

Joint Interim Committee on Nutrition and Health in Public Schools



78TH LEGISLATIVE INTERIM

Senate Bill 474 by
Senator Eddie Lucio, Jr.
Chairman



JOINT INTERIM COMMITTEE ON NUTRITION AND HEALTH IN PUBLIC SCHOOLS

Legislative Members

Senator Eddie Lucio, Jr., Chair
Representative Jodie Laubenberg, Vice-Chair
Senator Robert Deuell
Senator Jane Nelson
Representative Jaime Capelo
Representative Vicki Truitt

Commissioners

Susan Combs, Dept. of Agriculture
Shirley Neeley, Ed.D.
Texas Education Agency
Eduardo J. Sanchez, M.D., M.P.H.
Dept. of State Health Services

Public Members

Nancy M. DiMarco, Ph.D.
Adrain B. Johnson, Ed.D.
William John Klish, M.D.
Dora Rivas, R.D.
Michael J. Sullivan
Melissa Ann Wilson, M.D.

December 15, 2004

The Honorable Rick Perry
Governor of Texas
Texas Capitol, Second Floor South, 2S.1
Austin, Texas 78711

The Honorable David Dewhurst
Lieutenant Governor of Texas
Texas Capitol, 2E.13

The Honorable Tom Craddick
Speaker of the Texas House
Texas Capitol, Room 2W.13

The Joint Interim Committee on Nutrition and Health in Public Schools hereby informs you that the report regarding charges relating to the health and nutrition of public school children can be found at the following websites:
<http://www.senate.state.tx.us/75r/Senate/commit/c875/c875.htm>, www.agr.state.tx.us, www.tea.state.tx.us and www.dshs.state.tx.us.

Due to the budget shortfall the Legislature is likely to face in the 79th Legislative Session, the recommendations set forth in this report are submitted with the understanding that those requiring appropriations should be pursued subject to the availability of funds for the budget cycle beginning September 1, 2005 and ending August 31, 2006.

Respectfully yours,

Senator Eddie Lucio, Jr., Chair

Representative Jodie Laubenberg, Vice-Chair

Senator Robert Deuell

Senator Jane Nelson

Representative Jaime Capelo

Representative Vicki Truitt

Susan Combs, Dept. of Agriculture

Shirley Neeley, Ed.D.
Tx. Education Agency

Eduardo Sanchez, M.D., M.P.H.
Dept. of State Health Services

Nancy M. DiMarco, Ph.D.

Adrain B. Johnson, Ed.D.

William John Klish, M.D.

Dora Rivas, R.D.

Michael J. Sullivan

Melissa Ann Wilson, M.D.

TABLE OF CONTENTS

INTRODUCTION	1
AGENCY UPDATES	
Texas Department of Agriculture	3
Texas Education Agency	32
Texas Department of State Health Services	45
Invited – Texas Department of Insurance	61
CHALLENGES	
Cancer	64
Diabetes	65
School Health Advisory Councils (SHACs)	68
School Food Policies	71
The Business Community	73
Not-For-Profit Programs	80
RECOMMENDATIONS	82
COMMITTEE MEMBER COMMENTS	87

INTRODUCTION

The state of Texas is facing an unprecedented crisis of poor nutrition and obesity among its public school children. On average, children in Texas are heavier than those in the United States. Fourth graders are 68 percent heavier (25.7 percent overweight compared to 15.3 percent overweight nationally) and eighth graders are 21 percent heavier (18.8 percent overweight compared to 15.5 percent overweight nationally).¹ A growing number of Texas children are plagued with diseases that a few years ago were practically non-existent among children, and this is a result of being overweight and obese. Children are weighing far more than their desired weight levels and developing obesity and other poor nutrition related illnesses primarily because of their lifestyles: consuming foods and beverages of low or no nutritional value at greater degrees than previous generations, ingesting more calories than required, lacking the accessibility to healthier foods and not getting enough daily exercise.

The former U.S. Surgeon General David Satcher (1998-2002) has declared childhood obesity an epidemic in the United States. The number of overweight children has doubled in the past two decades, according to the National Health and Nutrition Examination Survey. Fourteen percent of U.S. children ages 6 to 11 years old are overweight. And up to 20 percent of overweight children remain so throughout their lives. Overweight children as young as 8 have been found to have a bloodstream inflammation that has been linked to heart diseases in adults, and boys as young as 15 can begin to experience clogged arteries.²

To develop a broad range of options that will help Texas children become healthier now and as they grow into adulthood, Senator Lucio authored Senate Bill 474, the legislation that created the Joint Interim Committee on Nutrition and Health in Public Schools, which he also chairs. His goals for the testimony and research work of the Committee are to promote healthier lifestyles among children by teaching them to make wiser food choices in and out of the school environment, and to find as many methods as possible to make nutritional foods and beverages more affordable and accessible to schools and homes in this state. The new public school nutrition policy recently implemented by Texas Agriculture Commissioner Susan Combs complements Senator Lucio's goals.

Senator Lucio expresses his utmost gratitude to the dedication and contributions of each of the members of the Committee and the three agencies involved – the Texas Department of Agriculture, the Texas Education Agency and the Texas Department of State Health Services.

Sharing information and providing support to other initiatives addressing the

¹ Deanna M. Hoelscher, Ph.D., R.D., L.D., C.N.S., Associate Professor, Director, Human Nutrition Center, University of Texas School of Public Health, Houston, Texas (Testimony from Austin Hearing, June 29, 2004).

² Jim Rohack, M.D., 2000-2001 President of the Texas Medical Association, [Texas Children Need You: Epidemic](#).

epidemic of poor health and poor nutrition can be added to Senator Lucio's efforts.

Some of the illnesses that are becoming more “commonplace” among children are type 2 diabetes, cardiovascular disease, arthritis and hypertension. Texas Commissioner of State Health Services, Dr. Eduardo Sanchez, said that this generation of Texas children is the first generation in a hundred years to face a shortened life expectancy.³ With unwavering commitment, Senator Lucio has brought stakeholders from all sectors of this state to take action. The recommendations of this report are intended solely for the health and welfare of Texas children.

The predicted outlook for this state is bleak unless proper action is taken. The number of overweight Texans will roughly double by the year 2040. The number of obese Texans will nearly triple from 3.5 million today to 9.6 million in 2040. And if recent trends continue, our health care costs to treat the associated illnesses and problems of overweight and obesity will increase from \$10 billion today to as much as \$40 billion a generation from now.⁴

The American Heart Association issued this statement: “It's time for Texas to lead the way. We look forward to working with the Legislature and members appointed to the Committee during the interim. We are confident that findings of this important study will mark the beginning of significant change that will give our kids a healthier future.”⁵

Dr. Jeffrey Koplan of Emory University in Atlanta and former director of the federal Centers for Disease Control and Prevention said in an AP story, “Obesity may be a personal issue, but at the same time, families, communities and corporations all are adversely affected by obesity and all bear responsibility for changing social norms to better promote healthier lifestyles.”⁶

Dr. Koplan, chairman of the committee that prepared recommendations to reverse the epidemic of childhood obesity, said, “We must act now and we must do this as a nation.” The story also states that, “Specifically, the panel suggested that parents limit kids' TV hours, that schools provide healthier food, that restaurants offer nutrition information and that communities provide more recreation opportunities.”⁷

This report will now explore the findings and recommendations of the Committee members and those who participated in the process from the study's inception several years ago until now and who hail from areas throughout the state.

³ Eduardo Sanchez, M.D., Texas Commissioner of Health (Testimony from Austin Hearing, April 15, 2004).

⁴ Ibid.

⁵ The American Heart Association, Statement issued May 21, 2003 in support of Senate Bill 474.

⁶ "Panel calls for anti-child obesity effort. Families, communities, corporations called on to change habits." Washington (AP), posted September 30, 2004, 9:31 a.m. EDT.

⁷ Ibid.

AGENCY UPDATES

Texas Department of Agriculture

Charge 1 – Part 1 (Nutritional Content): Determine the nutritional content and quality of foods and beverages served to public school children, including food service meals, a la carte foods and competitive foods and food provided in vending machines. Below is Part One of this charge – nutrient content that the Texas Department of Agriculture (TDA) was asked to study.

I. Executive Summary

Recognizing the important role schools play in providing healthy food choices for our children, TDA gladly accepted the committee's charge to determine the nutritional quality of all foods – school meals, a la carte (snack bars) and vended items – made available to Texas students. This opportunity provided TDA with the framework to get a clear picture of what needs to be addressed beyond the federal standards.

After collecting information from across the state for the 2003-2004 school year (prior to the TDA Texas Public School Nutrition Policy issued June 1, 2004 which became effective August 1, 2004) TDA was disturbed to find that there was no nutritional data collected or required on the foods in the vending machines and a la carte offerings. Schools and vendors could sell any food or beverage they wanted. TDA also determined from this study that a la carte and vended items were calorie dense foods with minimal nutritional value, contributing to excessive caloric intake and interfering with the healthy nutrition environment we are trying to create. A la carte and vended items were not only high in calories but also high in fat.

TDA found that school meals met the U.S. Department of Agriculture (USDA) standards, but there was room for improvement. TDA was pleased to find that school meals met the vitamin and mineral requirements, but there is a need to increase fiber, reduce sodium and fat content, and adjust the calories to meet the energy levels of our growing Texas children.

We must act now to improve the health of our children and avoid the future financial impact on our citizens and state. This is why TDA is taking a leading role in redefining the school nutrition environment, where some students receive 60 percent of their dietary needs, and all students are exposed to high fat, high sugar foods. The Texas Public School Nutrition Policy focuses on promoting healthy, nutritious food, and TDA is working with school administrators, food service professionals, teachers, parents and schoolchildren to help turn the tide.

The ultimate goal is to help Texas schoolchildren develop lifelong, healthy eating habits and increase their exposure to fruits, juices and vegetables. One way to do this is to encourage their participation in the National School Lunch Program (NSLP) and the School Breakfast Program (SBP). Not only will this help them consume a more balanced diet, it will also increase the state's federal reimbursements. In fact, in 2003 Texas students who opted for a competitive food instead of a school lunch and breakfast not only received a less nutritious meal, but the state lost access to approximately \$562

million in federal reimbursement. These federal dollars could be used to improve food quality and services, offer nutrition education and reduce the need for district subsidies to operate the child nutrition programs.

II. Methodology

A. Data Collection – School Year 2003-2004

For the purposes of this study to determine nutrient content, TDA collected data from 81 districts out of 1,262 and 92 schools out of 7,618 schools that participate either in the NSLP or SBP. A statistically valid sample of over 500 school food service meals, 211 top-selling a la carte items, and the top 10 vending machine items sold were analyzed. The 2003 school year data was used for three reasons: it is the latest data that includes a full year analysis; it is reflective of school menus before the Texas Public School Nutrition Policy was implemented; and 2003 was the first year of the 5-year USDA review cycle for schools. Each school participating in the NSLP must be monitored to ensure compliance with NSLP regulations every five years.

B. Analysis of Data

Food Service Meals: TDA analyzed food service meals comparing them to what is required under USDA NSLP regulations. Schools can choose from four menu planning systems to meet USDA menu requirements. Schools are required to conduct a nutrient analysis for lunch meals with an option to do so for breakfast. Food service meal analyses are broken down into weekly meal averages. USDA regulations require that breakfast and/or lunch menus, when averaged over a school week, meet the nutrient standards for the appropriate age or grade group. Therefore, of the over 500 meals analyzed, 235 daily breakfast meals were equivalent to 47 weekly breakfast menus, and 280 daily lunch meals equaled 56 weekly lunch menus. Nutritional assessments were analyzed further by the “menu planning systems” a school chooses. For more information see the Appendix A on Menu Planning Systems.

TDA used three sets of USDA standards to evaluate the nutrient content of the breakfast and lunch.

- The first set consists of School Meals Initiative (SMI) nutrition standards, as defined in current NSLP and SBP regulations. These include Recommended Dietary Allowances (RDAs), which have been established by USDA for calories and target nutrients (protein, vitamin A, vitamin C, calcium and iron) as well as for the percentage of calories from fat and saturated fat. The USDA guidelines for the daily RDAs is 25 percent for breakfast, 33 percent for lunch and 42 percent for the remainder of the day. These standards are variable by age and grade group. For more information see Appendix B on Nutrition Standards Used in Evaluating School Meals.
- The second set of standards, based on recommendations in the National Research Council’s Diet and Health report, include total cholesterol and sodium content.
- The third standard is based on the U.S. Food and Drug Administration Daily Reference Value for fiber.

The nutrient standards for calories, protein, calcium, iron, vitamin A and vitamin C are minimums, and the nutrient standards for the percentage of calories from total fat and saturated fat are maximums. The other nutrients analyzed, such as cholesterol, dietary fiber and sodium, do not have a quantity standard. However, they should be monitored over time to check on the implementation of the dietary guidelines in the school meals. Maintenance of calories is probably the most important since calories need to be maintained at an appropriate level to keep up with the children's energy and growth needs. Total fat and saturated fat intake need to be controlled to reduce obesity and other obesity related diseases. For more information, see Appendix C on Minimum Nutrient and Calorie Levels for School Lunches and Breakfasts and Appendix D on Recommended Dietary Allowances for a Child, 1989.

A La Carte

These food items are sold by school food service during meal periods but not as part of a reimbursable meal. Therefore, the federal reimbursements do not pay for these meals. There were a large variety of items offered in the a la carte sales. The Educational Service Center Food Purchasing Cooperatives submitted a list of 211 top selling a la carte items sold in 19 school districts.

TDA divided the 211 items into four categories. Those categories and the common items in that category were:

1. Entrees – chicken nuggets, hamburgers, burritos, pizza, hot dogs, nachos and sandwiches.
2. Snacks – baked goods and pastries, chips, cookies, fruit roll-ups, snack cakes, donuts and yogurt.
3. Beverages – fruit drinks, slushes, sports drinks and water.
4. Fruits/vegetables – French fries, salad, and fruit.

There were 12 items that were the top sellers on the a la carte line. They were: ice cream, drumstick ice cream, hamburgers, cheeseburgers, pepperoni pizza, french fries, ground beef nachos, chicken nuggets, burritos, bottled water, tea and Gatorade. TDA conducted a nutrient analysis of the top 12 for this study.

Competitive Foods

Competitive foods are any foods that are sold in competition with food service meals, including vending machine items, food stores, snack bars, class parties, etc. There are no nutritional standards for competitive foods; however, USDA regulations do allow state agencies and local school districts to impose restrictions on these foods.

Data was limited in this area, and TDA was only able to analyze data provided by the Texas Merchandise Vending Association which included a list of the top ten most popular vended items.

III. Summary

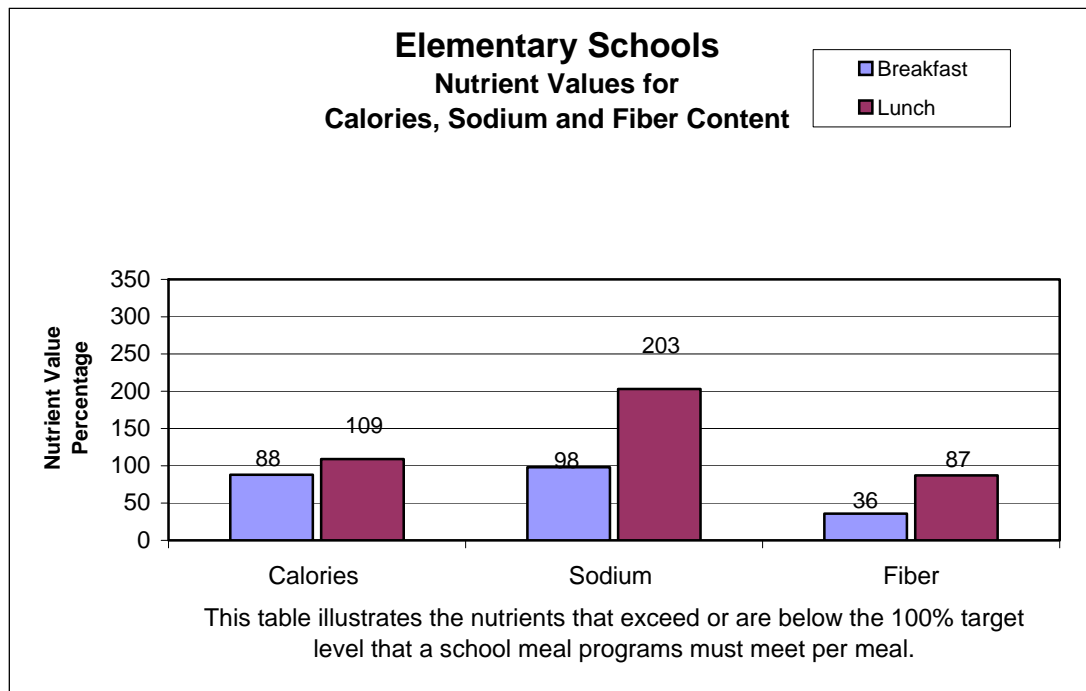
Food Service Meals

TDA found that Texas schools provided meals that met established USDA nutrient values for vitamins and minerals. However, TDA found that most of the meals in elementary, middle and high schools tended to be very high in sodium. TDA also found that fat and saturated fat were above RDA, fiber was seriously low and caloric requirements were either not being met or exceeded RDA. The nutrient values provided below are based on the RDA averaged over a week.

Elementary Schools

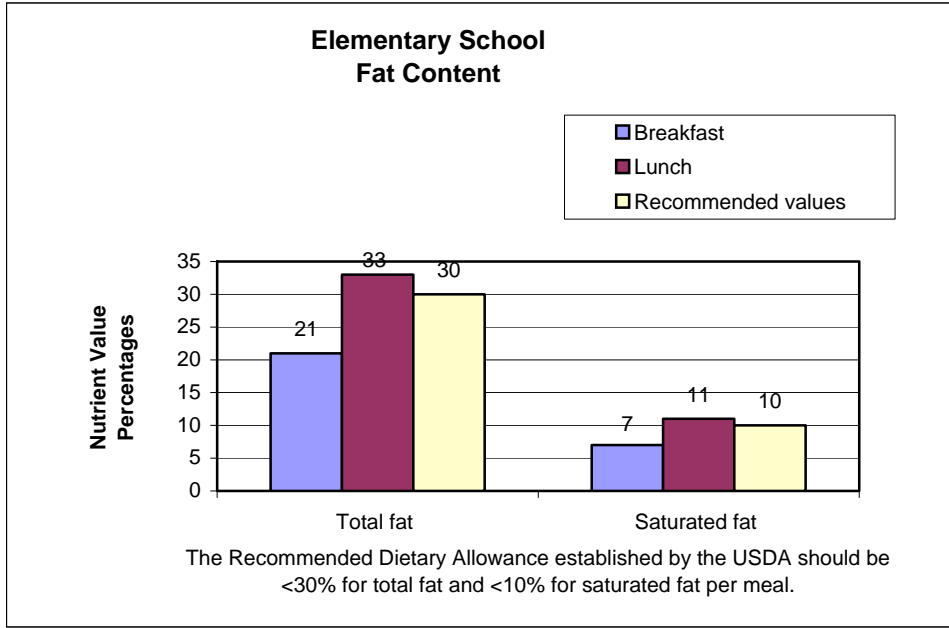
- Breakfasts did not meet minimal caloric requirements for this age group while lunches exceeded caloric requirements (Table 1).
- Sodium in lunch meals exceeded the RDA by 103 percent (Table 1).
- Dietary fiber provided in both the lunch and breakfast meals was low by as much as 74 percent for lunch and 13 percent for breakfast (Table 1).
- Total fat and saturated fat in the lunch meals were above the RDA by 3 percent for total fat and 1 percent for saturated fat (Table 2). This translates to an extra 22 calories coming directly from fat.
- Recommended nutrient levels for iron, calcium, vitamin A, vitamin C and protein were met.

Table 1



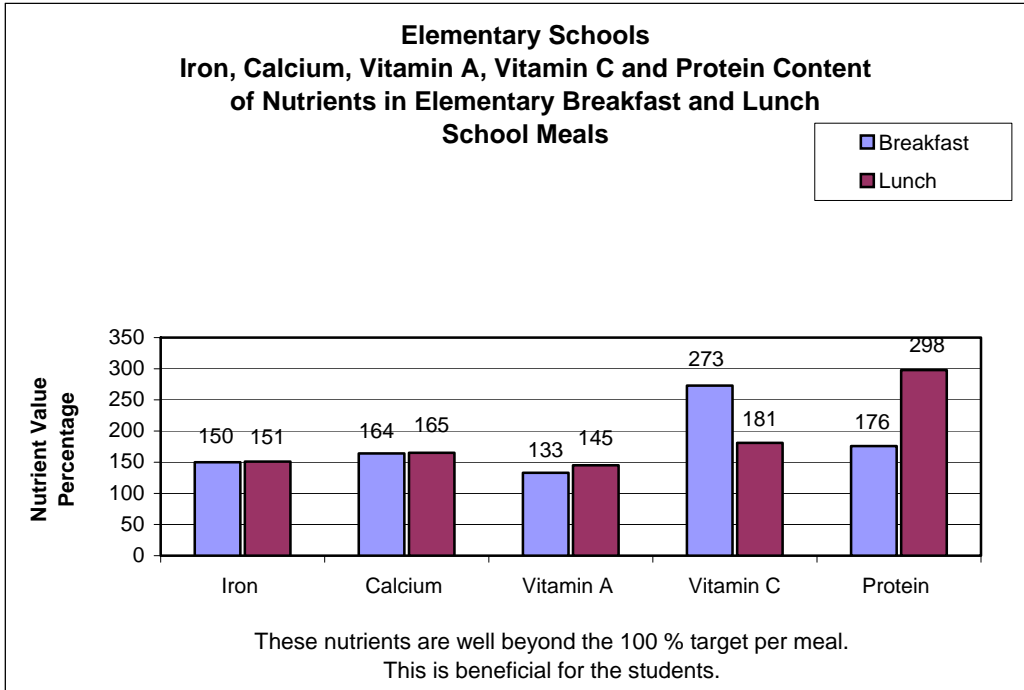
Result: Elementary schools do not serve enough calories for breakfast, the most important meal of the day, and serve too many for lunch. Sodium levels are alarmingly high for lunch, and fiber levels are too low for both meals.

Table 2



Result: Total fat and saturated fat exceed the recommended levels at lunchtime.

Table 3

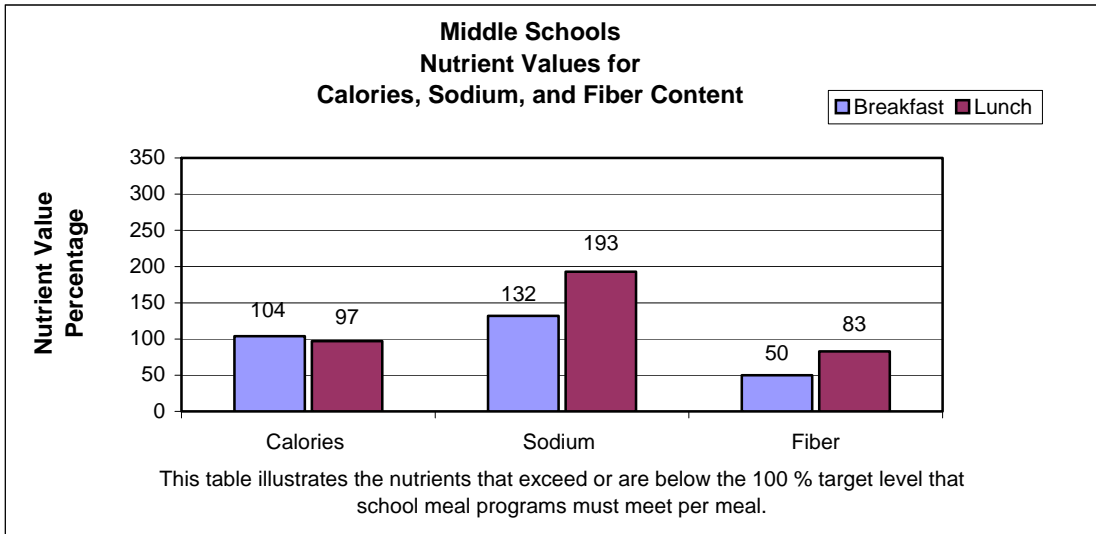


Result: Elementary breakfast and lunch provide an excellent amount of minerals and vitamins.

Middle Schools

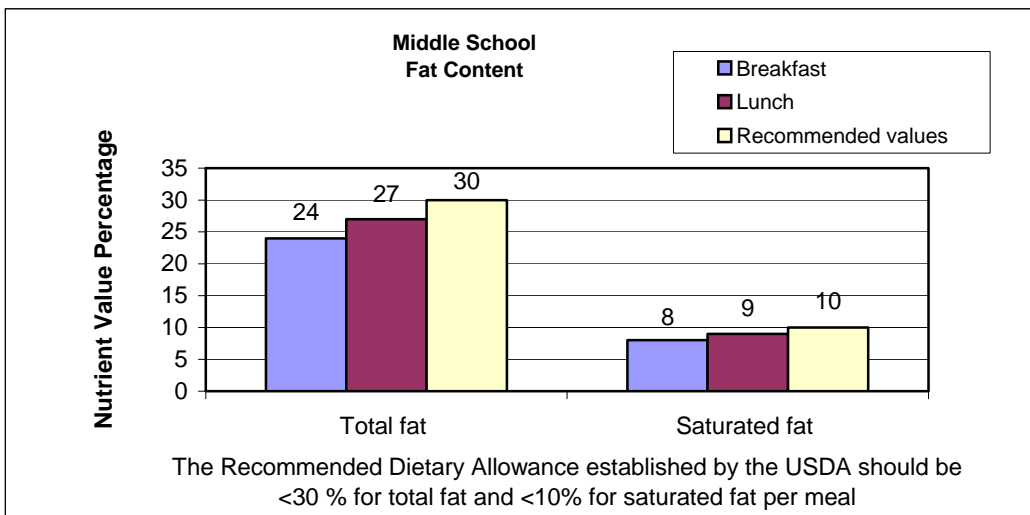
- Calories were 3 percent less than the RDA for lunch (Table 4).
- Sodium levels exceeded breakfast and lunch RDAs (Table 4).
- Fiber is low by as much as 50 percent for breakfast and 17 percent for lunch (Table 4).
- Fat levels were within guidelines (Table 5).
- Recommended nutrient levels for iron, calcium, vitamin A and vitamin C were met (Table 6).

Table 4



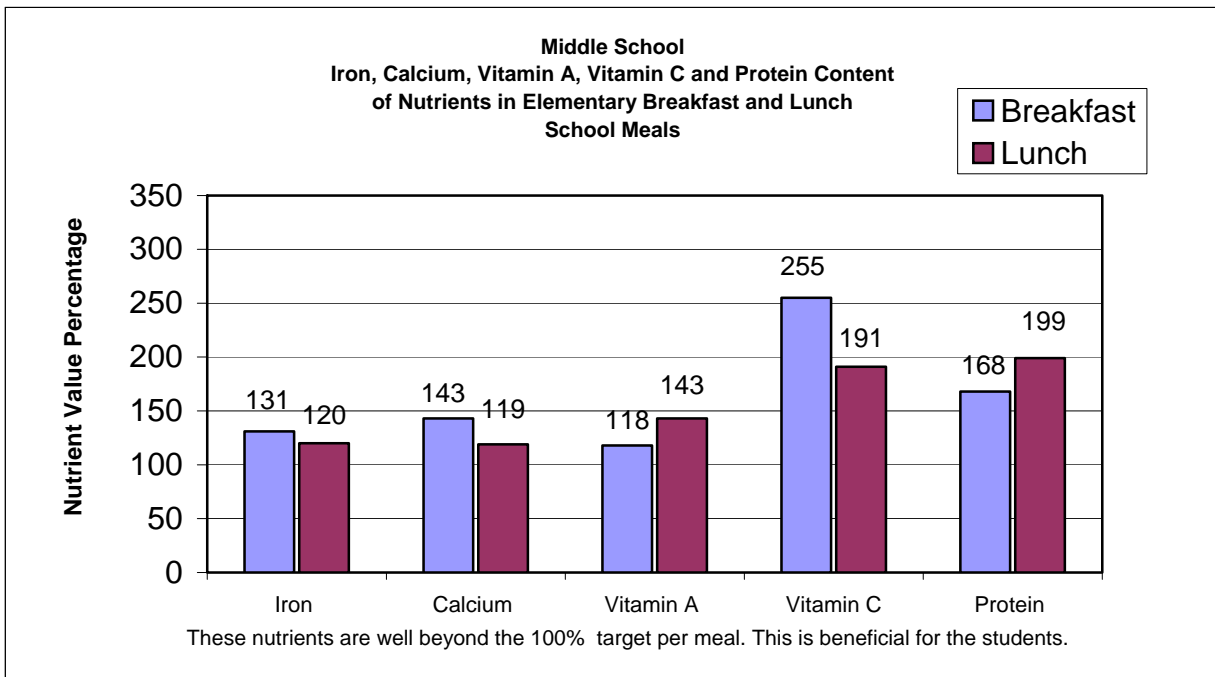
Result: Calories are slightly high for breakfast. Sodium is high for both meals, and fiber is low.

Table 5



Result: Total fat and saturated fat levels were within the recommended dietary allowances for both breakfast and lunch.

Table 6

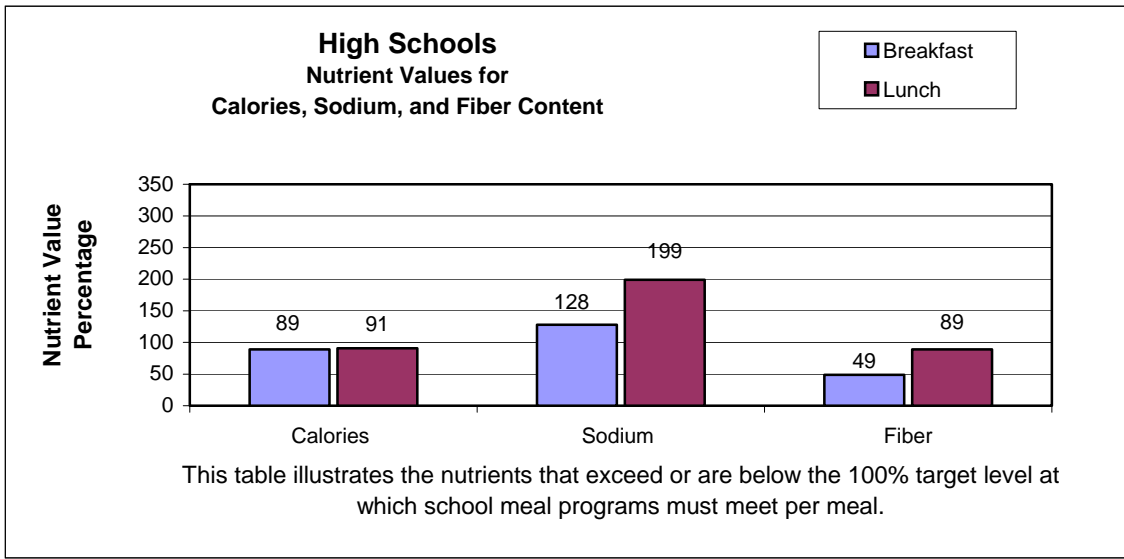


Result: Middle School breakfast and lunch provide an excellent amount of minerals and vitamins.

High Schools

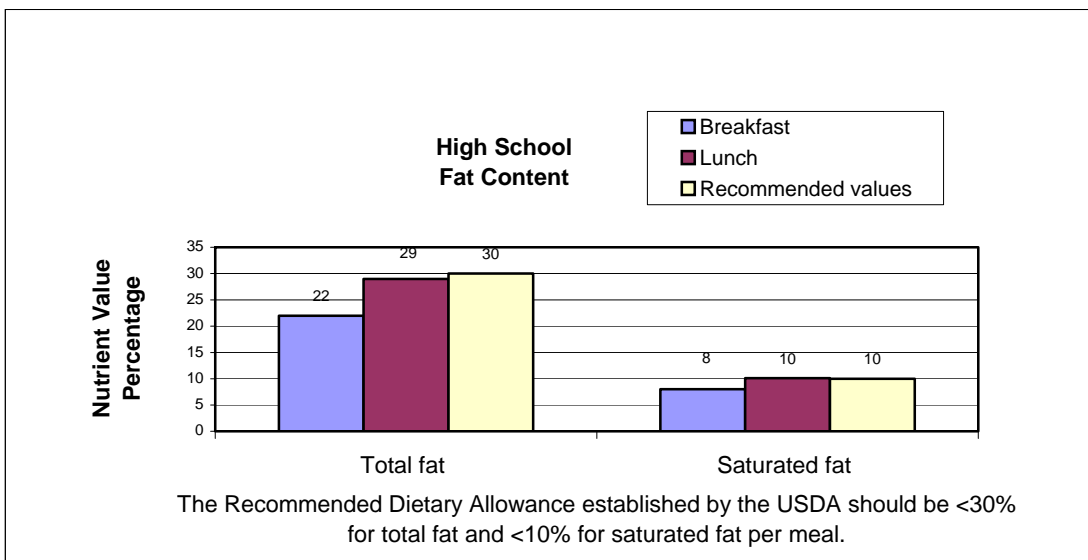
- Both meals reflected a shortage of calories, 11 percent for breakfast and 9 percent for lunch. This reflects a shortage of almost 250 calories (Table 7).
- Both meals were low in fiber and high in sodium (Table 7).
- Breakfast and lunch menus met the recommended standards for nutrients such as iron, calcium, vitamin A, vitamin C, protein and total fat (Table 8 and Table 9).

Table 7



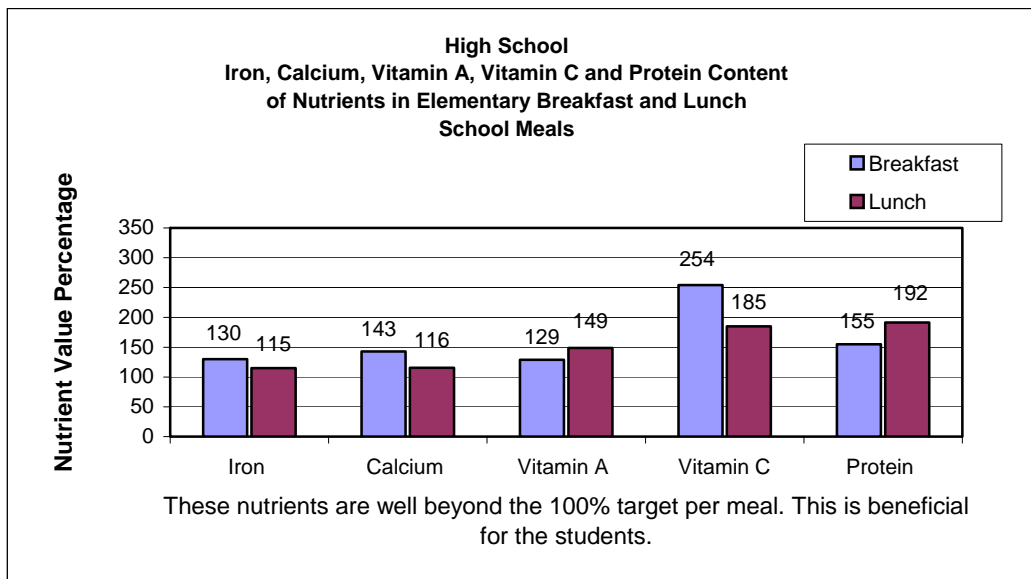
Result: Calories for breakfast and lunch are low. Sodium is high for breakfast and very high for lunch. Fiber levels are low for both meals, especially breakfast.

Table 8



Result: Total fat and saturated fat levels were within the recommended dietary allowances for both breakfast and lunch.

Table 9



Result: High School breakfast and lunch provide an excellent amount of minerals and vitamins.

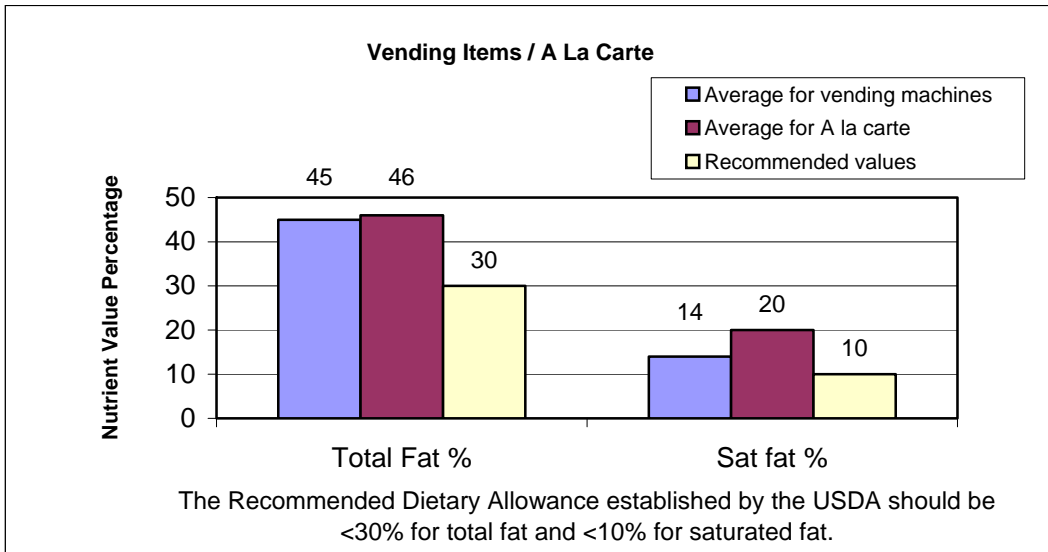
A La Carte

- A la carte items included pizza, chicken strips, French fries, etc.
- Eight out of the 12 snack bar items were extremely high in fat and sodium.
- Many of these foods had as much as 46 percent of the total calories from fat, 16 percent higher than the recommended allowance of 30 percent, and up to 20 percent of calories from saturated fat, 10 percent higher than the recommended maximum allowance of 10 percent (Table 10).
- Less than 2 percent of the menu items offered on the a la carte line were fruits and vegetables.

Vended Items

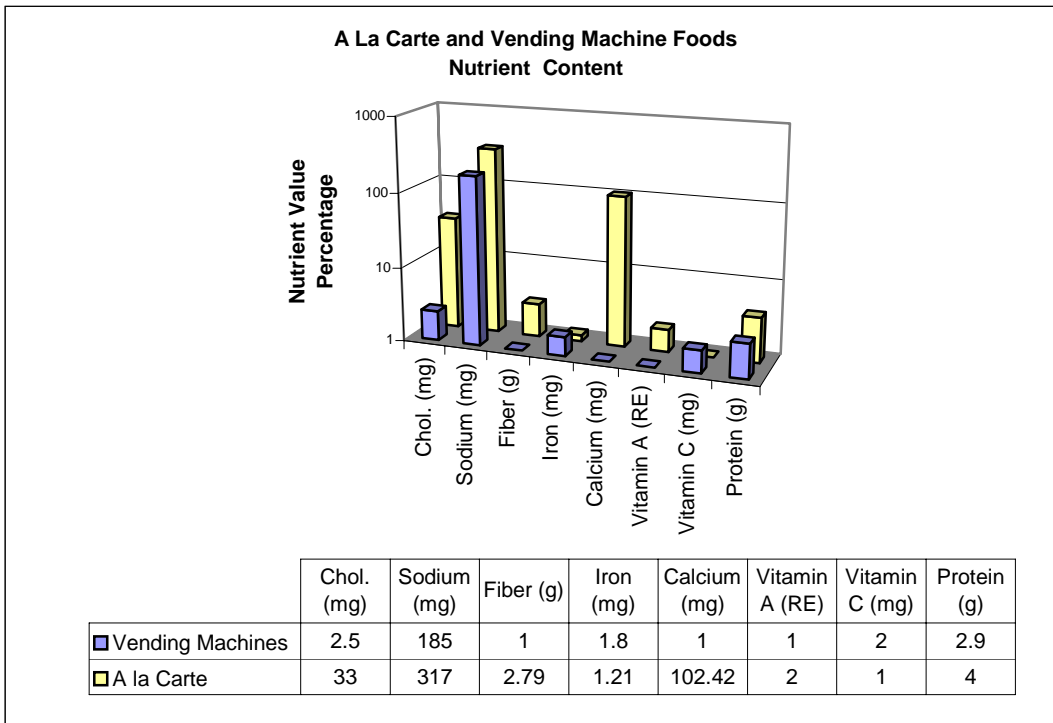
- Vending machines on school campuses dispensed snack-type items that were high-calorie, low-nutrient-dense foods, such as candy, chips, carbonated beverages, baked goods and ice cream.
- Many of these foods had as much as 45 percent of the total calories from fat, 15 percent higher than the recommended allowance of 30 percent, and up to 20 percent of calories from saturated fat, 4 percent higher than the recommended maximum allowance of 10 percent (Table 10).
- The food items contained less than 2 percent of iron, calcium, vitamin A, vitamin C, and less than one gram of fiber, all of which are essential for the physical and mental development of a child. Research has shown that a diet low in fiber and high in calories contributes significantly to the increase in childhood obesity (Table 11).
- Carbonated beverages were the most prevalent beverage in the vending machines and contained no nutritional value. Research indicates children who drink carbonated beverages consume more calories and are more likely to be overweight.

Table 10



Results: Total fat exceeds the recommended by as much as 16 percent for a la carte and vending foods and as much as 20 percent for saturated fat.

Table 11



Results: Sodium is high. Vitamin A, Vitamin C, iron and fiber are low for both the vending machine foods and a la carte.

Charge 1 – Part 2 (Food Quality): Determine the nutritional content and quality of foods and beverages served to public school children, including food service meals, a la carte foods and competitive foods and food provided in vending machines. Below is Part Two of this charge – food quality, that TDA was asked to study.

Methodology of Survey

TDA conducted the survey in a statistically valid sample of randomly selected schools. The methodology for the sample size and selection criteria was developed in consultation with Dr. Roger Hanagriff, assistant professor of agribusiness, Sam Houston State University.

The school cafeteria survey was conducted in May 2004. The results are shown below.

	<u>Public Schools in Texas</u>	<u>Surveyed schools</u>
Elementary	4,104 - 59%	214 - 59%
Middle/Junior High	1,445 - 21%	89 - 25%
High	1,151 - 16%	56 - 15%
K-12	309 - 4%	3 - 1%
Total	7,009	362

Surveys were conducted in schools representing grade levels that closely approximated the number of public schools in the state. The surveys were conducted by unbiased contract reviewers with no connection to TDA or to the Texas Education Agency. Surveys were scheduled in 399 schools, and 390 were assigned to a surveyor. Surveys from 37 schools were not completed or not returned. Follow-up calls were made to obtain the surveys and missing information, resulting in a total of 362 completed surveys. A copy of the survey form and response summary is attached.

Summary of Survey Responses (Food Quality)

- The responses to question 1, “the **cafeteria atmosphere** was pleasant and inviting” were as follows:

241 (67%) - Strongly agreed	93.7% positive responses
98 (27%) - Somewhat agreed	
15 (4%) - Somewhat disagreed	
3 (1%) - Strongly disagreed	
5 (1%) - No response	

- The responses to question 9, “the food was served at the **appropriate temperature**” were as follows:

234 (65%) - Strongly agreed	91.4% positive responses
97 (27%) - Somewhat agreed	
26 (7%) - Somewhat disagreed	
2 (1%) - Strongly disagreed	
3 (1%) - No response	

- The responses to question 10, “the **food appeared fresh and appealing**” were as follows:

215 (59%) - Strongly agreed	88.1% positive responses
104 (29%) - Somewhat agreed	
32 (9%) - Somewhat disagreed	
8 (2%) - Strongly disagreed	
3 (1%) - No response	

- The responses to question 12, “the **quality of food was good**” were as follows:

199 (55%) - Strongly agreed	86.8% positive responses
115 (32%) - Somewhat agreed	
33 (9%) - Somewhat disagreed	
9 (2%) - Strongly disagreed	
6 (2%) - No response	

- The responses to question 13, “the **food was tasty and flavorful**” were as follows:

186 (51%) - Strongly agreed	83.7% positive results
117 (32%) - Somewhat agreed	
42 (12%) - Somewhat disagreed	
7 (2%) - Strongly disagreed	
10 (3%) - No response	

- The responses to question 14, “the **beverages were fresh and cold**” were as follows:

294 (81%) - Strongly agreed	94.2% positive results
47 (13%) - Somewhat agreed	
8 (2%) - Somewhat disagreed	
4 (1%) - Strongly disagreed	
9 (3%) - No response	

SCHOOL CAFETERIA SURVEY RESPONSE SUMMARY

<i>Please read the following statements and select the response that most closely corresponds with your observations:</i>	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	N/A or No Response
1. The atmosphere was pleasant and inviting.	241 (66.6%)	98 (27.1%)	15 (4.1%)	3 (0.8%)	5 (1.4%)
2. The noise level was at a comfortable volume.	187 (51.7%)	115 (31.8%)	46 (12.7%)	11 (3.0%)	3 (0.8%)
3. Student behavior in the lunchroom was orderly.	231 (63.8%)	107 (29.6%)	16 (4.4%)	4 (1.1%)	4 (1.1%)
4. The area near the food line was clean and orderly.	293 (80.9%)	45 (12.4%)	15 (4.1%)	0 (0%)	9 (2.5%)
5. The seating area was clean and orderly.	290 (80.1%)	57 (15.8%)	13 (3.6%)	1 (0.3%)	1 (0.3%)
6. The cafeteria smelled good.	275 (76.0%)	71 (19.6%)	10 (2.8%)	1 (0.3%)	5 (1.4%)
7. There was adequate amount of table space and seating to accommodate all students.	319 (88.1%)	32 (8.8%)	5 (1.4%)	2 (0.6%)	4 (1.1%)
8. The food line(s) moved at a speed sufficient to accommodate all students.	284 (78.5%)	59 (16.3%)	11 (3.0%)	4 (1.1%)	4 (1.1%)
9. The food was served at the appropriate temperature.	234 (64.6%)	97 (26.8%)	26 (7.2%)	2 (0.6%)	3 (0.8%)
10. The food appeared fresh and appealing.	215 (59.4%)	104 (28.7%)	32 (8.8%)	8 (2.2%)	3 (0.8%)
11. A good variety of items was offered.	170 (47.0%)	125 (34.5%)	46 (12.7%)	16 (4.4%)	5 (1.4%)
12. The quality of food was good.	199 (55.0%)	115 (31.8%)	33 (9.1%)	9 (2.5%)	6 (1.7%)
13. The food was tasty and flavorful.	186 (51.4%)	117 (32.3%)	42 (11.6%)	7 (2.0%)	10 (2.8%)
14. The beverages were fresh and cold.	294 (81.2%)	47 (13.0%)	8 (2.2%)	4 (1.1%)	9 (2.5%)
15. The foodservice staff was courteous and helpful.	315 (87.0%)	39 (10.8%)	5 (1.4%)	1 (0.3%)	2 (0.6%)
16. The availability of sauces, condiments, utensils, napkins, etc. was good.	291 (80.4%)	50 (13.8%)	13 (3.6%)	2 (0.6%)	6 (1.7%)
17. The meal was a good value for the price paid.	231 (63.8%)	89 (24.6%)	34 (9.4%)	6 (1.7%)	2 (0.6%)
Total Responses	4255	1367	370	81	81
Percentage of Total	69.14%	22.21%	6.01%	1.32%	1.32%

Overall, there were 91.35% positive results and 7.33% negative results.

Summary of survey observations

- **Multiple vending machines** were observed in operation in or near the cafeteria area in:

194 schools (54%) - Machines in operation
167 schools (46%) - No machines in operation
1 school (0%) - No response

The contents of these machines were as follows:

169 (27%) - Carbonated soft drinks
309 (49%) - Juices, water, or milk drinks
150 (24%) - Candy, chips, and/or snacks

- **A school store** was observed in operation in:

80 schools (22%) - Store in operation
281 schools (78%) - No store in operation
1 school (0%) - No response

The following items were observed for sale to students in these stores:

80 (100%) - Beverages
39 (49%) - Candy
62 (78%) - Chips/snacks
5 (6%) - School supplies
50 (63%) - Other items.

- **Sales of other foods and beverages** (bake sales, fundraisers, etc.) were observed in:

28 schools (8%) - Sales
332 schools (92%) - No sales
2 schools (0%) - No response

- The following items were reported for sale to students:

18 (64%) - Beverages
6 (21%) - Candy
16 (57%) - Chips/snacks
21 (75%) - Other items

- The **average time spent getting through the cafeteria line** was 3.4 minutes; the median was three minutes. The following serving line times were reported:

- 109 (30%) - One minute or less
- 208 (58%) - Two to five minutes
- 34 (9%) - Six to ten minutes
- 8 (2%) - Eleven to twenty minutes
- 3 (1%) - No response

- **Nutrition posters** were observed in:

- 218 schools (60%) - Posters displayed
- 133 schools (36%) - Posters not displayed
- 11 schools (3%) - No response

- **Fresh fruits and vegetables were available** in schools as follows:

- 296 schools (82%) - Both fresh fruit and vegetables available
- 10 schools (3%) - Either a fresh fruit or vegetable (but not both) was available
- 55 schools (15%) - No fresh fruit or vegetable was available
- 1 school (0%) - No response

- Students were given the **option to choose** among the food items (entrées and sides) offered on the cafeteria line as follows:

- 303 schools (83%) - Choice allowed among both entrees and sides
- 3 schools (1%) - Choice allowed among some (but not all) items
- 46 schools (13%) - Choices were not allowed
- 10 schools (3%) - No response

Response Observations

- Numerous surveys replied with a “Yes” for whether respondents observed a school store. However, they also contained notes that stated/implied this was actually in the cafeteria line. The same held true for the “other sales of foods and beverages” question.
- Several surveys noted that due to the end of the school year, numerous activities (field day, reading awards, assemblies, etc.) were taking place on the day the survey was conducted. Therefore the survey responses in a number of areas, including the sale of other food and beverages (fundraisers, etc.), may not have been typical.
- One school was under construction at the time of the survey, and students were served meals from a portable building.
- Rather than noting the number of vending machines seen during a survey visit, some surveyors responded with “Yes.” The assumption is made that at least one machine was seen. Therefore, the total number of vending machines observed shown is a minimum.

- Schools participating in the Federal Child Nutrition Programs must offer lunches that comply with menu patterns, nutrient standards and contain specific food group components (meat, vegetable and or fruit, bread and milk) for specific age/grade levels.

- The School Lunch Program includes a regulatory provision called “offer versus serve” which is designed to reduce food waste and food costs without jeopardizing the nutritional integrity of the lunches served. Under this provision senior high school students and, when approved by the local school district, students in other grade levels may choose only three of the five food items within the lunch pattern. Schools must offer all five required food items and students may refuse one or two of the food items—those he/she does not intend to eat. Students may not choose two items within the same food group.

SCHOOL CAFETERIA SURVEY SAMPLE COMMENTS

Positive:

- A nice cafeteria atmosphere; the students seemed happy with it.
- Lunch was healthy; high amount of natural (produce) foods that are high quality. Great variety of drinks: lemonade, tea, milk, and water. Great overall impression. All staff very helpful and friendly.
- I was very pleased at the meal, it was very tasty and a large portion. I liked to see the students got a choice on their meal. The staff was wonderful and the cafeteria was very clean. Overall great experience!
- The meal was very good for its value, but some items were not at the right temperature. The salad was excellent (very fresh w/a wide variety of vegetables). It was very healthy. I also liked the blue applesauce; it appeals to children.
- The dining area was very neat, clean and impressive. The food was presented in a very appealing manner with fresh fruits cut into decorations. The staff was also very friendly. (buffet style). Huge variety to choose from. Lots of low fat items. Healthiest choices of schools I've seen.
- Everything was operating wonderfully. This school's lunches were really tasty and hot. The staff was very professional. There were signs on nutrition and food safety. Excellent!!!!

Negative:

- Hamburgers were barely warm. No other option available for an entrée. Result was a very high fat meal!
- When you are in line, people are coming in front of you to empty their trash. There were milk cartons and food on the floor. The plastic utensil you use is a combination of a spoon/fork, but it broke when I tried to cut my breaded chicken. The plate of food was sitting on top of the counter when I came up – it was not hot, but not cold – could have been a little warmer. Only one lady taking my money was helpful. The principal was the one who told me about the menu.
- I cleaned the apple and there was greenish grey residue on my napkin. I believe the apple was not washed.
- The meal was very fatty; all meat was processed, fries are junk food, cole slaw had lot of mayo, bread was white (no whole grains/ no complex carbohydrates), fruit was in syrup. Meal was high in calories and low in nutrition. Sets a poor example for teaching good nutrition. If all

school lunches are like this, then the schools are major contributors to the rising obesity in children.

- Not much information on nutrition posted. One was of milk and the other was a bulletin board of different food names. Area entering cafeteria line I saw a roach. There was also a mopping bucket and mop by the door. There was also four trash cans by the entrance, two were being used and two were upside down. There were no fruits and vegetables offered. The only vegetable was a lettuce cup of shredded lettuce with two pickles, but not many would get that with pizza or meat loaf. The only fruit was in the Jello-O mix.
- I can't even guess how old the fish was. I was sick to my stomach after leaving this school. Did observe quite a few of students at the school choosing the "Chef Salad Meal."

Charge 3: Assess the academic, emotional and health value of a universal (free) breakfast and lunch program by evaluating school children from school districts that provide each child a free or reduced-price breakfast and lunch. TDA was assigned this section by the Committee. In addition, the Chairman asked TDA to evaluate the barriers, advantages, benefits, feasibility and cost-effectiveness for school districts to participate in "Provision 2," the option given to schools that allows them to reduce their paperwork and administrative costs in exchange for serving breakfast and lunch to all students for free, regardless of their family income.

There have been a number of studies on the impact of providing a universal (free) breakfast in schools, and the results from these studies are generally thought to also be pertinent to providing free school lunches. TDA reviewed the national and state studies as well as the experiences and outcomes of school districts in Texas and other states that provide free school meals.

Description of the National School Breakfast Programs

Under federal regulations, children from families below 130 percent of the federal poverty level eat meals for free, while those between 130 and 185 percent of the poverty level pay a reduced price. Children from higher-income families pay the full cost. The School Breakfast Program provides per meal cash reimbursements from the federal government to public and non-profit private schools and residential childcare institutions. In the 2004-05 school year, the federal government will reimburse schools \$1.23 per free breakfast served, \$0.93 per reduced-priced breakfast, and \$0.23 per paid breakfast. Schools where at least 40 percent of the lunches served are free or reduced price during the second preceding school year may qualify for extra "severe need" reimbursements of \$0.24 per free or reduced price breakfast served.

National Study Examples

Harvard Medical School - This study concentrated on the effects of providing free breakfasts to school children and found that eating breakfast in school produced significant gains in academic and emotional function with positive effects on grades, attendance, behavior and psychological test scores. The researchers concluded that, "this relatively simple intervention can significantly improve children's academic performance and psychological well-being." And further, "the students who regularly ate school breakfast had math grades that averaged almost a whole letter grade higher than the grades of students who rarely or never ate school breakfast." Regular breakfast consumption was also linked to "significant decreases in child absenteeism and tardiness."

Minnesota Study - This three-year study of a free school breakfast pilot program in Minnesota

elementary schools found that students who ate breakfast at school were better prepared for learning. Teachers reported that students had increased attention spans, were more energetic and alert and had more positive attitudes. Student's behavior improved and less educational time was lost due to discipline problems. Administrators reported a 40 to 50 percent decrease in discipline problems. School nurses reported a significant decline in morning visits to their offices due to minor headaches and stomachaches, so students were spending more time in the classroom. During the study there was a general increase in composite math and reading percentile scores, and the breakfast program was credited with having a positive impact in improving student achievement. The study also found several indirect social benefits from school breakfast such as more and healthier interaction between students, students of different grade levels and between students and teachers. Overall, the response to the pilot program was extremely positive – teachers liked the behavior and learning improvements, parents appreciated the convenience it provided them, students received needed nutrition and enjoyed the social aspects, and administrators found that it was easy and important to integrate breakfast into the daily educational routine. Breakfast became an important, desired and effective element of the educational day.

U. S. Department of Agriculture - The aim of this pilot is to study the impact of the availability of universal (free) school breakfast on breakfast participation and measures related to students' nutritional status and academic performance. The main objectives of the evaluation are to: (1) assess the effects of the availability of universal-free school breakfast on breakfast participation and selected student outcome measures, including dietary intake, cognitive and social/emotional functioning, academic achievement tests, school attendance, tardiness, classroom behavior and discipline, food insecurity, and health; (2) document the methods used by schools to implement universal-free school breakfast; and (3) determine the effect of participation in this program on administrative requirements and costs. The study was mandated by Congress and was conducted in six selected school districts across the nation. There are 79 treatment and 74 control schools in the pilot. In the spring of 2001, about 4,300 students across the treatment and control schools were measured on dietary intake, cognitive function, and height and weight.

Evaluation of the first year findings from this three-year study demonstrated significant successes in several of the objectives. The findings showed that universal school breakfast led to significant increases in both school breakfast participation and overall breakfast eating; was easy to implement and cost-effective for schools to operate; and was well-liked by students, parents, and staff. The availability of universal (free) school breakfast nearly doubled school breakfast participation (from 19 to 36 percent). In schools that served free breakfast in the classroom, participation increased even more, to 65 percent. The preliminary results also indicated that universal school breakfast reduces the cost of serving school breakfast. Costs were 11 percent lower in the Universal School Breakfast schools (\$0.80 per breakfast) compared to the regular school breakfast schools (\$0.90 per breakfast). Schools that served breakfast in the classroom reaped a greater benefit, reducing costs by 18 percent (to \$0.74 per breakfast). This difference was due to lower per-meal labor costs, which declined as the number of breakfasts served increased. Only in the area of student outcomes did the study fail to show significant impacts during its first year. Academic achievement and behavior scores were similar in the universal free breakfast and regular breakfast schools, and student behavior scores all fell within the normal range in both sets of schools. Positive outcomes may have been difficult to detect, however, because the study compared the entire school population in the universal free breakfast and regular breakfast schools, rather than isolating just the breakfast-eaters.

Whether two additional years of exposure to the availability of universal (free) school breakfast will

have an impact on student outcomes will be determined after data collection and analyses for all three years are completed.

Child Nutrition Program Provision 2

Description - The Federal Child Nutrition Programs contain a regulatory provision, called Special Assistance Provision 2. The purpose of this provision is to reduce the burden of paperwork on parents and on school districts, by eliminating the requirements that schools take free and reduced-price applications every year and count and report meals by category (free, reduced-price or paid). In exchange schools agree to serve free meals to all enrolled students, regardless of family income. In schools with high percentages of low-income students (who eat for free and for whom the school draws the highest federal per meal reimbursement), the loss of income from the paid students is generally made up for through lower administrative costs and higher breakfast and lunch participation, which increases federal reimbursements to the school.

Texas currently leads the nation with 75 school districts, 672 schools and 415,000 students that have elected to participate in the Provision 2 alternative to the National School Lunch Program and School Breakfast Programs. San Antonio ISD is the largest school district in the state and the nation to provide this option for all students.

A new provision in the child nutrition reauthorization law passed by Congress last year makes it even easier for school districts to participate. In the past, Provision 2 eligibility had to be determined on a school-by-school basis. Under the new law, Provision 2 eligibility may be determined for a school district or an individual school. This should make the option even more attractive to school districts.

Advantages and Benefits

There are many benefits that Provision 2 brings to school districts and communities. The main benefit is to students - since they receive meals free of charge, there are no stigmas with regard to school food service, and all students are treated equally. School districts that have adopted this Provision have found that there are many other benefits, including:

- Higher attendance rates and reduced tardiness.
- More positive interaction (socialization) between students and teachers in the cafeteria and school in general.
- Increased parental involvement.
- Reduced discipline problems and students paying more attention in class.
- Fewer visits to the school nurse.
- Increased TAKS scores and better grades overall.
- Increased participation in both breakfast and lunch with a direct positive impact on student behavior and learning.
- Significant decrease in the time and money necessary to process food service paperwork and determine eligibility, meal counting, handing out and replacing tickets, etc.
- Food service personnel have more resources (through administrative savings) to focus on customer service, quality control, dining environments and program improvement in general.

Barriers and Disadvantages

The barriers and disadvantages for schools electing to adopt Provision 2 include:

- Obtaining free and reduced price meal applications in the base year may be more difficult since parents and students know that they will receive free meals regardless of whether or not they

submit an application. (This can be resolved if school officials work closely with food service personnel and parents to insure the maximum return of applications in the base year.)

- If a district decides to go off Provision 2 after several years, its ability to receive, process and approve applications may be impaired.
- Increases in student participation may cause a problem in schools with limited cafeteria/dining capacities, particularly in middle and high schools.
- Increased numbers of students eating may result in schools having to adjust their lunch and breakfast schedules to accommodate the time and space constraints.
- Increased participation may also impact other related services and areas such as bus schedules, trash pick-up, cafeteria monitors, etc.

School districts electing to adopt this provision have also encountered:

- Initial negative media publicity and public reactions due to community concerns about providing free meals for all students.
- Resistance from some parents, groups or organizations for the same reason.
- Resistance and apprehension from the School Board, principals and teachers due to concerns about costs and extra work, due to the increase in participation.

These concerns were quickly resolved when parents, school staff and the community realized the benefits for their children and the potential savings for their school. In every school in Texas that has adopted this provision, the advantages far outweigh the disadvantages, and Provision 2 has proven beneficial for school districts, communities and students.

Feasibility

The adoption of Provision 2 will have a significant impact in the way the school food service program operates and will have a major impact on the district for several years. There is no minimum free and reduced-price percentage requirement to participate in Provision 2. The range of free and reduced price percentages for Texas school districts currently participating in this provision is noted below.

Free/Reduced	%	No. of Districts
90 – 100%		41
80 – 90%		20
70 – 80%		3
60 – 70%		7
50 – 60%		2
Less than 50%		2
Total		75

Most of the districts (61) have over 80 percent of their student population eligible for free and reduced price meals. Forty-one districts have over 90 percent free and reduced price eligible students. Only 14 districts have elected Provision 2 participation when free and reduced price eligibility was less than 80 percent. Based on the Provision 2 participation experience in Texas, it may not be economically feasible for school districts with less than 80 percent of their enrollment eligible for free or reduced price meals to elect this option.

Most school districts strive for their food service operations to be self-sufficient and would rather not

have to subsidize food service from other district funds. Participation in Provision 2 will result in the school food service incurring a revenue shortfall from the loss of cash income from paying and reduced price students in the base year and each year thereafter. The food service department must make up for this lost revenue from other sources such as a la carte sales, increased participation in the lunch and breakfast programs, other sales and promotions and expansion of food service to other federal programs, for instance the After School Snack Program, etc. The Provision 2 school districts in Texas have successfully found solutions and have proven it is economically feasible to continue to provide free meals for all students. Most find that the increased federal revenue from higher overall participation makes up for the loss of revenue from the paid students. This is particularly true in schools with high percentages of free category students, for whom schools receive the highest reimbursement. Schools note that it is important that the school food service department have the complete acceptance, support and cooperation of the School Board, superintendent and administrators. Also, the school district should seek out parent and community involvement and market Provision 2 as a win-win opportunity for the district.

The following is a breakdown of school districts in Texas with high percentages of economically disadvantaged (free and reduce-price meal eligible) students, which are not currently participating in the Child Nutrition Program Provision 2.

No. of Districts	F/RP % Range
52	90 – 100%
44	80 – 90%
92	70 – 80%
162	60 – 70%
TOTAL	350

Texas Provision 2 Examples

Brownsville ISD - In 1993, Brownsville ISD adopted Provision 2 and began to serve breakfast and lunch to all students free of charge. This program was immediately successful and well received throughout the district. Pace High School initiated a “breakfast in a bag” program where students were allowed to eat breakfast in their homeroom class. Breakfast participation increased from approximately 300 students to 2200 in one year. The Pace High School principal believes the free breakfast and lunch program had a positive affect on the TAAS scores.

Pace continued to have the highest scores in the district for all parts of the TAAS test for several years and qualified as a recognized school in 1997. Also, the school reports that attendance and grades rose while disciplinary problems declined.

Lake Worth ISD – In the 1997 – 1998 school year, this district located north of Fort Worth, adopted Provision 2 and implemented the “breakfast in a bag” district-wide. Each morning, all students ate breakfast in their homeroom class. The Lake Worth superintendent also attributed the following benefits to this program:

- Improved attendance.
- Reduced tardiness.
- Reduced discipline problems.
- Improved grades.
- Increased attention.
- Increase in positive attitudes.

- Improved teacher productivity.

Lake Worth ISDs overall percent of students passing the TAAS tests increased from:

- 73 percent to 85 percent in reading
- 61 percent to 75 percent in math, and
- 72 percent to 84 percent in writing

The number of school breakfasts served in The Lake Worth ISD increased 378 percent, from 75,000 to 285,000 a year, and lunches increased 27 percent from 191,000 to 243,000. The corresponding federal reimbursement increased 77 percent from \$330,000 to \$585,000 in one year.

San Antonio ISD – This is the 10th largest school district in Texas with 90 schools. There are 57,000 students in the district, 90 percent of which are economically disadvantaged. This district adopted Provision 2 in the 1996-97 school year. The number of lunches served to students increased by 12.3 percent and the number of breakfasts increased by 24.5 percent, which resulted in increased revenues of nearly one million dollars.

The district also experienced improvements in other areas:

	1995-96	1996-97
Percent of students passing all TAAS tests	40.9%	48.7%
Attendance rate	93.9%	94.5%
Completion (graduation) rate	74.8%	81.5%
District dropout rate decreased	2.9%	1.6%

Although there is not a direct correlation between these indicators and participation in Provision 2, school food service personnel, administrators and teachers in the school agree that providing free meals for all students has a positive impact on student performance and behavior.

Texas Child Nutrition Program Statistics

Texas has the largest Breakfast Program and the second largest Lunch Program in the nation. The average daily participation in the Lunch Program is 2.4 million students and 1.1 million in the Breakfast Program. There are 4.2 million students enrolled in Texas schools, yet only 57 percent are eating a school lunch and only 26 percent are eating a school breakfast each day. Since almost all schools in the state participate in the Lunch and Breakfast Programs, the infrastructure, equipment, facilities and personnel exist to provide additional lunches and breakfasts for all students. The federal funding for the Child Nutrition Programs is guaranteed and open-ended, therefore, reimbursement for all meals served is available.

Free Meal Programs in Other States

Providing nutritious, well-balanced meals free of charge is widely recognized as benefiting student's academic performance and emotional health with positive effects on grades, attendance, behavior and psychological test scores. Universal free breakfast programs have been implemented in many schools across the nation. The primary reason cited for providing only free breakfasts, as opposed to both a free breakfast and lunch program, is the cost-benefit ratio. The cost of a breakfast is much less than that of a lunch. And, while studies on the positive nutrition benefits of both the Breakfast and the

Lunch Program are abundant, research on the benefits of universal free meals has focused on the positive impact of a nutritious, balanced meal at the start of the school day on students' academic achievement.

At least 40 states have schools, often in large school districts, with universal free breakfast programs. All schools in New York City offer free breakfasts regardless of income in order to increase school breakfast participation and boost academic performance. Schools with high percentages of students eligible for free or reduced price school meals are the most likely to succeed financially with Provision 2. Nationwide, school districts that are implementing Provision 2 have determined that they can operate Provision 2 without losing money in schools with as few as 60 to 75 percent of students eligible for free or reduced price school meals. This threshold is lower than the experience has been in Texas. However this may be due more to the perception that these schools will not succeed, which has resulted in very low participation in Provision 2 by schools with less than 80 percent low-income students, than actual experience. Other factors also may influence an individual school's decision whether to participate, such as the availability of state or local funding for school food service programs, school size, location, etc.

The following are highlights of universal free meals programs in a handful of states:

California: Universal Classroom Breakfast (UCB)

- Established by Child Nutrition Task Force in 2002.
- Implemented free breakfast programs in five school districts.
- Promoted breakfast consumption by students, and increased participation in school breakfast programs.
- Provides breakfast to over 1 million low-income children who would otherwise not get a school breakfast.
- Increased participation by 90 to 100 percent.
- Served breakfast in the classroom consisting of milk, fresh fruit and a bagged fortified muffin or breakfast sandwich.
- Received School Breakfast Program reimbursement of over \$210 million for the years 2001-2002.

Maryland

- Fifty-five schools participating in free breakfast program as of 2000-2001.
- Tardiness levels decreased 8 percent.
- Positive responses from parents and teachers.
- Additional state funding of \$1.9 million for 90 schools statewide in FY 2002-2003 through the Maryland meals for achievement program.

Massachusetts

- Sixteen schools participated in pilot study.
- After two years, participation levels remained 30 percent higher than at the start of program implementation.
- School breakfast participation levels rose from 29 percent to 54 percent.
- Improved nutrition, math scores, attendance and emotional functioning.
- Reduced tardiness levels by 50 percent.
- High levels of satisfaction from school students, staff and parents.
- Project Bread and Commissioner of Education for Massachusetts teamed up to promote and

campaign for universal free breakfasts for the state.

- Universal free breakfast now available in 300 schools.
- Thirty-five of the 300 schools serve breakfast in the classroom.

Minnesota

- Established a 3-year pilot program in six schools.
- Breakfast participation rose from 12 percent to 88 to 93 percent.
- Teachers reported increased attention by their students.
- Teachers reported decreases in complaints of headaches and hunger by their students and a 40 to 50 percent decline in discipline issues.
- Reported increase in math and reading scores.
- 1999-2000 “Fast Break to Learning” implemented by Governor Ventura provided state funding to any schools that had at least 33 percent of students eligible for free/reduced meals.
- These schools may offer universal (free) breakfast in either the classroom or cafeteria model.
- As of 2003, 422 schools participate in the “Fast Break to Learning” program.

Missouri

- Kansas City has been doing universal breakfast for four or five years with no reports of financial losses.

New York

- Since starting the universal school breakfast, New York City has seen an increase of 180,000 to 200,000 breakfasts per month.
- In September, they had an 11 percent increase over the previous year, in October a 12 percent increase and in November a 14 percent increase.
- The increase in free breakfast reimbursements has covered the loss of paid revenue.

Colorado

- Twelve schools with universal classroom or cafeteria breakfast (these schools have 65 percent of students eligible for free/reduced meals).
- Participation in the breakfast program increased to equal lunch program participation.
- Classroom breakfast increased milk consumption by 42 percent and fruit juice consumption by 187 percent.
- Increased revenues with a profit of \$0.57 per meal.
- Increase in employee retention due to increased staff work hours.

Oregon – “Grab and Go”

- Free breakfast implemented in 45 of their Provision 2 schools as of Fall 2002, with increase to 51 schools by Spring 2002.
- Twenty-two elementary schools and seven middle schools using classroom breakfast model.
- Seven elementary, five middle, and two high schools serve free breakfast meals from a mobile cart during break periods between classes.
- Participation in school breakfast doubled after the first semester of implementation in Fall 2002.

Summary

National studies have proven that providing free school meals for all students has a very positive effect on children's academic performance, emotional function and psychological well being. Schools that have elected to do this for their students also report additional benefits in the overall educational environment including improved attendance, reduced discipline problems and students displaying more positive attitudes.

The Federal Child Nutrition Program's Provision 2 option allows school districts to feed all students free meals and greatly reduces paperwork for both schools and parents and administrative costs for schools. As a result, more students take advantage of the school's food service program and eat more nutritious meals. The stigma associated with receiving free or reduced price meals is eliminated resulting in more positive interaction and socialization among students.

Providing a universal breakfast and lunch program in Texas schools would produce significant benefits for students, schools, parents, communities and the state. Experiences in Texas and other states have shown this can be accomplished through adoption of the Child Nutrition Program Provision 2 in school districts that have relatively high percentages of their enrollment eligible for free and reduced price meals.

The majority of Provision 2 schools in Texas have over 80 percent of their enrollment eligible for free and reduced price meals. This may be the recommended threshold that is most feasible in the state. However, a few schools in Texas and schools in other states have found that they can participate in Provision 2 with as low as a 60 percent eligibility rate. Based on this information, TDA recommends that all school districts with at least 60 percent of their enrollment eligible for free or reduced price meals review the Provision 2 procedures and consider adopting this program if it would be economically feasible in their districts. This would impact 350 school districts and 1.2 million students and could be accomplished with little or no cost to the schools.

Appendix A *Menu Planning Options*

To be eligible for federal subsidies, meals served in the NSLP and SBP must meet defined nutrition standards. For many years, the goal of the NSLP has been to provide approximately one-third of children's daily nutritional needs, as defined by the National Research Council for the Recommended Dietary Allowances (RDA). To ensure this goal is met, NSLP regulations have always included food-based menu planning guidelines.

These guidelines define specific types of food that must be included in planned meals as well as minimum portion sizes. The SBP meal pattern was designed to ensure that breakfasts would provide approximately one quarter of the children's daily nutritional needs. Therefore, between breakfast and lunch meals, schools would be serving approximately 60 percent of a child's daily nutritional needs.

Current program regulations provide schools with four different menu planning options: Traditional Food-Based Menu Planning System; Enhanced Food-Based Menu Planning System; Nutrient Standard Menu Planning and Assisted Nutrient Standard Menu Planning.

- The Traditional Food-Based Menu Planning System requires that lunches offered to students include five food items: fluid milk (as a beverage), one serving of meat or meat alternate, a minimum of one serving of a bread or grain product, and two servings of fruit and/or vegetables. The system also defines minimum required portion sizes for children in different grades. Of the 47 breakfasts assessed, 16 were Traditional Food-Based Menu Planning Systems. For the 56 lunches assessed, 39 were Traditional Food-Based Menu Planning Systems.
- The Enhanced Food-Based Menu Planning System is very similar to the Traditional but requires more servings of bread and grain products over the course of a week and larger servings of fruits and vegetables. For the 56 lunches assessed, one was an Enhanced Food-Based Menu Planning System.
- Nutrient Standard Menu Planning requires use of a computerized nutrient analysis system to plan menus. Of the 47 breakfasts assessed, 31 used Nutrient Standard Menu Planning System. For the 56 lunches assessed, 16 used Nutrient Standard Menu Planning Systems.
- Assisted Nutrient Standard Menu Planning requires use of a computerized nutrient analysis system to plan menus. This planning option is for districts that outsource menu planning and nutrient analysis because they do not have the technical resources.

School districts that elect to use either of the food-based systems are not required to analyze the nutrient content of planned menus. However, they are expected to meet the nutrition standards defined under the School Meals Initiative (SMI). The SMI for Healthy Children underscores our national health responsibility to provide healthy school meals that are consistent with the Recommended Dietary Allowances, the calorie goals and the Dietary Guidelines for Americans.

SMI evaluations began with school year 1996-97. The first five-year cycle was extended to June 30, 2003, to align the SMI review cycle with the Coordinated Review Effort (CRE) cycle. During this time, SMIs were conducted as technical assistance visits with no fiscal action taken if school districts were not in compliance. However, beginning with the 2004-2005 school year, SMIs will be conducted the same as the CRE. If school districts are not in compliance with meeting the nutrition standards, a formal Corrective Action Plan will be issued and a follow-up review will be conducted that could result in fiscal action taken. All school districts must undergo a mandatory SMI review every five years.

Appendix B

Nutrition Standards Used in Evaluating School Meals

Nutrient

Standard

Nutrition Standards Defined in NSLP and SBP Regulations

Calories and nutrients with established Recommended Dietary Allowances (RDAs)¹.

Calories, protein, vitamin A, vitamin C, calcium and iron	Breakfast: One-fourth of the RDA Lunch: One-third of the RDA
--	---

Nutrients included in the *Dietary Guidelines for Americans*².

Total fat	Breakfast and Lunch: ≤30% of total calories
Saturated fat	<10% of total calories

National Research Council *Diet and Health* Recommendations³

Carbohydrate	Breakfast and Lunch: >55% of total calories
Cholesterol	Breakfast: ≤75 mg Lunch: ≤100 mg
Sodium	Breakfast: ≤600 mg Lunch: ≤800 mg

¹ National Research Council (1989). *Recommended Dietary Allowances*, 10th edition. Washington, DC; National Academy Press.

² U.S. Departments of Health and Human Services and Agriculture (1990). *Nutrition and Your Health: Dietary Guidelines for Americans*, 3rd edition. Washington, DC; U.S. Government Printing Office.

³ National Research Council (1989). *Diet and Health*. Washington, DC; National Academy Press. Standards used for cholesterol and sodium are adapted from recommendations for maximum daily intake.

Appendix C

Minimum Nutrient and Calorie Levels for School Lunch Under Different Menu Options

LUNCH	Calories	Cholesterol (mg)	Sodium (mg)	Fiber (g)	Iron (mg)	Calcium (mg)	Vitamin A (RE)	Vitamin C (mg)	Protein (g)	Total fat (g)	Sat fat (g)
Traditional Grades K-3	633	100	800	8.3	3.3	267	200	15	9	21.1	7.03
Traditional Grades 4-12	785	100	800	8.3	4.2	370	285	17	15	26.17	8.72
Traditional Optional Grades 7-12	825	100	800	8.3	4.5	400	300	18	16	27.5	9.17
Enhanced Grades K-6	664	100	800	8.3	3.5	286	224	15	10	22.13	7.38
Enhanced Grades 7-12	825	100	800	8.3	4.5	400	300	18	16	27.5	9.17
Enhanced Optional Grades K-3	633	100	800	8.3	3.3	267	200	15	9	21.1	7.03
Nutrient GRADES K-6	664	100	800	8.3	3.5	286	224	15	10	22.13	7.38
Grades 7-12	825	100	800	8.3	4.5	400	300	18	16	27.5	9.17
Optional Grades K-3	633	100	800	8.3	3.3	267	200	15	9	21.1	7.03
Nutrient AGES 7-10	667	100	800	8.3	3.3	267	233	15	9.3	22.23	7.41
Ages 11-13 M.S.	783	100	800	8.3	4.5	400	300	16.7	15	26.1	8.7
Ages 14-17 H.S.	846	100	800	8.3	4.5	400	300	19.2	16.7	28.2	9.4

Minimum Nutrient and Calorie Levels for School Breakfasts Under Different Menu Options

BREAKFAST	Calories	Cholesterol (mg)	Sodium (mg)	Fiber (g)	Iron (mg)	Calcium (mg)	Vitamin A (RE)	Vitamin C (mg)	Protein (g)	Total fat (g)	Sat fat (g)
Traditional & enhanced-Grade K-12	554	75	600	6.25	3	257	197	13	10	18.47	6.16
Optional enhanced Grades 7-12	618	75	600	6.25	3.4	300	225	14	12	20.6	6.87
Nutrient GRADES K-12	554	75	600	6.25	3	257	197	13	10	18.47	6.16
Optional Grades 7-12	618	75	600	6.25	3.4	300	225	14	12	20.6	6.87
Nutrient AGES 7-10 elem	500	75	600	6.25	2.5	200	175	11.25	7	16.67	5.56
Ages 11-13 M.S.	588	75	600	6.25	3.4	300	225	12.5	11.25	19.6	6.53
Ages 14-17 H.S.	625	75	600	6.25	3.4	300	225	14.4	12.5	20.83	6.94

4 National Research Council (1989). *Recommended Dietary Allowances*, 10th edition. Washington, DC; National Academy Press.

5 U.S. Departments of Health and Human Services and Agriculture (1990). *Nutrition and Your Health: Dietary Guidelines for Americans*, 3rd edition. Washington, DC; U.S. Government Printing Office.

6 National Research Council (1989). *Diet and Health*. Washington, DC; National Academy Press. Standards used for cholesterol and sodium are adapted from recommendations for maximum daily intake.

Appendix D

Recommended Dietary Allowances^a, Revised 1989

Category	Age (years) or Condition	Weight ^a		Height ^b		Protein (g)	Fat-Soluble Vitamins				Water-Soluble Vitamins					Minerals				Iron (mg)	Zinc (mg)	Iodine (µg)	Selenium (µg)	
		(kg)	(lb)	(cm)	(in)		Vitamin A (IU) ^c	Vitamin D (IU) ^d	Vitamin E (mg µ-TE) ^e	Vitamin K (µg)	Vitamin C (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg NE) ^f	Vitamin B6 (mg)	Folate (µg)	Vitamin B12 (µg)	Calcium (mg)	Phosphorus (mg)					Magnesium (mg)
Infants	0.0-0.5	6	13	60	24	13	1,249	300	3	5	30	0.3	0.4	5	0.3	25	0.3	400	300	40	6	5	40	10
	0.5-1.0	9	20	71	28	14	1,249	400	4	10	35	0.4	0.5	6	0.6	35	0.5	600	500	60	10	5	50	15
Children	1-3	13	29	90	35	16	1,332	400	6	15	40	0.7	0.8	9	1.0	50	0.7	800	800	80	10	10	70	20
	4-6	20	44	112	44	24	1,665	400	7	20	45	0.9	1.1	12	1.1	75	1.0	800	800	120	10	10	90	20
	7-10	28	62	132	52	28	2,331	400	7	30	45	1.0	1.2	13	1.4	100	1.4	800	800	170	10	10	120	30
Males	11-14	45	99	157	62	45	3,330	400	10	45	50	1.3	1.5	17	1.7	150	2.0	1,200	1,200	270	12	15	150	40
	15-18	66	145	176	69	59	3,330	400	10	65	60	1.5	1.8	20	2.0	200	2.0	1,200	1,200	400	12	15	150	50
	19-24	72	160	177	70	58	3,330	400	10	70	60	1.5	1.7	19	2.0	200	2.0	1,200	1,200	350	10	15	150	70
	25-50	79	174	176	70	63	3,330	200	10	80	60	1.5	1.7	19	2.0	200	2.0	800	800	350	10	15	150	70
	51 +	77	170	173	68	63	3,330	200	10	80	60	1.2	1.4	15	2.0	200	2.0	800	800	350	10	15	150	70
Females	11-14	46	101	157	62	46	2,664	400	8	45	50	1.1	1.3	15	1.4	150	2.0	1,200	1,200	280	15	12	150	45
	15-18	55	120	163	64	44	2,664	400	8	55	60	1.1	1.3	15	1.5	180	2.0	1,200	1,200	300	15	12	150	50
	19-24	58	128	164	65	46	2,664	400	8	60	60	1.1	1.3	15	1.6	180	2.0	1,200	1,200	280	15	12	150	55
	25-50	63	138	163	64	50	2,664	200	8	65	60	1.1	1.3	15	1.6	180	2.0	800	800	280	15	12	150	55
	51 +	65	143	160	63	50	2,664	200	8	65	60	1.0	1.2	13	1.6	180	2.0	800	800	280	10	12	150	55
Pregnant					60	2,664	400	10	65	70	1.5	1.6	17	2.2	400	2.2	1,200	1,200	320	30	15	175	65	
Lactating	1 st 6 months					65	4,329	400	12	65	95	1.6	1.8	20	2.1	280	2.6	1,200	1,200	355	15	19	200	75
	2 nd 6 months					62	3,996	400	11	65	90	1.6	1.7	20	2.1	260	2.6	1,200	1,200	340	15	16	200	75

Texas Education Agency

I. Introduction

Texas Senate Bill 474, passed by the 78th Texas Legislature, requires an interim study related to nutrition and health in public schools. Charge #4 of the Act requires a study to evaluate school contracts relating to competitive food products and vending machines, including the following issues related to:

- Economic and other impacts of potential conflicts of interest,
- Length of contracts,
- Advertising and marketing of competitive food products,
- Revenues realized by schools and school districts from the sale of competitive food products,
- Officials in charge of receiving and disbursing revenue and accounting of that revenue,
- Extent to which competitive foods impact school district's food programs.

This report provides an analysis of existing data related to assessing the impact of these issues. This study is one component of the interim charges that will aid in determining factors that should be examined in addressing the role the school environment plays in contributing to childhood obesity and poor nutritional habits and diet.

II. Methodology

This analysis utilized survey data collected by the TDA in 2003 to examine the issues described above. Surveys for “The Impact of the Amended Foods of Minimal Nutritional Value Policy” and “School District Vending Contract” were sent to Superintendents and Child Nutrition Directors in every school district and charter school in Texas. Survey questions related to vending contracts, vending revenue, school food service programs and school food service program revenue.

Data collected and analyzed by the TDA related to the “School District Vending Contract” survey will be reported here in conjunction with a secondary analysis of both surveys.

The size and distribution of school districts and charter schools responding to the surveys is detailed in the table below. School size is defined by average daily attendance of students.

Limitations

Many of the survey questions were not designed to respond to issues raised by Charge #4 and could only be indirectly assessed. The survey questions were designed to allow participants flexibility in responses. Therefore, some responses varied. Several school districts did not respond to the survey. Because we did not receive a complete sample of information, the analysis does not fully incorporate every aspect addressed in the survey.

Table 1: Size and Distribution of Responding School Districts/Charter Schools

Description of School District Size	Average Daily Attendance	Number of School Districts Responding to Vending Survey	Number of School Districts Responding to Minimal Nutritional Value Survey
Very Large	100,000+	2	2
Large	40,000-100,000	17	18
Medium	20,000-40,000	29	26
Small	5,000-20,000	107	102
Very Small	< 5,000	1080	1008
Total		1235*	1156*

*Twenty-three additional schools responded to the Vending Survey but did not indicate average daily attendance, therefore the school size could not be categorized.

*Forty-six additional schools responded to the Minimal Nutritional Value Survey but did not indicate the average daily attendance, therefore the school size could not be categorized.

Data analysis reported for each issue identified above is reported separately in the sections below.

Length of Contract

Survey questions used in this analysis asked for the length of vending contracts and whether the contracts were exclusive. Additional analyses examined whether contracts were written or verbal, and if school districts indicated whether they had more than one vending contract.

Of the 866 school districts responding to the question regarding having a contract with a vending company, approximately 74 percent indicated that they did have a contract with a vending company. Only 6 percent indicated they had a verbal contract. Of the school districts indicating they had a vending contract, 79 percent indicated they had exclusive contracts. Approximately 26 percent of school districts with vending contracts indicated they had multiple vending contracts. Individual schools within school districts may have vending contracts. Based on the question, it was not possible to discern how or if respondents included individual schools or an aggregate in their response.

The average length of contracts for school districts responding was approximately eight years. Table 2 below examines contract variation by school district size as measured by average daily attendance.

Table 2: Contract Variations

School District Size	Average Length of Contract (years) (n = 535)	Percent of School Districts with Vending Contracts (n=946)
Very Large	5.0	100
Large	9.0	100
Medium	10.0	86
Small	9.9	96
Very Small	7.5	43
Totals	7.9	74

Advertising and Marketing of Competitive Food Products

Marketing and advertising of competitive food products appears from these data to occur in two ways:

- 1) The appeal to schools or districts to enter into contracts.
- 2) The appeal to the end users, i.e. students and teachers, to generate brand loyalty.

The appeal to districts and/or schools to enter into contracts comes in the form of commissions and signing bonuses. Approximately 70 percent of respondents indicated they received a commission for products sold and discounts on products. Approximately 37 percent of respondents indicated they received a signing bonus for contracts and 28 percent indicated they had multi-year payment agreements.

Table 3: Respondents in Receipt of Commissions and Signing Bonuses

School District Size	Percent Receiving Commission (n=541)	Percent Receiving Signing Bonus (n=576)
Very Large	100	100
Large	80	80
Medium	79	61
Small	73	49
Very Small	69	32
Totals	70%	37%

The direct marketing to students and other consumers was not specifically addressed in the surveys, and can only be gleaned from an analysis of the number of districts who receive “additional benefits.” Additional benefits were reported in the School District Vending Contract Survey as items such as scoreboards, marquees, and merchandise with company logos. These products inherently offer advertisement and marketing opportunities for the vendor. Materials such as cups, sports bags, program sponsorships frequently illustrate brand logos. Table 4 illustrates the percentage of districts receiving these items.

Table 4: Additional Benefits
(n=456)

Description of School District Size	Percent Receiving Scoreboards	Percent Receiving Scholarships	Percent Receiving Sponsorships	Percent Receiving Products
Very Large	100	50	0	50
Large	18	59	24	53
Medium	28	41	3	59
Small	21	29	31	48
Very Small	16	11	11	21

Revenues Realized By Schools and School Districts from the Sale of Competitive Food Products

Revenues realized by schools and school districts may come in the form of a la carte sales or vending machine revenue. The definition of competitive sales also includes revenues realized for candy and pizza sales sponsored by school parent teacher organizations, booster clubs, bands and other school affiliated organizations. For this report, however, data about a la carte food sales is most often seen in the form of chain restaurants such as Chick-Fil-A, Pizza Hut, Kentucky Fried Chicken, etc. arranging kiosk sales in the school cafeteria, as reported by Child Nutrition Directors. Child Nutrition Directors were also asked to report food service revenue by source and total food service revenue.

School Superintendents reported on total vending machine revenue and to breakdown vending machine revenue by machine type (beverages, candy, snack). Data was missing from a significant number of districts, most notably the two largest independent school districts in the state, Houston and Dallas.

Results of the data reported by the TDA provided an estimate for the total annual revenue reported from vending contracts in Texas at \$54,180,182. The survey report estimated revenues by school district size as detailed below.

Table 5: Estimated Annual Revenues from Vending Contracts

School District Size	Estimated Annual Revenue from Vending Contract Operations
Very Large	\$2,700,000
Large	\$1,000,000
Medium	\$500,000
Small	\$150,000
Very Small	\$25,000
Total Annual Revenue	\$54,180,182

Revenues from a la carte food sales and vending machine sales are provided in the table above. Differences in information provided here and reported by TDA emanate from information collected by Commissioner Combs through her Open Records request and not available in data analyzed for this report. As noted earlier, the school districts in the *Very Large* category did not report vending machine revenue in the survey, while TDA was able to estimate revenue from vending contracts for very large school districts at \$2.7 million annually. It should be noted a significant number of other school districts did not report revenues.

Table 6: Average Revenue from a La Carte Sales and Vending Contracts

School District Size	Average Revenue from A La Carte Sales	Average Revenue from Vending Contracts
Very Large	\$101,913 (1 out of 2 reported)	Not Reported
Large	\$840,115 (7 out of 18 reported)	\$563,412 (10 out of 18 reported)
Medium	\$742,943 (12 out of 26 reported)	\$426,165 (15 out of 26 reported)
Small	\$442,195 (44 out of 102 reported)	\$102,254 (47 out of 102 reported)
Very Small	\$69,916 (133 out of 1008 reported)	\$24,347 (396 out of 1008 reported)
Averages For All Responding Schools Regardless of Size	\$221,591 (197 out of 1202 reported)	\$55,332 (479 out of 1202 reported)

Officials In Charge Of Receiving and Disbursing Revenue

The question that gathered information on this topic did not specifically ask which officials are in charge of receiving and disbursing revenue and the accounting of that revenue. Rather, the question asked, “What other competitive food sales, if any, exist in your district and what entity or group receives the revenue from those sales.” The survey does not define what is meant by “other competitive sales”. Many districts did not respond to this question. Those who did indicated that the money is frequently raised and disbursed for school clubs, bands, parent teacher organizations and the like, or lumped together with other fundraising dollars. The following verbatim answers echo most of those types of responses.

Various groups sponsor food sales and fundraisers and the money goes straight to the groups. Revenue unknown.

Many student and parent organizations in our district sell candy and snacks as fundraisers. Revenues from a fundraiser are deposited in the organizations activities throughout the school year. Fundraising revenue is a vital component in the financial support of co-curricular and extra-curricular activities on our campuses.

PTO/PTA food sales, Booster Club food sales. Revenue unknown.

Extent to Which Competitive Foods Impact School District's Food Program

Child Nutrition Directors were asked if their school food service program had a profit or loss, the amount of the profit or loss, and whether there was a negative impact from competitive food sales. Approximately 65 percent (394/609) of respondents indicated their school food service program suffered losses averaging \$45,339. While 35 percent (215/609) of school food service programs reported a profit, based on these data it is not possible to know whether those school districts are ones in which there are less or no competitive food sales. The table below summarizes these responses by school size:

Table 7: Average Profit and Loss of School Food Service Programs

School District Size	Average Profit of School Food Service Program	Average Loss of School Food Service Program
Very Large	\$11,914,786 (1)	Not Reported
Large	\$978,688 (9)	\$143,632 (6)
Medium	\$481,010 (16)	\$318,487 (4)
Small	\$219,160 (59)	\$90,746 (18)
Very Small	\$28,787 (130)	\$37,353 (365)
Totals	\$209,729 (215)	\$45,339 (394)

Table 8: Negative Impacts of Competitive Food Sales

School District Size	Percent of School Districts Indicating A Negative Impact from Competitive Food Sales
Very Large	100% (2 / 2)
Large	100% (13/13)
Medium	93% (13/14)
Small	73% (35/48)
Very Small	35%(67/189)
Totals	49% (130/266)

Approximately 49 percent of respondents (130/266) indicated that competitive foods generated a negative impact on their food service programs. Negative impacts may or may not reflect financial loss. An analysis of the comments reflected in the survey indicates the following descriptions of the impact of competitive food sales on school food service programs.

Yes the competitive food sales dramatically decreased the number of reimbursable meals served to students.

Competitive foods do impact sales negatively. It also impacts the nutritional integrity of the program.

Both meals and revenue increased when middle school vending machines were turned off during the school day.

No, because vending machines are turned-off during meal serving times with the exception of vending machines located in inaccessible areas to students.

Please note: Charge #4 also included the economic and other impacts of potential conflicts of interest. The surveys did not address these issues.

Summary and Conclusions

Based on these data, over three-fourths of Texas' school districts have contracts with vending companies to sell competitive foods in middle and high schools. The majority of those contracts are written contracts, and many are for multiple years. Of those with contracts, 26 percent have contracts with a variety of vendors, primarily soft drink companies and fast food chains. The average length of the contracts is eight years.

Advertising and marketing occurs on two levels. Marketing to school districts for contracts occurs through signing bonuses and commissions on sales, which vary from contract to contract. Marketing to end user consumers occurs through placing brands in recognizable places, such as scoreboards, sponsorships, scholarship funds, marquees, and products such as sports bags and cups.

Annual revenues for school districts based on sales obviously vary according to the size of the district, from \$1 to 2.7 million for large and very large districts, down to \$500,000 to \$25,000 for medium, small and very small districts. Total revenues to Texas school districts are estimated to be \$54.1 million. Sixty-five percent of the districts reporting say their school food service program has suffered financial losses. Forty-nine percent report that competitive foods sales have caused a negative impact. Aside from lost revenue for the food service program, loss of nutritional integrity is cited as another negative impact by Child Nutrition Directors.

Overall, it is unclear about who receives, disburses or monitors the revenues from competitive food sales resulting from vending machines and other contractual activity, as many answering the survey interpreted the question of who disburses revenue to be about other sources of competitive sales, such as Parent Teacher Organizations (PTO), band or choir candy sales.

In conclusion, further survey data is necessary to accurately respond to the Interim Committee's Charge # 4.

Appendix A
Survey sent to District Superintendents

Date: _____
County District Number: _____ Name of District: _____
Person Completing Form: _____ Position: _____
Phone Number: _____ E-Mail Address: _____

TO BE COMPLETED BY THE DISTRICT SUPERINTENDENT

The Texas Department of Agriculture – Food and Nutrition Division
Survey on the Impact of the
Amended Foods Minimal Nutritional Value (FMNV) Policy

Please reply to this survey within 15 days of receipt, if possible. Return to John Perkins, Assistant Commissioner, Food and Nutrition Division, Texas Department of Agriculture, P.O. Box 12847, Austin, Texas 78711 or fax it to the Food and Nutrition Division at (512) 463-6358. Do not hesitate to contact Mr. Perkins at (512) 463-2076 or john.perkins@agr.state.tx.us if you have any questions. Please attach separate sheets if additional space is needed for responses.

1. In 2002-2003, what was the total revenue from your vending machine sales? Please break down numbers by machine type (beverage, candy, snacks). If available, please provide the product mix in vending machines (carbonated beverages, water, juice, candy, snacks, etc.) and container size on a separate sheet of paper.

Total revenue from vending sales, if known. \$ _____

2. What other competitive foods sales, if any, exist in your district and what entity or group receives the revenue from these sales? Examples: food sales/fund-raisers by school organizations or parent groups.

Total revenue from competitive food sales, if known. \$ _____

3. Have you changed the contents of vending machines as a result of the amended FMNV policy? If so, how?
4. What creative initiatives is the school developing and implementing to improve the nutritional environment?
5. Other comments:

Appendix B
Survey sent to Nutrition Directors

Date: _____
County District Number: _____ Name of District: _____
Person Completing Form: _____ Position: _____
Phone Number: _____ E-Mail Address: _____

TO BE COMPLETED BY THE CHILD NUTRITION DIRECTOR

The Texas Department of Agriculture – Food and Nutrition Division
Survey on the Impact of the
Amended Foods Minimal Nutritional Value (FMNV) Policy

Please reply to this survey within 15 days of receipt, if possible. Return to John Perkins, Assistant Commissioner, Food and Nutrition Division, Texas Department of Agriculture, P.O. Box 12847, Austin, Texas 78711 or fax it to the Food and Nutrition Division at (512) 463-6358. Do not hesitate to contact Mr. Perkins at (512) 463-2076 or john.perkins@agr.state.tx.us if you have any questions. Please attach separate sheets if additional space is needed for responses.

1. Do you have a la carte food sales (Chick-Fil-A, Pizza Hut, KFC, Taco Bell, sandwiches, etc.)? If so, please provide a breakdown of food type.

Type of a la carte food sales and amount of revenue received?

_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____

2. What was the total revenue from your school food service program?

- a) Federal/state reimbursement: \$ _____
- b) USDA donated commodities: \$ _____
- c) Student and adult sales: \$ _____
- d) Catering income: \$ _____
- e) Other: \$ _____
- TOTAL food service revenue: \$ _____
- f) Did the food service program operate at a profit or a loss?
- g) What was the amount of the profit? \$ _____
- h) What was the amount of the loss? \$ _____

3. What other food sales take place in your school?
 - a) What entities coordinate these sales?
 - b) Are these entities licensed to sell food?
 - c) Do competitive food sales negatively impact your school meals program?
4. Did the district/school exceed the minimum FMNV policy? If so, how?
5. What creative initiatives is the school developing and implementing to improve the nutritional environment?
6. Other comments:

Texas Department of State Health Services

Executive Summary

The Texas Department of State Health Services was directed to study Charge #2, evaluating the short-term and long-term financial, psychological, and physiological impact of obesity in public school children. Below are the results of study and research conducted by the Department. The first section, regarding economic impact, was developed in coordination with staff from the Centers for Disease Control & Prevention, the Texas State Data Center, and the Texas Department of Agriculture.

Introduction

Overweight and obesity are associated with increased risks for several chronic diseases, including but not limited to cardiovascular disease, ischemic stroke, type 2 diabetes mellitus, and several types of cancer. In addition, life expectancy decreases with increasing degrees of overweight and obesity. Between 1991 and 2001, the prevalence of overweight and obesity among Texas adults rose 35 percent, from 46 percent to almost 62 percent. During this same time period, the prevalence of obesity almost doubled from 13 percent in 1991 to almost 25 percent in 2001. In order to understand the impact of this epidemic of overweight and obesity on the state of Texas, the Texas Department of State Health Services conducted a study to:

- 1) Estimate the direct and indirect costs of overweight and obesity among adults in Texas during 2001, based primarily on state-specific data.
- 2) Project the number of normal weight, overweight, and obese adults in Texas through the year 2040.
- 3) Project the annual costs of overweight and obesity adults in Texas through the year 2040.

Methods

Part One: Costs of Overweight and Obesity in Texas, 2001

Cost-of-illness study to estimate direct and indirect costs of overweight and obesity among Texas adults during 2001:

Direct costs:	Health care
Indirect costs:	Value of lost productivity (e.g., wages and household work) due to illness and premature death

Part Two: Projected Number of Normal Weight, Overweight and Obese Persons in Texas, 2000-2040

The number of normal weight, overweight and obese adults in Texas was estimated for the years 2000-2040 based on:

Population projections provided by the Texas State Data Center (TSDC) in the Institute for Demographic and Socioeconomic Research at the University of Texas at San Antonio

Weight status prevalence data collected by the Texas Behavior Risk Factor Surveillance System during 1999-2002.

Part Three: Projected Costs of Overweight and Obesity in Texas, 2000-2040

The annual costs of overweight and obesity among Texas adults for the years 2000-2040 were estimated based on the 2001 cost estimates from part one of the study and the projected number of overweight and obese adults from part two of the study.

Key Findings

Part One: Costs of Overweight and Obesity in Texas, 2001

Prevalence of overweight and obesity

Of approximately 15.3 million adults aged 18 and older living in Texas during 2001:

36.4 percent or 5.6 million were overweight (body mass index equal to 25 to 29.9 kg/m²)
24.1 percent or 3.7 million were obese (body mass index equal to or greater than 30 kg/m²)

Routine hospital discharges attributable to overweight and obesity

Of 1.5 million routine adult hospital discharges in Texas during 2001:

2.8 percent or 42,678 were attributable to overweight-associated illnesses
3.4 percent or 51,729 were attributable to obesity-associated illnesses

The most common overweight- and obesity-attributable discharge diagnoses were:

Coronary heart disease – 30,995 or 33 percent of discharges
Congestive heart failure – 13,850 or 15 percent of discharges
type 2 diabetes mellitus – 11,340 or 12 percent of discharges
Ischemic stroke – 9,164 or 10 percent of discharges

Direct healthcare costs attributable to overweight and obesity

Of \$67.1 billion spent for adult health care in Texas during 2001:

\$4.21 billion or 6.3 percent of adult healthcare expenditures were for overweight- and obesity-associated illnesses
\$1.90 billion was spent for overweight-associated healthcare costs
\$2.31 billion was spent for obesity-associated healthcare costs

Indirect costs attributable to overweight and obesity

Indirect costs of illness (morbidity)

Lost productivity (e.g., wages and household work) attributable to overweight and obesity-associated morbidity cost \$1.05 billion:

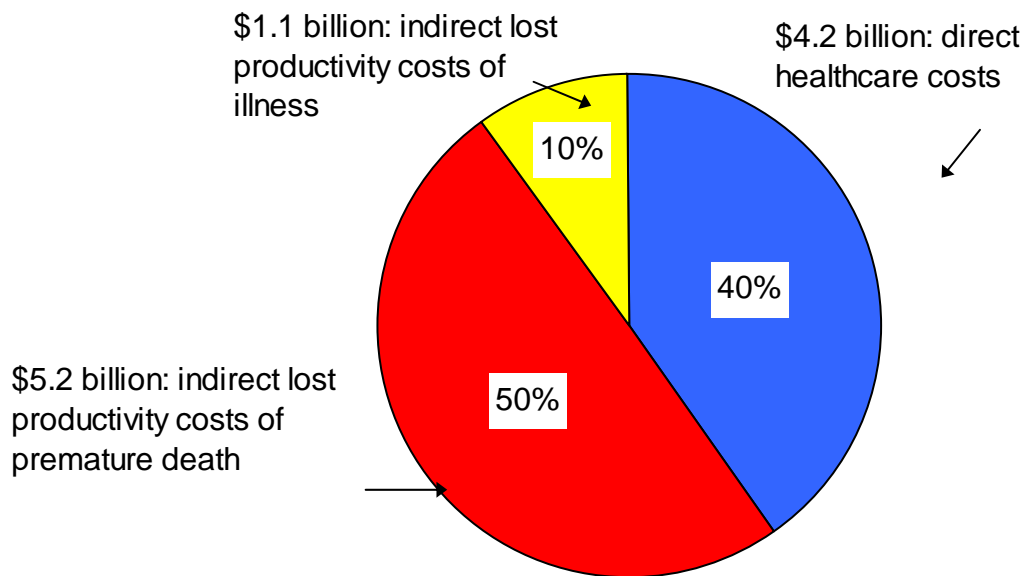
\$0.18 billion in lost productivity costs were attributable to overweight
\$0.87 billion in lost productivity costs were attributable to obesity

Indirect costs of premature death (mortality)

Lost productivity (e.g., wages and household work) attributable to overweight and obesity-associated premature mortality cost \$5.2 billion:

\$0.3 billion in lost productivity costs were attributable to 1,036 overweight-associated deaths
\$4.9 billion in lost productivity costs were attributable to 17,613 obesity-associated deaths

Overweight- and obesity-associated costs for Texas adults totaled \$10.5 billion during 2001



Part Two: Projected Number of Normal Weight, Overweight and Obese Adults in Texas, 2000-2040

Prevalence of overweight and obese adults by sex and race/ethnicity in Texas, 1999-2002 (Texas Behavioral Risk Factor Surveillance System):

Anglo men

46.5 percent overweight

21.8 percent obese

Anglo women

27.9 percent overweight

18.9 percent obese

Black men

41.9 percent overweight

32.3 percent obese

Black women

33.2 percent overweight

34.2 percent obese

Hispanic men

45.4 percent overweight

28.3 percent obese

Hispanic women

32.0 percent overweight

30.7 percent obese

Projected annual number and prevalence of overweight and obese adults in Texas, 2000-2040 (Texas State Data Center population projections):

Year	Number (millions)	Prevalence (percent)
2000		
Overweight	5.5	36.8
Obese	3.5	23.5
2010		
Overweight	6.8	37.9
Obese	5.1	28.7
2020		
Overweight	8.1	38.6
Obese	6.7	31.9
2030		
Overweight	9.4	39.0
Obese	8.1	33.8
2040		
Overweight	10.7	39.3
Obese	9.6	35.2

Projected prevalence of overweight and obese adults by sex and race/ethnicity for Texas in 2040:

Anglo men

47.8 **percent** overweight

28.6 **percent** obese

Anglo women

29.4 **percent** overweight

24.7 **percent** obese

Black men

41.5 **percent** overweight

43.6 **percent** obese

Black women

35.2 **percent** overweight

46.6 **percent** obese

Hispanic men

47.7 **percent** overweight

39.1 **percent** obese

Hispanic women

33.5 **percent** overweight

43.0 **percent** obese

Projected changes in prevalence of overweight and obesity among Texas adults between 2000 and 2040:

The prevalence of overweight is projected to increase from 36.8 percent in 2000 to 39.4 percent in 2040

The prevalence of obesity is projected to increase from 23.5 percent in 2000 to 35.8 percent in 2040

Projected changes in the number of overweight and obese Texas adults between 2000 and 2040:

The number of overweight adults is projected to almost double, from 5.5 million in 2000 to 10.7 million in 2040

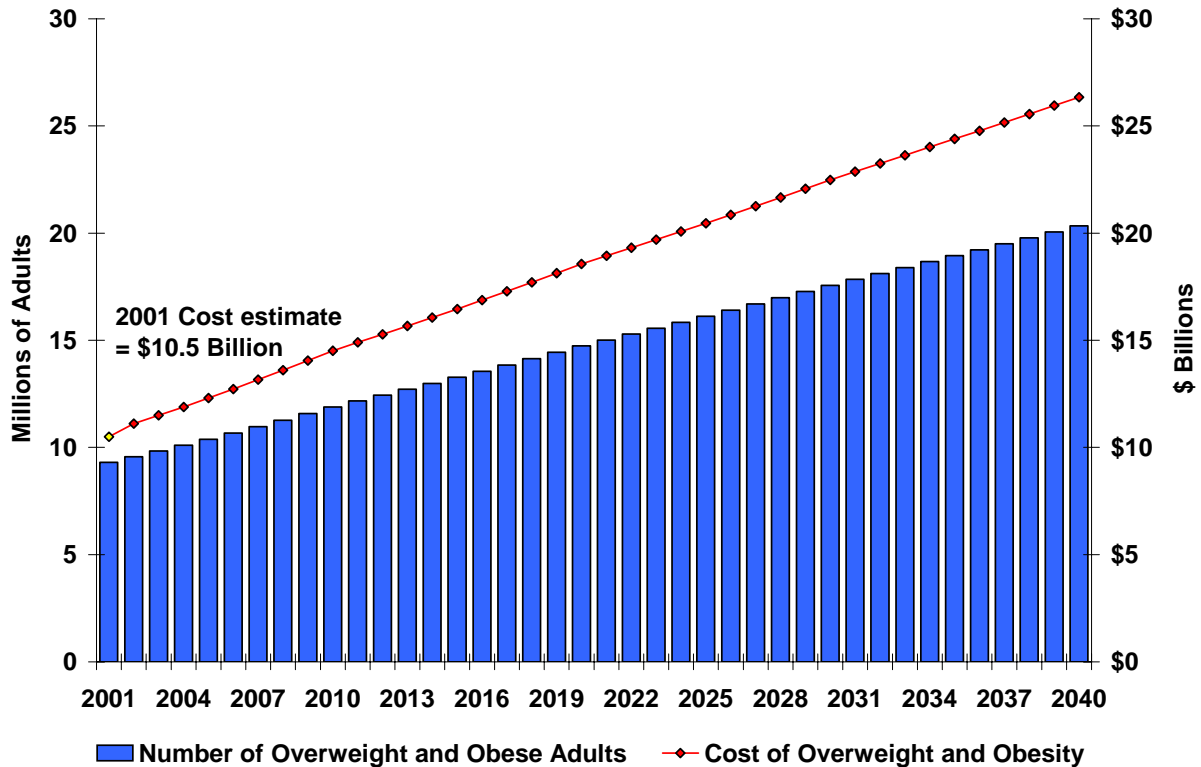
The number of obese adults is projected to almost triple, from 3.5 million in 2000 to 9.6 million in 2040

Part Three: Projected Costs of Overweight and Obesity in Texas, 2000-2040

Overweight and obesity are projected to cost \$26.3 billion by 2040

Costs of overweight could reach \$4.7 billion in 2001 dollars by 2040

Costs of obesity could reach \$21.6 billion in 2001 dollars by 2040



Conclusion

The economic burden of overweight and obesity in Texas is substantial, amounting to \$10.5 billion during 2001. The costs of overweight and obesity could increase dramatically if the prevalence of overweight and obesity continue to rise. Changes in population size and demographic composition in Texas during the next four decades will also contribute to increases in the number of overweight and obese persons in Texas. The findings in this report are based on conservative estimates and could underestimate the burden of overweight and obesity if the prevalence continues to increase at the rate observed during the 1990's. Decisive action and continued surveillance are needed to control this epidemic of overweight and obesity in Texas.

Psychological Impact of Obesity on School-aged Children

Obesity is now recognized as a common chronic disorder in industrialized societies because of its impact on individual lives as well as on health economics. Enhanced public awareness of the impact of childhood obesity is essential to reduce the short and long-term effects.

Current research literature, published in the last five years, was examined to ascertain whether childhood obesity was associated with the psychological well being of public school children. The literature indicates the psychological impact of obesity on children is both short and long-term.

Summary

Childhood obesity is associated with substantial co-morbidity and late sequelae (after-effects). Common health problems associated with obesity include hypertension, dyslipidaemia, and type 2 diabetes, which is being increasingly diagnosed in children and adolescents. In addition, obesity has an adverse impact on the psychosocial and psychological well-being of children and adolescents.

There is a growing body of research that addresses the psychological impact of obesity, especially among public school children. Research has indicated the process of stigmatization could explain an association between obesity and psychological disorders. A stigmatized person possesses "some attribute or characteristic that conveys a social identity that is devalued in some particular context" (Puhl & Brownell, 2003). Obesity is one of the most stigmatizing and least socially acceptable conditions in childhood (Schwimmer et al., 2003).

Young children are often stigmatized because of obesity and such behaviors can start at ages as young as 3 to 5 years (Morgan et al, 2002; Zimetkin, et. al, 2004). Obese children are often teased and are targets of bullying. Stigmatization could have a marked impact on childhood psychological development (Morgan, 2002b; Puhl & Brownell, 2003), and could explain some of the psychological disorders obese children experience. Zimetkin et al., (2004) reported that obesity is associated with depression, suicidal thoughts and suicide attempts among children. Other studies indicate severely obese children score lower on health-related quality of life indicators (Friedlander, et al., 2003; Schwimmer et al., 2003)

Additionally, overweight children are also more prone to display unhealthy behaviors such as extreme dieting, skipping meals, and prolonged TV watching. Often, overweight children rated their school performance poorly (Mellin et al., 2002; Puhl & Brownell, 2003; Zimetkin et al., 2004). Furthermore, the studies also indicate that obese children experience social isolation, i.e., rejection by their peers (Strauss & Pollack, 2003). The teasing, harassment and rejection associated with stigmatization has long-term consequences because obese adults tend to face disparate treatment in educational settings and the workplace, and have higher poverty rates and lower marriage rates (Puhl & Brownell, 2003; Zimetkin et al., 2004).

Mellin et al., (2002) found that family connectedness mediated the adverse effects of obesity. Children who talked to their parents about their eating habits were less likely to be involved in unhealthy behaviors and displayed less psychosocial distress. Participation in collective activities, such as sports and club activities, is also associated with improved social ties.

In this literature review, based on articles published in the last five years, the primary focus was on the impact of obesity on students in public schools in the United States or Canada. Most of these recent studies are based in the United States. The first set of studies reviewed, Table 1, provides evidence of stigmatization of obese children in public schools. The second set, Table 2, reviews the psychological impact of childhood stigmatization.

Stigmatization. Adolescents are extremely reliant on peers for social support, identity and self-esteem. The studies summarized below identify factors that are associated with the process of stigmatization. Bullying, teasing, withdrawal of friendships, social marginalization are some of the ways that overweight children are treated. Although no direct link is drawn between these behaviors and psychological disorders, these studies suggest that the disparate treatment of obese children by their peers has psychological ramifications (Janssen, 2004).

Effects	Study Summary
<p>Target of peer aggression, bullying/teasing, rumors or lies, withdrawal of friendships victimization</p>	<p>Janssen et al, (2004), conducted a cross-sectional study of Canadian youth (5,749 children grades 6 through grade 10) utilizing World Health Organization Health Behavior in School-Aged Children’s Survey whereby students filled in a questionnaire regarding overweight and relationships. They reported that:</p> <ul style="list-style-type: none"> ➤ Overweight boys and girls were more likely to be victims of verbal, physical and relational bullying (withdrawing friendship, spreading rumors or lies). ➤ Overweight boys and girls were more likely to be victimized by their peers. ➤ Some overweight boys and girls perpetrated more verbal, physical and relational bullying than their normal-weight peers. ➤ Overt bullying (name-calling, teasing, hitting and pushing) was more common in boys. ➤ Relational bullying more common amongst girls. <p>Eisenberg, et al (2003) conducted a school-based survey of 4746 public school children in Minnesota (a study from Project EAT- Eating Amongst Teens). They reported that:</p> <ul style="list-style-type: none"> ➤ Weight-based teasing was common by peers and family members. ➤ Children who were teased suffered from low self-esteem, low body satisfaction, and high depressive symptoms. ➤ Girls had more suicidal thoughts and suicide attempts than boys. ➤ Being teased about weight is a cause for low self-esteem.
<p>Teasing and gender</p>	<p>Neumark-Sztainer et al (2002) used the same self-administered survey in the Minnesota sample (see Eisenberg, 2003), and psychological measurements such as the Rosenberg Self-Esteem Scale and Activity Rating Scale. They reported that:</p> <ul style="list-style-type: none"> ➤ Overweight girls and boys who were teased reported more unhealthy weight-control behaviors and binge-eating compared to overweight girls and boys who were not teased. ➤ Both boys and girls were bothered by the teasing. ➤ Overweight girls and boys who were teased reported more unhealthy weight-control behaviors and binge-eating compared to overweight girls and boys who were not teased. ➤ Girls were teased about their weight more often than boys.

Effects	Study Summary
Participation in sports	<p>Faith et al., (2002) conducted a cross-sectional study of 576 students attending middle school (5 to 8th Grade) in New York. They used Weight Criticism During Physical Activity (WCA) scale, Children’s Coping Strategies Checklist (CCSC) Inventory and Activity Rating Scale. They found that:</p> <ul style="list-style-type: none"> ➤ Overweight children who were criticized during physical activity were less prone to enjoy sports than their peers.
Victims of aggression and relationships	<p>Pearce et al (2002) utilized the Revised Peer Experiences (Overt & Relational Aggression/Victimization) Questionnaire and Dating History Questionnaire in a survey of 416 high school students in New England. They found that obese adolescents:</p> <ul style="list-style-type: none"> ➤ Experienced more victimization. ➤ Boys were victimized physically while girls reported relational problems – their peers were unfriendly and avoided them. ➤ Dated less than their peers. ➤ Reported less satisfaction with their dating status.
Isolation, social marginalization	<p>Strauss and Pollack (2003) in a nationally representative cohort study of 90,118 youth investigated the social networks of overweight and normal youth aged between 13 and 18. They measured the number of friendship nomination by peers as a measure of popularity. They found that overweight adolescents:</p> <ul style="list-style-type: none"> ➤ Were significantly less likely to be selected as friends, i.e. they received less nominations. ➤ Were significantly more likely to receive no friendship nominations. ➤ Who nominated non-overweight persons as best friends were less likely to receive reciprocal nominations. ➤ Girls are often socially marginalized, especially non-Hispanic white girls.

Psychological Impact. Do obese children display psychological disorders, and other unhealthy behaviors? The table below summarizes pertinent research articles, published in the last five years, which examine the association between obesity and psychological well-being, and other unhealthy behaviors among public school children.

Effects	<i>Study summary</i>
Psychological distress, Unhealthy behaviors	<p>Mellin et al, (2002) conducted a cross-sectional, school-based survey of 9957 Connecticut adolescents in grades 7, 9 and 11, comparing overweight and non-overweight adolescents on a number of self-report measures of eating habits, physical activity, dieting, educational, and psychological scales. They found that overweight adolescents:</p> <ul style="list-style-type: none"> ➤ Experienced more psychological distress (using psychosocial well-being variables, like relationships with peers, parents and teachers). ➤ Reported higher levels of emotional distress manifested in poor self-image, aggressive behaviors, suicide, promiscuity, drug, alcohol and tobacco addiction. ➤ Displayed high levels of emotional distress, which in turn is associated with fewer years of school completed and higher rates of poverty and unemployment. ➤ Engaged in significantly more unhealthy behaviors such as binge eating. ➤ Displayed unhealthy behaviors such as extreme dieting, skipping meals, and prolonged TV watching. ➤ Rated their school performance lower. ➤ Rated their future educational plans lower.
Depression	<p>Erickson, et al (2000) in their cross-sectional study of 868 third graders in Northern California, where students were measured for height and weight also asked them to complete a self-report assessment of depressive symptoms and overweight concerns. The researchers reported:</p> <ul style="list-style-type: none"> ➤ Increased symptoms of depression in overweight girls. ➤ They did not find this association for boys. <p>Ackard et al., (2003) using data from 4746 Minnesota students who were surveyed and had anthropometrical measurements taken for a cross-sectional study, reported that overeating was:</p> <ul style="list-style-type: none"> ➤ Associated with highest scores in the depressive mood scales and lower self-esteem. Overweight students were more likely to endorse suicidal thoughts and attempts. ➤ Significantly associated with body dissatisfaction.

References

- Ackard D.M., Neumark-Sztainer D., Story M., et al. Overeating among adolescents: Prevalence and associations with weight-related characteristics and psychological health. *Pediatrics* (2003); 111 (1): 67-74.
- Butler G.S., Vallis T.M., Pery B., et al. The obesity adjustment survey: Development of a scale to assess psychological adjustment to morbid obesity. *International Journal of Obesity* (1999); 23: 505-511.
- Chamberlin L.A., Sherman S.N., Jain A., et al. The challenge of preventing and treating obesity in low-income, preschool children. *Archives of Pediatrics & Adolescent Medicine* (2002); 156: 662-668.
- Eisenberg Marla E., Neumark-Sztainer Dianne, Story Mary. Association of weight-based teasing and emotional well-being among adolescents. *Archives of Pediatrics & Adolescent Medicine* (Aug 2003); 157: 733-738.
- Erickson Sarah J., Robinson Thomas N., Haydel K. Farish, Killen Joel D. Are Overweight Children Unhappy? Body Mass Index, Depressive Symptoms, and Overweight Concerns in Elementary School Children. *Archives of Pediatrics & Adolescent Medicine* (Sep 2000); 154: 931-5.
- Faith Myles S., Leone Mary Ann, Ayers Tim S., Heo Moonseong, Pietrobelli Angelo. Weight Criticism during Physical Activity, Coping Skills, and Reported Physical Activity in Children. *Pediatrics* (2002); 110(2): e23-23.
- Friedlander, S.L., Larken, E.K., Rosen, C.L. et al. Decreased quality of life associated with obesity in school-aged children. *Archives of Pediatrics & Adolescent Medicine* (Dec 2003); 157 1206-1212.
- Goetz D.R., Caron W. A biopsychosocial model for youth obesity: consideration of an ecosystem collaboration. *International Journal of Obesity* (1999); 23 (sup.): S58-S64.
- Janssen I., Craig W., Boyce W., et al. Association between overweight and obesity with bullying behaviors in school-aged children. *Pediatrics* (2004); 113 (5): 1187-1194.
- Kiess W., Reich A., Muller G., et al. Clinical aspects of obesity in childhood and adolescence – diagnosis, treatment and prevention. *International Journal of Obesity* (2001); 25 (sup.): 575-579.
- Lau B. Global negative self-evaluation, weight and eating concerns and depressive symptoms: A prospective study of adolescents. *Journal of Eating & Weight Disorders* (2000); 5: 7-15.
- Mellin A.E., Neumark-Sztainer D., Story M., et al. Unhealthy behaviors and psychosocial difficulties among overweight adolescents: The potential impact of familial factors. *Journal of Adolescent Health* (2002); 31: 145-153.

Morgan C.M., Yanovski S.Z., Nguyen T.T., et al. Loss of control over eating adiposity, and psychopathology in overweight children. *International Journal of Eating Disorders* (2002); 31: 430-441.

Morgan C.M., Tanofsky-Kraft M., Wilfley D.E., et al. Childhood obesity. *Child & Adolescent Psychiatric Clinics of North America* (2002); 11: 257-278.

Neumark-Sztainer Dianne, Story Mary, Hannan Peter J., Perry Cheryl L., Irving, Lori M. Weight-Related Concerns and Behaviors Among Overweight and Non-overweight Adolescents. *Archives of Pediatrics and Adolescent Medicine* (Feb 2002); 156: 171-8.

Neumark-Sztainer D., Falkner N., Story M., Perry C., Hannan P.J., Mullen. Weight-teasing among adolescents: correlations with weight status and disordered eating behaviors. *International Journal of Obesity* (2002); 26: 123-131.

Pearce Michelle J., Boergers Julie, Prinstein Mitchell J. Adolescent obesity, overt and relational peer victimization, and romantic relationships. *Obesity Research* (2002); 10(5): 386-93.

Phillips R. G., Hill A. J. (1998). Fat, plain, but not friendless: self-esteem and peer acceptance of obese adolescent girls. *Obesity* (1998); 22: 287-293.

Puhl R.M. & Brownell K.D. Psychosocial origins of obesity stigma: toward changing a powerful and pervasive bias. *Obesity Reviews* (2003); 4: 213-227.

Robinson Thomas N., Chang Jeannine Y., Haydel K. Farish, Killen Joel D. "Overweight concerns and body dissatisfaction among third-grade children: the impacts of ethnicity and socioeconomic status. *Journal of Pediatrics* (2001); 138(2): 181-7.

Strauss Richard S., Pollack Harold A. Social marginalization of overweight children. *Archives of Pediatrics and Adolescent Medicine* (Aug 2003); 157: 746-52.

Schwimmer, J.B., Burwinkle, T.M., Varni, J.W. Health-Related Quality of Life of Severely Obese Children and Adolescents. *Journal of the American Medical Association* (April, 2003); 289 (14): 1813-1819.

Wake M., Salmon L., Waters E., Wright M., Hesketh, K. Parent-reported health status of overweight and obese Australian primary school children: a cross-sectional population survey. *Obesity* (2002); 26: 717-724.

Zametkin A.J., Zoon C.K., Klein H.W., et al. Psychiatric aspects of child and adolescent obesity: a review of the past 10 years. *Journal of American Academy of Child & Adolescent Psychiatry* (2004); 43 (2): 134-150.

Physiological Impact of Obesity on School-Age Children

Obesity and its physiological side effects are no longer problems only found in adults. Children who are overweight experience physiological consequences similar to those of overweight and obese adults. Risk factors for chronic diseases such as heart disease and cancer are prevalent in overweight children, increasing the likelihood of disease development early in adulthood.

Summary

A report on the risks and consequences of childhood and adolescent obesity was compiled and reported in the *International Journal of Obesity* (Must & Strauss, 1999). This report explored the scientific literature related to consequences of childhood obesity, including conditions that occur immediately as a result of obesity in childhood and those that do not appear until adulthood. Since the publication of this report, several research articles have been published that support Must and Strauss's findings and also provide additional insight into the physiological consequences of childhood obesity.

Immediate consequences of childhood obesity include the following (Must & Strauss, 1999):

- Orthopedic (unfused growth plates and softer bones result in damage to bones in legs and hips and may cause children to be “bow-legged”).
- Neurological (increased pressure in the skull results in headaches, vomiting, blurred vision, also symptoms of a condition called pseudotumor cerebri, meaning false brain tumor).
- Pulmonary (asthma, sleep disorders such as obstructive sleep apnea syndrome).
- Gastroenterological (gallstones, fatty liver).
- Endocrine (insulin resistance, Metabolic syndrome, hyperandrogenemia - overproduction of male hormones in females, Impaired Glucose Tolerance [pre-diabetes] [Gaezner, 2002] or type 2 diabetes, abnormal menstrual cycle including early and late onset of menarche, hirsutism – excessive hair production in females, acne, acanthosis nigricans).

Not all overweight children will experience the immediate consequences outlined above. However, the heavier the child, the more likely these conditions will appear in childhood and persist into adolescent and adult life.

Cardiovascular disease risk factors have been observed in overweight children. These risk factors include increased total cholesterol and low-density lipoprotein, elevated triglycerides, high blood pressure, elevated insulin levels, abnormal heart functions, abnormal endothelial functions, and the presence of metabolic syndrome (Reilly et al, 2003; Woo et al, 2004; Weiss et al, 2004; Freedman et al, 1999). The presence of these risk factors may not be outwardly noticeable during childhood but are indicators of risk for the development of cardiovascular disease in adulthood.

Research has established a relationship between obesity and cancer. A study by Gascon et al (2004) examined hormonal abnormalities in obese children and their implications on the development of cancer later in life. Researchers found that levels of certain hormones known to play a role in cancer development are very high in obese children. Although the high hormone levels may not produce cancer in childhood, they are risk factors for cancer development and increase the likelihood of an overweight child developing cancer in adulthood.

Childhood obesity does continue into adulthood (Dietz, 1998), increasing the prevalence of morbidity and mortality in adults. Persistence of obesity into adulthood is related to both the severity of obesity and the age of onset (Must & Strauss, 1999). Obesity in adults is an established risk factor for cardiovascular disease, type 2 diabetes, sleep apnea, hyperlipidemia, gall bladder disease, osteoarthritis, and certain cancers (Must & Strauss, 1999). The earlier in life chronic disease risk factors develop, the earlier the onset of disease.

Conclusions

A multitude of physiological consequences are found in overweight children. The prevalence and severity of these consequences increase with the severity of overweight. Overweight and obesity clearly lead to increased morbidity in children and adults.

References

- Dietz, W. H. Childhood weight affects adult morbidity and mortality. *Journal of Nutrition* (1998); 128: 411s-414s.
- Freedman, D. S., Dietz, W. H., Sathanur, S. R., and Berenson, G. S. The relation of overweight to cardiovascular risk factors among children and adolescents: The Bogalusa Heart Study. *Pediatrics* (1999); 103(6): 1175-1182.
- Gascon, F., Valle, M., Martos, R., Zafra, M., Morales, R., and Castano, M. A. Childhood obesity and hormonal abnormalities associated with cancer risk. *European Journal of Cancer Prevention* (2004); 13: 193-197.
- Gaezner, H. Impaired glucose tolerance in obese children and adolescents. *New England Journal of Medicine* (2002); 346(11): 802-810.
- Krebs, N. F., Jacobson, M. S., and American Academy of Pediatrics Committee on Nutrition. Prevention of pediatric overweight and obesity. *Pediatrics* (2003); 112(2): 424-430.
- Must, A. and Strauss, R. S. Risks and consequences of childhood and adolescent obesity. *International Journal of Obesity & Related Metabolic Disorders* (1999); 23: Suppl-11.
- Reilly, J. J., Methven, E., McDowell, Z. C., Hacking, B., Alexander, D., Stewart, L., and Kelnar, C. J. Health consequences of obesity. *Archives of Disease in Childhood* (2003); 88(9): 748-752.
- Weiss, R., Dziura, J., Burgert, T. S., Tamborlane, W. V., Taksali, S. E., Yeckel, C. W., Allen, K., Lopes, M., Savoye, M., Morrison, J., Sherwin, R. S., and Caprio, S. Obesity and the metabolic syndrome in children and adolescents. *The New England Journal of Medicine* (2004); 350(23): 2362-2374.
- Woo, K. S., Chook, P., Yu, C. W., Sung, R. Y. T., Qiao, M., Leung, S. S. F., Lam, C. W. K., Metreweli, C., and Celermajer, D. S. Overweight in children is associated with arterial endothelial dysfunction and intima-media thickening. *International Journal of Obesity* (2004); 28: 852-857.

Texas Department of Insurance – Invited Update

2002 Texas Group Health Insurance Survey Results: Coverage for Treatment of Morbid Obesity

Each year, the Texas Department of Insurance conducts a survey of group accident and health insurance carriers representing approximately 70 percent of the premiums written in Texas. In the 2002 survey, 23 carriers provided information on the types of coverage that they provide for the treatment of morbid obesity. Of these, 14 responded that some of their policies include morbid obesity coverage, while the other nine indicated that no coverage is provided under any policy. The companies providing morbid obesity coverage were then asked to indicate what types of treatment are covered under their plans, and the table below summarizes their responses.

Group Accident and Health Insurance Coverage

Is Treatment Covered?	Types of Treatment for Morbid Obesity				
	Prescription Drugs	Nutritional Counseling	Medically-Supervised Weight-Loss Programs	Non-Medically-Supervised Weight-Loss Programs	Bariatric Surgery
Yes	7	10	8	1	13
No	7	4	6	13	1

Two of the carriers above also offered additional information regarding their coverage of morbid obesity treatment. One carrier stated that they provide coverage for testing and psychological behavioral counseling, while the other added that physician office visits are covered for medically-supervised weight-loss programs.

Carriers were also asked to indicate their average annual premium cost-per-person for morbid obesity coverage, if such coverage was provided. Eleven companies stated that an average annual premium could not be determined because they were unable to identify the premiums attributable to the treatment of morbid obesity, while three other companies provided average annual premium amounts of \$5.40, \$9.50, and \$0.32, respectively. The following table displays how the average annual premium amounts relate to the morbid obesity benefits provided by each of the three companies that were able to provide average annual premium figures.

Company's Average Annual Premium	Morbid Obesity Benefits Provided				
	Prescription Drugs	Nutritional Counseling	Medically-Supervised Weight-Loss Programs	Non-Medically-Supervised Weight-Loss Programs	Bariatric Surgery
\$5.40	Yes	Yes	Yes	No	Yes
\$9.50	No	No	No	No	Yes
\$0.32	Yes	No	Yes	No	Yes

Finally, carriers were asked to provide both the total number and dollar value of claims paid where morbid obesity was either a primary diagnosis or a comorbidity factor. The results of their responses are summarized in the table below.

Diagnosis Type	Number of Carriers that Reported Data	Total Number of Claims Paid	Total Value of Claims Paid
Primary Diagnosis	16	10,071	\$9,680,413
Comorbidity Factor	13	18,272	\$15,659,468

It is important to note that the claim costs reported above reflect data reported on health care claims where the provider specifically indicated that obesity was a primary diagnosis or comorbidity factor. Insurers have no way of identifying claims where obesity is a related factor unless the provider indicates such on the claim form. Previous studies have found that providers often do not report on claim forms that the individual is obese, or that obesity is a contributing factor, unless that information has some impact on the claim payment. As such, the claim costs reported by these carriers represent only a portion of the total claims that may be attributable to obesity, either directly or indirectly.

HMO Findings

In a separate survey of basic-service health maintenance organizations (HMOs), 16 HMOs provided information on coverage of morbid obesity under group health plans sold in Texas in 2002. Eleven of these HMOs responded that some of their plans include morbid obesity coverage, while the other five indicated that no morbid obesity coverage is provided under any plan. The HMOs providing morbid obesity coverage were then asked to indicate what types of treatment are covered under their plans, and the table below summarizes their responses.

Group Health Maintenance Organization Coverage

Is Treatment Covered?	Types of Treatment for Morbid Obesity				
	Prescription Drugs	Nutritional Counseling	Medically-Supervised Weight-Loss Programs	Non-Medically-Supervised Weight-Loss Programs	Bariatric Surgery
Yes	5	8	8	1	8
No	6	3	3	10	3

In addition to the information above, one HMO reports that bariatric surgery is covered when a supervised weight-loss program fails, while another HMO added that physician office visits are covered for medically-supervised weight-loss programs.

HMOs were also asked to indicate their average annual premium cost-per-person, if any coverage for morbid obesity was provided. Seven HMOs stated that an average annual premium could not be determined because they were unable to identify the premiums attributable to the treatment of morbid obesity, while the four other HMOs provided average annual premium amounts of \$5.40, \$0.85, \$1.74, and \$12.52, respectively. The following table displays how the average annual premium amounts relate to the morbid obesity benefits provided by each of the four HMOs that were able to provide average annual premium figures.

Company's Average Annual Premium	Morbid Obesity Benefits Provided				
	Prescription Drugs	Nutritional Counseling	Medically-Supervised Weight-Loss Programs	Non-Medically-Supervised Weight-Loss Programs	Bariatric Surgery
\$5.40	Yes	No	Yes	No	Yes
\$0.85	Yes	Yes	Yes	Yes	Yes
\$1.74	No	Yes	Yes	No	Yes
\$12.52	Yes	Yes	Yes	No	Yes

Finally, HMOs were asked to provide both the total number and dollar value of claims paid where morbid obesity was either a primary diagnosis or a comorbidity factor. The results of their responses are summarized in the table below.

Diagnosis Type	Number of HMOs that Reported Data	Total Number of Claims Paid	Total Value of Claims Paid
Primary Diagnosis	11	25,182	\$11,138,835
Comorbidity Factor	11	64,388	\$37,234,949

As indicated earlier, these claim costs reflect only those claims where a provider specifically indicated that morbid obesity was a primary diagnosis or comorbidity factor. The reported costs do not reflect many services provided that are attributable in part or in whole to the patient's obesity, but were not reported as such on the claim filed by the provider because the information has no bearing on the processing of the claim.

CHALLENGES

CANCER

Diseases formerly found primarily among adults – especially adults in their twilight years – are becoming more and more prevalent among very young children, especially in this state. One of the most devastating is cancer.

In the "Nourishing the Future" report, cancer is described as a group of diseases characterized by the uncontrolled growth and spread of abnormal cells. The study also reveals that in 2001, cancer was the second leading cause of death in the United States, accounting for 24 percent of all deaths.⁸

Intake of dietary fat is thought to be associated with breast, prostate and colorectal cancers because of the large international variation in cancer incidence that coincides with per capita consumption of animal fat (Prentice & Sheppard, 1990).⁹ The report also states that "greater intake of fruits and vegetables is associated with reduced risk of a number of cancers, including lung (Ziegler, Mayne, & Swanson, 1996), and breast and cervical cancers (Willett & Trichopoulos, 1996). Since many cancers are inversely associated with fruit and vegetable intake, several studies have investigated the effect of high-dose vitamin and mineral supplements...with inconsistent results (Willett, 1999)."¹⁰

Encouraging children to eat healthier foods, especially fruits and vegetables, particularly fresh products, has become a resounding theme throughout this study. The American Cancer Society, Texas Division, issued a statement that obesity contributes as much or more to the development of a group of chronic diseases, including cancer, as does smoking or poverty.¹¹

The American Cancer Society attributes the role and responsibility of teaching children to eat right and be physically active to us as a society. "Our schools must play a major role as part of this overall social effort. They must improve cafeteria menus, replace foods in vending machines with nutritious choices, and do more to ensure that children in the classroom acquire the knowledge and skills necessary for making healthy choices. No other system in our society provides as great an opportunity to impact as many individuals as our schools. We therefore, encourage and support the Joint Interim Committee on Nutrition and Health in Public Schools in recommending changes in policies and practices which will stem the growing problem of obesity, and overweight children"¹²

The University of Texas MD Anderson Cancer Center also reported to the committee that there is a direct link between obese children and some forms of cancer. MD Anderson highly recommends increased physical activity and exercise, a change in diet to include more fruits, vegetables and grains and less processed food, and incorporation of educational programs that teach school children about healthy lifestyles and disease prevention to reduce obesity and lessen the opportunity for cancer to develop.

⁸ Maureen Sanderson, Ph.D., R.D. and Gerson Peltz, M.D., "Nourishing the Future," Lower Rio Grande Valley Nutrition Intervention Research Initiative, Edited by R. Sue Day, The University of Texas, School of Public Health at Houston, 2004.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Robin Atwood, Ed.D. Department of Kinesiology and Health Education, The University of Texas at Austin, representing the American Cancer Society, Texas Division (Testimony from Austin hearing, June 29, 2004).

¹² Ibid.

DIABETES

The Diabetes Coalition of Texas, dedicated to advocacy and coordinating the array of efforts on behalf of Texans who face diabetes, believes it is imperative that Texas assure that nutrition and physical activity for children are top priorities.¹³

Dr. John A. Menchaca, with the Texas Diabetes Council, testified that "prior to the late 1970s and early 1980s, the incidence of type 2 diabetes mellitus (the so-called adult type) in children was essentially unknown or quite rare. Since then, there has been a rapid and progressive rise in the incidence of type 2 diabetes mellitus in children under the age of 18."¹⁴

For example, in the Corpus Christi area, there were two cases in 1983, 15 in 1990, and 50 in 2001. Similar data is also available from the San Antonio area. Overall, the incidence of type 2 diabetes mellitus in the San Antonio area is approximately 50-60 percent of all newly diagnosed cases in youngsters under the age of 18. In Fort Worth, the incidence is about 10 percent (seven type 2s in total of 77 newly diagnosed cases) in the past six months. From the above data, we must conclude that we have type 2 diabetes in both the South and North Texas areas, and it is going to get worse.¹⁵

Dr. Menchaca also reported that "since the most important risk factor for the development of type 2 diabetes is the presence of obesity, we should look to the problem of obesity, its treatment, and most importantly, its prevention to stem the ever-rising rates of type 2 diabetes in children."¹⁶

According to Dr. Paul Villas from the Border Health Office at the University of Texas-Pan American, one of the major problems associated with obesity that causes diabetes is poor people's ability to adopt healthier diets, which has less to do with health awareness, nutrition education or readiness to change than with the fact that such healthier diets cost more.¹⁷

However, as we address this issue we must identify children at highest risk of developing diabetes and do everything within reason to provide intervention before the condition develops or worsens. One such program is ANTES (Acanthosis Nigricans: The Education and Screening program) a comprehensive risk-factor detection program in Texas and now serving as a model for California and other parts of the nation.¹⁸

The University of Texas-Pan American Border Health Office also indicates that several studies indicate and the general consensus within the medical community is that the most important risk factor in the development of type 2 diabetes is obesity. The problem is further complicated with the addition of other risk factors that increase the propensity to develop the disease. These risk factors include race/ethnicity (Hispanics, African-Americans, Native Americans, Asian Americans), family history of type 2 diabetes, and presence of insulin-resistance (acanthosis nigricans, elevated blood pressure, etc.). However, experts agree that efforts in the prevention of type 2 diabetes in children should focus on

¹³ Lenore Katz, Chair, Diabetes Coalition of Texas, Letter to Senator Lucio, 2004.

¹⁴ John A. Menchaca, M.D., Texas Diabetes Council, Testimony to the Committee, April 15, 2004.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Paul Villas, D.Ed., CHES, The University of Texas-Pan American Border Health Office, A Report to the Texas Joint Committee on Nutrition and Health in Public Schools, June 2004, and additional information submitted by Doreen D. Garza, M.P.H., Executive Director, The University of Texas-Pan American Border Health Office, 2004.

¹⁸ Ibid.

controlling the obesity crisis that is currently overwhelming the state of Texas.¹⁹

The University of Texas-Pan American Border Health Office is charged by the Texas Legislature with screening children in Texas for acanthosis nigricans (AN). AN is associated with hyperinsulinemia, which is linked to various chronic health risks. AN is a light brown-black, velvety, furrowed, rough or thickened manifestation on the surface areas of the skin. The pigmentation is most frequently seen on the back of the neck, but can also be seen in armpits, over the knuckles, elbows (front and back), knees (front and back), soles of the feet, inner thighs (groin area), and skin folds in the abdomen and back. In most cases, the AN manifestations may appear like a dirty neck that can easily be evaluated by means of a visual examination. AN is associated with high levels of insulin and obesity.²⁰

When school personnel determine a child has the AN marker, they also ascertain the child's Body Mass Index (BMI) and blood pressure measurements. These data are reported to parents, who in turn seek clinical professional assistance. The ANTES program has designed a Web-based electronic system, the ANTES Risk Factor Electronic System (RFES). This System provides the school nurse with a printable referral form, and charts that include BMI and blood pressure calculated measures. It also provides the school nurse with a faster, easier, and organized way to input data and obtain results.

The ANTES program educates, trains and certifies school nurses to become proficient in conducting acanthosis nigricans screenings in Texas. The ANTES program has trained and certified over 5,000 school nurses to conduct AN screenings in over 6,500 schools in Texas. Children who are identified with risk factors for the development of type 2 diabetes (AN, overweight or at-risk of overweight, elevated blood pressure) are referred to health professionals for additional evaluation. Currently, the ANTES program is active in 11 Regional Education Service Centers and screens over 700,000 children. This program has also played a major role in assisting certain school districts in establishing School Health Advisory Councils (SHACs) and has provided technical expertise to school districts relating to competitive food products and vending machines.

The primary goals of ANTES for the next biennium is to expand to the ANTES Plus Program, where:

- BMI will be used as the primary screening tool to identify children who may be at-risk of developing type 2 diabetes. School nurses will collect heights and weights and use the ANTES Risk Factor Electronic System (RFES) to plot the BMI and interpret the results.
- In addition, children who have a body mass index in the 85 percentile and higher for the child's age will be screened for additional risk factors (AN, blood pressure)
- School nurses will refer children who are identified with these risk factors to seek clinical professional assistance.
- In order to accomplish these goals, the UTPA Border Health Office will train and certify school nurses to become proficient with the ANTES Plus screening requirements and provide training and technical assistance with the ANTES RFES in the current Educational Service Centers (ESCs) where the ANTES is mandated (Regions 1, 2, 3, 4, 10, 11, 13, 15, 18, 19, and 20)

To maintain this program under its new direction in the current public school districts and certain private schools, the ANTES Plus program seeks support to continue with its primary goals.

In addition to poverty, other factors appear to be influencing the increase of diabetes. An editorial in the American Medical Association Journal stated, "Coincidentally or not, the rise of obesity and type 2

¹⁹ Ibid.

²⁰ Ibid.

diabetes in the United States parallels the increase in sugar-sweetened soft drink consumption. Several studies have found an association between sugar-sweetened beverages and incidence of obesity in children. In one study, the odds ratio of becoming obese increased 1.6 times for each additional sugar-sweetened drink consumed every day. Increased diet soda consumption was negatively associated with childhood obesity."²¹

²¹ "Sugar-Sweetened Soft Drinks, Obesity, and Type 2 Diabetes," 2004 American Medical Association Editorial by Carolina M. Apovian, MD, August 25, 2004, page 978.

SCHOOL HEALTH ADVISORY COUNCILS

Senate Bill 1, Section 28.004 of the 75th Legislature directed school districts to establish local school health advisory councils to assist in ensuring that local community values and health issues are reflected in the districts' human sexuality instruction. State Representative Garnet F. Coleman, who helped pass the bill, wrote, "The true legislative intent of section 28.004 was to create local health education issues within the district and not just to define the parameters of sexuality instruction."²²

During the 77th legislative session, Senator Jane Nelson passed Senate Bill 19, removing the human sexuality component of Section 28.004 of the Education Code and directing the board of trustees of each school district to establish a local school health education advisory council for the district's health education instruction. The bill also allowed school districts to include a coordinated health education program designed to prevent obesity, cardiovascular disease, and type 2 diabetes through coordination of health education, physical education, nutritional services, parental involvement and instruction to prevent the use of tobacco.²³

In the publication, "Improving School Health: A Guide to School Health Councils," the American Cancer Society reports, "Researchers estimate that if everything known about the prevention of cancer were applied, up to two-thirds of cancers would not occur. Research also tells us that healthy behavior is based not only on knowledge, but on values, attitudes, and skills developed early in life. It is these formative years that offer parents, the community, and institutions a valuable opportunity to influence the development of healthy behaviors in children. The health of our children now and for a lifetime will not depend on spectacular medical breakthroughs, but rather on lifestyle choices they make. If we can provide our children with the knowledge and skills they need to make healthy lifestyle choices, we can dramatically reduce their risk of death, disease, and injury for a lifetime."²⁴

The publication continues that the "American Cancer Society believes that cancer prevention and control education provided throughout the country as part of comprehensive school health education will significantly reduce the risk of cancer for all Americans now and in the years to come. To achieve this, the American Cancer Society has identified comprehensive school health education as a cancer prevention priority."²⁵

Mr. Mike Hill, Associate Vice President for School and Youth Systems, testified to the committee that, "A School Health Advisory Council, or SHAC, is simply a group of individuals who represent segments of the community. In partnership with school personnel, they collectively provide advice and recommendations to local school boards regarding school health policies and programs. They are not part of the administrative structure of schools, nor do they have any legal responsibilities. Their role is to provide expert guidance to school boards as to how to best address issues around all eight components of school health:

²² Garnet Fl. Coleman, State Representative, District 147, January 28, 1997 letter.

²³ Jane Nelson, State Senator, District 12, Senate Bill 19, 2001.

²⁴ "Improving School Health: A Guide To School Health Councils," American Cancer Society, submitted as part of written testimony to the Committee on April 15, 2004, by Mike Hill.

²⁵ Ibid.

- Health instruction
- Health Services
- Staff wellness
- Family and community involvement
- Healthful school environment
- Physical education
- Food service
- School counseling.²⁶

Mr. Hill further contends that "Texas is a national leader above all other states in recognizing the importance of School Health Advisory Councils as the most effective vehicle for linking schools and communities as partners in meeting the health and education needs of students."²⁷

"Texas can proudly boast of legislators with the forethought and vision to recognize the value of establishing School Health Advisory Councils as a mechanism for facilitating local decision-making while at the same time directing communities to address the critical need for improved school health programming. Through legislation, the Texas Education Code mandates that every Independent School System must have a School Health Advisory Council," he adds.²⁸

"Because a basic principle of the Texas public education system is that of respecting local control as much as possible, it is absolutely necessary for there to be a structure for advising local school boards on school health issues. Equally as important, School Health Advisory Councils can help build strong community awareness and support for their local schools [through the following]:

- They provide a critical means of actively engaging parents and community leaders in supporting their local schools.
- They establish a true public/private partnership by ensuring that the needs and concerns of both schools and the community are met in a supportive and collaborative way.
- They ensure that there is ownership, buy-in, and shared responsibility by all parties."²⁹

"Unfortunately, although the Texas Legislature has provided direction to local schools by mandating local School Health Advisory Councils, much more remains to be accomplished if we are to realize the true potential for what School Health Advisory Councils can contribute to school health. Although progress is being made daily throughout the state, this committee must address some critical issues if we are serious about making real progress at the local level. It is estimated that only 52 percent of our school systems have a council. Of that, perhaps only 10 percent are actually functioning effectively."³⁰

Currently, there is no required reporting or means of ensuring accountability, unless legislation or rules are passed to accomplish this goal.

²⁶ Mike Hill, Associate Vice President for School and Youth Systems, American Cancer Society, Texas Division, and Chair of the Texas Action for Healthy Kids Alliance, Testimony submitted to the committee Thursday, April 15, 2004.

²⁷ Ibid

²⁸ Ibid

²⁹ Ibid.

³⁰ Ibid.

We should ensure that every school district in Texas has a fully functioning School Health Advisory Council (SHAC) to serve the needs of children. A SHAC can also establish a student mentor program, an idea of Senator Lucio's whereby a volunteer student who receives training and operates under adult supervision through the program mentors a student with health/obesity problems.

SCHOOL FOOD POLICIES

In March 2004, the Texas Department of Agriculture (TDA) issued the Texas Public School Nutrition Policy to promote a healthier environment in schools.³¹ The policy was implemented August 1, 2004, in "response to TDA's initiatives to improve the nutrition environments in schools..."³²

The National Food Service Management Institute asserted in a report stated that "school-aged children are in a time of rapid growth and development. Because of this period of growth, it is very important that they are provided nutritious meals to assist in meeting their physical, social, and emotional needs. Researchers have recognized that students who participate in the National School Lunch Program have better nutrient intakes than students who eat elsewhere, including students who bring lunch from home, eat from vending machines, or eat off campus. Additionally, a significant relationship between nutrition and a child's ability to learn has been established."³³

The report further noted, "However, environmental factors influence consumption of lunch. These factors include the placement of recess in relation to the lunch period and the amount of time children have to eat. In order for children to receive the nutritional benefits of the school lunch, they must be ready to eat and have adequate time to consume their meal. Elementary students who have lunch first and then have recess could anticipate recess and may not focus on eating."³⁴

"As a result, the students might not eat as much of their meal when compared to students who have recess before lunch. This may possibly result in more plate waste. It may also contribute to lack of energy in the afternoon, resulting in poor attention and an inability to learn. Elementary students also need to have adequate time to eat. There is concern among many school food service personnel, parents, teachers, and school administrators that the time often provided for students to eat is not adequate."³⁵

The National Food Service Management Institute (NFSMI), Division of Applied Research contracted with Central Washington University to explore the issues of reducing plate waste and improving consumption of lunch. Their findings included:

³¹ Susan Combs, Commissioner, Texas Department of Agriculture, Texas Public School Nutrition Policy, (Updated 6/1/04), Food and Nutrition Division.

³² Texas Public School Nutrition Policy, Texas Department of Agriculture, Effective August 1, 2004.

³³ *Insight*. A Publication for Child Nutrition Professionals from the National Food Service Management Institute, Spring 2004, "Relationships of Meal and Recess Schedules to Plate Waste in Elementary Schools," page 1.

³⁴ *Ibid*.

³⁵ *Ibid*.

STAT FACTS³⁶

When fed lunch after recess compared to lunch before recess, elementary students:

- Eat **24** percent more food by weight.
 - Waste **30** percent less food by weight.
 - Eat **8** percent more calories.
 - Consume **35** percent more calcium.
 - Consume **13** percent more vitamin A.
-

When the lunch period time is 30 minutes versus 20 minutes, elementary students

- Eat **21** percent more food by weight.
 - Waste **40** percent less food by weight.
 - Consume **16** percent more calories.
 - Consume **56** percent more calcium.
 - Consume **46** percent more vitamin A
-

Stricter policies that improve the quality of nutrition in public school food must be continually evaluated so that they meet the needs of the students. It is critical to examine factors that are essential to improved eating habits, such as plate waste and the correlation between recess and lunch periods, so that any policy regarding the preparation and type of food served in a school cafeteria closely incorporates these and other factors.³⁷

³⁶ Ibid

³⁷ Senator Eddie Lucio, Jr., Chairman, Joint Interim Committee on Nutrition and Health in Public Schools, 2004.

THE BUSINESS COMMUNITY

To assist families and schools in helping children improve their nutritional habits and access to healthier foods, the business community can be essential in achieving this goal. It will take the committed effort of all sectors of society to see that Texas public school children reach the highest level of health and fitness in the country.

For example, the following article from Kraft Foods illustrates the concerted effort of business to help children combat obesity and poor nutrition:

KRAFT FOODS

Kraft Foods Announces Innovations in Health and Wellness, and Convenience; Reaffirms Guidance

Executives Speak at Consumer Analyst Group of New York Conference

NORTHFIELD, IL, February 18, 2004 – In a presentation to the financial community today, Kraft Foods Inc. (NYSE: KFT), a global leader in branded foods and beverages, reviewed its recently announced Sustainable Growth Plan; previewed a number of new products in the key consumer growth areas of health and wellness, and convenience; and reaffirmed the company’s earnings guidance communicated in January.

Roger K. Deromedi, Kraft’s Chief Executive Officer, along with Lance Friedmann, Senior Vice President, Global Health & Wellness, and Doug Burns, Senior Vice President, Global Beverages Sector, presented the information at the annual Consumer Analyst Group of New York (CAGNY) Conference, held in Scottsdale, AZ.

In his remarks, Deromedi provided a brief overview of Kraft’s Sustainable Growth Plan and its four components: reinvesting in brand value, transforming the portfolio, expanding global scale, and driving out costs and assets. Today’s presentation focused primarily on the company’s plans to transform its portfolio, including initiatives to meet consumers’ increasing needs for health and wellness, and convenience products.

“The growing importance of health and wellness has significantly altered consumption and buying behaviors,” Deromedi said. “Low-carb diets, concerns about trans fat and obesity, and greater demand for organic and natural products are requiring a shift in what we market and how we market it.” Deromedi added, “The consumer need for convenience has always been a driving factor in the food industry. But as the pace of life quickens, consumer expectations continue to rise, whether it’s for ease of preparation, greater portability or the convenience of single-serve packages.

Health and Wellness Strategies and Opportunities

“One of Kraft’s strengths is a portfolio that delivers against a broad range of consumer choices,” said Lance Friedmann. “And, we will continue to use consumer insights as the primary drivers to develop more products and programs to address the growing interest in health and wellness.”

As part of its health and wellness strategies, Kraft is focusing on four key opportunity areas that meet consumer needs: Weight Management, Nutrient Delivery, Performance Nutrition, and Natural and Organic. In the first half of the year, the company is introducing a number of products in each of those areas. Examples include:

- Nabisco 100-calorie packs, a four-item line featuring the Wheat Thins, Chips Ahoy!, Cheese Nips and Oreo brands. These portion-control, single-serve products are thin, crisp snacks that are formulated to have three grams or less of fat, zero grams of trans fat and no cholesterol.
- Triscuit crackers with zero grams trans fat, the first in a series of biscuit products that will be reformulated to have zero grams or reduced levels of trans fat.
- Kraft CarbWell salad dressings and barbecue sauce, the first items in a new line of products for consumers interested in limiting their carbohydrate intake.
- Kool-Aid Jammers 10, made with real fruit juice, containing 100 percent of the daily value of vitamin C and only 10 calories per serving.
- Creme Savers Smoothies, a dairy beverage that combines unique flavor and calcium fortification technologies, is 98 percent fat free and has 25 percent of the daily value of calcium.
- Capri Sun Fruit Waves, 100 percent fruit juice drinks.
- Balance GoMix, a mix of snacking ingredients with 11 essential vitamins and minerals with twice the protein and one-third less fat than leading trail mixes.
- Back to Nature expansion into new categories in the natural and organic channels. Beyond the current offerings in cereal and granola, the company will add cookies, crackers, macaroni and cheese, and organic cheeses.

Coffee Convenience Growth Opportunities

Following Friedmann, Doug Burns discussed consumers’ need for convenience, specifically in the context of Kraft’s large global coffee business. “By combining quality coffee brands with new levels of convenience in markets around the world, we’ve developed a strong, \$4 billion coffee business with outstanding growth prospects,” Burns said.

In addition to a number of recent flavor and packaging innovations in Kraft’s coffee business, Burns announced a new, breakthrough on-demand, roast coffee system for use in the home that is unmatched in its combination of consumer choice, convenience and quality.

Later this year in France, the company will launch Tassimo, a proprietary hot beverage system that offers consumers a broad range of coffeehouse-quality beverages, including filter coffee, café crema, espresso, cappuccino, hot chocolate and tea, all at the touch of a button. Tassimo will leverage strong local brands, and in the lead market in France, the brands will be Carte Noire coffees, Suchard hot chocolate and Twinings tea.

Several elements of the Tassimo system make it unique. The combination of a product-specific Tassimo disc (T-Disc) and an integrated bar code reader in the Tassimo machine ensures that each drink is produced using the optimal water temperature and brewing conditions. Tassimo also uses a liquid milk disc that transforms a base espresso into a frothy cappuccino without the use of a steam wand. Finally, the T-Disc is engineered to accommodate the different drink sizes consumers demand around the world.

Kraft has numerous patents pending on this innovative system and developed the system together with experts in the field of small domestic appliances and coffee machines. The Tassimo machines will be manufactured by Saeco, the leading global manufacturer of espresso machines, and sold, distributed, serviced and promoted in close collaboration with Braun, a division of The Gillette Company and a worldwide leader in innovative, high quality domestic appliances.

Outlook

During the presentation, Deromedi reaffirmed the company's 2004 full-year and first quarter guidance and long-term outlook. Kraft's 2004 worldwide revenues are expected to grow around 3 percent on volume growth of 2 percent to 3 percent. Fully diluted earnings per share are projected at \$1.63-\$1.70 in 2004, including about \$0.30 per share for the charges associated with the company's recently announced restructuring program. The company is projecting discretionary cash flow (net cash provided by operating activities less capital expenditures) of \$2.8 billion for the year.

Deromedi also reaffirmed the company's long-term outlook of constant currency revenue growth – including tack-on acquisitions and excluding divestitures – in the 3 percent range, volume growth of 2 percent to 3 percent, and EPS growth of 6 percent to 9 percent per year.

Forward-Looking and Cautionary Statements

This press release contains projections of future results and other forward-looking statements that involve a number of risks and uncertainties and are made pursuant to the Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995. The following important factors could cause actual results and outcomes to differ materially from those contained in such forward-looking statements.

The Company is subject to unfavorable currency movements, intense competition, changes in consumer preferences and demand for its products, including consumer concerns regarding genetically modified organisms and the health implications of obesity and trans fatty acids, changing prices for raw materials, fluctuations in levels of customer inventories and the effects of foreign economies and local economic and market conditions. The Company's benefit expense is subject to the investment performance of pension plan assets, interest rates and cost increases for medical benefits offered to employees and retirees. The Company's results are dependent upon its continued ability to promote brand equity successfully; to anticipate and respond to new consumer trends; to develop new products and markets and to broaden brand portfolios; to compete effectively with lower-priced products in a consolidating environment at the retail and manufacturing levels; to improve productivity; to realize the cost savings and improved asset utilization contemplated by its restructuring program; to consummate and successfully integrate acquisitions; and other risks detailed from time to time in the Company's publicly filed documents.

The Company's results are also dependent upon its access to credit markets, its borrowing costs and its credit ratings, which may in turn be influenced by the credit ratings of Altria Group, Inc. The Company cautions that the foregoing list of important factors is not exclusive, any forward-looking statement included in this press release is made as of the date of this press release, and the Company does not undertake to update any forward-looking statement.³⁸

Below is another example submitted by Pepsico regarding its plans to help improve nutrition and combat obesity among children:

PEPSICO

Building a Healthy Kids School Environment

Overview

Obesity, especially among children, is a large and critically important public health threat that must be addressed comprehensively, drawing on the capabilities of both the public and private sectors. Ultimately it will take all constituencies working together to provide individuals with the education, access to good choices and motivation they need to help them develop healthy lifestyles.

Thinking About a Better Approach

Policy Principles and Background

All the evidence to-date suggests that improving child health requires a comprehensive approach that emphasizes development of both sustainable healthy eating habits and sustainable healthy activity habits.

- ◆ Secondary school kids are very much engaged in the larger world, where they are confronted with many eating choices and many entertaining ways to be inactive. The only effective policies will be those that help kids navigate that world by equipping them with the basic knowledge, choices and motivation to form healthy lifestyle habits. Background: Vending, in any location, accounts for 1 percent of total adolescent calories consumed. 8 percent of total calories are consumed in schools; 11 percent in stores/other away-from-home; 19 percent in restaurants/fast foods; and 60 percent at home. Source: Barry Popkins, University of North Carolina
- ◆ Sustainable healthy lifestyles always include good habits on both sides of the energy balance equation and a balanced diet that emphasizes healthy foods but includes room for treats and indulgences. Background: National Weight Loss Register studies of “successful losers” from Jim Hill, University of Colorado Health Sciences Center, and Founder of America on the Move.
- ◆ Physical fitness is even more important than weight in maintaining overall health and academic performance. Any comprehensive solution must make provisions for helping kids form healthier fitness habits as well as eating habits. Background: Steve Blair, Cooper Institute
- ◆ To be effective, help must be made available to kids and parents at a practical, grass roots level. Healthy habits can’t be mandated or prescribed. Background: Governor Huckabee, State of Arkansas. *Time* Editors, *Time/ABC News* Obesity Summit.

³⁸ Altria Corporate Services, Inc., a service organization providing the parent company, Altria Group, Inc. and its operating companies, including Kraft Foods, Inc., with professional services.

To be effective, policies must work to create a total school environment that helps kids achieve energy balance and fosters healthier behavior—i.e. consistent messages across classrooms, cafeterias and gyms; an emphasis on fun ways to eat healthier and fun ways to be more active. That kind of environment is most important in elementary schools, where kids are first forming habits and where the environment can be more consistent. Background: CATCH (Comprehensive Approach to Total Child Health), Elementary Curriculum, University of California;

Successful behavior change must emphasize the positive and motivational. Restriction and negative messaging won't motivate change. The emphasis must be on providing attractive alternatives – fun ways to eat better and fun ways to be more active—and on messages that provide encouragement and emotional support. Food and recreation companies can play an important role by providing healthier choices and by marketing those choices to kids in ways that motivate them to adopt healthier lifestyles. Background: Clinical experience of preventive medicine experts like Dr. Dean Ornish, Dr. Ken Cooper, Dr. Jim Hill, Dr. Pamela Peeke.

Kids can be agents of social change in families. Studies indicate that kids have often been the catalyst for changing family habits (e.g. seatbelt usage and recycling). If we can equip kids with the knowledge, choices and motivation to make healthier choices, they can be empowered to equip their families. Background: Study of Social Change Initiatives, Jim Hill.³⁹

The following is a third example of private business leaning toward healthier food products that can be considered by public schools for their vending machines:

SNACK ESSENTIALS

Snack Essentials Is Single-Source Supplier For Wellness-Oriented Products

AUSTIN, TX — Snack Essentials is helping vending operators find their way through a growing market for better-for-you options by supplying a diverse portfolio of healthier snack and beverage choices, while providing the education operators need to determine the items best suited for their customers.

The company also provides prominent point-of-sale educational materials that define the parameters of several healthy vending categories in order to help end-users make informed purchasing decisions.

“Besides providing vending operators with proven, healthy items and helping them navigate a new and quickly growing area for them, our main emphasis is providing the necessary education for the consumer,” explained Alvaro Garza, principal of Snack Essentials. “Knowing whether the product in the machine meets patrons’ dietary concerns makes the difference between whether or not they’re going to buy it.

“Through educating customers, we’re working with vending operators to change the bad rap associated with the image of a vending machine,” Garza said. He objects to the perception that, if one wants quality products, one does not look for them in vending machines.

³⁹ Submitted by Mignon McGarry, Government Affairs Consultant, PepsiCo, Article by Brock Leach.

“I am also actively lobbying for schools not to pull vending machines because they don’t want kids eating ‘junk’ food, but to get new, better products in them,” the Snack Essentials executive said.

The company serves as a one-stop source for brand name, market-tested, health-oriented products, serving as a broker to the vending industry for the largest distributor of health foods in the U.S. Vending operators anywhere in the country receive product within two days of placing their order.

Snack Essentials’ carefully-planned menu of products addresses consumers’ desires for low-carbohydrate, organic, high fiber, calorie-conscious and sports-oriented snacks and beverages, including nutrition bars, protein cookies, soy chips, enhanced waters, organic sodas, sparkling fruit beverages, soy beverages, diabetic-friendly options, vitamin supplements and more.

Snack Essentials’ “educational system,” consisting of point-of-sale nutritional information for the consumer, includes its “Nutri-Snacks” program and school-specific “Snacking 101,” both of which identify the various healthy snack and drink categories featured in the machine with a static-cling transparency, to help consumers select the exact snack to suit their needs at the point of sale before they make the purchase. Customers can obtain additional information about which products to choose by reading cards with detailed product information in a holder on each machine. Shelf markers indicate the category into which each specific health-focused product fits.

According to Garza, the purpose of the prominent signage is to help customers make the best choice to fit their dietary needs or wants by answering the questions, “Which one is best for me? Which one of these products is low carb? Which one is best eaten before a workout? Which one most effective after a workout? Which of my choices are lowest in calories? Are any of these safe for a diabetic to eat?”

The “Nutri-Snacks” program details the criteria for snacks that qualify as Calorie Conscious, Low-Carb (with an explanation of net carbs), Meal Replacement, 40-30-30, High Fiber, Organic, Soy Protein and Sports Snacks, broken down into Pre-Workout, Post-Workout Optimal and Post Workout Low-Carb.

For schools, “Snacking 101” provides the same information, but defines the categories most relevant to kids, including Low Carb, Organic, Calorie Conscious and Meal Replacement. Snack Essentials’ “Nutri-Snacks” and “Snacking 101” educational programs easily are implemented in existing machines, with no need for the vending operator to switch out product or meet rigid purchasing criteria.

“The program is set up to be as flexible as possible for the vendor. The fact that ‘Snickers’ will sell out of a vending machine until eternity is not a bad thing; it has been and always will be a favorite of customers and it’s the bread and butter for operators. We’re not asking operators to get rid of their top-selling candies and chips,” emphasized Garza. “We have no issues with operators deciding what’s in their machines. Operators can have our point-of-sale material on a machine and offer one, two, three or four items that adhere to the program. It doesn’t all have to be ‘healthy’ – it’s just that someone who wants a healthy option can now find it when they walk up to that operator’s vending machine.”

Prior to launching Snack Essentials, Garza owned two health food stores, amassing eight years’ experience in the health food industry. “I know the ins and outs of the industry, the manufacturers and the distribution,” he said.

“I’ve catalogued all the items ideal for vending and made them location- and diet-specific, to take away all the guesswork for the vending operator,” Garza told VT. “I know what the best-sellers are in the health food market, and can get them into operators’ hands, saving them the trouble of going to multiple sources for ‘healthy’ products.”

To get started with Snack Essentials’ healthy vending program, operators register with the company to receive a user name and password. Their first use of these is to download a licensing agreement from the Snack Essentials website – snackessentials.com – which is available as an Adobe PDF form to print, sign and return by fax to Snack Essentials. This allows the operator to use the point-of-sale educational materials and to order products.

The registrant can then access the “Products and Pricing” section at the website to place orders. Snack Essentials facilitates the ordering process by matching the location type – such as middle school, high school, health club, hospital, airport or workplace – with the most appropriate product types. Orders are shipped directly to the operator.

Once the operator signs the licensing agreement and places an initial order, Snack Essentials sends free marketing materials for either “Nutri-Snacks” or school-specific “Snacking 101.” Included in the marketing packets are static clings for machines, information cards for consumers and plastic holders for the cards. Point-of-sale materials direct consumers to the company’s websites, which provides more in-depth nutritional information about the different healthy snack categories and products featured in the vending machines.

Snack Essentials provides vendors with stickers bearing the abbreviation of each product type, for use as channel markers to flag the appropriate drink and snack selections. The only cost to operators who participate in Snack Essentials’ program is the purchase price of the products.

Garza emphasized that especially appealing target locations are already focused on health and fitness, and include schools, colleges and universities, health clubs, spas, wellness clinics, parks, military bases, hospitals and nursing homes, medical and nursing schools, rehabilitation centers and corporate fitness centers and break areas.⁴⁰

⁴⁰ Submitted by Alvaro Garza, President, Founder, Snackessentials, Austin, Texas, article from Vending Times, p. 14, 2004, <http://www.vendingtimes.com>.

NOT-FOR-PROFIT PROGRAMS

With the growing concern about obesity and the dangerous health conditions it causes, insurance companies are seeing the need for awareness and prevention outreach to individuals, families and communities. Rather than incur the expenses that treating obesity would entail, these companies are focusing their attention on prevention. Preventing obesity and its related illnesses is not only more cost effective, it is more effective in maintaining a healthy population over the long term.

FIT TOGETHER – NORTH CAROLINA

In North Carolina, the state's General Assembly created the North Carolina Health and Wellness Trust Fund as one of three entities to invest North Carolina's portion of the Tobacco Master Settlement Agreement. The Trust Fund receives one fourth of the state's tobacco settlement funds, which are paid in annual installments over a 25-year period. With this state-created funding mechanism in place, the state is free to direct monies to partnerships with the goal of promoting healthy lifestyles among the population.

Because of this availability of funds, Blue Cross-Blue Shield is teaming up with the North Carolina Health and Wellness Trust Fund to raise awareness about the dangers of an unhealthy weight. They have launched "Fit Together," a statewide television and web site campaign for use by communities, families and individuals to promote healthy weight and exercise.

Mike Arnold, Research Director, Study Committee on Childhood Obesity, NC Health and Wellness Trust Fund shared the following information:

"Fit Together is unique in its emphasis on both individual and community action to prevent obesity and in the way it connects individuals to local resources. Reflecting this approach, the new Web site, www.FitTogetherNC.org, features:

- A step-by-step roadmap on how individuals can make positive changes in their cities and towns based on success stories from other NC communities working to prevent obesity and promote healthy lifestyles.
- Information on local resources such as fitness programs, exercise facilities and counseling on nutrition and healthcare.
- An easy way for individuals to assess their health and that of their family.

Fit Together, a 3 year public-private partnership between the NC Health and Wellness Trust Fund (HWTF) and Blue Cross and Blue Shield of North Carolina (BCBSNC), also unveiled new TV, print, radio and Internet ads as well as the results of a statewide poll.

The ads spotlight local North Carolina programs successfully taking a community approach to better health. These programs offer lessons for other communities that want to promote healthy lifestyles. The programs featured in the ad campaign (and on the Web site) include:

- New Hanover County, where physical education is a priority again in public schools.
- Robeson County, where church groups help people shop smart and eat right.

- The Triangle, where employers use wellness programs to help improve the bottom line.
- Salisbury, where new sidewalks offer residents more opportunities for physical activity.
- Asheville, where the WNC Farmers Market offers healthy eating choices.

'Overweight and obesity is estimated to cost NC taxpayers over \$2 billion annually in preventable health care costs,' said Lt. Gov. Beverly Perdue, HWTF chair. 'Obesity prevention requires both a role for individuals and a role for the community. Our new Web site provides valuable tools for both. I believe Fit Together's Web site will inspire and equip communities across North Carolina to learn from each other by sharing success stories and lessons learned, so that we can all get fit together.'⁴¹

DIAMOND SHAMROCK GO!KIDS CHALLENGE

Another program of interest is the Diamond Shamrock Go!Kids Challenge, which focuses on San Antonio area children and encourages them to become healthier through activity and education. The San Antonio Sports Foundation, a nonprofit organization founded in 1984, created the Diamond Shamrock Go!Kids Challenge™ as a positive step toward combating childhood obesity and inactivity. The Sports Foundation believes it should play a leadership role in promoting healthy habits for the citizens of our community.

It is designed to promote healthy habits for San Antonio children through routine activity and education. In its second year, the Go!Kids Challenge™ will be implemented in all San Antonio school districts as well as Boerne and New Braunfels school districts. It will involve more than 150,000 children. It will be conducted from September 29, 2004 through December 5, 2004.

Each participating child will receive a Diamond Shamrock Go!Kids Challenge™ journal and will be encouraged to walk one-half mile every day for a total of 26.2 miles - the distance of a marathon. They can walk at school, in their neighborhoods, or at designated Go!Kids community walking sites - anywhere they can safely log their miles. They're encouraged to involve their friends and families in the Go!Kids Challenge and serve as role models of good health.

As the children accomplish their mileage, they will be able to redeem healthy incentives from Go!Kids sponsors. They will also be encouraged to participate in Go!Kids Challenge special events that will reward them for their efforts. At the culmination of the Diamond Shamrock Go!Kids Challenge™, those who have successfully completed their mileage will be invited to attend the Subway Victory Lap Celebration at the Alamodome on Sunday, December 5, 2004.

There, they will walk a final victory lap and be awarded a medal and t-shirt. The children and their families will enjoy a festive atmosphere with entertainment and giveaways from the sponsors.⁴²

⁴¹ Mike Arnold, Research Director, Study Committee on Childhood Obesity, NC Health and Wellness Trust Fund. Email link to press release for Fit Together. 2004.

⁴² Mary Ullmann Japhet, Associate Executive Director, External Affairs, San Antonio Sports Foundation, link to press release for the Diamond Shamrock Go!Kids Challenge, 2004.

RECOMMENDATIONS

OBESITY AWARENESS AND PREVENTION

Support continuation of the School Physical Activity & Nutrition (SPAN) project, designed to collect data on prevalence of overweight among Texas school children.

Incorporate Body Mass Indexing during other already scheduled vision and hearing screenings.

Implement a statewide or targeted public awareness campaign to improve consumer health, including smaller portions of food, to clinically define obesity and state its adverse consequences, spread steps individuals and families can take to reverse this trend, and educate Texans on the importance of proper diet, nutrition and physical activity in the prevention and management of obesity.

Recognize and monitor changes in obesity-associated risk factors for adult chronic disease, such as hypertension, dyslipidemia, hyperinsulinemia, impaired glucose tolerance, and symptoms of obstructive sleep apnea syndrome.

Continue funding ANTES diabetes risk-factor detection program in the University of Texas Pan American Border Health Office and determine the feasibility of expanding to additional schools.

Encourage the school health advisory councils, parents, teachers, coaches and others who influence youth, to discuss health habits, as opposed to body type, as part of their efforts to control overweight and obesity.

Encourage public and private sources to direct funding toward research into effective strategies to prevent overweight and obesity and to maximize limited family and community resources to achieve healthful outcomes for youth.

EDUCATION AND OUTREACH

Educate children so that they have the knowledge and skills necessary for making healthy choices in food and lifestyles.

Encourage healthy eating habits through campus marketing and advertising and by encouraging teachers and staff to model healthy behaviors.

Establish an incentive program, such as REACH (Recognizing Extraordinary Achievement in Children's Health), for schools that have developed outstanding programs that focus on and promote the importance of physical education and healthy living.

Encourage programs that allow schools, and kids, to be at the center of fostering healthier lifestyles in families.

Encourage school districts to partner with not-for-profits to create health and fitness programs for children with the goal of reducing obesity and improving health among school-age children.

NUTRITION AND HEALTHY EATING

Encourage schools to provide more fruits and vegetables.

Encourage the replacement of foods and drinks of low nutritional value with foods and drinks of documented nutritional value in promoting good nutrition policy at all grade levels at all schools in Texas.

Continue to evaluate compliance and accountability concerning the new requirements to replace foods and drinks of minimal nutritional value with foods and drinks of documented value in promoting good nutrition at all grade levels at all public schools in Texas.

Continue to limit vending products to healthy choices and restrict sales during lunch time in all public schools.

Continue to encourage school food services to provide more fresh fruits and vegetables, more complex carbohydrates (less processed grain-containing foods), which will provide more fiber and raise the nutrient content.

Continue to improve the menu choices in schools through TDA's nutrition policy.

Create menus that are more attractive to students.

Encourage schools to have adequate time and space provided for students to eat school meals.

Encourage the availability of water throughout the day.

Encourage provision of healthy food choices when foods are sold at concessions.

Continue to require schools to offer a low-fat meal choice and a minimum of three milk choices during school meals, and continue to monitor schools to ensure compliance with USDA Child Nutrition meal patterns.

Encourage schools to set portion sizes for single-serve items sold to students.

Encourage lunch periods to be at least 30 minutes.

Encourage parents and caregivers to promote healthy eating patterns by offering nutritious snacks, such as vegetables and fruits, low-fat dairy foods and whole grains.

Encourage children's autonomy in self-regulation of food intake and setting appropriate limits on choices.

Encourage more healthy food choices for competitive foods.

Expand farm to school programs to include all Texas schools, if feasible.

Encourage school cafeterias to examine their "offer v. serve" option for young students.

Encourage food and beverage contracts to include healthy food choices.

Direct Texas Department of Agriculture to continue to post on the Internet and develop fliers and posters as funds are available for schools regarding best times for schools and families to purchase specific fruits and vegetables according to season and availability in each school district's area, taking prices per pound into consideration.

Work with WIC programs or other related programs in the public or private sectors to help elevate the nutrition knowledge of the mothers of preschool children in our state.

Encourage ESCs to provide school food service programs with access to a registered dietician or person with public health experience if funded.

Consider creating a mechanism for keeping nutrition standards updated, and for staying consistent with scientific consensus—e.g. FDA standards of identity for healthy/reduced and/or National Academy of Sciences Authoritative Statements.

NUTRITION POLICY

Establish and fund a statewide workgroup or committee that mirrors the purpose, goals and membership of the Joint Committee on Nutrition and Health in Public Schools.

Explore opportunities to implement programs and policies on the importance of proper nutrition and health nutritional choices for children starting at an early age.

Encourage non-food rewards and incentives.

Attempt to make school meal programs self-supporting.

Support current Texas Department of Agriculture guidelines and support continued changes that improve the school nutrition environment and support the Texas School Nutrition Policy as implemented.

Ensure that the Texas Department of Agriculture continues to post list of types of healthy foods for vending machines and competitive foods.

Continue to maintain and update all postings on agency web site and on publications it produces on school food policy.

Use fundraising activities and rewards that support student health.

Expand Breakfast Program by providing breakfast at no cost to all children in Texas.

The Child Nutrition and WIC Reauthorization Act of 2004 authorizes five states to eliminate the reduced price school meal program, and expand the free meal program. Through the Child Nutrition and WIC Reauthorization Act of 2004, Texas should seek to eliminate the reduced price school menu program and expand the free meal program.

Develop a comprehensive policy approach to creating a healthy school environment that includes emphasizing healthier eating and activity choices across all aspects of the school environment.

Encourage partnerships between local supermarkets and school districts for the purpose of creating a donation-match program to fund a Universal Breakfast/Lunch program for the students of the local district.

PHYSICAL FITNESS

Assess barriers to the development of coordinated school health programs as required by SB 19, including goals for nutrition education and daily physical activity, in each grade level in every public school district in Texas.

Encourage compliance with SB 19 (77th Legislature) and SB 1357 (78th Legislature) by school districts regarding the formation of active school health advisory committees, implementation of the required physical activity periods, and the adoption of coordinated school health curricula.

Encourage schools to schedule physical education in all grades so students can engage in physical activity either every day or every other day.

Assess the physical fitness of every student at regular intervals.

Provide incentives to communities to encourage physical activities.

Promote physical education that emphasizes fun physical activities that can become part of sustainable habits.

SCHOOL HEALTH ADVISORY COUNCILS

Encourage School Health Advisory Councils to make presentations to parents via PTAs and PTOs of healthier lifestyles to reduce risk of developing certain forms of cancers at least once during each school year.

Provide quality technical support and guidance in implementing coordinated school health programs and effective school health advisory councils.

Encourage appropriate information exchange between the School Health Advisory Council and school district leadership.

INSURANCE

Work with physicians and insurers to require the use of diagnosis codes for obesity and/or diabetes when filing insurance claims for obese patients if and when the patient's obesity and/or diabetes may be a contributing factor to the patient's medical condition that is being treated.

Require health insurance carriers to provide coverage and include counseling for overweight and obese people, including school-age children, based on a treating physician's recommendations and on guidelines developed by the Texas Department of Insurance.

Promote partnerships with insurance companies and state and local entities to raise awareness about the dangers of an unhealthy weight and equip families and individuals with tools to address this serious health concern.



Committees:

HEALTH AND HUMAN SERVICES, CHAIR
FINANCE
INTERNATIONAL RELATIONS & TRADE
STATE AFFAIRS

SUNSET ADVISORY COMMISSION, CHAIR

P.O. BOX 12068
CAPITOL BUILDING
AUSTIN, TEXAS 78711
512/463-0112
FAX: 512/463-0923
DIAL 711 FOR RELAY CALLS

DISTRICT OFFICE
1235 S. MAIN STREET, SUITE 280
GRAPEVINE, TEXAS 76051
817/424-3446
FAX: 817/488-6648

E-MAIL: jane.nelson@senate.state.tx.us

The Senate of the State of Texas

Jane Nelson

Senate District 12

December 20, 2004

The Honorable Eddie Lucio
Chair, Joint Committee on
Nutrition and Health in Public Schools
P.O. Box 12068
Austin, Texas 78711

Dear Senator Lucio:

Thank you for your leadership as Chair of the Joint Interim Committee on Nutrition and Health in Public Schools. One of my top health priorities has been and continues to be addressing the growing obesity problem faced by our state's children, and I share your commitment to proper nutrition in schools as an integral component of that effort. Toward that end, I am pleased to offer my signature.

However, I do remain concerned over some of the Joint Interim Committee recommendations. As you cite in the Committee's transmittal letter, the Legislature is likely to face a budget shortfall in the 79th Legislative Session. As such, I am worried about the costs associated with assessing the physical fitness of every student at regular intervals, especially if this involves a medical component, and adding another health insurance mandate that will pass the cost of counseling for overweight and obese people on to employers. Moreover, I am troubled by recommendations that could encroach on local control, such as expansion of breakfast programs at no cost to all children in Texas public schools.

Notwithstanding these concerns, I look forward to continuing to work together to use the resources available to us to improve nutrition and health in our public schools.

Very truly yours,

A handwritten signature in cursive script that reads "Jane".

Senator Jane Nelson

HOUSE OF REPRESENTATIVES



CAPITOL OFFICE:
P.O. BOX 2910
AUSTIN, TX 78768-2910
(512) 463-0690
FAX: (512) 477-5770

22.508 CAPITOL
EXTENSION

DISTRICT OFFICE:
1256 MAIN STREET, SUITE 248
SOUTHLAKE, TX 76092-7624
(817) 488-4088
FAX: (817) 488-4088
SOUTHLAKE TOWN SQUARE

VICKI TRUITT
DISTRICT 98

December 15, 2004

The Honorable Eddie Lucio, Jr.
Post Office Box 12068
Austin, Texas 78711

Dear Chairman Lucio:

On Friday December 10th my staff received a second draft of the Joint Interim Committee on Nutrition and Health in Public Schools. I appreciate the continued efforts put forth by the various staffs involved in this important work. This second draft eliminates a number of obvious problems that needed correction from the first draft, as well as reduces much of the redundancy and overlap in many of the original list of recommendations.

Still, a number of the concerns I had about the first draft (communicated to you in my letter dated December 3rd) are still of concern with the second draft. They are:

1. Each recommendation should clearly articulate, with as much specificity as possible, who is accountable for the implementation of the recommendation.
2. If a recommendation's implementation requires additional funding (regardless of whether it would start a new program or be an addition to an existing program), then the ideal source for the additional funding needs to be identified, along with some statement as to the process needed to secure that funding.
3. Each recommendation needs to include some statement about its goal. To the extent possible, the goal should be measurable, along with some sense of how much time and resource will be required to achieve the goal.
4. The people and organizations we would rely on for implementation of our recommendations need the opportunity to have input into the development of the recommendations. Absent this opportunity, we will undoubtedly incur unnecessary misunderstandings of, and perhaps even ill-will toward our recommendations.

CHAIRMAN:
BUDGET AND OVERSIGHT, HOUSE COMMITTEE ON PUBLIC HEALTH
MEMBER:
HOUSE COMMITTEE ON APPROPRIATIONS
HOUSE COMMITTEE ON CALENDARS
HOUSE SELECT COMMITTEE ON STATE HEALTH CARE EXPENDITURES
SUNSET ADVISORY COMMISSION

5. Recommendations that begin with the word "encourage" need to suggest how we would propose such encouragement would be created. Are we proposing financial incentives, public recognition of exceptional efforts, public information campaigns, or some combination of these? Further, specifically who is intended to do the encouraging, and who is intended to be the recipient of the encouragement should also be stated?
6. Any recommendations that will rely on Federal funding should be identified as such, along with some proposed strategies for the acquisition of those funds.
7. I continue to be concerned with recommendations that would inappropriately expand the scope of responsibility for the independent school districts beyond that of educating and caring for our children.

Mr. Chairman, once again I want to emphasize my ardent support for the goals that are implicit in this report. It is because I share your concern for the health and nutrition of our fellow citizens and our children that I feel it is so important to find a way to make our recommendations effective. My staff and I are available to further assist in this process if we can be helpful producing the most actionable recommendations possible.

Sincerely,



Vicki Truitt
State Representative

cc: Members, Joint Interim Committee on Nutrition and Health in Public Schools



JODIE LAUBENBERG
TEXAS HOUSE OF REPRESENTATIVES

December 20, 2004

The Honorable Eddie Lucio, Jr.
P.O. Box 12068
Austin, Texas 78711

Dear Chairman Lucio,

I appreciate your work on the Joint Interim Committee on Nutrition and Health in Public Schools draft report. This is an important issue involving the school children of Texas and deserves the attention it has received.

On December 10, I received a second draft of the Joint Interim Committee report. This second draft addressed many of the format problems I had with the initial report. However, many of the problems that I had with the initial report continue to be unresolved in this draft.

The report reflects a desire to take the state in a direction in which I do not agree. The state, through Independent School Districts, has a responsibility to educate the children of Texas. This draft report appears to expand this scope of responsibility.

Regrettably, I will not be able to sign the Joint Interim Committee Report in its current form. As a member of the select committee charged with investigating the health and nutrition needs of the school children of Texas, I feel compelled to find a solution to this problem. Because of this, I am available to further discuss the proposals contained in this report.

Sincerely,

A handwritten signature in cursive script that reads "Jodie Laubenberg".

Jodie Laubenberg
State Representative
District 89

cc: Members, Joint Interim Committee on Nutrition and Health in Public Schools

COMMITTEES: CHAIR, PUBLIC HEALTH, LOCAL GOVERNMENT WAYS AND MEANS

P.O. Box 2910 - AUSTIN, TX 78768-2910 - TEL: 512-463-0186 - FAX: 512-473-8391
EMAIL: JODIE.LAUBENBERG@HOUSE.STATE.TX.US



Brownsville Independent School District

Food & Nutrition Service

1888 E. Price Road Brownsville, TX 78521
Office (956) 548-8450 Fax (956) 982-2898



DORA RIVAS, MS, RD, LD, SFNS
Administrator for Food & Nutrition Service

December 15, 2004

Senator Eddie Lucio, Jr.,

Your efforts on the Joint Committee for School Health and Nutrition have been admirable. It has been an honor to serve on the committee and be able to offer advice regarding the great concern of childhood obesity and how we help improve the school health environment for our children.

A great amount of thought and consideration went into the Report from the Committee and it is apparent that there will be no quick fix. Many of the recommendations will surely help improve the health of our children.

RECOMMENDATIONS:

NUTRITION AND HEALTHY EATING:

We should continue to limit vending products to healthy choices and restrict sales during **meal** times in all public schools rather than just lunch times.

Correct spelling of "dietitian".

NUTRITION POLICY

In order for school meal programs to become self-supporting, it is imperative that competition be eliminated. School Food Service Directors see participation and revenues drop when organizations and campus vending competes during mealtimes.

I was very glad to see efforts to support expansion of school meals through seeking to eliminate reduced priced meals. This is a step toward expanding access to healthier meals to school children. We should also continue to explore how to make Provision II easier to implement in school districts.

Thank you for the opportunity to serve on the committee. There are no quick solutions but I am confident that working in partnership we will continue to move forward in improving the school nutrition environment for our children and ultimately impact on their health in a positive way.

Sincerely,

Dora Rivas, M.S.,R.D.

"The Brownsville Independent School District is an Equal Opportunity Employer, M/W/D/V"