



Evaluating School Wellness Policies in Connecticut

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Rudd Center for Food Policy and Obesity

The mission of the Rudd Center is to:

- improve the world's diet
- prevent obesity
- and reduce weight stigma

through creative connections
between science and public policy

Is there research support for
school based interventions?

School-based interventions to reduce childhood obesity

Several large scale studies have tested the impact of multi-component interventions

- ✓ Nutrition and physical education
- ✓ Changes in cooking methods in cafeteria
- ✓ Increase in physical activity in school
- ✓ Communication with parents
- ✓ Recommend decrease in television watching
- ✓ Recommend decrease in soft drink consumption

School-based interventions to reduce childhood obesity

- Results have been mixed
- Behavior changes documented
- But changes in BMI or other cardiovascular risk factors did not consistently emerge
- Best predictors of changes in BMI have been decreasing soda consumption and decreasing television watching

Sources: Robinson (2001); James et al. (2004)

Mounting evidence against sugared beverages

- Meta-analysis of all research done on the health effects of sugared soft drinks
- Significant negative effects on weight, energy intake, calcium, and risk of diabetes
- Significant difference between studies that were and were not funded by the food industry

Source: Vartanian, Schwartz, & Brownell (2007) *American Journal of Public Health*

The problem with BMI as the outcome

- Expecting BMI to change significantly due to a school based intervention may be unrealistic
- May be comparable to expecting lung cancer rates to go down a year after banning smoking from schools

Focus on how the environment influences diet quality

- Students who choose the NSLP meal eat two times as many fruits and vegetables
When students transition to middle school their diet deteriorates (i.e., fewer fruits, fewer non-fried vegetables, less milk, and more sweetened beverages)

Sources: Cullen et al., 2000; Cullen & Zakeri, 2004

Evidence that the environment influences diet quality

- Students who attend schools without a la carte options eat more fruits and vegetables and fewer calories from fat
- Schools that have fewer policies to limit food consumption have a higher prevalence of obesity

Sources: Kubik et al. (2003); Kubik et al. (2005)

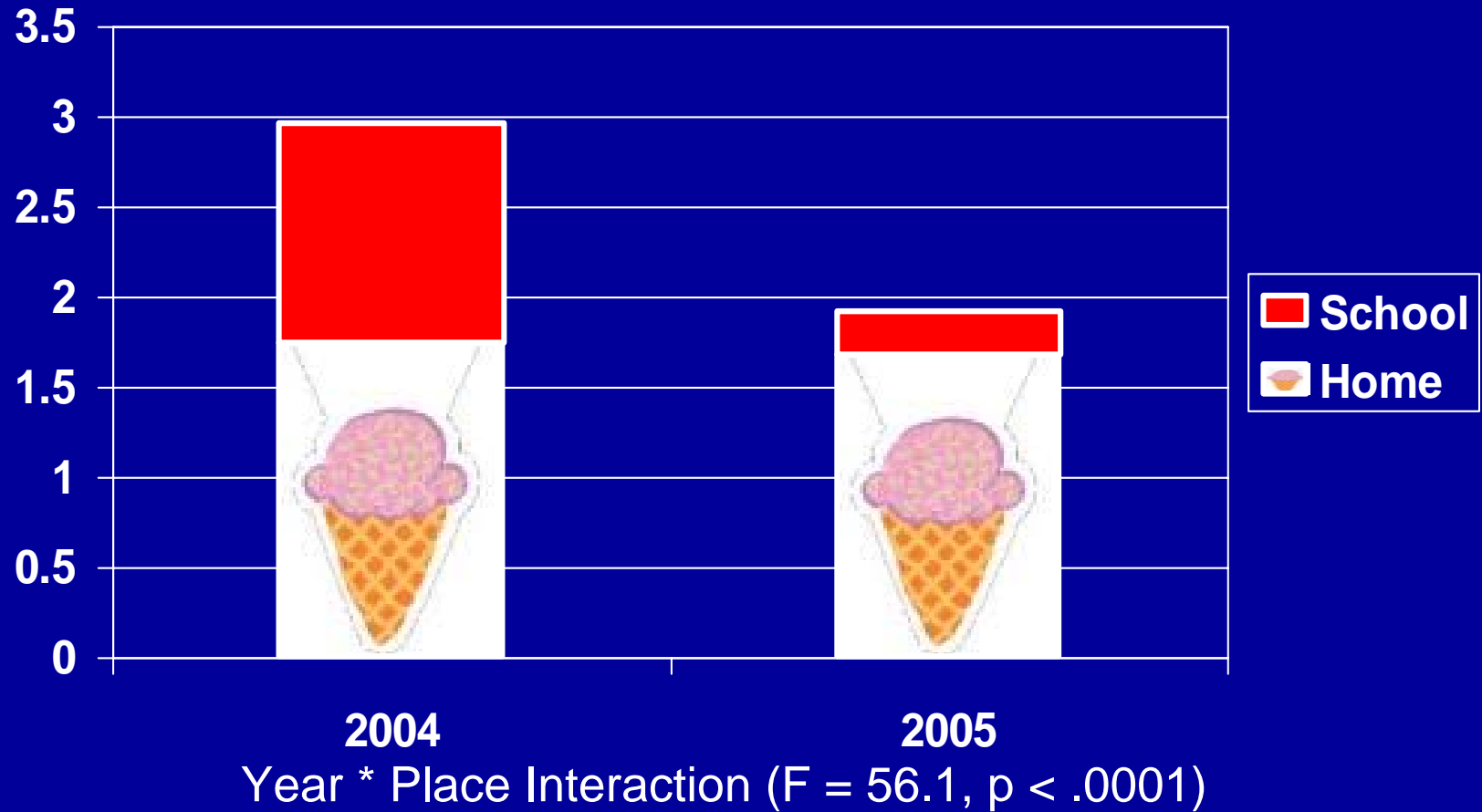
Data to support the position
that children will eat what is
in front of them

Connecticut a la carte study

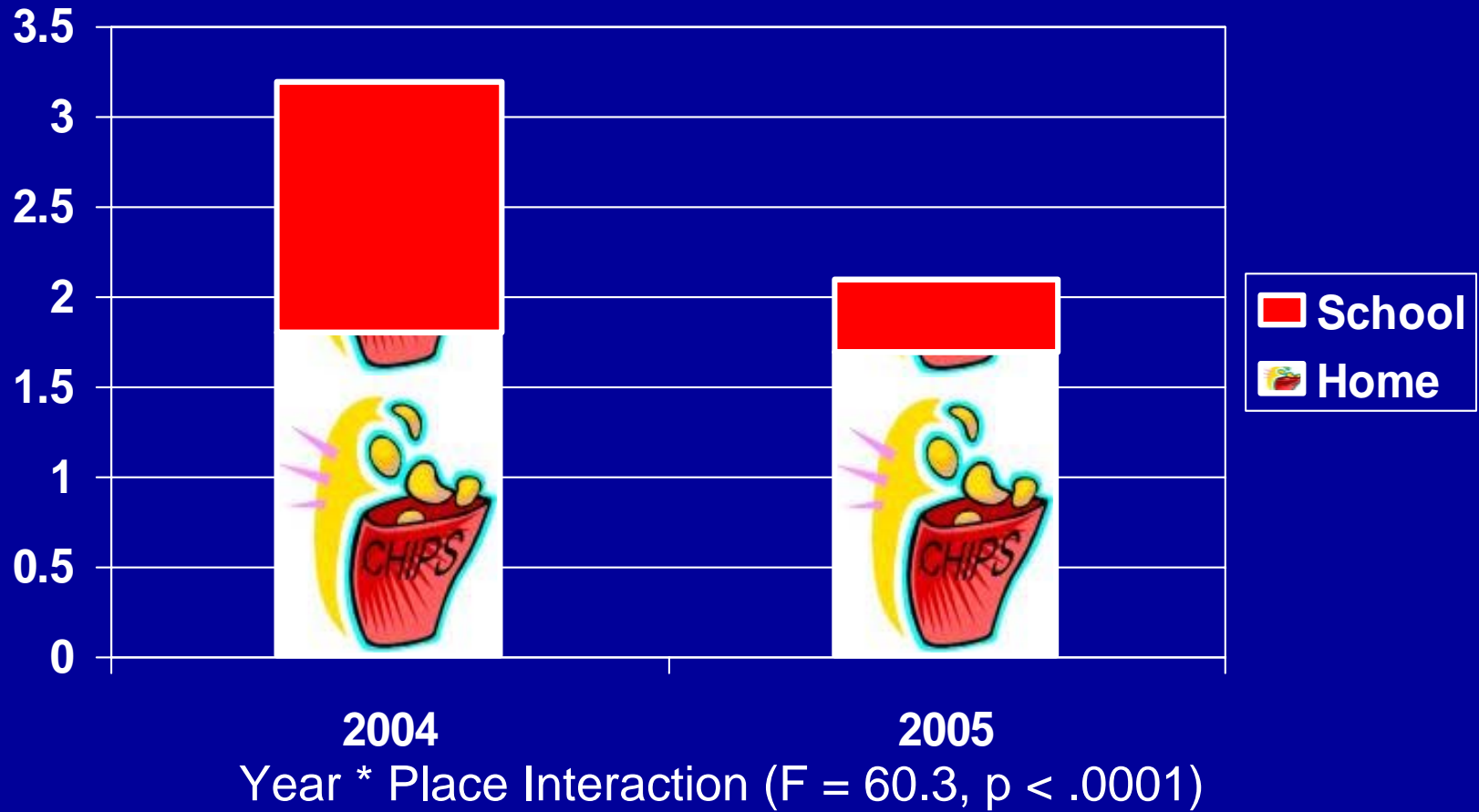
- Removal of snacks from schools will result in a decrease in snack consumption at school
- There will be no compensatory increase in snack consumption at home
- Therefore, there will be an overall decrease in snack consumption

Sources: Schwartz (2005); Schwartz, Novak & Fiore, under submission

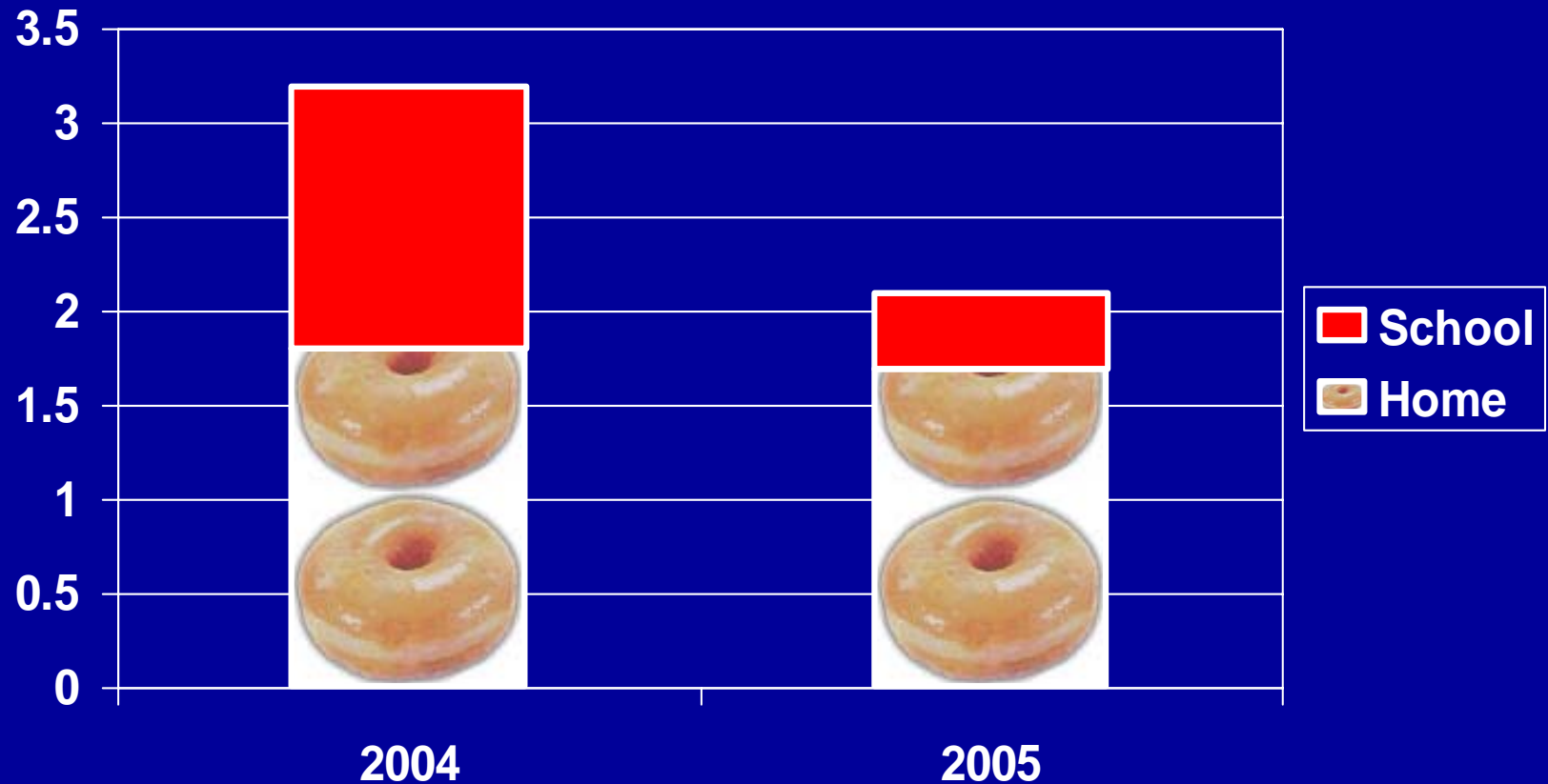
Total Ice Cream Consumption



Total Potato Chip Consumption



Total Cookie, Brownie, Donut, and Rice Crispie Treat Consumption

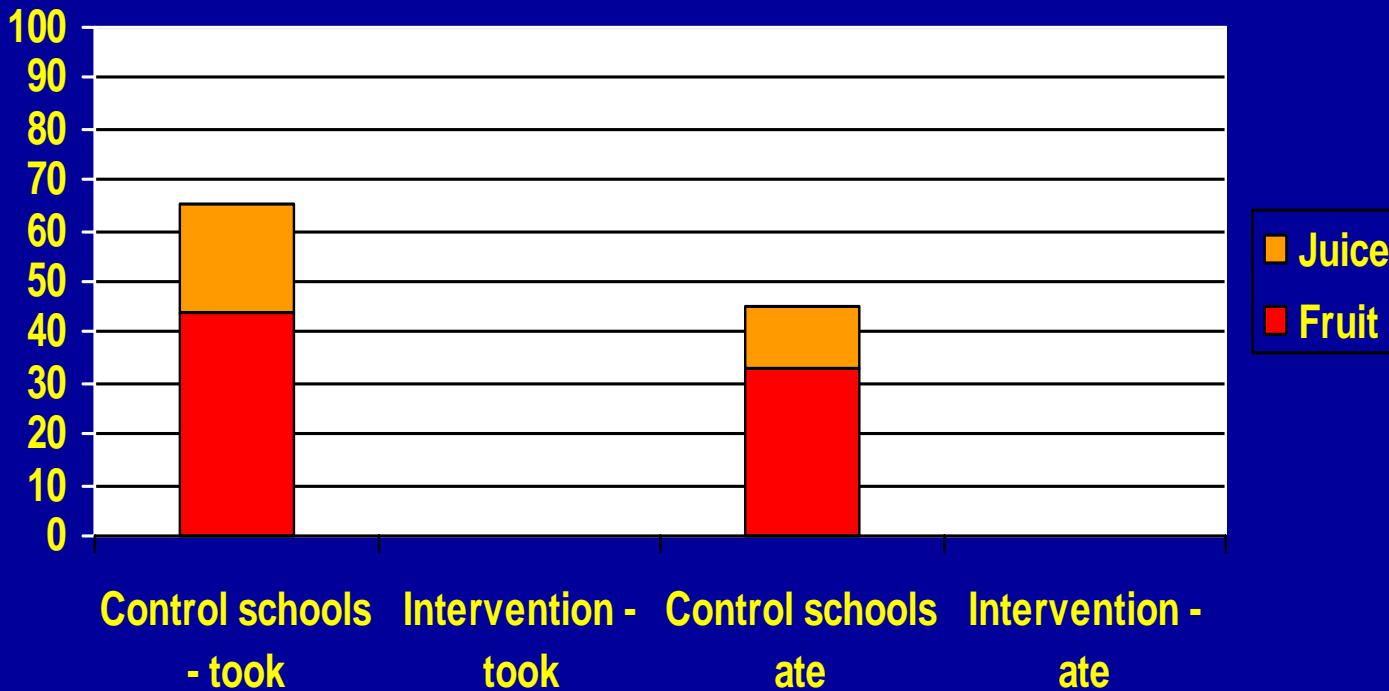


Year * Place Interaction ($F = 4.8, p < .03$)

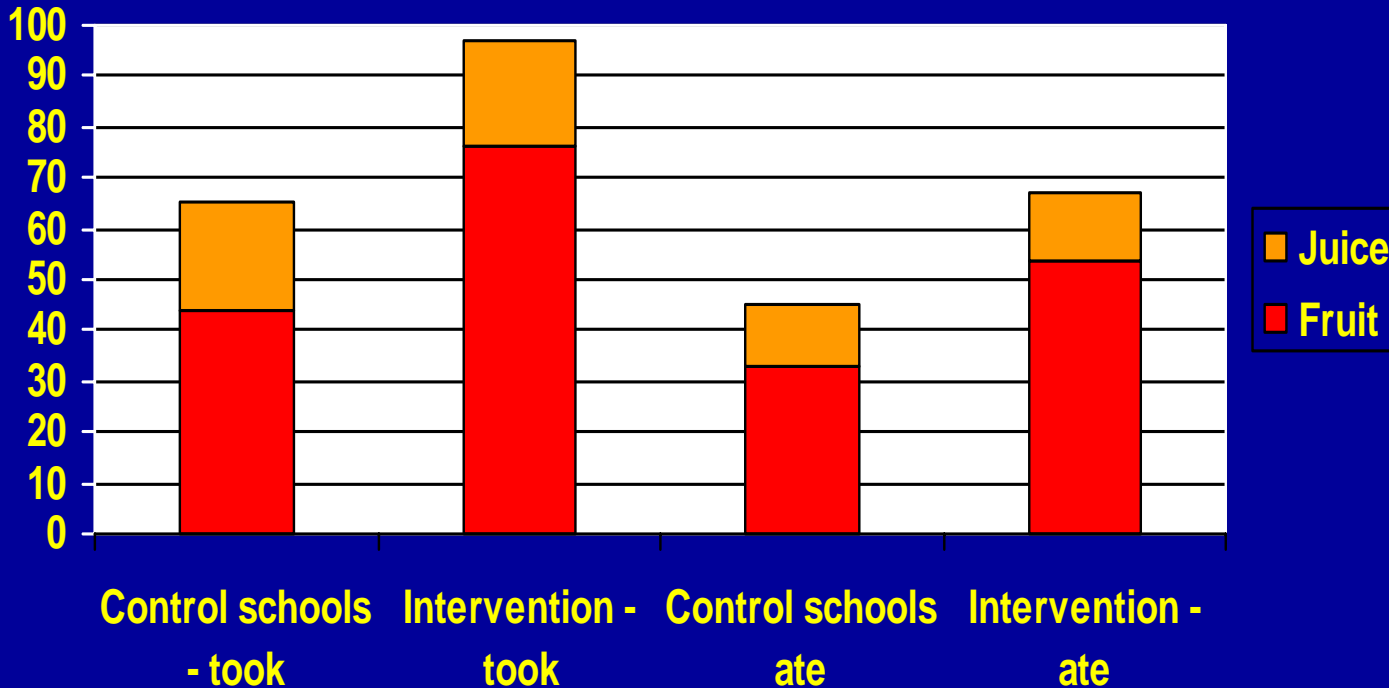
**A Verbal Prompt to Take Fruit
or Juice in School Lunches:
What Is the Impact on
Consumption?**

- Current USDA guidelines: the fruit serving is “offered” instead of “served”
- Hypothesis: More children would eat the fruit serving if there was a verbal prompt to take it
- Subjects: All children at 2 elementary schools (N = 309 and N = 369) in the same town
- Method: Observation for two days

Serving vs. Offering Fruit

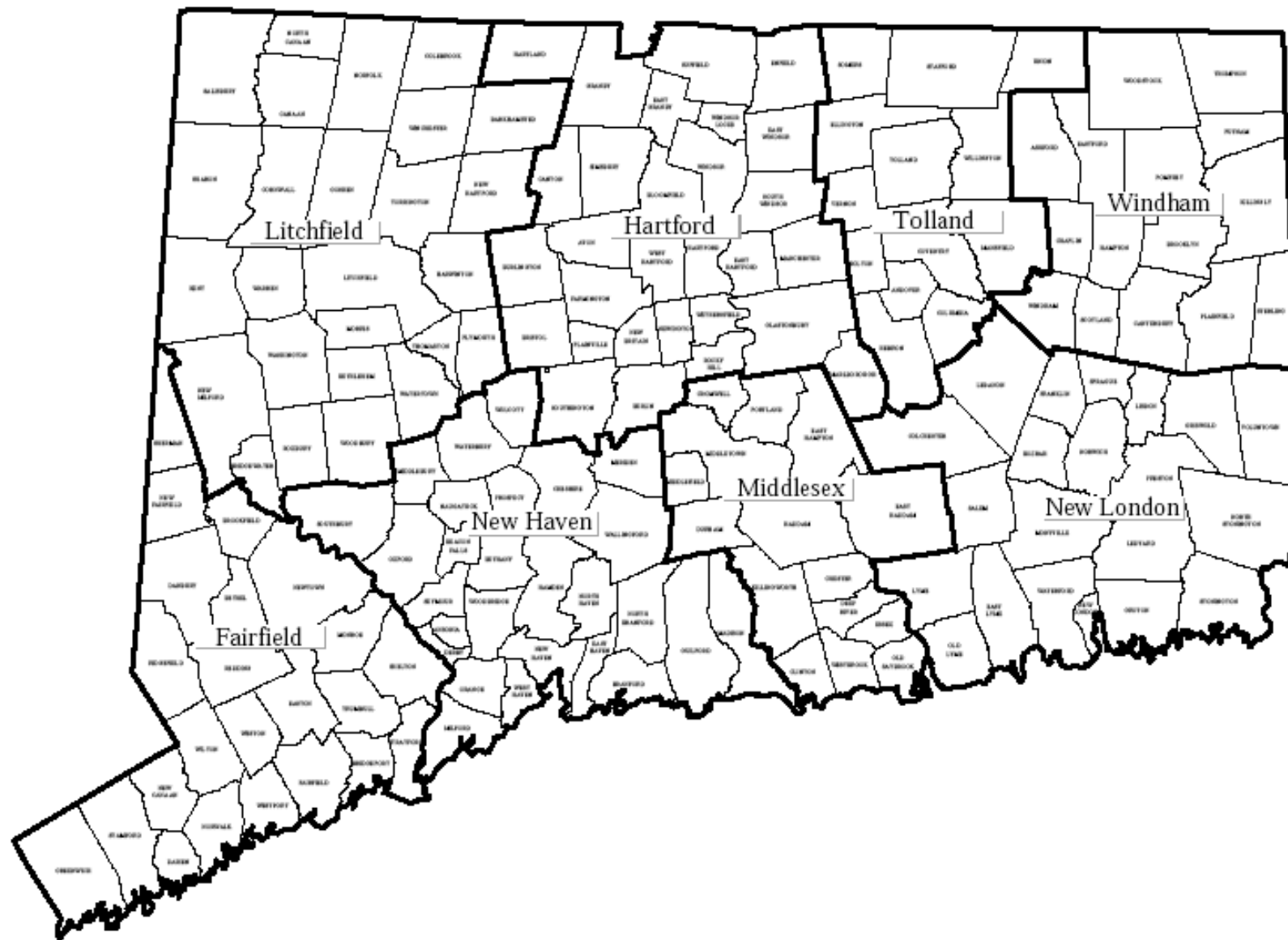


Serving vs. Offering Fruit



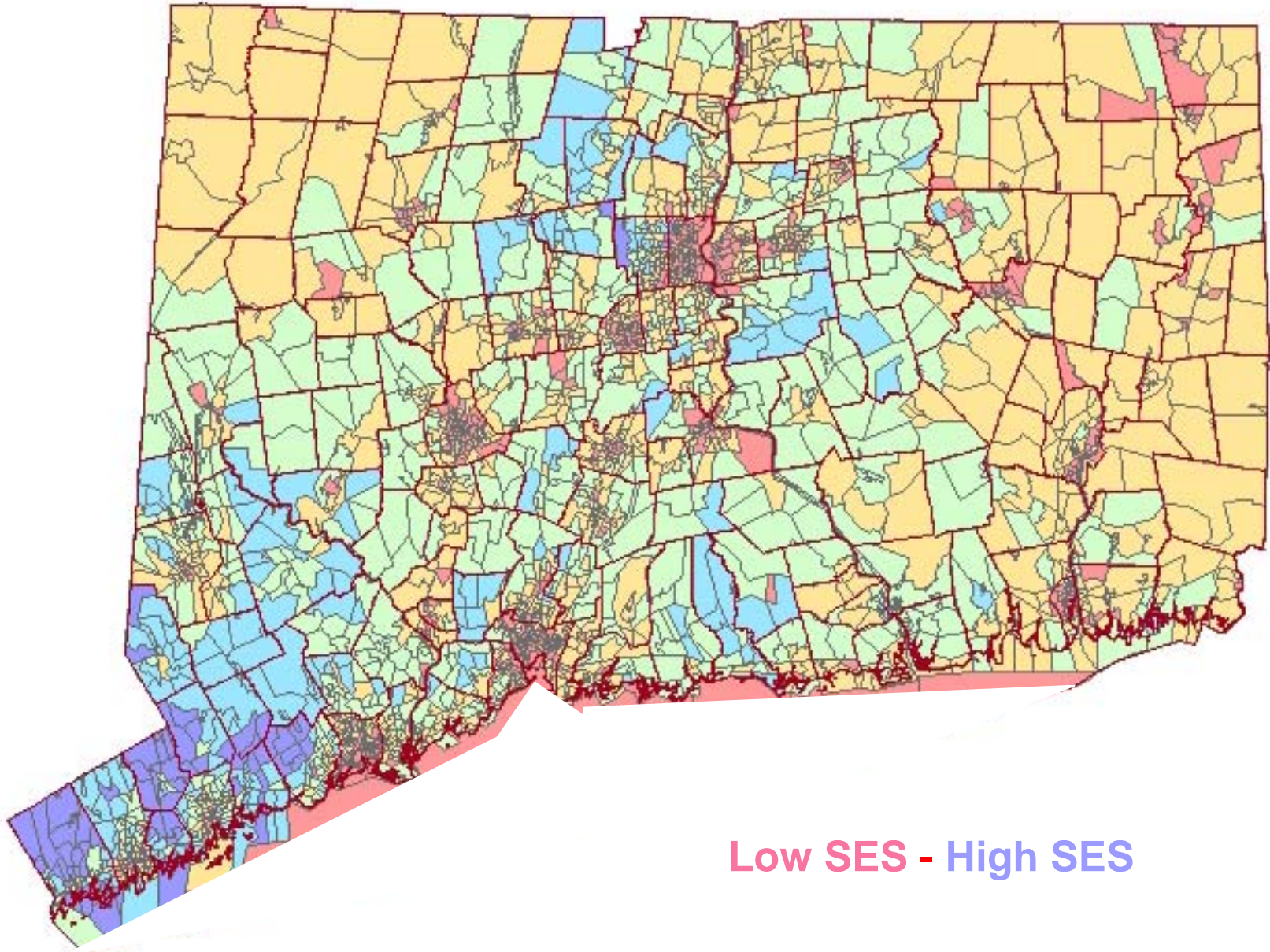
Source: Schwartz, 2007, International Journal of Nutrition and Physical Activity

Examining districts across the state



Connecticut is a very diverse state

<u>ERG</u>	<u># Districts</u>	<u>Median Income</u>
A	9	\$ 134,721
B	19	\$ 91,996
C	31	\$ 75,179
D	21	\$ 73,373
E	21	\$ 66,496
F	15	\$ 61,590
G	14	\$ 57,856
H	14	\$ 57,316
I	7	\$ 38,127

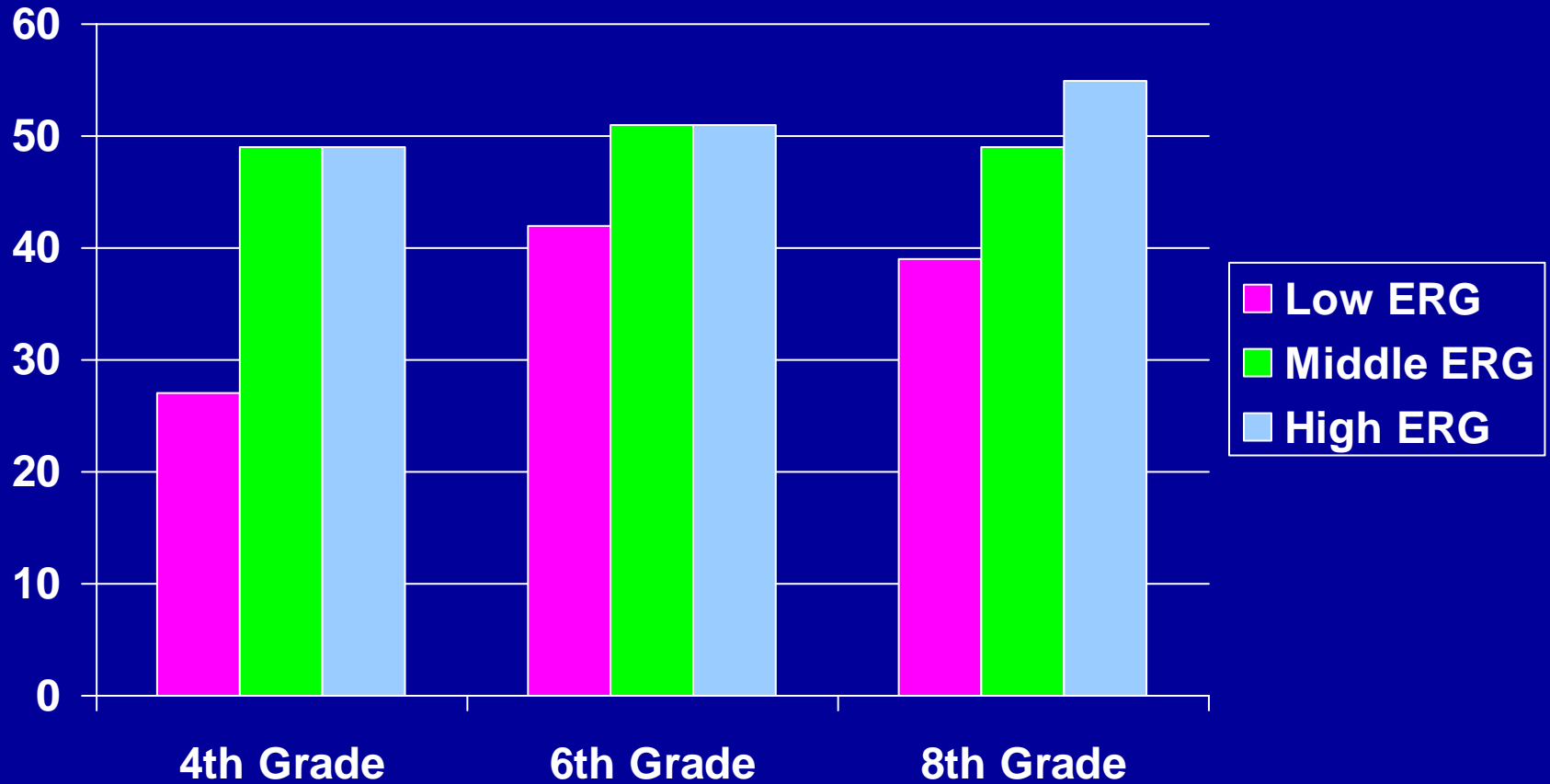


Low SES - High SES

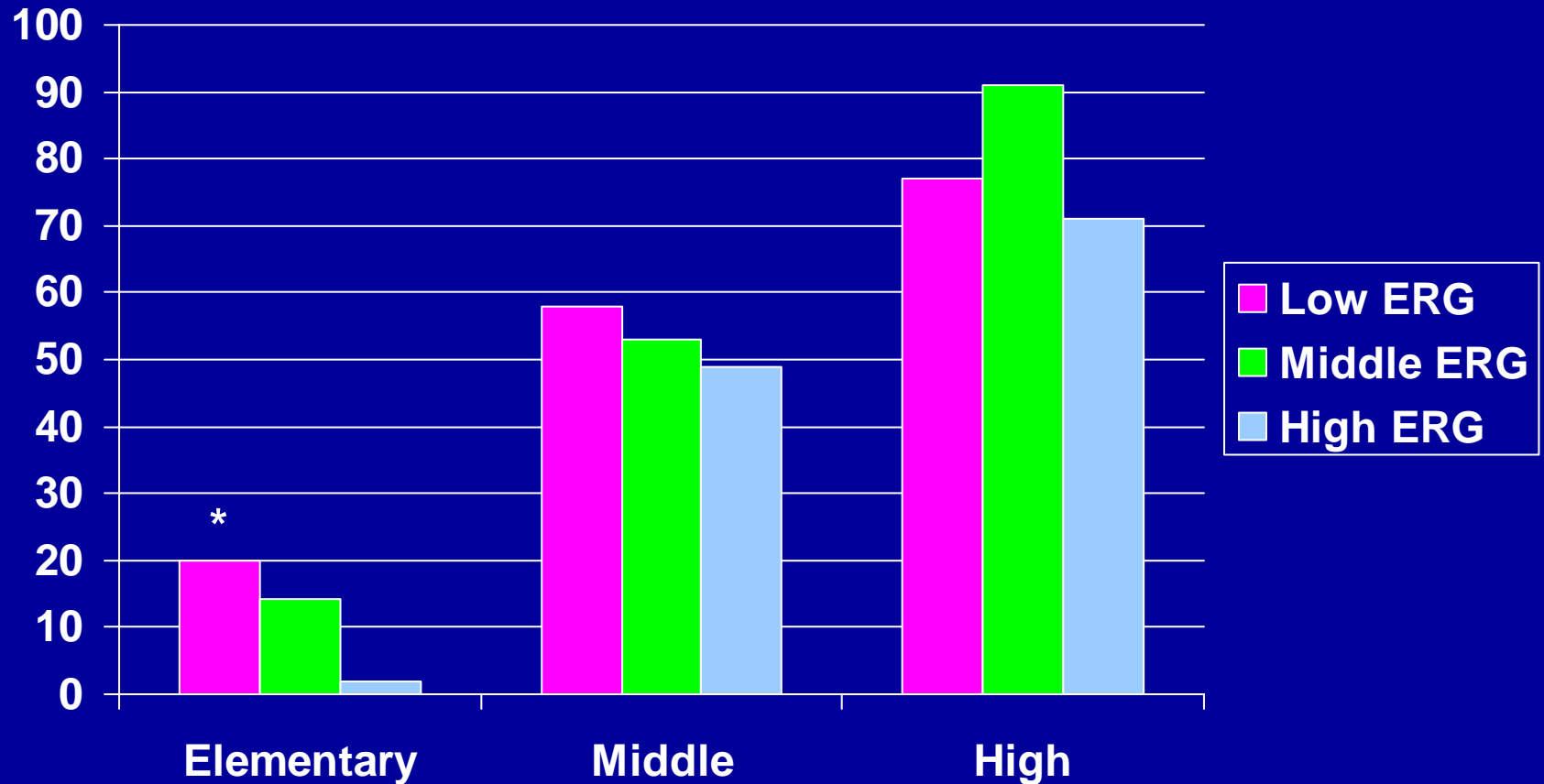
Background

- Significant demographic differences among districts
- Significant achievement differences among districts
- Significant differences among districts in the nutrition and activity environment
- How are these linked?

Students passing all four CMT's 2004-2005



2005-2006 Vending Machines



* Elementary schools in low ERG districts were significantly more likely to have machines

Research Question

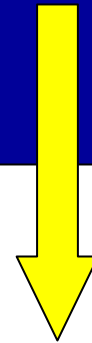
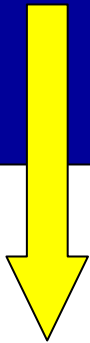
Evaluate the strategy of having each district create its own school wellness policy

- Will this result in significantly better policies for some districts compared with others?
- Will this actually increase discrepancies between high resource and low resource districts?

District / Town Sociodemographic Variables

Median income, Geography, Population density,
Racial / ethnic composition, Political landscape
Town budget, Money spent per student

District / Town Sociodemographic Variables



School
Nutrition
Environment

Pre-existing
School
Policies

Composition
of School
Health Team

Student
Achievement
and Health

2005-2006 School District Variables

District / Town
Sociodemographic Variables



2005-2006 School District Variables

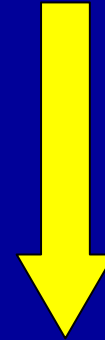


2006-2007 School Wellness Policy
Content and Quality

2006-2007 School Wellness Policy



School Nutrition
Environment



Student
Achievement and
Health

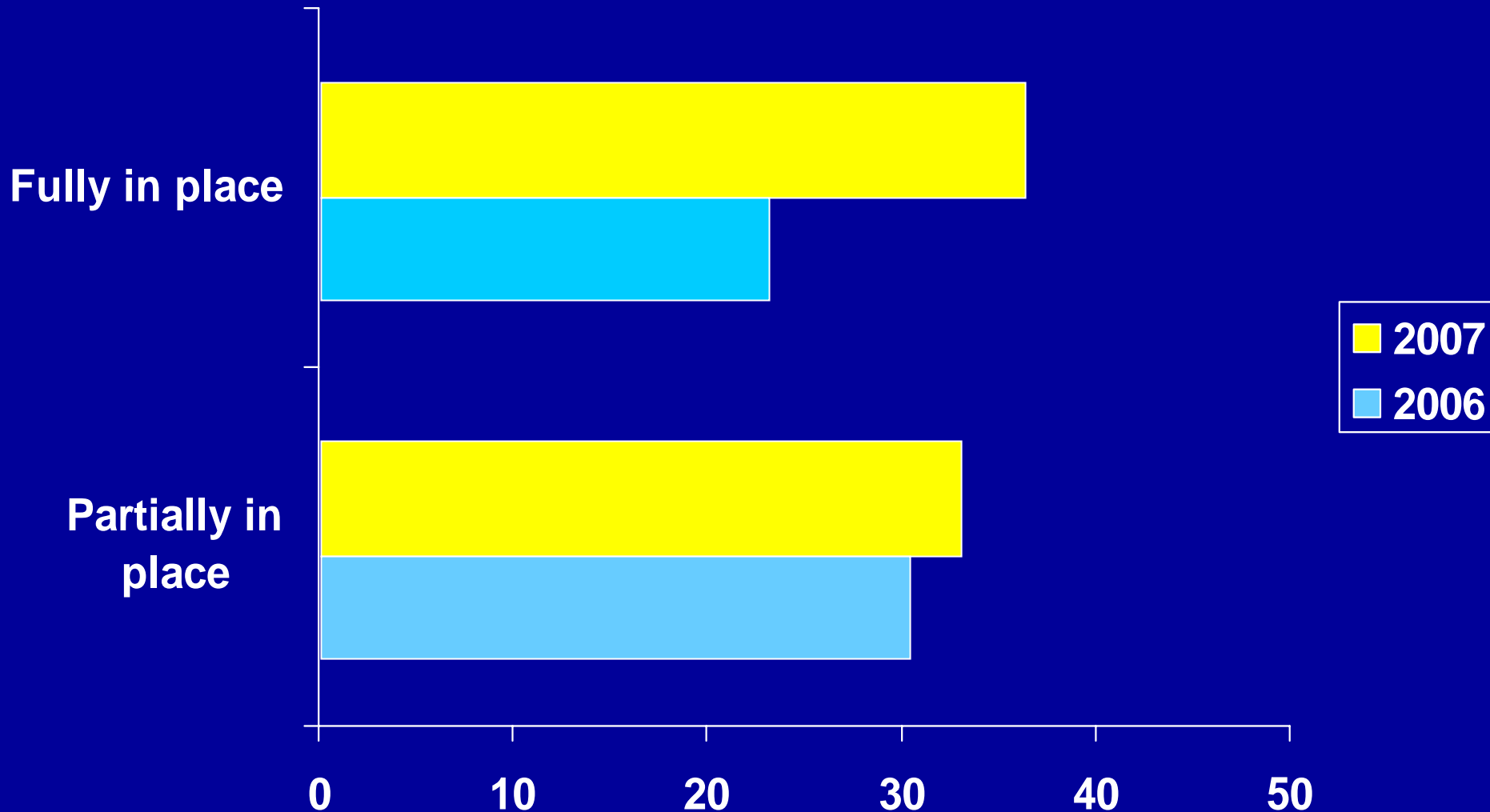
Changes in nutrition related policies from 2006 to 2007

- Data obtained by principal surveys in Spring 2006 and again in Spring 2007
- All principals surveyed (N=1054)
- Spring 2006 response rate (n = 719)
- Spring 2007 current response rate (n = 231)
- The following findings are from schools that have complete Time 1 and Time 2 data (n = 177)

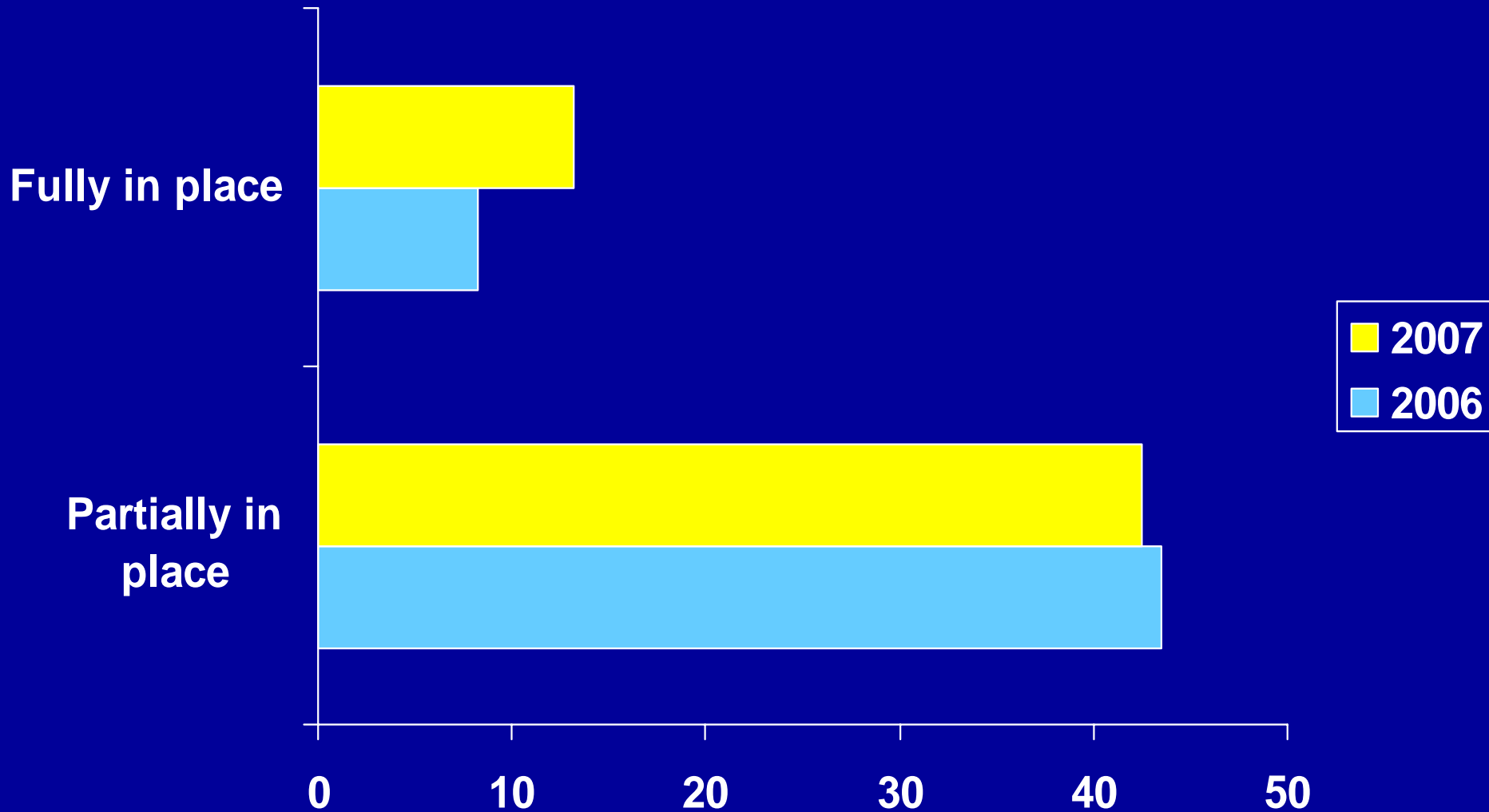
2005-2006

- 25% of districts had pouring rights contracts
- 90% of these were with Coke
- 5% allowed advertising on school grounds
- 36% required food service to sell only their products
- 25% provided a percentage of soft drink sales to food service

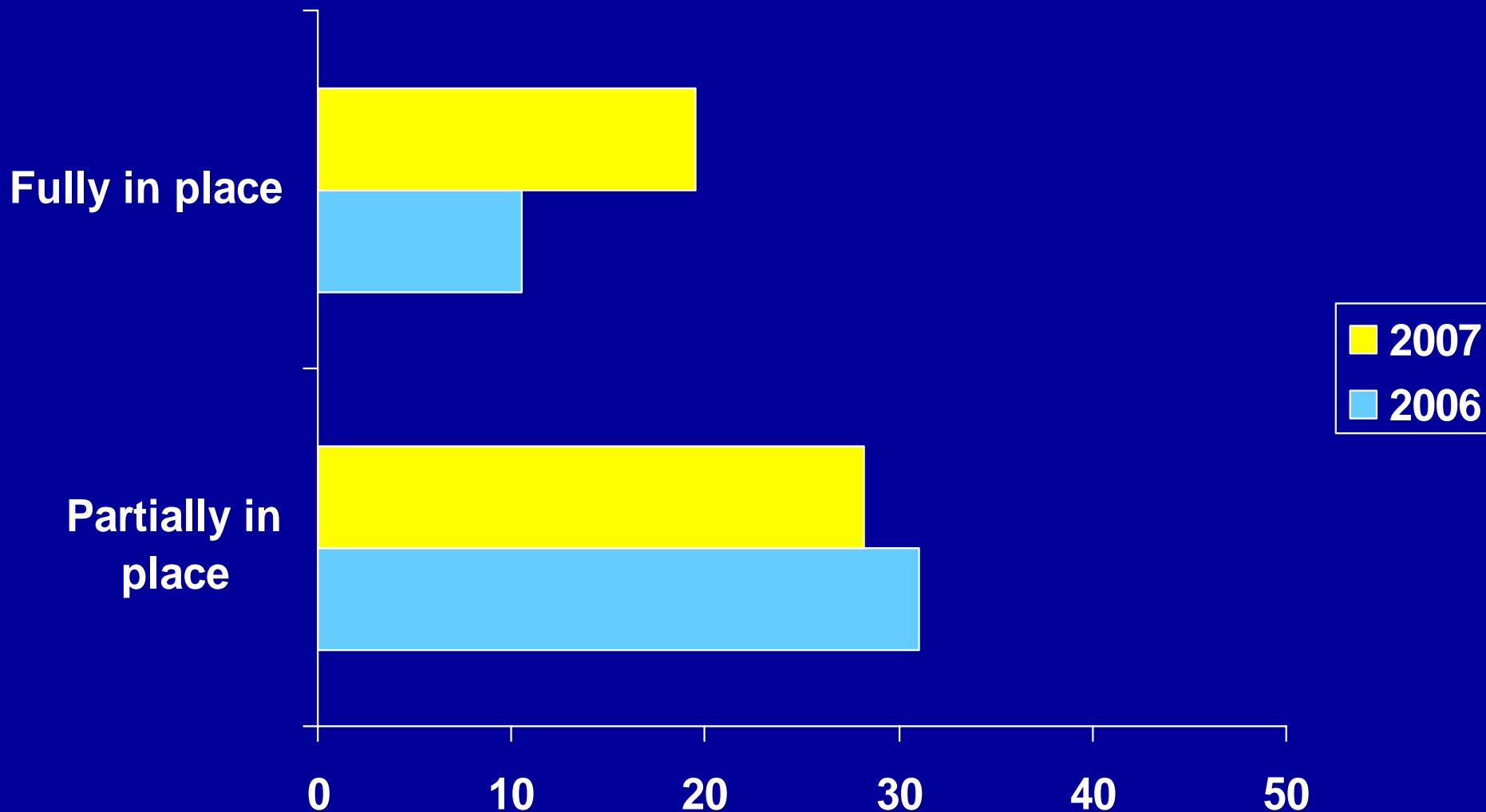
Provides a skills based nutrition education as part of a comprehensive school health education program



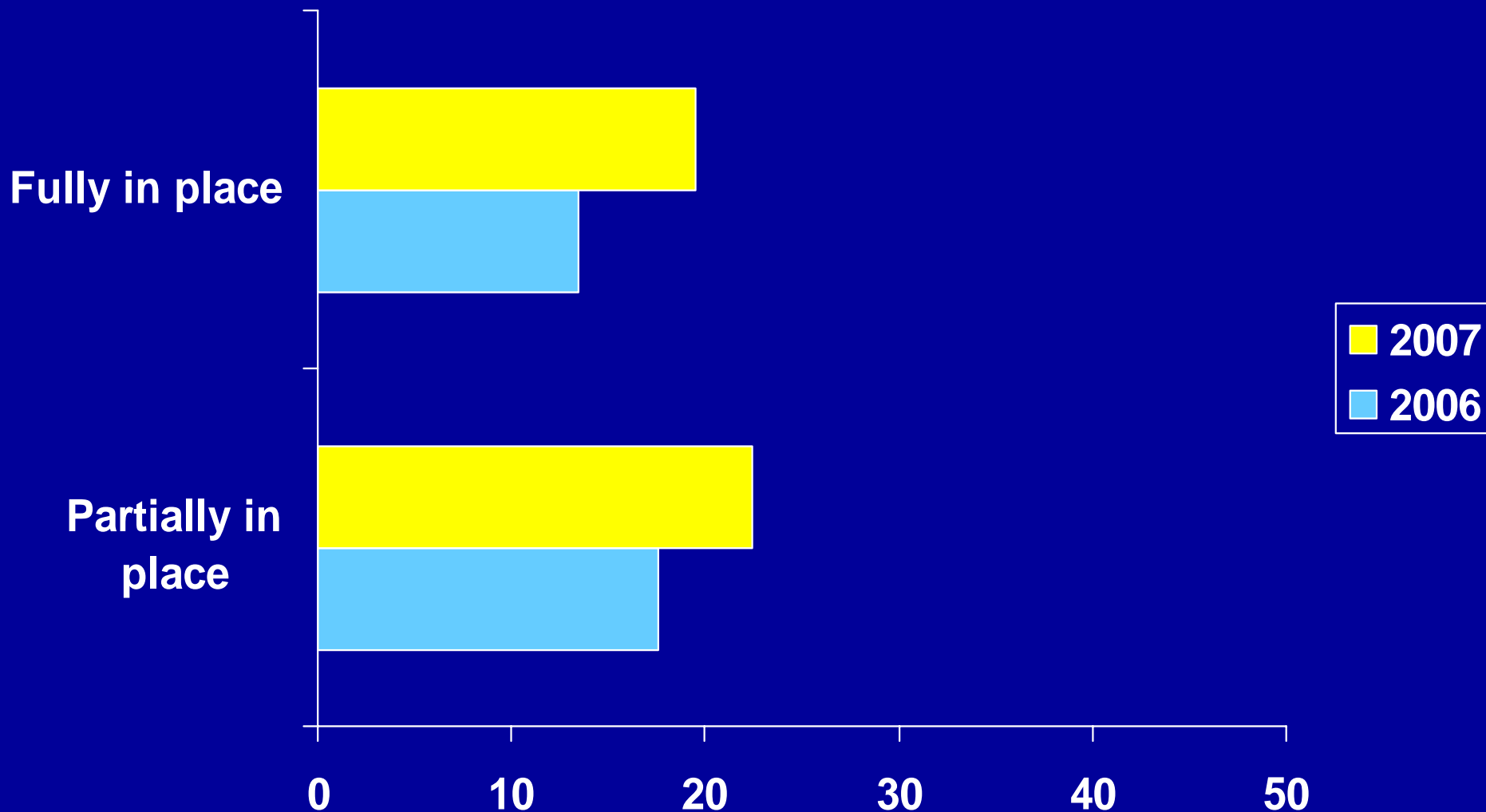
Includes nutrition education in other content areas



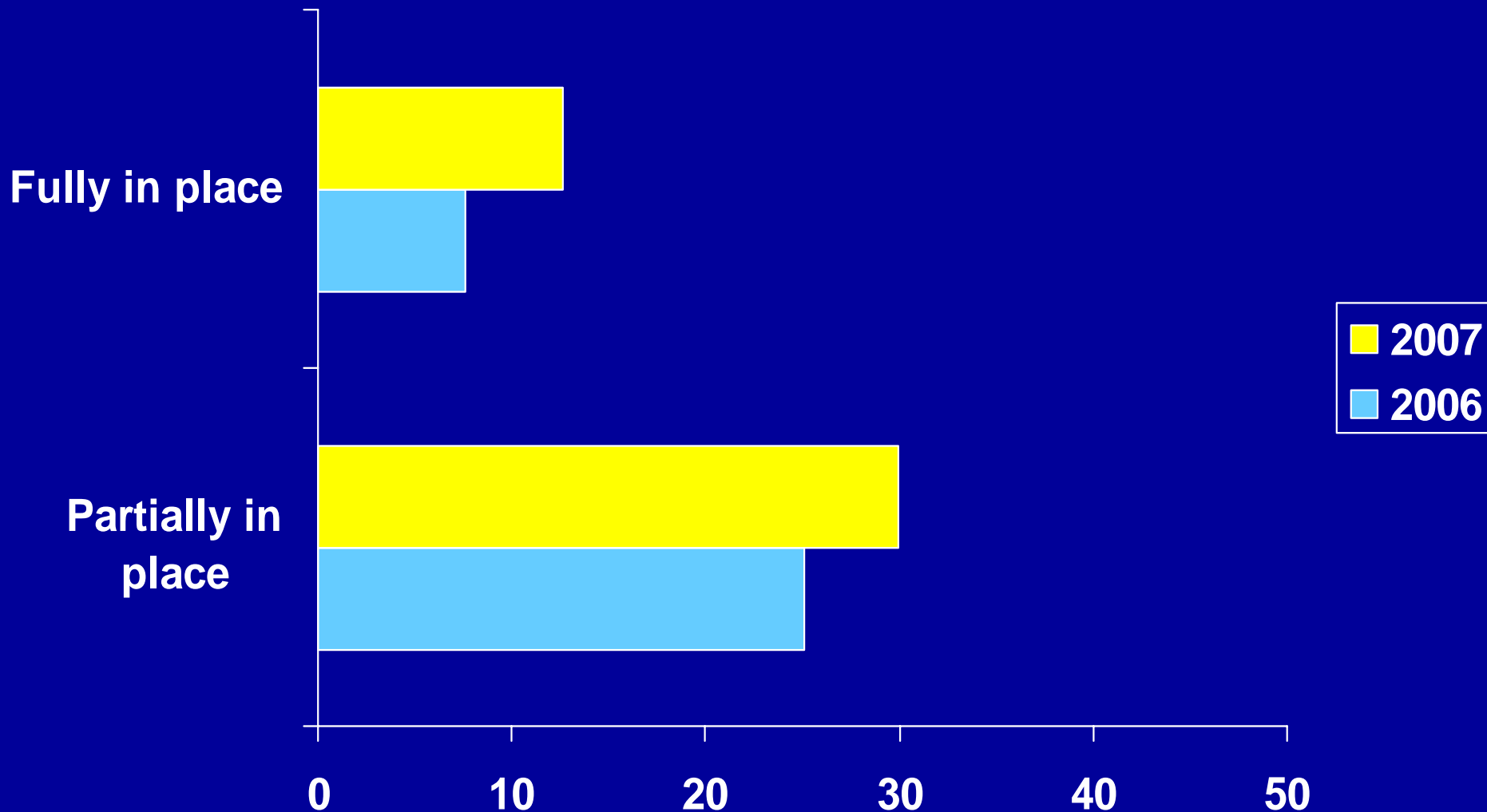
Coordinates nutrition education with school meals



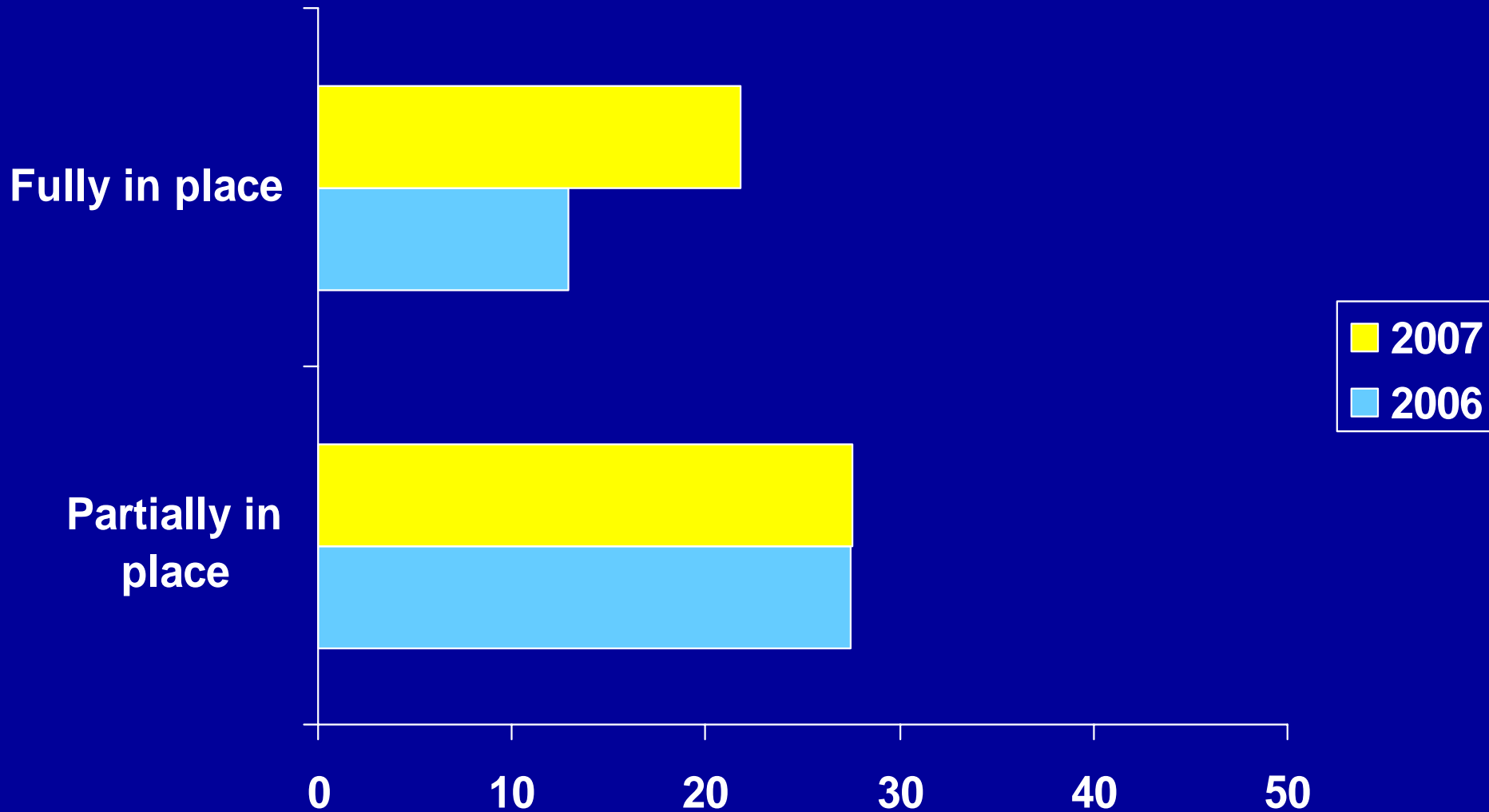
Provides professional development for nutrition education staff



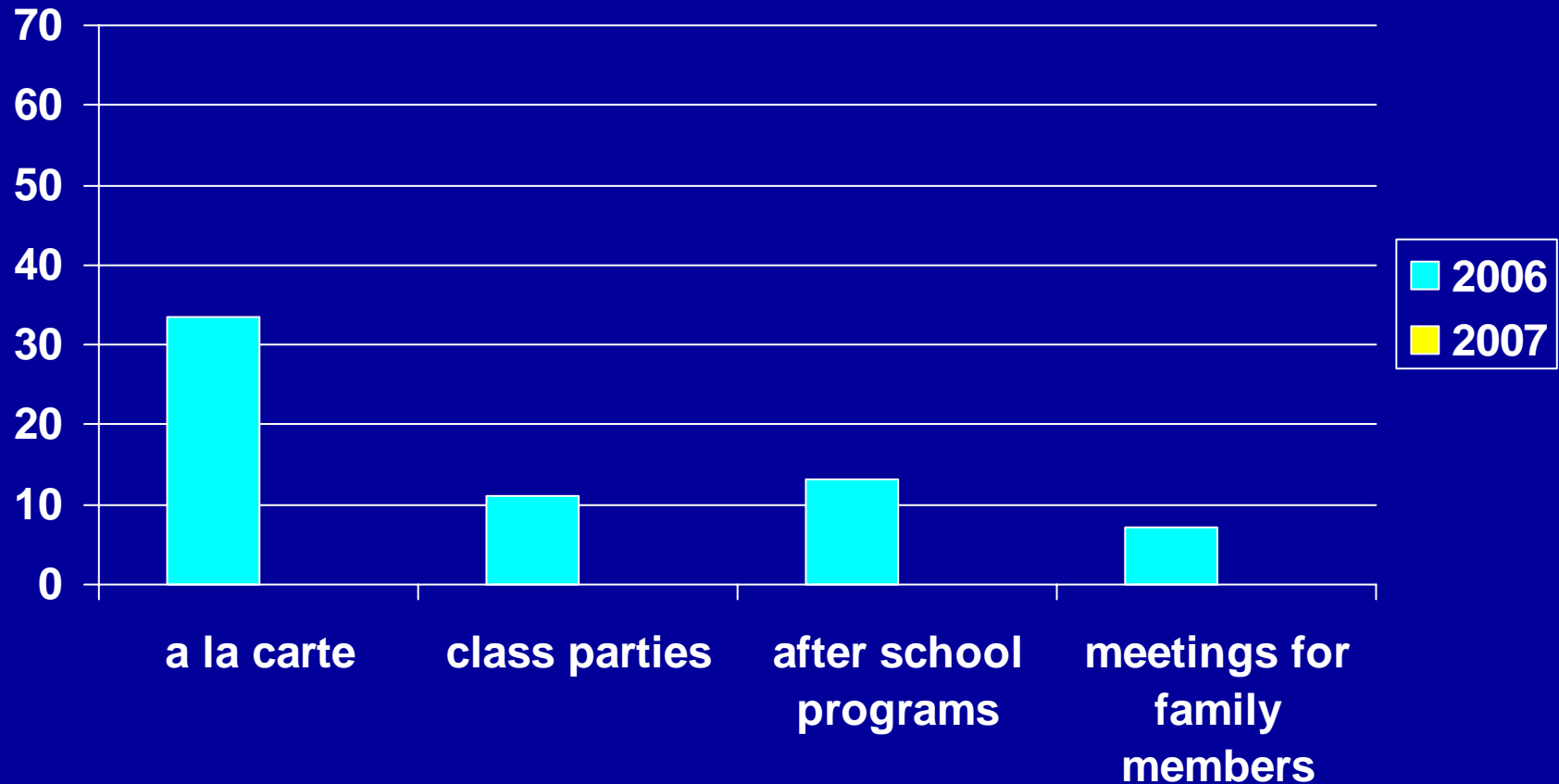
Collaborates with community groups to send consistent nutrition messages



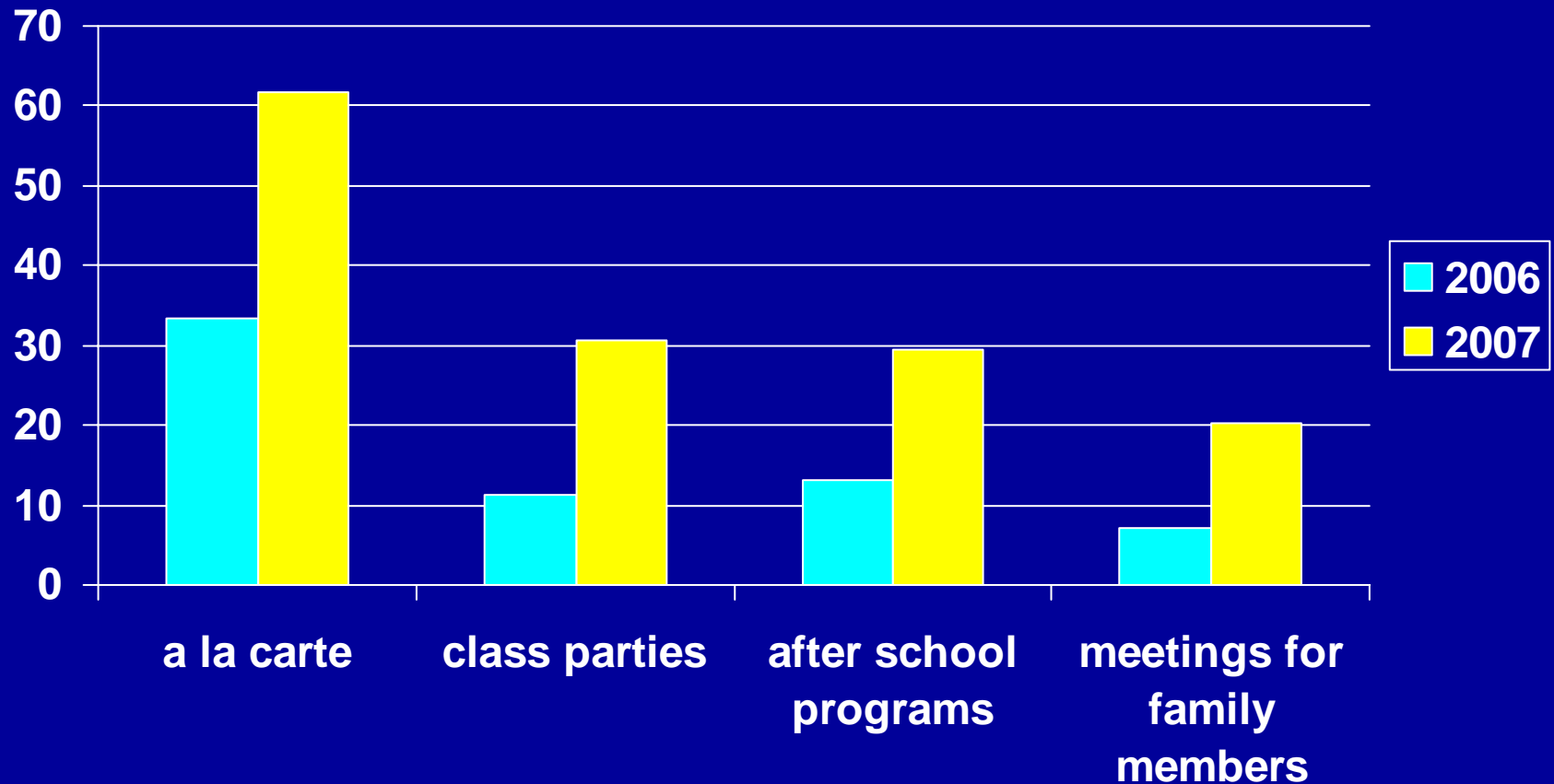
Involves students, parents, and the community in nutrition education (e.g., health fairs, nutrition events)



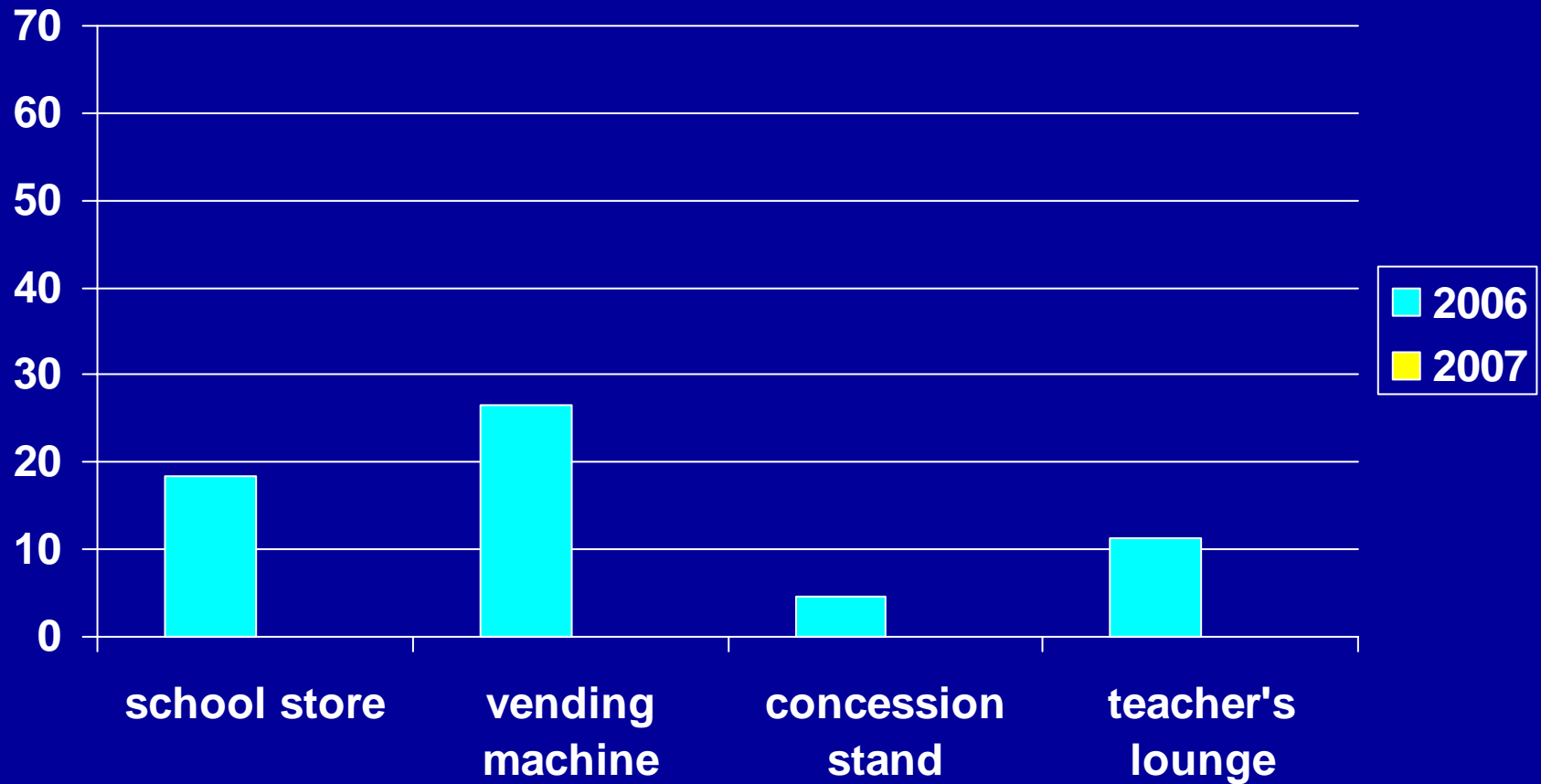
Prohibits unhealthy food choices in the following settings:



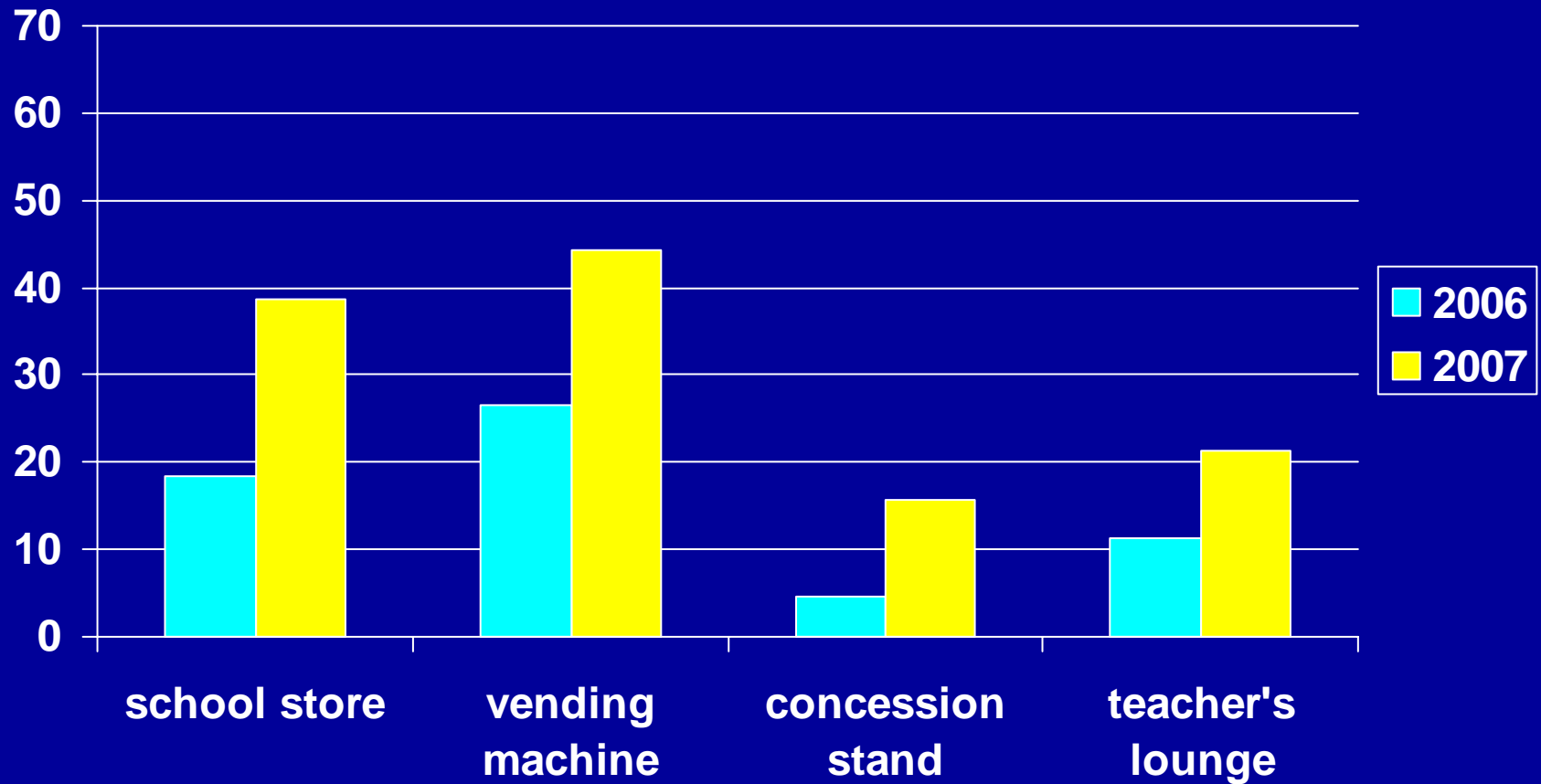
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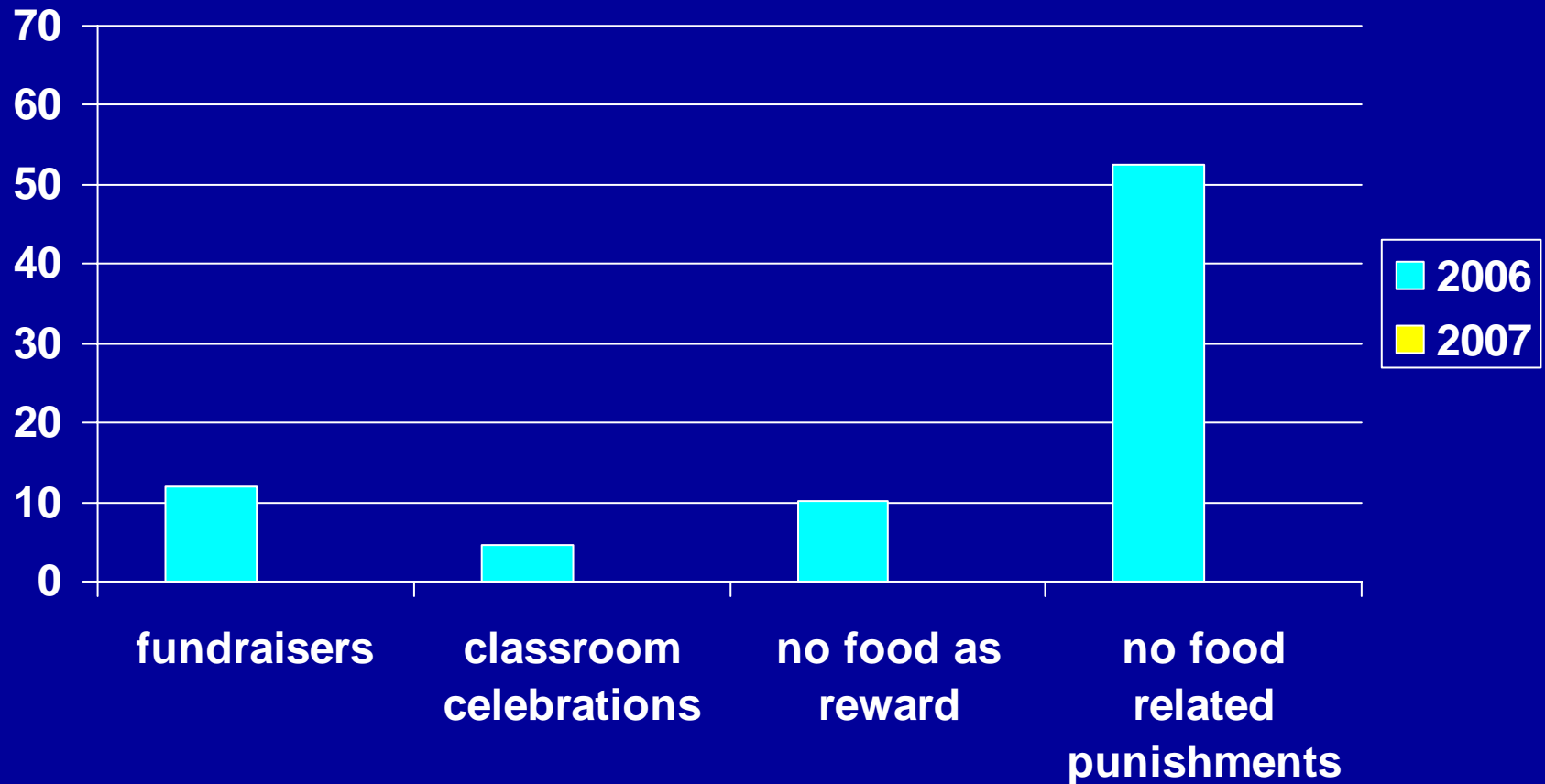
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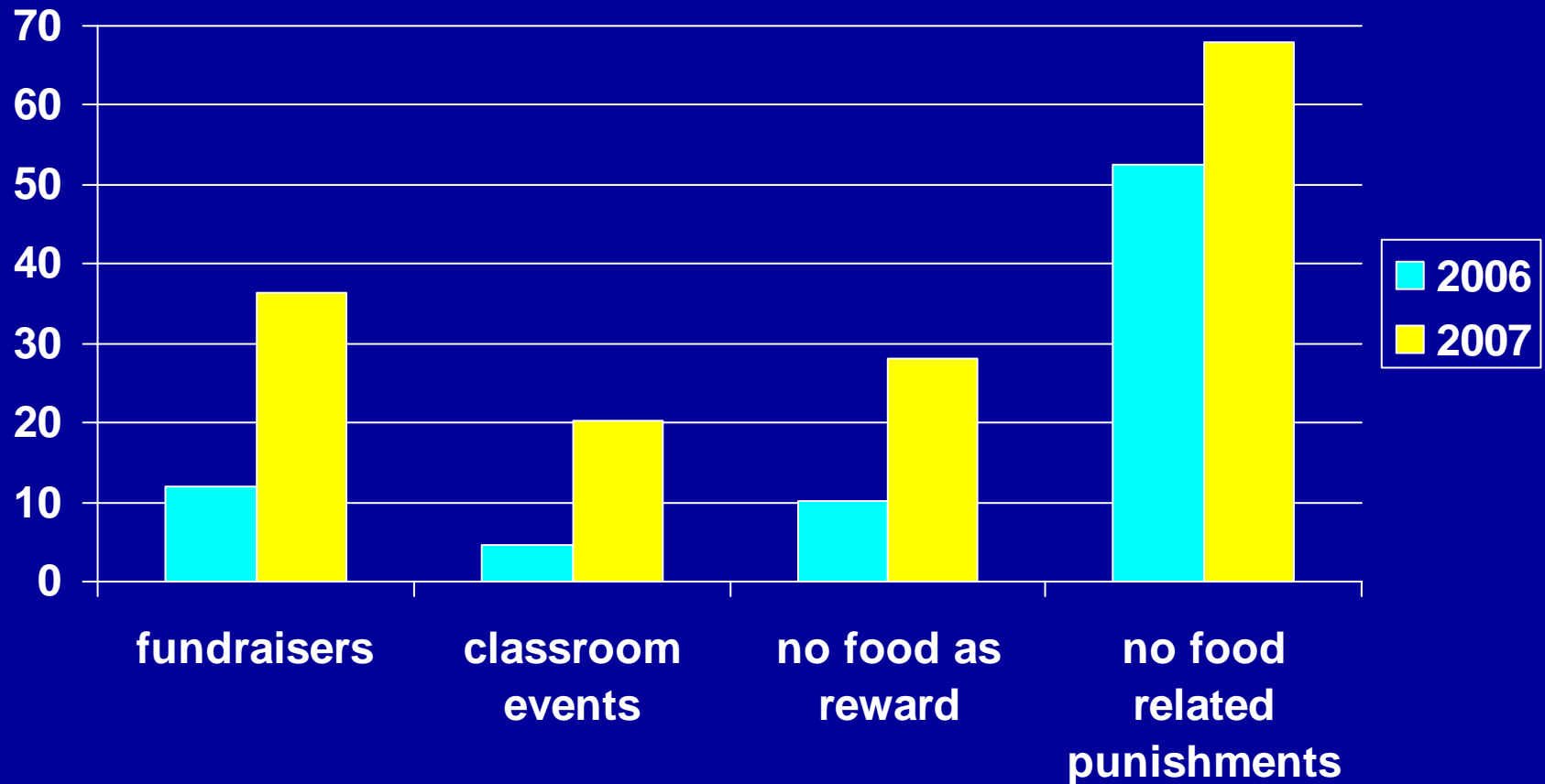
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Provides adequate time to eat (i.e., 10 min. for breakfast, 20 min. lunch)



Barriers: Lack of support

	2006	2007
• administration	6%	5%
• teachers	7%	8%
• food service	9%	9%
• School nurse	0%	0%
• Other staff	2%	3%
• Parents	31%	23%
• Community	11%	14%

RWJF Working Group

- Process to create an interstate tool
- Collected NCI, Pennsylvania, AFHK, Clinton Foundation, NANA
- Scope
- Specificity
- Strength
- Will this policy answer relevant questions?

7 Main Policy Components

1. Nutrition Education
2. Standards for USDA Child Nutrition Program
3. Nutrition Guidelines for Competitive & Other Foods at School
4. Physical Education
5. Physical Activity
6. Communication & Promotion
7. Evaluation

Nutrition Education

- Includes goals for nutrition education that are designed to promote student wellness...
- Addresses nutrition curriculum for different grade levels
- Addresses coordinating nutrition education with the larger school community
- District provides nutrition education training for teachers
- Nutrition education is integrated into other subjects
- Policy specifies number of contact hours or courses

Nutrition Education Examples

- *“The staff responsible for nutrition education will be adequately prepared and participate regularly in professional development activities to effectively deliver an accurate nutrition education.”*
- *“The health education program includes training for teachers and other staff.”*

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Standards for Meal Program

- Assures that guidelines for reimbursable school meals shall not be less restrictive than USDA School Lunch regulations
- Addresses school meal environment
- Addresses access to / promotion of the school breakfast program
- Optimizes scheduling to improve student nutrition
- Specifies use of low-fat versions or preparations of foods
- Addresses availability of nutrition information for school meals

Standards Examples

- *“District nutrition staff shall be encouraged to participate in professional development activities related to nutrition and wellness.”*
- *"All food service personnel shall have adequate pre-service training in food service operations and regularly participate in professional development activities that address requirements for Child Nutrition Programs, menu planning and preparation, food safety, strategies for promoting healthy eating behaviors and other topics."*

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Competitive & Other Foods

- Includes nutrition guidelines selected by the local education agency for ALL foods available during the school day
- Guidelines for vending machines / school stores
- Guidelines for class parties & school celebrations
- Guidelines for fundraising
- Guidelines for using food as a reward / punishment
- Addresses evening and community events on school grounds

Comp/Other Foods Examples

- *"Schools will not use foods or beverages as rewards for academic performance or good behavior and will not withhold food or beverages (including food served through school meals) as a punishment."*
- *"Strong consideration should be given to nonfood items as part of any teacher-to-student incentive program."*

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Physical Education

- Addresses PE curriculum for different grade levels
- Addresses time per week of PE for elementary / middle / high school students
- Addresses PE quality
- PE classes will have safe and adequate equipment / facilities
- PE engages students in moderate to vigorous activity for a specified amount of time (e.g. >50%)
- PE taught by a licensed instructor

Physical Education Examples

- *Within the limits of space and budget, the Board of Education will strive to comply with guidelines from the National Association for Sport and Physical Education (NASPE) to encourage physical activity for students."*
- *All students in Grade K-11, including students with disabilities, special healthcare needs, and in alternative educational settings, will receive physical education between 120-150 minutes per week for the entire school year.*

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Physical Activity

- Includes goals for PA that are designed to promote student wellness
- Addresses PA for every grade level
- Addresses frequency of recess in elementary
- Addresses PA through intramurals or interscholastic activities
- Addresses community use of school facilities for PA outside of the school day
- Addresses safe active routes to school

Physical Activity Examples

- *"Patterns of meaningful physical activity connect to students' lives outside of school based physical education."*
- *"All elementary school students shall have at least 20 minutes a day of supervised recess, preferably outdoors, during which schools should encourage moderate to vigorous physical activity and provide space, equipment and an environment that is conducive to safe and enjoyable activity."*

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Communication & Promotion

- Addresses health communication / information sharing with parents
- Specifies marketing to promote healthy choices
- Encourages staff to role model healthy behavior
- Addresses methods to solicit or encourage input from stakeholder groups
- Specifies restricting marketing of unhealthful choices
- Specifies who in the district is responsible for wellness/health communication

Comm/Promotion Examples

- *“The district will offer healthy eating seminars for parents, send home nutrition information, post nutrition tips on school websites, and provide nutrient analyses of school menus.”*
- *"The District will provide nutritional information to parents that will encourage parents to provide safe and nutritious foods for their children."*

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Evaluation

- Establishes a plan for measuring implementation of the wellness policy
- Identifies a person/group responsible for overseeing policy implementation/compliance
- Identifies a person/group responsible for overseeing policy evaluation
- Specifies frequency of reporting on policy status/compliance
- Addresses a plan for revising the policy
- Addresses a plan for tracking outcomes

Evaluation Examples

- *“The Superintendent shall provide periodic implementation data and reports to the Board concerning this policy’s implementation sufficient to allow the Board to monitor and adjust the policy.”*
- *“Each school shall designate a contact person for the implementation of the wellness policy at each school.”*

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Next steps

- Measure reliability of inter-state assessment tool
- Compare CT policies to those of other states
- Help districts complete a self-assessment using the tool

Questionnaire

- Who was on your committee?
- Confidential section
 - Your opinions on the strengths of your committee
 - Barriers or challenges you observed
 - Your advice on how to improve the school wellness policy development process

Contact Information

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