

## The School-Lunch Test

By [LISA BELKIN](#)

Published: August 20, 2006

It was not yet 11 a.m. at the Partin Settlement Elementary School in Kissimmee, Fla., on a sunny day last October. But lunch service necessarily begins early when there are 838 children to feed, and the meal was already well under way. Danielle Hollar walked calmly amid the lunchroom chaos, holding a large, raw, uncut sweet potato in one hand and a tray filled with tiny cups of puréed sweet potatoes in the other. That Hollar does not get frazzled even among hundreds of jabbering children is one of the talents she brings to her job. That she is tall and blond and slim, and many of the students seem to have school-kid crushes on her, is another.

“This is a sweet potato,” she said, as she stopped at each table and gave each child a purée sample. “It has a lot of vitamin A and C and B6. Have you ever seen one of these?” Most of the children had not. “It’s like a regular potato, but it’s orange inside,” she said, which got their attention. “It has a lot more vitamins than a white potato.”

Angelina wanted to know why there were no marshmallows on top. Angel put down his lemon pie, tried the sweet potatoes and announced he preferred the pie. Mateo, however, was making a meal of what his classmates eyed so suspiciously. Collecting the cups of everyone around him, he ate a dozen of the tablespoon-size portions before a teacher cut him off.

“It’s sweet, which is why it’s called a sweet potato, but it’s also good for you,” Hollar said, as she moved from table to table, sounding one exclamation point short of a sales pitch. Eager as she was to get the children to taste what she offered, though, she pointedly refused to compare this vegetable to candy.

“I don’t like sweet potatoes,” said Jessica, who is in the second grade.

“Have you ever tried one?” Hollar asked.

“No,” Jessica said, making it clear she would stick with her Lunchables nachos and her Capri Sun drink, which she took out of her Mickey Mouse lunchbox.

Hollar and her sweet potatoes were wandering the lunchroom courtesy of the Agatston Research Foundation, founded in 2004 by Dr. Arthur Agatston, creator of the South Beach Diet. Having tackled the eating habits of obese adults, Agatston has turned his attention to children. A cardiologist who considers himself a scientist and who just happened to become a wealthy minicelebrity, Agatston is using the cafeterias of the Osceola County School District as a clinical laboratory. There are 19 elementary schools in the district, and the Agatston Foundation started by taking control of the menus at 4 of them, all within Kissimmee. They are testing whether a plan he calls HOPS — Healthier Options for Public Schoolchildren — can measurably affect children’s health.

“The success of the book gave me a bully pulpit and an opportunity to change the way Americans eat,” Agatston told me not long ago. “One of the obvious places to start is with children. And that means schools.”

By any health measure, today's children are in crisis. Seventeen percent of American children are overweight, and increasing numbers of children are developing high blood pressure, high cholesterol and Type 2 diabetes, which, until a few years ago, was a condition seen almost only in adults. The obesity rate of adolescents has tripled since 1980 and shows no sign of slowing down. Today's children have the dubious honor of belonging to the first cohort in history that may have a lower life expectancy than their parents. The Centers for Disease Control and Prevention has predicted that 30 to 40 percent of today's children will have diabetes in their lifetimes if current trends continue.

The only good news is that as these stark statistics have piled up, so have the resources being spent to improve school food. Throw a dart at a map and you will find a school district scrambling to fill its students with things that are low fat and high fiber.

In rural Arkansas, a program known as HOPE (Healthy Options for People through Extension) seeks to make nutrition a part of the math, science and reading curriculums. At the Promise Academy in Harlem, all meals served in the cafeteria are cooked from scratch, and the menu (heavily subsidized by private donations) now includes dishes like turkey lasagna with a side of fresh zucchini. In Santa Monica, Calif., there is a salad bar at every school in the district, with produce brought in from the local farmer's market. At Grady High School, outside Atlanta, the student body president, a vegetarian, persuaded the company that runs the cafeteria to provide tofu stir fry, veggie burgers and hummus. In Irvington, N.Y., a group of committed parents established No Junk Food Week last March, where all unhealthy food was removed from the cafeteria and replaced with offerings from a local chef called Sushi Mike and donations from a nearby Trader Joe's. At the Hatch Elementary School in Half Moon Bay, Calif., children learn songs like "Dirt Made My Lunch" and then taste fruits and vegetables they have grown in their own garden.

School lunch (and actually, breakfast, because schools that provide free and reduced-cost lunches must also provide breakfast) is now a most popular cause. Any number of groups, from the W.K. Kellogg Foundation and Kaiser Permanente (they both underwrite many of the above programs) to the William J. Clinton Foundation (it brokered an agreement among soft-drink manufacturers to stop selling soda in elementary and middle schools) have gotten in on the act.

But there is one big shadow over all this healthy enthusiasm: no one can prove that it works. For all the menus being defatted, salad bars made organic and vending machines being banned, no one can prove that changes in school lunches will make our children lose weight. True, studies show that students who exercise more and have healthier diets learn better and fidget less, and that alone would be a worthwhile goal. But if the main reason for overhauling the cafeteria is to reverse the epidemic of obesity and the lifelong health problems that result, then shouldn't we be able to prove we are doing what we set out to do?

The smattering of controlled prevention studies in the scientific literature have decidedly mixed findings. "There just isn't definitive proof," says Benjamin Caballero, the principal investigator on the largest study, of 1,704 students over three years in the 1990's, which showed no change in the body-mass index of those whose schools had spent \$20 million changing their menus, exercise programs and nutritional education. A second study, of more than 5,000 students undertaken at about the same time, came to similar conclusions. "There are a few smaller studies with more promising results," Caballero went on to say, "but right now we can't scientifically say that all the things that should work — by that I mean improving diet, classroom nutrition education, physical activity, parental involvement — actually do work."

And yet districts keep trying. Until recently, most were spurred by determined parents or energetic administrators, but now they have a Congressional incentive, too. This coming school year is the first

when schools receiving federal lunch subsidies will have to create a wellness plan — a detailed strategy for how nutrition will be provided and taught. In addition, the actual nutrition requirements set by the government for school meals are expected to become more rigorous this coming spring, on the heels of the revised “food pyramid.”

Agatston’s HOPS program is but one example of the scramble to create systems that are replicable and economical enough to meet these demands and to prove, while doing so, that they have a measurable effect on children’s health. As such, the year I spent observing the successes and the setbacks of this particular experiment is a window into why it is so hard to do something that seems so straightforward and simple — feed school children better food.

How can we feed our children more healthfully in school?

In taking on this challenge, the Agatston team weighed and measured thousands of children at the start of the last school year, then weighed and measured them again in June. In the months in between, they wrestled with finicky eaters, reluctant administrators, hostile parents and uncooperative suppliers. So there was a lot riding on Hollar every time she presented a tray of sweet potatoes, or broccoli served with dabs of reduced-fat ranch dressing, or tiny cups of salsa. Would this bring schools closer to a solution? Or was it just another false start?

The reason that children are currently too fat is, in part, because they used to be too thin. During World War II, potential enlistees were regularly turned away because they were undernourished, and after the war the director of the Selective Service System declared malnutrition to be a national emergency. One result was the National School Lunch Act, signed by President Harry S. Truman in 1946, guaranteeing a hot lunch for every schoolchild who could not afford one.

Another result was also a complex web of regulations and restrictions, overseen by the United States Department of Agriculture. These rules have morphed and grown over the decades, adding free and reduced-cost breakfast during the Lyndon Johnson years; being pared back during the Reagan Administration, which, memorably, was lampooned for proposing that ketchup be declared a vegetable; and stressing nutrition under the Clinton Administration, which set a limit on fat at 30 percent of calories in a weekly menu (though, rules or no, the national average has never fallen below 34 percent for lunches).

Tweaks aside, the twofold effects of the School Lunch Act are much the same now as 60 years ago. First, the act put the government in the school-food-supply business, buying surplus product from farmers and sending it along to the schools. Twenty percent of the foods served in school cafeterias today are Agriculture Department commodities, which include everything the federal government buys a lot of and needs to pass along, from flour and sugar to fruits and vegetables. While the quality has improved somewhat in recent years, terms like farm-fresh and organic rarely apply. At the same time, the act put schools in the restaurant business, requiring that their lunchrooms manage to at least break even, reimbursing them between 23 cents and \$2.40 a meal. It is a system in which pennies are necessarily looked at as closely as sodium content, perhaps even more.

Agatston knew next to nothing about the arcane intricacies of the system two years ago, other than that he wanted to do something about school lunch. As it happened, a lot of his cardiac patients worked as teachers, and for years he had heard about classroomwide sugar highs after lunch and

children who seem to expand from year to year. He hired Hollar, whose background was not in nutrition or school food systems — she has a Ph.D. in public administration and policy — and teamed her with Marie Almon, a registered dietician who had worked with him for 20 years and created nearly all of the recipes for the original South Beach Diet book. She also had no experience in schools.

“Looking back, we were unprepared for the complexities,” Almon said this summer, reflecting on the prior two years. “But maybe that turned out to be best, because I might have been overwhelmed if I had known.”

In the spring of 2004, Almon, Hollar and Agatston set out to find a school district that would welcome their experiment. They wanted one with a relatively poor population, where a good portion of the children receive free or reduced-cost lunches (and breakfasts), where the food provided at school served the purpose originally intended under the law — to be the most nutritious meals a child had all day. And they wanted a place where the parents were less likely to have the economic or organizational clout to make change happen on their own.

The Osceola County School District met many of these requirements. The school-age population in the four chosen elementary schools — the first stage of the program would include only kindergarten through sixth grade on the theory that like language, teaching nutrition to younger children would have a higher “stick” rate — is 42.6 percent Hispanic, 41.3 percent white but not Hispanic and the rest divided among other ethnic groups. At these four schools — Partin Settlement Elementary, Mill Creek Elementary, Kissimmee Charter Academy and P.M. Wells Charter Academy — many students are from homeless families. Fifty-five percent qualify for free or reduced-cost meals. “We have kids who go shopping in the gas station across from the homeless shelter or who live in the Howard Johnson’s,” says Eileen Smith, Partin Settlement’s principal. “They are not going to get anything fresh.”

The Agatston group presented its proposal to the leadership of the Osceola district during the summer of 2004. The plan included changing the food served in the cafeteria; creating small gardens at each school to allow children to get their hands dirty; providing teachers with guides for incorporating nutrition lessons into Florida’s existing curriculum — inserting them into math class or social studies, for instance — so that the schools would stay on track in terms of their teaching schedule; and providing special programs, whether food tastings or creative assemblies, to reinforce the message.

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Jean Palmore, the director of food services in Osceola, was at that meeting and was impressed by what she heard. “It sounded like it was workable; it sounded simple,” Palmore says. She liked the fact that two other Kissimmee elementary schools would be set aside as control schools, so that there would be a way to compare her standard menu, the one that would remain in effect at all the other schools in the district, with the HOPS revisions. She was particularly pleased that the foundation would reimburse the district for any costs over what was already budgeted for food. And she added a requirement — that HOPS also reimburse Osceola if the “participation rate” of students decreased to the point that the cafeterias could not break even. In other words, if the students refused the healthier food, Palmore would still meet her \$19.5 million budget.

A contract was signed in July 2004. School opened in August. Instead of spending the first year learning and planning — which, in retrospect, might have been a good idea — the team jumped in and ran right into the realities of school nutrition.

For instance, nearly all the food for the coming school year had been ordered months earlier. Commodities, which can be had free from the government, must be requested as early as March, and those orders, once approved, cannot be changed. (Which does not mean, however, that the

government cannot change its mind about what it sends, just that schools cannot change their requests. The summer before Hollar and Almon arrived, for example, a year's supply of puréed prunes simply showed up at the Osceola warehouse. Federal law says that commodities must be used — they cannot be sold or thrown out or even given away — and Palmore's staff spent a few months experimenting with baking recipes that used prunes in place of butter or oil.)

In turn, all noncommodity orders, both to huge companies like U.S. Foodservice and Sysco and to smaller regional producers, had been finalized the previous May. A year of menus based on those orders had already been set by Palmore. And because Osceola is part of a 24-county consortium of school districts, which join together to negotiate better prices, there was even less flexibility than there might otherwise have been.

All this would have to be undone, worked around or tweaked by the Agatston team. It declared that the first year — August 2004 through June 2005 — would be a trial year to see whether healthier food could actually be identified and served. The first step was to ban white bread and Tater Tots, replacing them with whole-wheat bread and sweet-potato fries. Other favorites, like turkey with gravy or pork with gravy, went too. There was “almost a mutiny,” Almon says, when she took away Lucky Charms and Fruit Loops at breakfast, replacing them with Total and Raisin Bran.

At first the children responded as Palmore predicted they would — they threw out their school-supplied food and started to bring lunch from home. For a brief time, the participation rate went down by 50 percent, but it did not stay there long enough to activate the reimbursement clause Palmore put in the contract.

Over the course of the rest of the trial year, Almon and Hollar kept replacing and limiting things. No more ketchup. Lower-fat hot dogs. Unbreaded chicken patties. Some of these changes were made possible through shuffling — changing those orders that could be changed at the last minute and moving cans and boxes of nonreturnable food around. “Since the HOPS schools weren't allowed the Tater Tots, we sent them to the other schools, who were more than happy to trade them for their commodity cans of sweet potatoes,” says Palmore, who admits to a personal dislike of sweet potatoes.

Some changes were made by spending Agatston foundation money. During the first year, the supplemental costs paid by Agatston were about \$2,500 a month, and they reflected facts like these: a white hamburger bun costs 7 cents, while a whole-wheat hamburger bun costs 11 cents; pizza with a white refined-flour crust costs 31 cents a serving, while pizza with a whole-wheat crust costs 35 cents; a white sandwich wrap costs 23 cents, while a whole-wheat sandwich wrap costs 26 cents; breaded chicken strips are a mere 18 cents a serving, while grilled chicken strips are a whopping 65 cents.

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In addition to shuffling and spending, there was compromising. Those sweet-potato fries that replaced the Tater Tots? They were commercially cut and frozen, then baked in school ovens, rather than cut fresh from actual potatoes, a step the kitchen staff was simply not set up to do. And the sweet-potato purée that Hollar handed out in the lunchroom? The vanilla was artificial, because “that's what was stocked on the shelves,” Almon says. And liquid margarine — made with soybean oil — and some sugar were used, because, Almon says, “if they don't eat it, what have we accomplished?”

In the end, there were also changes that simply weren't made, particularly during that first year. “We started out not adhering to the dictate of the HOPS programs to the letter,” Palmore says. The most striking (and contentious) example of this compromise was cheese.

Almon modified existing recipes with low-fat cheese. Palmore and her school kitchen managers were

adamant that they could not get a low-fat version from any of their usual suppliers. Almon kept insisting and eventually was told that in fact a low-fat product had been found and was being used, though at added cost — the lower-fat version costs 5.6 cents a slice while the higher-fat one is 1.6 cents. But Hollar paid an unannounced visit to the kitchens one day in spring 2005 and found that at least on that occasion the old cheese product — something Almon calls “full fat” and Palmore calls “whole milk” — was being used instead.

An assumption is something you don’t realize you’ve made until someone else states a conflicting one. The HOPS vision of a healthy school lunch is based on an assumption that became clearer as the trial year gave way to the full program. Specifically, it is a vision based on the system as it exists, with large vendors supplying packaged items that are essentially assembled and reheated (rather than created or cooked).

Listening to Almon talk about evolving food products at the yearly School Nutrition Association meeting in Los Angeles this year makes that clear: “The difference between what was available two years ago and what is available this year is a world of difference,” she says. “Everybody is making cookies with whole grains. Pretzels with whole grains. The breakfast burritos, the tortillas, everything is whole grain. Even the French toast.” She and Hollar were particularly pleased that Smuckers, which has long made something called Uncrustables — premade peanut-butter-and-jelly sandwiches with the crust already removed — now markets a version with transfat-free peanut butter (though Almon wishes it came on whole-wheat bread).

This comfort with premade food products is a legacy of the South Beach Diet, which, though full of recipes that start from scratch, is also not shy about steering dieters to Paul Newman’s Own Lighten Up Italian salad dressing or Kraft’s entire line of South Beach branded snacks. “Things can be nutritious and come from a package,” Almon says. “It depends what’s in the package, not the fact that there is a package.”

Part of the decision to rely on such foods is simply logistical. School lunchrooms are no longer set up to actually cook but rather to reheat — hence the Kissimmee staff’s inability to slice sweet potatoes by hand.

Just as big a reason for this reliance on packaged foods, however, is what Palmore calls “the acceptance question.” In other words, what are children willing to eat? It is no coincidence that school cafeteria menus (and the children’s menus at restaurants, for that matter) are virtually identical. Pasta. Chicken nuggets. Pizza. Hamburger. French fries. The task of tackling those expectations can feel overwhelming at best.

“Children are so conditioned to these items — the hamburgers, the cheeseburgers, the pizza,” Almon says. “To make a healthier version of familiar things makes sense.”

however. Across the country, in Berkeley, the chef Ann Cooper questions the idea of making healthier versions of flawed foods. In her book “Lunch Lessons: Changing the Way We Feed Our Children,” she asks whether healthy food should simply mirror existing unhealthy patterns and concludes: “We just don’t need an organic Twinkie. We don’t!”

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Cooper, who spent years impressively overhauling the menu at the select Ross School in East Hampton, N.Y., began trying to do the same thing at the 16 schools in the Berkeley public school district starting last October. Her six-figure salary is being paid by the Chez Panisse Foundation, which also finances, in Berkeley, Martin Luther King Jr. Middle School’s Edible Schoolyard kitchen

garden, a creation of Alice Waters, who all but started the organic food movement in the United States 30 years ago.

It is a common assumption that the existence of programs like the Edible Schoolyard means that Berkeley students already eat well, but when Cooper arrived last fall, the district's menu looked like menus everywhere with their fried and fatty foods. One item that Cooper makes particularly merciless fun of is the Uncrustables sandwich — the same one that caught Almon's eye. She thawed one and kept it on display on a desk where, because of its preservatives, "it looked exactly the same months later," she said while giving a tour of a high-school lunchroom.

In the time since she came aboard, a salad bar has been added to every school, with ingredients that include strawberries, organic chicken or turkey, sunflower seeds, fresh avocado and other eclectic in-season items in addition to the usual lettuce, tomato and cucumber. Ninety-five percent of the food was processed when she arrived, she says, and now 90 percent is fresh and cooked from scratch. And those foods are not what one would expect on a school menu, including choices like chicken cacciatore, organic sushi and organic chicken raised on a nearby farm. The foods she does not make on the premises, foods like fresh tamales and muffins and vegetable calzones, are brought in from small local businesses.

Even here, however, the "acceptance question" arises. When Cooper first removed nachos from the middle-school menu, the percentage of students buying lunch in the cafeteria dropped significantly. Cooper quickly restored the nachos, using transfat-free chips and Cheddar cheese — from an area cheesemaker, not an industrial processor — the equivalent, she concedes, of an organic Twinkie. And she did not even try to change the pizza her first year. "I just can't take everything away," she says. "Or they will walk out.

"Change is never easy. And if it's hard for us, imagine how hard it would be in Oklahoma or Omaha."

Or Osceola. The Agatston team is fully aware that its goals are less ambitious than those in Berkeley, but that is an inevitable difference between the two districts, Hollar says. Whereas 55 percent of Osceola's students receive free or reduced-cost lunches, only 41 percent of Berkeley students do. And while Osceola charges \$1.50 to those who pay full price at the elementary school, Berkeley charges \$2.50. And then there is another, immeasurable but distinct difference — the parents. Children are not the only ones who bring expectations to food, and Almon says, "I just think there is a different culture around eating healthy in California than there is here, and we have to account for that."

In fact, she and Hollar have come to believe that the greatest resistance to nutritional change comes not from the children but from the grown-ups, starting with the very administrators who invited HOPS in. Palmore, for instance, was ambivalent from the start about much of the suggested change. She told a CBS News reporter, on the air, that she would prefer the whole-wheat rolls if they had gravy. She made a notable "yuck" face in one conversation she and I had about sweet potatoes, and she expected rebellion or worse if they were served to the students. "I was surprised that they were eating the sweet-potato fries," she said a few months after they appeared in place of Tater Tots on the menu. "That is not a child-friendly food. I was surprised they ate the brown bread." And she made that same face again.

Many among the rest of the staff (and among the general population, one might add) also seem to have complex relationships with food. To walk through any of the HOPS schools is to be struck by the fact that there are few adult role models when it comes to good nutrition and exercise. Several teachers approached Almon during the year and asked her if she would lead a group that wanted to start on the South Beach Diet. But while many attended the first meeting, far fewer made it to the

second or any of the monthly meetings after that.

Nor are staff members the only ones with food issues. Some parents wondered why their children were being put on the South Beach Diet. (“It’s not a diet,” Agatston says of HOPS. “It’s just healthy food.”) Others expressed concern that the new way of eating would be liked too much by their children. After the schoolwide assembly to introduce the full program last September, one frantic parent called to report that her child was refusing to eat anything in the house that was not healthy. “I can’t afford to throw everything away,” the mother said. “Please tell her to eat.”

And even parents who say they enthusiastically endorse better food in schools often play the role of saboteurs. One January afternoon, two girls, both in the fourth grade, sat outside at Kissimmee Charter, each having a McDonald’s hamburger, French fries and a shake. Inside, the rest of the students were eating turkey burgers on whole-wheat buns. The girls had to dine in the garden because junk food is banned from the school. Sitting with them while they ate was the person who supplied the lunch — the mother of one of the girls.

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“This is a treat,” she said. Her daughter had made honor roll, and this was the reward. “I don’t see why they should have to be out here away from everyone,” she continued. “What’s the harm in a treat now and then?”

Schools have internal cultures, and the ratio of enthusiasm to resistance varied from one to another. In some, the teachers used the materials and nutrition books Hollar sent; in others, they remained in boxes. In some, children actually stood up to move and stretch in the middle of a lesson; in others, the punishment for being noisy during gym class was sitting absolutely still on the floor. At Partin Settlement, there was usually a dish of candy for sale for some fund-raiser or another on the counter in the school office. At Kissimmee Charter, parents still sold Chick-fil-A biscuits (with gravy) in the parking lot every Wednesday to raise money for the Parent Teacher Organization. And once each marking period, honor-roll students are still given a coupon for a free hamburger, soda and small fries at McDonald’s — which is where the fourth grader’s mother got the idea of bringing in that lunch in the first place.

JoAnn Kandrac, who was the Kissimmee Charter principal during the last school year, is conflicted about the mixed messages. After all, she was the one who exiled fast food to the garden where the two girls were eating. But she has found tidy ways of rationalizing both. “You have to pick your battles,” she told me last winter. The biscuits “make quite a bit of money for the P.T.O., and they aren’t selling them to the children as much as to other parents who don’t have time for breakfast.”

As for the coupons, she says, sounding a lot like Chef Cooper defending pizza’s place on the menu: “I can’t pull everything away from the children. McDonald’s treats have been a tradition here forever. It’s naïve to think children don’t know about treats at a fast-food restaurant. Modern times call for modern methods. This is educating our children that they can make smart choices at places like McDonald’s.”

On a balmy day in January, the cafeteria was filled at 8:45 a.m. On the stage in front of the room, Michelle Lombardo, as energetic as any of the kindergartners in the front rows, was telling a story about characters known as the Organwise Guys, with names like Sir Rebrum and Hardy Heart. Lombardo, an independent consultant whose appearances are frequently financed by a grant from the Kellogg foundation, takes this act on the road throughout the country and was spending two days in

Kissimmee. Soon she had the children chanting, “Low fat, high fiber, lots of water, exercise,” accompanied by moves that looked a lot like the Macarena. The floor was shaking so much that the LCD projector wobbled.

“This is a free radical,” she continued, clicking a drawing of an obvious bad guy onto the screen. “When you put a lot of fruits and vegetables in your body, they gang up on the bad guy and kick him out.” Then she introduced Peri Stolic, a smiling, animated bit of intestine. “She likes to be big and fluffy and filled with fruits and vegetables,” she said, “because she’s like a tube of toothpaste, and when she’s fluffy, it’s easier to squeeze the garbage out.”

During the trial year, it became clear that new food cannot simply appear on the lunch tray. Children must be taught about nutrition outside the lunchroom if they are to eat what is offered inside. That is why Lombardo and her Organwise characters began making regular visits to the HOPS schools and why Hollar circulated among tables introducing the Food of the Month.

In September it was broccoli. In October, sweet potatoes and apples. November, corn and cranberries. December meant tomatoes, and Almon asked the kitchen managers to order salsa, not realizing it was already part of the commodities stockpile. The managers, in turn, thought Almon’s request meant she did not approve of the fructose in the salsa that was already on hand and scrambled to purchase a different salsa. Almon, when she finally realized the confusion and read the labels, felt the commodity salsa would do, because fructose was the fifth ingredient, not one of the first four. But then she tasted the stuff, decided the commodity salsa was far too spicy for children and asked that it be cut with commodity canned tomatoes.

Small glitches and refinements continued into spring. The team and the district were still squabbling, for instance over the price of cheese, and Agatston was still paying the difference between the higher-fat version that the school would have purchased and the lower-fat version that the HOPS menu required. They were paying for other items, too (whole-wheat versions of standard refined-wheat products, for instance), but the cheese was particularly expensive and one of the primary reasons the HOPS reimbursement had jumped to \$3,700 a month (from \$2,500 during the trial year). Hollar had researched a method, known as “processing,” that she felt could reduce the costs of cheese. The term is somewhat misleading, because it is not the cheese that is being processed. It is the bookkeeping. The school gives its credit for its allotted amount of whole-milk cheese to a producer, in this case Land O’Lakes, which in turn ships the low-fat kind to Osceola. But a change of this magnitude requires approval, which by March Hollar had still not been able to get.

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Also in the spring, Hollar decided not to send new materials to many of the teachers who had received the original educational packets — things like curriculum suggestions, posters for the students to color. Too many were never used, she learned, and when she sent a questionnaire to the staff asking why, she was told that “they did not have time, did not want to take on additional teaching requirements, needed to focus on insuring that their kids passed the mandated state tests,” she says.

There was also the complication that state regulators at the Florida Education Department had questions about the program. A parent complained to that department that a child was being put on the South Beach Diet at school, leading to an audit of the school menus. The breakfast being served at the HOPS-intervention schools (and interestingly, at the control schools) was found to be under the state’s requirement of 554 calories. “It is almost impossible to get that many calories into a meal without too much fat and sugar,” Almon says. “The regs need to change, not the food.” The issue is still under discussion.

Despite the mixed results, the HOPS team is hopeful that real progress has been made and that the biggest fight — to make it a given that school lunch should be healthy — has been won. This is an increasingly common theme in conversations with healthy-lunch advocates throughout the country, who compare changing views of school lunch to public opinion on smoking. The same act has taken on different social meanings over the past few decades as the context around the act changes.

Cooper, too, is cautiously optimistic. “I think we are starting to see a movement,” she says. “We’re on the cusp of something.” The spate of obesity studies plus the diabetes data plus the new Congressional wellness plan requirements just might mean that a healthy school lunch will finally become the norm.

Lombardo ended her January program by asking the children to recite a pledge. “I do solemnly swear,” they repeated, “to be healthier, to eat low fat, to eat high fiber, to drink lots of water and get lots of exercise.”

Hollar added, under her breath, “And to stop bringing Lunchables to school.”

For a solid week last May, children lined up in the lobby of the Partin Settlement Elementary School, as they did at all the HOPS schools, waiting their turn to be weighed and measured. The youngest children stepped onto the scale happily and shared the number they saw with their classmates. The older children already knew that the number was loaded. They took off their shoes and their jewelry and excess clothing. They told their friends to stand away.

As they went from station to station, a tape measure was wrapped around their waists, they had their blood pressures taken, they were asked whether they played outside the day before or played video games after school, whether they brought their lunches or bought them.

Despite years of lunchroom changes at schools throughout the country, only now have advocates realized that they need to buckle down and get the facts. It just may not be enough to say, as Alice Waters does: “This is something right as rain. These kids like this; they are engaged in this. Why can’t every child have this? Anybody who sees it, gets it.”

It is not even enough to prove, as at the Ross School, that changing the menus means children eat better lunches. (Cooper’s menu doubled the consumption of fruits and vegetables compared with both the national average and control groups. And 80 percent of the parents changed the way they shopped, cooked or ate, thanks to the input from their children.)

What is needed — to persuade donors and school boards and government entities that better food is worth the cost — is hard proof that improving the lunchroom actually improves children’s health. “We have to measure, to document what we’re doing and evaluate its results,” says Carina Wong, executive director of the Chez Panisse Foundation, which, with financing from the Rodale Institute, is embarking on a three-year study of the health of children in the Berkeley programs. The Center for Ecoliteracy, together with the Children’s Hospital Oakland Research Institute, is studying them too, pricking their fingers and measuring their blood-sugar levels.

How can we feed our children more healthfully in school?

Agatston understands both the need for and the risk of measurement. There is always the chance that the results will not confirm what practitioners are certain is true. After all, studies have so far failed to make a definitive link. “We don’t have these children 24 hours a day,” says Caballero, who did some of the studies. “They go home, they go out with friends, they are off all summer and everything about the world — fast food, video games, television ads, everything — conspires to undo even the best things that happen in schools.”

Similarly, the data from the first year of HOPS was inconclusive. The program did reduce the fat served in the intervention schools by 20 percent, reduced saturated fat by 26 percent and increased fiber twofold. But after that first year, there was no sign that the “overweight” rate among the children had fallen.

Those results did not keep the Agatston team from proceeding with a second year of HOPS or from expanding the program at the start of the school year that began in Florida last week. HOPS is still in place in Kissimmee — but this year it is being run and paid for by the school district directly. Almon and Hollar are merely advisers. The cheese will be “processed” through the commodities program and Land O’Lakes. Two more schools will adopt the HOPS menu. Palmore has increased the price of lunch — to \$1.75 from \$1.50 in the elementary schools — and expects to cut some corners. Last year’s whole-wheat chicken nuggets, she says, were, at 41 cents a serving, simply too expensive, so the schools will instead serve a compromise like grilled chicken patties (about 34 cents). The Agatston team is also bringing HOPS to 9,000 more students in the Miami-Dade County School District and intends to expand beyond Florida next year.

Just this month, Hollar received an analysis of the data from the past school year that hints that HOPS is really working. The overweight rate in the HOPS schools in fact declined during the 2005-6 school year: specifically, 23 of the 486 children who had been characterized as overweight when school began were characterized as merely “at risk” or “normal” when school ended. In the control schools, by contrast, there was no decline and three children actually gained enough weight that they were added to the overweight category.

Hollar describes these results as “cautiously exciting” and warns that the sample size is small and that a true trend cannot be determined for at least five years. Agatston, in turn, says that even if the results had been otherwise, that would not have been a reason to abandon the program.

“If the data don’t show what we want to see,” he says, “we aren’t going to throw up our hands and say, ‘Let them eat what they want.’ All that will mean is that we aren’t doing this as well as we can, so we will have to find a way to do it better.”