

Preventing Childhood Obesity: Big Picture Strategies

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Preventing Childhood Obesity: Big Picture Strategies

(Part 2)

Best Practice?

- **Reduced per capita daily energy intake from 2,899 calories to 1,863 calories**
- **Proportion of physically active adults increased from 30% to 67%**
- **Prevalence of obesity declined from 14% to 7%**
- **Resulted in declines in deaths attributed to diabetes (51%), coronary heart disease (35%), stroke (20%), and all causes (18%)**

Cuba



Current Initiatives and Support

- **Nationally**
 - **Standing Committee on Health Report**
 - **Child Tax Credit**
 - **ICPAOC**
 - **Reach for the Top**
 - **ParticipACTION**
 - **Food Guides**
 - **Physical Activity Guides**
 - **CDPAC Consensus Conference**
 - **Long-term Athlete Development Program**
 - **Active Healthy Kids Canada Report Card**
 - **Canadian Health Measures Survey**
 - **Canadian Clinical Practice Guidelines**

The Active Healthy Kids Canada Report Card serves as...

- An accountability index for all Canadians**
- A surveillance synthesis mechanism**
- An advocacy tool for PA leaders and orgs**
- A policy driver**
- A process for identifying research and surveillance needs**
- A challenge to other countries and jurisdictions to implement similar processes to allow comparisons and facilitate improvements**
- And has been very successful with over 170,000,000 media impressions in first 3 year (ad value estimated at \$2,000,000)**

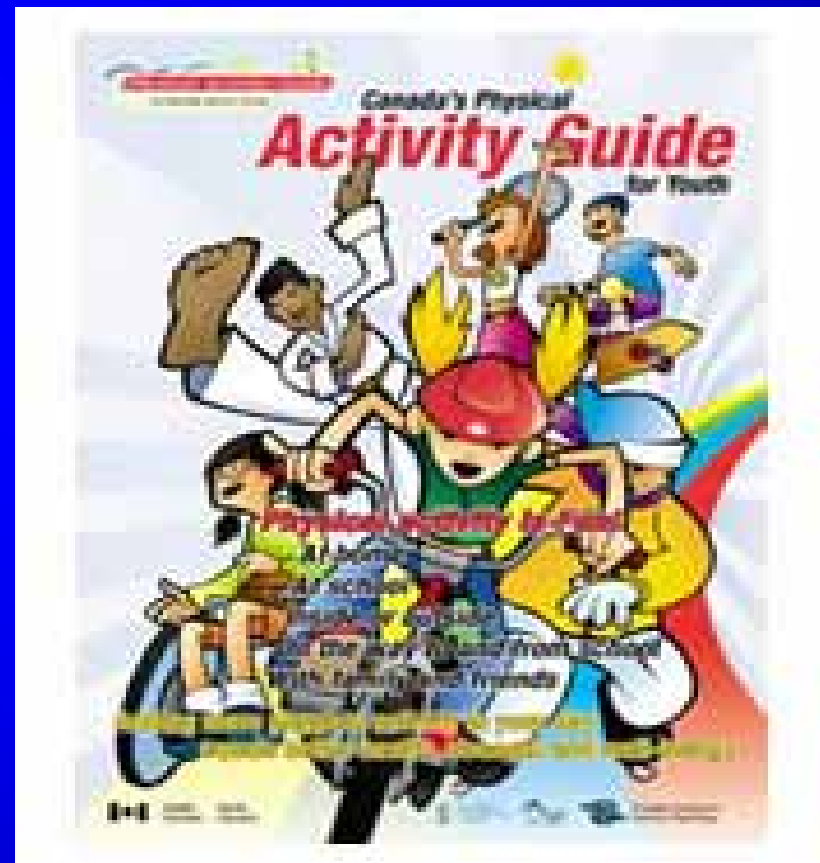
“Advancing the Future of Physical Activity Measurement and Guidelines”



Public Health
Agency of Canada

Agence de la santé
publique du Canada

Canada's Physical Activity Guides For Children and Youth (2002)



BRITISH JOURNAL OF
**PUBLIC
HEALTH**

**APPLIED PHYSIOLOGY,
NUTRITION AND METABOLISM**
apnm.nrc.ca

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*Advancing physical activity measurement and guidelines in Canada:
a scientific review and evidence-based foundation for the future
of Canadian physical activity guidelines.*

In cooperation with/ En concours avec:



National Research
Council Canada

Conseil national
de recherches Canada



**Advancing physical activity
measurement and guidelines
in Canada: a scientific
review and evidence-based
foundation for the future of
Canadian physical activity
guidelines.**

Combined issue of APNM and CJPH

CANADIAN HEALTH MEASURES SURVEY, 2007-2009



Statistics Canada

Background Papers

- 5 papers outlining the CHMS rationale, operations, ethical and methodological issues and pre-test results
- Published in Health Reports Fall 2007
- Summary paper in CJPH to promote the papers and the survey





PARTICIPACTION

REACHING FOR THE TOP

A Report by the Advisor on
Healthy Children
& Youth Dr. K. Kellie Leitch



Core Principles:

1. Parents are primary influencers
2. Prevention must be the focus
3. Leverage what exists
4. Time to act is now!

Key Recommendations:

1. Develop injury prevention strategy
2. Establish a Centre of Excellence on Childhood Obesity
3. Improve mental health services
4. Create Longitudinal cohort study
5. Establish National Office of Child and Youth Health

Some Food (low fat) for Thought

← the arrows go both ways →

INTERNATIONAL FACTORS

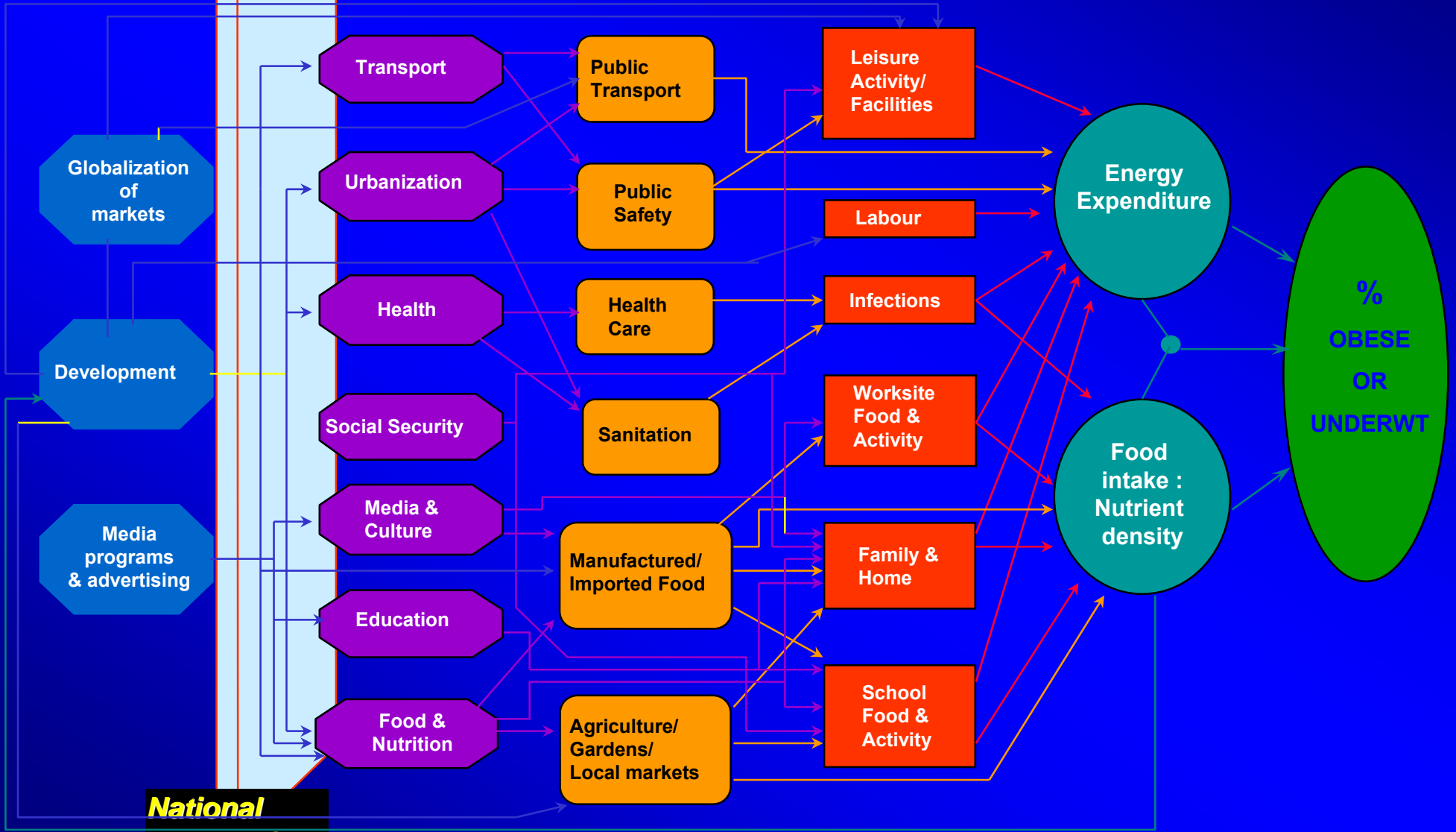
NATIONAL/ REGIONAL

COMMUNITY LOCALITY

WORK/ SCHOOL/ HOME

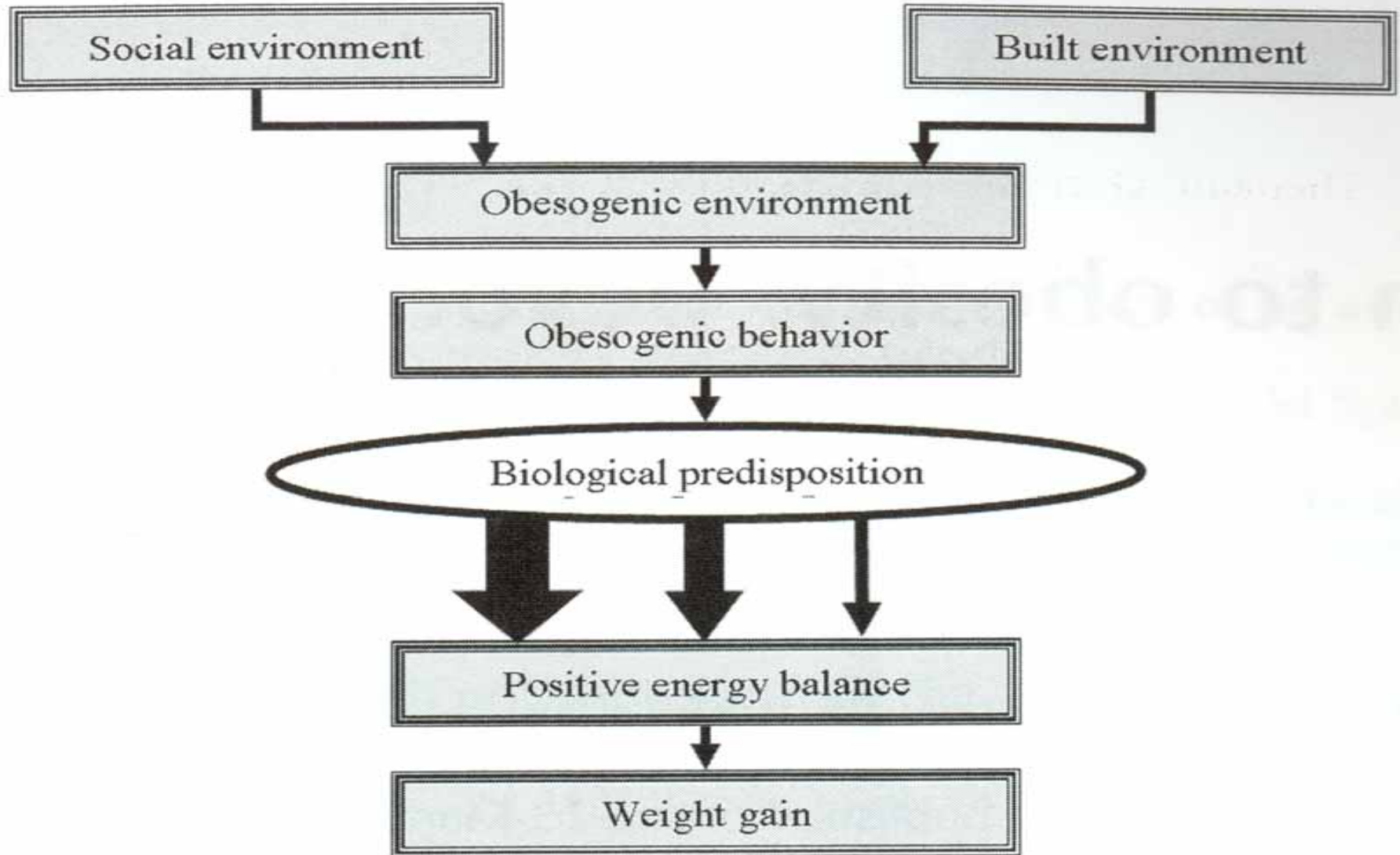
INDIVIDUAL

POPULATION

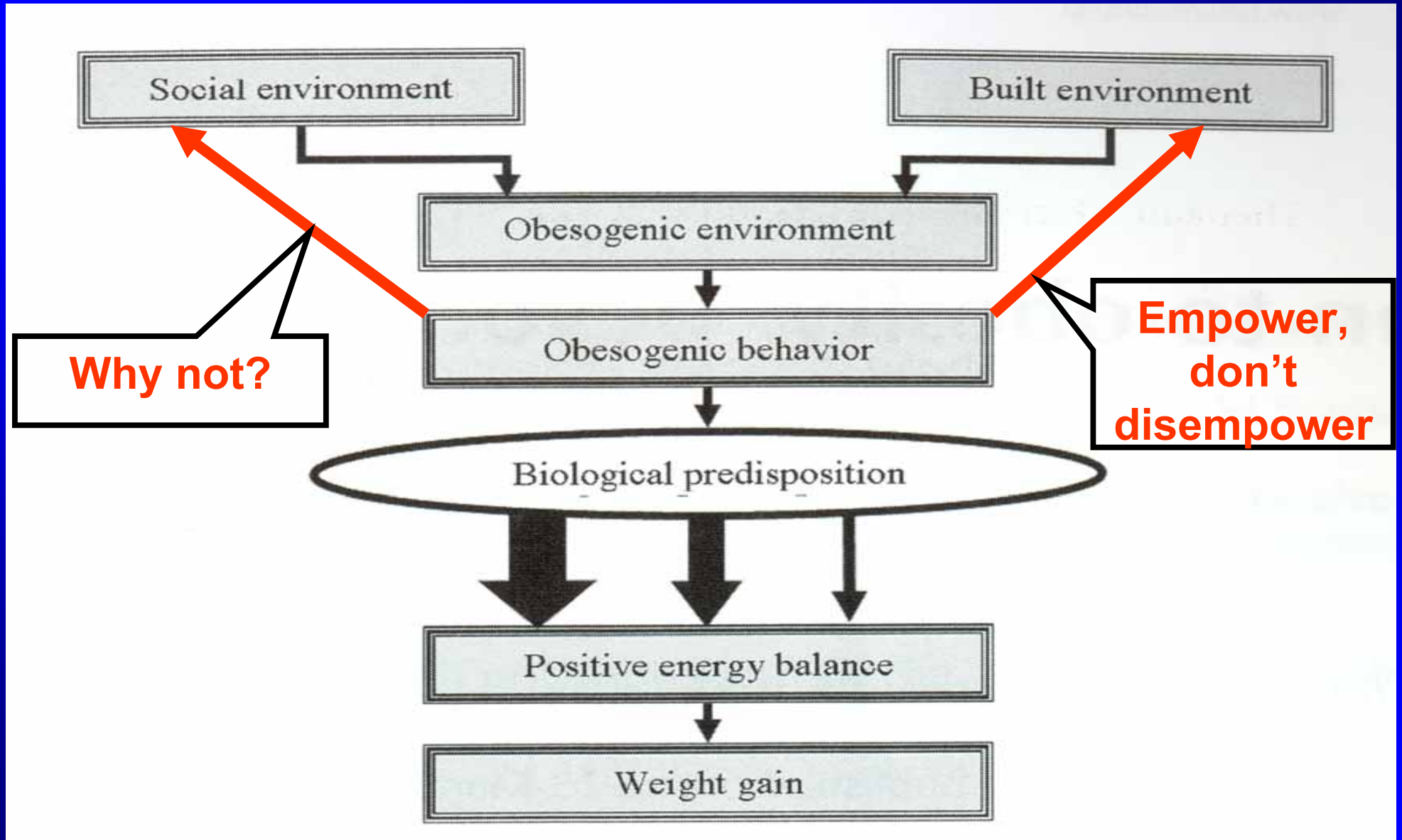


National perspective

Hierarchical Model of Determinants of Energy Balance



Hierarchical Model of Determinants of Energy Balance



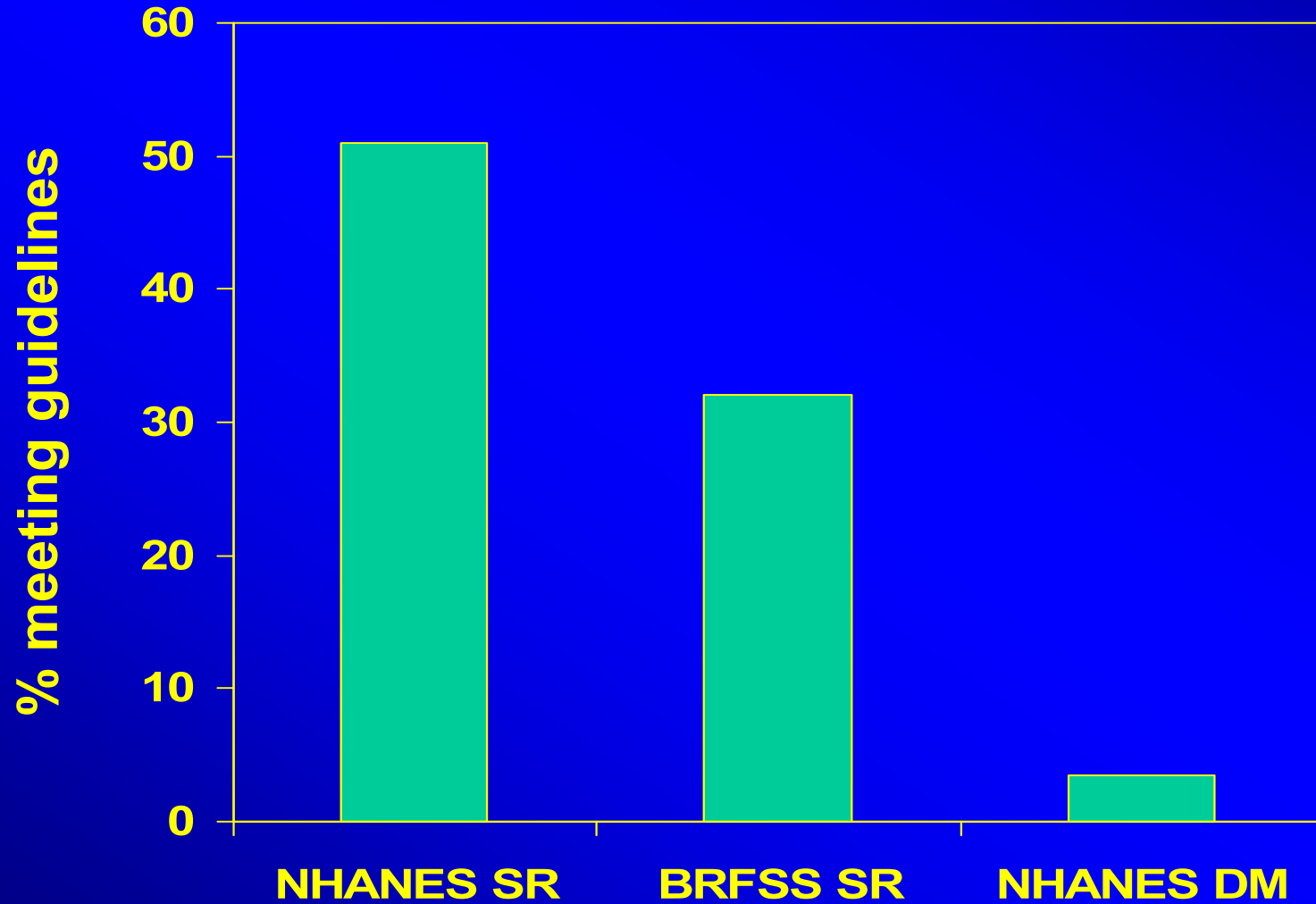
don't expect, inspect

Systematic Reviews

Comparison of Self Report and Direct Measures of Health Indicators

- **Height, Weight and Body Mass Index (published)**
- **Blood Pressure and Hypertension (published)**
- **Smoking / Cotinine (in press)**
- **Physical Activity adults (under review)**
- **Physical Activity children (under review)**

Direct Measure vs Self-report Physical Activity



sweat the small stuff

IS OUR FRAME OF REFERENCE CHANGING?





SCREEN INVASION



NATURE-DEFICIT DISORDER

“I like to play indoors better
'cause that's where all the
electrical outlets are.”

A Fourth-Grader in San Diego

From R. Louv. Last Child in the Woods. 2005

Leave no child inside movement in U.S.

HOW DO YOU AND YOUR FRIENDS FEEL ABOUT GLOBAL CLIMATE CHANGE?

WE'RE GOOD WITH IT

HOW CAN YOU BE GOOD WITH IT?!

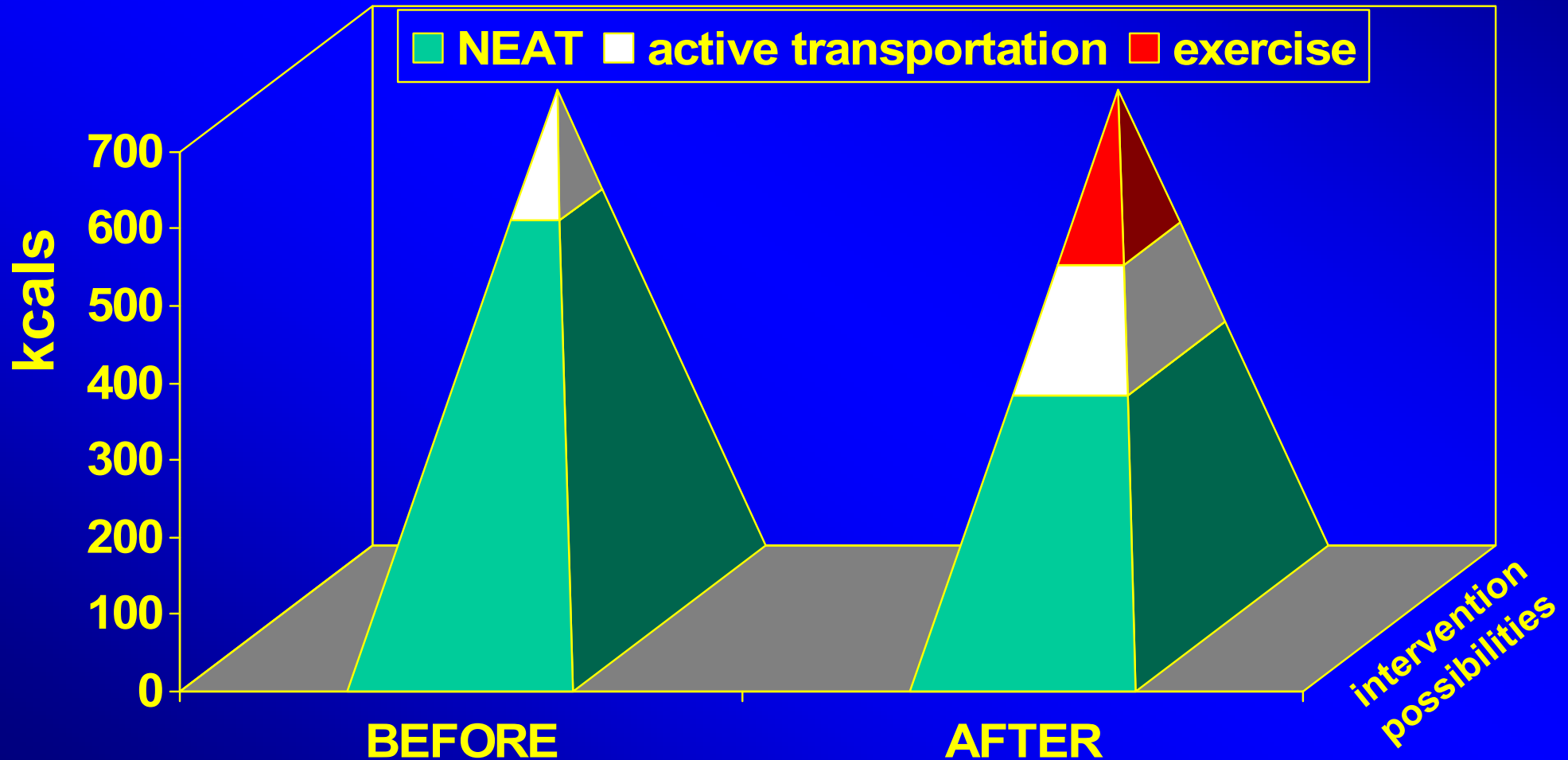
MOST OF US DON'T LIKE TO GO OUTSIDE ANYWAY

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www.comics.com

Delaney & Raabenstein

Intervention Potential of Non-exercise Activity Thermogenesis (NEAT)



sweat the big stuff

- Physical education
- Community design
- Built environment
- Social environment
- Population disparities
 - Age, sex, geography, ethnicity, SES, etc.
- Deferred maintenance
- Policy, legislation, litigation, regulation
- ***SHIFT IN SOCIAL NORMS IS REQUIRED
ALL HANDS ON DECK***

add a touch of Amish

LIFESTYLE

Traditional

Contemporary

Commuting



Chores



Sports



Free Time



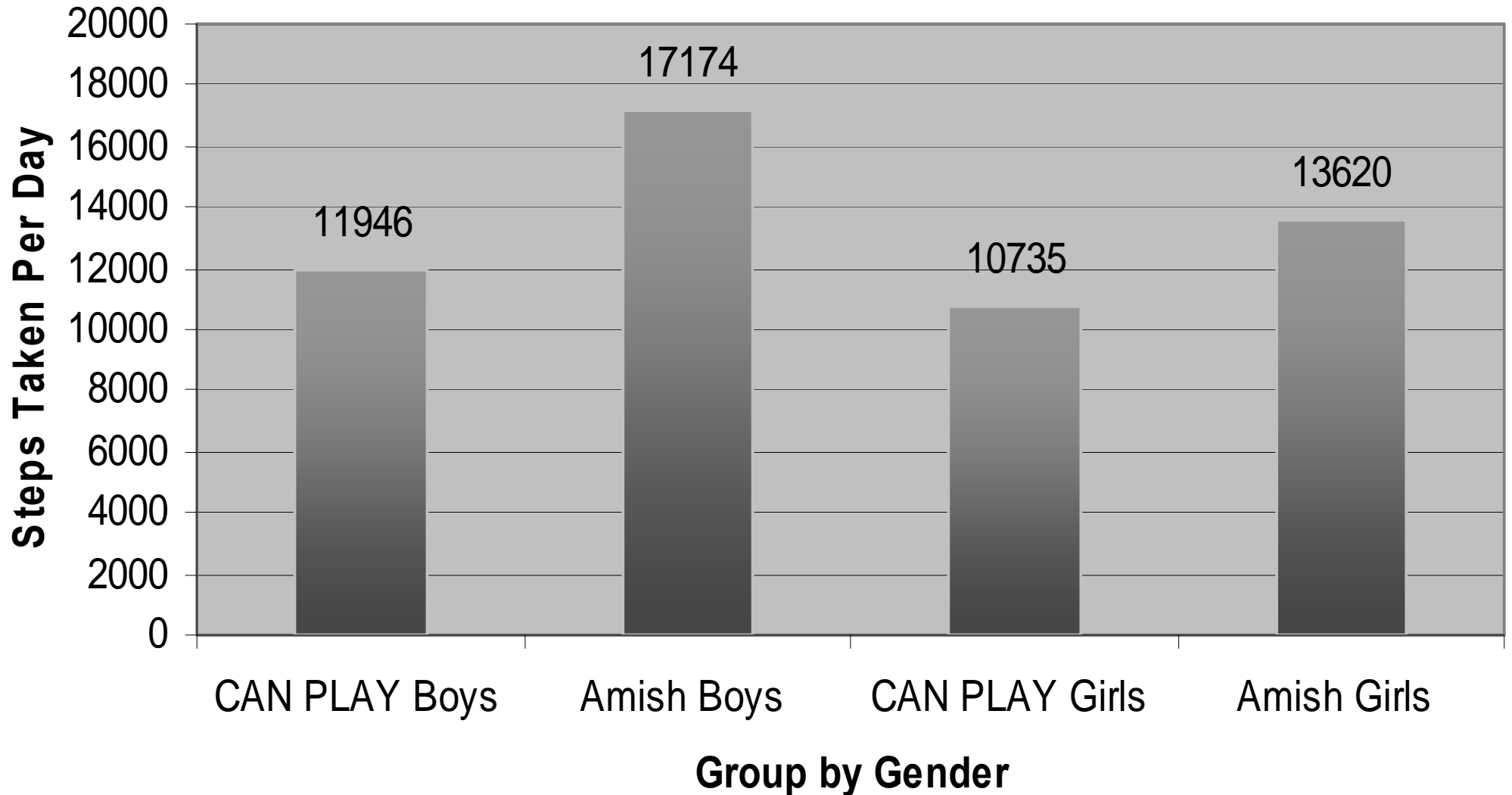
RESULTS

Directly Measured Physical Activity

- Old Order Mennonites
 - ↑ average movement counts per day
 - ↑ minutes of moderate physical activity (3-6 METS)
 - ↑ minutes of MVPA (3+ METS)
 - ↑ total daily energy expenditure

Tremblay et al., MSSE, 2005

Average Steps Taken Per Day



Despite having no physical education, no institutionalized sport, and low socioeconomic status, Old Order Mennonite and Amish children are more active and less obese than children living a contemporary Canadian lifestyle.

Tremblay et al., MSSE, 2005
Bassett et al., MSSE, 2007

**Ask not why you didn't
take the easy way,
but rather why you didn't
take the hard way**

**Reposition movement as an
opportunity, not an
inconvenience.**

**Encourage people to add a
“touch of Amish”
and a
“dash of inconvenience”
to their lifestyle!**

YOU TOO!

CONCLUSIONS

1. Our children are getting fatter, and their health is suffering, because they are eating poorer and moving less
2. Vulnerable groups are at increased risk but majority of the population is “infected” with passive obesity agents
3. We must measure better to understand what works and how
4. Promising approaches AT ALL LEVELS require increased and sustained support
5. Unprecedented activity is currently underway, but MUCH MORE needs to be done
6. Sweat the big and small stuff – attack from all sides
7. Experimental, observational, descriptive, surveillance, ecological and intuitive evidence collectively supports the need for action, *more action* – now