

Testimony of Michael Jacobson, Ph.D.
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and Caroline Smith DeWaal
Director of Food Safety
before the
Senate Committee on Government Affairs
on
"Egg Safety: Are There Cracks in the Federal Food Safety System"
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Good morning. I am Michael Jacobson, Executive Director of the Center for Science in the Public Interest (CSPI). CSPI is a non-profit consumer-advocacy organization with one million members that focuses on nutrition, food safety, and alcohol issues. Accompanying me today is Caroline Smith DeWaal, director of food safety at CSPI, who co-authored CSPI's report, *Scrambled Eggs: How a Broken Food-Safety System Let Contaminated Eggs Become a National Food Poisoning Epidemic*. We have attached a copy of that report to this testimony for inclusion in the hearing record.

Most consumers think that the government is making sure their food is safe. But the government watchdogs were asleep while eggs contaminated with Salmonella grew into a national public-health epidemic. Fifteen to twenty years ago, a strain of Salmonella called "enteritidis" developed the ability to infect a chicken's ovaries and enter the egg before it is laid. The advent of that enterprising new strain of bacterium means that it is no longer safe to eat runny eggs, taste cookie dough, or enjoy raw eggs in desserts and salads.

Today, infected chickens lay an estimated 2.3 million eggs each year seeded with Salmonella inside the shell, any one of which could cause an illness or an outbreak of food poisoning. According to data collected by CSPI from the Centers for Disease Control and Prevention (CDC) and other sources, since 1990, eggs have been directly linked to at least 123 separate outbreaks of food poisoning, mostly from Salmonella enteritidis (SE) (See Appendix A). While those data represent just a partial listing of outbreaks from eggs, they clearly show that the tiny bacterium has fostered a major public health problem.

A recent risk assessment on eggs conducted by the US Department of Agriculture (USDA) said that SE-contaminated eggs have caused an average of 661,633 illnesses and 331 deaths annually. While recent CDC data suggest that the number of outbreaks and illnesses linked to SE has begun to decline (a fact probably linked in part to focused consumer education on the hazards of eggs), many more illnesses could be prevented with better government oversight of the egg industry.

In 1986, CDC first identified SE in eggs as a public-health problem, when a food-poisoning outbreak in seven states sickened more than 3,000 people. Since then, the fractured federal food-safety system has taken only baby steps to remedy this serious problem.

What has happened during the last 13 years? With four government agencies sharing responsibility for regulating eggs and the egg industry, consumers certainly expect that the SE

problem would have been dealt with expeditiously. But this may be a case of too many cooks spoiling the broth:

The Food and Drug Administration (FDA), at the Department of Health and Human Services, has food-safety oversight of shell eggs and some processed eggs, but rarely inspects those plants.

The Food Safety and Inspection Service (FSIS), an agency of the USDA, has responsibility over most pasteurized egg products, which pose only a minimal risk, and inspects those plants daily.

USDA's Agricultural Marketing Service (AMS) provides voluntary shell egg grading services and inspects shell egg plants four times a year for cleanliness and quality control.

Finally, USDA's Animal and Plant Health Inspection Service (APHIS) has responsibility for preventing the spread of animal diseases.

Not one of those agencies has taken the necessary steps to keep eggs safe, either by preventing the spread of SE among chicken flocks, or by diverting SE-contaminated eggs to egg-pasteurization plants.

This chart highlights just some of the ways that a tiny foodborne bacterium outsmarted the federal government:

In 1986, *Salmonella enteritidis* caused almost 6,000 reported cases of food poisoning. Those cases represent just a small fraction of all cases.

In 1987, APHIS decided not to establish a mandatory *Salmonella* control program for egg producers. By contrast, in the early 1980s, USDA spent at least \$60 million to combat an outbreak of Avian Influenza, a virus that affects poultry but poses no human health threat, by destroying flocks and reimbursing owners. For SE, however, USDA opted for a voluntary control program to avoid having to reimburse flock owners for their losses. As those instances demonstrate, APHIS has put the health of the poultry industry ahead of the health of consumers.

In 1989, 8,500 cases of food poisoning from SE were reported, a 40% increase in just three years. Clearly, USDA's voluntary program was not working. But instead of working together, USDA and FDA simultaneously began developing competing mandatory SE-control programs. FDA officials refused to discuss with APHIS their proposed plan, which required testing of all laying flocks in the U.S., until after FDA had publicly announced it. Later in 1989, APHIS announced its own significantly weaker SE-control program, and FDA withdrew its stronger plan. Clearly, resources were wasted while the agencies developed competing plans and, in the end, the agencies failed to achieve the highest level of public-health protection.

By 1991, APHIS finally had its mandatory SE-control program in place. Unfortunately, that program didn't require on-farm testing for the SE bacteria for the entire egg industry. Egg producers had to clean up their farms only when traceback investigations proved that eggs from their flocks had caused food poisonings or if the laying hens were from already-identified

infected breeder flocks. To make matters worse, the investigations that traced cases of food-poisoning back to a given producer were expensive and time-consuming, so APHIS completed only a small number each year.

Also in 1991, Congress passed a law requiring eggs to be refrigerated during transportation and storage. Refrigeration helps prevent the SE bacteria from multiplying inside infected eggs. However, due to bureaucratic delays and opposition from some parts of the industry, in the last eight years USDA has never enforced that law. (It is finally scheduled for implementation this August, after the House Appropriations Committee threatened to withhold some funding from FSIS.)

In 1992, USDA, the Pennsylvania government, and Pennsylvania egg producers began a voluntary pilot program. The program required that all participating producers test their flocks for SE bacteria.

In 1995, with over 10,000 cases of food poisoning from SE being reported nationwide, it was clear that APHIS's program was a failure. But the news from Pennsylvania was better. The pilot program apparently reduced the number of SE-infected flocks. Despite those encouraging results, at the urging of the egg industry, Congress eliminated USDA's funding for the pilot program, thereby preventing USDA from expanding the program nationally.

In 1997, in an effort to jump-start government efforts, CSPI petitioned the FDA to develop a mandatory on-farm control program for SE in eggs, modeled after the Pennsylvania program. CSPI also petitioned FDA to require a warning label on egg cartons alerting consumers to the risk from SE and advising them not to eat eggs raw or undercooked.

There has been little visible action since CSPI petitioned the FDA. Last summer, FDA and USDA issued an advance notice of proposed rulemaking that included several of CSPI's proposals, but no new rules have emerged. This August, USDA finally will implement the Congressionally mandated 45-degree refrigeration requirement for eggs during transportation and storage. That action comes eight years after Congress first instructed the agency to do so, and two years after Dateline NBC aired a story on egg safety highlighting the agency's failure to mandate temperature requirements.

While those modest actions signal an increased willingness to tackle egg safety, FDA and USDA have so far failed to utilize the most effective public-health measure to combat SE: on-farm Hazard Analysis and Critical Control Points (HACCP) programs for shell-egg producers. Though temperature controls and labeling help prevent illnesses from contaminated eggs, on-farm HACCP programs would help prevent eggs from being infected with SE in the first place.

A mandatory on-farm HACCP system should be the cornerstone of a comprehensive regulatory program for shell eggs. HACCP systems are flexible, they are effective and they are economical, especially when the costs of preventing food poisoning are factored in.

Under an on-farm HACCP program, eggs from any flocks that test positive for SE could be diverted to egg-pasteurization plants, which sell liquid and powdered egg products. In a risk assessment of the shell-egg production system, researchers estimated that diverting 25 percent of

eggs from SE-positive flocks from the shell egg market would reduce human illness by 25 percent, and diversion of a greater number of eggs should have a proportionately greater public health impact. On-farm HACCP, coupled with egg diversion, is the only measure that would greatly reduce the number of SE-contaminated shell eggs reaching consumers.

While an anticipated White House announcement on egg safety will represent the first significant effort to coordinate policy between USDA and FDA, a farm-to-table SE-control program would be far easier to implement if a single agency were responsible for ensuring shell-egg safety. The examples I have cited previously of overlapping responsibilities between agencies, the irrational assignment of inspectors, and agencies developing duplicative and competing SE-control programs illustrate the clear need for more central federal oversight of food safety. That is why we strongly support legislation sponsored by Senator Durbin to unite the federal food- safety programs into a single independent Food Safety Administration.

Thank you for your attention to this important public health problem. I would be happy to answer your questions. Appendix A

Outbreaks Traced to Eggs,

1990-1998,

Date, Vehicle, Etiology, Reported Cases, States/ Provinces

1, June 1990, Hollandaise sauce (shell eggs), Salmonella enteritidis, 169, 1:CT

2, June - July 1990, Egg dishes, Salmonella enteritidis, 94, 1:PA

3, Aug. 1990, Hollandaise sauce (shell eggs), Salmonella enteritidis, 42, 1:KY

4, Oct. 1990, Bread pudding (shell eggs), Salmonella enteritidis, 1,100, 1:IL

5, Oct. 1990, Banana pudding (shell eggs), Salmonella enteritidis, 6, 1:TN

6, 1991, Bread stuffing (shell eggs), Salmonella enteritidis, 393, 1:NY

7, Oct. 1991, Caesar salad dressing (shell eggs); raw egg dishes, Salmonella enteritidis; Salmonella Group D, 38, Not available

8, 1992, Egg sandwich, Salmonella enteritidis, Not available, 1:NY

9, 1992, Ice cream (shell eggs), Salmonella typhimurium, 31, Not available

10, Feb. 1992, Lasagna (shell eggs), Salmonella enteritidis, 9, 1:OH

11, Feb. 1992, Ice cream (shell eggs), Salmonella enteritidis, 10, 1:PA

12, Apr. 1992, Banana pudding w/meringue (shell eggs), Salmonella enteritidis, 191, 1:NJ

13,May 1992,Cracker pudding (shell eggs), Salmonella enteritidis,42,1:PA

14,May 1992,Fish w/ aioli sauce (shell eggs), Salmonella enteritidis,31,1:CT

15,July 1992,Meringue pies (shell eggs), Salmonella enteritidis,7,1:PA,16,July 1992,Crab cakes (shell eggs), Salmonella enteritidis,5,1:MD

17,July 1992,Egg salad, Salmonella enteritidis,27,1:PA

18,July 1992,Monte Cristo sandwiches (shell eggs), Salmonella enteritidis,74,1:MA

19,July 1992,Rice pudding (shell eggs), Salmonella infantis,113,1:GA

20,Aug. 1992,Egg batter, Salmonella enteritidis,434,1:NY

21,Aug. 1992,Crab cakes/balls (shell eggs), Salmonella enteritidis,25,1:MD

22,Aug. 1992,Imitation crab meat pancakes (shell eggs), Salmonella enteritidis,118,1:MD

23,Aug. 1992,Ice cream (shell eggs), Salmonella enteritidis,15,1:OH

24,Aug. 1992,Spanish cream (shell eggs), Salmonella enteritidis,8,1:PA

25,Sept. 1992,Ravioli (shell eggs), Salmonella enteritidis,6,1:PA

26,Oct. 1992,Coconut cream/lemon meringue pie (shell eggs), Salmonella enteritidis,27,1:PA

27,Sept. 1992,Chicken salad (shell eggs), Salmonella enteritidis,194,1:DE

28,Sept. 1992,Egg sandwich, Salmonella enteritidis,75,1:NH

29,Dec. 1992 - Jan. 1993,Egg dishes, Salmonella enteritidis,6,1:CA

30,Jan. 1993,Lemon meringue pie (shell eggs), Salmonella enteritidis,4,1:MD

31,Feb. 1993,Pancakes (shell eggs), Salmonella enteritidis,22,1:IL

32,Feb. 1993,Hollandaise sauce (shell eggs), Salmonella enteritidis,23,1:CA

33,Feb. 1993,Egg dishes, Salmonella enteritidis,47,1:PA

34,Mar. 1993,Mayonnaise (shell eggs), Salmonella enteritidis,38,1:CA

35,Mar. 1993,Egg dishes, Salmonella enteritidis,22,1:NV

36,Mar. 1993,Lasagna (shell eggs), Salmonella enteritidis,7,1:NY

37,Mar. 1993,Stuffed shells (shell eggs), Salmonella enteritidis,25,1:CT

38, Apr. 1993, Egg rolls (shell eggs), Salmonella enteritidis, 130, 1:TX

39, Apr. 1993, Rellenos (shell eggs), Salmonella enteritidis, 4, 1:WA

40, July 1993, Ice cream (shell eggs), Salmonella enteritidis, 8, 1:MD

41, July 1993, Stuffing (shell eggs); egg dishes, Salmonella enteritidis, 11, 1:PA

42, July 1993, Chocolate meringue pie (shell eggs), Salmonella enteritidis, 23, 1:VA

43, Aug. 1993, Potato filling (shell eggs), Salmonella enteritidis, 29, 1:PA

44, Sept. 1993, Chocolate mousse (shell eggs), Salmonella enteritidis, 70, 1:NJ

45, Sept. 1993, Egg rolls (shell eggs), Salmonella enteritidis, 19, 1:TX

46, Sept. 1993, Hard boiled eggs, Salmonella enteritidis, 175, 1:VT

47, Sept. 1993, Ice cream (shell eggs), Salmonella enteritidis, 13, 1:FL

48, Sept. 1993, Tiramisu (shell eggs), Salmonella enteritidis, 5, 1:NY

49, Sept. 1993, Baked ziti (shell eggs), Salmonella enteritidis, 23, 1:CT

50, Oct. 1993, Lasagna (shell eggs), Salmonella enteritidis, 21, 1:MA

51, Nov. 1993, Bearnaise sauce (shell eggs), Salmonella enteritidis, 13, 1:IL

52, Nov. 1993, Stuffing (shell eggs), Salmonella enteritidis, 10, 1:PA

53, Nov. 1993, Shrimp and bearnaise sauce (shell eggs), Salmonella enteritidis, 52, 1:NC

54, Aug. 1994, Hollandaise sauce (shell eggs), Salmonella enteritidis; Salmonella Group D,
56, 1:DC

55, Jan. 1995, Rice pudding (shell eggs), Salmonella enteritidis, 7, 1:PA

56, Feb. 1995, Lasagna (shell eggs), Salmonella enteritidis, 7, 1:CA

57, June 1995, Scrambled eggs, Salmonella enteritidis, 40, 1:IN

58, June 1995, Caesar salad dressing (shell eggs), Salmonella enteritidis, 28, 1:NY

59, June 1995, Ice cream (shell eggs), Salmonella enteritidis, 27, 1:VA

60, June 1995, Egg dishes, Salmonella enteritidis, 8, 1:CA

61, June 1995, Ice cream (shell eggs), Salmonella Group D, 7, 1:MD

62, June 1995, Baked eggs, Salmonella enteritidis , 70,1:IN

63, June 1995, Caesar salad dressing (shell eggs), Salmonella enteritidis; Salmonella Group D, 28,1:NY

64, July 1995, Crab meat stuffing (shell eggs), Salmonella enteritidis, 23,1:NJ

65, July 1995, "Jamaican malt" beverage (shell eggs), Salmonella enteritidis, 3,1:NY

66, Aug. 1995, Eggs benedict w/ Hollandaise sauce (shell eggs), Salmonella enteritidis, 13,1:WI

67, Aug. 1995, Cake (shell eggs), Salmonella enteritidis, 16,1:CA

68, Sept. 1995, Spinach souffle (shell eggs), Salmonella enteritidis, 13,1:CT

69, Sept. 1995, Cheesecake (shell eggs), Salmonella enteritidis, 18,1:PA

70, Oct. 1995, Bearnaise sauce (shell eggs), Salmonella enteritidis, 3,1:PA

71, Dec. 1995, Eggnog (shell eggs), Salmonella enteritidis, 5,1:NY

72, Jan. 1996, Egg containing dishes, Salmonella enteritidis, 20,1:CA

73, Jan. 1996, Chicken fried steak (shell eggs), Salmonella enteritidis, 30,1:UT

74, May 1996, Egg containing foods, Salmonella enteritidis, 30,1:GA

75, May 1996, Salad dressing (shell eggs), Salmonella enteritidis, 21,1:CA

76, June 1996, Ice cream (shell eggs), Salmonella enteritidis, 2,1:OH

77, June 1996, Ice cream (shell eggs), Salmonella enteritidis, 32,1:CA

78, July 1996, Ice cream (shell eggs), Salmonella enteritidis, 109,1:OH

79, July 1996, Rice pudding (shell eggs), Salmonella enteritidis, 26,1:PA

80, July 1996, Ice cream (shell eggs), Salmonella enteritidis, 11,1:OH

81, July 1996, French toast (shell eggs), Salmonella enteritidis, 6,1:OH

82, July 1996, Multiple eggs dishes, Salmonella enteritidis, 15,1:NY

83, July 1996, Ice cream (shell eggs), Salmonella enteritidis, 21,1:CA

84, July 1996, Egg rolls (shell eggs), Salmonella enteritidis, 18,1:CA

85, Aug. 1996, Raw egg dishes, Salmonella enteritidis, 10,1:CA

86, Aug. 1996, Baked ziti (shell eggs), Salmonella enteritidis, 12, 1: NY
87, Sept. 1996, Egg salad (shell eggs), Salmonella enteritidis, 250, 1: SC
88, Sept. 1996, Eggs, Salmonella enteritidis, 250, 1: SC
89, Oct. 1996, Ice cream (shell eggs), Salmonella enteritidis, NA, 1: NM
90, Nov. 1996, Raw eggs in dish, Salmonella enteritidis, 22, 1: VA
91, Dec. 1996, Ice cream (shell eggs), Salmonella enteritidis, 14, 1: PA
92, Feb. 1997, Eggs benedict, Salmonella enteritidis, 7, 1: CA
93, Apr. 1997, Bearnaise sauce (shell eggs), Salmonella enteritidis, 30, 1: NJ
94, Apr. 1997, Pastries (shell eggs), Salmonella enteritidis, 17, 1: CT
95, May 1997, Omelets, Salmonella enteritidis, 9, 1: WI
96, May 1997, Crab cakes (shell eggs), Salmonella enteritidis, 6, 1: MD
97, July 1997, Crab cakes (shell eggs), Salmonella enteritidis, 14, 1: PA
98, July 1997, Omelets, Salmonella enteritidis, 3, 1: OH
99, July 1997, Sushi with egg, Salmonella enteritidis, 77, 1: CA
100, Aug. 1997, Bearnaise sauce (shell eggs), Salmonella enteritidis, 50, 1: PA
101, Aug. 1997, Cheesecake (shell eggs), Salmonella enteritidis, 13, 1: CA
102, Aug. 1997, Chicken fried rice (shell eggs), Salmonella enteritidis, 13, 1: OH
103, Sept. 1997, Chopped boiled eggs, Salmonella enteritidis, 192, 1: SC
104, Sept. 1997, Chile relleno (shell eggs), Salmonella enteritidis, 5, 1: CA
105, Oct. 1997, Lasagna (shell eggs), Salmonella enteritidis, 43, 1: DC
106, Nov. 1997, Eggs benedict, Salmonella enteritidis, 27, 1: WI
107, Nov. 1997, Pooled egg dishes, Salmonella enteritidis, 55, 1: CA
108, Nov. 1997, Hollandaise sauce (shell eggs), Salmonella enteritidis, 93, 1: NV
109, Jan. 1998, Tiramisu (shell eggs), Salmonella enteritidis, 8, 1: MD
110, Jan. 1998, Turkey stuffing (shell eggs), Salmonella enteritidis, 5, 1: CA

- 111,Jan. 1998,Lasagna (shell eggs), Salmonella enteritidis,26,1:CA
- 112,Mar. 1998,Cream pies (shell eggs), Salmonella enteritidis,19,1:VA
- 113,Mar. 1998,Eggs ,Salmonella montevideo,5,1:OH
- 114,July 1998,Chile rellenos (shell eggs), Salmonella enteritidis,58,1:AZ
- 115,July 1998,Ice cream (shell eggs), Salmonella enteritidis,6,1:PA
- 116,Aug. 1998,Eggs,Salmonella enteritidis,40,1:HI
- 117,Aug. 1998,Ice cream (shell eggs), Salmonella enteritidis,11,1:TX
- 118,Sept. 1998,Mexican cake (shell eggs), Salmonella enteritidis,50,1:MD
- 119,Sept. 1998,Ziti (shell eggs), Salmonella enteritidis,71,1:NV
- 120,Oct. 1998,Chile rellenos (shell eggs), Salmonella enteritidis,18,1:CA
- 121,Nov. 1998,Stuffing (shell eggs), Salmonella enteritidis,12,1:PA
- 122,Dec. 1998,Stuffing (shell eggs), Salmonella enteritidis,21,1:PA
- 123,Dec. 1998,Oyster stuffing (shell eggs), Salmonella enteritidis,7,1:PA