Evidence Use in Obesity Control

-measuring the levee... one sandbag at a time -

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IOM
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A peep before the leap-

- What is the problem?
- What is the solution?
- Why *simple* isn’t *easy*
- The view from altitude: failure, from the jaws of success…
- Up the creek, *without a p value*
- Sandbags, & soggy feet
- Evidence…be DAMMED! The measure of a levee
- Obesity control: *does it hold water?*
- Incriminating droplets, exonerating snowflakes
- Terra *firma*: evidence, at the feet of the beholder
What is the problem?
Why...
...are we
e“eating ourselves to death” !??!
BECause WE CAN!

The nature of our trouble,
the trouble in our nature…
Health. Weight Control. Happiness with Food!
Causes of Obesity & Chronic Disease?

**Complex Simplicity...**

- energy imbalance: calories in, calories out!
  - basal metabolism
  - postprandial thermogenesis
  - physical activity

- genetic factors
  - metabolic syndrome
  - Ob gene
  - neurohormonal regulation (e.g., neuropeptide Y; adiponectin; PYY; ghrelin; resistin; etc.)
  - basal metabolic rate (Pima Indians)
  - FTO polymorphisms

- Hypertrophic vs. hyperplastic obesity
  - metabolic set-point
  - the weight loss plateau
Too many calories in...

- 3900 calories produced in US each day for every man, woman, and child ([www.usda.gov](http://www.usda.gov)); something has to be done with them all!

Are Portion Sizes Changing?
...too few calories out.
What is the solution?
Why *simple* isn’t *easy*
The view from altitude: failure, from the jaws of success...


- Katz DL. Obesity...be damned! What it will take to turn the tide. *Harvard Health Policy Review.* 2006;7:135-151


Up the creek, *without a p value*
A logic model for obesity. **Initiating factors** include genes/physiology, the social environment, and the physical environment. **Upstream factors** include knowledge and attitudes. **Midstream factors** include behaviors. Health outcomes and actual weight are **downstream factors**. Note that some factors in the model, such as genes, are not necessarily modifiable, and thus may influence health outcomes directly, bypassing midstream factors.

*Adapted from:* Katz DL. School-Based Interventions for Health Promotion and Weight Control: Not Just Waiting on the World to Change. *Annu. Rev. Public Health* 2009. 30:X—X *In press*
Sandbags, & soggy feet
3030

Suburban Sprawl

Junk Food

Food Marketing

FAST FOOD
Evidence...be DAMMED!
The measure of a levee
Obesity control: does it hold water?
holes, holism, and the sum of parts…
Incriminating droplets, exonerating snowflakes
Terra *firma*:

evidence, at the feet of the beholder
The measure of success... one sandbag at a time:

Are we dry yet?
Health. Weight Control. Happiness with Food.
Thank you.

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