

# The Food Safety Educator

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## Focus Groups Shed Light on Consumers' Food Safety Knowledge

According to new focus group research conducted for the USDA's Food Safety and Inspection Service (FSIS), consumers' knowledge and use of safe handling practices for meat and poultry are increasing.

The focus group research with consumers was part of a multi-year evaluation of the agency's programs.

Susan Conley, director of food safety education for FSIS, observed several of the focus group sessions. "People are more aware of pathogens, more aware of dangers. They have confidence in themselves and in the food supply. They feel they know how to handle food. This is a new and different attitude. They are sure of themselves and sure of the food—even when they are sometimes wrong," she said.

Based on those knowledge gaps, the report had some significant recommendations for future education efforts. For instance:

- Additional education efforts are needed concerning prompt refrigeration of leftovers. Many participants cool leftovers to room temperature before refrigerating, instead of refrigerating immediately.

- Promote thermometer use: Researchers recommended continuing efforts like the Thermy™ campaign to encourage thermometer use, noting "Even those who own a thermometer do not always use it."

- Reevaluate the safe handling label found on packages of raw meat and poultry. Researchers found that people are familiar with the label but no longer pay attention to it.

- Target pregnant women. About 75 percent of participants did not identify pregnant women as being at increased risk for foodborne illness.

The focus group research involved 67 participants in four cities: Raleigh, NC; San Antonio, TX; San Diego, CA; and Annapolis, MD.

The groups were made up of people representing young parents, young adults, seniors, and the general population.

Participants were tested about their food safety knowledge and practices prior to the focus group discussions.

During the focus group discussions they were asked about their knowledge of and reaction to a variety of food safety messages,

including the safe handling label and the four key messages under the Fight BAC!™ campaign: clean, separate, cook and chill.

"The research is so helpful," said Conley. "We can see that we've made progress. People are aware of the basics. But we can also see where there are gaps—understand where people have more to learn."

According to Conley, FSIS will use the research to help structure new educational programs and refine future food safety messages.

"Educating consumers is a process. You develop educational programs, you put them out there. Then you refine them and improve them, building on the new knowledge bases that you've helped to create," Conley said.

The report is titled "Focus Group Studies of Food Safety Messages and Delivery Mechanisms." To read a summary, go to: <http://www.fsis.usda.gov/oa/research/research.htm>

For a related article see page 7, "The Gap: What We Say, What We Do." •

# USDA Officials Call for End to Workplace Violence

On June 21, 2000, three public servants were killed in the line of duty: two compliance officers with the U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS) and a California health inspector.

Jean Hillery and Thomas Quadros were FSIS Compliance Officers and William Shaline worked for the California Department of Food and Agriculture. The three were working together investigating a sausage factory for food safety violations.

They were murdered at the sausage plant, the Santos Linguisa Factory in San Leandro, CA. The plant owner was charged in the murders.

At a memorial service in Washington, D.C. in August, Deputy Secretary Rominger said, "We all acknowledge the senselessness of this crime. We all deplore the violence that has come to characterize American society.

"But we must ask ourselves, what are we doing to defuse the powder kegs that seem to be growing all around us?"

"How is each of us promoting peace, not on an international level, but in our neighborhoods, schools, communities, and, of course, our workplaces?"

Rominger noted that "Tom, Jean and Bill were just doing their jobs, the jobs the American people asked them to do.

"Jean Hillery, Tom Quadros and Bill Shaline did the people's work. It is the efforts of these three people—and the thousands of others like them—that ensure the safety of the food we serve to our families....



Jean Hillery



Thomas Quadros

"We would be remiss if we simply chalked this deplorable violence up to the insane deeds of one gunman without looking at the conditions that lead to such irrational acts."

Rominger said that at an all-employee meeting in California after the shooting, employees were asked how many people were verbally abused in the course of their work.

Almost all of the 150 employees raised their hands, Rominger said.

Employees were then asked how many had been threatened. About 40% raised their hands.

Finally, employees were asked how many had been physically attacked. Approximately 15 people—10% of the employees—raised their hands.

"People can't be afraid of doing their jobs," Rominger said. "We need to recognize that all of us have a stake in this system working."

Like Rominger, FSIS Administrator Thomas Billy stressed that "it's clear that we need a culture

change....The best way I can think of to honor Jean and Tom's memory is to make this commitment to a culture change, and with respect to how we handle conflict, and to make it stick....

"We can change our work environment, we must change it, and we will change it. That will be the legacy of Jean Hillery and Tom Quadros." •

## Resources

- To access an FSIS "memorial" web page, go to: <http://www.fsis.usda.gov/oa/topics/memorial.htm>
- The U.S. Department of Agriculture's workplace violence web site: <http://www.usda.gov/da/workviolence.htm>
- Domestic Violence Hot Line: 800-799-7233
- Imminent Danger: 911



# ■ The Food Safety Tool for Science Teachers

Meet Dr. X, a crusading food scientist, dedicated to wiping out foodborne illness where ever he finds it!

Dr. X has agreed to help a high school student named Tracy who's developing a video about food safety. Together, they go on location to explore the world of food science in "Dr. X's secret laboratory," as well as real-world laboratories throughout the U.S.

Tracy and Dr. X are the lead characters in a new video and supplementary curriculum developed by the Food and Drug Administration (FDA) and the National Science Teachers Association (NSTA).

Called "Science and Our Food Supply," the curriculum was designed for middle and high school students along with a professional development program for science teachers.

## **A "unique science curriculum":**

"For kids, the program has everything. It gives them a chance to go behind the scenes to discover what real scientists across the country are doing to make food safer and what consumers can do to reduce their risk of foodborne illness," says Laura Fox, project coordinator for FDA.

"For teachers, this curriculum does what other programs can't. It provides them with a unique science curriculum that meets National Science Education Standards—and in areas that are sometimes hard to cover, such as science and technology and science and social policy."

Not only that—the curriculum is action packed, it's graphic, it's fun, it's science at its best.

The video and teacher guides for middle and high school students are

broken down into five modules:

- understanding bacteria,
- the farm,
- processing/transportation,
- retail/home, and
- outbreak investigation/future technology.

Each module in the teaching guides is packed with more than a dozen lab experiments and classroom activities.

"The great thing about the modules," explains Fox, "is that teachers can pick and choose the area they want to cover. Teachers will discover that the curriculum does two things at once: it's fun and it's rigorous science."

The curriculum package also includes an 88-page "A-Z Guide." And we mean A-Z. This resource includes:

- frequently asked questions, including the four "C's" —Clean, Combat cross contamination, Cook, and Chill;
- a Food Chart, listing bacteria associated with different foods, how people become ill, and special handling requirements;
- 16 profiles of food science professionals with their "how-I-came-to-this-field" stories, and
- a pullout chart for posting in classrooms showing the path food takes from the farm to family tables.

## **The professional development program:**

"It's not enough just to have a great curriculum, you need to provide teachers with the chance to know everything they need to know to teach it," Fox says.



In the summer of 2000, 50 science teachers from across the country came to Washington, D.C. for a 1-week workshop sponsored by FDA as part of the professional development program.

Participants were briefed by national experts on new research that may help prevent future outbreaks. Topics included innovations in the science of food technology, production, transportation, storage and preparation.

Workshop participants in turn, returned home and during the 2000-2001 school year are presenting follow-up workshops to other science teachers in their regions.

FDA and NSTA will be distributing copies of the curriculum to middle and high school teachers.

For updates on the curriculum check the web site: <http://www.foodsafety.gov> •

# FoodNet Follow-Up

FoodNet is a foodborne illness surveillance system operating in eight sentinel sites throughout the country, covering nearly 10 percent of the population.

The program is a collaborative project among the eight sites, the Centers for Disease Control and Prevention (CDC), the USDA's Food Safety and Inspection Service, and the Food and Drug Administration.

In operation since 1996, FoodNet is providing more stable and accurate national estimates of foodborne disease through active surveillance and case studies.

In addition to monitoring incidences of disease, FoodNet is also studying food consumption and behaviors that contribute to illness.

A wealth of information from FoodNet is available through the

CDC web site: <http://www.cdc.gov/ncidod/dbmd/foodnet>.

Through the web site, readers can access annual reports, publications and abstracts and *FoodNet News*, their quarterly newsletter (previously called *The Catchment*).

To help readers access the information being produced by FoodNet, *The Food Safety Educator* will periodically highlight FoodNet findings.

## FoodNet Findings:

As shown by the chart (FoodNet Annual Report, 1999, pg. 11), children under the age of 1 have dramatically increased rates of foodborne illness, as measured by incidents of *Campylobacter* and *Salmonella* infections.

Why is that? What does this mean for food safety educators?

According to FoodNet Coordinator Malinda Kennedy, a special task force was set up this year to study the high rate of illness among infants and children under 5.

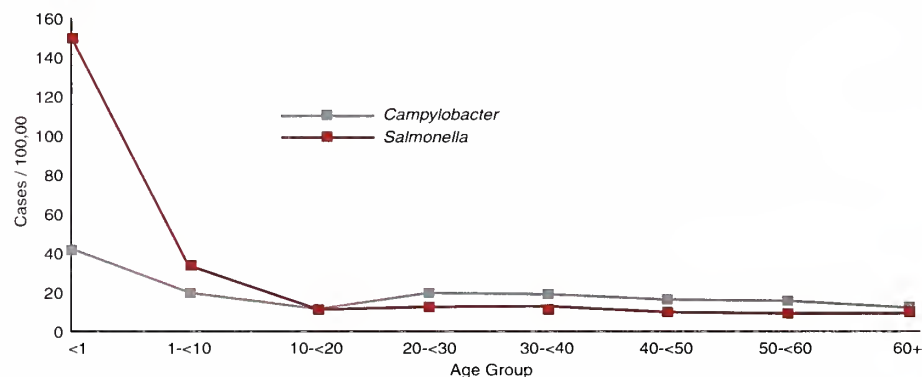
"We know this is a problem and we want to understand it better.

"But we do know some things now. We know that children are more susceptible and it takes a lower dose of bacteria to make them sick. And a child may get more seriously ill than an adult would.

"We also know there are some behavioral reasons. Very young children are crawling around on the floor, putting things in their mouths, so they have a greater chance of being exposed to germs.

"We also see high rates of illness for children because children are brought to the doctor more often when they're sick. Parents are more

Incidence of *Campylobacter* and *Salmonella* infections by age group, FoodNet sites, 1999.



concerned when their 1-year-old is sick than when they are sick themselves."

But Kennedy says there are things educators can stress now to try to help cut the rate of infant illness.

"Parents and caregivers need to pay particular attention to handwashing, especially after changing diapers. For example, it's important to always wash your hands any time you're going to handle the baby's bottle or breast-feed," Kennedy advised.

Kennedy also pointed out that touching pets, especially reptiles, and then fixing the baby's bottle could increase chances of illness like *Salmonella*.

Concern about the spread of illness from reptiles is so great that CDC last year advised that parents with children under 5 not keep reptiles.

There are a number of resources for educators regarding handwashing.

One of the best is a CDC web site: <http://www.cdc.gov/nceh/ehserv/EHSA/Food/FoodSafety.htm>

This site contains links to teaching tools for kids, multi-lingual handwashing signs and a handwashing program for child care produced by CDC.

Another great site: The USDA/FDA Foodborne Illness Education Information Center: <http://www.nal.usda.gov/foodborne> •

# ■ For Physicians: A Foodborne Illness Primer

## Patient Scenario:

"Pierre is a 3-year-old who was brought to the outpatient clinic by his mother. He had a 2-day history of severe abdominal cramps and diarrhea....His mother was especially alarmed this morning when she noticed blood in his diarrheal stools.

You're his physician. What's your call? What diagnoses should be considered? What tests?

To help primary care physicians answer questions like this, the American Medical Association (AMA) has joined together with federal agencies to produce "Diagnosis and Management of Foodborne Illnesses: A Primer for Physicians."

The primer was developed in response to AMA member requests for guidance on foodborne illness.

Dr. L. J. Tan of the AMA has worked on the project for the past several years. According to Dr. Tan, "We have had extensive scientific review, we're very confident of our information. Now we're hoping it will be widely used."

The publication is a teaching tool to update primary care physicians as well as other medical personnel about foodborne illness and remind them of their important role in recognizing suspicious symptoms, disease clusters, and etiologic agents, and reporting them to public health authorities.

The primer provides three continuing education units for physicians.

The primer will be published by the AMA by the end of the year and also appear as a Report and Recommendation with an issue of the *Morbidity and Mortality Weekly Report* published by the Centers for Disease Control and Prevention.

## The physician's critical role:

Recognizing the critical role physicians play in preventing and controlling food-related disease outbreaks, the primer urges physicians to:

- recognize the potential for a foodborne etiology in a patient's illness,
- realize that many—but not all—cases of foodborne illness have gastrointestinal tract symptoms,
- obtain stool cultures in appropriate settings and recognize that tests for some specific pathogens (*E.coli* O157:H7 and vibrio species) must be requested,
- report suspect cases to appropriate public health officials,
- talk with patients about ways to prevent food-related diseases, and
- appreciate that a patient with foodborne illness may represent the sentinel case of a more widespread outbreak.

## Topics covered:

The primer includes four patient scenarios dealing with:

- botulism poisoning,
- *Escherichia coli* O157:H7 infection,
- enterotoxigenic *Escherichia coli* infection, and
- *Listeria monocytogenes*.

Each scenario walks the physician through possible diagnoses, diagnostic tests, treatment and prevention tips.

The primer also provides information on resources as well as illnesses that are designated as notifiable at the national level.

The primer was produced collaboratively by the AMA along with the Centers for Disease Control and Prevention, the Food and Drug Administration and the Food Safety and Inspection Service, under the U.S. Department of Agriculture.

The AMA will be distributing 10,000 copies of the publication on request. Contact Dr. L. J. Tan at 312/464-4147. Email: [litjen\\_tan@ama-assn.org](mailto:litjen_tan@ama-assn.org)

The primer will also be accessible through the web: <http://www.ama-assn.org/foodborne> •

# ■ New! Food Safety Tear Sheet for Patients

Now physicians can help their patients fight foodborne illness with the Fight BAC!<sup>TM</sup> campaign.

This new tear sheet for patients is compact and concise (the front and back of 1 page) and loaded with information.

It explains who faces special risks of foodborne illness and what special food safety advice they need to follow.

It also details the four basic safe food handling steps everyone needs to

follow: clean, separate, cook and chill.

And, it includes a handy reference chart of recommended cooking temperatures for different foods.

The patient tear sheets will be available by the end of the year, along with the physician's primer.

When the tear sheets are available, ordering information will be posted on the AMA web site:

<http://www.ama-assn.org/foodborne> •



## ■ The Gap: What We Say, What We Do

When it comes to safe food handling, we all say we do a good job.

But as Alan Levy, with the Food and Drug Administration's (FDA) consumer research office notes, "there can be a world of difference between what we say we do and what we do."

New consumer research conducted by Spectrum Consulting and Utah State University, and funded in part by FDA, underscores that point.

With cameras installed in consumers' homes, researchers watched as

100 people prepared meals, supposedly for a market research study so they wouldn't be overly conscious of food safety. What they found was thought-provoking.

For instance, according to Utah researcher Janet Anderson, 87 percent of people in telephone surveys report that they wash their hands before preparing meals. In practice, only 34 percent of people used soap—and they only washed for 4.4 seconds instead of the recommended 20 seconds.

FDA, Spectrum Consulting, and Utah State University are exploring ways to continue this type of observational research. FDA has contracted with Utah researchers to do another round of studies—results should be available sometime next year. We'll keep you informed.

To read more about the Utah State research to date, email a request to: [Kelee@spectrumconsulting.com](mailto:Kelee@spectrumconsulting.com) •

## ■ Thermy™ Fever

Thermym™ fever is growing! Even Wal-Mart caught Thermym™ fever in September 2000. They celebrated National Food Safety Education Month with a week of Thermym™ and Fight BAC!™ activities in their 800 stores that sell food.

Thermym™ is the messenger for the Food Safety and Inspection Service's campaign to promote thermometer use.

During the summer and fall months, the thermometer message and Thermym™ messenger have turned up all over the country.

Just a few of the supermarkets promoting Thermym™ include: Kings, Schnucks Market, Spartan Stores, Giant Food, Wegmans, Stop and Shop, Farm Fresh, Super Value, Shaws, Albertsons, Price Chopper, Big Y, Kroger, and Jewel-Osco.

Don't forget, Thermym™ kit materials including brochure, press release, and camera-ready art are available for free from the web site: <http://www.fsis.usda.gov/thermy> •

## ■ Helping Sprout Producers

A number of foodborne illness outbreaks have been linked to sprouts—which consumers at risk for foodborne illness are advised not to eat.

To help improve the safety of sprouts, the Food and Drug Administration has teamed with California's Department of Health Services Food and Drug Branch to produce a video and training manual for sprout producers.

Linda Harris of the University of California at Davis helped work on the project. She reports that the video

runs about 1 1/2 hours but has been broken down into short training modules.

Topics covered by the video include legal requirements and guidelines, seed and sprout production and disinfection treatments, and sampling and microbial testing.

The video costs \$23.60. To order, go to: <http://www.dhs.ca.gov/ps/fdb/> or contact:

Circle Solutions  
2070 Chain Bridge Rd., Suite 450  
Vienna, VA 22181  
(phone: 703/902-1300) •

## ■ New Dietary Guidelines

For the first time, *The Dietary Guidelines for Americans* include food safety advice.

Published once every 5 years by the U.S. Department of Agriculture and the Department of Health and Human Services, *The Dietary Guidelines for Americans* published in 2000 include a guideline called "Keep Foods Safe to Eat."

The food safety guideline explains foodborne illness and provides consumers with the basics of safe

food handling by including the four key food safety messages of the Fight BAC!™ campaign: clean, separate, cook and chill. (For more information on the campaign, go to [www.fightbac.org](http://www.fightbac.org))

To download a copy of *The Dietary Guidelines for Americans*, go to: <http://www.usda.gov/cnpp/Pubs/DG2000/Index.htm>

Or, to buy single or bulk copies, contact the Government Printing Office at 202/512-1800. •

## ■ Is Your Order In?

It's not too late to order "Using Partnerships to Fight BAC!™ A Workbook for Local Food Safety Educators," produced by the Partnership for Food Safety Education.

Email your request to: [fsis.outreach@usda.gov](mailto:fsis.outreach@usda.gov), or fax: 202/720-9063. Include your name and mailing address.

In return, you'll get a 50-plus-page workbook that will have "been there and done that" for you.

In addition to chapters outlining the step-by-step partnering process, the workbook provides templates and worksheets, as well as reproducible educational materials.

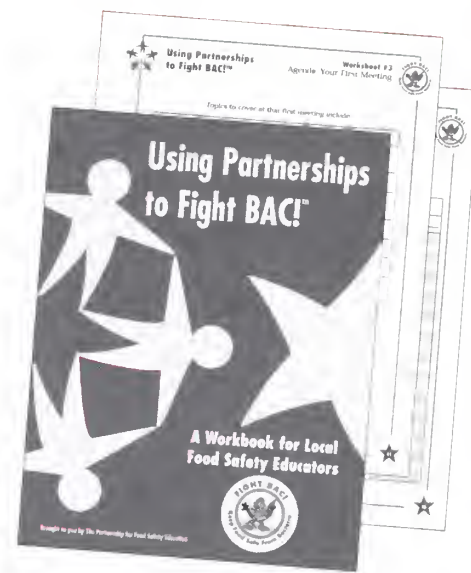
For instance, there are eight sample worksheets covering everything under the sun:

- state-level partners to contact;

- suggested community partners—with 35 possible contacts in a variety of fields from the local mayor's office to local chefs and health clinics;
- a meeting report sheet, summarizing action items and timeframes;
- a meeting update, providing follow-up with action items and due dates;
- a project timetable for event planning;
- a list of suggested activities and partners to make them happen;
- and, the always important bottom line—a budget template.

Stay tuned. The next issue of *The Food Safety Educator* will report from the frontlines with case studies of local communities putting power into partnerships. •

### *Fighting BAC! with Partnerships*



## Mail Order Food Safety

Need some last-minute holiday food safety ideas?



Check out  
"Mail Order Food Safety."

Go to:

<http://www.fsis.usda.gov/oa/topics/mailorder.htm>

## ■ The Partnership for Food Safety Education

The Partnership for Food Safety Education, which produced the workbook for local food safety educators, is an example of successful partnering at the national level.

In 1997, industry, government, and consumer groups came together to join forces and provide a united front in teaching consumers about safe food handling.

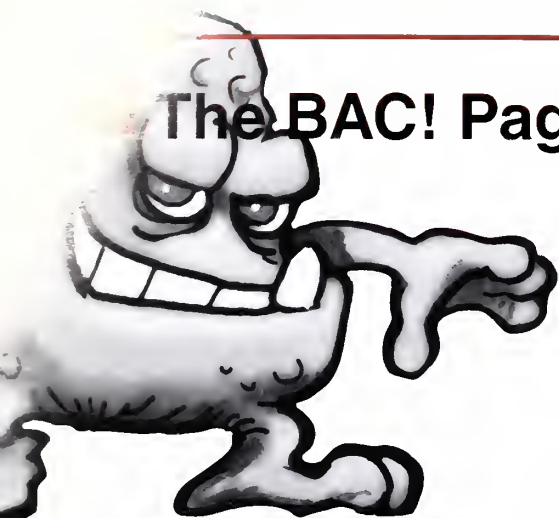
The result? Since the campaign was launched, membership has grown

500 percent. The original 10 founding partners and three government agency liaisons have grown to more than 50 active organizations.

Melanie Miller was hired this year as national coordinator and her partnership plans call for continued outreach with consistent messages and new materials. Partnership in action!

For more information, go to: <http://www.fightbac.org> •





## The BAC! Page...BAC! Fighters in Action

It's always nice to hear from the BAC! fighters. Here's a letter that came into the BAC! web site this summer:

"My name is Kelly Ball and I am 8 years old. I will be going into 4th grade this fall. My mom is a Home and Career Teacher at Hoover Middle School in Kenmore, NY.

One day I had a half day of school and I went to spend the afternoon with my mommy at school. That was the day she was showing the Fight

BAC!™ video and I loved it.

Ever since then I have been practicing what the video has taught me. Every time we go out to lunch, shopping, dinner or the store, I make sure that the food is OK.

One day I was making toast and I was going to melt the butter in the microwave and I saw Chinese food that had been left in the microwave. I had a feeling that the food had been left in the microwave for more than 2 hours, so when in doubt, throw it out, so I threw it out and I made my toast.

I also told my dad not to cross contaminate. I had a hamburger and the rest of the family had cheeseburgers and mine wasn't done so my daddy brought the cheeseburgers in and he then went out to get it and he didn't wash the spatula so I stopped him before he touched the hamburger and I made him wash it.

### **Award-winning Video Flying Off Shelves**

Kelly's not the only one who likes the Fight BAC!™ video "BAC! AT-TACK! How our School Fought BAC! for Food Safety" that accompanies the 4-6 curriculum guide.

The video recently received a Gold Camera Award presented by the U.S. International Film and Video Festival. The festival is the world's leading competition for business, television, documentary, industrial and information productions. This

year there were over 1,600 entries from 30 countries.

And the award-winning curriculum guide is a hot item. As of October 2000, more than 30,000 curriculum guides have been distributed—potentially reaching over 800,000 students!

The curriculum—and the video—are free to 4-6 grade educators. To order, go to the web site: <http://www.fightbac.org> •

I just wanted you to know how much I enjoyed your video and I will make sure that I practice safe food handling along with the rest of my family.

My mommy ordered me the apron so I can wear it when I cook. She also ordered me the poster so I can hang it in my bedroom.

Your friend,  
Kelly Ball •



The *Food Safety Educator* is produced by the Food Safety Education Staff, Food Safety and Inspection Service, U.S. Department of Agriculture

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Check the BAC! Web Site...**

**[www.fightbac.org](http://www.fightbac.org)**