



National Environmental Health Association

303-756-9090
720 S. Colorado Blvd., Suite 1000-N, Denver, CO 80246-1926
staff@neha.org

The National Environmental Health Association (NEHA) represents more than 6,500 governmental, private, academic, and uniformed services sector environmental health professionals in the U.S., its territories, and internationally. NEHA is the profession's strongest advocate for excellence in the practice of environmental health as it delivers on its mission to build, sustain, and empower an effective environmental health workforce.

Point-of-Service Food Inspection Disclosure as a Recommended Practice

February 2021

Policy sunset: February 2024

In 2017, there were 841 foodborne illness outbreaks reported in the U.S., including Washington, DC, and Puerto Rico, which resulted in 14,481 illnesses, 827 hospitalizations, 20 deaths, and 14 food recalls. Among the illnesses and outbreaks for which a single location was identified, 44% and 64%, respectively, were attributed to foods prepared in a restaurant setting (Centers for Disease Control and Prevention, 2017).

The rise in expenditure on foods eaten away from the home and the significant proportion of foodborne illnesses attributed to restaurants have highlighted the importance of food establishment inspections. Current inspection practices and methods of disclosure vary widely across jurisdictions in the U.S., which presents unique challenges to evaluating program effectiveness. A recent study conducted by the National Network of Public Health Institutes, Dining Safety Alliance, investigators at the University of Minnesota School of Public Health, and NEHA found that agencies that disclose inspection results at the point-of-service reported 55% fewer average numbers of outbreaks compared to those using online-only disclosure (Kim et al., 2021).

NEHA'S POSITION STATEMENT

The National Environmental Health Association, National Network of Public Health Institutes, Dining Safety Alliance, and investigators at the University of Minnesota School of Public Health recommend the following action agenda for federal, state, local, tribal, and territorial governmental agencies:

Mandate the posting of inspection results at the point-of-service. This recommendation is a potentially effective public policy that fosters transparency, population health, and informed consumer choice at point-of-service.

Paragraph 8-304.11(K) of the Food and Drug Administration 2017 *Food Code* supports the premise of transparency (U.S. Department of Health and Human Services, 2017). Disclosure of health department inspection results at the point-of-service (i.e., at the food establishment) eliminates a barrier to using inspection data in the decision-making process as it does not require the added task of using technological resources to check a website. Further, results summarized by a score or grade enable easier interpretation by consumers than by narrative formats.

Furthermore, restaurant inspection results are something consumers desire. When available, these results might be used by consumers to make dining decisions. Public disclosure of food establishment inspection results enables consumers to make informed decisions about where they choose to eat (Fung et al., 2007).

Analysis

Agencies that disclosed inspection results at the point-of-service fared better in foodborne illness outcome measures than their counterparts that disclosed inspection results online only.

For local inspection agencies that disclose inspection results, the most common method is through online-only disclosure, which is typically hosted on or accessed through departmental websites. Drawbacks to this method include difficulty in navigating these websites and lengthy reports that are confusing to interpret by the general public. Moreover, this method might not be accessible to those who are most vulnerable to foodborne illness such as older adults (Fleetwood, 2019).

Consumer confidence in restaurant food safety is paramount. Unfortunately, health department inspection data are generally not easily available or understandable. In 2009, of 110 websites, 68 (62%) provided inspection reports. Formats ranged from a basic summary to a complete listing of violations (Choi & Almanza, 2012).

A study by Kim et al. (2021) involved an online 36-question survey administered to 790 government-run food establishment inspection programs at state, county, city, district, and territorial levels. Responses were collected between January 7, 2020, and April 6, 2020. Use of the Food and Drug Administration's Voluntary National Retail Food Regulatory Program Standards listserv allowed for direct contact and survey dissemination to managers or primary points of contact for food establishment inspection programs. Of 149 survey respondents, 127 (85%) represented a local food establishment inspection agency.

The objectives of this cross-sectional study were to characterize local inspection programs and to evaluate the effects of programmatic characteristics, such as active public disclosure methods, on select operational and foodborne illness outcomes. The study found agencies that disclosed at the point-of-service reported fewer average numbers of re-inspections by 15%, foodborne illness complaints by 38%, outbreaks by 55% ($p = .03$), and *Salmonella* cases by 12% than did agencies that disclosed online only (Kim et al., 2021).

Due to the suspension of data collection with the COVID-19 pandemic response, validation of survey data, such as outbreak counts, could not be performed by contacting individual health departments. Instead, outbreak counts were cross-referenced with the Centers for Disease Control and Prevention's National Outbreak Reporting System (NORS) database. Survey respondents were identified using multiple fields related to exposure location. An outbreak was attributed to the agency if their jurisdiction (city, county, or district) was listed as the exposure location or if their residents were included in an outbreak (Kim et al., 2021).

Results show that trends associated with disclosure methods based on NORS outbreak counts were consistent with the original trends associated with self-reported outbreak counts presented in the Kim et al. (2021) study. Agencies that did not disclose inspection results to the public and those that did not grade inspections consistently had a higher number of outbreaks per 1,000 establishments per year than their alternatives. In particular, the rate of outbreaks per 1,000 establishments for jurisdictions disclosing at the point-of-service was consistently less than one half the rate among jurisdictions disclosing online only.

Justification

Consumers use health department inspection results to make informed dining decisions.

While the act of disclosure is important, the information disclosed and how it is interpreted by the public is also important. Familiarity with the symbols used to represent inspection results lends to easier interpretation by the general public. Grading practices can include letter grading or numerical scoring, similar to most grading methods in a school system (e.g., A, B, C grades or 100%, 90%, 80%) or other ordinal methods (e.g., stoplight colors, emoticons). Consumers appear to base their assessment of food safety in restaurants using a range of visible indicators: their observed judgments of restaurant hygiene, the overall quality of the restaurant, and external information including official inspection results (Henson et al., 2006, Wong et al., 2015).

In a 2013 study exploring information sources (e.g., local health department, newspaper, or consumer blog) and reporting format (e.g., numeric, letter grade, or narrative), while the perceived source credibility was significantly different among the sources, consumer responses were similar (Choi et al., 2013). While researchers found that survey respondents perceived the narrative format to have stronger message strength, their test conditions did not represent the decision-making context of a consumer at the point-of-service.

A 2019 survey among 1,188 Minnesota residents ≥ 18 years old showed 94% of respondents wanted better access to restaurant inspection information (Firestone & Hedberg, 2020). More than three quarters (77%) of respondents stated that they would use this information to decide where to eat. Respondents wanted to see inspection results online (72%) and at restaurants (62%). It could be that information needs and preferred reporting formats will vary for consumers seeking information online compared to posting at the point-of-service.

References

- Centers for Disease Control and Prevention. (2017). *Surveillance for foodborne disease outbreaks, United States, 2017: Annual report*. Atlanta, GA: Author. https://www.cdc.gov/fdoss/pdf/2017_FoodBorneOutbreaks_508.pdf
- Choi, J., & Almanza, B. (2012). Health department websites as a source of restaurant food safety information. *Journal of Culinary Science & Technology*, 10(1), 40–52. <https://doi.org/10.1080/15428052.2012.650606>
- Choi, J., Miao, L., Almanza, B., & Nelson, C.D. (2013). Consumers' responses to restaurant inspection reports: The effects of information source and message style. *Journal of Foodservice Business Research*, 16(3), 255–275. <https://doi.org/10.1080/15378020.2013.810536>
- Firestone, M.J., & Hedberg, C.W. (2020). Consumer interest and preferred formats for disclosure of restaurant inspection results, Minnesota 2019. *Journal of Food Protection*, 83(4), 715–721. <https://doi.org/10.4315/JFP-19-517>
- Fleetwood, J. (2019). Scores on doors: Restaurant hygiene ratings and public health policy. *Journal of Public Health Policy*, 40(4), 410–422. <https://doi.org/10.1057/s41271-019-00183-4>
- Fung, A., Graham, M., & Weil, D. (2007). *Full disclosure: The perils and promise of transparency*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511510533>
- Henson, S., Majowicz, S., Masakure, O., Sockett, P., Jones, A., Hart, R., Carr, D., & Knowles, L. (2006). Consumer assessment of the safety of restaurants: The role of inspection notices and other information cues. *Journal of Food Safety*, 26(4), 275–301. <https://doi.org/10.1111/j.1745-4565.2006.00049.x>
- Kim, T.N., Firestone, M.J., DeJarnett, N., Wildey, L., Bliss, J.C., Dyjack, D.T., Edwards, J., Stueven, H., & Hedberg, C.W. (2021). Disclosing inspection results at point-of-service: Affect of characteristics of food establishment inspection programs on foodborne illness outcomes. *Journal of Environmental Health*, 83(6), 8–13.
- U.S. Department of Health and Human Services, Public Health Service, Food and Drug Administration. (2017). *2017 Food Code*. College Park, MD: Authors. <https://www.fda.gov/media/110822/download>
- Wong, M.R., McKelvey, W., Ito, K., Schiff, C., Jacobson, J.B., & Kass, D. (2015). Impact of a letter-grade program on restaurant sanitary conditions and diner behavior in New York City. *American Journal of Public Health*, 105(3), e81–e87. <https://doi.org/10.2105/AJPH.2014.302404>

Drafted by Partners:

Jennifer Edwards, PhD, GCIS
Principal Research Scientist
National Network of Public Health Institutes
Dallas, TX

Julia Blesser, MS, MSPH
Research & Evaluation Manager, Evidence to Action
National Network of Public Health Institutes
Washington, DC

Thuy N. Kim, MPH, CFOI
PhD Student
University of Minnesota School of Public Health
Minneapolis, MN

Melanie J. Firestone, MPH, PhD
Alumna
University of Minnesota School of Public Health
Minneapolis, MN

Harlan Stueven, MD
Executive Director
Dining Safety Alliance
Denver, CO

Craig W. Hedberg, PhD
Professor and Interim Division Head, Division of Environmental Health Sciences
Co-Director, Minnesota Integrated Food Safety Center of Excellence
University of Minnesota School of Public Health
Minneapolis, MN

NEHA Staff

Natasha DeJarnett, MPH, PhD
Interim Associate Director, Program and Partnership Development
National Environmental Health Association
Washington, DC

Laura Wildey, CP-FS
Senior Program Analyst, Food Safety, Program and Partnership Development
National Environmental Health Association
Washington, DC

Jesse Bliss, MPH

Director, Program and Partnership Development
National Environmental Health Association
Washington, DC

David Dyjack, DrPH, CIH

Executive Director and Chief Executive Officer
National Environmental Health Association
Denver, CO