The Role of States

• 50 opportunities to try new things
• Less industry influence
• More rapid turnaround
• Connection with Attorneys General
• Precedent (e.g., tobacco)
State Legislation

Near Term Wins

• School nutrition
• Menu labeling
• Trans fat
Further Off

- Change food economics
- Harness agriculture policy
- Regulate marketing to children
Pop Quiz

Melts in your mouth,
not in your hands
They’re Grrrreat!
I’m lovin’ it
Break me off a piece of that _____ bar
I go cuckoo for _________
25% of all vegetables eaten in the U.S. are French Fries

Krebs-Smith, Cancer, 1998
Cases of Diabetes Projected for 2030 (millions)

- **U.S.**: 13.4
- **China**: 25.1
- **India**: 58.9

Yach, Stuckler, Brownell
*Nature Medicine, 2006*
% Increase in Diabetes, 2000 - 2030

Yach, Stuckler, Brownell

*Nature Medicine*, 2006
So,

What’s Wrong?
• Traditional thinking

• Failure to follow the science

• Conflicts of interest

• Suboptimal defaults
The Classic Start to Modern Public Health

- August, 1854 - great outbreak of cholera in London

- Miasma (spontaneous generation) theory prevailed
  - disease came from spontaneous life forms from swamps and putrid matter

- Alternative was germ theory
  - disease from microorganisms inside the body

http://www.ph.ucla.edu/epi/snow/lifejohnsnow.html
Enter John Snow (father of modern epidemiology)

- Anesthesiologist
- Ministered to Queen Victoria during childbirth (1813-1858)
Suspected transfer was through water

Did geographic mapping

Most deceased were near Broad Street pump

Sept, 1854 - convinced leaders to remove handle

Stopped the spread

http://www.ph.ucla.edu/epi/snow/lifejohnsnow.html
Upstream Metaphor

Public health works here

Medicine works here
Is There a Pump Handle Equivalent For Poor Diet?

Is Anyone Even Looking?
How Best to Make Change?

Educate → Knowledge
Medicate
Operate
Implore → Motivation

The Individual

Better Health
<table>
<thead>
<tr>
<th>Year</th>
<th>% of US Population Getting Recommended Physical Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td></td>
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<tr>
<td>1987</td>
<td></td>
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<tr>
<td>1988</td>
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</tbody>
</table>

CDC, BRFSS
How Best to Make Change?

Educate → Knowledge

Medicate

Operate

Implore → Motivation

The Individual

Less Obesity
The Individual

Optimal Defaults

Economics

Legislation

Regulation

Environment

Better Health
The Individual

Environment

Regulation

Legislation

Economics

Optimal Defaults

Better Health
Another Example – Organ Donation

**Effective consent rates, by country.** Explicit consent (opt-in, gold) and presumed consent (opt-out, blue).

*Johnson & Goldstein, Science, 2003*

“Do defaults save lives?”
## Economics of Food

<table>
<thead>
<tr>
<th>Poor Foods</th>
<th>Healthy Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly accessible</td>
<td>Less accessible</td>
</tr>
<tr>
<td>Convenient</td>
<td>Less convenient</td>
</tr>
<tr>
<td>Good tasting</td>
<td>Worse tasting</td>
</tr>
<tr>
<td>Promoted heavily</td>
<td>Not promoted</td>
</tr>
<tr>
<td>Inexpensive</td>
<td>More expensive</td>
</tr>
<tr>
<td>Category</td>
<td>Pyramid %</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Meat, poultry, fish, eggs</td>
<td>14%</td>
</tr>
<tr>
<td>Fruits, vegetables</td>
<td>33%</td>
</tr>
</tbody>
</table>
Annual NCI budget for 5-a-day nutrition education

$ 3 million peak

McDonald’s “we love to see you smile” campaign

$ 500 million
The Cost of Calories

Drewnowski & Specter
Am J Clin Nutr, 2004
Energy density (kcal/100g) and energy cost (€/1000kcal) –
Data from INCA nutrient database; analyses by Drewnowski, Maillot, Darmon
Energy density (kcal/100g) and energy cost (€/1000kcal) –
Data from INCA nutrient database; analyses by Drewnowski, Maillot, Darmon
Relative Changes in Costs
(using Consumer Price Index)

From 1980 - 2000

3.8% average increase in inflation rate

Food prices rose less (3.4%)

This is 14% drop in relative price of food

Council of Economic Advisors
2004 Report
% Increase in Costs from 1985-2000

- Soft Drinks: 20%
- Sugar & Sweets: 46%
- Fruits & Vegetables: 117%

Putnam et al.
*Food Rev, 2002*
Big Mac Extra Value Meal  $5.19

Sesame Ginger Salad w/ lg drink  $6.58

Double Quarter Pounder Meal  $6.19
The Power Grid is in Chaos

Power

Impact

Positive

Negative

High

Low
Local Grid Changes

Power

Impact

Positive

High

Low

Negative
Legislative Opportunities

Near Term

• School nutrition
• Menu labeling
• Trans fat

Longer Term

• Change food economics
• Harness agriculture policy
• Regulate marketing to children
<table>
<thead>
<tr>
<th>Issue</th>
<th>2001</th>
<th>2003</th>
<th>2004</th>
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<tbody>
<tr>
<td>Favor taxing foods</td>
<td>33%</td>
<td>40%</td>
<td>54%</td>
</tr>
<tr>
<td>Favor restricting children’s food advertising</td>
<td>57%</td>
<td>56%</td>
<td>73%</td>
</tr>
<tr>
<td>Favor soft drink/snack food bans in schools</td>
<td>47%</td>
<td>59%</td>
<td>69%</td>
</tr>
<tr>
<td>Favor required calorie labeling in restaurants</td>
<td>74%</td>
<td>80%</td>
<td></td>
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</tbody>
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