

Leveraging Informatics to Improve Environmental Health Practice and Innovation Environmental Scan Report

The purpose of this environmental scan is to examine the methods used for successful systematic collection, analysis, interpretation and use of environmental health-related data specifically around food safety, restaurant inspection, and recreational aquatic health data collection and data sharing. The report is divided into two parts: a summary specific to the identified key stakeholder jurisdictions for the project and a general summary of literature relevant to environmental health food and water processes.

The specific key stakeholder research draws attention to various disclosure methods such as letter grades, numerical scores, emojis, and color-coding techniques and programs belonging to health departments across the country, see Table 1. These techniques are aimed to help healthcare entities provide awareness to consumers at a local place of business. Further investigations reveal that posting inspection reports online through websites, social media, and apps is a modern tool that governments use to provide consumers access to information any time and place; moreover, the inspection process may vary by location. The findings specifically captured the inspection processes for the jurisdictions: State of Georgia, State of Florida, State of Colorado, Southern Nevada Health District, Boston (MA), US Virgin Islands, and Seattle and King County (WA).

The most common inspection techniques used amongst these jurisdictions are letter grade and numerical score disclosing methods. The report analyzes these processes and concludes that accessibility to this environmental health information may vary depending on their local policies. According to the literature, there is a lack of obtainable information on recreational water inspection practices from several healthcare entities.

Potential recommendations/identified gaps:

- 📌 that inspection processes be made more accessible online to consumers
- 📌 to increase inspection information for recreational water areas
- 📌 to increase consumer comprehensiveness of inspection processes

LITERATURE REVIEW (KEY STAKEHOLDER JURISDICTIONS)

Jurisdiction	Inspection Rating System	Notes
Florida	Satisfactory-Unsatisfactory-Incomplete Rating System ⁴	<p>Inspections performed by county health department ⁴</p> <p>All counties responsible for restaurant in county</p> <p>Routine, re-inspections, and complaint inspections</p>

Jurisdiction	Inspection Rating System	Notes
		<p>Routine-periodic inspections that are performed as part of the on-going food safety system</p> <p>Re-inspections- completed when a facility has violations that need corrections in more than the standard time frame</p> <p>Complaint- performed in response to a citizen's complaint</p> <p>Routine and complaint inspections are unannounced</p> <p>No prior notice or prearranged time frame before inspector arrives</p> <p>Re-inspections get specific dates</p> <p>Department of Business and Professional Regulation</p> <p>NO Grades for Public Restaurants</p> <p>Restaurants are not forced to post information publicly</p> <p>Satisfactory, Unsatisfactory, Incomplete</p> <p>Past legislative changes, the DOH no longer works with food service facilities in hospitals, nursing homes, childcare facilities, many group homes, and churches and other not-for-profit religious organizations</p> <p>Florida Administrative codes for food safety and recreational water facilities made available with search portal ³</p> <p>Search portal for swimming pool and spa inspections ³</p>
Georgia	<p>Numeric Score Grading System ⁵</p> <p>Recreational Water: Satisfactory/Unsatisfactory Rating System</p>	<p>Georgia Department of Public Health ⁵</p> <p>Gwinnett, Newton, Rockdale not included in state-wide search</p>

Jurisdiction	Inspection Rating System	Notes
		<p>Numeric score</p> <p>Inspection search portal for food facilities and swimming pools</p> <p>Satisfactory/Unsatisfactory Rating System</p>
Southern Nevada	Letter Grade System ⁸	<p>Conducts unannounced inspections of food establishments at least once a year ⁸</p> <p>Inspections posted online approximately five business days following inspection</p> <p>May not be representative of overall, long-term cleanliness</p> <p>Inspections available from 2005-</p> <p>Some records may not appear in the search for up to 60 days due to an upgrade of their computer systems</p> <p>All data downloadable on site. Full inspection reports require records-request form</p> <p>Complaint form in Spanish and English</p> <p>Letter grade system, provides FAQ</p> <p>Inspection process downloadable</p> <p>Responsible for permitting and regulatory oversight of aquatic venues ⁹</p> <p>Operational inspections (routine)</p> <p>Plan review activities include review and approval of plans and specifications submitted for new and remodeled aquatic venues</p> <p>Imminent Health hazards-violations that require immediate correction or closure to prevent harm</p>

Jurisdiction	Inspection Rating System	Notes
Seattle & King County, Washington	Emoji and Color Rating System ⁶	<p>Food safety rating system⁶</p> <p>Info available in other languages</p> <p>Launched in January 2017</p> <p>New restaurant signage</p> <p>Number of restaurants in King County that have perfect scores of 0 critical food safety violations increased in 2017 from 52 to 55%.</p> <p>Emoji and color rating system</p> <p>Excellent, good, okay, needs to improve</p> <p>Rating determined by trend of food safety practices over time; scale of performance; zip code adjustments</p> <p>Required to post window sign at entrance</p> <p>Virtual food safety assessments- routine inspections abbreviated through video conferencing platform</p> <p>Two routine inspections performed each year⁷</p> <p>Test for free chlorine residual, pH, alkalinity and when necessary cyanuric acid</p> <p>Safety evaluation of walking spaces, access doors and fences, recirculation equipment, safety, and emergency equipment</p> <p>Able to see status of pool permit, pool inspection report not available or not easy to find</p>
Boston, Massachusetts	Letter Grading System ¹	<p>Letter grading system: A, B, C</p> <p>Grade placed outside establishment</p>

Jurisdiction	Inspection Rating System	Notes
		<p>Restaurant grading info sheet in multiple languages</p> <p>Provides “Mayor’s Food Court” Portal for restaurant information</p> <p>Information on pool inspections limited</p>
Colorado	Varies by County ²	<p>Provides Food Inspection Search Portal ¹⁰</p> <p>Inspection Reports from July 2013 to present</p> <p>Provides guide for Inspections</p> <p>Inspections performed twice per year</p> <p>Factors: food served, operations, weekly meal volume, inspection history</p> <p>Information on pool inspections limited</p>
US Virgin Islands	Pending	<p>Food Inspections conducted by the USVI Department of Health, Division of Environmental Health ¹¹</p> <p>Virgin Islands Food Code adopted in 2004, never enforced</p> <p>Announced national initiative for food inspections</p> <p>Information on recreational water inspections limited</p>

References

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4. Florida Department of Health. (2018). Inspections & Complaints. Retrieved from <http://www.floridahealth.gov/environmental-health/food-safety-and-sanitation/inspections-and-complaints.html>
5. Georgia Department of Public Health. (2020). Environmental Health Inspections. Retrieved from <https://dph.georgia.gov/environmental-health/food-service/environmental-health-inspections>
6. King County, WA. (2019, September 4). The food inspection reporting system. Retrieved from <https://www.kingcounty.gov/depts/health/environmental-health/food-safety/inspection-system.aspx>
7. King County, WA. (2020, November 18). Water recreation program. Retrieved from <https://www.kingcounty.gov/depts/health/environmental-health/healthy-communities/water-recreation.aspx>
8. Southern Nevada Health District. (2018, October 22). Restaurant Inspections. Retrieved from <https://www.southernnevadahealthdistrict.org/permits-and-regulations/restaurant-inspections/>
9. Southern Nevada Health District. (2020, November 07). Aquatic Health Program. Retrieved from <https://www.southernnevadahealthdistrict.org/permits-and-regulations/aquatic-health-program/>
10. Tri-County Health Department. (2020). Food & Inspections. Retrieved from <https://www.tchd.org/754/Food-Inspections>
11. U.S. Virgin Islands Department of Health. (2020). Environmental Health. Retrieved from <https://doh.vi.gov/programs/environmental-health>

FULL LITERATURE REVIEW

Title/URL	Author	Key Findings/Synopsis	Methods (Other than traditional letter grade and numerical score)	Significance
https://www.neha.org/sites/default/files/eh-topics/health-tracking/Stu_LACounty_CaseStudy_Final.pdf	Rekart	<ul style="list-style-type: none"> • Los Angeles county • Data request driven by public and media requests • Open data portal • Piloting data dashboards for the public • Develop analytical maturity • SAS analytics maturing model • Challenge for large organizations / populations 	<ul style="list-style-type: none"> • LIVES Local Inspector Value Entry Specialization standard • Populates yelp review pages • Posts pool, housing, food truck, and restaurant inspections • Able to download data directly to computer • Useful for media and academia who study data and identify trends • La county developing dashboards for consumers and restaurant owners to display data graphically • Allows for misinterpretation of data 	<ul style="list-style-type: none"> • Provides access to inspection results in one location • Has the ability to display graphics
https://ehs.utexas.edu/programs/foodandwater/documents/SOP-FoodEstablishment-Inspection.pdf	The University of Texas at Austin	<ul style="list-style-type: none"> • Inspections twice a year at university • Results verbally communicated to management at time of inspection • Management signs inspection report and receives copy • 70 or higher passing score • EHS provides memo within 24 hours explaining deficiencies • Must provide written corrective action plan within 		<ul style="list-style-type: none"> • Demonstration of university food inspection process • Financial obligation for re-inspections

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		five business days on how to correct deficiencies <ul style="list-style-type: none"> • Reinspection scheduled fee of 125 • Establishment closed if management doesn't provide notice within five days • Reopening 250 reinspection fee • Remain closed until satisfied deficiencies 		
https://www.tandfonline.com/doi/abs/10.1300/J369v05n04_04	Alamanza	<ul style="list-style-type: none"> • Tippecanoe county, Indiana • Scores analyzed before and after media reporting began to determine if the publishing of scores impact scores • Inspection scores and individual inspectors inspection scores increased • Number of consumer complaints decreased 	<ul style="list-style-type: none"> • Media reporting 	<ul style="list-style-type: none"> • Media provides information to consumers which could impact scores
https://onlinelibrary.wiley.com/doi/full/10.1111/j.1748-0159.2009.00151.x	Filion	<ul style="list-style-type: none"> • Consumer perception of hygiene, key driver of restaurant choice 		
https://www.sandiegocounty.gov/content/sdc/deh/fhd/pool.html	San Diego County, CA	<ul style="list-style-type: none"> • Inspection process on county television network 	<ul style="list-style-type: none"> • Website • Local TV 	<ul style="list-style-type: none"> • Television is a unique tool to educate more consumers on the inspection process
https://www.sciencedirect.com/science	Jones	<ul style="list-style-type: none"> • Telephone survey • 18 or older Tennessee 		<ul style="list-style-type: none"> • Consumers prefer monthly inspections opposed to annually

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/article/abs/pii/S0749379708002493		<ul style="list-style-type: none"> Demographics knowledge attitudes expectations regarding restaurant inspections Believe inspections should be 12 times a year more than half 2000 respondents 97 aware of inspections Only 1/3 know inspections occur twice per year 		<ul style="list-style-type: none"> However, consumers are not fully familiar with the inspection process
https://www.foodqualityandsafety.com/article/case-study-improving-food-inspection-process-in-florida/	FQ &S Staff	<ul style="list-style-type: none"> Field equipment discontinued in Florida used for inspections New software application using apple iPad tablets and brother pocketjet mobile printers Improved field productivity, facilitated better information flow, enabling faster remediation of food safety issues Quickly and efficiently Outdated technology hinders timely information flow 	<ul style="list-style-type: none"> New software application using iPad tablets and mobile printers 	<ul style="list-style-type: none"> Allows for faster and more efficient information flow Inspection equipment modernizing
https://meridian.allenpress.com/jfp/article-abstract/80/7/1188/174192/Effect-of-a-Publicly-	Choi	<ul style="list-style-type: none"> Color coded inspection score disclosure system Columbus oh 2006 Increased inspection scores for all types of 	<ul style="list-style-type: none"> Color-coded inspection score system 	<ul style="list-style-type: none"> Color-coded inspection disclosure systems can increase awareness of inspection scores Can also lead to better inspection scores

Title/URL	Author	Key Findings/Synopsis	Methods (Other than traditional letter grade and numerical score)	Significance
Accessible-Disclosure-System?redirectedFrom=fulltext		<p>establishments and for most type of inspections</p> <ul style="list-style-type: none"> • Increased by 1.14 points • Foodborne disease complaints • Color-coded inspection score disclosure system, Columbus, OH • Increased inspection scores for all types of establishments and most types of inspections • Significant differences found in degree of improvement • Overall, Scores increased by 1.14 points • Exception: Inspections in response to foodborne disease complaints declined by 10.2 points • Lee et. al found that just simply posting food safety inspection results on agency web site is not sufficient to ensure food safety. Consumers not aware of food safety inspection process or hard to interpret. • Food Premises Inspection and Disclosure System requires restaurants to post inspection scores at entrance of restaurant 		<ul style="list-style-type: none"> • A posting of a color at a restaurant without a key to help customers could hinder consumer comprehension

Title/URL	Author	Key Findings/Synopsis	Methods (Other than traditional letter grade and numerical score)	Significance
		<ul style="list-style-type: none"> • Green = food service met standards • Yellow= enforcement process because it did not correct critical violations by the time of a follow up inspection • White=business is undergoing more frequent inspections • Red=CPH has ordered the facility closed or placed on probation due to uncorrected violations • Critical violations are those that are most likely to increase risk of foodborne disease (improper cooking, cooling, and storage temperatures; improper hand washing; improper sanitation of facilities) • Noncritical violations are those that do not directly place consumers at risk of foodborne disease (improper cleaning of nonfood contact surfaces) • type of food service operation • type of inspection • Inspection district population diversity • RFE review inspections (conducted biannually at 		

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		<p>high-risk establishments) resulted in lower food safety inspection scores than do standard inspections. Lee et al. found a positive relationship between risk level and number of violations. The color-coded system reversed effect, leading to higher than average scores for RFE review inspections</p> <ul style="list-style-type: none"> • Extra effort by establishments to avoid having to post yellow or red inspection stickers promoting negative consumer reactions • Higher scores for mobile food service or retail food service establishments • Does not account for type of establishment (fast-food, table service, etc.), type of ownership (chain vs independent), variety of menu, and variability of inspectors • Food safety inspections conducted in food service establishments by a DPH were only a snapshot of operations at the time and may not accurately reflect day-to-day hygiene conditions 		

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https://www.govtech.com/dc/articles/Predictive-Analytics-Optimize-Chicagos-Food-Inspection-Process.html	Thornton	<ul style="list-style-type: none"> • Chicago, 3 million people, 15000 establishments, fewer than 3 dozen inspectors • 15 percent earn critical violations • First ever municipal open-source predictive analytics platform • Help make smarter faster decisions preventing problems before they develop • Able to discover critical violations seven days earlier than using traditional inspection procedure • Open data portal allows easy exchange of research and analysis 	<ul style="list-style-type: none"> • First-ever municipal open-source predictive analytics platform 	<ul style="list-style-type: none"> • This platform can be used by many areas as a way to predict violations by looking at additional factors associated with inspection scores (crime, previous history, etc.)
https://www.tandfonline.com/doi/abs/10.1080/15428052.2012.650606	J. Choi	<ul style="list-style-type: none"> • Inspection reports on web • 61.8 percent of 110 websites provided inspection reports • Basic summary to complete list of violations • Some provided info in alternative languages • Updated every 3 months 	<ul style="list-style-type: none"> • Websites 	<ul style="list-style-type: none"> • By posting inspection results online, it gives people access to information • However, features such as providing alternative languages, providing full reports, and consistent inspections could increase awareness
https://web.a.ebscohost.com/abstract?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=00220892&as	Kim	<ul style="list-style-type: none"> • Access consumer perception of inspection system • Consumers want convenient access to information online or on the wall of restaurants 		<ul style="list-style-type: none"> • Providing various options for consumer to view inspection results could impact consumer awareness and inspection scores • Consumers use inspection reports differently

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a=Y&AN=122997710&h=RfGortm%2fSgCxqygYAg0bhQVhvux%2fqLYydU2OGoYBHRMyzOdidsYP1pnJhJiM0JjEd%2fDNQljfCIJyn3lgcGHYfA%3d%3d&cr=c&resultNs=AdminWebAuth&resultLocal=ErrCrINotAuth&crhashurl=login.aspx%3direct%3dtrue%26profile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d00220892%26asa%3dY%26AN%3d122997710		<ul style="list-style-type: none"> • Some consumers do want to read inspection reports • Choice of restaurant format did appear to change consumer understanding and perceptions about some violations • Assess impact of inspection format change on consumer understanding of restaurant violations • Some consumers may not feel like reading inspection reports • Choice of restaurant inspection format appeared to change consumer understanding of violations • Consumers influenced by word choice to describe violations. • “critical” and “priority” • Consumers perceived the letter grade format to be the easiest to understand and use for dining choices 		
https://www.who.gov/doi/abs/10.1186/1745-2875-19-517	Firestone	<ul style="list-style-type: none"> • Minnesota • Study to find consumer interest in access to restaurant results and identify preferred methods • 94.4% wanted better access • 77.1% said they will use information to decide where to eat 		<ul style="list-style-type: none"> • Consumers desire access to inspection results • Although majority of respondents prefer access to results online, many do not prefer the results on an app • Consumers preferred methods for inspection result disclosure are easy-to-read methods through

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		<ul style="list-style-type: none"> • 71.6 want to see inspection results online • 62.1 at restaurants • Can improve sanitary conditions • Those who ate out to times per week and three to four times per week wanted better access to results compared to those who eat out five or more per week • 34.3 wanted inspection results on mobile application • Preferred method is numerical score and letter grade followed by stoplight colors and categories, a letter grade, emojis and categories 		recognizable icons (letter grades, emojis, stoplight colors)
https://knoxcounty.org/health/food_protection/mock_inspection.php	Knox County, TN	<ul style="list-style-type: none"> • Mock Food Inspection 	<ul style="list-style-type: none"> • Mock Inspection 	<ul style="list-style-type: none"> • Provides consumers what information is being assessed • Provides restaurants a tool to prepare for inspections; therefore, may improve scores
https://www.neha.org/sites/default/files/publications/jeh/JEH1-2.16-Column-Building-Capacity.pdf	Booth	<ul style="list-style-type: none"> • Columbus received Dr. R. Neil Lowry grant, used to advance public recreational water through educational, technological, safety, operational programs • Columbus faced turnover common due to seasonal operation. Operators are transient and only on the 	<ul style="list-style-type: none"> • LIVES Feed mobile app • Emails/texts • Social Media 	<ul style="list-style-type: none"> • Reduces notification tasks for inspection staff with these different methods • Brings information to consumer opposed to requiring the consumer to search

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		<p>job for a year, have duties outside of swimming pools.</p> <ul style="list-style-type: none"> • High cyanuric acid residuals are the biggest reason for closures • 650 USB drives purchased and distributed to all their facilities • Resulted in less violations due to high cyanuric acid • Santa Clara County using Facebook and Twitter during Shigella outbreak • LIVES Feed (LIVES is a data standard for exposing inspection results; it stands for “Local Inspector Value-Entry Specification”), or a mobile app, this is what is most visible to the largest swath of the population. • New York, San Francisco, and Los Angeles are the first big players to join the LIVES movement and you can find their inspection data on Yelp today. Size is no restriction; even smaller municipalities (like Boulder, Colorado, and Evanston, Illinois) with the vision and public buy-in can participate. Beyond LIVES, many agencies are experimenting with building 		

Title/URL	Author	Key Findings/Synopsis	Methods (Other than traditional letter grade and numerical score)	Significance
		<p>apps to interact directly with consumers. The California Food Inspector app (Figure 3), built originally by Contra Costa County in the San Francisco Bay Area, now publishes inspection results for Los Angeles, San Francisco, Contra Costa, Monterey, Alameda, Sacramento, San Joaquin, and San Bernardino counties in California, and includes location-based search functionality. To join in on this platform, the health departments need only publish a LIVES feed.</p> <ul style="list-style-type: none"> • Florida Department of Health public geospatial dataset, shows inspections, healthcare, emergency operations, water, and septic systems • San Diego County's Environmental Health Department automatically sends emails or texts businesses when there is an update. • Reduces notification tasks for staff, keeps phone calls down, shows progress is actually happening 		

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https://www.cdc.gov/nceh/ehs/docs/jeh/2015/may-mahc-impact.pdf	Hlavsa	<ul style="list-style-type: none"> • Model Aquatic Health Code resource to maximize prevention of recreational water associated outbreaks, drowning, pool chemical-associated health events • MAHC adoption tracking system provides snapshot of MAHC adoption • Used to assess MAHC's impact on public pools 	<ul style="list-style-type: none"> • Model Aquatic Health Code adoption tracking system 	<ul style="list-style-type: none"> • Evaluate how the impact of new health code for recreational water safety
https://pubmed.ncbi.nlm.nih.gov/26502567/	McKelvey	<ul style="list-style-type: none"> • NYCDH and Mental Hygiene launched a restaurant letter grading program. Requires restaurants to post letter in visible window location • Consumer access to inspection results will encourage restaurant operators to better comply with food safety rules. • More available on a searchable website and free smartphone app (ABCEats) • Dual inspection approach allows restaurants to improve before being graded. • If A grade not received, they receive reinspection grade 7-30 days later • Experienced a 35% increase in the probability of a restaurant practicing A-grade hygiene 3 years after 	<ul style="list-style-type: none"> • Letter grading program 	<ul style="list-style-type: none"> • System improves sanitary conditions • Easy comprehensive system for consumers

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		<ul style="list-style-type: none"> • More food safety certified managers onsite, better worker hygiene, proper handwashing stations, fewer pests • Measured public response to program, 90% said they approved letter grading, 88% considered grades in dining decisions • NYC, 2011-72% of restaurants posting A grades, 2014-85% of restaurants posting A grades • Improving NYC restaurant sanitary conditions 		
<p>https://pubmed.ncbi.nlm.nih.gov/27348977/#:~:text=These%20sites%20are%20based%20on,for%20sanitation)%20from%20health%20departments.&text=Yelp%20ratings%20were%20found%20to,with%20sanitation%20in%20chain%20RFFs.</p>	Park	<ul style="list-style-type: none"> • Typically obtain sanitation information from DPH through newspapers, tv, health department webpages, or restaurant postings themselves • Yelp, TripAdvisor, Urbanspoon, and personal blogs • Compares violation scores with yelp ratings between quick-service vs full-service rffs and chain vs non chain rffs • NYC- Yelp most commonly used • Yelp used to rate customers experience (food quality, 	<ul style="list-style-type: none"> • Yelp (most commonly used review portal) 	<ul style="list-style-type: none"> • Review websites are great tools to determine how consumer behavior relates to inspection score

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		<p>service quality, price, and atmospherics)</p> <ul style="list-style-type: none"> • Full service rffs have more violations than quick service. Quick service have higher Yelp ratings • Yelp ratings were lower for chains than nonchains 		
https://www.sbcounty.gov/dph/ehportal/	San Bernardino County, CA	<ul style="list-style-type: none"> • Lists facility name, address, city, inspection date, score, and distance results • Provides numeric score for inspection • Pool/spa, food facilities • Provides full reports • Environmental Health Incident Alerts (email) • EHS Customer Service Portal • Division of Environmental Health Services • Lists food facility closures 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • ?
http://www.floridahealth.gov/environmental-health/food-safety-and-sanitation/inspections-and-complaints.html	State of Florida	<ul style="list-style-type: none"> • Inspections performed by county health department • All counties responsible for restaurant in county • Routine, re-inspections, and complaint inspections • Routine-periodic inspections that are performed as part of the on-going food safety system • Re-inspections- completed when a facility has violations that need 		

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		<p>corrections in more than the standard time frame</p> <ul style="list-style-type: none"> • Complaint- performed in response to a citizens complaint • Routine and complaint inspections are unannounced • No prior notice or prearranged time frame before inspector arrives • Reinspections get specific dates • Satisfactory, Unsatisfactory, Incomplete • Past legislative changes, the DOH no longer works with food service facilities in hospitals, nursing homes, child care facilities, many group homes, and churches and other not-for-profit religious organizations 		
http://www.floridahealth.gov/statistics-and-data/eh-tracking-and-reporting/swimming-pools.html	State of Florida	<ul style="list-style-type: none"> • Recreational water data found 		
https://www.southernnevadahealthdistrict.org/permits-	Southern Nevada Health District	<ul style="list-style-type: none"> • Conducts unannounced inspections of food 		

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and-regulations/restaurant-inspections/		<p>establishments at least once a year</p> <ul style="list-style-type: none"> • Inspections posted online approximately five business days following inspection • May not be representative of overall, long-term cleanliness • Inspections available from 2005- • Some records may not appear in the search for up to 60 days due to an upgrade of their computer systems • All data downloadable on site. Full inspection reports require records-request form • Complaint form in Spanish and English • Letter grade system, provides FAQ • Inspection process downloadable 		
https://www.southernnevadahealthdistrict.org/permits-and-regulations/aquatic-health-program/	Southern Nevada Health District Aquatic Health Program	<ul style="list-style-type: none"> • Responsible for permitting and regulatory oversight of aquatic venues • Operational inspections (routine) • Plan review activities include review and approval of plans and specifications 		

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		<p>submitted for new and remodeled aquatic venues</p> <ul style="list-style-type: none"> Imminent Health hazards-violations that require immediate correction or closure to prevent harm 		
https://dph.georgia.gov/environmental-health/food-service/environmental-health-inspections	State of Georgia	<ul style="list-style-type: none"> Gwinnett, Newton, Rockdale not included in state-wide search Numeric score Inspection search portal for food facilities and swimming pools 		
https://www.kingcounty.gov/depts/health/environmental-health/food-safety/inspection-system.aspx	Seattle & King County	<ul style="list-style-type: none"> Food safety rating system Info available in other languages Launched in January 2017 New restaurant signage Number of restaurants in King County that have perfect scores of 0 critical food safety violations increased in 2017 from 52 to 55%. Emoji and color rating system Excellent, good, okay, needs to improve Rating determined by trend of food safety practices over time; scale of performance; zip code adjustments 	<ul style="list-style-type: none"> Virtual Safety Assessments Emoji/color rating system New rating system launched in 2017 	

Title/URL	Author	Key Findings/Synopsis	Methods (Other than traditional letter grade and numerical score)	Significance
		<ul style="list-style-type: none"> • Required to post window sign at entrance • Virtual food safety assessments- routine inspections abbreviated through video conferencing platform 		
https://www.kingcounty.gov/depts/health/environmental-health/healthy-communities/water-recreation.aspx	Seattle & King County	<ul style="list-style-type: none"> • Two routine inspections performed each year • Test for free chlorine residual, pH, alkalinity and when necessary cyanuric acid • Safety evaluation of walking spaces, access doors and fences, recirculation equipment, safety and emergency equipment • Able to see status of pool permit, pool inspection report not available or not easy to find 		
https://lincoln.ne.gov/city/health/environment/food-inspections/	Lincoln, Nebraska	<ul style="list-style-type: none"> • Below Average: The inspection score(s) are in the bottom 16% of similar types of food establishments. • Average: The inspection score(s) are in the middle 68% of similar types of food establishments. • Above Average: The inspection score(s) are in 		

Title/URL	Author	Key Findings/Synopsis	Methods (Other than traditional letter grade and numerical score)	Significance
		the top 16% of similar types of food establishments.		
https://www.lincoln.ne.gov/city/health/environ/water/PubSwim.htm	Lincoln, Nebraska	<ul style="list-style-type: none"> Lincoln-Lancaster County Health Department inspects all public swimming pools Reports not accessible 		
https://www.boston.gov/departments/inspectional-services/health-division	Boston, Massachusetts	<ul style="list-style-type: none"> Letter grading system: A, B, C Grade placed outside establishment Restaurant grading info sheet in multiple languages "Mayor's Food Court" Portal for restaurant information Information on pool inspections limited 		
https://www.tchd.org/754/Food-Inspections	State of Colorado	<ul style="list-style-type: none"> Food Inspection Search Portal Inspection Reports from July 2013 to present 		
https://www.colorado.gov/pacific/sites/default/files/Reg_BOH_RetailFoodRegulations.pdf	State of Colorado	<ul style="list-style-type: none"> Guide for Inspections Inspections performed twice per year Factors: food served, operations, weekly meal volume, inspection history 		

Title/URL	Author	Key Findings/Synopsis	Methods (Other than traditional letter grade and numerical score)	Significance
https://doh.vi.gov/programs/environmental-health	US Virgin Islands	<ul style="list-style-type: none"> Food Inspections conducted by the USVI Department of Health, Division of Environmental Health 		
https://viconsortium.com/VIC/?p=72142	US Virgin Islands	<ul style="list-style-type: none"> New Food Inspection Initiative 	<ul style="list-style-type: none"> Inspection process: a visit to the business, a check to ensure compliance, and if this business is found wanting, an educational process commences, and instead of fines, this business is encouraged to use the money that it could have been fined to rectify the deficiencies. Virgin Islands Food Code adopted in 2004, never enforced Limited Information of inspections 	
https://www.cdc.gov/healthywater/surveillance/nors.html	Puerto Rico	<ul style="list-style-type: none"> (Reporting waterborne illness in Puerto Rico) Waterborne Disease and Outbreak Surveillance System - National Outbreak Reporting System 	<ul style="list-style-type: none"> Limited information on inspections for both recreational water and restaurants 	