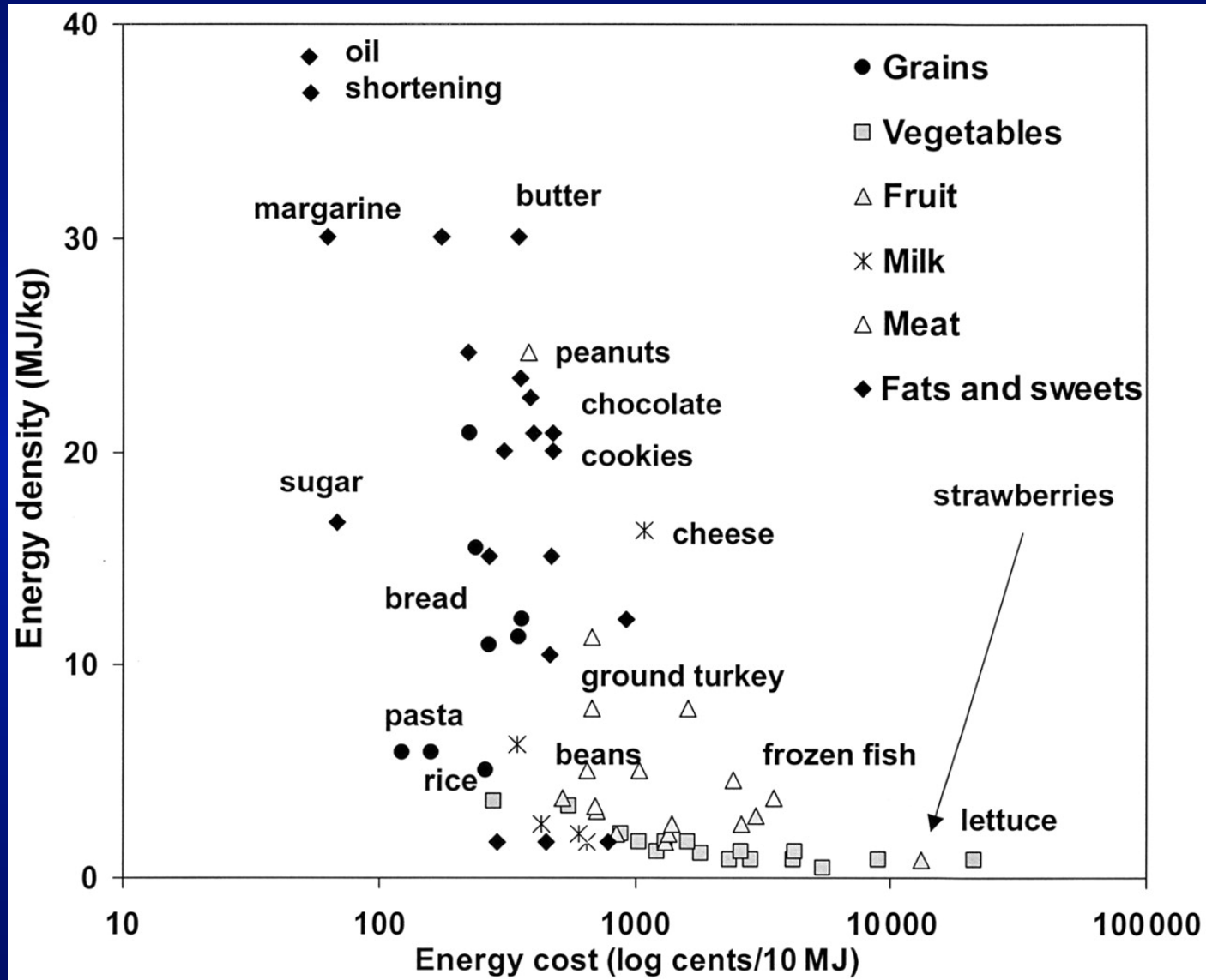


# Affordability and Access to Fresh Produce in Low-Income Populations

Hilary Seligman, MD, MAS  
Assistant Professor in Residence of Medicine,  
Epidemiology, & Biostatistics

August 9, 2012

# Relation between the energy density of selected foods and energy costs (¢/MJ)





**Carrots, 2lbs**

**\$1.89 at Safeway**

**384 calories**

**(2.3 calories/cent)**



**Keebler Fudge  
Stripes, 11.5 oz**

**\$1.99 at Safeway**

**1500 calories**

**(7.5 calories/cent)**

July 2010 prices.

# Price changes for fresh fruits and vegetables, sugars and sweets, and soft drinks

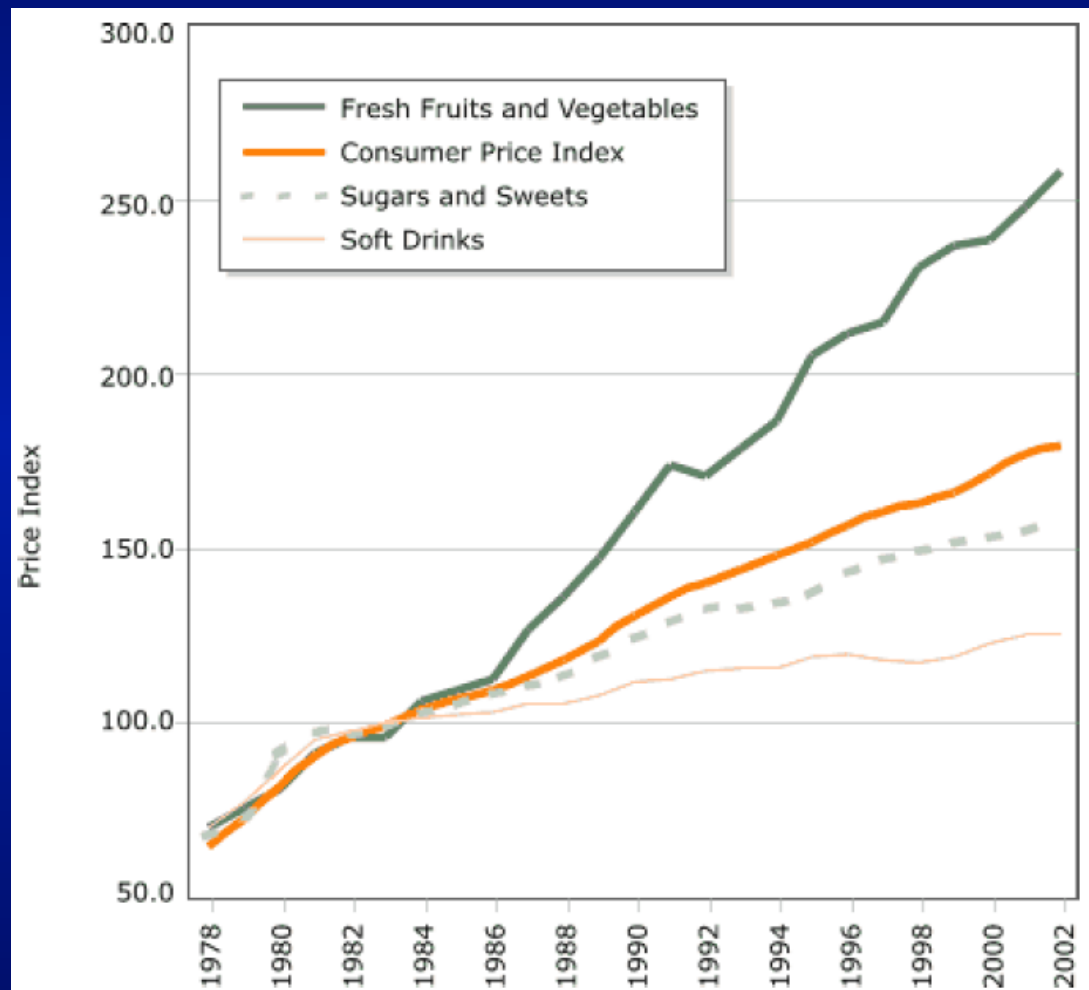
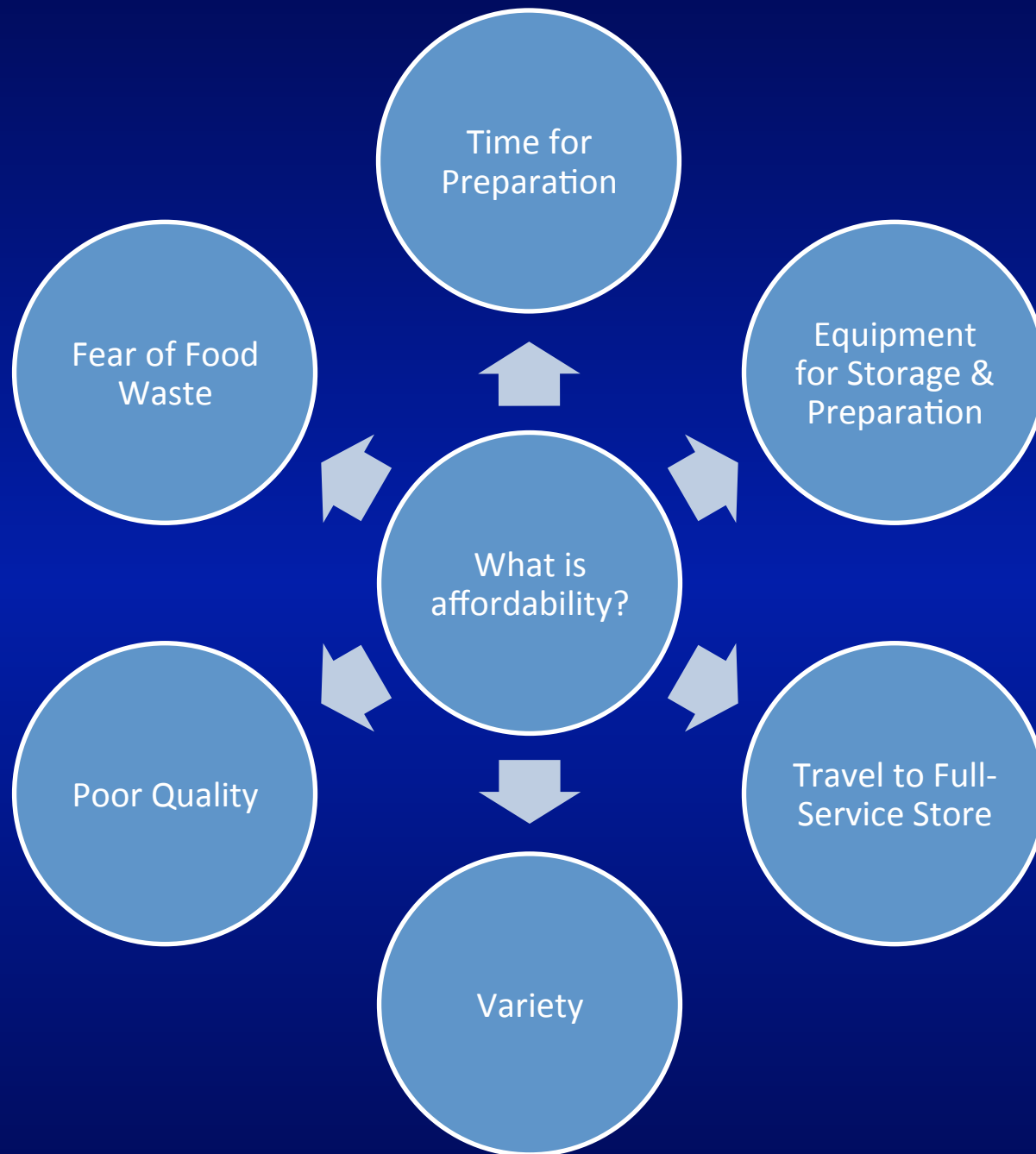


Figure 10. Relative price changes for fresh fruits and vegetables, sugars and sweets, and soft drinks, using the period 1982–84 as the baseline (index = 100), 1978–2002. Data from Food Consumption Data System, Economic Research Service, U.S. Department of Agriculture (7).

# Is this really true?

“For all metrics except the price of food energy, the authors find that healthy foods cost less than less healthy foods (defined for this study as foods that are high in saturated fat, added sugar, and/or sodium, or that contribute little to meeting dietary recommendations).”

*--USDA report, May 2012*



# Food Insecurity & Dietary Intake

- Decreased dietary variety

*"We only have one food for our plate" (Hamelin, 2002)*

*"Like oatmeal, for lunch, or dinner."*

- Increased consumption of unhealthy foods (refined grains, ...)
- Reduced intake of fruits, vegetables, and milk/dairy
- Reduced micronutrient intake (riboflavin, niacin, B6, B12, magnesium, iron, zinc, calcium)

This is a public health emergency.

Bhattacharya, 2004; Kendall, 1996; Olson, 1999;  
Tarasuk, 2001; Tarasuk, 1999; Dixon, 2001; Lee, 2001

# One Strategy: F&V Vouchers

- Reduces financial barriers
- Increased F&V intake
  - 91% of women reported they were eating a little or a lot more F&V than before the voucher
  - Youngest children in the household had greatest increases in F&V intake
- Increased traffic & sales in stores stocking F&V
- Increased turnover of highly perishable items
- Builds habits, supports local vendors & food producers



|                  |                 |  |
|------------------|-----------------|--|
| FIRST DAY TO USE | LAST DAY TO USE |  |
|                  |                 |  |

10000

Pay to the order of:

Kind to buy:

ANY FRESH OR FROZEN FRUITS AND  
VEGETABLES WITHOUT ADDED  
SUGAR OR SALT, INCLUDING HERBS  
AND PRE-PACKAGED.

EXACT PURCHASE PRICE

MUST NOT EXCEED \$10.00

Submit voucher to:  
Voucher Program  
Box 1364  
San Francisco, CA 94143

ATTACH ITEMIZED RECEIPT OR  
CIRCLE ITEMS PURCHASED



In collaboration with SF City and County Department  
of Public Health Nutrition Services

AUTHORIZED SIGNATURE (SIGN AT PURCHASE)

10000

|  |  |
|--|--|
|  |  |
|  |  |

PLEASE CIRCLE VEGETABLES AND FRUITS YOU PURCHASED BEFORE PRESENTING YOUR VOUCHER

|                        |                               |                        |                       |
|------------------------|-------------------------------|------------------------|-----------------------|
| Apples/Manzanas        | Cherries/Cerezas              | Mandarins              | Spinach/Espinacas     |
| Apricot/Chabacano      | Chilies/Chiles                | Mangos                 | Squash/Calabasa       |
| Artichoke/Alcachofa    | Coconut/Coco                  | Melon                  | Strawberries/Fresas   |
| Asparagus/Espárragos   | Corn/Elote                    | Mushrooms/Hongos       | Sweet potatoes/Camote |
| Avocados/Aguacates     | Cucumbers/Pepinos             | Nectarines/Nectarinas  | Tomatoes              |
| Bananas/Plátanos       | Eggplant/Berenjena            | Nopales                | Watermelon/Sandía     |
| Bean sprouts           | Frozen Mixed Vegetables       | Okra                   | Yucca                 |
| Beets/Betabel          | Garlic/Ajo                    | Onions/Cebollas        | Zucchini/Calabacita   |
| Bell peppers/Pimientos | Grapes/Uvas                   | Oranges/Naranjas       | Other/Otras           |
| Bittermelon            | Grapefruit/Toronja            | Papaya                 |                       |
| Blackberries/Moras     | Green beans/Ejotes            | Peaches/Duraznos       |                       |
| Blueberries/Arándanos  | Greens                        | Pears/Peras            |                       |
| Bok Choy               | Guavas/Guayabas               | Peas/Chícharos         |                       |
| Broccoli/Brócoli       | Herbs/Hierbas                 | Pineapple/ Piña        |                       |
| Brussels sprouts       | Jicama                        | Plums/Ciruelas         |                       |
| Cabbages/Repollo       | Kiwis                         | Pomegranate/Granada    |                       |
| Carrots/Zanahorias     | Lemon                         | Potatoes/Papas         |                       |
| Cauliflower/Coliflor   | Lettuce mix/Mezcla de Lechuga | Radishes/Rábanos       |                       |
| Celery/Apio            | Lettuce/Lechuga               | Raspberries/Frambuesas |                       |
| Chayote                | Lime/Lima                     | Scallions/Cebolletas   |                       |

# Other Strategies

- Public campaigns encouraging use of Farmer's Markets
- QUICK, SIMPLE recipes using few other ingredients
- Pre-washed, pre-cut, etc.