Healthy Weight Management Strategies in Clinical Practice

January 20, 2016
We Want To Hear From You!

Type questions into the Questions Pane at any time during this presentation.
Oregon’s PCPCH Model is defined by six core attributes, each with specific standards and measures

- **Access to Care** “Health care team, be there when we need you”
- **Accountability** “Take responsibility for making sure we receive the best possible health care”
- **Comprehensive Whole Person Care** “Provide or help us get the health care, information and services we need”
- **Continuity** “Be our partner over time in caring for us”
- **Coordination and Integration** “Help us navigate the health care system to get the care we need in a safe and timely way”
- **Person and Family Centered Care** “Recognize that we are the most important part of the care team - and that we are ultimately responsible for our overall health and wellness”

Learn more: [http://primarycarehome.oregon.gov](http://primarycarehome.oregon.gov)
Introduce Presenter

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Learning Objectives

1. Review the current science on causes and factors of obesity

2. Understand the principles of healthy weight management, and how they differ from weight loss strategies

3. Learn various different tactics that clinics can use to address healthy weight management in their populations
Resources & Thanks!

• Health at Every Size Linda Bacon
  – http://www.haescommunity.org

• Mindless Eating Brian Wansink
  – http://mindlesseating.org/

• Modern Nutrition in Health and Disease (textbook)
  by A. Catharine Ross et al

Please contact me for follow up questions:
Helen@healthshareoregon.org

Please complete post-webinar survey!
My background

- Family physician
- Directed a 3-year federal grant to address healthy weight management among Hispanic farmworkers 2004-2007
- Worked with clinicians in 3 different health systems to improve their approach to healthy weight management in their patients
- Wrote a guide on Healthy Weight Management to be used as prompts, scripts and tools in primary care
Healthy Weight Management
is for Everyone!

¡Controlar a Nuestro Peso
de Forma Saludable
es Importante Para Todos!
Three pieces of information

Part 1: *Calories in - calories out = weight gain* is BAD MATH

Part 2: Stop routinely weighing your adult patients

Part 3: Talk with EVERYONE about healthy weight management strategies, regardless of what they weigh
Part 1: Energy Imbalance

Too many calories in
+
too few calories burned
= weight gain

Right?
No!
It is NOT simple arithmetic!

It’s more like calculus...

$$\int \sin^5 x \, dx = \int \left(1 - \cos^2 x\right)^2 \sin x \, dx$$

Calories in - Calories burned - Calories burned

$$\frac{dy}{dt} = F'(x) \frac{dx}{dt}$$ (metabolic rate)/ hours of sleep + grams leptin

$$\approx \Delta \text{weight (kg)} \pm 2.5 \text{kg}$$
3500 calories = a pound... only in the laboratory.

A change of 3500 calories *may* or *may not* result in weight gain or loss in a human.
I've got this...

Fewer calories in

Genetics and gene expression
Gut microbiome
Leptin and ghrelin
Artificial sweeteners
Viruses
Hormones

More calories out

Stress
Mindlessness/distraction
Plastics
Sleep deprivation
Smoking and poor weight gain in mother’s pregnancy

Trauma
Genetics, epigenetics, gene expression

• At least 50 genes have been linked to promoting obesity

• The heritability of obesity may be as high as 50% to 70% in modern developed populations.¹,²

• The extent to which you gain weight with excess calories is largely genetically determined.³


Epigenetics are heritable changes to gene function. If your parents (or grandparents) experienced significant trauma or stress (war, famine, slavery, severe poverty), the stress changes the function of genes that control obesity.\(^3\)

Other factors in gene expression: generational high-fat diet, plastics in the environment, toxins (smoking during pregnancy), lack of micronutrients during pregnancy.

The bacteria in your gut determine the proportion of calories you extract from your food. People with an “obese microbiota” absorb more calories from the exact same food than people with a “lean microbiota”.

This trait is transmissible by transplant!

Leptin and ghrelin

- **Leptin**: I’m full, stop eating
  - Satiety hormone made by adipose tissue, acts on the hypothalamus to inhibit hunger
  - Obese people have leptin resistance

- **Ghrelin**: I’m hungry, feed me
  - Hunger hormone, released by GI tract when stomach is empty, acts on hypothalamus to stimulate appetite
  - Shuts off when stomach is stretched
  - Also acts on the dopamine-based reward center of the brain – eating is pleasure
Sleep deprivation

- Consistent finding in adults and children
- Less than 7 hours of sleep at night causes weight gain
- Sleep deprivation linked with decrease in leptin sensitivity and increase in ghrelin secretion
- Likely related to cortisol

Patel SR, Hu FB. Short sleep duration and weight gain: a systematic review *Obesity (Silver Spring)*. 2008 March ; 16(3): 643–653
Adults and sleep-related obesity

• Only 26% of US adults get 8 hours of sleep or more

• Ideal seems to be 8-9 hours

• Comparative increased risk for obesity:
  - 7-8 hours of sleep 9%
  - 6-7 hours of sleep 24%
  - 5-6 hours of sleep 49%
  - <5 hours of sleep 85%

Patel SR, Hu FB. Short sleep duration and weight gain: a systematic review *Obesity (Silver Spring)*. 2008 March; 16(3): 643–653
Stress and Trauma

• Early life trauma is highly correlated with developing obesity, with a dose-response effect
• Adults with a history of physical, emotional or sexual abuse were 34% more likely to be obese than adults without that history¹
• Among adults undergoing gastric bypass surgery, 69% reported childhood abuse²

Stress and trauma

• Violence (domestic violence, community violence)
• Racism and oppression
• Poverty
• Unemployment
• Adverse childhood events (ACEs) – abuse, neglect, household dysfunction
Mechanisms by which stress and trauma may cause obesity

Psychological and emotional effects
- anxiety disorders
- shame and emotional eating

Biological effects
- increased inflammation
- increased hypothalamic–pituitary–adrenal axis reactivity
- sleep disturbances
- suppression of the immune system
- increased levels of ghrelin

Beverages

Calories from beverages are more likely to cause us to gain weight than the same calories from food

- Do not trigger satiety signals
- Rapidly processed through the digestive track
- No compensation at next meal
- High-fructose diet causes leptin resistance
- Reducing liquid calories is more effective for weight loss than reducing solid calories

Diet beverages are not any better!

- Artificial sweeteners produce abnormal triggers in brain and liver
- Cause most people to seek and consume more calories
- People who consume artificial sweeteners on a regular basis gain more weight than those consuming regular sugar-sweetened beverages
- Artificial sweeteners are ubiquitous in processed foods!

What’s going on?

Many genes are designed to quickly promote weight gain/obesity under various conditions.

Physical stressors (sleep deprivation) and psychological stressors (trauma) trigger genetic and hormonal signals that promote obesity.

Our livers and our gut flora are carefully tuned to changes in the environment and respond by promoting obesity.

Why would that be?
What are the benefits of gaining weight?

- Resources in the face of stress
- Protection
- Resilience
- Security

But doesn’t excess weight cause disease? How can that be helpful?
Our paradigm about the relationship between obesity and disease is shifting

• Obesity is *highly correlated* with disease

• But does obesity *cause* disease?

• Or are obesity and disease separate outcomes from the same stimulus?
Old paradigm: Poor health behavior causes obesity which causes disease

- Poor eating, sedentary behavior, stress
- Overweight and obesity
  - Diabetes
  - Cardiovascular disease
  - Cancers
- Early death
New paradigm: Poor health behavior causes disease. It also may cause obesity.

- Poor eating, sedentary behavior, stress
- Inflammation, hormone disruption
  - Overweight and obesity
  - Cardiovascular disease
    - Cancer
    - Diabetes
  - Protective effect on mortality
POLL: What proportion of Type 2 diabetics have a weight in the “normal” range (BMI 18-24.9) at diagnosis?

1. 0
2. 4%
3. 8%
4. 12%

Mortality data

JAMA meta-analysis of all-cause mortality by weight category published 2013

Compared to people of “normal” weight (BMI 18-25):

• Overweight people had lower all-cause mortality
• Grade 1 obese people (30-35) had no difference in all cause mortality
• Grade 2 and 3 obese people (35+) had higher mortality

Obesity may not be the problem; It may be the solution.

- Obesity may be a self protective mechanism to mitigate high-stress environment
- High stress may be caused by low quality diet, lack of sleep, toxins/viruses in the environment
- High stress is certainly caused by trauma, abuse, violence, oppression, poverty

- Obesity offers resources, security, resiliency, psychological comfort
What does this mean in clinical practice?

Perhaps we should reassess how we approach weight as part of clinical care.
Part 2: Stop routinely weighing your adult patients

Poll: Comments on the exercise?

Option 1:
If you are a clinician, ask your staff to stop routinely weighing adult patients who come in for care. If a weight is needed for decision making, you can specifically indicate that to the staff for that patient, but don’t automatically weigh people as part of their intake. Listen for feedback or comments from patients or staff.

Option 2:
If you are a staff member at a clinic who routinely weighs patients, try a new approach:
• First, ask permission before weighing people “Would it be ok if we weigh you today?” and make it clear that they can decline.
• Second, ask them to step on the scale backwards, facing away from the reading. After recording the reading, ask them if they are interested in knowing their weight today.
• Listen for feedback or comments from patients or staff.
Why weighing hurts people

• Distressing to most people, regardless of their weight
• Triggering for people with eating disorders or difficulty managing their weight
• Derails their energy for positive changes
• Initiates a spiral of low-self esteem and unhealthy behaviors
• Shaming, feels judgmental
Approach weight respectfully

All children need to be weighed routinely to monitor growth.

Pregnant women need to be weighed to monitor pregnancy.

Adults with CHF and kidney failure need to be weighed routinely.

No other adults need routine weights at every visit, and it is not a benign intervention.
Approach weight respectfully

Treat weight like a lab test, not a vital sign:

- It is necessary pre-op and for some medication dosing
- Get consent before weighing
- Weighing should occur in private
- Ask if the patient wants their results (including AVS)
Other things you can do to approach weight respectfully

• Make sure you have chairs in your weighting room that accommodate large-body people
• Make sure every room is stocked with extra-large gowns and BP cuffs
• Beware of attribution bias (not every symptom is caused by excess weight)
• If you believe that weight is contributing to a condition, ask if it is ok to discuss weight with them today, or if they prefer to wait for a different visit
What it takes to work with people on weight loss in primary care

• Thorough **history**, including weight history, trauma history, family habits and behaviors
• **Motivational interviewing** training
• **Long-term** commitment to high-intensity counseling (30-45min several times a month)
• Knowledge and experience with **medications** that cause and treat obesity
• Confidence in counseling about **nutrition and exercise**
• Judicious approach to **bariatric surgery referral**
Healthy Weight Management is for everyone
## Healthy Weight Management

### Weight loss
- Short-term
- Focused on getting to a certain number
- Success defined by pounds lost
- The more pounds you lose, the better
- Aim to get to a “normal” weight
- Weight specific reward and punishment
- **People who are overweight work to lose weight**

### Healthy Weight Management
- Lifelong
- Focused on health
- Success defined by reaching behavior goals
- Halting weight gain is a successful outcome
- Fit and healthy at any size
- Weight-neutral self-care
- **Everyone works to adopt healthy habits**
Reframe the task from weight loss to self care
Part 3: Talk with EVERYONE about healthy weight management strategies, regardless of what they weigh

- Use simple scripts with every patient you can
- Gives you practice bringing up the topics
- Keep it short and simple
- Focus on habits/behaviors, NOT weight
Part 3: Talk with EVERYONE about healthy weight management strategies, regardless of what they weigh

- Sleep
- Stress
- Beverages
- Daily activity levels: step it up strategies
- Mindfulness: notice one thing you are doing
- Exercise
- Healthy food choices
“I’m talking to all my patients about sleep this month. We know that getting 7-9 hours of sleep most every night is important for health and healthy weight management. How is that going for you?”

- No screens for at least one hour before bed.
- Aim for bedtime no later than 11 to maximize diurnal hormones.
- Avoid caffeine for 6 hours and alcohol for 1-2 hours before bed.
- Stretch, relax, talk, listen to music.
“I’m talking to all my patients about stress management this month. We know that coping with stress in healthy ways is important for health and healthy weight management. How is that going for you?”

- Find a physical activity you enjoy: walking, dancing, rollerskating, knitting/crocheting, organizing/cleaning, gardening/yardwork
- Laugh, look for things that give you pleasure
- Connect with the natural world
- Connect with people
- Meditate, pray, practice mindfulness
Beverages

“I’m talking to all my patients about choosing healthy beverages this month. We know that what we drink is important for health and healthy weight management. How is that going for you?”

• Drinking calories is more likely to lead to weight gain than eating calories
• Diet beverages cause weight gain!
• Avoid all artificial sweeteners (aspartame, sucralose, neotame, acesulfame potassium, advantame)
• Choose water and tea whenever possible
Daily activity levels: step it up

“I’m talking to all my patients about being more active this month. We know that adding small amounts of activity throughout the day is important for health and healthy weight management. How is that going for you?”

• Stand instead of sit, walk instead of stand
• Fidget
• 10 min of activity for every 50 min of sitting
Mindfulness: Notice one thing you are doing

“I’m talking to all my patients about paying more attention to how they take care of themselves this month. We know that paying attention is important for health and healthy weight management. How is that going for you?”

- Notice what you eat when you are upset, bored, lonely
- Notice how your eating changes when you are alone or with other people
- Notice how different your experience of food is when you are not distracted by TVs/phones/computers. Focus solely on the experience of eating
Exercise

“I’m talking to all my patients exercise this month. We know that getting enough exercise is important for health and healthy weight management. How is that going for you?”

-Aim for 150 minutes a week (30min 5 days/week)
-Walking is the best for most people
-Find something you like to do that is fun
-No distractions, just focus on exercising
Healthy Food Choices

“I’m talking to all my patients about choosing healthy foods this month. We know that what we eat is important for health and healthy weight management. How is that going for you?”

-Mediterranean diet is best in terms of what to eat
-Reducing high-glycemic foods can result in weight loss
-Eat breakfast, avoid eating for 3 hours before bed
-High fiber foods every day (whole grains, vegetables, beans) – add fiber anywhere you can
Today, I will try to feed myself when I am hungry.
Today, I will try to be attentive to how foods taste and make me feel.
Today, I will try to choose foods that I like and that make me feel good.
Today, I will try to honor my body’s signals of fullness.
Today, I will try to find an enjoyable way to move my body.
Today, I will try to look kindly at my body and to treat it with love and respect.

Signature: ____________________________ Date: ______________
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Thank you to Q Corp and PCPCI for all their support.

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