious for the whole family.

Learn step by step how to improve the diet and health of your family for a lifetime!

Cook and learn alongside chefs, coaches, and other families from your home kitchen. Virtual classes are interactive and fun for adults and children. Making change with small family groups is easier and more fun!

This 5-class program, offered every other week, is free! Families with at least one child aged 7 to 17 and one adult can enroll.

Program Details

- 5 classes led by a chef and health coach
- You'll learn and practice basic cooking skills
- Learn to make healthy dishes that are easy, affordable, and tasty
- Classes are held virtually on Zoom or in-person at our teaching kitchen in Grand Rapids

What's in it for you?

- Recipe ingredients are provided at no cost for each cooking class
- A healthy meal is ready to eat at the end of each cooking class

Benefits of the Program

- You'll learn how food and nutrition affect your health
- New or improved cooking skills to support healthy eating habits
- More confidence as you shop, cook and prepare meals as a family

To learn more or enroll:

Call 616.486.1417

Email FamilyKitchen@SpectrumHealth.org



Family Kitchen Program Overview

Class names courtesy of our child participants!

Class 1 *Welcome to Family Kitchen*

Class 2 *Less Meat, Forget Fried*

Class 3 *Sugar Stinks*

Class 4 *Cool Beans*

Class 5 *Plant Powered*

Family Kitchen Graduate Class Series

*Bringing families back together to
refresh their knowledge, skills and
motivation for healthful cooking at home*



Family Kitchen Graduate Class Topics

Plant-Based
Proteins

Cooking on
a Budget

Smart
Snacking

Build a Bowl
Workshop

Freezer
Frenzy

That's a
Wrap

Cooking in a
Hurry

Baking
Basics

Italian
Cooking

Lunch Ideas

Cooking 101

Holiday
Cooking

Link to Community



**Grand Rapids
Urban League**



GRAND RAPIDS
**African American
Health Institute**



**Kids' Food
Basket**



COMMUNITY
FOOD CLUB



HISPANIC CENTER
of western michigan



children's healing center®





**Family Kitchen and Kids' Food Basket:
Together on the Farm and in the Kitchen**



Family Kitchen Program Enrollment

	English	Spanish	Total Program Enrollment
Families	123	33	156
Adults	147	39	186
Children/ Adolescents	223	50	273
Total Individuals Enrolled	370	89	459

Reflects September 2021 through August 2023

	Graduate Classes
Families	157
Adults	200
Children/ Adolescents	268
Total Individuals Enrolled	468

Family Kitchen Program Acceptability

Likelihood of participants recommending the program to a friend:	N	Very Unlikely	Unlikely	Neutral	Likely	Very Likely
English/Graduate Programs	67	1 (1.5%)	0 (0%)	0 (0%)	10 (14.9%)	56 (83.6%)
Spanish Program	14	0 (0%)	0 (0%)	0 (0%)	1 (7.1%)	13 (92.9%)

Reflects September 2021 through July 2022

Family Kitchen Program Acceptability

Participant response to "I will make changes to my diet as a result of this program"	N	Very Unlikely	Unlikely	Neutral	Likely	Very Likely
English/Graduate Programs	67	0 (0)	0 (0)	6(9%)	29 (43.3%)	32 (47.8%)
Spanish Program	14	0 (0)	0 (0)	0 (0)	3 (21.4%)	11 (78.6%)

Family Kitchen Program Diet Quality

	Pre-Intervention	Post-Intervention	Difference
Average Diet ID Quality^a	5.9	6.7	+0.8
Average Diet ID HEI Score^b	62.5	71.2	+8.7*
Added Sugars (g)^c	44.1	35.4	-8.7
Sodium (mg)	3103.9	2886.6	-217.3
Saturated Fat (g)	25.4	19.5	-5.9

Reflects September 2021 through July 2022

^a Diet Quality per 1 to 10 scale

^b Healthy Eating Index 2015 score per 1 to 100 scale

^c Nutrients represented as value and percent (%)

* $t_{53} = 2.6$, $p = .005$

On average, how many hours of nutrition education do doctors receive in medical school?



Answer

19 hours

“Most US medical schools fail to provide the recommended minimum 25 hours of nutrition education.”

Adams et al., 2015



Accelerating Nutrition Education in Graduate Medical Education



Medical Resident Lifestyle and Culinary Medicine Education



- Lifestyle Medicine Residency Curriculum: year 4 for Family Medicine and Year 2 for Pediatrics
- Highly engaged Medical student interest group with plans to formalize an elective with MSU-CHM
- Recently formed LMIG for practicing providers pursuing LM certification
- 6 Corewell Health Residency Groups engage in CM education – 160 residents in 2023
- Key referral pathway for the Family Kitchen program
- Recruitment tool for residency programs

Medical Resident Culinary Medicine Education

92%

Of medical residents
would recommend
Culinary Medicine for
their patients

82%

Of residents agree or
strongly agree that they
would make changes to
their diet as a result of the
classes

91%

Of residents agree or
strongly agree that they
learned valuable
information from the
classes

Sample topics covered in programming

- Food and Neurocognition
- Pediatric Diet
- Weight Management and Portion Control
- Myths, Fads and Diets
- Food Allergy/Intolerance
- Fats in the Diet
- Anti-Inflammatory Diet
- Geriatric Diet
- Sodium, Potassium and Hypertension
- Cancer Nutrition
- Nutrition and Pregnancy
- Food Allergies
- Protein, Amino Acids, Vegetarian Diets and Eating Disorders
- Celiac Disease



Culinary Medicine Scholar Program



- Program is for residents that are interested in developing expertise, skills, and certification in culinary medicine
- Currently have 6 residents in the program (Pediatrics, Family Medicine and Internal Medicine)
- As part of this program, scholars complete the Certified Culinary Medicine Specialist (CCMS) program through Health meets Food
- Co-teach at medical resident and community culinary medicine classes
- Complete a culinary medicine focused research project

Medical Resident Testimonials

- “I enjoyed learning different cooking techniques and being able to put what I learned into action cooking a meal in the kitchen. It was nice to be exposed to ways to make foods more healthy so this can be translated into patient care.”
- “I love learning how to use foods to support a healthy lifestyle. I love the hands-on experience of making and getting to try these recipes!”



Thank you

Contact

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use the QR code on this slide

www.linkedin.com/in/kristi-artz-md

Join us in the teaching kitchen by
following this link for our upcoming
classes [here](#)



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