Overview of Presentation

- Statement of task
- Data on competitive foods
- Rationale for nutrition standards
- Existing nutrition standards
- Options for nutrition standards
IOM Project Overview

• Review and make recommendations regarding appropriate nutrition standards for foods at school, especially competitive foods, regarding their:
  – Availability
  – Sale
  – Content
  – Consumption
Study Charge

Develop nutrition standards, based on nutritional science, for foods and beverages offered in schools, with particular attention to foods offered in competition with federally-reimbursed meals or snacks, and develop benchmarks to guide future evaluation studies of the application of the standards.
Study Charge

- Consider how to assure that foods and beverages offered in schools can contribute to an overall healthful eating environment
- Draw on the literature
- Synthesize lessons learned
- Consider whether a single set or additional standards are needed for different grade levels
Healthful Eating Environment

- Coordination of student access to food
- Nutrition education and information
- Marketing of foods and beverages
- Length and timing of meals
- Surroundings for eating
- Qualifications and training of food service staff
Competitive Foods

Focus on competitive foods – all foods and beverages outside of the school meal program that are available to students on the school campus during the school day.
Availability of Competitive Foods in Schools

- Cafeteria – à la carte
- Vending machines
- School stores
- Concession stands
- Foods sold as fundraisers
- Foods used as rewards
- Foods available at parties, celebrations, or as classroom snacks
- After school programs
- School meetings
Competitive Foods are Widely Available

- Nearly 90% of schools sold competitive foods
  - GAO, 2005, School Meal Programs
- “. . . Students at most secondary schools and many elementary schools can purchase foods and beverages. . . from vending machines and school stores.”
  - GAO, 2003, School Lunch Program
- More than 9 out of 10 schools made beverages or foods available for à la carte purchase at lunch time.
  - School Nutrition Dietary Assessment Study II, USDA, 2001
Student Access to Competitive Foods

2000: schools with vending machines or school stores\(^1\)

- Elementary Schools: 43%
- Middle Schools: 74%
- Senior High Schools: 98%

2004: schools with vending machines or school stores\(^2\)

- Middle and High Schools: 90% (median among 27 states)

\(^1\)CDC, School Health Policies and Programs Study 2000
\(^2\)CDC, Profiles 2004
Competitive Foods in Pennsylvania Public High Schools

- Random sample of 271 high schools
  Completed surveys from 228 foodservice directors (84%)
- Number reporting
  - À la carte sales: 100%
  - Vending machines accessible to students: 94%
    - Average number of machines per school: 6
    - Students have access to machines over lunch in 68% of schools
  - School stores that sell food: 30%
  - Foods sales for clubs: 100%

Probart et al, JADA 2005;105:1243-1249
Competitive Foods with Limited Nutritional Value are Readily Available

... almost all schools sell readily available foods that are largely unregulated by the federal government in terms of nutritional content. While not all of these competitive foods are unhealthy, many are.

GAO, 2005: School Meal Programs
Percentage of US Schools Offering à la Carte Items in a Typical Week

<table>
<thead>
<tr>
<th>Item</th>
<th>Elementary Schools %</th>
<th>Middle Schools %</th>
<th>High Schools %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinks (soft, sports, fruit)</td>
<td>19</td>
<td>40</td>
<td>57</td>
</tr>
<tr>
<td>Salty snacks not low in fat</td>
<td>26</td>
<td>41</td>
<td>58</td>
</tr>
<tr>
<td>Non-chocolate candy</td>
<td>4</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Chocolate candy</td>
<td>2</td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td>100% fruit juice</td>
<td>58</td>
<td>64</td>
<td>77</td>
</tr>
<tr>
<td>Low-fat salty snacks</td>
<td>30</td>
<td>43</td>
<td>58</td>
</tr>
<tr>
<td>Fruits or vegetables</td>
<td>68</td>
<td>74</td>
<td>90</td>
</tr>
</tbody>
</table>

CDC: School Health Policies and Programs Study 2000
### Foods Available for Purchase in US School Vending Machines, School Stores, Canteens, or Snack Bars

<table>
<thead>
<tr>
<th></th>
<th>2000 Middle</th>
<th>2000 High</th>
<th>2004 Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinks (soft, sports, fruit)</td>
<td>84&lt;sup&gt;1&lt;/sup&gt;</td>
<td>94&lt;sup&gt;2&lt;/sup&gt;</td>
<td>95&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>Salty snacks not low in fat</td>
<td>62</td>
<td>83</td>
<td>75</td>
</tr>
<tr>
<td>Non-chocolate candy</td>
<td>53</td>
<td>75</td>
<td>68</td>
</tr>
<tr>
<td>Chocolate candy</td>
<td>47</td>
<td>72</td>
<td>65</td>
</tr>
<tr>
<td>100% fruit juice</td>
<td>53</td>
<td>65</td>
<td>84</td>
</tr>
<tr>
<td>Low-fat salty snacks</td>
<td>55</td>
<td>65</td>
<td>80</td>
</tr>
<tr>
<td>Bottled water</td>
<td>56</td>
<td>66</td>
<td>94</td>
</tr>
<tr>
<td>Fruits or vegetables</td>
<td>12</td>
<td>22</td>
<td>45</td>
</tr>
</tbody>
</table>

---

<sup>1</sup> Percentage Schools

---

CDC, School Health Policies and Programs Study 2000 CDC, Profiles, 2004

---

**SAFER • HEALTHIER • PEOPLE**

© Centers for Disease Control and Prevention

***CDC Policy on Use of CDC Trademarks***
Percentage of Schools Selling Chocolate Candy (Median of 27 States)

- 75% or more schools
  - Alaska
  - Minnesota
  - Oklahoma
  - Utah

- 40% or fewer schools
  - Connecticut
  - Delaware
  - Maine
  - Massachusetts
  - New Hampshire

CDC School Health Profiles, 2004
Pennsylvania High School Survey

- Top selling à la carte items (n=227):
  - Pizza, hamburger, sandwiches: 36%
  - French-fried potatoes: 13%
- Foods available in vending machines (n=193):
  - Water: 72%
  - Fruit juice: 67%
- Foods offered in school stores (n=68):
  - Candy bars: 69%
  - Candy: 65%
- Foods sold through clubs during the school day (n=227):
  - Chocolate candy: 45%
  - Subs/hoagies: 34%

Probart et al, JADA 2005;105:1243-1249
Competitive Foods and School Meals

- As income from à la carte sales increase, student participation in school meal programs decrease.
  
  *School Nutrition Dietary Assessment Survey II, 2001*

- Competitive foods affect the finances of school meals
  
  - Texas, 2001: Total deficit for school food operations: $23.7 million
  
  - Estimated revenue lost from school meal programs as a result of sales of competitive foods: $60 million

  *Texas Department of Agriculture, 2003*
Revenue from Competitive Foods

- Revenue derived from beverage contracts represents a very small percentage of the overall budget of school districts.
  
  GAO, 2000. *Public Education: Commercial Activities in Schools*

- In a 2001 national survey, 832 school principals reported using income from beverage sales for:
  - Sports and physical education equipment
  - After school student activities
  - Instructional materials
  - Field trips
  - Arts and theater programs
  - Computers/technology equipment

  NASSP, 2000
Perspectives on Revenue

“Full funding for the school meal programs could relieve the pressure on schools’ food services to generate extra funding through the sales of competitive foods.”

*IOM, 2005: Preventing Childhood Obesity (p. 250)*

“This [money from contracts] is not "free" money because it comes directly from the pockets of students and the family income of their parents.”

*Texas Department of Agriculture, 2003*
Effect of Nutrition Improvements on School Revenue

- 17 of the 32 schools/districts reported revenue information
  - 12 increased overall revenue
  - 4 experienced no change
  - 1 decreased revenue slightly

- Keys to revenue success
  - Make improvements
  - Market them well
  - Maintain a positive attitude
Environment Affects Choices

- An à la carte program was associated with lower intakes of fruits and vegetables and higher intakes of calories from total and saturated fats.
  - Students without à la carte ate 0.5 servings more of fruit per day
  - Students without à la carte programs met USDA recommendations for total fat

- The availability of snack vending machines were associated with lower intakes of fruit.

Rationale for Nutrition Standards

- Make the healthy choice the easy choice
- Promote consistency of teaching and practice
- Provide a framework for action
- Build nutrition into the infrastructure of the school
- Provide accountability and assistance with evaluation
Expert Recommendations

“To ensure that foods and beverages sold or served to students in school are healthful, USDA, with independent scientific advice, should establish nutrition standards for all food and beverage items served or sold in schools.”

*IOM, 2005: Preventing Childhood Obesity, (p. 249)*

“Schools’ child nutrition programs should serve as a learning laboratory for developing healthful eating habits and should not be driven by profit-making ventures that may undermine nutrition goals.”

Impact of Nutrition Standards

• Snack food purchases by students in schools
  – With policies: 0.5 days/week
  – Without policies: 0.9 days/week

• Soft drink consumption by students in schools
  – That turned off soft drinks during lunch: 1.4 days/week
  – Where machines were on during lunch: 1.9 days/week

• Likelihood of students eating lunch at fast food restaurants in schools
  – With closed campuses: 0.2 days/week
  – With open campuses: 0.7 days/week

Neumark-Sztainer et al, IJBNPA, 2005, 2:14
Potential Issues

- Financial pressures
- Academic priorities
- Role of schools
- Range of choices to offer students
- Definition of ‘healthy’
State Nutrition Standards

Over 50% of states have established regulations on competitive foods that are more rigorous than federal regulations, including:

Alabama
Arkansas
Colorado
Florida
Hawaii
Kansas
Louisiana
Maryland
Nebraska
New Jersey
North Carolina
Rhode Island
Tennessee
Virginia
West Virginia

Arizona
California
Connecticut
Georgia
Illinois
Kentucky
Maine
Mississippi
New Mexico
New York
Oklahoma
South Carolina
Texas
Washington
States with Additional Policies on Competitive Foods

- Ensure more nutritious foods are available whenever less nutritious foods are sold (e.g., Florida high schools)
- Restrict access to foods anywhere in school for elementary or all schools (e.g., Alabama, Colorado, Connecticut, Nebraska, New Jersey)
- Ensure foods meet nutrition standards (e.g., California, New Jersey, Texas, West Virginia)
## Percentage of States with Nutrition Standards

<table>
<thead>
<tr>
<th>Setting</th>
<th>Require schools to offer fruits &amp; vegetables</th>
<th>Require schools to prohibit junk foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>À la carte during breakfast or lunch</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>In vending machines</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>In school stores, canteens, or snack bars</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>At student parties</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

_CDC, School Health Policies and Programs Study 2000_
Richland One School District
Columbia, South Carolina

Set standards for all school locations to eliminate:

- Chewing gum, flavored ice bars and candy bars
- Food/drinks with 40% sugar by weight
- Juice/juice products with <100% juice
- Foods with > 8.0g fat per serving
- Carbonated beverages
Oakland Unified School District

• Nutrition guidelines
  – All food shall meet nutrition standards set by food services
  – No vending of soft drinks, or drinks that contain caffeine or high sugar concentrations, no candy or similar products
  – Appropriate cafeteria seating and décor
  – Longer lunch periods
  – No contracts to permit advertising of food or drinks
  – Support school to farm connections
Los Angeles Unified School District

Nutrition guidelines

Only approved beverages in vending machines, cafeterias, student stores or advertised or promoted to students

Non-approved beverages sold only after school day

Contracts for non-approved beverages permitted only if in effect after the school day
The Action for Healthy Kids Wellness Policy Tool allows districts to build their own policy by cutting and pasting language from existing or model policies from states and districts around the country.

http://www.actionforhealthykids.org/resources_wp.php

SAFER • HEALTHIER • PEOPLE™
Additional Resources

- United States Department of Agriculture
  - [http://teamnutrition.usda.gov/Healthy/wellnesspolicy.html](http://teamnutrition.usda.gov/Healthy/wellnesspolicy.html)

- National Association State Boards of Education
  - [http://www.nasbe.org/HealthySchools/fithealthy.html](http://www.nasbe.org/HealthySchools/fithealthy.html)

- National Alliance for Nutrition and Activity
  - Model School Wellness Policies

- School Nutrition Association
  - Local Wellness Policy Guidelines
    - [http://www.asfsa.org/](http://www.asfsa.org/)

- Washington State
    - [http://courses.washington.edu/nutr531/policyguide.pdf](http://courses.washington.edu/nutr531/policyguide.pdf)
Local Wellness Policy Technical Assistance Activities

- USDA Audio Teleseminar on Local Wellness Policies
- CDC/USDA/NGA Wellness Policy Institute
- Non-governmental associations’ resources and trainings
- State level resources and trainings
- Public and private sector support
Options for Nutrition Standards

- **Foods and beverages**
  - Dietary Guidelines (e.g., variety, energy balance)
  - All competitive foods
  - Specific food or beverage items (e.g., fruits, vegetables)
  - Food or beverage items based on nutrient criteria
    - Calories
    - Total fat, saturated fat, trans-fat
    - Sodium
    - Added sugars
    - Protein
    - Vitamins
    - Minerals
    - Fiber
  - Food preparation method (e.g., no deep fat fryers)
  - Source of food or beverage (e.g., locally grown)

- **Portion size**
Nutrition Standards

• Clear to the target audience, comprehensive, and unambiguous
• Reflect the Dietary Guidelines for Americans
• Complement USDA nutrition standards for school meals and wellness policy initiatives
• Consistent with nutrition label information
Nutrition standards should be:

Ideal

Realistic
Closing Thoughts

- Issuing nutrition standards is not enough

- The process of introduction, adoption, and implementation is what will ultimately make a difference
Nutrition Standards for Foods in Schools

Mary McKenna, PhD (zyc3@cdc.gov)
770-488-5187
Division of Adolescent and School Health, CDC
Institute of Medicine, Washington, DC
October 2005