

The Networker



www.foodsafe.msu.edu

May/June 2000

Food safety is no stranger to news

Food news is a big seller at the newsstands, TV and radio. To find out how big food safety news has been in recent years, the International Food Information Council (IFIC) first commissioned the Center for Media and Public Affairs (CMPA) to examine the information that the news media provide to consumers about diet, nutrition and food safety. CMPA conducted studies from May through July in 1995, 1997 and then again in 1999. Coverage in 39 local and national news outlets was examined.



The overall amount of coverage rose in 1999--up 53 percent over 1997 and 32 percent over 1995-- even though four newspapers and four television programs were removed from the sample. Also observed in the 1999 study was a shift in topical areas. Often, news reported food as health promoting. According to the

study, disease prevention, disease risk reduction and discussions about the benefits of certain foods became more central. Functional foods, such as soybeans and garlic, seemed to be the biggest beneficiary of the shift of looking at food as medicine. Functional foods were defined as "foods or food components that may help provide a benefit beyond basic nutrition with a physiologically active element that may help reduce the risk of disease or promote wellness." Functional foods comprised much of the discussions of disease risk reduction--winning praise for fighting cancer, heart disease and much more.

The good news is that for the first time claims of health benefits stretched ahead of claims of harm associated with foods (57 percent vs. 43 percent). The threat of foodborne illness was the most discussed health risk--as it has been in the two earlier studies. Media coverage also included information for prevention and avoidance. The study pointed out that often a note of public service is among the alarm bells. For example, some 1999 stories discussed new technological procedures that may allow raw oysters or eggs to be eaten without the risks of harmful bacteria.

Leading Topics in 1999

- Disease prevention
- Foodborne illness
- Biotechnology
- Fat intake
- Functional foods
- Disease causation
- Vitamin/mineral intake
- Fiber intake
- Antioxidants

YOU'RE NOT TOO LATE!!!

**REGISTER NOW FOR THE
JULY 11-12 CONFERENCE ON
RISK COMMUNICATION IN FOOD SAFETY**

DETAILS INSIDE!!!

National Food
Safety &
Toxicology Center

Interim Director
Dr. Ed Mather

NFSTC Members

Animal Health &
Diag. Lab

Biochemistry

Botany & Plant
Pathology

Communications

Entomology

Food Science &
Human Nutrition

Horticulture

Large Animal
Clinical Science

Microbiology

Pathology

Pediatrics &
Human Develop.

Pharmacology/
Toxicology

Sociology

Veterinary Medicine

Zoology



The Director's View

Dr. Ed Mather

Have you ever noticed how much our lives revolve around food and its domain? Conversations range from what to have for lunch or dinner, meal planning and grocery buying to foodborne illnesses, their causes and prevention and what can be done to ensure food safety to respond better to the challenges created by the wide variety of foods now available. What we face as we enter the 21st century brings significant expansions in current programs and exciting new strategies for addressing some of the challenges.

As part of this effort, food safety assessments have been strengthened and a new early warning system to improve our national surveillance system has been implemented. In 1997, a new comprehensive food safety initiative was launched to help detect and provide quick response to outbreaks of foodborne illness and to provide the data needed to prevent future outbreaks. The Centers for Disease Control, the Food and Drug Administration and the U.S. Department of Agriculture work with state and local agencies to build epidemiological and laboratory capacity to respond to foodborne diseases. Key components of this initiative include:

- **PulseNet:** This is a national computer network of public health laboratories which identify and help stop episodes of foodborne illness. For example, in September 1998, the Minnesota state public health laboratory informed other PulseNet laboratories that it was investigating two clusters of Shigella infections associated with restaurants and asked if any other states were investigating similar outbreaks. The Los Angeles county public health laboratory immediately responded that it

too was investigating Shigella outbreaks that appeared associated with restaurants. Building on this information and on DNA "fingerprints" provided by PulseNet laboratories, epidemiologists at CDC, Minnesota and Los Angeles county were able to determine that the outbreaks were linked and caused by nationally distributed contaminated parsley used to garnish foods at the restaurants.



- **FoodNet:** CDC, FDA and USDA increased the number of surveillance "sentinel sites" across the country from five to eight. FoodNet uses surveillance for foodborne diseases and related epidemiological studies to help public health officials better understand the epidemiology of foodborne diseases in the United States and to strengthen the scientific basis for our hazard prevention programs. Preliminary data showed a decline in several of the major causes of foodborne disease in the US. The data indicated a 25 percent decline between 1998 and 1999 in the number of E. coli infections, a 41 percent drop in the incidence of Shigella infections and a 19 percent decline in the number of illnesses caused by Campylobacter.

At the NFSTC, we too continue to pursue research that will help develop a safer food supply,

starting from the ground up. Our programs include providing pest management solutions to growers of fruit, vegetables and other crops; investigation of the relationship between inflammation and chemically induced toxicity--such as PCBs from fish; monitoring sentinel cattle herds to study the shedding of organisms responsible for gastrointestinal diseases; and exploring children's diseases that share a common interactive thread between environmental factors such as diet, lifestyle and genetics.

Food not only provides the basic sustenance for survival, it also provides comfort at a most primal level. This is a universally held tenet and one that we at the NFSTC fully understand. We take great pride in joining the national and global efforts that are underway to strengthen programs to ensure a safer food supply--for survival and for comfort.

Short Course Offered

To address the emerging needs of food safety, Michigan State University will conduct a one-week short course with a focus on food safety policy development, risk analysis and program implementation. The course, to be held July 16-21 at MSU, will be conducted jointly by the NFSTC, the Institute of International Agriculture, various MSU departments and colleges, state and federal government agencies, and private companies. The program will provide hands-on training and experience in various issues of food safety in both public and private sector settings. For more information, please contact **Dr. K. M. Maredia, Institute for International Agriculture, 416 Plant and Soil Sciences Bldg., MSU, East Lansing, MI 48824; phone: 517-353-5262; fax: 517-432-1982; or e-mail: kmaredia@msu.edu.**



Accolades and honors abound for NFSTC members

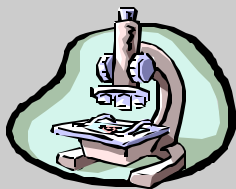
Among the more than 120 undergraduates showcased this year at MSU's University Undergraduate Research and Creative Activity Forum were students of NFSTC faculty members. Under the mentorship of **Drs. James Trosko and Brad Upham** (Pediatrics and Human Development), **Curtis R. Pickering** took second place in the poster presentation category for his research with nitric oxide and cancer-causing growth cells. One of the top winners in the poster presentations was **Joseph M. Carbone**, under the direction of **Dr. Brad Upham**, for his work with resveratrol, an antioxidant found in red wine, and its relationship to the low incidence of cancer and heart disease.



The forum brings together knowledge and experience with the motivation and desire of the undergrads who want to have a positive impact on their world. The forum is sponsored by the Honors College and the Office of the Provost. Other NFSTC faculty contributors included **Drs. Leslie Bourquin, James Pestka, and Elliot Ryser**.

At its annual banquet and initiation ceremony, MSU's Phi Kappa Phi honored **Dr. John Linz**, another NFSTC member, as a faculty initiate who achieved distinction in his discipline of food science and human nutrition. Phi Kappa Phi was established in 1897 at the University of Maine and became a national honor society in 1900. The MSU chapter was formed in 1927.

...And there's more!



Susan McKarns, predoctoral student in **Dr. Norbert Kaminski's** lab at the NFSTC received a Society of Toxicology Graduate Fellowship

and was awarded the best predoctoral research presentation by the SOT's Immunotoxicology Specialty Section. The fellowship bestows \$16,000 to help McKarns and her research.

Cited for his contributions to understanding the mechanisms of toxicity of pesticides and natural products, **Dr. Robert M. Hollingworth**, NFSTC faculty member and professor of entomology and integrated plant systems, was awarded the distinction of fellow by the American Association for the Advancement of Science (AAAS). He was honored at the 2000 AAAS meeting in Washington, D.C. on Feb. 19 and at a reception at the NFSTC hosted by the Center for Integrated Plant Systems on April 27.

Can you pass the food safety test?

- The temperature of the refrigerator in my home is:**
 - 50 degrees Fahrenheit (10 degrees Celsius).
 - 41 F (5 C).
 - I don't know; I've never measured it.
- The last time we had leftover cooked stew or other food with meat, chicken or fish, the food was:**
 - cooled to room temperature, then put in the refrigerator.
 - put in the refrigerator immediately after the food was served.
 - left at room temperature overnight or longer.
- The last time we had hamburgers in my home, I ate mine:**
 - rare.
 - medium.
 - well done.
- I defrost meat, poultry and fish products in my home by:**
 - setting them on the counter.
 - placing them in the refrigerator.
 - microwaving.
- When I have cookie dough in my home, the dough was:**
 - made with raw eggs, and I sampled some.
 - store-bought, and I sampled some.
 - I did not sample any until it was baked.
- The last time I handled raw meat, poultry or fish, I cleaned my hands afterwards by:**
 - wiping them on a towel.
 - rinsing them under hot, cold or warm tap water.
 - washing them with soap and warm water.
- When I buy fresh seafood, I:**
 - buy only fish that's refrigerated or well iced.
 - take it home immediately and put it in the refrigerator.
 - sometimes buy it straight out of a local fisher's creel.

Answers to the food safety test--how do you rate?



1. Refrigerators should stay at 41 F (5 C) so give yourself two points if you chose answer B. A temperature of 41 F (5 C) or less is important because it slows the growth of most bacteria; it won't kill the bacteria, but it will keep them from multiplying.

2. Answer B is the best practice; give yourself two points. Hot foods should be refrigerated as soon as possible within two hours after cooking. But don't keep the food if it's been standing out for more than two hours. Don't taste test it either. Even a small amount of contaminated food can cause illness.

3. Give yourself two points if you picked answer C. If you don't own a meat thermometer and aren't sure of the doneness of the meat, get one!

4. Score two points if you picked B or C. Do not thaw meat, poultry or fish products on the counter or in the sink;

bacteria can multiply rapidly at room temperature.

5. If you answered A, you may be putting yourself at risk for Salmonella infection. Cooking the egg-containing food product to an internal temperature of at least 145 F (63 C) kills the bacteria.

C is correct, but you'll get two points for B also. Commercial preparations of cookie dough are not a food hazard.

6. The only correct practice is answer C. Give yourself two points. Wash gloved hands just as often as bare hands because the gloves can pick up bacteria.

7. A and B are correct. Give yourself two points for either. Buy fresh seafood only from reputable dealers who keep their products refrigerated or properly iced. Once you buy the seafood, immediately put it on ice, in the refrigerator or in the freezer.

Ratings

14 points: Feel confident about the safety of foods served in your home.

10 to 12 points: Reexamine food safety practices in your home. Some key rules are being violated.

8 points or below: Take steps immediately to correct food handling, storage and cooking techniques used in your home.

(This test is a reprint from the October 1995 *FDA Consumer*, with revisions made in October 1998.)

For more information about the NFSTC or this newsletter, contact Pat Stewart, Communications Coordinator, at phone: 517-432-3100; fax: 517-432-2310; or e-mail: stewartp@cvm.msu.edu.

REMEMBER to fill out the enclosed registration form or visit our online registration at www.foodsafe.msu.edu NOW!



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East Lansing, MI 48824-1302

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MICHIGAN STATE
UNIVERSITY

REGISTRATION FORM

Risk Communication in Food Safety... "Motivating and Building Trust"

*July 11-12, 2000
MSU's Kellogg Center
East Lansing, MI*

Name, Title, Organization _____

Street Address _____

City/State/Zip _____

Daytime Phone _____ Fax _____

E-mail _____

Cost

\$200 on or before July 3, 2000

Payment Method

Check (made payable to Michigan State University in U.S. funds) TAX EXEMPT ID# _____

Visa/MasterCard _____
CARD NUMBER EXPIRATION DATE

MSU Employee/Designee _____
MSU ACCOUNT NUMBER

Conference Headquarters/Lodging: For lodging reservations, phone **The Kellogg Center** at **800/875-5090** or 517-432-4000 at \$76 plus tax for singles or doubles. Alternate hotels are the Marriott East Lansing University Place at 517/337-4440 or the Comfort Inn-Okemos at 517/349-8700.

Select Breakout Sessions: Please indicate numerically your first three choices (1,2,3). Registration for sessions is on a first-come, first-served basis. You will be notified at registration of your assignment.

- | | | | |
|--|---|--|---|
| <input type="checkbox"/> <i>GMOs/Biotechnology</i> | <input type="checkbox"/> <i>Bovine TB</i> | <input type="checkbox"/> <i>Labeling</i> | <input type="checkbox"/> <i>Exports/Imports</i> |
| <input type="checkbox"/> <i>Irradiation</i> | <input type="checkbox"/> <i>Pesticides</i> | <input type="checkbox"/> <i>Organic & Conventional
Agriculture</i> | <input type="checkbox"/> <i>Endocrine Disruptors</i> |
| <input type="checkbox"/> <i>Recalls</i> | <input type="checkbox"/> <i>Drug Residues</i> | <input type="checkbox"/> <i>Emerging Diseases</i> | <input type="checkbox"/> <i>Drug Resistant
Diseases</i> |

Other topic suggestions: _____

Please indicate any special dietary requests: _____

Please return to: *Cindy Thrush (thrushci@cvm.msu.edu) National Food Safety & Toxicology Center, 165 Food Safety & Toxicology Bldg., Michigan State University, East Lansing, MI 48824; or fax to 517-432-2310.*

CONFERENCE KEYNOTE SPEAKERS



Dr. Peter Sandman is the creator of the “Hazard + Outrage” formula for risk communication and is an internationally renowned speaker, educator and consultant. Dr. Sandman has worked on communication aspects of a wide range of safety, environmental and other problems. A Rutgers University member since 1977, Dr. Sandman founded the Environmental Communication Research Program (ECRP) at Rutgers and was its director until 1992. During that time ECRP published more than 80 articles and books on various aspects of risk communication, including separate manuals for government, industry and the mass media.

Steve Curwood is the executive producer and host of National Public Radio's award-winning program, *Living on Earth*. Curwood's relationship with NPR dates back to 1979 when he was a reporter and host of the weekend edition of *All Things Considered*. He has reported on science, politics and the environment. His recent reporting includes a groundbreaking series on chemical compounds that disrupt the endocrine system and their effects on human health and fertility. Curwood graduated from Harvard University where he teaches as a visiting lecturer in public communication and environmental change.



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