Is Nutrition Research Keeping Pace with Policy and Consumers?

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- Gaps between the latest nutrition science and dietary recommendations and the nutritional health of consumers:
  - NHANES Data and analyses drive consideration
  - Assessment of adherence to previous guidelines is needed
  - Objective biomarker data needed to enhance the diet assessment data
  - Ongoing assessment of industry’s adherence to the DG’s
- How best to translate nutrition research into actionable steps to improve the public health?
  - Pilot studies
  - Focus groups
  - Nutrition education starting in youth
- Importance of integrity in nutrition research?
  - Crucial, no marketing/pricing advantages
  - Need for common goals and objectives
  - Need for regulatory agency to monitor and hold industry accountable and explore how best to deal with political intervention efforts.
Top 35 Sources of Calories Among Americans Ages 2 Years and Older: NHANES 2005-2006

<table>
<thead>
<tr>
<th>Rank</th>
<th>Category</th>
<th>Calories (kcal) 65th Percentile</th>
<th>Calories (kcal) 95th Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Grains (bread, rice, corn)</td>
<td>2,235 kcal</td>
<td>3,440 kcal</td>
</tr>
<tr>
<td>2</td>
<td>Grains (bread, rice, corn)</td>
<td>1,354 kcal</td>
<td>2,190 kcal</td>
</tr>
<tr>
<td>3</td>
<td>Grains (bread, rice, corn)</td>
<td>1,159 kcal</td>
<td>1,820 kcal</td>
</tr>
<tr>
<td>4</td>
<td>Grains (bread, rice, corn)</td>
<td>923 kcal</td>
<td>1,500 kcal</td>
</tr>
<tr>
<td>5</td>
<td>Grains (bread, rice, corn)</td>
<td>560 kcal</td>
<td>900 kcal</td>
</tr>
<tr>
<td>6</td>
<td>Grains (bread, rice, corn)</td>
<td>347 kcal</td>
<td>600 kcal</td>
</tr>
<tr>
<td>7</td>
<td>Grains (bread, rice, corn)</td>
<td>248 kcal</td>
<td>500 kcal</td>
</tr>
<tr>
<td>8</td>
<td>Grains (bread, rice, corn)</td>
<td>197 kcal</td>
<td>340 kcal</td>
</tr>
<tr>
<td>9</td>
<td>Grains (bread, rice, corn)</td>
<td>131 kcal</td>
<td>250 kcal</td>
</tr>
<tr>
<td>10</td>
<td>Grains (bread, rice, corn)</td>
<td>86 kcal</td>
<td>160 kcal</td>
</tr>
<tr>
<td>11</td>
<td>Grains (bread, rice, corn)</td>
<td>62 kcal</td>
<td>120 kcal</td>
</tr>
</tbody>
</table>

Translating and Integrating the Evidence

High priority findings:
1. Shift to more plant-based diets with vegetables, dry beans, fruits, whole grains, nuts, seafood, low/no fat dairy, lean meat, poultry
2. Reduce incidence/prevalence of overweight and obesity by reducing energy intake and increasing physical activity
3. Reduce foods high in excess added sugars and solid fats, refined grains, sodium
4. Meet the 2008 Physical Activity Guidelines

Changes Needed: Overall Food Environment

- Improve nutrition literacy and cooking skills
- Create greater financial incentives to purchase, prepare, and consume healthy foods
- Improve the availability of affordable fresh produce through greater access to grocery stores, produce trucks, and farmers’ markets
- Increase environmentally sustainable production of vegetables, fruits, and fiber-rich whole grains and aquaculture practices for seafood
- Encourage restaurants and the food industry to offer health-promoting foods that are low in sodium; limited in added sugars, refined grains, and solid fats; and served in smaller portions
- Implement the US National Physical Activity Plan
Urgent Need to Focus on Children

Strategies:
- Improve foods sold and served in and around schools:
  - Remove sugar-sweetened beverages and high calorie snacks
  - Emphasize responsible zoning for fast food restaurants
- Develop effective policies on food marketing to children
- Increase comprehensive health, nutrition, and physical education programs
- Develop standardized approaches for health care providers to track BMI in children and weight gain during and after pregnancy
- Reduce children's screen time (TV and computer)
- Increase safe routes to schools and recreation areas
- Support summer programs that emphasize good health

Food Pattern Modeling-Example

Typical vs. Nutrient-dense food choices

Question: What is the impact on calories, sat fat, sodium, etc. in the food patterns if typical food choices (not nutrient-dense) are made?

Methods: Calculated food patterns using most consumed rather than nutrient dense foods (e.g., breaded fried chicken vs. baked skinless chicken)

Results:

<table>
<thead>
<tr>
<th></th>
<th>Nutrient dense choices</th>
<th>Typical choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>1997</td>
<td>2390</td>
</tr>
<tr>
<td>Sat Fat</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>Sodium</td>
<td>1772 mg</td>
<td>3550 mg</td>
</tr>
</tbody>
</table>

Findings: For a healthy total diet, food choices must not only be in the recommended amounts but also in nutrient-dense forms (fewer solid fats and added sugars).

(See Appendix F.3 in DGA report)