Obesity: A Threat for People and Pets
Understanding Human Obesity – Facts and Gaps

Royal Canin Conference:
The Future of Animal Companionship
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Disclosures

• Professional fees
  – Eisai
  – Nestlé
  – Novo Nordisk
  – Nutrisystem

• Personal biases that favor:
  – Evidence-based interventions, both prevention and treatment
  – Respect for people living with obesity
  – Critical thinking about all evidence
Presentation Objectives

- Physiology and impact
- Bias and misconceptions
- Opportunities for progress

Source: OAC Image Gallery
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Physiology & Impact
A Chronic Disease That Harms Every Organ System

- Pulmonary
- Liver
- Gall bladder
- Gynecologic
- Osteoarthritis
- Dermatologic
- Gout

- Intracranial hypertension
- Stroke
- Cataracts
- Cardiovascular
- Diabetes
- Pancreatitis
- Cancer
- Phlebitis
Growing More Common Everywhere Around the World

Source: NCD Risk Factor Collaboration, Lancet, 2016.04
Severe Obesity Growing Fastest

Source: NCD Risk Factor Collaboration, Lancet, 2016.04
Reaching a Limit of People Susceptible to Weight Gain

U.S. Prevalence of BMI < 25, Men and Women Ages 20-74

Source: Fryar et al, NCHS E-Stats, 2018.09
An Impact on Both Humans and Animals

- 20,000 animals
- 24 populations, 12 male, 12 female
- Eight species
- Research animals, feral rodents, domestic cats & dogs
- All trending to higher body weight
- Highly unlikely due to chance \( (p=1.2 \times 10^{-7}) \)

Building a Catastrophe of Chronic Diseases

Growing Numbers of People Worldwide with Diabetes

Source: IDF Diabetes Atlas - 8th Edition
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Bias/Misconceptions
Two Kinds of Bias Are Pervasive in Nutrition and Obesity

• Intellectual bias favoring personal convictions
• Weight bias directed at people with obesity

God Judging Adam, Etching by William Blake / WikiArt
Bias Gets in the Way of Progress

- Stigma leads to denial and inaction
  - Blame directed at people with obesity
  - Assumptions of
    - Laziness
    - Poor discipline
  - Social rejection

- People seek less care, get poor care, so health suffers

- Leads to ineffective policies
Bias Drives
Policy Decisions That Affect Clinical Care

“Prevention obviously has to be the primary strategy for dealing with obesity, because there’s just too much obesity to treat.”
Simplistic Strategies Are Having Little Obvious Impact on Obesity

- Soda and other targets for taxes are associated with obesity
- Correlation ≠ causation
- Sugar consumption falling for two decades
- But obesity climbs regardless

Sources: USDA Economic Research Service, CDC NHANES surveys
Prepared by Stephan J. Guyenet
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Opportunities for Progress
Public Views Are Shifting Slowly

- The public has long viewed obesity as a personal failure
- But opinions are shifting toward more diverse views of obesity

Source: ConscienHealth/OAC weight bias tracking research, 2017.05
So What Drives Obesity?

- Genetic risk drives individual obesity
- Environmental triggers drive the epidemic

Genetic Risk 70%

Environmental Triggers 20%

Personal Choices 10%
The Perfect Storm of Environmental Triggers

- Simplistic explanations are invariably wrong
- The more accurate view is a perfect storm of multiple factors

Obesity Science Is Rapidly Advancing

- Hypothalamus controls fat mass and blood sugar
- More therapies to manage obesity
- Bariatric surgery extends life and puts diabetes in remission

Neurons, photograph © ZEISS Microscopy / flickr
Self-Care Is Often the Only Option Available for Obesity
Many Health Plans Discourage People from Seeking Obesity Care

- Routine policy exclusions for obesity “Regardless of any potential health benefit”
- Lifetime procedure caps
- High out of pocket costs
- Problematic reimbursement rates and procedures
- But, obesity complications are fully covered
Options for Evidence-Based Care Are Growing

- Self-Care
- Professional Lifestyle Therapy
- Pharmacotherapy
- Surgical Care
- Post Surgery Care
Summary of Opportunities

Better outcomes will require:

• Removing barriers to obesity care
  – Bias and stigma
  – Inadequate resources
  – Payment systems that favor complications of obesity

• Tested, effective, systematic approaches to obesity prevention

• Research and innovation
More Information

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