



Lifestyle Medicine To Treat and Reverse Chronic Illnesses

UCLA Family Medicine Grand Rounds Presentation
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Disclosure

- None
- Other than wanting to help our patients be healthy

Learning Objectives (special emphasis on primary care)



At the end of the session, attendees will be able to:



1. Distinguish the difference between Health and Wellness



2. Recognize the benefits of lifestyle medicine for chronic illness self-management



3. Explain the relationship between obesity and chronic diseases

Outline

- Health vs Wellness
- Chronic conditions that are related to lifestyle factors, evidence-based
- American College of Lifestyle Medicine (ACLM) – can help the implementation of lifestyle medicine locally
- Six pillars of lifestyle medicine
- Examples of lifestyle medicine to treat/reverse chronic diseases
- Lifestyle Medicine in DHS
- Lifestyle Medicine in Training Programs

Name this couple

Jack and Elaine LaLanne
Jack LaLanne died at 96
Elaine LaLanne alive and healthy at 96



Change the Paradigm

- How can we stress wellness and lifestyle medicine in our interactions with patients to help treat chronic diseases?
- How can we stress wellness and lifestyle medicine in our teaching of medical students, residents and other trainees?

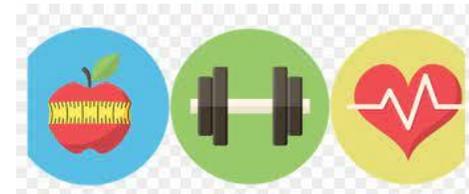
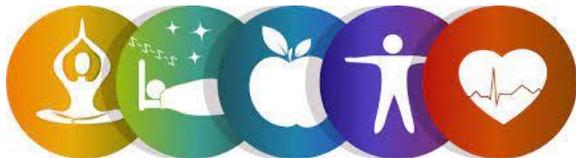
Health vs Wellness

Health

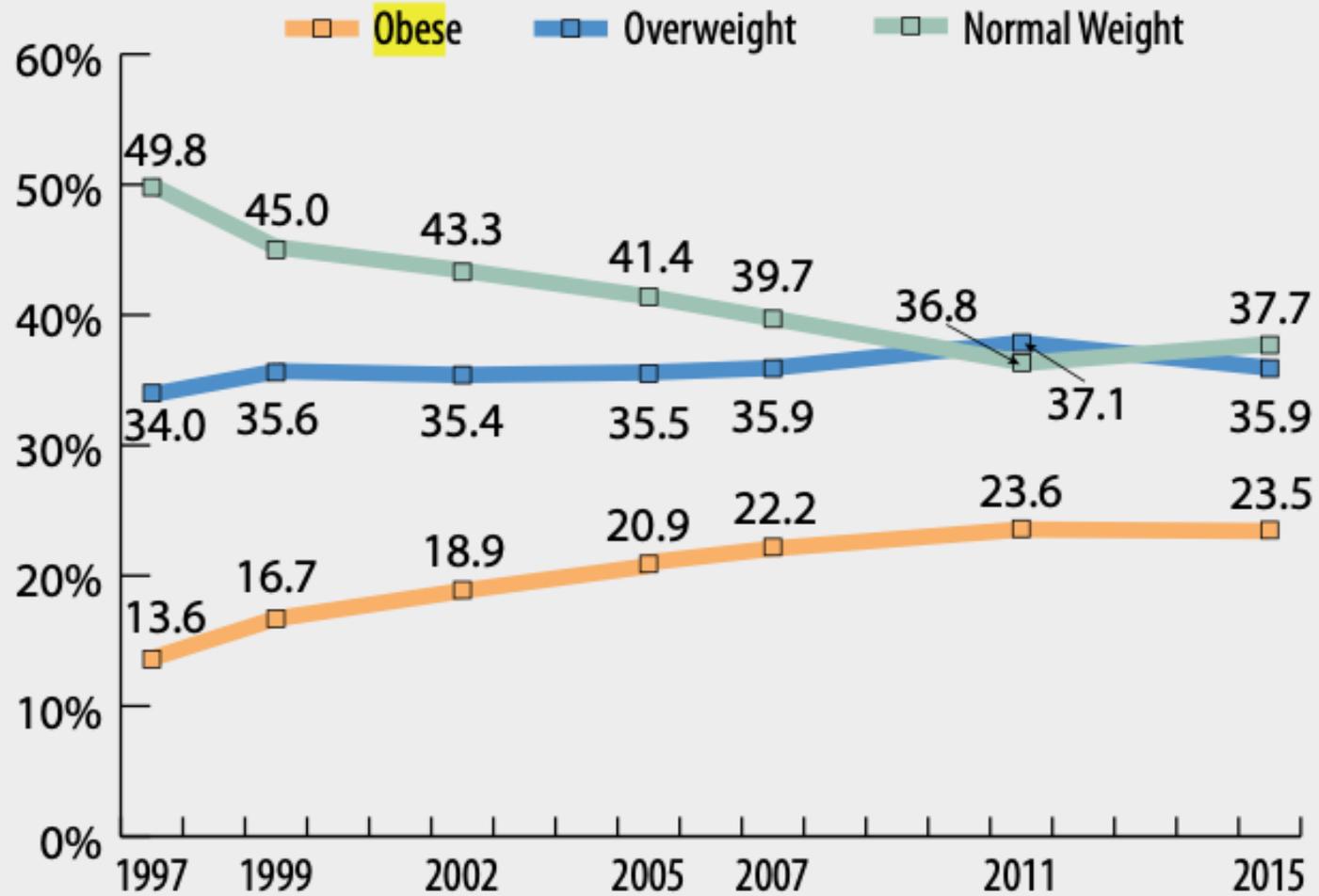
- Health means the absence of both physical and mental diseases.

Wellness

- Wellness, on the other hand, is the state of living a healthy lifestyle.



Percent of Adults Who Are Obese, Overweight and Normal Weight, 1997-2015



Lifestyle Medicine

- Lifestyle medicine is a medical specialty that uses therapeutic lifestyle interventions as a primary modality to treat chronic conditions including, but not limited to, cardiovascular diseases, type 2 diabetes, and obesity.
- Lifestyle medicine-certified clinicians are trained to apply evidence-based, whole-person, prescriptive lifestyle change to treat and, when used intensively, often reverse such conditions.

American College of Lifestyle Medicine (<https://lifestylemedicine.org>)

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A society of health professionals united to **reverse** chronic disease

Discover evidence-based education, practice resources and networking that support the therapeutic use of lifestyle change as the foundation of health and healthcare.

By All Clinicians

Does this describe your patients (or you)?

1. Non-smoker
2. Healthy weight
3. Five Fruits & Veggies/day
4. Exercise 30 min/day five times/wk

80% reduction in chronic diseases

Ford, ES, et al. Healthy living is the best revenge. Arch intern Med 2009; 169: 1355-62.

Less Than 3 Percent of Americans Live a "Healthy Lifestyle"

Statistics from a Mayo Clinic study

Mayo clinic researchers looked at data from a representative sample of 4,745 people who participated in the National Health and Nutrition Examination Survey.

They found that less than 3 percent of Americans live a "Healthy Lifestyle" defined by four qualifications:

1. Moderate or vigorous exercise for at least 150 minutes a week
2. A diet score in the top 40 percent on the Healthy Eating Index
3. A body fat percentage under 20 percent (for men) or 30 percent (for women)
4. Not smoking

Mayo Clinic Proceedings, April 2016, Volume 91,
Pages 432-442



The Six Pillars of Lifestyle Medicine and a Deeper Dive into Plant-based Eating

Pillar 1 – Healthful Eating of Whole, Plant-based Food

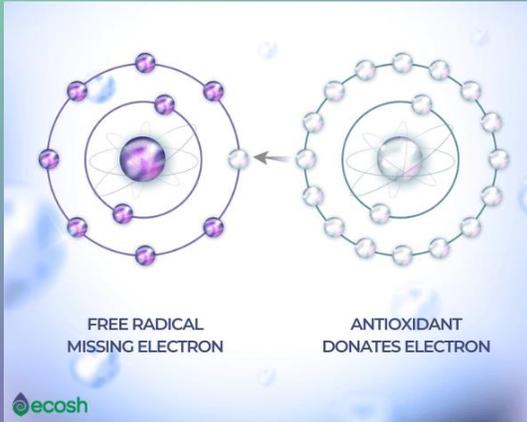
What is a whole foods, plant-based (WFPB) diet?

- Whole foods: Single ingredient foods, unprocessed or minimally processed, as they exist in nature
- Plant-based: In its broadest sense, >95% of calories coming from fruits, vegetables, whole grains, and legumes



The Power of Plants

- Antioxidants
- Inflammation
- Gut bacteria



FREE RADICAL
MISSING ELECTRON

ANTIOXIDANT
DONATES ELECTRON

ecosh

ANTIOXIDANT BENEFITS:

- Slow aging processes
- Lower cholesterol
- Decrease risk of atherosclerosis
- Reduce risk of heart disease and stroke
- Slow Alzheimer's disease
- Decrease the chance of developing tumors
- Reduce the damage caused by cigarette smoke, etc.



WFPB Diets Impact Disease States

- Heart disease
- Renal disease
- Autoimmune conditions – IBD, Lupus, RA, Psoriasis, MS
- High cholesterol
- Hypertension
- Cancer
- Dementia and Alzheimer's
- Diabetes
- Diabetic Neuropathy
- Weight management
- Asthma
- Migraines
- Erectile dysfunction
- Fibromyalgia
- Overall morbidity and mortality

Steiber, 2011
Grant, 2014

Additional benefits of WFPB Diets

- Mood
- Psychological wellness
- Energy levels
- Memory
- Cognitive function
- Sleep
- Acne
- Hormone balance
- Psychological wellness
- Sexual wellbeing
- Less Menstrual Pain
- Disease prevention



Do Americans Eat fruits and vegetables?



75 percent of Americans Say They Eat Healthy – Despite Evidence To The Contrary

NPR poll conducted with Truven Health Analytics, which surveyed a nationally representative sample of 3,000 U.S. adults in May, 2016.

One question they asked: How healthy would you consider your eating habits to be? About 75 percent of respondents ranked their diets as good, very good or excellent.

Fact:

According to the 2020–2025 Dietary Guidelines for Americans, about 90 percent of the U.S. population does not meet the recommendation for vegetables and 80 percent consume too little fruit.

Pillar 2 – Increase Physical Activity

- Types of Exercise
- Aerobic (cardiovascular)
- Strength
- Flexibility
- Balance
- Activities of daily living – Not sitting



Physical Activity

- Physical Activity Guidelines for Americans and Exercise is Medicine guidelines from American College of Sports Medicine are good resources
- Recommendations for adults 18-64 years old: at least 150-300 minutes of moderate intensity, or 75-150 minutes of vigorous activity weekly along with two or more days weekly of strength training
- Only 24% of Americans achieve the recommendations
- 25.4% of Americans are inactive



Pillar 3 – Improve Your Sleep

- Performance is typically best with 7-8 hr/night.

Factors to consider:

- Stress
- Substance use (caffeine, alcohol)
- Timing of meals
- Medication side effects
- Sleep environment



Sleep

- National Sleep Foundation recommends 7-9 hours of sleep a day for most adults
- 1 in 3 adults do not get enough sleep
- Suspect sleep deprivation in any patient with a clinical complaint of daytime hypersomnolence who reports consistently getting less than 7 hours of sleep per night
- Nurses and other essential workers who get < 7 hours sleep/night have increased risk of burnout
- Sleep $< 6-8$ hours a night increases risk of early death by 12 percent

Pillar 4 – Manage Stress

Stress Management

- Prayer
- Synagogue/church/mosque
- Forgiveness

Nature Therapy

- Sunshine
- Fresh Air

Rest & Renewal

- Each moment
- Daily
- Weekly
- Annually



Stress Management

- Stress defined as “any demand for change.”
- Stress response is a cascade of physiological events that can lead to improved health and productivity **or** anxiety, depression, obesity, immune dysfunction and poor health outcomes
- Assisting patients to recognize maladaptive stress responses and transform them into responses that improve health and well-being is an essential part of LM practice at all levels.

Pillar 5 Form and Maintain Relationships

Social Support

- Family
- Friends
- Groups and networks

Spiritual support

- Commune with others
- Moais are a friendship tradition from Okinawa, Japan – essentially, it is a friend circle that starts in childhood. Moais offer emotional and moral support, and the effect on people's health can be remarkably positive.



Social Connection

- Humans are social beings-need for social connection is a basic survival urge hardwired into our nervous systems
- Social relationships are as important to health as diet, exercise and smoking habits. In fact, the quality of our relationships may determine whether or not we choose to engage in healthy lifestyle behaviors – the Rosetto effect
- Unhealthy social relationships, isolation and loneliness are associated with increased mortality and morbidity especially among individuals with established lifestyle-related diseases

The Rosetto effect



- The **Roseto effect** is the phenomenon by which a close-knit community experiences a reduced rate of heart disease. The effect is named for [Roseto, Pennsylvania](#).
- The Roseto effect was first noticed in 1961 when a local Roseto doctor encountered [Stewart Wolf](#), then head of Medicine of the [University of Oklahoma](#), and they discussed, over a couple of beers, the unusually low rate of [myocardial infarction](#) in the [Italian American](#) community of Roseto compared with other locations
- "Roseto effect," describes a close-knit community experiences a reduced rate of heart disease and extended life span. As Malcolm Gladwell indicated in his book Outliers – the high quality of interpersonal relationships was the reason for the Rosetans' long and happy lives.
- Social relationships are as important to health as diet, exercise and smoking habits. In fact, the quality of our relationships may determine whether or not we choose to engage in healthy lifestyle behaviors – the Rosetto effect

Blue Zones

Blue Zones was founded by adventurer and author Dan Buettner, an explorer who once circled the globe on his bicycle to earn three Guinness Book of World Records. He has discovered five places in the world – dubbed blue zones – where people live the longest, and are healthiest



[Icaria, Greece](#)



[Loma Linda, California](#)



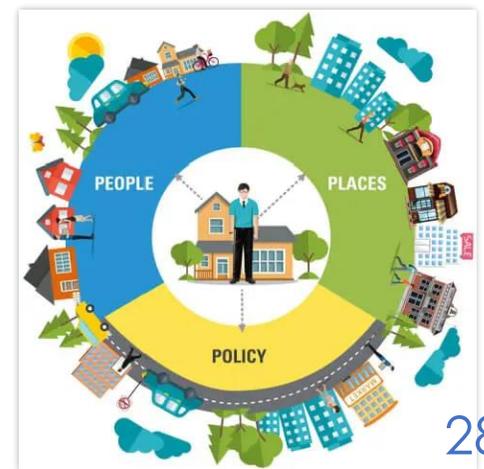
[Nicoya, Costa Rica](#)



[Sardinia, Italy](#)



[Okinawa, Japan](#)



Pillar 6 – Avoid Tobacco and Others Exposures (modified to include avoiding risky behaviors)

Dangerous exposures may include:

- Tobacco
- Alcohol
- Illicit drugs
- Pollutants
- Chemicals and preservatives



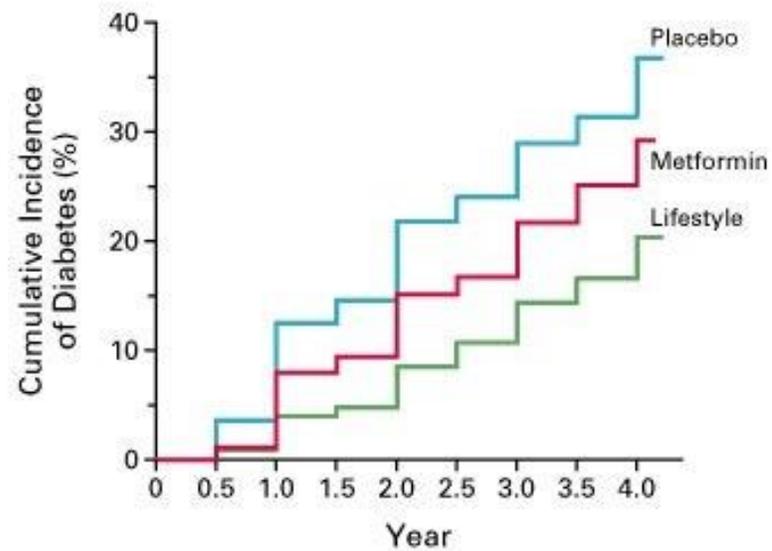
Substance Use

- Addiction is a chronic characterized by compulsive, or uncontrollable use of a substance or behavior despite harmful consequences
- Over 40 million Americans meet clinical criteria for addiction to nicotine, alcohol or other drugs
- Another 80 million may not be addicted but are risky users – more than number of people with cancer, diabetes or hypertension
- Presence of an addiction or risky use doubles risk of overdose, motor vehicle crashes, traumatic injuries and chronic conditions, such as arthritis, chronic pain, hypertension, heart disease, stroke, diabetes, and asthma

Pillar 6A: Avoiding risky behaviors

- Gun Safety
- Suicide Prevention
- Avoid Gambling
- Accident Prevention
- Safe Driving

Lifestyle change has the power to prevent disease



- 58% reduction in incidence of developing diabetes
- Real example of lifestyle medicine working!

Adventist Health Study-2: Vegetarian Diet and Cancer

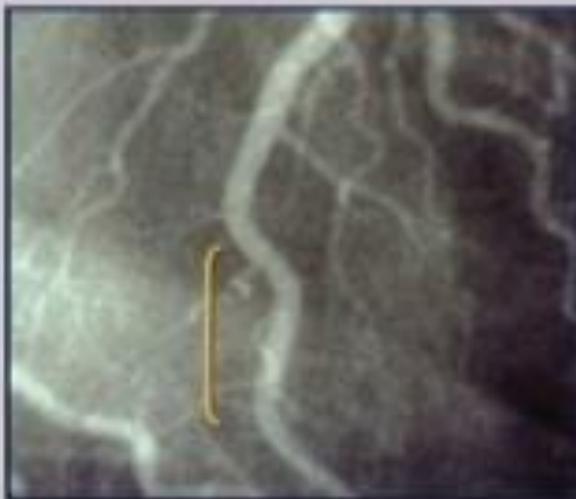
- Colorectal cancer
 - ~20% reduction for all vegetarians
 - ~40% reduction for pesco-vegetarians, specifically
- Prostate cancer
 - ~35% reduction for vegans
- Breast cancer
 - No significant risk reduction for all vegetarians
 - Vegans consistently lower risk of 22% reduction (but non-significant $P= 0.09$)

Reversal of Coronary Disease Achieved with Plant-Based Diet

1996



1999



Coronary angiograms of the distal left anterior descending artery before (left bracket) and after (right bracket) 32 months of a plant-based diet without cholesterol-lowering medication, showing profound improvement. Used with permission from Dr. Caldwell B. Esselstyn, Jr. (Source: *Prevent and Reverse Heart Disease* by Dr. Esselstyn.)

Lifestyle change has the power to reverse disease

Prostate Cancer



**Eat Well, Move More,
Stress Less, Love More**

- 93 men with prostate CA **randomized** to intensive lifestyle change (ILC) therapy or standard care, followed for one year
- ILC group: **0** needed conventional treatment. PSA **decreased by 4%**
- Control group: **6** needed conventional treatment. PSA **increased by 6%**
- Growth of prostate CA cells in cell culture **inhibited** nearly **8X** more with serum from ILC groups vs. Control group

Chronic Conditions

Risks of developing these conditions or worsen symptoms of these conditions **can be due** to suboptimal lifestyle and **can be improved** by incorporation lifestyle medicine into a patient's regimen

~~Bread and butter~~ *fruit and vegetable* of primary care

- Arthritis
- Asthma
- **Cancer** (some types: lung, colorectal, breast, and prostate cancer)
- **Cardiovascular disease** (coronary artery disease, stroke, and heart failure)
- Chronic kidney disease
- Chronic obstructive pulmonary disease (COPD)
- Chronic pain conditions, such as back pain and osteoarthritis
- Depression and anxiety disorders
- **Obesity**
- Osteoporosis
- **Type 2 diabetes**
- Neurodegenerative conditions

The Values of Lifestyle

- Chronic illness self-management is important to reduce the risks of further complications and to slow down, if not reverse, the chronic condition
- Lifestyle is multidimensional and incorporates not only physical activity, diet, and stress management, but the influence of cultural heritages, resources, societal changes, scientific and technological advancement, and the environment

(Groarke et al., 2019; Lambrinou, Hansen, & Beulens, 2019; Zoumenou et al., 2007)

Beyond Diet & Exercise

Other dimensions are necessary:

- Exposure to nature, technology, mindfulness, spirituality, leisure.
- Potential lifestyle targets which may play a role in the development and treatment of depression and anxiety:
 - ✓ Financial stability (if possible),
 - ✓ Time in nature,
 - ✓ Pet ownership,
 - ✓ Judicious use of social media.

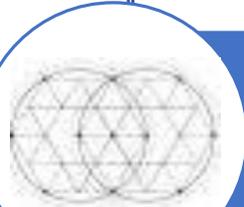
**Other Lifestyle
Dimensions**



Nature Connection



Screen/Smartphone Time



Spirituality



Lifelong Learning

Nature Connection

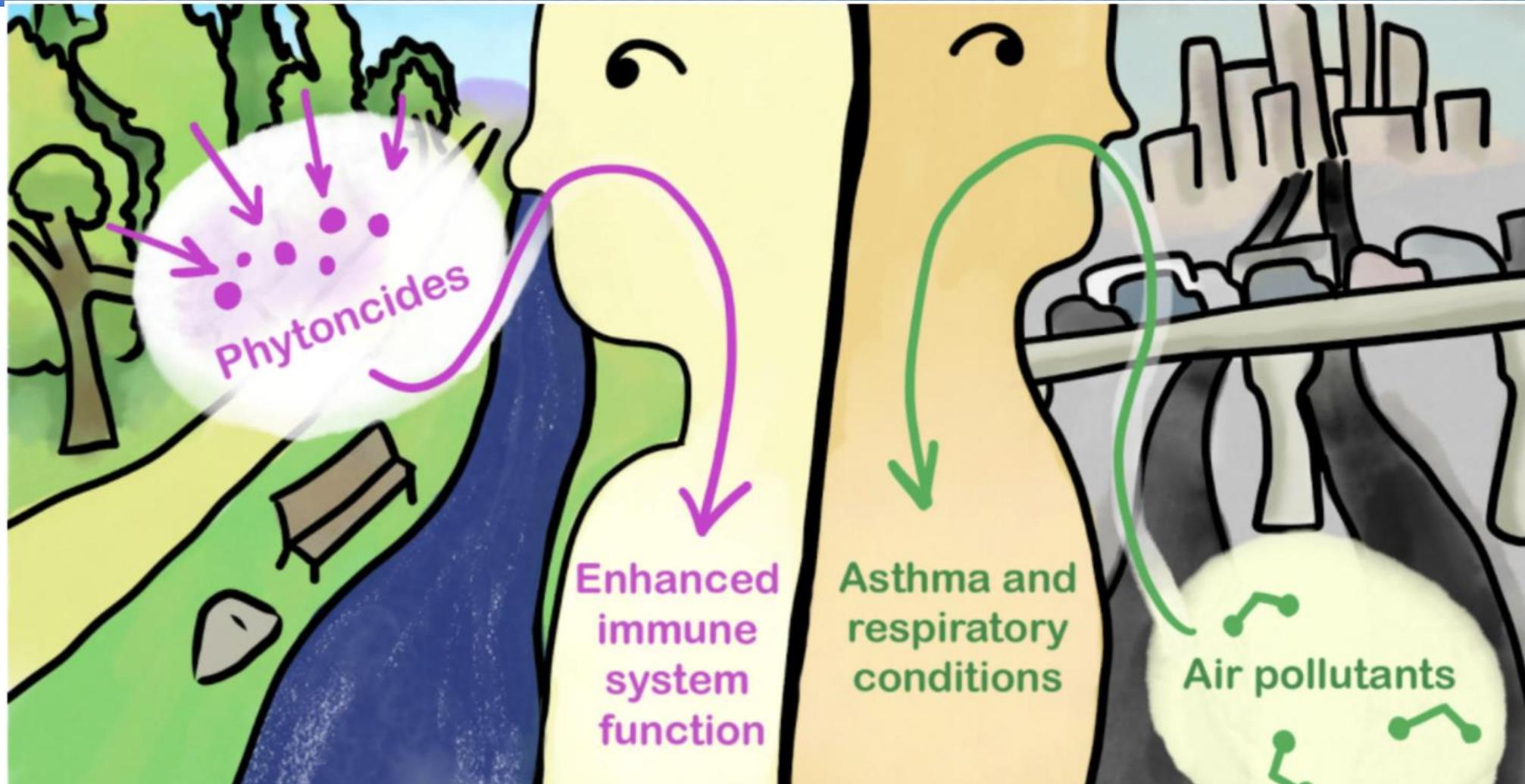
Viewing a virtual nature video led to decreased state anxiety and salivary cortisol levels.
(Jo & Song, 2020)

Nature provides benefits to mental health, including stress reduction, improved cognitive function, and increased social cohesion.
(Bratman et al., 2019).

Viewing nature images led to augmented parasympathetic activity and improved sleep quality.
(Chou et al., 2021)

Compared to no nature contact, the likelihood of reporting good health or high well-being became significantly greater with contact ≥ 120 mins/week.
(White et al., 2019)

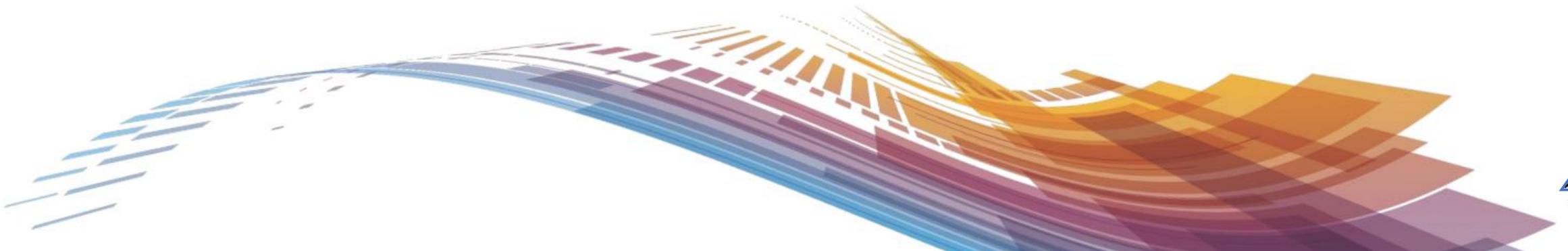
Nature



Lifestyle Medicine as the Backbone of NYC's Public Healthcare System

Michelle McMacken, MD, FACP, DipABLM
Executive Director, Nutrition & Lifestyle Medicine, NYC Health + Hospitals

Mitchell Katz, MD
President & Chief Executive Officer, NYC Health + Hospitals



PLANT-BASED LIFESTYLE MEDICINE PROGRAM

NYC Health + Hospitals/ Bellevue

- **Launched in 2019** with support of NYC Health + Hospitals & advocacy of then-Brooklyn Borough President Eric Adams
- **Mission:** to improve cardiometabolic health through support for lifestyle change, including a healthful plant-based eating pattern

Program website:
bit.ly/PBLMP

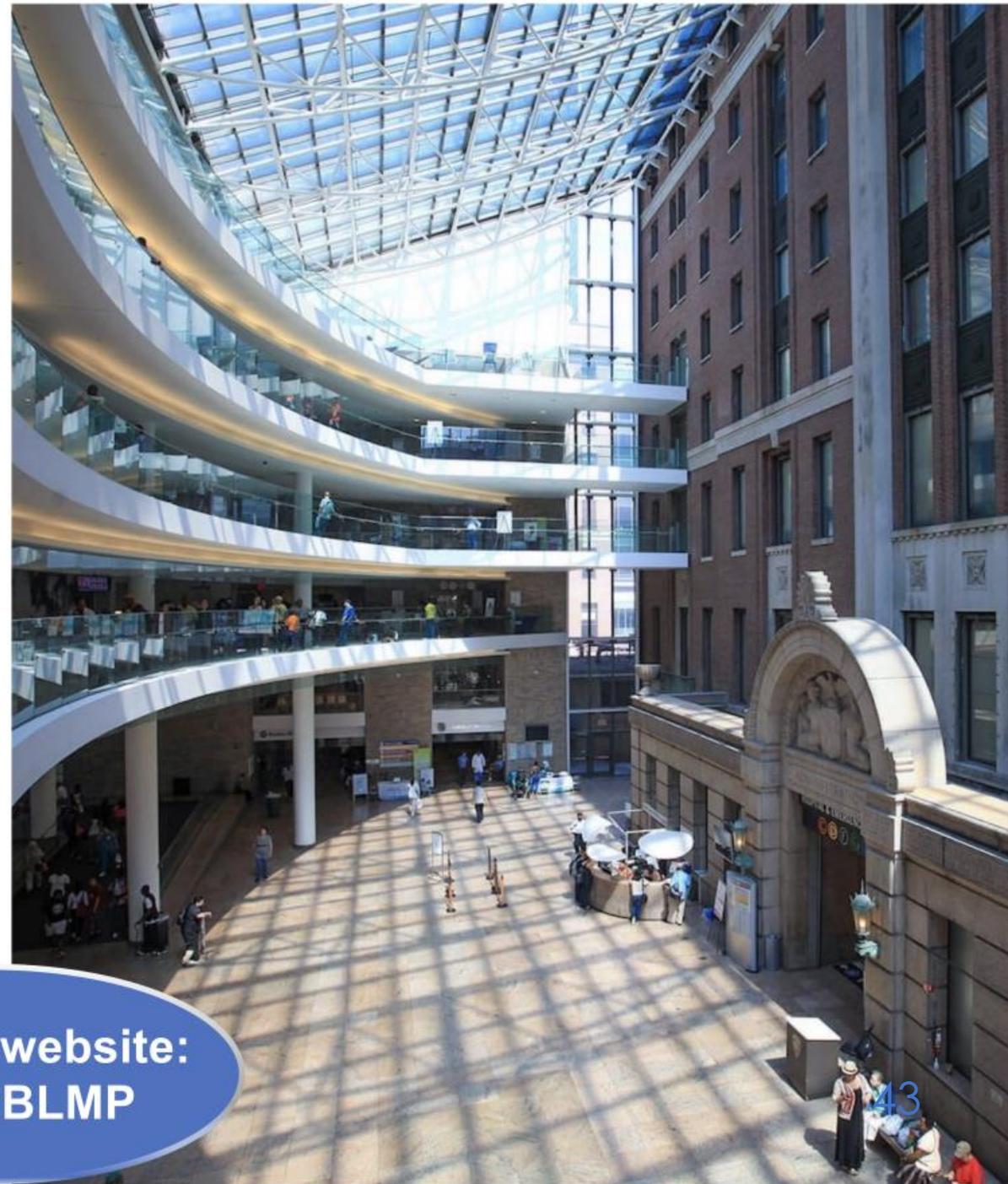




Photo credit: NYC Health + Hospitals

PLANT-BASED LIFESTYLE MEDICINE PROGRAM

NYC Health + Hospitals/ Bellevue

- Aim to reach communities facing
 - Disproportionate burden of cardiometabolic disease
 - Structural barriers to adopting a healthy lifestyle
- First of its kind in a public health care system in the United States

Interdisciplinary, team-based care



*Meet our “plantastic”
clinical team!*

- Physicians (4 at 0.1 FTE each)
- Registered dietitian (1 FTE)
- Certified health coach (1 FTE)
- Exercise trainer (2 hrs/wk)
- Program coordinator (1 FTE)
- Volunteer (part time)
- Collaboration with PCP

Program flow diagram





Additional Program Features

- Cooking demonstrations
- Private Facebook group
 - Peer support & social connections
 - Recordings of group sessions
 - Recipes
 - Cooking videos
 - Links to resources & educational content
- Resources
 - Plant-based cookbooks (English & Spanish)
 - Resistance bands
 - H+H Starter Guide to a Plant-Based Diet

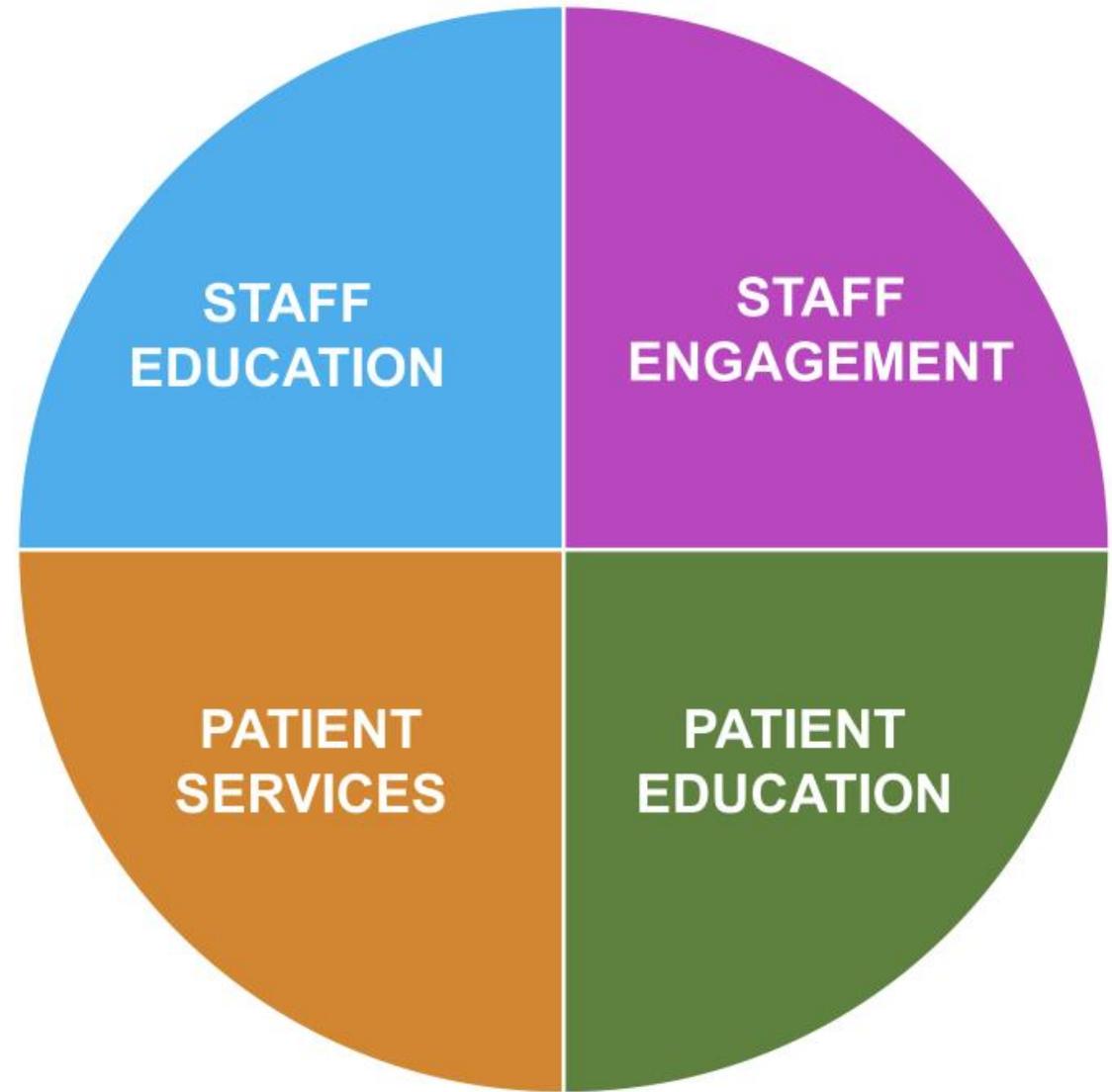
Expansion of Lifestyle Medicine Services

- Six new hospitals in our health system plus the original Bellevue site
- All five NYC boroughs
- Supported by Mayor's Office & City Hall



System-Wide Efforts

- The goal: weave nutrition & lifestyle medicine into the fabric of the care we provide throughout the system
- Collaboration with
 - Food & Nutrition Services
 - Office of Population Health
 - Office of Ambulatory Care
 - All acute-care & ambulatory sites



Lack of Lifestyle Medicine in Medical School and Residencies

Clinical Research and Methods

Vol. 37, No. 6 415

Exercise, Diet, and Weight Loss Advice in the Family Medicine Outpatient Setting

Susan A. Flocke, PhD; Aaron Clark; Katie Schlessman; Ginger Pomiecko

Background: The 5A's heuristic (Ask, Assess willingness to change, Advise, Assist, and Arrange follow-up) has been proposed as a general approach to brief health behavior advice. This study's purpose was to discover the extent to which the 5A's heuristic is used to discuss exercise, diet, and weight loss during adult primary care visits and to test if individuals with a greater body mass index (BMI) or a chronic disease are more likely to receive more-comprehensive advice. **Methods:** We performed a cross-sectional direct observation study of 300 family medicine outpatient visits. Using the 5A's heuristic, the content of each discussion of exercise, diet, and weight loss was documented by an observer. **Results:** Discussion of exercise, diet, or weight loss occurred in 56% of observed visits, and physicians initiated the majority of the discussions. Advice infrequently included offer of assistance (range 14%–17%) or plans for follow-up (range 3%–10%). Physicians were more likely to provide advice to obese patients and to those with one chronic condition. Twenty percent to 47% of patient-initiated discussions led to no advice. However, trend also suggests that patient-initiated discussions were more likely to lead to a combination of advice and assistance, compared to physician-initiated discussions. **Conclusions:** Physicians target exercise, diet, and weight loss advice to obese patients and those with chronic conditions. However, the content of the advice rarely includes recommended components that could increase healthy behavior change. Understanding how patients initiate health behavior topics that prompt physicians to provide advice and assistance could lead to patient and physician interventions that increase productive health behavior change discussions.

(Fam Med 2005;37(6):415-21.)

The prevalence of obesity in the United States has increased significantly, and primary care physicians are encouraged



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Preventive Medicine

Volume 38, Issue 3, March 2004, Pages 343-349



Article preview

Abstract

Introduction

Section snippets

References (38)

Cited by (115)

Recommended articles (6)

Direct observation and patient recall of health behavior advice

Susan A Flocke Ph.D.,^{a b c}, Kurt C Stange M.D., Ph.D.^{a b c d}

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<https://doi.org/10.1016/j.ypmed.2003.11.004>

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Abstract

Background. Patient recall of health behavior change discussions with physicians is an important intermediate outcome to adherence with recommendations and subsequent behavior change. This study reports patient recall of health behavior discussions during outpatient visits and tests patient and visit characteristics associated with recall.

Method. In a cross-sectional study of 2670 adult outpatients visiting 138 family physicians in 84 practices, provision of health behavior advice was measured by direct

- A 2004 study found that patient encounter time spent on lifestyle behavior discussion, such as diet, exercise, and smoking, was on average less than 1 minute per topic
- Although 77% of internal medicine residents acknowledged that nutrition discussions should be a part of primary care visits and 94% thought it their duty to address nutrition issues, only 14% felt they had the training necessary to do so.

Lack of Lifestyle Medicine in Medical School and Residencies

- 77% of Accreditation Council for Graduate Medical Education Residency Program directors felt that nutritional knowledge required for practice was not acquired through graduate medical education
- They themselves did not have adequate knowledge, and that continued advanced education in clinical nutrition should be implemented into residency program curricula.
- Results from a survey that tracked U.S. medical students from Year 1 to 4 demonstrated that medical students came into school believing nutrition counseling and education was very important and would play a major role in their careers
- However, by their fourth year, less than 50% felt this to be true, only 19% felt they had received adequate nutrition counseling training, and only 17% reported regular use of nutrition counseling in their patient encounters

ABLM Certification – LM Physician

• Experiential Pathway

Prerequisites

- ABMS certified with 2 years experience
- 30h of online/non-live CME
- 10h of in-person CME
- Case study (templated)

Certificate

Jointly issued by ABLM and IBLM

Nomenclature

- DipABLM or DipIBLM
- “Certified Lifestyle Medicine Physician”

- CDU Internal Medicine and Family Medicine
- Potentially Psychiatry
- Can sit for the American Board of Lifestyle Medicine exam

• Educational Pathway

Prerequisites

- Lifestyle Medicine Residency Curriculum (LMRC)
 - Educational/Didactic Component – 100 hours
 - Practicum Component
 - Resident and Faculty Eligible

Certificate

- Issued by ABLM, not available globally yet

Nomenclature

- DipABLM
- “Certified Lifestyle Medicine Physician”

Lifestyle Medicine Efforts CDU/DHS

1. Lifestyle Medicine Special interest group (meets via Zoom monthly on Friday AM, let Dr. Friedman know if interested)
2. Monthly lifestyle medicine EchoWest webinar 2nd Tuesday of the month
3. Monthly diabetes/obesity EchoWest webinar 3rd Tuesday of the month
4. ACLM lifestyle medicine certification for CDU IM and FM residents
5. Lifestyle Medicine DHS EP (draft written)
6. Starting a resident-run lifestyle medicine group at MLK OC (Dr. Friedman and Matt Yu, MD) Friday AM
7. Starting a lifestyle medicine group at Olive View (Courtney DeCan, MD and Nat Pedley, MD)
8. UCLA pilot grant for lifestyle medicine group at Olive View (Courtney DeCan, MD)
9. Lifestyle medicine in the 4 year CDU Medical School (Art Gomez, MD, Shanika Boyce, MD)
10. CDC Grant for Lifestyle Medicine Center of Excellence



1. Encourage some of the champions to go the 2023 ACLM meeting in Denver October 29-November 1
2. Only online available at <https://www.lmconference.org>



Confirmed Speakers



Jessica Matthews, DBH



Mark Faries, PhD



Anna Lembke, MD



Ruth Wolever, PhD



- Los Angeles County Department of Health Services proudly offers a unique and free CME/CE opportunity from the American College of Lifestyle Medicine to our clinicians and staff.
- Take advantage of a new course bundle that provides a foundational, evidence-based introduction to the field of lifestyle medicine with a focus on nutrition, often the most complex behavior to change, as a way to prevent and treat chronic disease.
- This course bundle consists of three modules, four presentations and 5.5 hours of CME/CE content. Below is an outline for the course:
 - Introduction to Lifestyle Medicine module (1 hour)
 - Food as Medicine: Nutrition for Prevention and Longevity module (3 hours)
 - Food as Medicine: Nutrition for Treatment and Risk Reduction module (1.5 hours) (Dr. Friedman recommends this module if you have limited time.
- REGISTER at www.lifestylemedicine.org/essentials, logging in or creating an ACLM account, and entering promo code **ESS-LACHS** (make sure you don't have a space before or after) at check out.
- Learning should not take place during working hours.
- Anyone in need of technical support is encouraged to contact support@lifestylemedicine.org
- Registrations is open until August 15, 2023.
- This complimentary course is provided by ACLM as a way to educate healthcare providers on patient-centered, high-value, and outcome-oriented care

Yes, Change the Paradigm

- For primary care providers and everyone
- Practice wellness yourself
- Take the CME class and other trainings
- Stress wellness and lifestyle medicine in our teaching medical students, residents and other trainees
- Stress wellness and lifestyle medicine in our interactions with patients.
- Have residency programs (and other training programs) the go to place for lifestyle medicine

Questions and comments