> SPECIAL REPORT



A Collaborative Approach to National Food Code Adoption

Abstract The Food and Drug Administration Food Code is a set of science-based food safety guidelines that serve as the basis for jurisdictional food codes that regulate retail food service in the U.S. Uniform adoption of the Food Code has benefits for government, industry, and the public. Compliance with code provisions helps reduce risk of foodborne illness in retail establishments. Only 18 states, however, have adopted the most recent edition of the Food Code (Food and Drug Administration, 2023). The Retail Food Safety Regulatory Association Collaborative (Collaborative) has undertaken a multipronged approach that leverages the resources and strengths of its six organizations to support adoption of the Food Code. Through these approaches, the Collaborative aims to provide the tools, resources, and support needed to navigate the sometimes complex nature of adoption. This special report provides a summary of the different activities and approaches of the Collaborative to support national Food Code adoption.

Introduction

The vital work of retail food safety professionals happens in a rapidly evolving landscape of technological advancement, emerging trends, and globalization—a dynamic terrain that requires up-to-date, evidence-based regulations to navigate. Adding to this complexity, the protection of retail food and the safeguarding of retail food establishments does not fall under federal authority in the U.S. Instead, several thousand state, local, tribal, and territorial (SLTT) jurisdictions have primary responsibility for the regulation or oversight of retail-level food operations (U.S. Department of Health and Human Services, 2017). Each of these jurisdictions has the autonomy to create legislation and policies, resulting in a patchwork of regulations that sometimes conflict and might not be based on the best available science. Inconsistency in regulations also means that additional time, resources, and coordination are needed to effectively implement retail food protection programs at both regulatory and industry levels. This inconsistency puts the public at risk for foodborne illness. The Food and Drug Administration (FDA) *Food Code* offers a solution to the current regulatory landscape by providing SLTT jurisdictions with a uniform and standardized framework of evidence-based regulations that they can implement to reduce the risk of foodborne illness.

Research indicates that states that have adopted specific provisions of the Food Code

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related to norovirus prevention (e.g., prohibition of bare-hand contact) have lower norovirus outbreak rates than states that have not adopted those specific provisions (Kambhampati et al., 2016). Additionally, research shows that norovirus outbreaks are smaller in retail establishments that have implemented specific *Food Code* provisions (e.g., kitchen manager certification) than in establishments that have not (Hoover et al., 2020). Although these data are limited to norovirus outbreaks and specific *Food Code* provisions, they strengthen the evidence of the importance of *Food Code* adoption to food safety.

The Food Code is a model code that provides a scientifically sound technical and legal basis for regulating the retail segment of the food industry. The Food Code is neither federal law nor regulation and is not preemptive. Rather, it represents the best advice from FDA for a uniform system of regulations to ensure that food at retail is safe and properly protected and presented. Jurisdictions may choose to adopt all, part, or none of the Food Code.

Jurisdictions that have adopted the *Food Code* most commonly adopt either by reference or section-by-section. Adoption by reference refers to a legal approach that involves adopting the *Food Code* by name, rather than as individual regulations. Often, jurisdictions that have adopted by reference automati-

cally adopt the newest edition of the *Food Code* when it is released. Jurisdictions with a section-by-section approach have adopted sections of the *Food Code* individually and must enact a full legislative process to adopt newer editions of the *Food Code*. The process to adopt newer editions of the *Food Code* varies from jurisdiction to jurisdiction and both approaches allow for the adoption of the *Food Code* in its entirety or in parts.

FDA revises the *Food Code* in a full edition every 4 years and a supplement to the full edition in the intervening 2 years; the revision process includes a strategic review of the recommendations made by representatives in the food industry, government, academia, and consumer organizations as a part of the Conference for Food Protection Biennial Meeting (Conference for Food Protection, 2023). While 49 states have adopted some edition of the FDA *Food Code*, only 34 states have adopted one of the two most recent editions and 18 of those 34 states currently use the most recent edition (FDA, 2023).

Complete and uniform adoption of the Food Code facilitates the standardization of inspections across jurisdictional lines. Training programs and standard operating procedures can vary from jurisdiction to jurisdiction to comply with inconsistent regulations, which makes compliance particularly difficult for retailers with operations in multiple jurisdictions (FDA, 2020). In a 2020 survey of key industry representatives, respondents reported it was overwhelming to keep up with code requirements across multiple jurisdictions (Mandernach et al., 2023). Furthermore, 85% of respondents felt uniform adoption of the Food Code throughout the U.S. would be beneficial. These findings indicate support for uniform adoption of the Food *Code* among industry members.

Initial surveying of U.S. states indicates a majority are considering adopting a newer edition of the *Food Code* (Nutt et al., 2022). Many states, however, face significant barriers to updating their regulations. The top three barriers to adopting a newer edition of the *Food Code* identified in the survey include:

- 1. Lack of staff knowledge in state regulatory agencies about the adoption process.
- 2. Lengthy and time-consuming adoption processes that compete with other operational priorities.
- 3. Resistance by legislators and administrations.

Challenges also include a lack of buyin from key partners, resistance to change, pushback from affected groups and poor communication between regulators and industry members, limited staff capacity, and limited resources (Retail Food Safety Regulatory Association Collaborative, 2020).

To support jurisdictions in overcoming these challenges and barriers, the Retail Food Safety Regulatory Association Collaborative (Collaborative) has undertaken a multipronged approach to *Food Code* adoption that leverages the resources and strengths of the organizations that make up the Collaborative. The Collaborative includes the Association of Food and Drug Officials, Centers for Disease Control and Prevention, Conference for Food Protection, FDA, National Association of County and City Health Officials, and National Environmental Health Association.

Members of the Collaborative work together to reduce the incidence of foodborne illness. Increasing the number of jurisdictions that have adopted the most recent edition of the FDA Food Code is one of the Collaborative's primary objectives. The Collaborative's Food Code adoption activities include several projects that provide access to information, tools, resources, contacts, and sound reasoning to support Food Code adoption. The projects highlighted in this special report represent a subset of numerous projects undertaken by the Collaborative and include tools and collections of information that can be leveraged by regulatory programs to aid in the Food Code adoption process in their jurisdiction.

The Collaborative's Food Code Adoption Activities and Projects

Food Code Adoption Toolkit

To address identified barriers to *Food Code* adoption, the Collaborative has created the *Food Code* Adoption Toolkit. The Toolkit is a resource for SLTT jurisdictions and decision makers to learn about the *Food Code*, how it is implemented around the country, and the importance of using current, evidence-based standards to safeguard food. Contents include:

- Resources for understanding the *Food Code* and its benefits.
- Answers to common questions and summaries of changes from one edition of the Food Code to the next.

- Statements and letters of support for uniform adoption of the *Food Code* from national associations, members of the retail food industry, regulatory jurisdictions, and Collaborative partners.
- Scientific studies that support *Food Code* adoption.
- Support for jurisdictions including training, industry education materials, and lessons learned from peers about *Food Code* adoption.

The Toolkit is a living resource that is periodically updated with new materials. The contents were informed by the results of a survey sent to 221 SLTT retail food regulatory jurisdictions that assessed each jurisdiction's *Food Code* adoption processes, challenges, and successes (Retail Food Safety Regulatory Association Collaborative, 2021). The Toolkit aids food safety professionals and decision makers at all levels in implementing holistic adoption of the *Food Code*.

Targeted Approaches to Adoption

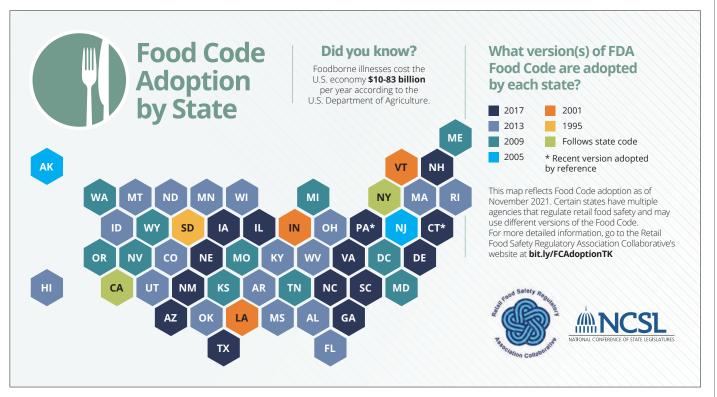
Specific Strategies for States

Each state and jurisdiction has a unique constellation of legislative processes, retail food safety regulation, and regulatory authority and responsibility that make a singular path to *Food Code* adoption impossible. Adoption of the latest edition of the *Food Code* is beneficial for all states; however, individual approaches tailored to each state's unique circumstances could be the most effective method to achieve this goal. Under this methodology, the Collaborative is providing direct support—along with assistance and governmental insight from partner organizations—to South Dakota, a state working with the 1995 edition of the *Food Code*.

Collaborative representatives, alongside FDA Retail Food Specialists, have been meeting with partners in South Dakota to understand the history of the state's food safety regulations and specific legislative processes for *Food Code* adoption. A comparison of the 1995 edition of the *Food Code* to the current 2017 edition was conducted by Collaborative representatives. This comparison revealed several key revisions to the 2017 *Food Code* based on scientific advancements and new knowledge. Adoption of the 2017 *Food Code* could significantly and positively impact South Dakota public health. For example,

FIGURE 1

Postcard Mailed to State Legislators That Shows Adoption Status of the Food and Drug Administration (FDA) Food Code by State With Information About the Importance of Adoption and Food Safety



Note. Postcard reprinted with permission from the National Conference of State Legislatures.

communities in South Dakota might be at higher risk of a norovirus outbreak because the 1995 *Food Code* does not require a written cleanup procedure for vomit or diarrhea accidents in food service. Norovirus is the leading cause of illness and outbreaks from contaminated food in the U.S. (Centers for Disease Control and Prevention, 2023).

This methodology for adoption support is still underway; results and findings will be used to improve future targeted approaches and further inform the development and content of the Toolkit. Future Toolkit development likely will include the addition of tools and resources specific to legislators.

Specific Initiatives for Decision Makers
To raise awareness and support among decision makers, a postcard that highlighted the benefits of Food Code adoption was developed and distributed to legislators across the U.S. (Retail Food Safety Regulatory Association Collabora-

tive, 2022; Figure 1). The postcard contained information on key food safety concerns and simplified data on each state's current status of *Food Code* adoption. The postcard was sent to more than 1,500 state legislators in winter 2021 and set the stage for discussions around *Food Code* adoption in states across the country. This initiative emphasized the differences in *Food Code* edition adoption around the U.S. and sparked discussions between decision makers and both Collaborative members and regulatory program administrators.

Data Collection Projects

The Collaborative has undertaken several data collection projects in an effort to advance understanding of the complex landscape of *Food Code* adoption, retail food safety regulation (including statutes and regulatory authorities), challenges and barriers facing SLTT jurisdictions, and other factors that affect *Food Code* adoption.

The Food Code Adoption Map displays official statutory or regulatory citations that authorize the use of a specific Food Code for retail food safety in each state. The Food Code can be adopted either by the state legislature or a state agency. This map is part of the Food Code Adoption Toolkit and is a powerful tool to understand how states compare with each other.

Additionally, surveys have been conducted to develop a fuller picture of needs, nuances of regulatory authority, and barriers to *Food Code* adoption within states. Individuals surveyed include program managers from all 50 state food programs who have responsibility for retail food safety; also surveyed were senior corporate or franchise food safety leaders in the restaurant, grocery, and convenience store segments. The results of these surveys will be used by the Collaborative to identify further needs and inform future strategies to advance *Food Code* adoption.

The Role of Retail Food Specialists

FDA Retail Food Specialists provide support to SLTT jurisdictions in their efforts to adopt the *Food Code*. These Specialists have comprehensive knowledge of the *Food Code* that allows them to provide active support through every step of the adoption process.

Specialists provide wide-ranging and comprehensive support activities, serve as subject matter experts, and can coordinate with other key players—including members of the Collaborative—in the adoption process. These Specialists can:

- Connect jurisdictions with other jurisdictions that have gone through a similar adoption process or have overcome challenges, thus facilitating mentorship, sharing of best practices, and giving firsthand advice on the adoption process.
- Guide jurisdictions in obtaining buy-in from key partners involved in the adoption process.
- Articulate the benefits of adopting uniform, science-based regulations.
- Help SLTT jurisdictions identify and understand gaps between their current retail food regulations and the most current Food Code.
- Serve as active participants in stakeholder meetings, providing clarifications or interpretations of *Food Code* sections, reviewing proposed language, and providing training or presentations to ensure a jurisdiction has a full understanding of *Food Code* provisions.

FDA Specialists provide support even after a jurisdiction adopts an edition of the *Food Code*. They work with SLTT jurisdictions to

ensure uniform understanding and consistent application of the principles in the *Food Code* and provide training that aligns with the most current edition as it evolves.

Preparation to Adopt the Food Code

Food Code adoption can be a complex process. Jurisdictions that are preparing to update their food code can meet the challenges and increase buy-in by:

- Knowing and fully understanding their jurisdiction's food code legislative process.
- Reviewing the various stages in the *Food Code* adoption process and identifying key partners (e.g., legislators, boards of health, retail food industry, consumer groups) that need to be engaged.
- Developing targeted messaging for each of their key audiences so interested groups can be leveraged to support adoption efforts.

To begin the *Food Code* adoption process or support a process that is already underway, jurisdictions can reach out to their FDA Retail Food Specialist (www.fda.gov/food/voluntary-national-retail-food-regulatory-program-standards/directory-fda-retail-food-specialists). We also encourage jurisdictions to connect with the Collaborative for tools, resources, and additional assistance (www. retailfoodsafetycollaborative.org).

Conclusion

The FDA *Food Code* provides a scientifically sound technical and legal basis for regulating the retail segment of the food industry. This framework supports standardization and coordination of resources and efforts

across SLTT jurisdictions that support both regulatory programs and industry partners. Although *Food Code* adoption has the potential to be complex and lengthy, there are tools, resources, and assistance available through the Collaborative. Leveraging the work of the Collaborative and pursuing support from FDA Retail Food Specialists can help jurisdictions adopt the most recent edition of the *Food Code*.

Acknowledgements: This special report was supported by FDA of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$1,500,000 with 100% funded by FDA/HHS. The contents of this report are those of the authors and do not necessarily represent the official views of, nor an endorsement by, FDA/HHS or the U.S. government. Furthermore, the findings and conclusions in this report are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention or the Agency for Toxic Substances and Disease Registry. The authors acknowledge the support and assistance of the following individuals: Brooke Benschoter, Jenice Butler, Barbara Kitay, and John Marcello.

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References

Centers for Disease Control and Prevention. (2023). *Norovirus*. https://www.cdc.gov/norovirus/

Conference for Food Protection. (2023). *About the Conference*. http://www.foodprotect.org/about

Food and Drug Administration. (2020). Benefits associated with complete adoption and implementation of the FDA Food Code. https://www.fda.gov/food/fda-food-code/benefits-associated-complete-adoption-and-implementation-fda-food-code

Food and Drug Administration. (2023). Adoption of the FDA Food Code by state and territorial agencies responsible for the oversight of restaurants and retail food stores. https://www.fda.gov/food/fda-

food-code/adoption-fda-food-code-state-and-territorial-agencies responsible-oversight-restaurants-and-retail

Email: lwildey@neha.org.

Hoover, E.R., Hedeen, N., Freeland, A., Kambhampati, A., Dewey-Mattia, D., Scott, K.-W., Hall, A., & Brown, L. (2020). Restaurant policies and practices related to norovirus outbreak size and duration. *Journal of Food Protection*, 83(9), 1607–1618. https://doi.org/10.4315/JFP-20-102

Kambhampati, A., Shioda, K., Gould, L.H., Sharp, D., Brown, L.G., Parashar, U.D., & Hall, A.J. (2016). A state-by-state assessment of food service regulations for prevention of norovirus out-

FIGURE 2

Sign Up For Email Updates and Follow the Retail Food Safety Regulatory Association Collaborative on Social Media





ies on how regulatory food safety programs apply risk-based inspection methods and use interventions to address risk factors for foodborne illness in their jurisdictions. Visit the Collaborative website at www.retailfoodsafety collaborative.org to find more information and sign up to receive email updates to be notified about new tools and events (Figure 2). Thank

you for all you are doing to improve food safety in your community.

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References

Centers for Disease Control and Prevention. (2019). Surveillance for foodborne disease outbreaks, United States, 2017: Annual report. U.S. Department of Health and Human Services. https://www.cdc.gov/fdoss/pdf/2017_FoodBorneOutbreaks_508.pdf

Centers for Disease Control and Prevention. (2022). Adoption of Food Code provisions is linked to lower rates of foodborne norovirus outbreaks. https://www.cdc.gov/nceh/ehs/food/adoption-of-food-code-linked-to-lower-norovirus-outbreaks.html

Kambhampati, A., Shioda, K., Gould, L.H., Sharp, D., Brown, L.G., Parashar, U.D., &

Hall, A.J. (2016). A state-by-state assessment of food service regulations for prevention of norovirus outbreaks. *Journal of Food Protection*, 79(9), 1527–1536. https://doi.org/10.4315/0362-028X.JFP-16-088

National Environmental Health Association, & Retail Food Safety Regulatory Association Collaborative. (2021). Active managerial control incentive programs assessment. https://www.retailfoodsafetycollaborative.org/tools/active-managerial-control-incentive-programs-assessment-report/

National Environmental Health Association, & Retail Food Safety Regulatory Association Collaborative. (2022). Foodborne illness outbreak response tools and resources survey. https://www.retailfoodsafetycollaborative.org/wp-content/uploads/2022/08/FBIO-Survey-Results.pdf

U.S. Department of Health and Human Services. (n.d.). *Healthy People 2023: Foodborne illness*. https://health.gov/healthypeople/objectives-and-data/browse-objectives/foodborne-illness

Did You Know?

September is National Food Safety Education Month. Every year, an estimated 1 in 6 people in the U.S. get sick from a foodborne disease. Check out our food safety resources at www.neha.org/food-safety_2. You can learn about the credentials, courses, and study materials we offer to strengthen your skills. You can also explore our policy statements that cover a broad range of topics, including food freedom operations, raw milk, uniform and integrated food safety systems, and more.

References continued from page 25

breaks. Journal of Food Protection, 79(9), 1527–1536. https://doi.org/10.4315/0362-028X.JFP-16-088

Mandernach, S., Nutt, E.A., Miklos, M.S., Arendt, SW, & Xu, Y. (2023). Current state of food safety culture and FSMSs in food establishments. *Food Safety Magazine*. https://www.food-safety.com/articles/8477-current-states-of-food-safety-culture-and-fsmss-in-food-establishments

Nutt, E.A., Arendt, S.W., Xu, Y., Benschoter, B., & Mandernach, S. (2022). State retail food program manager 50 states survey [Unpublished report].

Retail Food Safety Regulatory Association Collaborative. (2020). Food Code *adoption survey: July 2020 results*. https://www.retail foodsafetycollaborative.org/wp-content/uploads/2021/02/Food_Code_Adoption_Survey_Report_2021.pdf

Retail Food Safety Regulatory Association Collaborative. (2021). Food Code *Adoption Toolkit*. https://www.retailfoodsafetycollaborative.org/tools/national-food-code-adoption-toolkit/

Retail Food Safety Regulatory Association Collaborative. (2022). *Postcard showcasing benefits of* Food Code *adoption sent to legislators*. https://www.retailfoodsafetycollaborative.org/postcard-showcasing-benefits-of-food-code-adoption-sent-to-legislators/

U.S. Department of Health and Human Services, Public Health Service, Food and Drug Administration. (2017). Food Code: 2017 recommendations of the United States Public Health Service, Food and Drug Administration. https://www.fda.gov/media/110822/download