Obesity Management in Primary Care Virtual Workshop

Saturday, May 22, 2021

OBESITY MANAGEMENT IN PRIMARY CARE CERTIFICATE PROGRAM:
A Practice Management & Leadership Training Program for PAs and NPs

1

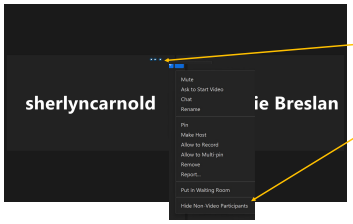
Commercial Support

This activity was sponsored by an educational grant from Novo Nordisk, Inc.

2

Housekeeping

Hide Non-video Participants

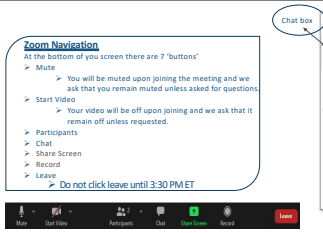


1. Click 3 dots in the right corner of any box with a name to get a drop-down menu
2. Click "Hide Non-Video Participants

3

House Keeping

Using Your Zoom Control Panel



Zoom Navigation
At the bottom of you screen there are 7 'buttons'
- Mute
  - You will be muted upon joining the meeting and we ask that you remain muted unless asked for questions.
- Start Video
  - Your video will be off upon joining and we ask that it remain off unless requested.
- Participants
- Chat
- Share Screen
- Record
- Leave
  - Do not click leave until 3:30 PM ET

Questions
- Please post questions throughout the workshop in the CHAT box
  - Click on the chat 'bubble' shown below
- Your questions will be addressed during Q&A sections throughout the program.

- **How do I join computer/device audio?**
  - On most devices, you can join computer/device audio by clicking Join Audio, Join with Computer Audio, or Audio to access the audio settings.
- **Can I use a Bluetooth headset?**
  - Yes, as long as the Bluetooth device is compatible with the computer or mobile device that you are using.

4

Accreditation Statement

- This activity has been reviewed by **the AAPA Review Panel** and is compliant with AAPA CME criteria. **This activity is designated for 5.0 AAPA Category 1 CME** credits. Participants should only claim credit commensurate with the extent of their participation.
- This activity was planned in accordance with AAPA's CME Standards for Commercial Support of Enduring Activities.

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AGENDA

10:30 am –10:50 am	Welcome and AAPA/TOS Keynotes
10:50 am – 12:20 pm	PDSA Cycle Plan: Getting Started, Review Goals 1 & 2, and Small-group Breakouts
12:20pm – 12:35 pm	BREAK
12:35 pm – 2:05 pm	Advocacy, Policy, and Leadership Panel with QA Discussion
2:05 pm – 2:20 pm	Application to Practice Success Stories
2:20 pm – 2:25 pm	BREAK
2:25 pm – 3:10 pm	Addressing Cultural Diversity in Obesity Management
3:10 pm – 3:30 pm	Workshop Wrap-up, Prize Draw, and Closing Remarks

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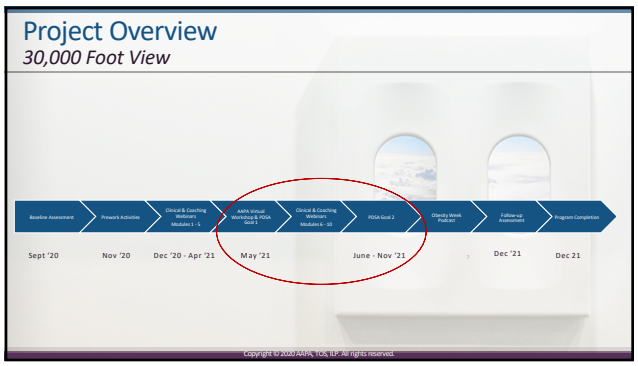
Project Overview
30,000 Foot View
Sept '20
Nov '20
Dec '20 - Apr '21
May '21
June - Nov '21
Dec '21
Dec 21

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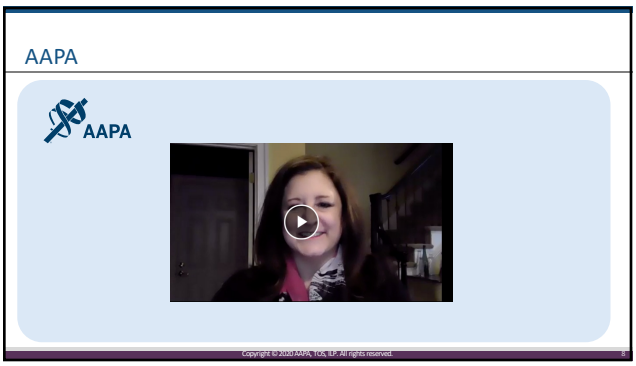
AAPA

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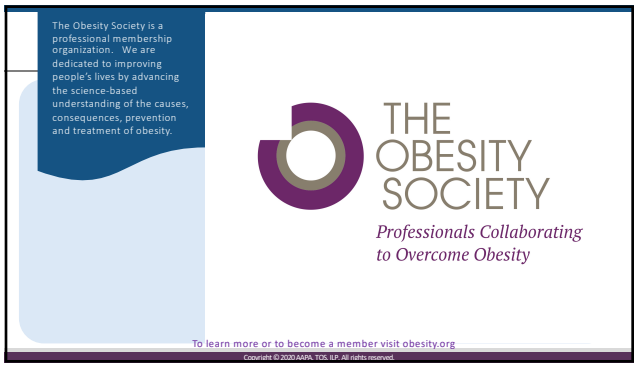
The Obesity Society is a professional membership organization. We are dedicated to improving people's lives by advancing the science-based understanding of the causes, consequences, prevention and treatment of obesity.
THE OBESITY SOCIETY
Professionals Collaborating to Overcome Obesity
To learn more or to become a member visit obesity.org

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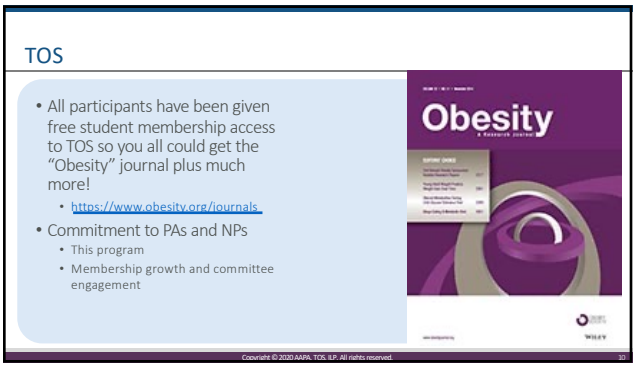
TOS
All participants have been given free student membership access to TOS so you all could get the "Obesity" journal plus much more!
https://www.obesity.org/journals
Commitment to PAs and NPs
This program
Membership growth and committee engagement
Obesity

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Join Us for Obesity Week
ObesityWeek® is a unique, international event focused on the basic science, clinical application, surgical intervention and prevention of obesity.
ObesityWeek® brings together world-renowned experts in obesity to share innovation and breakthroughs in science unmatched around the globe.
ObesityWeek® is the leading conference of its kind in the world, providing an unmatched multi-track schedule:
Pre-conference courses (including ABOM review course)
Cutting-edge oral abstract and poster presentations covering bench to bedside
Networking, mentoring, and advocacy events
obesityweek
November 1–5, 2021

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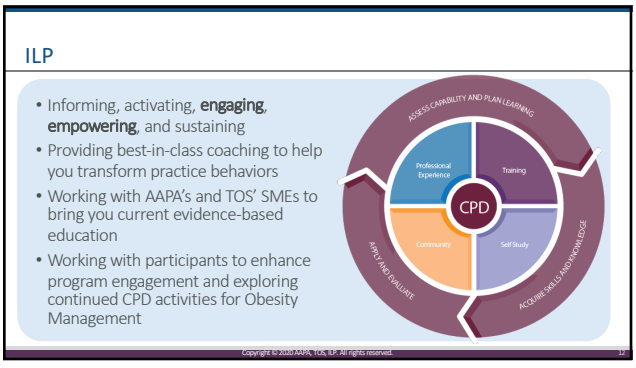
ILP
Informing, activating, engaging, empowering, and sustaining
Providing best-in-class coaching to help you transform practice behaviors
Working with AAPA's and TOS' SMEs to bring you current evidence-based education
Working with participants to enhance program engagement and exploring continued CPD activities for Obesity Management
CPD
Professional Experience
Training
Community
Self Study

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PDSA Cycle Plan: Getting Started, Review Goals 1 & 2, and Small-group Breakouts

SHERLYN CELONE-ARNOLD, MS
CHIEF STRATEGY AND ENGAGEMENT OFFICER
INTEGRATED LEARNING PARTNERS

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PDSA Session Agenda

- Main Session: Review CQI and PDSA Cycle Planning Basics *(20 min)*
- Breakout I: *(20 min)*
  - Preparation Exercise – Begin Planning for PDSA Cycle for Goal I
- Main Session *(22 min)*
  - Each group share barriers, ideas of planning, solutions, etc.
- Breakout II: *(15 min)*
  - Discuss SMART goal for Goal 1 Aim Statement
  - Review PDSA homework assignment
- Main Session *(10 min)*
  - Next steps
  - QA

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Have you engaged in a continuous quality improvement project in your practice?

Please type your answers in the chat box.

A. Yes

B. No

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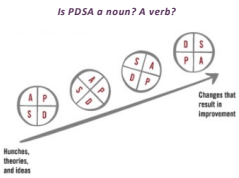
The Purpose of Continuous Quality Improvement (CQI)



- CQI is a method designed to enhance office processes, performance, and clinical care leading to improved patient and practice outcomes.
- The model used by the **Institute of Healthcare Improvement** is known as, "**The Model for Improvement**," which was developed by Associates in Process Improvement (Langley, et al., 2009).
- The methodology for this project will be based on **Edwards Deming's *Plan, Do, Study, Act* (*PDSA*) model** (Deming, et al. 1950).

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How does CQI Differ From Research?

	CQI	RESEARCH
Purpose	Examines internal processes and guides action toward improvement.	Generates new knowledge, tests, hypotheses
Scope	Examines internal institution/process specific issues	May be able to generalize to other patients, situations and settings
Informed Consent	Generally, not required unless results are being shared externally	Must be obtained if human subjects are involved
Design	Focuses on process	Scientific framework Well-controlled
Subject Selection	Available patients or subpopulations of patients	Based on research purpose, study design, power analysis and statistical models
Results	Used and shared by the practice or organization	Presented and available

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Models Used in to Measure Performance/Quality Improvement

- Total Quality Management (TQM)
- Continuous Quality Improvement (CQI)
- Lean
- Six Sigma
- Rapid Cycle Improvement (RCI)
- Plan, Do, Study, Act (PDSA)

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Science of Improvement: How to Improve

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PDSA Basics: Getting Started

- The **Plan-Do-Study-Act (PDSA)** method provides a straightforward, **iterative approach t**o quality improvement in your practice. This approach works on many changes from improving a patient care process to executing a new workflow and practices of all sizes.
- Some questions to ask:

What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

Langley GJ, et al. *The improvement guide: A practical approach to enhancing organizational performance.* San Francisco, CA: Jossey-Bass; 1996.

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Four Steps to Using Plan-Do-Study-Act

PLAN: develop the initiative

DO: implement your plan

STUDY: check the results

ACT: make further improvements

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Four Steps to Using Plan-Do-Study-Act

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Aim Statements and Setting SMART Goals

S	Specific	*What do you want to achieve in your areas of focus?*
M	Measurable	*Why is this goal important to you?*
A	Action Oriented	*What steps will you take to achieve it?*
R	Realistic	*How do you know that you can achieve it?*
T	Timely	*By when do you want to achieve this goal?*

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Aim Statements and Setting SMART Goals

S	Specific
M	Measurable
A	Action Oriented
R	Realistic
T	Timely

Not SMART

➢ I will lose 20 lbs.

SMART

➢ I will lose 20 lbs., at the rate of 2 lbs. per week by July 31, 2021.

...and always jointly agreed upon by the team and patients

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Developing SMART Aim Statements

- **S** Specific
- **M** Measurable
- **A** Action Oriented
- **R** Realistic
- **T** Timely

Not SMART

- All patients diagnosed with obesity will receive a waist circumference measurement.

SMART

- All patients 18 y.o. or older, with a diagnosis of obesity (who have a BMI above normal parameters) will receive a waist circumference measurement completed and documented in the EHR at every visit over the next 6 months.

...and always jointly agreed upon by the team and patients

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Measures Must be "Measurable"

- Be very detailed
- If percent or rate, specify numerator/denominator
- If average, identify calculation
- If score, describe how the score is derived
- When measuring such characteristics as "accurate" "complete," or "timely," describe specific criteria

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Our Project's Goals & Aim Statements

	GOAL 1	GOAL 2
Focus	**Improve documentation of obesity diagnosis in EHR**	**Recommending follow-up visit for patients with diagnosis of obesity.**
Objective(s)	**GOAL 1:** Assess and make diagnosis of obesity and document it in the EHR.	**GOAL 2:** After making a diagnosis for obesity, document a recommendation for a follow-up visit specifically related to obesity in the EHR.
AIM Statement	80% of all patients with a BMI equal to or greater than 30 will have a diagnosis of obesity that's documented in the EHR by August 13, 2021.	By November 15, 2021, 80% of ten chart audits for patients with a diagnosis of obesity will have a recommendation in the chart for a follow-up visit (within in one month) for the management of obesity. Chart pull: Patients seen within the past 6 months.
Solutions to support goal.	Come up in breakout	Assignment for August Coaching Webinar
Date range to achieve goal.	June 1 – August 13, 2021	September 1 – November 15, 2021

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Breakout I

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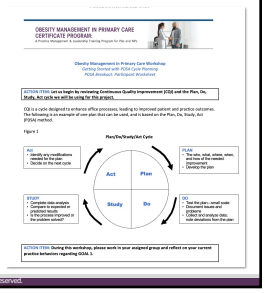
BREAKOUT I:
Preparing for Your PDSA Cycle Plans

- **Group exercise:** 20 min
- **Goal**: Discuss preparing for your PDSA Cycle Pans
- **Handout**: Download the worksheet from the chat
- To Dos:
  - Select one (1) person from the group to be a note taker/spokesperson for this group so when we go back into the main session, he/she can summarize responses to answers (e.g., why goal may not be met, possible solutions discussed, next steps, etc.)
  - Work through the six questions in the handout as a group. Your facilitator will moderate the discussion.

NOTE: you may use the solutions you come up with in the group, or you may modify your plans based on your practice's specific needs.



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Breakout 2

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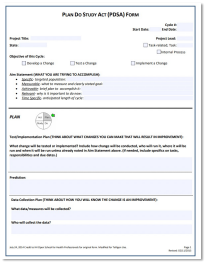
BREAKOUT II:
Goal 1 Assignment

- **Group exercise:** 15 min
- **Goal**: Discuss Goal 1 homework assignment
- **Handout**: Download the worksheet from the chat. It will also be in AAPA's learning central for this module.
- **To Dos:**
  - Review Goal 1 aim statement, SMART goal set up, the PDSA Form you'll use for this assignment, June Coaching webinars, and what to expect for support from your coaches.
- **Start date:** June 1, 2021
- **Due date:** Goal 1 PDSA will be completed and uploaded to AAPA's Learning Central by August 13, 2021

NOTE: You will receive an email the week of May 31st with more information about about details for this assignment and resources in the PDSA module.


PLAN DO STUDY ACT (PDSA) FORM

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Main Session

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Pitfalls to Avoid

- Forgetting linkage of aim and measurement
- Starting too big
- Making data collection too hard
- Not using graphical displays
- Using computer generated default graphs
- Not planning to do small pretest/debugging

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Our Project's Goals & Aim Statements

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Timing of PDSA Cycle Plans

GOAL 1

80% of all patients with a BMI equal to or greater than 30 will have a diagnosis of obesity that's documented in the EHR by August 13, 2021.

TASK	DUE DATE
Plan	6/01 – 6/11
Do	6/14 – 7/16
Study	7/19 – 7/30
Do	8/2 – 8/13

Goal 2

By November 15, 2021, 80% of ten chart audits for patients with a diagnosis of obesity will have a recommendation in the chart for a follow-up visit (within in one month) for the management of obesity.

Chart pull: Patients seen within the past 6 months.

TASK	DUE DATE
Plan	09/01 – 09/15
Do	6/15 – 10/15
Study	10/17 - 10/29
Do	11/1 – 11/15

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Next Steps

- You will get a **detailed email with PDSA action items** on **May 28th**
- This **Workshop Module will launch** on **Friday, May 28th**. Be sure to check AAPA's Learning Central next weekend! To access PDSA materials go to:
  - The "assignments" tab to download your PDSA Goal 1 Worksheets
  - You will be required to upload your completed PDSA cycle worksheets for Goal 1 on August 13th
  - In the "resources" section you will find links to the IHI video, preparation handout, and an article for your review
- **PDSA start date** for Goal 1 is **June 1st**
- **June Coaching Sessions** will focus on PDSA Cycle plans for Goal 1
- Please **schedule office hours** with your coach too if needed in **June**

This is an independent study exercise.
Completing these assignments are required to obtain your 10 AAPA CME credits and final certificate.

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Any Questions?

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Advocacy, Policy, and Leadership Panel with QA Discussion

W. SCOTT BUTSCH, MD, MSC
DIRECTOR OF OBESITY MEDICINE IN THE BARIATRIC AND METABOLIC INSTITUTE (BMI)
CLEVELAND CLINIC

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Ted Kyle, RPh, MBA
Founder, ConscienHealth


Angela Golden, DNP, FNP-C, FAANP
Owner and Provider, NP Obesity Treatment Center


William H. Dietz, MD, PhD
Sumner M. Redstone Global Center for Prevention and Wellness

Advocacy, Policy, and Leadership Panel

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Objectives

Discuss	Discuss current efforts related to health policy for patients affected by obesity.
Discuss	Discuss current efforts related to advocacy for patients affected by obesity.
Describe	Describe efforts PAs and NPs can take related to leadership to improve care for patients affected by obesity.
Describe	Describe efforts PAs and NPs can take related to health policy to improve care for patients affected by obesity.
Identify	Identify ways to become an advocate for patients affected by obesity.
Identify	Identify ways to become a leader in your practice or community for patients affected by obesity.

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Obesity Advocacy, Policy, and Leadership

TED KYLE, RPH, MBA
FOUNDER, CONSCIENHEALTH

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Presentation Topics

- Bias corrupts the policy on obesity and its complications
- Effects of bias on clinical care
- Impact of bias on people living with obesity

Source: Obesity Action Coalition / OAC Image Gallery

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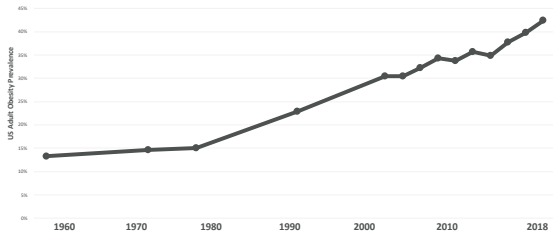
Nobody Wants It, But More and More People Live with Obesity



Fryar CD, et al. *NCHS Health E-Stats*. 2020. https://www.cdc.gov/nchs/data/hestat/obesity-adult-17-18/obesity-adult.htm#table1 Accessed May 18, 2021.

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The Costs of Untreated Obesity Are Piling Up

- Declining US lifespan
- Reversing gains in heart disease
- Growing prevalence of diabetes, liver disease, and related cancers
- Significant effects on productivity and competitiveness
- Half of the population will have obesity by the end of the decade

Working the Problem, photograph © Obesity Action Coalition / OAC Image Gallery

Ward ZJ, et al. *N Engl J Med*. 2019;381(25):2440-2450.

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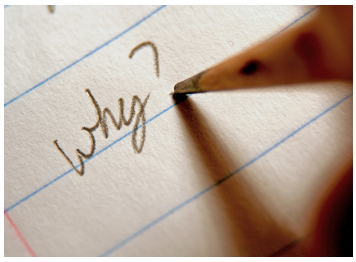
Why Are Obesity Trends So Tough to Reverse?



Good Question, photograph © Eric (e-magic) / flickr

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Two Kinds of Bias Affect Our Response to Obesity

Intellectual bias favoring personal convictions

Weight bias directed at people with obesity

God Judging Adam, Etching by William Blake / WikiArt

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What Is Weight Bias?

- Negative attitudes
  - Beliefs
  - Judgments
  - Stereotypes
  - Discriminatory acts
- Based solely on weight
- Subtle or overt
- Explicit or implicit

Listen Up, photograph © Obesity Action Coalition / OAC Image Gallery

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Explicit Bias Is Down, But Implicit Bias Is Growing

Dimension	Explicit Bias Trend 2007-2016	Implicit Bias Trend 2001-2016
Sexuality	↓	↓
Race	↓	↓
Skin Tone	↓	↓
Age	↓	↔
Disability	↓	↔
Weight	↓	↑

Charlesworth TES, et al. *Psychol Sci*. 2019;30(2):174-192.

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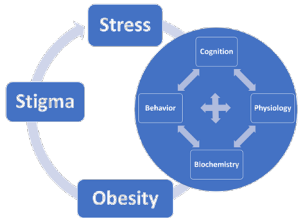
Living with Bias and Stigma Makes People Sicker

Pathways from stress to obesity



Tomiyama AJ. *Annu Rev Psychol.* 2019;70:703-718.

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COVID-19 Concerns for People with Obesity

- Patients avoiding healthcare
- Increased fear of being discounted
- Extreme fear of infection and hospitalization
- Concerns about changes in eating habits, exercise, weight gain

Let's Get Real, photograph © Obesity Action Coalition / OAC Image Gallery

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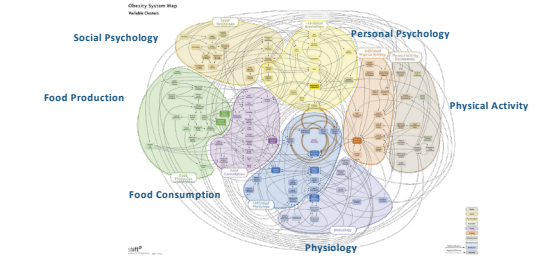
Obesity Grows from Complex, Adaptive Systems



Vandenbroeck P, et al. 2007. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/295154/07-1179-obesity-building-system-map.pdf. Accessed May 17, 2021.

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But Bias Favors Simplistic Policy Solutions

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Because of Bias, Self-care is Often the Only Option for Obesity Care

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But Good Obesity Care Requires More Options

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Is Weight Bias a Risk Factor for Poor Outcomes?

Yes

- Blame and shame lead to worse clinical outcomes
- Bias interferes with access to care
- Bias may lead to reliance on ineffective policies

You! Photograph © Daniel Horacio Agostini / flickr

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What's Required for Progress?

Progress will require:

- **Objectivity** to replace bias
- **Curiosity** about obesity and the people it affects
- **Care** for these people

Progress Coffee, photograph © Jdegans / flickr

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Obesity Advocacy, Policy, and Leadership

WILLIAM H. DIETZ, MD, PHD
SUMNER M. REDSTONE GLOBAL CENTER FOR PREVENTION AND WELLNESS

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What Works for Obesity Prevention and Control

Federal Programs

- Healthy Hunger-free Kids Act
- Changes in the WIC package
- Treat and Reduce Obesity Act (TROA)

State

- Reimbursement policies for obesity care

Community

Clinic

WIC, women, infants, and children.

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The Healthy, Hunger-free Kids Act (HHFKA) Legislation and Its Impact on Meal Quality and Obesity

Passed by Congress in 2010

Implemented in schools by 2012

- 51% of grains: whole grains
- Required students to take 1/2 cup fruit and vegetable
- Offer 1 cup flavored or unflavored fat-free or 1% milk

Healthy Eating Index 2010 - Lunch		
K-12 Participants	**Pre***	**Post***
Low income	42.7	54.6
Low-middle income	40.4	54.8
Middle-high income	42.7	55.5
Non-participants	36.0	37.9

*Pre: 2007-2010 Post: 2013-2016

Kindernecht K, et al. *JAMA*. 2020; 324:359-368.

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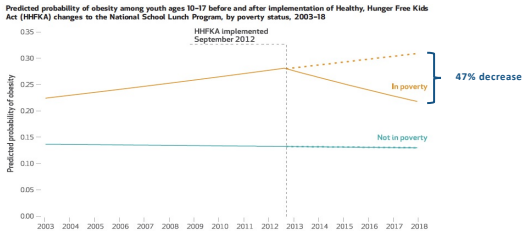
Effect of the HHFKA on Prevalence of Obesity National Survey of Children's Health



Kenney EL, et al. *Health Affairs*. 2020;39:1122-1129.

 60

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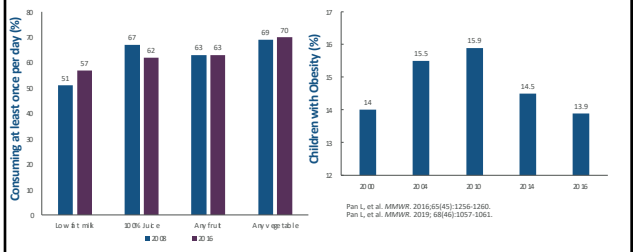
Changes in the Frequency of Consumption of Foods in the 2009 WIC Package and Obesity Prevalence (24-47.9 mo)



Pan L, et al. *MMWR*. 2016;65(45):1256-1260.
Pan L, et al. *MMWR*. 2019; 68(46):1057-1061.

Deming D, et al. *J Nutr Educ and Behav*. 2014;46(53):529-537.

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What Works for Obesity Prevention and Control

Federal Programs
- Healthy Hunger-free Kids Act
- Changes in the WIC package
- Treat and Reduce Obesity Act (TROA)

State
- Reimbursement policies for obesity care

Community

Clinic

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What Works for Obesity Prevention and Control

Community
- Local advocacy
- Baby-friendly hospitals
- Local policies including schools
  - DC Healthy Youth and Schools Amendment
  - Healthy Communities Study
- Sugary drink taxes
- Healthy neighborhoods
- Physical activity
- Physical transportation design

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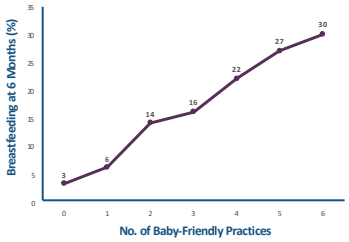
Baby-Friendly Hospitals and Breastfeeding Rates



Baby-Friendly Practices
- Early breastfeeding initiation
- Exclusive breastfeeding
- Rooming-in
- On-demand feedings
- No pacifiers

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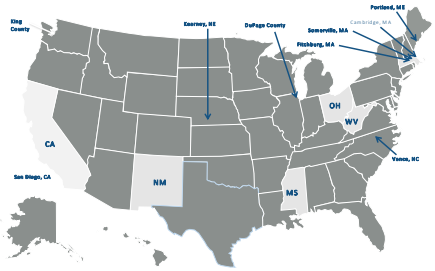
States and Communities Reporting Decreases in the Prevalence of Childhood Obesity



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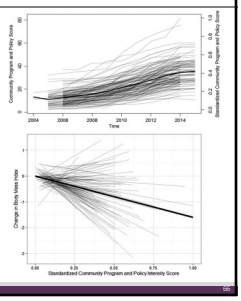
65

Effect of Community Policies and Programs on BMIs in Children

10-year retrospective study of 130 communities selected for efforts around child obesity
- Oversampled communities with >30% African Americans or Hispanics
- Calculated intensity scores for nutrition and physical activity
- BMI collected from pediatric offices for kindergarten – 8th grade



BMI, body mass index.
Strauss WJ, et al. *Pediatr Obes*. 2018;13(Suppl 1):82-92.

 66

66

POLICY STATEMENT Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

American Academy of Pediatrics

Public Policies to Reduce Sugary Drink Consumption in Children and Adolescents

abstract

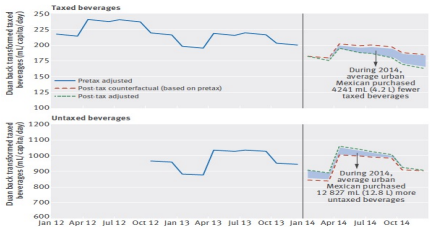
Muth ND, et al. *Pediatrics*. 2019;143:e20190282.

Recommendations

- Support policies that increase the price of sugary drinks (SDs)
- Support federal and state efforts to decrease marketing of SDs
- Hospitals should become models for strategies to disincentivize SD purchases

67

Effects of the SD Tax in Mexico

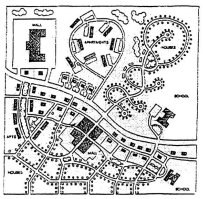


Colchero MA, et al. *BMJ*. 2015;352:h6704.

68

Community Strategies to Increase Physical Activity

Disconnected Network



Connected Network

- Increase physical transport
- Build and promote public transport
- Connect parks to people
- Improve neighborhood safety
- Provide safe routes to school
- School PE and recess
- Social supports

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What Works for Obesity Prevention and Control

Federal Programs

- Healthy Hunger-free Kids Act
- Changes in the WIC package
- Treat and Reduce Obesity Act (TROA)

State

- Reimbursement policies for obesity care

Community

Clinic

- https://stop.publichealth.gwu.edu/whyweightguide

WIC, women, infants, and children.

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Obesity Advocacy, Policy, and Leadership

ANGELA GOLDEN, DNP, FNP-C, FAANP
OWNER AND PROVIDER, NP OBESITY TREATMENT CENTER
SCOPE CERTIFIED
OMA ADVANCED CERTIFICATE OF EDUCATION IN OBESITY MEDICINE

71

Describe

Describe efforts PAs and NPs can take related to leadership to improve care for patients affected by obesity

72

What is Leadership?

73

What is Leadership?

- Shared influencing process to meet common purpose
- Process of social influence, which maximizes the efforts of others, towards the achievement of a goal – CEO of LEADS – Kevin Kruse[1]
- "Reflect the assumptions that involve a process whereby intentional influence is exerted by one person over other people to guide, structure, and facilitate activities and relationships in a group or organization"[2]

1. Kruse, K. Forbes. https://www.forbes.com/sites/kevinkruse/2013/04/09/what-is-leadership/?sh=363301035b90. Accessed May 13, 2021. 2. Yukl, G. Leadership in organizations. Custom ed. Pearson Custom Publishing; 2006.

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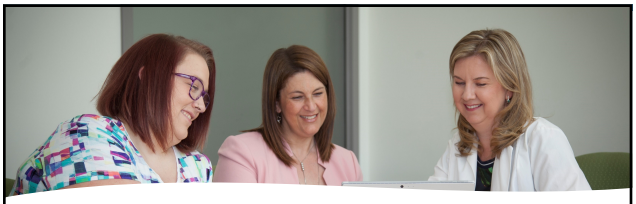
Why Consider Leadership?

- Develop expertise
- Challenge status quo
- Enhance clinical skills
- Developing more leaders
- Make vision come to fruition
- Improve healthcare delivery and patient outcomes

75



Where Does Leadership Occur?

Clinical

76

Where Does Leadership Occur?

Research

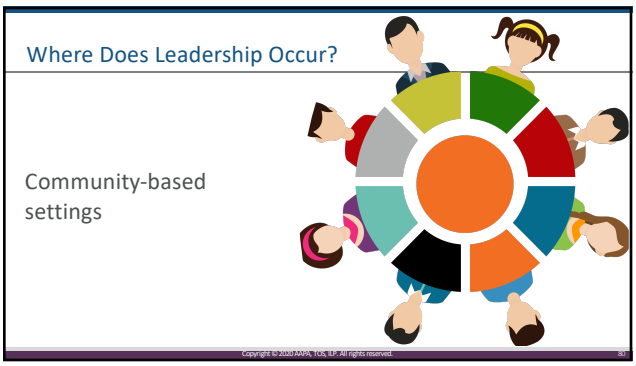
77

Where Does Leadership Occur?

Education

78

79



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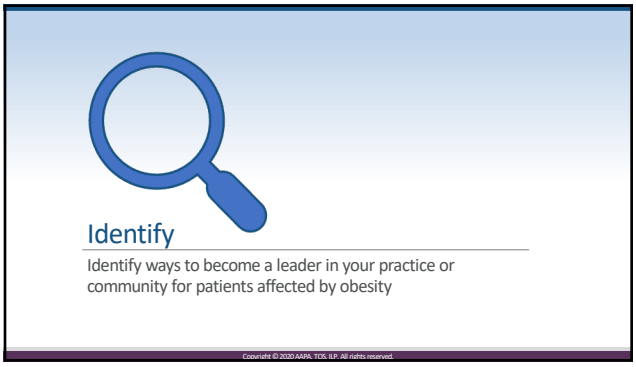

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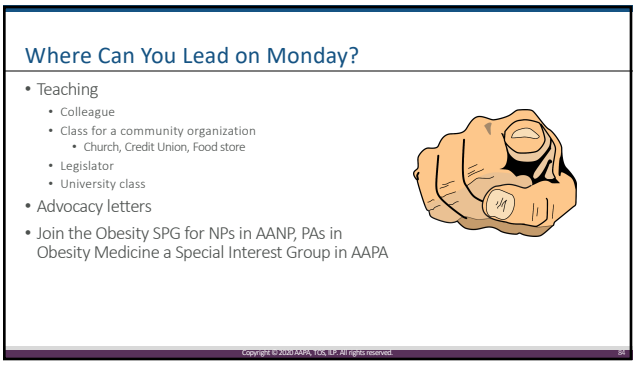
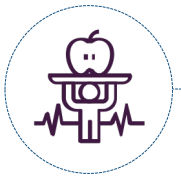


84

Key Take-aways



01 Leadership occurs everywhere
02 Start small and build
03 Start where you are
04 Use your learning to teach others

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Contact Information

Angela Golden
(m) 928-814-8011
(f) 888-877-4669
angie.golden@npobesitytreatment.org
twitter: @DrAngieNP
IG: npobesitytreatment
www.npobesitytreatment.org

Bill Dietz
bdietz@gwu.edu
https://stop.publichealth.gwu.edu/

For an additional Obesity Resource: https://BookHip.com/RCPMFK

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Any Questions?

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Faculty and Disclosure Statement

Dr. Butsch has been the Director of Obesity Medicine in the Bariatric and Metabolic Institute (BMI) at the Cleveland Clinic since 2018. Prior to this he was an obesity medicine physician at the Massachusetts General Hospital (MGH) Weight Center and an instructor of medicine at Harvard Medical School from 2008-2017. He completed a clinical nutrition fellowship at the University of Alabama at Birmingham in 2007 and was one of first two physicians in the United States to complete subspecialty fellowship in obesity medicine in 2008, established at MGH/HMS. He is a diplomat of the American Board of Obesity Medicine and a Fellow of The Obesity Society.

Dr. Butsch's clinical interests focus on the pharmacological management, specifically the use of combination therapies in patient with severe obesity, bariatric surgical patients and special populations with severe obesity. He heads clinical research in obesity medicine at the BMI, including clinical trials in obesity pharmacotherapy. His academic interests focus on obesity and nutrition education. He was the Curtis Prout Fellow in medical education at HMS in 2010, Director of Clinical Nutrition course at HMS from 2009-2016 and the Director of Education in the Division of Nutrition at HMS from 2014-2018. He is an author of numerous chapters and manuscripts and lectures nationally and internationally on the management of obesity.

Dr. Butsch is a national leader in obesity education and has been instrumental in the creation of obesity competencies in the United States and abroad. He created and is the director of the subspecialty fellowship in obesity medicine at the Cleveland Clinic. He has helped shape the current state of education and training in obesity medicine in the United States as a co-creator of obesity education programs, including HMS's Obesity Medicine Board Review course, as a creator/director of the World Federation's SCOPE Leadership Programme, which trains international physicians in obesity medicine.

He serves in leadership roles as director in Cleveland Clinic's CME training courses in obesity medicine (United States and Chile), and as Chair of several committees in professional societies (eg, The Obesity Society and the Massachusetts Medical Society). He has focused his attention in advocacy and policy in obesity and has been instrumental in writing policy to reduce weight stigma and discrimination in the state of Massachusetts, improve coverage for anti-obesity medications (Ohio), and in support of the Treat and Reduce Obesity Act at the federal level.

Novo Nordisk: consultant

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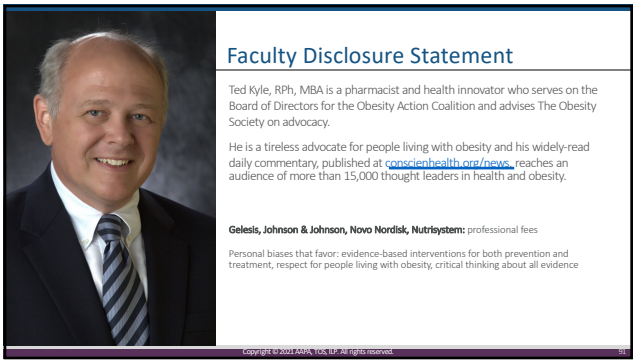

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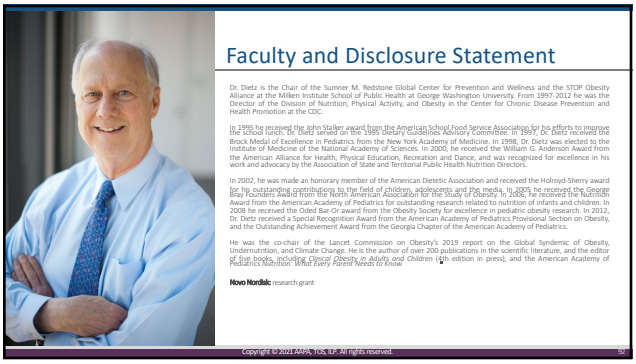

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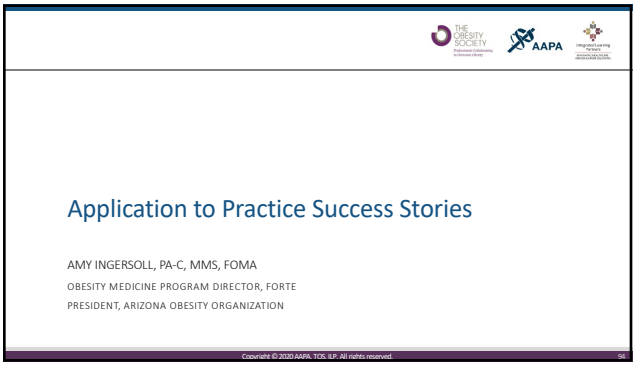

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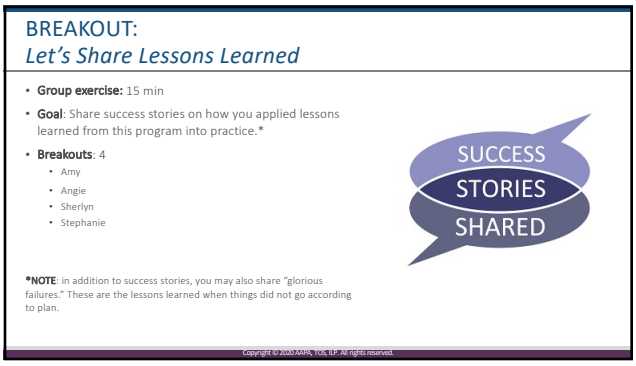

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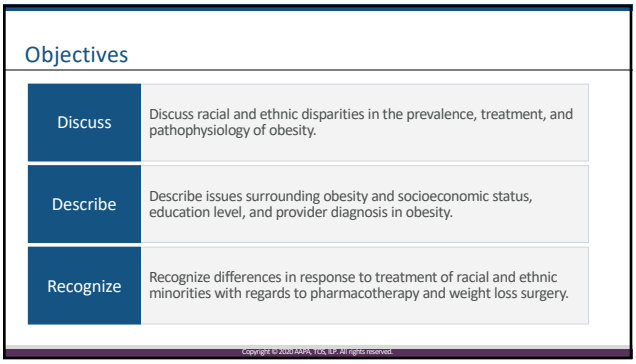

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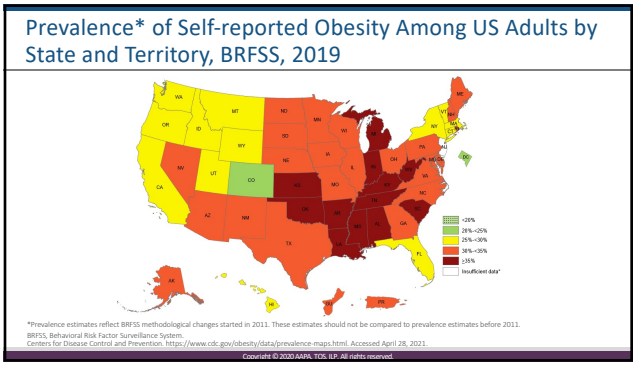

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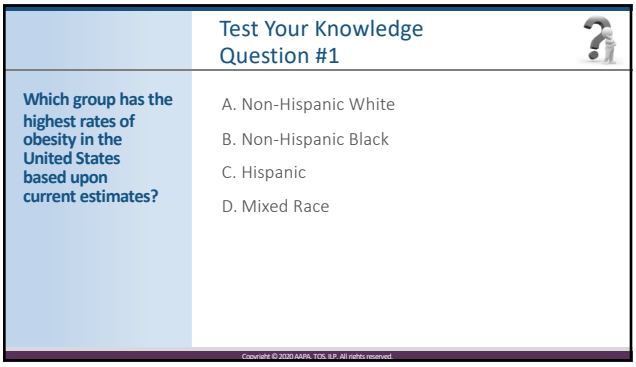

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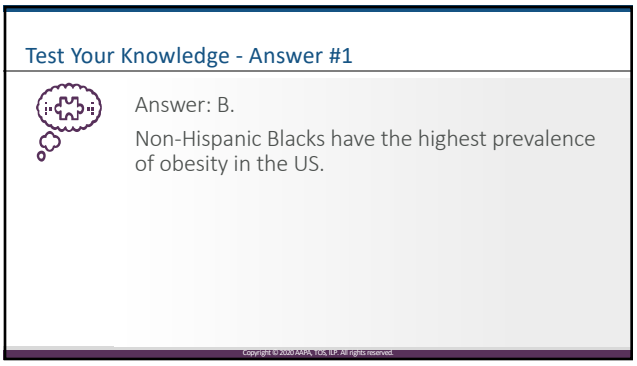

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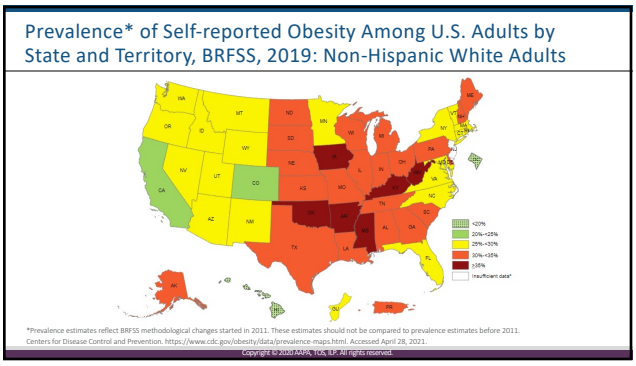

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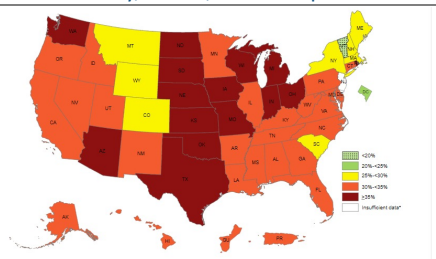
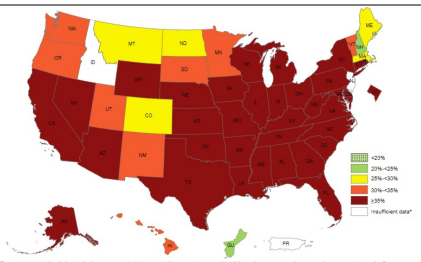
Prevalence* of Self-reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2019: Hispanic Adults



*Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.
Centers for Disease Control and Prevention. https://www.cdc.gov/obesity/data/prevalence-maps.html. Accessed April 28, 2021.

103

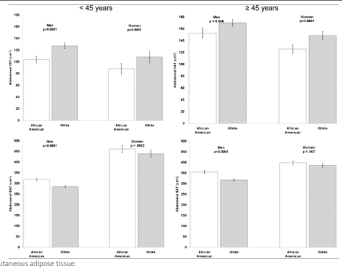
Prevalence* of Self-reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2019: Non-Hispanic Black Adults



*Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.
Centers for Disease Control and Prevention. https://www.cdc.gov/obesity/data/prevalence-maps.html. Accessed April 28, 2021.

104

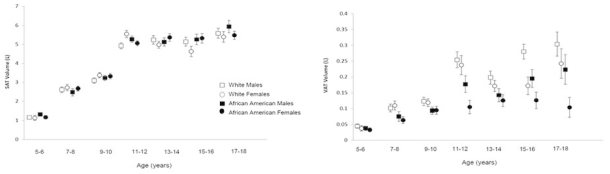
Abdominal VAT Area and SAT Area in African American and White Men and Women Aged <45 and ≥45 Years



VAT, visceral adipose tissue; SAT, subcutaneous adipose tissue.
Katzmarzyk PT, et al. *Am J Clin Nutr.* 2009;91(1):7-15.

105

Ethnic and Sex Differences in VAT, SAT, and Total Body Fat in Children and Adolescents



Staiano AE, et al. *Obesity.* 2012;1(6):1251-1255.

106

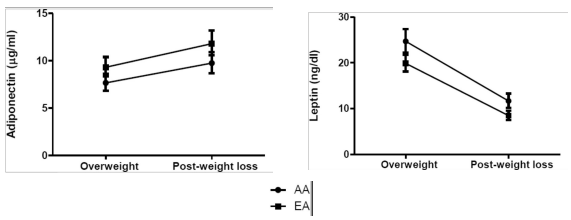
Markers of Inflammation in African-American vs. Non-Hispanic White Patients

- 126 healthy, premenopausal women, BMI: 27-30 kg/m²
- Placed on a weight-loss intervention consisting of diet and/or exercise until a BMI <25 kg/m² was achieved
- Fat distribution was measured with computed tomography, and body composition with dual-energy X-ray absorptiometry
- Serum concentrations of TNF-α, sTNFR-I, sTNFR-II, CRP, and IL-6 were assessed
- All markers of inflammation decreased following weight loss among NHW, whereas only IL-6 and CRP decreased following weight loss in AA

AA, African American; CRP, C-reactive protein; IL-6, interleukin-6; NHW, non-Hispanic White; TNF-α, tumor necrosis factor- α; sTNFR, soluble tumor necrosis factor receptor.
Fisher G, et al. *Obesity (Silver Spring).* 2012;20(4):715-720.

107

Adiponectin and Leptin in African-American vs. Non-Hispanic White Premenopausal Women



EA, European American.
Azrad M, et al. *Endocrine.* 2013;43(3):586-592.

108

Insulin, Estrogen, and Fat Mass in African-American vs. European American Adolescent Girls

TABLE 1. Descriptive statistics at baseline and ages of menarche and adrenarche for all children combined and by race

	EA (n = 80)	AA (n = 57)	Total (n = 137)
Age (yr)	8.1 ± 1.4	7.9 ± 1.9	8.0 ± 1.6
Total fat mass (kg)	9.6 ± 5.6	11.0 ± 7.1	10.2 ± 6.3
Lean tissue mass (kg)	20.0 ± 4.2	20.9 ± 5.8	20.4 ± 4.9
BMI	22.39 ± 1.0	21.04 ± 0.76	21.78 ± 0.64
BMI z-score	0.87 ± 0.18	0.84 ± 0.17	0.86 ± 0.12
Height (cm)	145.25 ± 2.2	146.40 ± 2.6	145.77 ± 1.7
Fasting insulin (μIU/ml)	10.5 ± 2.2 [a]	15.4 ± 9.0 [b]	12.4 ± 8.3
SI ($\times 10^{-4}$ min^{-1}/(μIU/ml)	5.65 ± 1.4	3.42 ± 0.51	4.46 ± 0.75
AIRg (μIU/ml × 10 min)	732 ± 346[a]	1639 ± 361[b]	1216 ± 654
E2 (pg/ml)	2.1 ± 6.2	3.8 ± 4.0	2.8 ± 5.3
Age at menarche (yr)*	11.2[a]	10.7[b]	11.6
Age at adrenarche (yr)*	9.3[a]	8.5[b]	9.1

[a,b] Means with *different superscripts are significantly different* ($P < 0.05$).
* Adjusted for age, race, body composition, E2, and AIRg.

AIRg, acute insulin response to glucose; E2, estradiol.
Casazza K, et al. *J Clin Endocrinol Metab.* 2008;93(7):2610-2615.

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Insulin, Estrogen, and Fat Mass in African-American vs. European American Adolescent Girls

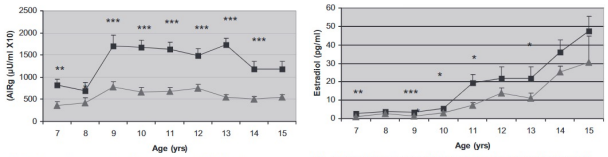

FIG. 1. Comparison by age for AIRg in AA (■) and EA (▲) girls. Multivariate linear regression modeling indicated significant age ($P < 0.001$) and race ($P < 0.001$) effects. *Error bars,* SEM. **, $P < 0.01$; ***, $P < 0.001$.

FIG. 2. Comparison in serum E2 concentration by age in AA (■) and EA (▲) girls. Multivariate linear regression modeling indicated significant age ($P < 0.001$) and race ($P < 0.05$) effects as well as age by race interaction ($P < 0.001$). *Error bars,* SEM. *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$.

Casazza K, et al. *J Clin Endocrinol Metab.* 2008;93(7):2610-2615.

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Insulin, Estrogen, and Fat Mass in African-American vs. European American Adolescent Girls

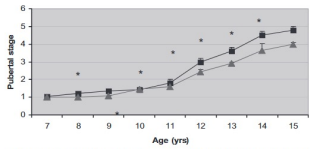

FIG. 3. Racial differences in progression though puberty in AA (■) and EA (▲) girls. *Error bars,* SEM. *, $P < 0.05$.

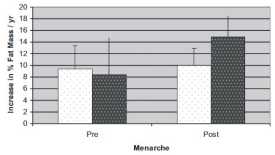

FIG. 4. Comparison between increase in percent fat before and after menarche in AA (*shaded bars*) and EA (*unshaded bars*) girls.

Casazza K, et al. *J Clin Endocrinol Metab.* 2008;93(7):2610-2615.

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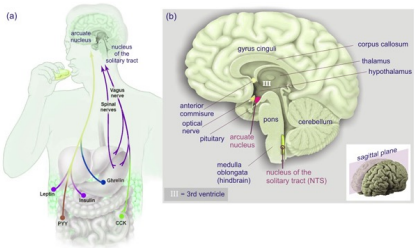
Regulation of Food Intake



European Institute of Chemistry and Biology. https://www.cellbiol.net/ste/algobesity2.php. Accessed April 28, 2021.

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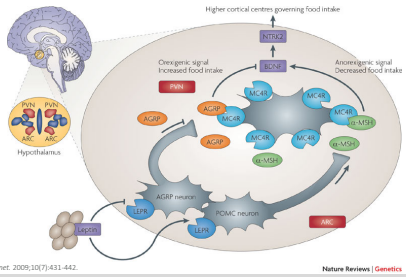
Regulation of Food Intake



Walley AJ, et al. *Nat Rev Genet.* 2009;10(7):431-442.

Nature Reviews | Genetics

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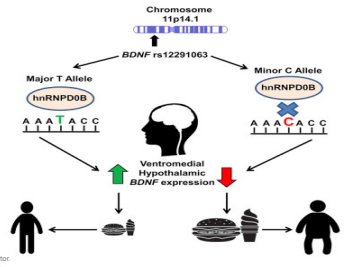
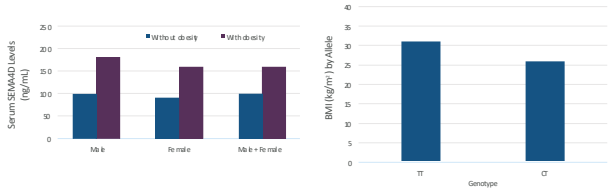
BDNF Regulation and Obesity



BDNF, brain-derived neurotrophic factor.
Mou Z, et al. *Cell Rep.* 2015;13(6):1073-1080.

114

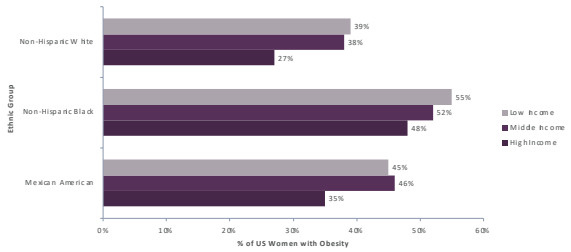
Genome-wide Analysis: African-specific Variant in SEMA4D Associated With BMI



Chen G, et al. *Obesity*. 2017;25(4):794-800.

115

Women With Lower Income Have Higher Obesity in the US



Ogden CL, et al. 2010. https://www.cdc.gov/nchs/products/databriefs/db51.htm. Accessed April 28, 2021.

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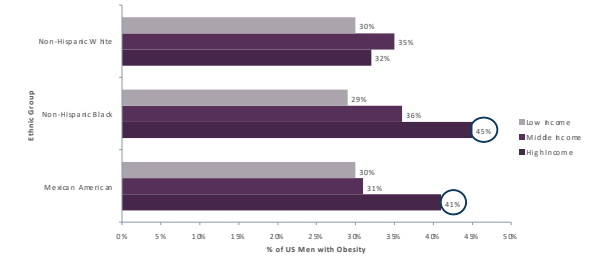
Non-Hispanic Black and Mexican-American Men Have Higher Obesity Rates at Higher Income Levels



Ogden CL, et al. 2010. https://www.cdc.gov/nchs/products/databriefs/db51.htm. Accessed April 28, 2021.

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Ethnic Minorities are Less Commonly Diagnosed with Overweight and Obesity

NHANES 1999-2004 for Persons with BMI>30

Race/Ethnicity	Odds Ratio
Non-Hispanic White	1.0
Non-Hispanic Black	0.6
Hispanic	0.7

Davis NJ, et al. *Obesity* (Silver Spring). 2009;17(11):2110-2113.

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In Some Studies, Ethnic Minorities Have Smaller Response to Weight Loss Pharmacotherapy

	Sibutramine	Orlistat
Non-Hispanic Whites	-4.4kg	-2.8 kg
Ethnic Minorities	-2.7 kg	-2.3 kg

Osei-Assibey G, et al. *Diabetes Obes Metab*. 2011;13(5):385-393.

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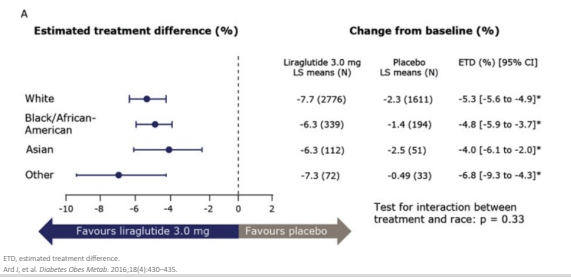
There is Minimal Ethnic/Racial Difference in Pharmacotherapy Response to Liraglutide



ETD, estimated treatment difference.
Ard J, et al. *Diabetes Obes Metab*. 2016;18(4):430–435.

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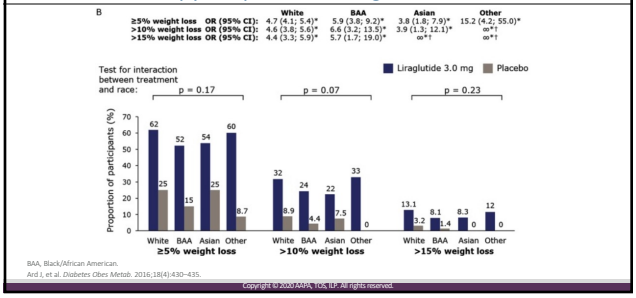
There is Minimal Ethnic/Racial Difference in Pharmacotherapy Response to Liraglutide



BAA, Black/African American.
Ard J, et al. *Diabetes Obes Metab.* 2016;18(4):430–435.

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African-Americans Achieve Less Weight Loss After Bariatric Surgery

Mean Absolute Difference in Estimated Weight Loss in Caucasians vs. African-Americans

-8.4%

Estimated Weight Loss

Admiraal WM, et al. *Diabetes Care.* 2012;35(9):1951-1958.

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Test Your Knowledge Question #2

What explanation has NOT been posed as a reason for potential differences in weight status in racial and ethnic minority patients compared to majority patients?

A. Increased energy intake
B. Decreased energy expenditure
C. Decreased life stressors
D. Genetics

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Test Your Knowledge - Answer #2

Answer: C.

Racial and ethnic minorities have increased life stressors to include issues such as structural racism, limited career options, and family illness/death.

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Potential Reasons for Ethnic Disparities in Obesity

- ↑↑ energy intake
- ↓energy expenditure
- ↑↑ life stressors
  - Racism
  - Lack of career options
  - Family illness/ death
- Cultural influences
- Genetics

Johnston DW, et al. *Demography.* 2011;48(4):1429-1450.
Johnson P, et al. *ABNF J.* 2012;23(3):46-50.

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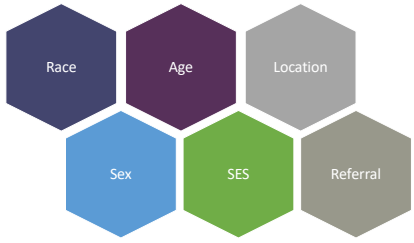
Factors That Affect Access to Metabolic/Bariatric Surgery



SES, socioeconomic status.
Jackson TD, et al. *Sys Rev.* 2014;3:15.

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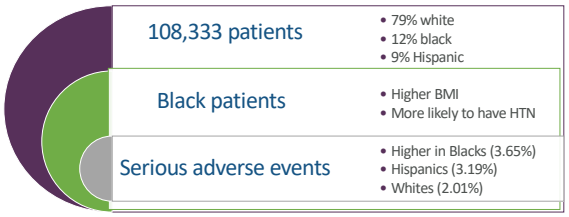
Access to RYGB in the United States



HTN, hypertension; RYGB, Roux-en-Y gastric bypass surgery.
Sudan R, et al. *J Gastrointest Surg.* 2014;18(1):130–136.

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Are Minorities Less Likely to Proceed With Metabolic/Bariatric Surgery?

- 651 patients at 2 academic medical centers in Boston
- Evaluated whether racial and ethnic minorities were less likely to proceed with weight-loss surgery
- Once referred, racial and ethnic minorities just as likely to proceed with surgery as their White counterparts
- Comorbid illness burden was similar, but there was difference in baseline BMI

Stanford FC, et al. *Surg Endosc.* 2015;29(9):2794-2799.

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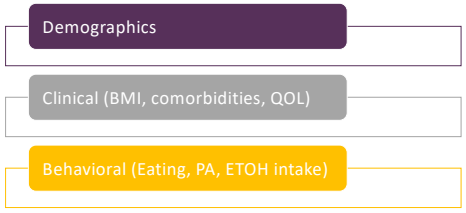
What Accounts for Difference in Response to Metabolic/Bariatric Surgery?



ETOH, alcohol; PA, physical activity; QOL, quality of life.
Wee CC, et al. *Obes Surg.* 2017;27(11):2873-2884.

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Adjustment of BMI Scale for Race, Gender, and Obesity-related Diseases

TABLE. Cutoffs for BMI Based on ROC Curve Analysis

	BMI (kg/m^2)					
	Men			Women		
Obesity Co-morbidity	Black	Hispanic	White	Black	Hispanic	White
Hypertension	28	29	28	31	28	27
Dyslipidemia	27	26	27	29	27	25
Diabetes	29	29	30	33	30	29
≥2 risk factors	28	29	29	31	30	28
Average	28	28	29	31	29	27

ROC, receiver operating characteristic.
Stanford FC, et al. *Mayo Clin Proc.* 2019;94(2):362-363.

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Case #1

27-year-old African-American woman

- Past medical history:
  - Mixed anxiety and depression
  - Hyperinsulinism
  - Depression
  - Hypertension
  - Asthma
- Diet:
  - Breakfast: Oatmeal (weight controlled)
  - Snack: Denies
  - Lunch: Chicken, sausage
  - Snack: Fruit cup
  - Dinner: Chicken, sausage with vegetables
  - Snack: Rare (fruit cup)
- Exercise: T/TH - gym (elliptical [50 min]; treadmill [60 min]); Fri (treadmill [60 min])
- Sleep: 6-7 hours (feels well rested)
- Stress: moderate
- Strong family history of severe obesity (mother, 2 aunts, and 1st cousin - underwent RYGB with variable response)

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Case #1: 27-year-old African-American Woman

EBWL, excess body weight loss; TBWL, total body weight loss.

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Case #2

58-year-old African-American woman

- Past medical history:
  - Hypertension
  - GERD
  - Depression
- Diet:
  - Breakfast: Scrambled eggs with spinach, onions, peppers, or sausage; OR oatmeal with nuts/ blueberries/ blackberries
  - Snack: Fruit; protein bar (KIND bars) or Jif creamy peanut butter
  - Lunch: Leftovers (baked chicken, vegetables, brown rice)
  - Snack: Almonds, protein bar
  - Dinner: Baked chicken, vegetables, brown rice
- Exercise: 4 days per week (1 hour); 2 days of cardio, 2 days of strength (meets with trainer twice per week)
- Sleep: 6-7 hours (feels well rested)
- Stress: normal
- Postpartum weight retention; night shift nurse for 4 years

GERD, gastroesophageal reflux disease.

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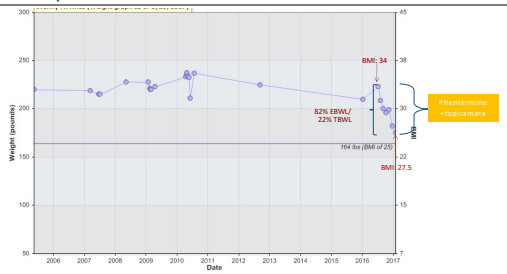
Case #2: 58-year-old African-American Woman



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Case #3

49-year-old Hispanic woman

- Past medical history:
  - Anxiety/depression
  - Ventricular tachycardia s/p ablation
  - Mixed connective tissue disease
  - Hypertension
  - GERD
- Diet:
  - Breakfast: Fruit, vitamins
  - Snack: Vitamin water, Sobe Life water, fruit
  - Lunch: Lettuce (romaine and iceberg), cheese, ham, tomato, peppers, lite Italian dressing or vinegar/oil
  - Snack: Fruit (sometimes)
  - Dinner: Spinach, Smart Ones
  - Snack: Denies
- Exercise: Walking – 5 miles a day; some form of cardio: elliptical; Zumba (1 time per day; 7 days a week)
- Weight gain became prominent after childbirth (10 lbs. with each pregnancy x6); tobacco cessation; and metoprolol prescription for HTN

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Case #3: 49-year-old Hispanic Woman

VSG, vertical sleeve gastrectomy.

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Case #4

67-year-old African-American woman

- Past medical history:
  - Type 2 diabetes mellitus
  - Hypertension
  - CAD
  - CHF
  - NASH
  - Breast Cancer
  - GERD
- Diet:
  - Breakfast: Regular yogurt with fruit (may snack)
  - Snack: Occasionally popcorn
  - Lunch: Chicken or fish with vegetables and/or fruit
  - Snack: Fruit (apple, oranges, and watermelon)
  - Dinner: Fish (Haddock, Tilapia) or chicken with occasional vegetables
  - Snack: Nuts
- Exercise: Walking, some form of cardio; 1/2 hour per day; joined a gym (started on the treadmill)
- Weight gain became prominent in peri-menopause

CAD, coronary artery disease; CHF, congestive heart failure; NASH, non-alcoholic steatohepatitis.

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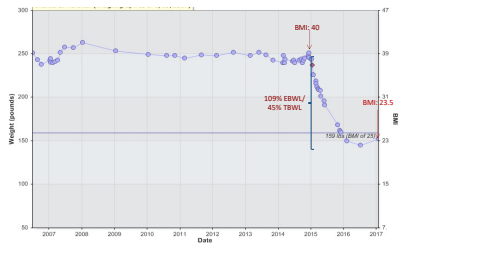
Case #4: 67-year-old African-American Woman s/p VSG



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30-year-old Woman s/p RYGB

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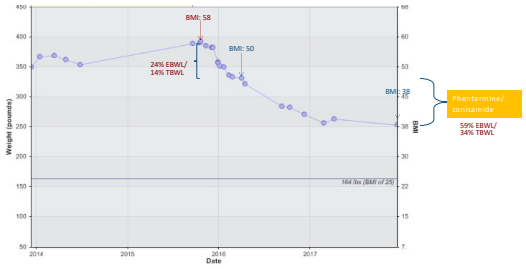
45-year-old Woman s/p VSG



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59-year-old Woman s/p RYGB

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Summary

- Obesity is a multi-factorial disease process
- Regulation of food intake is complex
- ↑ prevalence of obesity in ethnic minorities
- Response to treatment in persons with obesity varies with education level
- Healthcare providers are less likely to diagnose ethnic minorities with overweight/obesity
- Ethnic minorities have less pronounced response to metabolic/bariatric surgery and pharmacotherapy

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Action Items

- Steps should be taken to ascertain etiology of higher prevalence of obesity in ethnic minorities
- Healthcare providers should be more vigilant in recognizing and diagnosing overweight/obesity in ethnic minorities
- Strategies should be employed to address disparities in prevention and treatment of obesity in ethnic minorities

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Thank You for Your Time

Fatima Cody Stanford, MD, MPH, MPA, MBA,
FAAP, FACP, FAHA, FAMWA, FTOS
fstanford@mgh.harvard.edu

@askdrfatima

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Workshop Wrap-up, Prize Draw, and Closing Remarks

ANGELA GOLDEN, DNP, FNP-C, FAANP

SHERLYN CELONE-ARNOLD, MS

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What Did We Learn Today?

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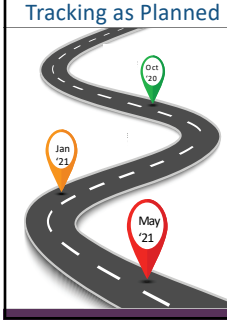
Tracking as Planned



- What's up next:
  - Today's workshop will be posted demand in AAPA's Learning Central by next Fri., May 28th
  - Remember to complete the posttest and evaluation for this activity by June 4th
  - PDSA Cycle Plans
    - GOAL 1: June 1 – August 13
      - More details coming week of May 31st
    - GOAL 2: September 1 – November 15
  - Modules 6 – 10 (June – October)
    - Mod 6: Medical Devices & Surgery
    - Mod 7: Apply Foundations of Care
    - Mod 8: Managing Obesity Related Complications
    - Mod 9: Documenting Billing & Coding
    - Mod 10: Putting it All Together: Obesity Blueprint of Care Model
  - Obesity Week Podcast (Nov 2021)
  - Follow-up Assessment and Certificate

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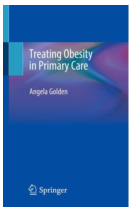
Obesity Management Workshop

May 22, 2021

Prize Draw Winners

3rd place: Lori Dixon
2nd place: Dolores R
1st place: Christy Terry



1st Prize

2nd Prize

3rd Prize

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Any Questions?

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Thank you!

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