Healthy Weight 101

Module 1: Introduction to Healthy Weight

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Objectives

By the end of this module, students will have learned...

- An overview of weight
- What is a healthy weight?
- Over Weight or Obese?
- Health consequences
- Causes
- Who is diagnosed with obesity?
- Risk factors
Overview of Weight

- Body composition
  - water, bone, muscle, fat and tissue
- Fat (adipose tissue)
  - function
  - storage
  - visceral vs. subcutaneous
- Men vs. Women
What is a healthy weight?

• Waist to Height Ratio (WHtR)
What is a healthy weight?

- Body Mass Index
- Inaccuracies across ethnic groups
What is a healthy weight?

- **Overweight:** 25 to 29.9
  - for Pacific Islanders: 27 to 32
- **Obese:** 30 or higher
  - Pacific Islanders: 32 or higher
Over-Weight or Obese?

- Difference between "over-weight" and "obese"
- BMI & WHtR ranges
- Links between BMI/WHtR & health risks
- Increases the chances of specific diseases and health problems
- Hawai‘i averages
Health Consequences

- High blood pressure or hypertension
- High blood cholesterol or dyslipidemia
- Type 2 diabetes
- Coronary heart disease or coronary artery disease
- Arthritis
- Limited mobility
- Cancer
- Sleep apnea
- Hernia
Health Consequences

- Link between BMI and health risks
  - well established

Where Your Fat is Stored Matters (HBO: The Weight of the Nation)
http://www.youtube.com/watch?v=n6ynwRb2rR0
Causes

- metabolism
- high vs. low muscle mass
- menopause
- pregnancy
- aging
Causes

• Many factors play a role → complex health issue to address
Causes

- Energy imbalance
  - Eat too much and exercise too little
Causes

• History – why are we so heavy now?
• U.S. patterns
Obesity Trends* Among U.S. Adults
BRFSS, 1985
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1986
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1987

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1988

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1989
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1990
(*BMI ≥30, or ~30 lbs. overweight for 5’ 4” person)

No Data           <10%          10%-14%
Obesity Trends* Among U.S. Adults
BRFSS, 1991

(*BMI ≥30, or ~30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1992
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1993
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1994
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1995
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1996
(*BMI ≥30, or ~ 30 lbs. overweight for 5’4” person)
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BRFSS, 1999
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2000

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2001
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2002

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2003
(*BMI ≥30, or ~30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2004

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2005
(*BMI ≥30, or ~30 lbs. overweight for 5’ 4” person)

No Data <10% 10%-14% 15%-19% 20%-24% 25%-29% ≥30%

[Color-coded map of the United States showing obesity trends among adults, with states shaded according to their obesity prevalence.]
Obesity Trends* Among U.S. Adults
BRFSS, 2006
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2007
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2008

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2009
(*BMI ≥30, or ~ 30 lbs. overweight for 5′4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2010

(*BMI ≥30, or ~ 30 lbs. overweight for 5‘4” person)
Who becomes obese?
Obesity and Native Hawaiians & other Pacific Islanders (NHOPI)

• Where do we carry our weight?
• What makes us susceptible to weight increase?
  - access
  - behavior
• Obesity culture
  - condition normalized
  - coping mechanism
  - difficult to discuss
Obesity and Native Hawaiians & other Pacific Islanders (NHOPI)

• State averages
• Compared with Asians, NHOPI are:
• Compared with Whites, NHOPI are:

Rates for Obesity by Ethnicity *

[Bar graph showing obesity rates for different ethnicities]

Source: (Hawaii State Department of Health, 2009)
Traditionally...

- Past: healthy diets, active lifestyles, intact food systems
- Present: poor diets, sedentary lifestyle,
  - Decline in health of Native Hawaiians and Pacific Islanders
“…Indians are above middle size, strong, well made…of a dark copper Colour…walk gracefully, run nimbly and are capable of great fatigue…. Women have handsome faces …good Teeth…agreeable tempers…truly good natured, social, friendly, and humane, possessing much liveliness and a constant flow of good Humour.”

First Western Contact, Capt. Cook Waimea, Kaua ‘ī - January 19, 1778
What are risk factors for Obesity?
Risk Factors

- Genetics
- Inactivity
- Unhealthy diet and eating habits
- Family lifestyle
- Quitting smoking
- Pregnancy
- Lack of Sleep
Risk Factors

- Certain medications
- Age
- Social and economic issues
- Medical problems
Jeopardy
Risk factors that CANNOT be controlled

- Age
- Family history
- Ethnicity?
- Gender
Risk factors that CAN be controlled

- High cholesterol
- Smoking
- Lack of physical activity
- Unhealthy diet
## What are other risk factors?

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Effect</th>
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| **Chronic Stress** | Releases stress hormones (adrenaline and cortisol)  
“Flight or fight” response → burst of energy  
Causes hunger in response to “energy use”  
Lowers muscle building hormone testosterone  
Lower muscle mass → burn fewer calories  
Cortisol encourages fat storage (visceral fat) |
| **Alcoholism**   | Stops metabolizing fats & sugars  
Stimulates hunger  
Impairs judgment → poor food choices  
Associated with abdominal obesity in men (beer belly)  
Increased risk for Type II Diabetes |
| **Depression**   | Lack of energy  
Lack of motivation  
Appetite disturbances  
Eat sugars & fats → “good feeling” → eat more |
Review

In this module, we covered . . .

- An overview of weight
- What healthy weight is
- Difference between overweight and obese
- Who is diagnosed with obesity
- The risk factors of obesity
Questions or Comments