

Study of Retail Food Establishment Inspection Scoring and Grading Systems



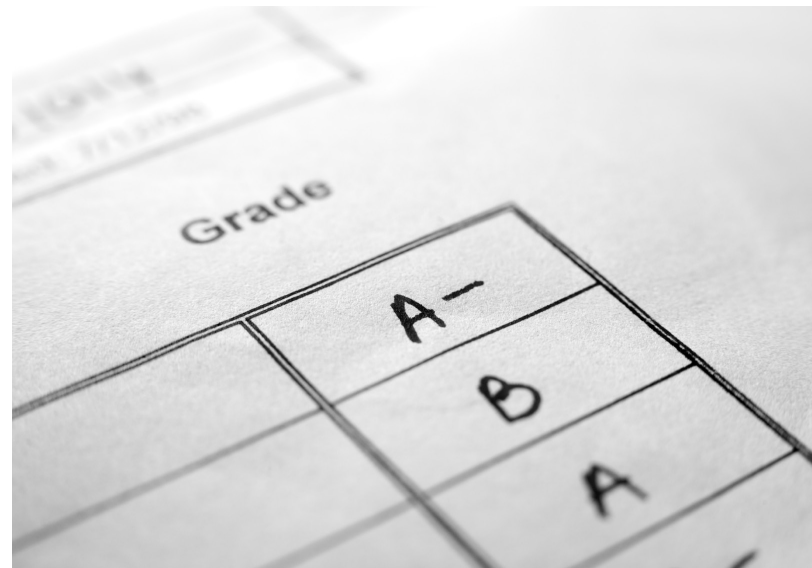
Introduction

Local health departments (LHDs) play a major role in ensuring the food people eat every day is safe. In the United States, approximately 3,000 entities regulate food safety. The vast majority of these entities are LHDs, with more than 75% of the 2,800 LHDs in the United States educating, inspecting, or licensing retail food establishments.

Through a cooperative agreement with the Food and Drug Administration (FDA), in 2012, the National Association of County and City Health Officials (NACCHO) studied the way that LHDs use scores or grades to convey the results of their retail food establishment¹ inspections.

While food establishment inspection grading and scoring (FISG) systems vary throughout the United States, generally numerical scores, letters, colors, graphics/symbols, or any combination thereof are used to systematically quantify or illustrate the inspection performance of a retail food establishment. Gaining a better understanding of the use, composition, successes, and shortcomings of FISG systems could help additional LHDs implement their own systems. This research brief presents findings from NACCHO's survey to learn more about retail FISG systems implemented by LHDs, including the following:

- National prevalence of LHDs that assign a score or grade to an inspection of licensed food establishments;
- Distribution of different types of scoring and grading systems;
- Relationship between scoring/grading systems and other food safety practices; and
- Potential areas for further research or in-depth case studies.



Methodology

Informed by the NACCHO-FDA Food Safety Advisory Group, NACCHO developed, piloted, and executed an electronic quantitative survey instrument in 2012 to a sample of 2,565 LHDs. A stratified random sample of 531 LHDs was selected from this sample. The strata included 48 states and the District of Columbia (excluding Rhode Island and Hawaii). The sample included approximately 20% of LHDs from each state.

The survey included key elements and questions intended to ascertain the following:

- Presence of any scoring or grading system;
- Type of score or grade assigned (e.g., numerical score, letter score, color, or graphic);
- Communication to the public;
- Perceived impact on food safety;
- Implementation year and changes since implementation;
- Regulations, licensing, inspections, and penalties; and
- Geographic barriers and staffing challenges.

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Findings and Results

General Information

The survey had a response rate of 39% (208).² Non-response includes both survey non-contact³ and refusal;⁴ differentiation between these non-response types is not possible. Among the responses, 183 were from LHDs in states where statewide requirements for how inspections were scored or graded were not present. Twenty-five responses were from states with a statewide requirement for how inspections were scored or graded.

To better understand the prevalence of states with statewide inspection scoring or grading systems, NACCHO contacted the National Conference of State Legislatures (NCSL) to assist with the post-hoc identification. NCSL identified 10 states with a statewide policy regarding how inspection scores or grades were determined and communicated. Fifty LHDs that did not respond to the survey were located in one of those 10 states, so NACCHO concluded that the non-respondents also had a statewide system; however, these LHDs were not imputed into the results.

Prevalence of FISG Systems

NACCHO asked respondents to indicate their use of FISG systems. Nearly 38% (79) of respondents answered “yes” when asked if their LHD jurisdiction, either entirely or within some political subunits, provided licensed food establishments an overall food grade, score, or graphic after an inspection.

Type of FISG System in Use

The following findings were true of the 79 LHDs that responded that they used an FISG system (Figure 1):⁵

- 75% indicated use of a numerical score, 4.5 times greater than the next most frequently used type—letter grade, which 16.5% of respondents reported using;
- 10% indicated use of a color or other graphic to describe an inspection result;
- 11% indicated use of another, unspecified type of FISG system;
- 77% indicated using only one FISG type; and
- 16% indicated using two or more FISG types in combination.

75% of respondents indicated use of a **numerical score**, 4.5 times greater than the next most frequently used type—**letter grade**

Communication

NACCHO asked respondents to provide data on the methods used to communicate grading or scoring of food establishment inspections to the public. The questionnaire allowed respondents to select more than one method of communication. The following findings were true of the 79 respondents who reported using a scoring or grading system:

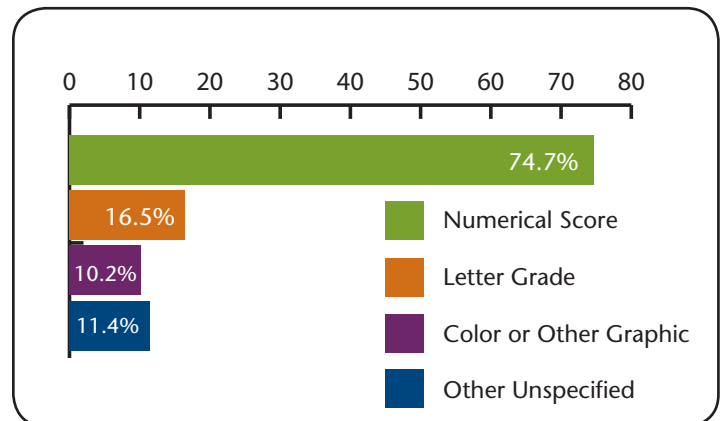
- 62% indicated that the LHD made inspection scores or grades available upon request by the public, making this method the most prevalent among those investigated;
- 41% indicated that inspection scores or grades appeared in local print or broadcast media;
- 37% indicated that inspection scores or grades were made available on the Internet; and
- 35% indicated that inspection scores or grades were posted on the premises of the food establishment.

Perceptions

NACCHO asked respondents to provide information about their perception of how FISG systems impacted food safety within the regulated establishment and the manner in which regulatory inspections were conducted. Respondents were equally divided that FISG systems impacted the manner in which inspectors conducted inspections. The following findings were true of the 79 respondents who reported use of a FISG system:

- 67% perceived that an FISG system had no impact on how operators shared information during an inspection;
- 66% either agreed (52%) or strongly agreed (14%) that an assigned score or grade was perceived as correlated with an establishment’s control of risk factors;
- 59% perceived that an FISG system had impacted how much attention operators paid to food safety; and
- 58% perceived an improved impact on food safety.

FIGURE 1. TYPE OF FISG SYSTEM IN USE



n=79; percentages do not total 100 because respondents may have selected more than one choice



Next Steps and Future Research Questions

NACCHO plans to conduct six to eight case studies with LHDs to explore key questions and hypotheses determined through the data analysis. LHDs selected for case studies will vary based on perceived impact of FISG system, maturity of FISG system, public access to grades or scores, and degree of urbanization, among other considerations.

NACCHO will develop the case studies through record review, open-ended questions, and telephone interviews with key informants (e.g., food establishment operators, board of health representatives, municipality supervisors, and LHD professionals). Through case studies, NACCHO intends to explore further the following questions:

- Does any particular approach to scoring and grading have a greater impact than others on the control of foodborne illness risk factors in retail food establishments?
- Does any particular approach to scoring and grading have a greater impact than others on consumer attitudes and behavior?
- Does the presence of an FISG system affect the behavior of health inspectors?
- Does the presence of an FISG system affect the behavior of establishment operators?
- Does the method used to communicate inspection results to the public affect the perceived impact or value of FISG systems?
- What motivates LHDs to employ FISG systems?
- Are LHDs in areas with strong local media more likely to use FISG systems or report violation results openly and routinely to the public?

[RESEARCH BRIEF]

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Notes

1. A retail food establishment generally refers to operations that (1) store, prepare, package, serve, vend food directly to the consumer; or (2) provide food for human consumption such as a restaurant; satellite or catered feeding location; catering operation if the operation provides food directly to a consumer or to a conveyance used to transport people; market; vending location; conveyance used to transport people; institution; or food bank.
2. With an assumed population of 2,565 LHDs, a response sample of 335 was needed to reach a confidence level of 95% and confidence interval of +/-5.
3. Inability to contact units selected for the survey.
4. Refusal of selected unit to participate and provide some or all of the information requested.
5. To have a requirement for scoring and grading and imputed as affirmative responses when asked if their LHD jurisdiction, either entirely or within some political subunits, provided licensed food establishments an overall food grade, score, or graphic after an inspection.

Acknowledgments

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NACCHO

National Association of County & City Health Officials

The National Connection for Local Public Health



The mission of the National Association of County and City Health Officials (NACCHO) is to be a leader, partner, catalyst, and voice with local health departments.

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Appendix A—Univariate Data Tables

Uses Food Grading and Scoring System			
	Freq.	Percent	Cum.
No	129	62.02	62.02
Yes	79	37.98	100.00
Total	208	100.00	

Uses Letter Grade			
	Freq.	Percent	Cum.
No	66	83.54	83.54
Yes	13	16.46	100.00
Total	79	100.00	

Uses Numerical Score			
	Freq.	Percent	Cum.
No	20	25.32	25.32
Yes	59	74.68	100.00
Total	79	100.00	

Uses Other Image			
	Freq.	Percent	Cum.
No	78	98.73	98.73
Yes	1	1.27	100.00
Total	79	100.00	

Uses Other Graphic			
	Freq.	Percent	Cum.
No	72	91.14	91.14
Yes	7	8.86	100.00
Total	79	100.00	

Uses Other			
	Freq.	Percent	Cum.
No	70	88.61	88.61
Yes	9	11.39	100.00
Total	79	100.00	

Number of Types Used in Combination			
	Freq.	Percent	Cum.
0	5	6.33	6.33
1	61	77.22	83.54
2	11	13.92	97.47
3	2	2.53	100.00
Total	79	100.00	

Assigned Score or Grade is Correlated with Establishment Control of Risk Factors			
	Freq.	Percent	Cum.
Strongly Agree	10	13.70	13.70
Agree	38	52.05	65.75
Neither	15	20.55	86.30
Disagree	7	9.59	95.89
Strongly Disagree	3	4.11	100.00
Total	73	100.00	

System has Impacted How Much Operators Pay Attention to Food Safety			
	Freq.	Percent	Cum.
No	32	40.51	40.51
Yes	47	59.49	100.00
Total	79	100.00	

System has Impacted How Operators Share Information during Inspections			
	Freq.	Percent	Cum.
No	53	67.09	67.09
Yes	26	32.91	100.00
Total	79	100.00	

System has Impacted Manner in which Inspectors Conduct Inspections			
	Freq.	Percent	Cum.
No	39	49.37	49.37
Yes	40	50.63	100.00
Total	79	100.00	

Perceived Impact on Food Safety			
	Freq.	Percent	Cum.
No Impact	4	5.56	5.56
Improved Impact	42	58.33	63.89
Unclear Impact	26	36.11	100.00
Total	79	100.00	

Year Implemented Food Grading and Scoring System			
	Freq.	Percent	Cum.
Before 2000	49	67.12	67.12
2000	1	1.37	68.49
2001	3	4.11	72.60
2002	1	1.37	73.97
2006	1	1.37	75.34
2007	2	2.74	78.08
2008	4	5.48	83.56
2009	2	2.74	86.30
2010	3	4.11	90.41
2011	3	4.11	94.52
2012	4	5.48	100.00
Total	73	100.00	

Inspection Report Posted on Premises			
	Freq.	Percent	Cum.
No	50	63.29	63.29
Yes	29	3.71	100.00
Total	79	100.00	

Inspection Report Available upon Request			
	Freq.	Percent	Cum.
No	11	13.92	13.92
Yes	68	86.08	100.00
Total	79	100.00	

Inspection Report Available on the Internet			
	Freq.	Percent	Cum.
No	53	67.09	67.09
Yes	26	32.91	100.00
Total	79	100.00	

Grades or Scores Posted on the Premises			
	Freq.	Percent	Cum.
No	51	64.56	64.56
Yes	28	35.44	100.00
Total	79	100.00	

Grades or Scores Available upon Request			
	Freq.	Percent	Cum.
No	30	37.97	37.97
Yes	49	62.03	100.00
Total	79	100.00	

Grades or Scores Available on the Internet			
	Freq.	Percent	Cum.
No	50	63.29	63.29
Yes	29	36.71	100.00
Total	79	100.00	

Grades, Scores, Violations Appear in Local Print or Broadcast Media			
	Freq.	Percent	Cum.
No	47	59.49	59.49
Yes	32	40.51	100.00
Total	79	100.00	