

Dirty Dining was written by Sarah Klein and Caroline Smith DeWaal, and researched by Farida Bhuiya, Jacqlyn Witmer, Cassandra Everett, and Laura Newland. We gratefully acknowledge Michael Jacobson for his invaluable assistance, and the public health agencies that provided information for this report.

The Center for Science in the Public Interest (CSPI) is a consumer advocacy organization whose twin missions are to conduct innovative research and advocacy programs in health and nutrition, and to provide consumers with current, useful information about their health and well-being. CSPI is supported primarily by the 900,000 subscribers to its Nutrition Action Healthletter and by foundation grants.

Center for Science in the Public Interest 1875 Connecticut Avenue NW, Suite 300 Washington, DC 20009-5728 Phone (202) 332-9110 www.cspinet.org

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#### **EXECUTIVE SUMMARY**

Long work hours and heavy family schedules are changing the way Americans eat. Restaurants are increasingly providing our meals, both eat-in and take-out. The average consumer eats restaurant-prepared food at least five times each week, and each time the safety of the food is in someone else's hands.

Recent data show that over half of all foodborne illnesses are contracted from dining on food prepared outside the home. Reducing this burden of disease is the responsibility of restaurant owners and employees, and county and state health officials. But consumers are given little choice – and little information – about how to judge the safety of what and where they eat.

Many foodborne illnesses from restaurant food could be prevented if restaurants followed simple steps like checking cooking, refrigeration, and hot holding temperatures; assuring proper handling; and only buying food from safe sources. These items are checked by health inspectors during their infrequent visits to restaurant, and, as this report shows, many restaurants are cited for violations of these steps and other critical food safety measures.

Unfortunately, most consumers have virtually no way of knowing how a given restaurant fared on its most recent health inspection, or even when an inspector last checked the kitchen. Even while restaurants are racking up critical violations, consumers have little access to the results of restaurant inspections, making it difficult—if not impossible—for consumers to factor food safety into their dining decisions.

In 2007, *Cooking Light* magazine featured 20 cities in the publication's Best Cities Awards,

ranking them on environmental and food quality factors. To determine how these same cities were performing in ensuring the safety of restaurant food, the Center for Science in the Public Interest (CSPI) evaluated over 530 inspection reports from restaurants in these cities and analyzed data on the violations. While food safety problems appear in all 20 cities, some—such as Austin and Boston—seem to be receiving more of the worst types of critical violations. Notably, it is difficult—if not impossible—to know whether increased violations are the mark of a particularly unsafe dining-city, or a particularly robust inspection force.

Getting information to consumers on the safety record of individual restaurants is critically important but often not done. Among the 20 cities studied, CSPI observed a wide range of accessibility to information. Some cities posted inspection reports online or in the restaurants. Others do not provide access at all or require consumers to complete formal written requests to receive reports. Only two cities studied, (Las Vegas and St. Louis) and two states nationwide, (North Carolina and South Carolina) are using easy-to-understand restaurant grade cards, such as those used with success by Los Angeles County.

Over the last 10 years, Los Angeles County has documented an impressive 20 percent decrease in hospitalizations due to foodborne illness. This decrease has been traced to the adoption of a letter grading system—a requirement that all restaurants post a letter grade in the window reflecting their performance on their most recent inspection. The highly visible grade allows consumers to gauge an establishment's food safety performance before they enter the restaurant.

Los Angeles has proven that posting restaurant inspection results in the form of letter grades is an effective way to provide consumers with critical food safety information – information that allows them to use taxpayer-funded inspection to help guide their restaurant choices.

# KEY FINDINGS & RECOMMENDATIONS

Among all 20 cities, over 66 percent of restaurants had at least one high-risk food safety violation. The most critical violations cited included:

- 26 percent of restaurants were cited for contaminated food contact surfaces;
- 22 percent of restaurants were cited for improper holding temperatures; and
- 16 percent of restaurants were cited for inadequate handwashing by employees.

CSPI also found many other critical and noncritical violations (those that consumers indicated are of most concern to them), including:

- 13 percent of restaurants were cited for rodent/insect activity;
- 6 percent of restaurants were cited for employee hygiene problems; and
- 4 percent of restaurants were cited for improper barehand contact with food.

Improving consumer awareness of the results of restaurant inspections would drive improvements at many levels: state and local government inspection agencies, the federal government that provides standards for restaurant inspection, and restaurants

themselves.

This report recommends the following to minimize foodborne illness from restaurant food:

- State and local governments should pass laws requiring the posting of inspection grade cards in the windows of all food establishments.
- ❖ To ensure the efficacy of a grade card program, health departments should improve underlying inspection systems.
- \* State and local governments should make restaurant food safety a higher priority and increase health department budgets to ensure that restaurant inspections are conducted carefully and frequently.
- ❖ State and local governments should adopt or incorporate the most recent 2005 Food Code. The laws governing restaurant inspections should be updated every two years to reflect these changing standards.
- ❖ FDA and the Conference for Food Protection should revise the Food Code to include the use of publicly posted inspection grade cards as part of a comprehensive inspection process.
- ❖ State and local governments should ensure that food safety and hygiene guidelines are available in appropriate languages and that food service workers are adequately trained.

Fewest Critical Violations
Tucson, AZ
San Francisco, CA
Best Restaurants... or Most Lenient
Inspectors?

Most Critical Violations
Austin, TX
Boston, MA
Worst Restaurants... or Toughest
Inspectors?

### **INTRODUCTION:** Hidden Hazards in Restaurant Kitchens

Restaurant dining has become a national pastime. The average American family spends almost half of all its food dollars on restaurant food, and each American consumer eats out at least five times per week. <sup>1,2</sup> That means that multiple times per week, consumers place total responsibility for the safety of their food—and for their health—in the hands of a local restaurant.

Restaurant industry sales represent 4 percent of the U.S. gross domestic product, with sales of \$558 billion in 2007.

At home, consumers can exercise important controls over the safety of their meals. They can ensure that food is properly cooked and stored at safe temperatures; that hands are washed well and routinely; and that kitchen counters and cutting boards are appropriately sanitized to avoid cross-contamination.

At restaurants, however, consumers must trust that the kitchen staff is following those same practices. Restaurants must take even greater care, as any error could sicken tens or even hundreds of customers due to the larger quantities and diversity of food being prepared and stored.

Although the media often reports on the ratsand-roaches details of restaurant closings, the biggest threats to public health go far beyond pest control.

The CDC rates the top five "critical violations" as:

• improper holding temperatures

- poor personal hygiene by restaurant employees
- food from unsafe sources
- improper cooking times and temperatures
- insufficiently sanitized food contact surfaces

Those violations pose the greatest risk to consumers, but are impossible for diners to evaluate.

To guard against outbreaks, consumers rely on trained public health professionals in local health departments to ensure that restaurant kitchens are clean and that proper food safety practices are routinely and completely followed. The Food Code,<sup>3</sup> a federal guidance document that sets forth safety standards for the restaurant industry, contains the best practices for food safety upon which inspections are based. But chronic understaffing and underfunding hobble many local health departments, resulting in mere spot-check visits for a system consumers rely on for their health. And the results of these inspections are often hidden from public scrutiny.

In most cities, there is no simple system for alerting consumers when a restaurant performs poorly on an inspection. This means that restaurants with poor inspection performance can continue to endanger their customers, who remain unaware of the risk.<sup>4</sup> While 76 million Americans every year<sup>5</sup> are sickened by unsafe food, much of which is prepared in restaurants, restaurant inspections provide valuable health information that should be readily available to consumers.

# **CHAPTER ONE: Examples & Indicators of Dirty Dining**

On a typical day, 44 percent of American adults eat at a restaurant.<sup>6</sup> Unfortunately, the rate of foodborne illness from restaurant food is disturbingly high. Data from 1990 through 2006 indicate that 41 percent of all foodborne illness outbreaks can be traced to restaurant food, compared to 22 percent from private homes.<sup>7</sup>

A single dish prepared in a restaurant kitchen is often served to many people. Therefore, even a single food safety mistake in a restaurant has greater potential for causing large outbreaks than a similar mistake made in a home kitchen.

Many recent foodborne illness outbreaks attributable to restaurant food have received widespread media attention, illustrating that failures in the restaurant kitchen are common—and can be deadly.

#### Examples of dirty dining...

Chi-Chi's, *Hepatitis A*. 2003. More than 700 people were sickened and four died at this Pennsylvania eatery after eating green onions imported from Mexico.

**Old South Restaurant,** Salmonella. 2003. More than 300 illnesses and one death were reported from undercooked turkey at this South Carolina restaurant.

El Azteca, Clostridium perfringens. 2001. Beef cooled too slowly sickened 15 and killed one at this Georgia restaurant.

Red Lobster, Salmonella. 2002. One death led to an investigation that found 13 violations of poor personal hygiene among employees at this Florida outpost of the popular seafood chain.

Sizzler Steakhouse, *E. coli* 0157:H7. 2000. Fresh watermelon contaminated by raw ground beef was suspected as the cause of the death of a patron at this Wisconsin eatery, with dozens more sickened.

**Carrabba's Italian Grill,** *Norovirus*. 2006. At least 437 people fell ill in Michigan after a sick employee handled food.

**Texas Roadhouse**, *Norovirus*. 2004. Poor hygiene was linked to over 240 illnesses at this Colorado restaurant.

Golden Corral, Salmonella. 2003. One person died and at least 23 others were sickened in Georgia. Investigations showed a likelihood that an employee was infected with Salmonella, and passed it to patrons through poor hygiene and improper food handling. Bacteria were also found in the floor drain of the restaurant.

Chili's Restaurant, Salmonella. 2003. Over 160 people were sickened at Chili's in Illinois. Inspectors cited a failure to wash hands, and noted that a broken water heater in the restaurant made it impossible to effectively clean and sanitize dirty dishes.

Blimpie's, *Norovirus*. 2005. An unsanitized sink used for both handwashing and lettuce washing was thought to be the culprit in an outbreak that sickened 125 people in Michigan.

#### Indicators of dirty dining...

CSPI has identified 10 indicators of dirty dining, based in part on the CDC's top five hazards and in part on consumer concerns.

While rats and roaches make good fodder for TV news, the CDC has identified five less visually disgusting—but far more dangerous—problems as the most critical food safety issues in restaurant kitchens:

#### CDC Top 5

♦ HOLDING TEMPERATURES. Although food temperature is one of the most important methods of controlling the growth of bacteria in food, a recent FDA report found that nearly 65 percent of the restaurants studied were out of compliance with the hot and cold storage recommendations of the Food Code.<sup>8</sup>

Proper temperature control prevents many types of pathogens from multiplying to the levels that cause foodborne illness.

- Both Clostridium perfringens and Salmonella bacteria, for example, can grow in cooked food that is not kept hot or cold enough.
- Clostridium perfringens can grow better than most bacteria at temperatures as high as 120°F.
- Clostridium botulinum continues to multiply slowly in foods at low temperatures, and thus must be refrigerated properly to stop growth.
- Some strains of Staphylococcus aureus are capable of producing a highly heat-stable protein toxin that causes illness, usually because the food has not been kept hot enough (140°F or above) or cold enough (40°F or below).

For example, cooked, potentially hazardous food must be rapidly cooled from 140°F to 70°F within two hours, and from 70°F to 41°F within four hours to avoid the risks of toxins forming.<sup>9</sup> On buffet lines and the like, food must be held at over 135°F to ensure its safety.

#### **Proper Cooling:**

The Food Code recommends a cold storage temperature of 41°F for all raw and cooked food that needs to be refrigerated. <sup>10</sup> This is

essential because many types of bacteria thrive at room temperature and can cause severe food poisoning. Symptoms of food poisoning include diarrhea, vomiting, and abdominal pain.

#### **Proper Hot Holding:**

Even properly cooked food can become dangerous if restaurants do not carefully monitor storage temperatures. While adequate cooking kills the bacteria in most food, some strains of *Staphylococcus aureus*, for example, form spores that can survive even very high temperatures. Further, bacteria easily multiply in cooked food when the food is held in warming pans if the temperature is not high enough to prevent it.

♦ HANDWASHING. CDC recently estimated that 20 percent of foodborne illnesses caused by bacteria are passed by an infected worker. ¹¹ Hands are the main conduit for the spread of viruses and pathogens, and can carry millions of germs. Poor handwashing practices by foodservice workers can have disastrous and far-reaching consequences by contaminating food that is then served to many people.

Three pathogens come primarily from infected workers: Hepatitis A virus, and *Shigella* and *Staphylococcus aureus* bacteria. Hepatitis A and *Shigella* are carried in human fecal matter. The illnesses they cause can be prevented by proper handwashing.<sup>12</sup>

Up to 50 percent of all men and 25 percent of all women fail to wash their hands after they've been to the bathroom, even though bacteria on fingertips double after using the bathroom. FDA recently reported that 75 percent of restaurant workers did not wash their hands or did not do so adequately. Damp hands can spread more germs than dry hands, and millions of germs can hide under watches and bracelets. There can be as many germs beneath a ring, for example, as there are people in Europe.

• IMPROPER COOKING. Although proper cooking of food is vital to ensuring food safety, a recent FDA estimate found that nearly 16 percent of full-service restaurants were not adequately cooking food. Undercooked meat, poultry, and eggs can harbor enough bacteria to sicken diners. Frozen meat that has not been properly thawed before cooking is often accidently undercooked.

Two of the most harmful bacteria linked to raw and undercooked meats, Salmonella and E. coli O157:H7, accounted for over 20 percent of the reported restaurant-associated outbreaks between 1998 and 2005.<sup>14</sup>

Hepatitis A caused 1.1 percent of all reported restaurant-related outbreaks from 1998 to 2005. Symptoms include nausea, vomiting, fever, and jaundice. Severe cases can cause liver damage and death. Notably, symptoms may not surface for several weeks after exposure, making it very difficult to trace the illness back to its source.

Shigella appears up to one week after eating, and causes abdominal cramps, fever, and diarrhea. The pathogen is estimated to have caused 1.7 percent of restaurant-related outbreaks from 1998 to 2005.

Salmonellosis symptoms usually appear within 48 hours after eating, and can include nausea, abdominal cramps, diarrhea, fever, and headache. Salmonella causes bloodstream infections and long-term complications, such as reactive arthritis. In vulnerable populations—the very young, elderly, or immunocompromised—infection can lead to death.

Infection from E. coli 0157:H7 can cause severe abdominal cramps, bloody diarrhea, and hemolytic-uremic syndrome, which can result in kidney failure and death.

Salmonella enteritidis, the strain of Salmonella most likely to contaminate eggs, caused over 50,000 illnesses between 1998 and 2005. 15

E. coli O157:H7, traditionally linked to ground beef and recently found in spinach and other foods, sickened nearly 6400 people in outbreaks occurring between 1990 and 2005. 16 E. coli O157:H7 is naturally occurring in cows, but is present in raw beef only when the animals' intestinal contents or manure are permitted to contaminate the muscle meat during slaughter.

#### ◆ CONTAMINATED FOOD CONTACT

SURFACES. FDA recently found that over 56 percent of full-service restaurants were not following appropriate guidelines for sanitizing equipment and food contact surfaces.<sup>17</sup> Storage containers and the knives used to prepare food can harbor harmful bacteria if they are not thoroughly and regularly cleaned and sanitized during use.

Where bacteria exist, so does the prospect of cross-contamination. Counters and other food preparation surfaces that are inadequately cleaned (for example, cutting surfaces simply wiped down with a wet cloth), or food preparation areas that are improperly separated, can promote the transfer of bacteria from one food to another, resulting in widespread contamination. This type of contamination was most likely at fault in an E. coli outbreak that sickened hundreds and killed one customer at a Sizzler Steakhouse in Wisconsin in 2000. Fresh watermelon, prepared in close proximity to a raw beef grinding station, was the vehicle for infection.  $^{18}$ 

♦ FOOD FROM UNSAFE SOURCES. Thirteen percent of full-service restaurants studied by FDA in 2004 were found to be out of compliance with guidelines for receiving food from safe sources.¹9 Food safety risks in a restaurant begin with the purchase of raw food from suppliers. Bacteria that exist in raw food can multiply and produce toxins if the food is inadequately refrigerated during shipping and handling, even before it reaches the restaurant.

For products that are commonly served without cooking, such as raw oysters, leafy greens and some processed goods, contamination that occurs prior to entering the restaurant can go directly to a consumer at the table.

"Watch the trucks pull up outside the restaurant delivery entrance in the morning if you're in the neighborhood. Reputable vendors of seafood, meat, and produce? Good sign. If you see sinister, unmarked step vans offloading all three at once..." Chef Anthony Bourdain, Kitchen Confidential

Finding reputable food vendors is an essential job of the restaurant management. Even products that will be cooked prior to serving can pose a significant risk and must be purchased from safe sources. In January 2008, for example, a truck loaded with thousands of pounds of raw ground beef suspected to be tainted with  $E.\ coli\ 0157:H7$  bacteria was stolen from a food manufacturer's parking lot in northern Texas. The thieves allegedly sold the contaminated meat to at least one local restaurant, and attempted to sell to several more, putting consumers at grave risk for exposure to  $E.\ coli\$ from cross-contamination or improper cooking.  $^{20}$ 

In addition to the five hazards discussed above, over 1,200 consumers surveyed by CSPI identified the following five areas as their top concerns in restaurant food preparation:<sup>21</sup>

#### CSPI Top 5

◆ EMPLOYEE CLEANLINESS. Seventy-nine percent of respondents indicated that employee

cleanliness and hygiene—in addition to hands—was an area of concern in restaurants.

♦ RODENTS/INSECTS. Sixty-three percent of respondents indicated that the presence of rodents and insects was a concern. The presence of pests is probably the most widely noticed problem in restaurant kitchens. Rodents and insects can provide graphic evidence of a more widespread sanitation problem.

#### IMPROPER USE OF WIPING CLOTHS.

Fifty-seven percent of consumer respondents selected this issue as an area of concern. The use of damp or dirty cloths to wipe down tables and kitchen surfaces is a prime example of a restaurant practice that looks good but can actually be dangerously cross-contaminating.

#### ◆ PRESENCE OF ILL RESTAURANT

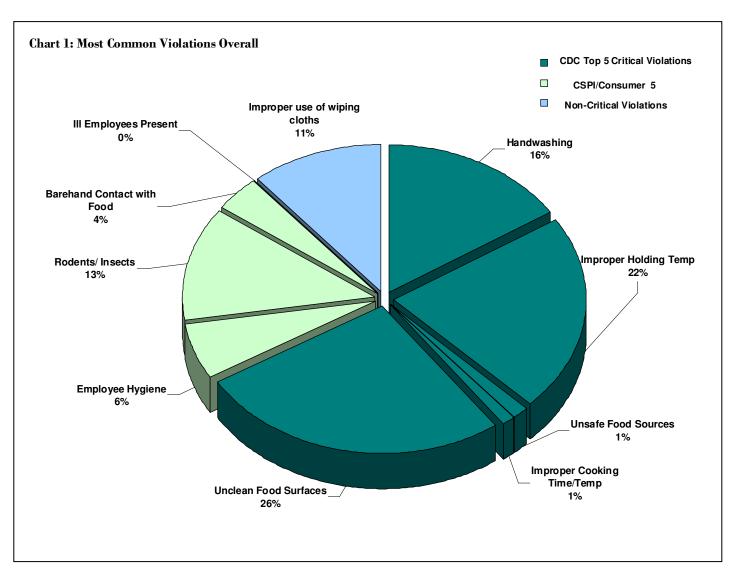
WORKERS. Fifty-six percent of respondents selected the presence of ill workers in restaurant kitchens as an area of concern to them. Restaurant workers rarely receive paid sick leave, or may be unable to take sick leave without losing their jobs. These employees may bring illness into the restaurant kitchen. Further, employees who are not aware that they are ill may spread dangerous germs by failing to follow proper handwashing practices.

#### ◆ BARE HAND CONTACT WITH RAW

FOOD. Fifty-five percent of consumer respondents selected bare hand contact with raw food as an area of concern in restaurant food safety. Most consumers want gloves to be used by workers, and although the Food Code specifies the proper use of gloves to avoid cross-contamination, many restaurant workers may fail to use gloves—or may use them improperly—when handling raw foods. Bacteria from contaminated raw meat can then easily be transferred to produce, or vice versa.

Table 1: Beyond the CDC Five: Areas of Concern for CSPI Consumers, 2007<sup>22</sup>

Area of Concern	%
Employee cleanliness & hygiene (other than hands)	79
Rodents/Insects	63
Improper use of wiping cloths	57
Presence of ill restaurant employees	56
Bare hand contact with raw food	55
Restroom cleanliness	49
Cleanliness of linens & utensils	42
Proper garbage handling & disposal	23
Use of potable water for ice	21
Improper labeling of ingredients in the kitchen	17
Limited eating/drinking/tasting/tobacco by staff	14
Other	12



# CHAPTER TWO: The Food Code—Safety Standards À la Carte

National standards for restaurant food safety are contained in the Food Code, the recommendations published by the Food and Drug Administration (FDA) every four years. However, these standards are simply voluntary guidelines; the FDA does not have the legal authority to impose them. Although FDA encourages state and local governments to adopt the Food Code, many do not. Some jurisdictions adopt the entire code by reference; some adopt portions of the guidance, and others do not incorporate any part of it.

As of 2008, only nine states have adopted the most recent version of the Food Code.<sup>23</sup> Many states and localities following older versions of the Food Code may have passed amendments and updates, bringing their standards up to par with the current recommendations. However, mandatory national adoption of the most recent Food Code could have a significant public health benefit. Each new version of the Food Code—now published every four years contributes better scientific understanding of the problems of food contamination at the restaurant level, and serves as an opportunity to improve food safety and public health. As a guidance document, however, the Food Code lacks power.

What is included in the Food Code? The 2005 Food Code contains over 200 pages of specific recommendations—based on the best science available—on critical issues of food safety and sanitation, including:

- Cooking temperatures for meat, poultry, eggs, and fish
- Hot-holding temperatures for cooked foods
- The need for consumer advisories for raw or undercooked foods
- How often restaurants should be inspected
- Training needed for restaurant health inspectors

Standards for refrigeration equipment and commercial dishwashers

Who decides what goes into the Food Code? The Food Code is updated by the Conference for Food Protection, a group of state and federal officials, industry representatives, consumer groups, and academic officials that meets every two years to recommend changes and additions to the Food Code.

Notably, of the nearly 600 current members of the Conference for Food Protection, fewer than 10 are from consumer groups.<sup>24</sup> Practically speaking, this means that industry officials and regulators are working together with minimal input from consumers to develop the very standards that purport to ensure consumer safety. Not surprisingly, many of the resulting standards are quite industry-friendly.<sup>25</sup>

Who enforces the Food Code? The task of ensuring that restaurants follow the relevant Food Code adopted by the state or local government falls largely to health inspectors at local health or environmental agencies. The guidelines of the FDA state clearly that "a principle goal to be achieved by a food establishment inspection is to prevent foodborne disease."26 However, the departments tasked with this critical responsibility are chronically underfunded and understaffed, and despite their best efforts, may simply be unable to inspect as often or as thoroughly as necessary. In addition to restaurant inspection, health departments also inspect food service facilities in hospitals, nursing homes, day care facilities, street vendors, and others. Health departments must also juggle critical nonfood-related responsibilities.

The overload often results in a single inspector being responsible for hundreds of establishments. Of the 20 cities studied by CSPI, some reported inspecting as infrequently as once per year. The average inspection frequency was twice per year.

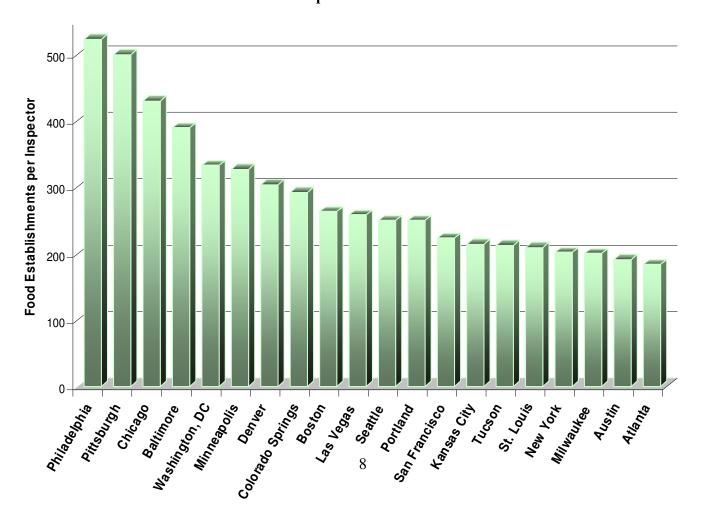
But even an inspection every six months is merely a spot-check and does not ensure restaurant compliance during the rest of the year. The ultimate responsibility for food safety lies with the restaurant's management to make sure its employees are following the highest food safety standards.

Inspection Reports. In addition to being an important public health intervention, the inspection process generates a written record of conditions observed in food establishments.<sup>27</sup> In many jurisdictions, violations of the relevant food safety

guidelines result in point deductions on an inspection form. The resulting score serves as a highly relevant snapshot of food handling violations at that establishment. Studies in Seattle and King County, Washington, for example, found a significant link between the occurrence of foodborne illness outbreaks and violations of food safety guidelines, low inspection scores, or both.<sup>28</sup>

Notably, in a 2007 national survey, 50 percent of consumers said that a letter grade synopsis of the most recent inspection results posted in a restaurant window would be most useful to them in deciding where to dine.<sup>29</sup> This concept, and other, less effective, methods of providing consumer access to inspection results will be discussed further in Chapter Six.

Chart 2: Ratio of Food Establishments to Inspectors



### **CHAPTER THREE: Methodology**

CSPI analyzed inspection reports from 20 cities, based on *Cooking Light* Magazine's Best Cities Awards.<sup>30</sup> CSPI selected 30 restaurants from each city. Ten restaurants were chosen to represent each of three categories, determined by the average price of a meal: high-end, medium-range, and fast food. Restaurants were selected via Internet searches of the 20 cities using a fee-based reservation service, www.OpenTable.com, and various search engines. Where possible, chain restaurants were included from multiple cities.

CSPI sent written inspection report requests to the relevant health department or inspection authority in each city, listing the names and addresses of the 30 requested restaurants. Cities were asked to provide the most recent routine inspection report, not re-inspections or permit inspections. CSPI also requested copies of inspection code books or other explanatory documents, where appropriate.

In addition, cities were asked to provide the number of establishments within the jurisdiction and the number of full-time inspectors.<sup>31</sup> From this data, CSPI calculated a ratio of establishments per inspector in each city. (See Chart 2: Ratio of Food Establishments to Inspectors.)

CSPI analyzed inspection reports for the following:

❖ The five most hazardous critical violations as defined by the CDC ("CDC Top 5"): improper holding temperatures, handwashing, inadequate cooking times, contaminated equipment, and food from unsafe sources. ❖ The additional five factors consumers ranked of most concern to them in restaurant kitchens ("CSPI Top 5"): employee cleanliness, rodents/insects, improper use of wiping cloths, presence of ill restaurant employees, and barehand contact with raw food.

#### Formula.

A restaurant was penalized three points for each instance of a CDC Top 5 violation.

A restaurant was penalized two points for each CSPI Top 5 violation that would be considered a *critical* violation in the 2005 Food Code.

A restaurant was penalized one point for each CSPI Top 5 violation that would be considered a *non-critical or technical* violation in the 2005 Model Food Code.

Scores were added based on this weighted system, and an average score was generated for each city by dividing the total weighted score by the number of inspection reports received. The formula thus accounts for discrepancies in the number of inspection reports provided by each city.

#### Limitations of the Study.

Each city's restaurant inspections are governed by a different section of the local health department, and identifying each was a significant initial hurdle.

The lack of response and apparent disorganization of inspection responsibilities at local health departments presented another obstacle in conducting this analysis.

After sending FOIA request letters to the appropriate local department, CSPI staff encountered further—often significant—delays in receiving the reports from certain cities.

Delays in fulfilling FOIA requests were blamed on inadequate funding and a lack of designated staff to handle inspection reports. In one city, a health department employee informed CSPI that there were simply not enough employees in the office to catalog the inspection reports; thousands of reports thus sat untouched in unorganized boxes. To obtain results from all 20 cities, CSPI staffers worked for eight months.

The results of this report are limited by the quality of data received. While the FOIA letters clearly outlined the request for the most recent routine inspection report from 30 named restaurants, the reports received did not always reflect the original request. Half of all cities did not provide routine inspections for all 30 restaurants. Instead of reports for the latest routine inspections, CSPI received forms for

plan and permit reviews, re-inspections, and complaint-driven inspections. Results from non-routine inspections were not included in the final analysis of cities.

Finally, inspection results are subject to the discretion of individual health inspectors. Some officials are extremely thorough in their inspections and in reporting their findings. Conversely, some inspection reports said very little about violations, and handwriting was either illegible or insufficient to paint an accurate portrayal of the violation. The results of this report are presented with the understanding that inspection results are affected by the quality of the inspections conducted. Thus it is possible that cities with low rates of violations might simply have more lenient inspectors, not safer restaurants.

Table 2: Cities Ranked by Severity of Violations

	Actual Violations				Weighted
City (reports provided)	CDC 5	CSPI 5 (Critical)	CSPI 5 (Non- critical)	Total Violations	Average per Report Provided
Austin (30)	46	10	2	58	5.3
Boston (30)	31	24	8	63	5.0
Milwaukee (20)	23	4	0	27	3.9
Colorado Springs (30)	32	5	9	46	3.8
Kansas City (30)	26	11	4	41	3.5
Pittsburgh (30)	28	6	6	40	3.4
Denver (30)	23	10	2	35	3.1
Las Vegas (25)	21	2	7	30	3.0
Washington, DC (25)	19	5	3	27	2.7
New York (30)	17	15	0	32	2.7
Atlanta (20)	13	3	3	19	2.6
Portland (27)	20	3	2	25	2.5
Baltimore (14)	7	7	0	14	2.5
Minneapolis (29)	15	5	11	31	2.3
Chicago (30)	21	1	0	22	2.2
St. Louis (27)	15	2	0	17	1.7
Seattle (30)	13	2	1	16	1.5
Philadelphia (23)	4	9	3	16	1.4
San Francisco (30)	9	2	4	15	1.2
Tucson (29)	7	6	1	14	1.2

#### **CHAPTER FOUR: City-by-City Analysis**

### Atlanta, Georgia

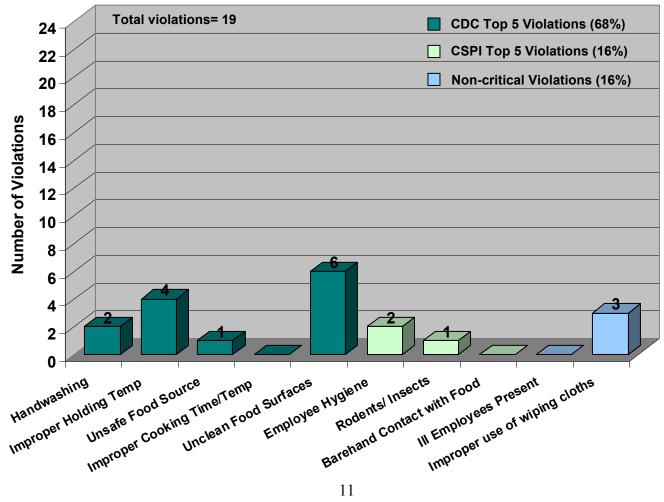
Atlanta's restaurants are inspected by Fulton County Environmental Health Services. The 24 inspectors are responsible for visiting 4,400 food establishments, an average of 183 establishments per inspector. The health department uses its own code and has adopted neither the Georgia state food code nor FDA Model Food Codes. Upon inspection, restaurants are given a score of four to five points for critical violations and one to two points for non-critical violations.

The full report and scores are available for customers in restaurants, but are not available online. Only 20 of the 30 inspection reports requested were provided from the health department. There were six food contact surface violations and four instances of improper holding temperatures, both critical violations. In addition, two violations of employee hygiene/ cleanliness were recorded. There were 19 violations total, averaging nearly one violation per restaurant and a weighted score of 2.4.

Atlanta restaurants were cited for, among other violations:

- Rust and mold in ice machines
- Chemical storage near food and supplies
- Chicken salad stored at 50 degrees, nearly 10 degrees above the Food Code recommended temperature to minimize dangerous bacterial growth

Restaurants studied: Capital Grille, Blue Ridge Grill, Vine Restaurant, Bone's, Wisteria, Ruby Tuesdays, Basil's, Loca Luna, Thrive, Agnes and Muriel's, Sweet Lowdown, McDonald's, Captain D's, Moes Southwest Grill, Chick-fil-A, Quiznos, Popeye's, Dairy Queen, Ben & Jerry's, Starbucks



### Austin, Texas

Austin inspects city food establishments using the Texas Food Establishment Rules, which are based on the 2001 and 2005 Food Codes. Austin's 4,200 establishments are inspected a minimum of twice per year by the city's 22 inspectors, an average of 191 restaurants per person. Inspection results are based on a total possible score of 100, with weighted deductions for critical and non-critical violations. Scores are posted online. All 30 of the reports requested were received.

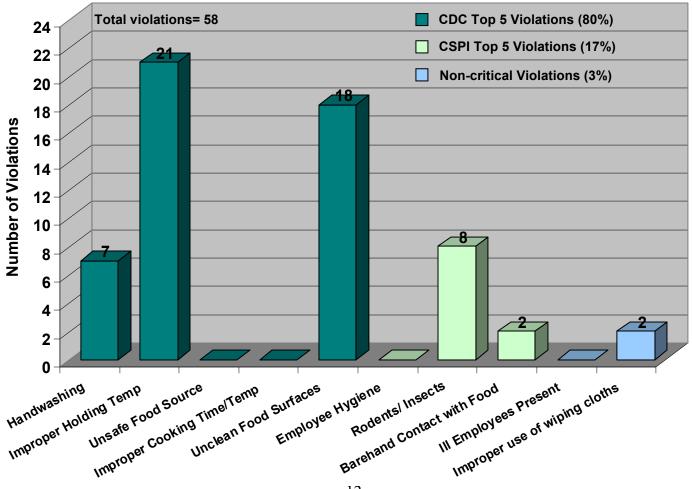
In two categories, improper holding temperatures and food contact surfaces (both CDC Top 5 violations), Austin had more violations than any other city. Additionally, all but two categories had two or more reports of violations. Austin's restaurants received a total of 58 violations— an

average of 1.9 violations per establishment. The weighted violation score was 5.3, the highest of all 20 cities, which could signify a either a very diligent inspection force or restaurants with a worse-than-average record for cleanliness.

Austin's restaurants were cited for, among other issues:

- Accumulation of rodent droppings on stored utensils
- Leaking roof over a food preparation area
- Cooked poultry and raw fish both stored at 46 degrees, six degrees higher than the Food Code recommends
- Improperly connected drainlines to sewage facilities
- A meat thermometer over 10 degrees out of calibration

Restaurants studied: Jeffrey's Restaurant, Shoreline Grill, Vin Bistro, Cool River Café, Roy's, Ruth's Chris Steakhouse, Sullivan's Steakhouse, Reed's Jazz and Supper Club, The Driskill Grill, Zoot, Applebees, Red Lobster, Chez Zee, Dona Emilia's, Red Bud Grill, Ventana, TGI Friday's, Trulucks, PF Changs, Curra's Grill North, McDonald's, Pita Pit, Moe's, Chick-fil-A, Kenny's Coffee Company, Ben & Jerry's, Gelato's, Quiznos, Taco Bell, Arby's



### Baltimore, Maryland

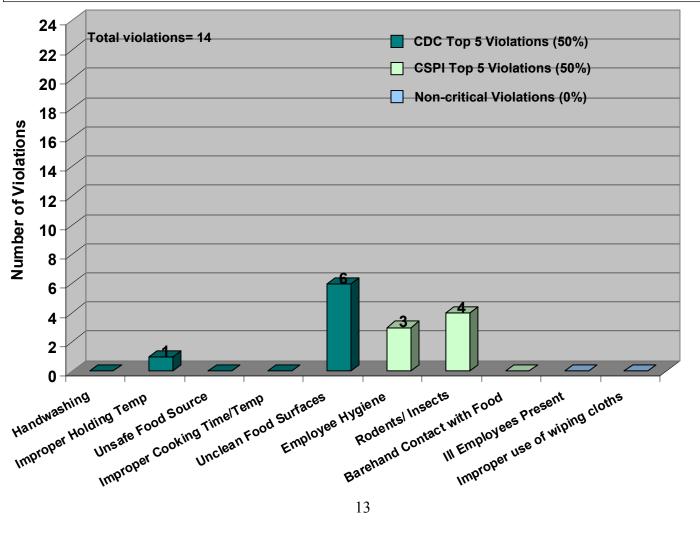
Food establishments in Baltimore are inspected by the City of Baltimore, where 14 inspectors visit 5,456 establishments one to three times per year an average of 390 per person. Baltimore follows the 1998 FDA Model Food Code. Inspection results for schools are posted on the school grounds. Results for restaurants are not posted, but names of closed restaurants are listed online.

Baltimore provided only 14 routine inspection reports for review, with a total of 14 violations. Violations were recorded most frequently for unclean food contact surfaces, followed by rodent and insect activity. It should be noted that additional inspection reports, if provided, may have offered additional insight into the types of violations most often recorded by Baltimore inspectors. There was an average of one violation per establishment, and a weighted score of 2.5.

Baltimore restaurants were cited for, among other violations:

- Chemicals stored near food and food prep
- Roach droppings on floor and roach crawling on shelves

Restaurants studied: Capital Grille, Charleston, Della Notte, Aldo's, Red Square Restaurant, Black Olive, Gardel's Supper Club, Red Maple, Petit Louis Bistro, McDonald's, Quiznos, Petrucci's Ice Cream, Dunkin Donuts, Starbucks



#### Boston, Massachusetts

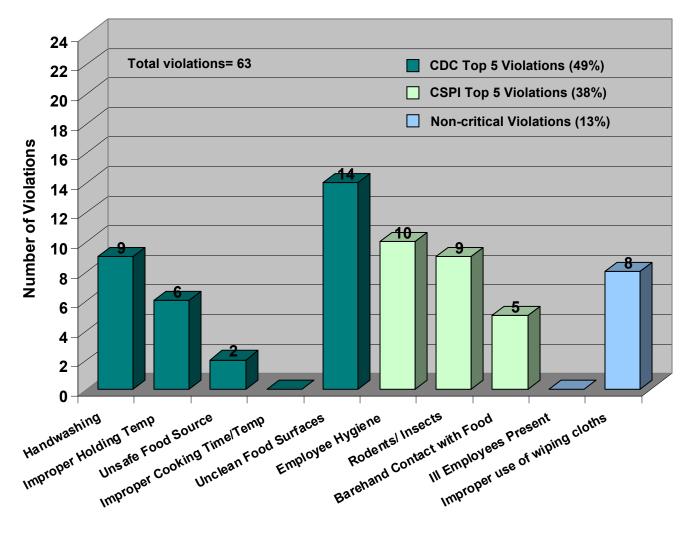
The City of Boston inspects city food establishments at least once a year, using the 1999 Food Code. Eighteen inspectors are responsible for visiting 4,747 food establishments, averaging 264 per person. Violations are not scored, but critical violations are distinguished from non-critical violations. Inspection results are posted online with violation codes—but not corresponding descriptions—listed and labeled as critical or non-critical.

Boston had the highest incidence of employee hygiene violations of all cities. In addition, there were many violations of handwashing, food contact surfaces, and rodent and insect activity. Only two of the categories had zero violations; the other categories had at least two restaurants in violation of the code. This city averaged 2.1 violations per establishment, and a weighted violation score of five. All of the requested inspection reports were provided.

Boston restaurants were cited for, among other violations:

- Improper, inadequate handwashing
- Presence of insects, rodents, animals, and openings to outside allowing pests in
- Food spoilage
- Food not segregated, separated, or protected from cross-contamination

Restaurants studied: Clio, Top of the Hub, No. 9 Park, Armani Café, Mamma Maria, Ristorante Fiore, Stephanie's on Newbury, Tremont 647, Vox Populi, Radius, Cheesecake Factory, Chili's Grille, 29 Newbury, Croma, L'Osteria, Marco, McCormick & Schmick's, Brown Sugar, Peking Tom's, Stella, Au Bon Pain, Dunkin Donuts, McDonald's, Ankara Café, Ben and Jerry's, Billy's Sub Shop, Burger King, Dairy Queen, Qdoba Mexican Grill, Quizno's Sub



### Chicago, Illinois

The City of Chicago inspects food establishments using a food code that has incorporated parts of the 1999 Model Food Code. Chicago establishments are inspected either biannually, annually, or once every two years, based on the risk category of the establishment. Thirty-six inspectors are responsible for inspecting Chicago's 15,500 food establishments, averaging 431 per person. Inspection results are not scored, but violations are identified as being "critical," "serious," and "minor."

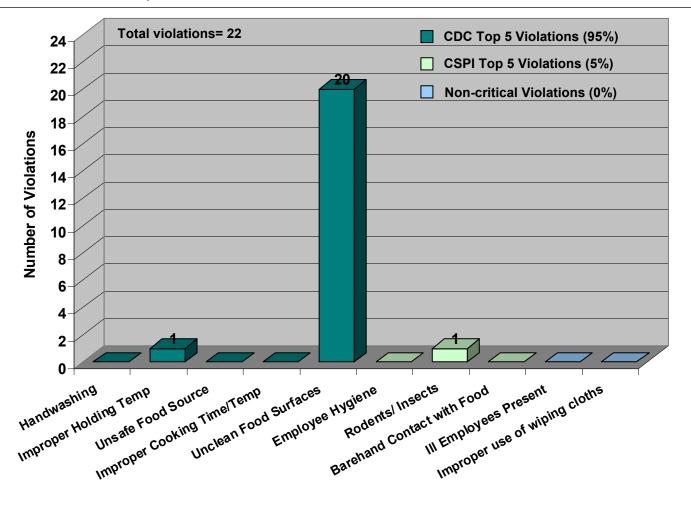
Inspection results are available online. Chicago provided 30 routine inspection reports as requested for review. Chicago restaurants received the most violations of all cities studied relating to unclean food contact surfaces, one of CDC's most hazardous

violations. Chicago performed well on other aspects of the inspections. There was an average of 0.7 violations per site, with a weighted score of 2.2.

Chicago restaurants were cited for, among other violations:

- Not all utensils were thoroughly cleaned and sanitized after each use
- Not all food and non-food contact surfaces of equipment and food storage utensils were thoroughly cleaned and sanitized
- Violation of temperature holding: hot food not 140°F or higher, cold food not 40°F or lower
- Presence of rodents and/or roaches

Restaurants studied: Merlo on Maple, Naha, North Pond, Red Light, Aria, Shanghai Terrace, Atwood Café, Capital Grille, Sullivans Steakhouse, Catch 35, Bluprint, Quartino, Red Lobster, TGI Fridays, PF Changs, Cheesecake Factory, Mambo Grill, Lalo's, Rhapsody, Scoozi, McDonald's, Pita Pit, SuperDawg Drive-in, Wiener's Circle, Harold's Chicken Shack, Sbarro, White Castle, Quiznos, Jamba Juice, Arby's



### Colorado Springs, Colorado

El Paso County inspects food establishments in Colorado Springs using a food code similar to the 2001 Food Code. Food establishments were inspected twice annually, but starting in 2007, a risk-based system is used to determine if certain establishments qualify to be inspected once, twice, or three times per year.

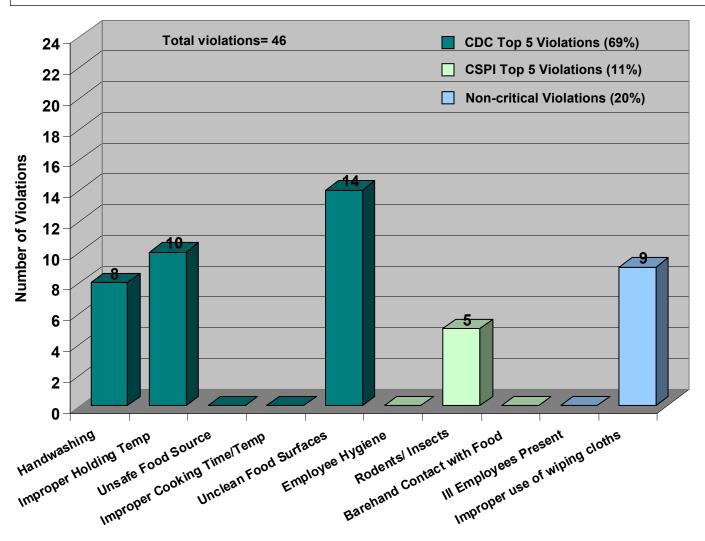
Eight inspectors cover at least 2,341 establishments and several hundred temporary eating establishments during special events. A searchable online database allows consumers to see the health violations found during inspections for numerous inspections at the same restaurant.

Colorado Springs averaged 1.5 violations per establishment with a weighted score of 3.8. The city provided all 30 requested inspection reports. Nearly half of the restaurants had violations relating to food contact surfaces, and improper holding temperatures was the category with the second most violations.

Colorado Springs restaurants were cited for, among other violations:

- Outer openings not adequately protected against insects and rodents
- Potentially hazardous foods not being properly held cold as required

Restaurants studied: MacKenzie's Chop House, Penrose Dining Room, Broadmoor Tavern, Broadmoor, Charles Court, La Petite Maison, Sunbird, Margarita, Colorado Steaksmith, Craftwood Inn, Peppertree, TGI Fridays, Applebees, Jose Muldon's, Metropolitan, Giuseppe's Old Depot Restaurant, The Blue Star, Marigold's Café and Bakery, Edelweiss, Red Lobster, Macaroni Grill, McDonald's, Pita Pit, Subway, Quiznos, Arby's, Panera, Jamba Juice, Dunkin Donuts, Chick-fil-A, Chipotle



#### Denver, Colorado

Food establishments are inspected by the City of Denver using a food code based on the 2001 Food Code, but with adjustments. Denver has 11 fulltime inspectors and one part-time inspector who visit approximately 3,500 establishments and many other temporary outdoor booths, carts, and mobile units. Each inspector covers an average of 304 establishments.

Full-service restaurants are inspected three to four times annually. Health violations are not scored but, according to the health department, critical violations are more likely to lead to closure than non-critical violations. Restaurants are not required to show inspection reports to consumers, but

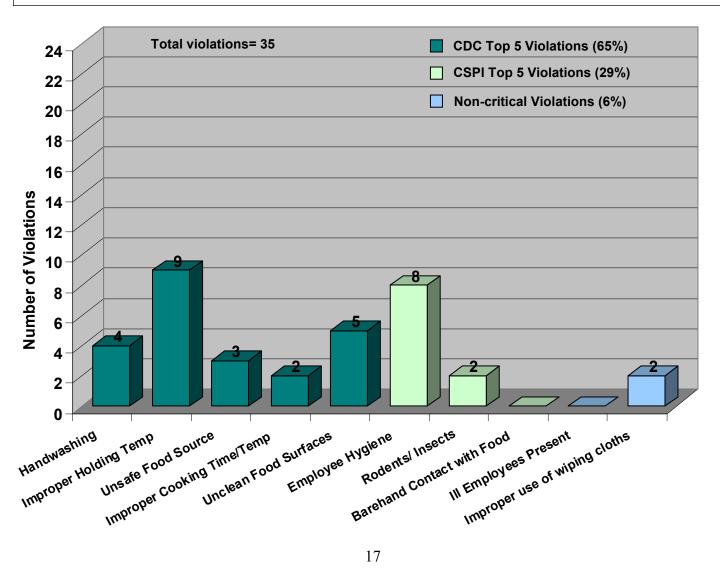
consumers can access results online.

Denver averaged 1.2 violations per establishment, and a weighted score of 3.0. Each of the 30 requested inspection reports were provided. There were many violations of improper holding temperatures and improper employee hygiene. In addition, Denver had at least two or more violations in all but two categories, including violations in each of the CDC's most hazardous categories.

Denver restaurants were cited for, among other violations:

- Improper sewage disposal
- Evidence of insects or rodents
- Garbage and refuse accumulation/uncovered

Restaurants studied: Aix, Black Pearl, La Fondue, Morton's the Steakhouse, Tamayo Restaurant, Tula,, Wellshire Inn, Mizuna, Venice ristorante, Vesta Dipping Grill, Macaroni Grill, Rioja, Il Posto, Victory American Grill, Three Sons, Ruby Tuesday's, Cheesecake Factory, Milagro Taco Bar, Del Mar Crab House, BB's on Pearl, McDonald's, Quiznos, Good Times, Arby's, Starbucks, Grandpa's Burger Haven, Ben and Jerry's, Panera, Jimmy John's



#### Kansas City, Missouri

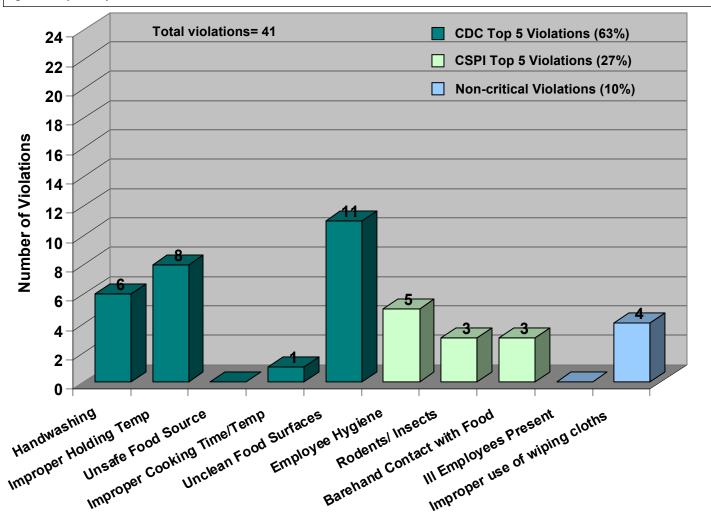
The City of Kansas inspects food establishments using the 2001 Food Code. Kansas City's 3,000 food establishments are inspected biannually by the city's 14 inspectors, an average of approximately 214 establishments per person. Inspection results are not scored, but critical violations are noted separately. Inspection results are available online.

Of the 30 restaurants reviewed, 26 high risk violations and 11 medium risk violations were recorded. The city averaged 1.4 violations per inspection, with a weighted score of 3.5. Food surfaces were most often in violation, and all but two categories had at least one violation. All 30 requested inspection reports were provided.

Kansas City restaurants were cited for, among other violations:

- Employee in wait station area handling sliced lemons with bare hands
- Ice machine has mold built up on shoot arm prep alto sham has grease build up inside bottom
- Raw chicken, lobster, and shrimp stored above vegetables and sauces
- Dead and/or trapped pests not removed from traps at adequate frequency

Restaurants studied: Capital Grille, Phillips ChopHouse, The American Restaurant, Le Fou Frog, Pierpont's at Union Station, EBT, Blue stem, The Melting Pot, Ruth's Chris Steak House, Morton's, The Steakhouse, The Cheesecake Factory, Applebee's, P.F. Chang's China Bistro, Café Trio, Lidia's Italy, M & S Grill, The Mango Room, Tre 20 Mare, Grand Street Café, Webster House, McDonald's, Burger King, Wendy's, Taco Express, Taco Bell, Papa John's Pizza, Jimmy John's Sandwich Shop, Wrap It Up, Subway, Dairy Queen



### Las Vegas, Nevada

The Southern Nevada Health District inspects food establishments in Las Vegas using the 1995 Food Code. Establishments are inspected at least once per year. The city has approximately 22,000 establishments and 85 inspectors, each person averaging 259 establishments per inspector. Inspection results are scored and assigned grade values, with critical violations weighted more heavily than non-critical violations.

Letter grades are posted at Las Vegas food establishments. Neither the numerical score nor inspection report is available online.

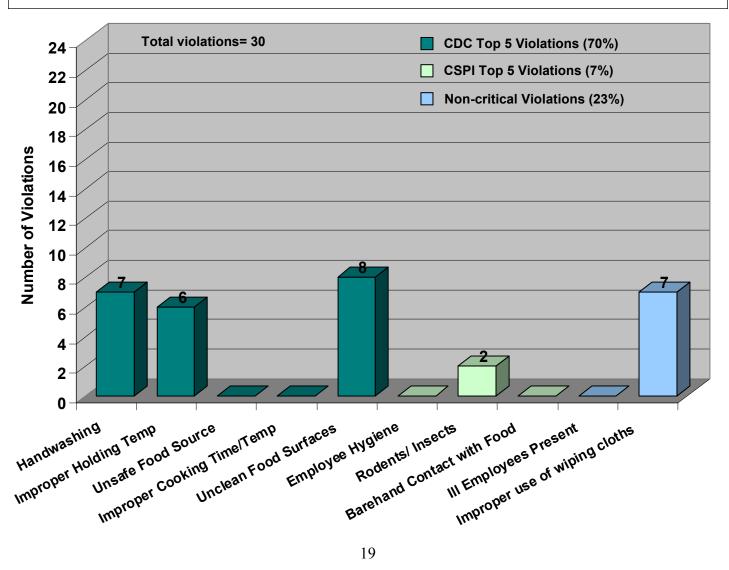
Only 25 inspection reports were provided out of the 30 requested, and showed handwashing and food

contact surfaces to be the categories most frequently violated. In addition, Las Vegas restaurants had the second highest incidence of improper use of wiping cloths. Las Vegas averaged 1.2 violations per establishment, with a weighted violation score of three.

Las Vegas restaurants were cited for, among other violations:

- Heavy cream (51°F) and sauce (47° F) found at unsafe cold holding temperature
- No hot water at handwashing sink
- Refrigerator across from stove is holding food at  $80^{\circ}F$
- A half gallon of fat free milk outdated by six months

Restaurants studied: Aqua Knox, Trattoria del Lupo, Postrio, Envy the Steakhouse, Caffe Giorgia, Canaletto, Tillerman Restaurant, Roy's, Emeril's, Zefferino, Firefly on Paradise, Cheesecake Factory, Origin India, Sushi Roku, McCormick and Schmicks, Border Grill, Macaroni Grill, McDonald's, Sbarro, In N' Out Burger, Luv it Frozen Custard, Arby's, Subway, Wendys, Starbucks



#### Milwaukee, Wisconsin

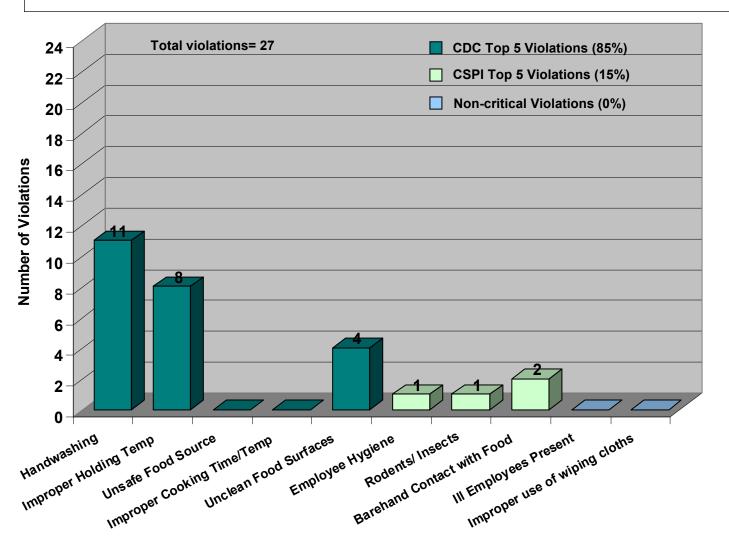
Food establishments are inspected by the City of Milwaukee using the 2005 FDA Model Food Code. Seventeen inspectors visit the city's approximately 3,400 establishments once per year, averaging 200 per person. Inspection results are not scored or posted on site, but a new online database lists results for many establishments.

Milwaukee provided only 20 of 30 requested inspection reports. Of these, 11 reports show that restaurants were in violation of handwashing codes, with improper holding temperatures the second highest violation. Milwaukee averaged 1.4 violations per food establishment, with a weighted score of 3.9.

Milwaukee restaurants were cited for, among other violations:

- Failure to discard potentially hazardous foods after seven days
- Observed employee not wash hands after working with raw products and touching readyto-eat food products
- Vegetables prepared next to sink in which shrimps were being thawed and peeled
- Coolers and refrigerators not storing foods at 41°
   F or below

Restaurants studied: Bacchus, Capital Grille, Coast Restaurant, Carnevor, Sauce, Envoy, Aqua, Lake Park Bistro, Applebees, The Knick, Yanni's, Olive Garden, Coquette Café, Mason Street Grill, Café Rouge, Burger King, Arby's, Subway, KFC, Checkers



#### Minneapolis, Minnesota

The City of Minneapolis uses the 1999 FDA Model Food Code to inspect its 3,600 food establishments. Eleven inspectors are responsible for approximately 327 food establishments each, and visit each approximately once per year. Inspection results are not scored, but critical violations are more likely to lead to closure than non-critical violations. Inspection results are not posted in the establishments or online.

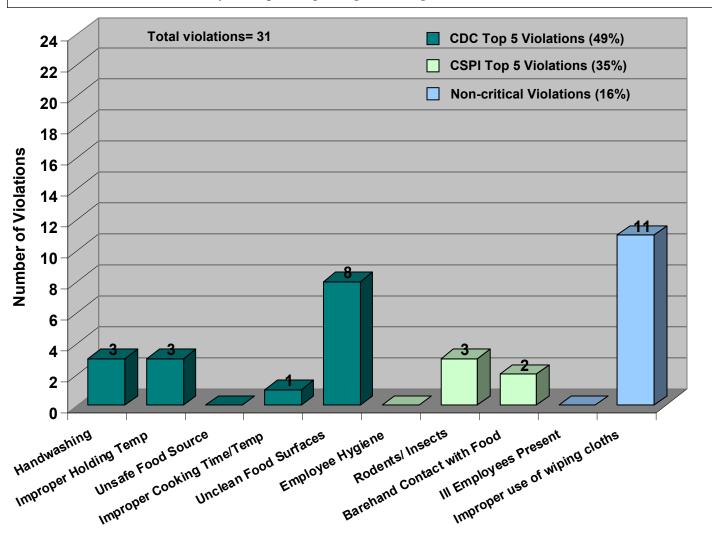
Of the 29 inspection reports provided for review, a significant number of violations were recorded as a result of unclean food contact surfaces. Additional

violations were recorded for handwashing, improper holding temperatures, and rodent/insect activity. Minneapolis had an average of 1.1 violations per restaurant, with a score of 2.3 weighted violations.

Minneapolis restaurants were cited for, among other violations:

- Soap dispenser missing at handsink
- Mouse droppings by ice machine

Restaurants studied: Capital Grille, Manny's Steakhouse, Oceanaire Seafood Room, Ruth's Chris Steakhouse, Babalu, Cave Vin, Nicollet Island Inn, The Melting Pot, Vincent - A Restaurant, Applebee's, Al Vento, Figlio, Jax Café, King & I Thai, Monte Carlo, Zelo, Stella's Fish Café & Prestige Oyster Bar, Trocaderos, Masa, McDonald's, Taco Bell, Taco John's, Manny's Tortas, Potbelly Sandwich Works, White Castle, Wendy's, Blimpie, Burger King, East Village Market and Deli



#### New York, New York

The City of New York inspects its 23,665 city food establishments two to four times per year. It should be noted that the number of full service establishments in New York City is 50 percent more than in Chicago, and is the largest number of establishments by far among the 20 cities studied.

The city employs 117 field Public Health Sanitarian and 14 Environmental Health Technicians to perform inspections. An average of 181 establishments for each inspector is the lowest ratio of the 20 cities. Establishments that fail an inspection receive a compliance inspection and those that have a history of past non-compliance (two failed inspections in the previous year) are inspected on a six-month cycle. Violations are assigned points and critical violations are weighted more than noncritical violations. Restaurants with fewer than 28 out of 175 points pass inspections, and the city's cleanest restaurants are eligible to receive the

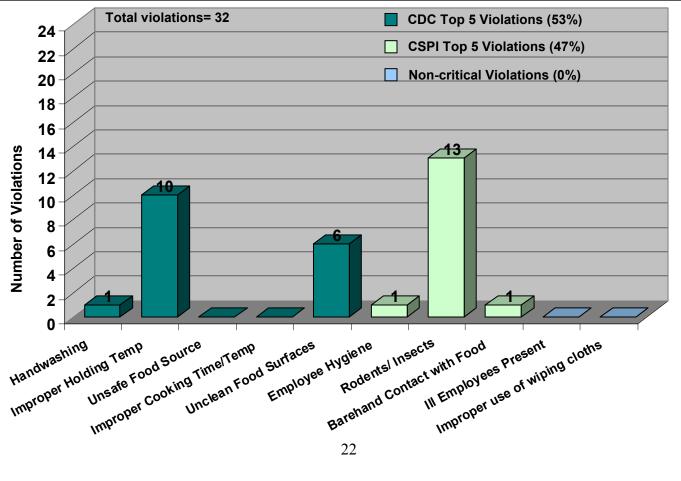
Golden Apple Award. Restaurants are not required to post scores, but inspection histories (three years) are available online.

New York provided 30 routine inspection reports as requested. Violations were recorded in 10 instances for improper holding temperatures, one of CDC's top hazards. The restaurants studied also recorded 13 violations related to rodent and insect activity, more than any other city in the survey. Additional violations were found due to unclean food contact surfaces. On average, each restaurant had 1.1 violations and a weighted score of 2.7.

New York restaurants were cited for, among other violations:

- Cooked or prepared food is cross-contaminated
- Milk or milk product undated, improperly dated or expired

Restaurants studied: Bouley, Tabla, Bella Blu, Le Colonial, Ninja, The Harrison, Veritas, Ada, Bar Centovini, Geisha, Banana Leaf, Darbar, TGI Friday's, La Giara, Opia, McCormick and Schmicks, Village, Sette, Olive Garden, Stone Rose Lounge, McDonald's, Gray's Papaya, Sundaes and Cones, Quiznos, Philly Slim's Cheesesteaks, Starbucks, Sbarro, White Castle, Wendys, **Dunkin Donuts** 



#### Philadelphia, Pennsylvania

The City of Philadelphia inspects its food establishments using the 2001 FDA Model Food Code. Inspection results are not scored, but critical violations are distinguished from non-critical violations, and are more likely to lead to closure. Critical violations are listed on the Philadelphia government website. Inspectors in Philadelphia are responsible for more establishments per inspector than the other cities reviewed in this report. Twenty-six inspectors cover 13,609 food establishments, averaging 523 restaurants per inspector.

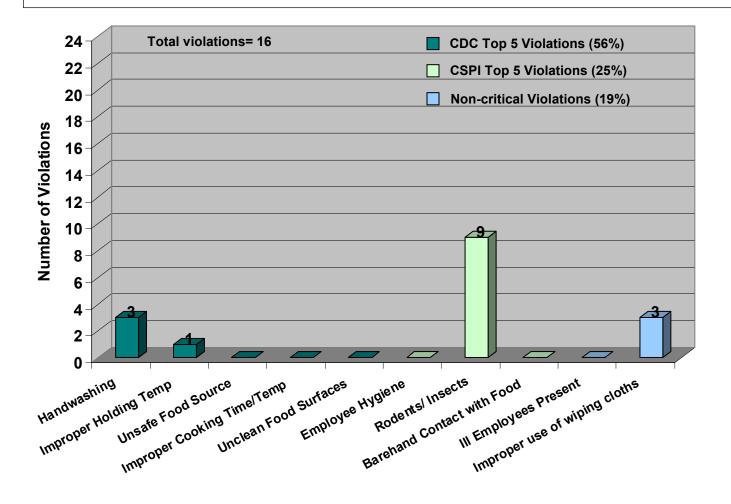
Philadelphia had an average of 0.7 violations per restaurant, and a weighted score of 1.4. However, Philadelphia restaurants had nine violations for evidence of rodent or insect infestations—one of the

largest numbers of that particular violation of all 20 cities. Philadelphia also recorded several handwashing and improper use of wiping cloth violations. Philadelphia only provided 23 of the 30 requested inspection reports.

Philadelphia restaurants were cited for, among other violations:

- No hot water provided at employee handwashing sink
- Food stored beneath unprotected sewer lines
- Mouse infestation present; mouse feces observed along ledges, shelves, and perimeter of basement and 2nd floor

Restaurants studied: Capital Grille, Lacroix, Striped Bass, The Prime Rib, Alma de Cuba, Pompeii, White Dog Café, Red Lobster, Chilis, Applebees, Bistro Romano, Red Sky, Illuminaire, Bridget Foy's, Patou, The Melting Pot, McDonald's, Burger King, Geno's Steaks, Chick-fil-A, Arby's, Starbucks, Pat's King of Steaks



### Pittsburgh, Pennsylvania

Pittsburgh's restaurants are regulated by the Allegheny County Health Department. Seventeen inspectors cover 7,500 food establishments, averaging 441 per person. The Allegheny Health Department uses their own food safety code to regulate establishments. A "Diamond Standard" rating is given to restaurants with the best performance. There is no scoring system and the reports are not available online, but are available on file in the health department.

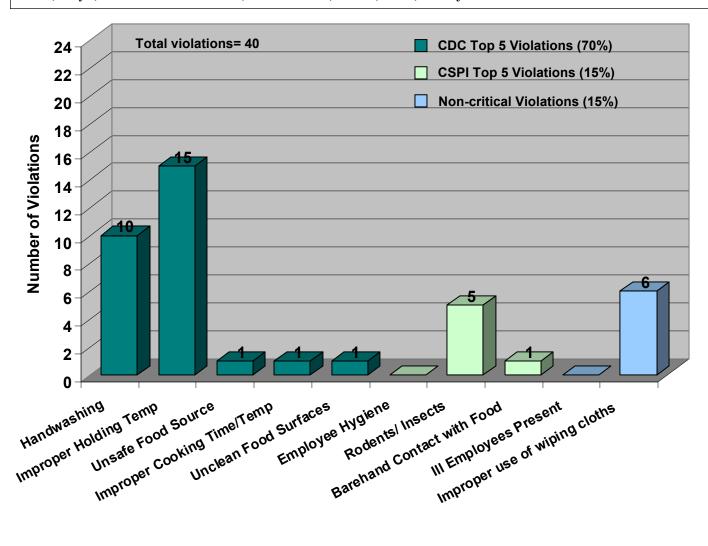
Pittsburg reported violations in all but two categories. The most frequent violations occurred in the handwashing and improper holding temperature categories, which are both included in CDC's top

hazards. The average number of violations for each food establishment is 1.3, with a weighted average of 3.4. Pittsburgh provided all 30 of the requested inspection reports.

Pittsburgh restaurants were cited for, among other violations:

- Live roach seen on cutting board
- Sushi at 45-48°F

Restaurants studied: Casbah, Eleven, Ruth's Chris Steakhouse, SOBA Lounge, The Carlton, Trilogy, Laforet, Opus/Renaissance Pittsburgh, Sushi Kim, Rico's, TGI Friday's, Red Lobster, Nakama, Original Fish Market, Applebees, Palomino, Cheesecake Factory, Six Penn Kitchen, Willow, Pizza Italia, McDonald's, Pita Pit, Original Hot Dog Shop, Dave and Andy's, Homemade Ice Cream, Arby's, Uncle Sam's Classic Subs, Steak n' Shake, Panera, Moe's, Chick-fil-A



### Portland, Oregon

Food establishments in Portland are inspected by Multnomah County using the 1999 Food Code. The city's approximately 5,000 establishments are visited biannually by 16 full-time and four on-call inspectors. Without the on-call help, each full-time inspector would be responsible for 313 food establishments.

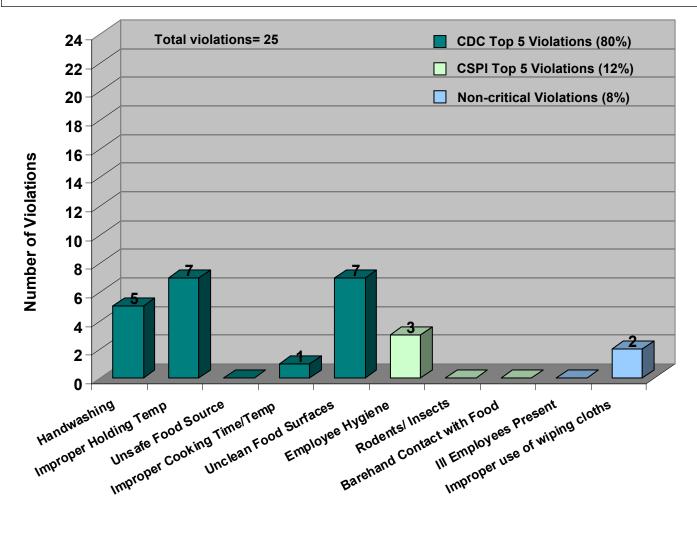
Inspection results are scored, and critical violations receive more weight than non-critical violations. Restaurants that pass inspection display a "Complied" sign, and inspection scores are available online.

Portland restaurants received equal numbers of violations for unclean food contact surfaces and appeared in fairly high numbers on Portland's inspection reports. Portland averaged 0.9 violations per establishment, with a weighted violation score of 2.5.

Portland restaurants were cited for, among other violations:

- Hose stored in utility sink, creating crossconnection between sewer and water supply
- Cooler in bar storing milk reaching only 45°F
- Thick algae build-up on top interior of ice machine

Restaurants studied: Morton's, The Steakhouse, Ruth's Chris Steak House, Andina, Hurley's Portland, Jake's Famous Crawfish, Olea Restaurant, Salty's on the Columbia, Shula's Steakhouse, Wildwood Restaurant and Bar, clarklewis, Bay 13, Fenouil, Chili's, Applebee's, Jake's Grill, Masu Sushi, Red Star Tavern & Roast House, Oba, Three Degrees, Porto Terra - The Hilton, McDonald's, Subway, Jamba Juice, Hot Lips Pizza, Good Dog/Bad Dog, Mazatlan Taqueria, Wendy's, Arby's, Pizza Hut, Burgerville



#### San Francisco, California

The City and County of San Francisco inspects food establishments using the 2005 Food Code along with a 2007 supplement. The city's 5,375 establishments are visited one to three times annually by 20 inspectors, of whom four managers are designated for food establishments only. Each inspector covers approximately 224 establishments. Inspection results are scored and violations are assigned points according to risk. Results are posted at the establishment and online. The city's best restaurants are awarded the "Symbol of Excellence."

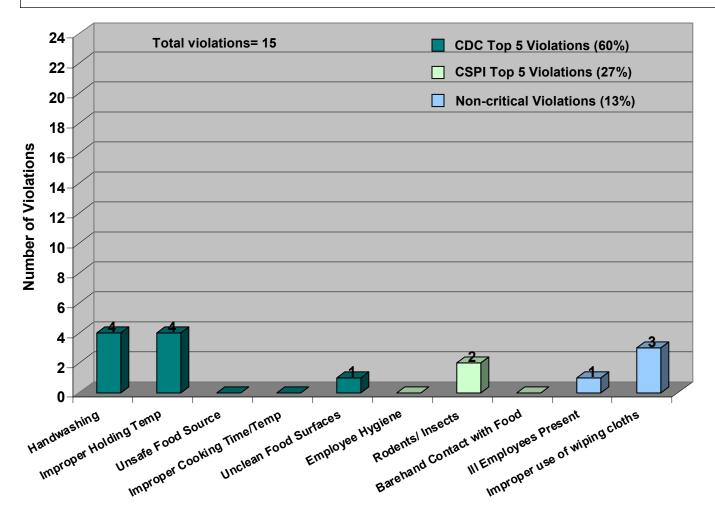
The 30 restaurants studied in San Francisco performed well on most parts of their inspections.

The city had an average of 0.5 violations per site, and a weighted average of 1.2 violations per site. Most violations came from two of the CDC's top five hazards: handwashing and improper holding temperatures. Restaurants were also cited for improper use of wiping cloths, and for two instances of rodent or insect issues.

San Francisco restaurants were cited for, among other violations:

- Critical sink/fixture (handwashing/utensil washing/food prep)- missing/inoperable/ inaccessible hand sink
- Ready-to-eat food exposed to possible contamination from raw meats/poultry/fish/eggs

Restaurants studied: Aqua, Farallon, Fleur de Lys, La Folie, supperclub san francisco, Rubicon, Café Majestic, Foreign Cinema, Le Colonial, Plouf, Alioto's, Café de la Presse, Colibri - Mexican Bistro, Hyde Street Bistro, Maharani, Millennium, Hard Rock Café, Shanghai 1930, The Richmond, Yabbie's Coastal Kitchen, McDonald's, Jamba Juice, Burger King, Burgermeister, In-N-Out Burger, Carl's Jr., Rubio's, Jack in the Box, Taqueria Viva Zapata, Drumm Liquor and Deli



### Seattle, Washington

Seattle food establishments are inspected by King County one to three times per year, using the 2001 Food Code. Over 40 inspectors are responsible for monitoring the safety of approximately 10,000 food establishments, with each inspector responsible for 250 establishments. Inspection results are scored and violations are given varying points according to severity. Inspection results are posted online.

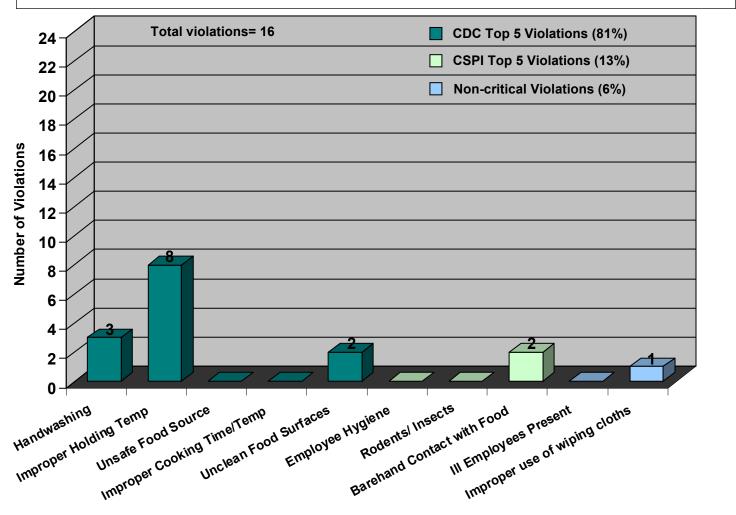
Seattle's largest number of recorded violations came from improper holding temperatures, one of CDC's top five hazards. Several handwashing violations were also recorded. Seattle provided 30 routine inspection reports as requested. Seattle

averaged 0.5 violations per restaurant, generating a weighted violation score of 1.5 per establishment.

Seattle restaurants were cited for, among other violations:

- Inadequate equipment for temperature control
- Wiping cloths improperly used/stored
- Food not protected from potential contamination during preparation, storage, display

Restaurants studied: Chez Shea, Daniel's Broiler, Rover's, Assaggio, Restaurant Zoe, Qube, Il Bistro, Dahlia Lounge, Ipanema Brazilian Grill, Flying Fish, BOKA Kitchen + Bar, Applebee's Neighborhood Grill, The Cheesecake Factory, Palomino, Moxie Restaurant, La Dolce, Vita Seattle, Red Robin, McCormick & Schmick's, Racha Noodles & Thai Cuisine, P.F. Chang's China Bistro, Cuppa Jo on the Go, Papa John's Pizza, McDonald's, Burger King, Burger & Kabob Hut, Burgermaster, Wendy's, Jamba Juice, Arby's



### St. Louis, Missouri

The City of St. Louis inspects food establishments using the 1993 FDA Model Food Code.
Establishments are inspected two to three times per year, with 11 inspectors covering approximately 2,300 establishments, averaging 209 per person. Health violations are assigned points, weighting critical violations more than non-critical violations. Inspection results are translated into letter grades, ranging from A to C, which are posted at the

St. Louis restaurants had a significant number of violations due to problems with food contact surfaces. Routine inspection reports were provided

restaurant and online. The website also shows

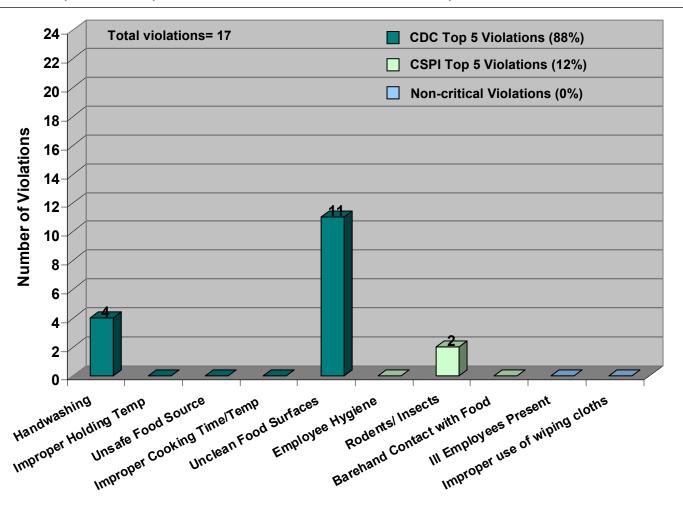
average scores over the last three years.

for 27 establishments out of the 30 requested. There was an average of 0.6 violations per restaurant, and a weighted score of 1.8. St. Louis inspectors also recorded several handwashing violations.

St. Louis restaurants were cited for, among other violations:

- Unclean meat slicer
- Food items on the floor of walk-in cooler and uncovered at time of inspection

Restaurants studied: Charlie Gitto's "On the Hill", Westin Hotel- Clark Street Grill, Dierdorf's and Hart's Steakhouse, Mike Shannon's, Tony's, Eau Bistro, Givoanni's, Al's Restaurant, Eleven Eleven Mississippi, TGI Friday's, Niche, Café Eau, Red Moon,, Hyatt Regency Station Grill, Savor, Applebee's, Terrenne, Vin de Set, McDonald's, White Castle, Ted Drewes Frozen Custard, Arby's, Ben and Jery's, Sonic Drive-in, Starbucks, Steak n' Shake, Subway



#### Tucson, Arizona

Tucson food establishments are inspected by Pima County using the 1999 Food Code. The county's 20 inspectors visit 4,253 establishments one to three times per year, with each person responsible for 213 establishments. Inspection results are not scored, but establishments are given a rating of "excellent," "good," "needs improvement," or "provisional license," according to the number of violations. The health department website lists ratings and violations.

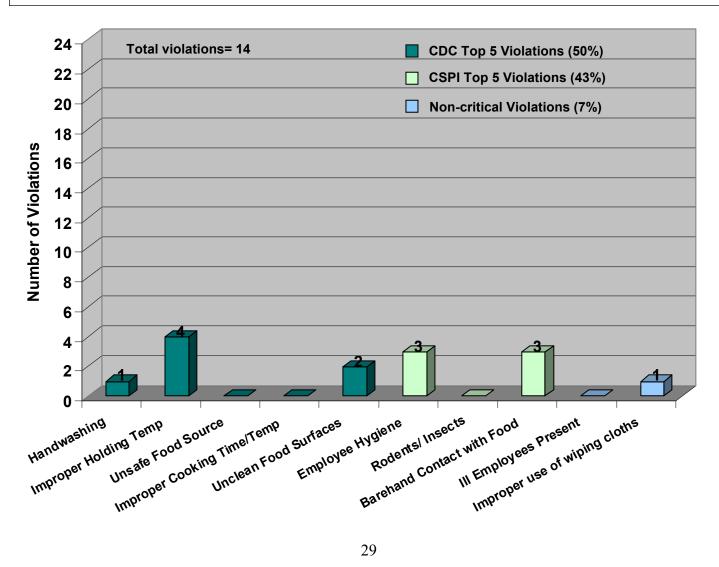
Tucson restaurants averaged 0.5 violations per restaurant. The health department supplied 29 of the 30 routine inspection reports requested. The majority of violations in Tucson restaurants were

from improper holding temperatures, employee hygiene issues, and improper barehand contact with food. Inspectors typically verbally alerted restaurant employees about violations, but did not record the violation in the final inspection results if the violation was immediately corrected.

Tucson restaurants were cited for, among other violations:

- Steam unit (hot holding on cook line)- foods not held at above 130°F; unit not set properly/ working
- Chicken salad and cottage cheese temperatures at 45°F

Restaurants studied: Janos, Sullivan's Steakhouse, The Ventana Room @ Loews Ventana Canyon, Arizona Inn, Catalina Steakhouse, Gold Room, Primo, Signature Grill, Anthony's in the Catalinas, Olive Tree, Elle, Wildflower, Olive Garden, Macayo's, NoRTH, T.G.I. Friday's, Terra Cotta, Bluefin Seafood Bistro, Miguel's, Acacia at St. Philips, McDonald's, KFC, Boston Market, Nico's Taco Shop, Wienerschnitzel, Eegee's, In-N-Out Burger, Taco Bell, Baggin's Gourmet Sandwiches, Poco Loco Tacos



### Washington, D.C.

Restaurants in the nation's capital are inspected by the District of Columbia using the 1999 Food Code. Depending on an establishment's risk level, it can be visited two to four times per year. Fifteen district employees inspect the city's 5,000 food establishments, averaging 333 food establishments per employee. Inspection results are not scored, but critical violations are more likely to lead to closure than non-critical violations. Inspection results are not posted in the establishments or online.

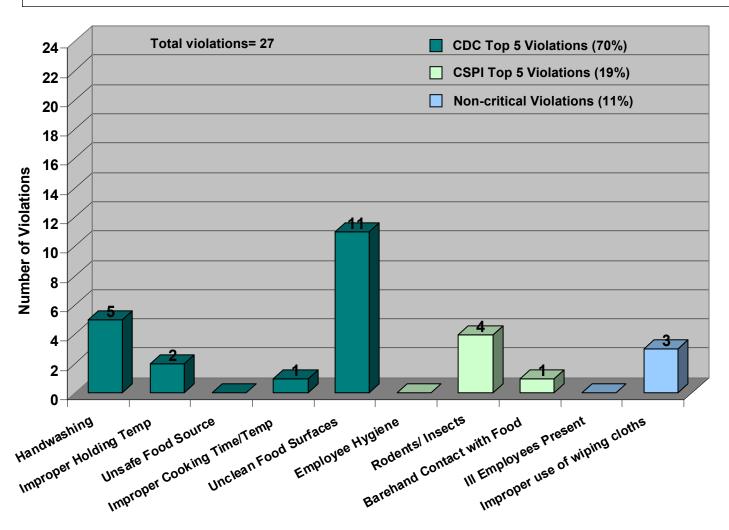
Unclean food contact surfaces comprised the worst of Washington's violations, with only half as many handwashing violations. In addition, there were several rodent and insect violations. Only 25 of the

30 requested inspection reports were provided from the city. Washington had an average of 1.1 code violation per site, and a weighted violation score of 2.8.

Washington, D.C. restaurants were cited for, among other violations:

- Food boxes on floor that should be stored six inches above ground
- Employee seen touching ready-to-eat food with bare hands
- Salmon and scallops above normal temperature range
- Fruit flies observed at the bar

Restaurants studied: 1789 Restaurant, Le Paradou, Restaurant Nora, The Palm, Capital Grille, Café Atlantico, Oya Restaurant & Lounge, T.G.I. Friday's, Cheesecake Factory, Fuddruckers, Aria Trattoria, Clyde's of Gallery Place, Fahrenheit, Pizzeria Uno, Kaz Sushi Bistro, La Tasca, Twigs, McDonald's, Chipotle, Potbelly Sandwich Works, Cosi, Traveler's Grill, House of Kabob, Amsterdam Falafelshop, Jolt 'N Bolt



## **CHAPTER FIVE: Findings**

Of the 539 restaurant inspection reports studied, over 66 percent recorded at least one violation of the CDC's top five critical violations. Of these, 26 percent were violations related to unclean or contaminated food contact/preparation surfaces, which can lead to dangerous cross-contamination. Chicago, Austin, and Boston rank as the worst three cities for this violation.

An additional 22 percent of CDC top five violations were related to improper holding temperatures, which can be a serious health hazard since bacteria and pathogens multiply as food sits outside safe temperature zones (below 41°F or above 140°F). Austin, Pittsburgh, and Milwaukee were the worst offenders.

Handwashing violations accounted for 16 percent of the recorded violations. Inadequate handwashing and other hygiene problems among food service workers can spread Hepatitis A, Norovirus, and *Shigella*. Milwaukee, Pittsburgh, and Boston were cited most often for this violation.

Few violations were recorded relating to food from unsafe sources and improper cooking times/temperatures. It should be noted that these violations may be particularly difficult for inspectors to evaluate: most deliveries from any source are presumably made before operating hours, and inspectors may not be in a restaurant long enough to observe an entire cooking process.

Among the critical violations that most concern consumers, 13 percent of restaurants studied were cited for rodent and/or insect activity. In addition to carrying filth and disease, the presence of rodents and insects can indicate a larger sanitation problem and a threat to public health. New York, Philadelphia, and Boston were the worst cities for rodent and/or insect control violations.

Six percent of restaurants studied had violations relating to employee hygiene, unrelated to the distinct violation of improper handwashing. These violations can indicate a more serious public health issue, and may also illustrate a lack of understanding among food service workers of the importance of personal hygiene in food preparation and safety.

Four percent of restaurants studied were cited for violations relating to barehand contact with food. The Food Code urges health officials to enforce the use of gloves in food preparation, and improper glove use can spread bacteria from infected workers.

No violations were recorded among the 539 restaurants studied for the presence of ill employees. However, this violation may rank among the more difficult for inspectors to evaluate, as an employee with a communicable disease may not be apparent to an inspector or may not be in the kitchen at the time of the inspection.

Eleven percent of restaurants studied were cited for the improper use of wiping cloths. The repeated use of unclean cloths to wipe tables or food preparation surfaces can be dangerously cross-contaminating.

### **CHAPTER SIX:** Grade Cards and the Los Angeles County Experience

The Los Angeles Experience. January 2008 marked the 10-year anniversary of Los Angeles County's restaurant grading program, which was created in response to a series of disturbing media reports highlighting unsafe and unhygienic food handling in the area. The county responded by implementing several program enhancements, including the adoption of letter grading and a focus on increasing public access to inspection results.

The success of the grade card program has been well-documented by the county and by independent economic studies. The Los Angeles County Department of Public Health has reported safer food facilities, reduced incidents of foodborne illness, improved information for consumers, and enthusiastic public support for the grading program.<sup>32</sup>

Specifically, a review of the trends in inspection scores and grades shows the program's success in improving the sanitation of regulated facilities. During the first two years of the program, scores increased by approximately five percent. Over the past 10 years, the average inspection score has risen over 10 percent, and the average restaurant inspection score has stayed above 90 percent (an "A" grade) for a decade.

The improvement in scores and the resulting letter grades appears to be yielding a significant public health benefit. Studies have shown an association between low inspection scores and foodborne illness outbreaks. One study of the Los Angeles system conducted by economists concluded that the grading system has contributed to a 20 percent *decrease* in foodborne-illness-related-hospitalizations since its inception.<sup>33</sup> A second study compared foodborne illness

hospitalizations in Los Angeles County with those in other areas of California, and found a significant decrease in hospitalizations that was not mirrored in other counties.

Los Angeles consumers view the program as valuable and beneficial, according to a 2001 survey of county residents.<sup>34</sup> In that survey, over 90 percent of respondents said they liked the program, and 89 percent of consumers in a 2005 follow-up study thought the system was effective in ensuring food safety.<sup>35</sup>

In a 2001 survey of consumers, almost 80 percent of respondents noticed grade cards always or most of the time.<sup>36</sup> Sixty-five percent of respondents indicated that the grade cards influenced their restaurant selection always or most of the time.<sup>37</sup> Only three percent of respondents said they would eat at a "C" restaurant, compared with 25 percent at a "B" restaurant, and nearly 90 percent at an "A" restaurant.38 One senior health department official in Los Angeles noted that the grades directly influence restaurant hygiene by allowing consumers to make decisions based on inspection grades. That market force drives all restaurants to improve their practices.

Consumer approval of the grade card system has provided a benefit for restaurateurs as well. A 2003 study found that Los Angeles restaurants with an "A" grade saw an average increase in revenue of 5.7 percent following the inception of the program.<sup>39</sup> "B" grade restaurants saw increased revenue of 0.7 percent.<sup>40</sup>

A senior health department official in Los Angeles notes that many local restaurants and the local restaurant association support the grading system, even though state and national restaurant associations oppose it. The local acceptance of the program may be attributable in part to a concerted outreach effort by the Los Angeles health department to provide education and training for restaurant workers, helping establishments to improve their food safety practices and resulting inspection grades.

The Los Angeles County health department further reports that their work with the industry on the grading system has created a shift in incentives for restaurants. Prior to the inception of the grading system, restaurants adopted a reactive approach to food safety inspections and violations. After the introduction of grade cards—and the resulting financial incentive to receive a high grade—restaurateurs have encouraged employees to make food safety a top priority.

#### Grade Cards: Effective and Efficient.

Grade cards are an inexpensive, effective way to provide consumers with critical inspection information. The Los Angeles approach of using a letter grade, representing a score based on the most recent inspection, is simple and understandable.

Not only do consumers deserve this information, they have expressed a strong desire to have it. In a 2007 national survey conducted by CSPI, 85 percent of respondents said that knowing the results of a restaurant's most recent health inspection would affect their decision of whether to dine at that establishment.<sup>41</sup> In addition, 84 percent supported a city or state law that would require restaurants to post their most recent inspection grade in the front window of the establishment.<sup>42</sup>

Less Effective Methods of Consumer Access. Unfortunately, consumer access to inspection results varies widely. Very few cities have adopted the grade card approach—of the cities studied for this report, only Las Vegas and St. Louis have done so. North and South Carolina are the only states with restaurant grading. Other states and cities prefer instead to provide access only online, or not at all.

Many cities, including Boston, Chicago, Denver, and Philadelphia, are beginning to post inspection reports or scores online in searchable databases. This is helpful for researchers, but less useful for consumers who want to eat out. Online records require consumers to select a dining destination in advance, access a computer to research the inspection results, and analyze the complex information contained in each report. By this point, they are probably famished—and frustrated.

Thus, even an online inspection report may not provide the essential public health information that consumers deserve—and are entitled to. Notably, only 28 percent of consumers said that an online inspection report is the most useful way of providing inspection results to the public.<sup>43</sup>

Some cities, including Atlanta and San Francisco, require restaurants to keep a copy of the most recent inspection report available for presentation to a consumer upon request. However, in CSPI's 2007 survey, only nine percent of respondents said that providing reports upon request at a restaurant was really useful.<sup>44</sup>

In some jurisdictions, including Pittsburgh and Washington, DC, consumers can only review the results of inspection reports by gaining access through the state or county Freedom of Information Act (FOIA) legislation. This requires consumers to make a written request, and inspection reports—

when and if they are provided—arrive by mail. This system is useless for consumers who want the information when choosing a restaurant, unless they plan months in advance. In fact, in several of the cities researched for this report, where inspection reports are purportedly available to the public under state FOIA laws, it took over six months for CSPI to receive inspection reports that were requested in writing. In CSPI's 2007 survey, only eight percent of respondents said that it would be useful to them to receive inspection reports by mail upon request.<sup>45</sup>

Greater access to inspection reports is only part of the answer, however. Consumers who have little knowledge of food safety practices may not understand the complexities of the report, or recognize the crucial distinctions between critical and technical violations. Inspection reporting forms can vary significantly in complexity and scope. Reports often contain technical jargon or acronyms that make them difficult for anyone but a trained inspector to understand. (See Table 3: Inspection Terms.)

Simple grade cards appear to be the most efficient, useful way to provide consumers with information about restaurant hygiene and food safety. This critical food safety information is most useful to a consumer at the point when he or she chooses a dining destination—not days or weeks before. Inspection information therefore needs to be available in its most convenient and recognizable format—A, B, or C—in the window of each establishment.

Table 3: What It Means When It Says...

Inspection Term	Actual Meaning
Approved Sources	Food must come from a facility licensed by the responsible regulatory agency
Conditions I, II, III, IV, V	Describes the severity of the violation
Cross Connection in Water Supply System	Plumbing connections between pipes carrying clean water and pipes carrying contaminated water.
HACCP Plan	Hazard Analysis and Critical Control Points; used to identify potential food safety hazards and delineate actions taken to reduce such hazards
PHF	Potentially Hazardous Food
PHP	Potentially Hazardous Product
PIC	Person in Charge
Reduced Oxygen Packaging (ROP)	Extends food shelf-life by preventing growth of certain organisms
RTE foods	Ready-to-Eat foods
Shellstock tags	Identifies the origin of shellfish

#### **CHAPTER SEVEN: Recommendations**

Restaurants, state and local governments, and the federal government should take these key steps to increase the safety of the food served in American restaurants and consumers' access to food safety information:

- State and local governments should pass laws requiring the posting of inspection grade cards in the windows of all food establishments.
- ❖ State and local governments should increase health department budgets to ensure that restaurant inspections are conducted carefully and frequently.

  Local health authorities should be properly staffed, funded, and equipped to carry out their critical public health functions.
- ❖ State and local governments should adopt or incorporate the most recent Food Code. The laws governing restaurant inspections should be updated every two years to reflect these changing standards.
- State and local governments should ensure that food safety and hygiene guidelines are available in appropriate languages, and that food service workers are adequately trained.
- States and localities that currently provide inspection reports or results to consumers online or in restaurants should include easy-to-understand grading or scores to help consumers compare establishments and make dining decisions.

- To ensure the efficacy of a grade card program, health departments should improve underlying inspection systems by:
  - Establishing inspection scoring criteria beginning with 100 points and subtracting points for violations, depending on severity and potential risk of foodborne illness;
  - Enhancing training of inspectors to ensure correct implementation of grade cards;
  - Rotating inspectors among restaurants to promote integrity and objectivity in scoring;
  - Improving methods of reporting and investigating complaints from consumers and restaurateurs:
  - Creating a risk-based inspection schedule to ensure greater inspection coverage of high-risk establishments;
  - Creating and maintaining effective food safety training programs for restaurant employees.
- ❖ FDA and the Conference for Food Protection should revise the Food Code to recommend that health officials adopt the use of inspection grade cards as part of a comprehensive inspection process.

#### **ENDNOTES**

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<sup>&</sup>lt;sup>1</sup> National Restaurant Association. Increased Restaurant Industry Sales, Employment Growth Predicted in 2007 by National Restaurant Association Economic Forecast. Press Release. December 12, 2006

<sup>&</sup>lt;sup>2</sup> Id. That number may be even higher if meals prepared in restaurants and brought home for consumption are considered.

<sup>&</sup>lt;sup>3</sup> U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition. Food Code 2005.

<sup>&</sup>lt;sup>4</sup> Irwin, K, MD; Ballard, J, MS; Grendon, J, DVM, MPH; and Kobayashi, J, MD, MPH. Results of Routine Restaurant Inspections Can Predict Outbreaks of Foodborne Illness: The Seattle-King County Experience. *Am J Public Health* 1989; 79(5):586-89.

<sup>&</sup>lt;sup>5</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC).

<sup>&</sup>lt;sup>6</sup> Irwin, K, MD, at 589.

<sup>&</sup>lt;sup>7</sup> Center for Science in the Public Interest. Outbreak Alert Database, at

www.cspinet.org/foodsafety/outbreak/pathogen.php. Other locations implicated in illnesses from outside the home include workplaces, religious/social clubs, schools, catered events, prisons, and multiple/unknown sources.

<sup>&</sup>lt;sup>8</sup> FDA National Retail Food Team. FDA Report on the Occurrence of Foodborne Illness Risk Factors in Selected Institutional Foodservice, Restaurant, and Retail Food Store Facility Types. (2004)

<sup>9</sup> Id.

<sup>&</sup>lt;sup>10</sup> U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition. Food Code 2005.

<sup>&</sup>lt;sup>11</sup> Greig, J., Todd, E., Bartleson, C., and Michaels, B. Outbreaks Where Foodservice Workers Have Been Implicated in the Spread of Foodborne Disease. Part 1. *Journal of Food Protection* 2007; 70(7): 1752-1761.

<sup>&</sup>lt;sup>12</sup> Ron Sympson, "Epidemic," Restaurant Business, May 1, 1995, p.86.

<sup>&</sup>lt;sup>13</sup> FDA National Retail Food Team. FDA Report on the Occurrence of Foodborne Illness Risk Factors in Selected Institutional Foodservice, Restaurant, and Retail Food Store Facility Types. (2004).

<sup>&</sup>lt;sup>14</sup> Center for Science in the Public Interest. Outbreak Alert Database.

<sup>&</sup>lt;sup>15</sup> Id.

<sup>16</sup> **Id**.

<sup>&</sup>lt;sup>17</sup> FDA National Retail Food Team. FDA Report on the Occurrence of Foodborne Illness Risk Factors in Selected Institutional Foodservice, Restaurant, and Retail Food Store Facility Types. (2004).

<sup>&</sup>lt;sup>18</sup> Marler, Bill, L.L.P., P.S., Sizzler E. coli Outbreak. Marler Clark L.L.P., P.S. Last accessed on March 7, 2008. <a href="http://www.billmarler.com/ecoli\_sizzler.htm">http://www.billmarler.com/ecoli\_sizzler.htm</a>

<sup>&</sup>lt;sup>19</sup> FDA National Retail Food Team. FDA Report on the Occurrence of Foodborne Illness Risk Factors in Selected Institutional Foodservice, Restaurant, and Retail Food Store Facility Types. (2004)

 $<sup>^{20}</sup>$  Alonso, Parker Waichman, LLP. Chicken Shack Caught for Buying E. coli Contaminated Meat. Food Poisoning Blog. January 11, 2008. <a href="http://food-poisoning-blog.com/2008/01/11/chicken-shack-caught-for-buying-e-colicontaminated-meat/">http://food-poisoning-blog.com/2008/01/11/chicken-shack-caught-for-buying-e-colicontaminated-meat/</a>

<sup>&</sup>lt;sup>21</sup> Center for Science in the Public Interest, *Restaurant Inspection Grading Survey*, conducted July 2008 via SurveyMonkey.com. The 1250 respondents self-identified a particular interest in food and nutrition. Respondents were asked to choose five areas of concern, but the CDC Top 5 were <u>not</u> included as options, so as to produce five additional issues for consideration in this report.

<sup>22</sup> Id.

<sup>&</sup>lt;sup>23</sup> U.S. Food and Drug Administration, *Real Progress in Food Code Adoption*, last accessed July 2008, at http://www.cfsan.fda.gov/~ear/fcadopt.html#adopt-05.

<sup>&</sup>lt;sup>24</sup> Data received via email communication with Jeff Lineberry, Executive Director of the Conference for Food Protection, March 12, 2008. Of the 600 current members of the Conference for Food Protection, 298 are identified as "industry," 263 as "regulatory," 27 as "academia," and only 10 as "consumer."

<sup>&</sup>lt;sup>25</sup> A similar system of quasi-regulatory action has existed for years in the shellfish industry. See *Death on the Halfshell*, a CSPI Report on the regulation of the shellfish industry. Available at http://www.cspinet.org/reports/vibrio\_vulnificus/.

<sup>&</sup>lt;sup>26</sup> U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition. Food Code 2005.

<sup>&</sup>lt;sup>27</sup> Phillips, M., Elledge, B., Basara, H., Lynch, R., and Boatright, D. Recurrent Critical Violations of the *Food Code* in Retail Food Service Establishments. *Journal of Environmental Health* 2006; 68(10): 24-30.

<sup>&</sup>lt;sup>28</sup> Irwin, K, MD; Ballard, J, MS; Grendon, J, DVM, MPH; and Kobayashi, J, MD, MPH. Results of Routine Restaurant Inspections Can Predict Outbreaks of Foodborne Illness: The Seattle-King County Experience. *Am J Public Health* 1989; 79(5):586-89.

<sup>&</sup>lt;sup>29</sup> Caravan Opinion Research Corporation study, *Restaurant Ratings*, commissioned by Center for Science in the Public Interest. Conducted July 27, 2007.

<sup>&</sup>lt;sup>30</sup> Cooking Light Magazine, Top 20 Cities, December 2007.

<sup>&</sup>lt;sup>31</sup> CSPI attempted to verify from each city that the number provided was current and correct, but not all cities responded to the repeated requests for confirmation.

<sup>&</sup>lt;sup>32</sup> Los Angeles County Department of Public Health, 10 Year Review of Restaurant and Food Facility Grading Program, January 2008.

<sup>&</sup>lt;sup>33</sup> Jin, Ginger Zhe and Leslie, Phillip. The Case in Support of Restaurant Hygiene Grade Cards. *Choices* 2005 (20)2: 97-102.

<sup>&</sup>lt;sup>34</sup> Id.

<sup>&</sup>lt;sup>35</sup> Id.

<sup>&</sup>lt;sup>36</sup> Los Angeles County Department of Public Health, 10 Year Review of Restaurant and Food Facility Grading Program, January 2008.

<sup>&</sup>lt;sup>37</sup> Id.

<sup>&</sup>lt;sup>38</sup> Id.

<sup>&</sup>lt;sup>39</sup>Jin, Ginger Zhe and Leslie, Phillip. The Case in Support of Restaurant Hygiene Grade Cards. *Choices* 2005 (20)2: 97-102.

<sup>&</sup>lt;sup>40</sup> Id. "C' restaurants saw a 1 percent decrease in revenue.

<sup>&</sup>lt;sup>41</sup> Caravan Opinion Research Corporation study, *Restaurant Ratings*, commissioned by Center for Science in the Public Interest. Conducted July 27, 2007.

<sup>&</sup>lt;sup>42</sup> Id.

<sup>&</sup>lt;sup>43</sup> Id.

<sup>&</sup>lt;sup>44</sup> Id.

<sup>&</sup>lt;sup>45</sup> Id.