



National Environmental Health Association

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The National Environmental Health Association (NEHA) represents more than 6,700 governmental, private, academic, and uniformed services sector environmental health professionals in the U.S. and 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.

Policy Statement on Food Safety for Cottage Foods and Home-Based Restaurants

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Cottage foods are prepared and packaged in the home kitchen of a domestic residence of a person with the intention of being sold directly to consumers (Association of Food and Drug Officials [AFDO], 2012). This industry is not new; however, it is growing as the "sharing economy" grows. The sharing economy is defined as "the peer-to-peer-based activity of obtaining, giving, or sharing the access to goods and services, coordinated through community-based [or] online services" (Hamari, Sjöklint, & Ukkonen, 2016). A growing segment of this market is home-based restaurants in which an individual purchases food, prepares, and serves a restaurant-style meal in their home to paying customers. Cottage foods and home-based restaurants pose a risk to health due to the lack of standardized regulatory oversight, and this will likely increase as states expand cottage food and home-based restaurant laws to allow time/temperature control for safety (TCS) foods to be sold.

Although cottage foods and home-based restaurants would not likely result in multistate foodborne illness outbreaks, they have significant negative impact smaller communities. A 2014 case study from California demonstrates this risk. An unlicensed farm stand sold pesto that was produced in a home kitchen, which was not licensed by the California Department of Health or the Food and Drug Administration (FDA). A mother purchased a jar of pesto for her daughter and a roommate, which they shared, and it resulted in one case of botulism and one case of Guillain-Barre Syndrome. Although this product would not have qualified under a Cottage Food Operators permit in California, it demonstrates the dangers TCS foods pose when produced in a home kitchen (Needham & Franciso, 2015). This policy statement addresses the food safety implications of cottage foods and home-based restaurants in protecting public health.

The National Environmental Health Association (NEHA) advocates for national, state, and local policies, regulations, research, and resources that will enhance the ability of environmental health professionals to regulate cottage foods and home-based restaurants in order to protect public health.

NEHA supports the following policies and actions:

- The existence of the cottage foods industry to the extent that it does not include time/temperature control for safety (TCS) foods or foods that are non-TCS solely due to processing (e.g., acidification).
- Cautions against the unregulated expansion of home-based restaurants. NEHA supports holding home-based restaurants to the same standards as food establishments as defined by the most recent version of the FDA *Food Code* regardless of size or annual income, including the presence of domestic animals in food preparation area.
- Require registration with the appropriate state, local, or tribal regulatory food safety or public health agencies for all cottage food and home-based restaurant entities.
- Include a requirement for prominent labeling and signage in English (and the prominent language of the local area, if applicable) and disclosure to the consumer that the product has NOT been produced or prepared in accordance with federal, state, or local public health requirements or oversight.
- All ingredients used in the production of cottage foods or in home-based restaurants should be procured from licensed and inspected facilities and the use or sale of foods including raw milk, home canned foods, and meats from uninspected sources should be prohibited.
- Require that the water used in homes that produce cottage foods and home-based restaurants meet potable drinking water standards. If the water supply is from a municipal source, a potability certificate or report from a state or local health agency or other responsible organization is acceptable. If the water supply comes from a private water well, the establishment must have its water potability certificate renewed in accordance with U.S. Environmental Protection Agency primary drinking water regulations (40 CFR, Part 141) and FDA sanitation regulations (21 CFR, Parts 1250 and 1240).
- In lieu of a certified food manager, mandate the annual completion of basic food safety and/or food handler training.
- Prohibit food preparers with infectious diseases that can be transmitted through foods from preparing or handling foods for sale.
- Prohibit all workers from having bare hand contact with ready-to-eat foods.
- Cottage food and home-based restaurant proprietors should allow health department inspectors and/or regulators into their homes if their businesses are the suspected source of a foodborne illness outbreak.
- Cottage food and home-based restaurant proprietors should maintain sufficient liability insurance and list the regulatory authority (i.e., health department) as a co-insured.

- State legislation and regulations for cottage foods and home-based restaurants should be easy to locate on health department websites, as well as easy to understand for individuals interested in starting a cottage foods or home-based restaurant business (Condra, 2013).

Analysis

The FDA *Food Code* is a model for safeguarding public health and ensuring food is unadulterated and honestly presented when offered to the consumer. It represents the best advice for a uniform system of provisions that addresses the safety and protection of food offered at retail and in food service (U.S. Department of Health and Human Services [HHS], 2017). Additionally, the *Food Code* explicitly states, “Food prepared in a private home may not be used or offered for human consumption in a food establishment” (HHS, 2017, p. 58).

The shift toward a sharing economy in the food industry has opened new opportunities, as well as the potential for new health risks to the U.S. public. It has been hypothesized that this shift is linked to a number of benefits, including improved access to healthy food, enhanced community connections, and economic opportunity for women, especially in rural areas (Hamari et al., 2016; McDonald, 2017).

Although the FDA *Food Code* does not recommend the sale of food produced in a home kitchen, most states have passed legislation permitting certain categories of foods that are produced in a home for direct consumer sale. States have dealt with this issue either by excluding home kitchens from the definition of a food establishment or creating separate laws and regulations for cottage foods (Condra, 2013). In most states, cottage foods are restricted to foods that do not require time/temperature control for safety (TCS). These foods generally include breads; biscuits; cakes; fruit pies and other baked goods that do not require refrigeration; candies; dry herbs and seasonings; popcorn; cereals, trail mixes, and granolas; dried produce; nuts; vinegar; and jams, jellies, and preserves (AFDO, 2012).

A review of state cottage food laws and regulations demonstrates the nonuniformity of this industry. The majority of states only allow non-TCS foods. Some state laws are more restrictive and only allow baked and confectionery goods. Some are less restrictive, allowing some TCS foods under specific circumstances. Two states do not allow cottage food sales (Farm-to-Consumer Legal Defense Fund [FTCLDF], 2018; Rice, 2017).

For the most part, cottage food producers must sell directly to the consumer, typically at farmers markets, roadside stands, community events, and/or from their homes. In most cases, sales are restricted to intrastate sales and generally are not allowed over the Internet (FTCLDF, 2018). Additionally, one half of the states that have cottage food laws and regulations include an annual sales limit either in dollars or units sold (FTCLDF, 2018). Two states, Wyoming and North Dakota, have passed Food Freedom Acts that greatly reduce government oversight of cottage foods. These Food Freedom Acts allow for the direct to consumer sale of any food other than meat (North Dakota will allow some poultry), do not limit sales, and do not have registration requirements (Rice, 2017). In North Dakota, labeling is required only if the food is considered TCS (Rice, 2017).

A newer trend in the sharing economy movement is home-based restaurants. Similar to businesses in which individuals provide taxi services in personally owned vehicles, home-based restaurant chefs purchase food, prepare, and either serve the meal in their homes or allow for takeout or delivery options. Home-based restaurants tend to operate using an Internet-based third-party website to manage reservations and payments, although some operate independently through social media or

garage sale advertising sites. Home-based restaurants differ from cottage foods as the industry almost exclusively includes the preparation and sales of restaurant-style TCS foods out of the home kitchen.

Justification

With increased popularity of cottage foods and home-based restaurants, the potential for negative health impacts exist. Data from the National Outbreak Reporting System of the Centers for Disease Control and Prevention show that there were 2,416 foodborne illness outbreaks, 40,848 illnesses, 3,579 hospitalizations, and 100 deaths attributed to food prepared in private homes and residences from 1998–2016 (Centers for Disease Control and Prevention, 2017). These statistics demonstrate the need for state, local, and tribal public and environmental health officials to take a proactive approach to regulating these entities.

The risk categorization of food establishments from the FDA *Food Code* (Annex 5, Table 1) demonstrates the need for continued regulation of cottage foods and the need to establish regulation for home-based restaurants. Cottage foods, excluding those states that allow TCS foods, would be categorized as Risk Category 1. This category includes “establishments that prepare, serve, or sell only prepackaged, non-TCS foods” (HHS, 2017, p. 593). Home-based restaurants would require higher risk categorization such as Category 2–4 depending on the complexity of the menu and preparation methods (HHS, 2017). Categorization at this level requires two to four scheduled inspections annually.

Uninspected home kitchens do present a health risk to the public. Borrusso and Quinlan (2017) collected swab samples from 100 homes in Pennsylvania and found that 45% of home kitchens tested positive for a foodborne pathogen. Furthermore, 12% had more than one pathogen present. Surfaces contaminated with fecal coliforms and *Staphylococcus aureus* were associated with a lack of cleaning materials such as dish soap and towels in the kitchen and hand towels in the bathroom. These basic food safety principles are required and inspectable items for FDA-defined food establishments.

To combat this risk from home kitchens and protect public health, cottage food and home-based restaurant employees should be required to annually complete food safety or food handler training that is administered by an accredited organization (AFDO, 2012). Currently, less than one quarter of states require food safety or sanitation training in order to be a cottage foods proprietor (FTCLDF, 2018).

Hedberg and coauthors (2006) compared restaurants that had a foodborne illness outbreak with those that did not have one over a 1-year period. They found that having a certified kitchen manager (CKM) on staff led to fewer norovirus outbreaks and no *Clostridium perfringens* outbreaks. This study suggested that the decrease in the number of outbreaks was due to increased knowledge and practices related to hand hygiene and food temperature control. Likewise, having a CKM on staff decreased critical violations for personnel (hygienic practices, hand washing, etc.), food source/handling (cross contamination protection, labeling, hazard analysis and critical control point plan, etc.), and facility/equipment requirements (ventilation, thermometer calibration, food contact surfaces, lighting, etc.) compared with kitchens without a CKM (Cates et al., 2009).

In addition to having a CKM on staff, basic food safety training is also beneficial. Soon and coauthors (2012) conducted a meta-analysis of the impact of food safety training on hand hygiene knowledge and attitudes. They found that compared with controls, food handlers who received training improved their knowledge and attitudes of hand hygiene, as well as self-reported compliance with protocols. Similarly, compared with controls, lay individuals who viewed a U.S. Department of Agriculture video on thermometer use prior to preparing a turkey burger were more likely to insert the thermometer into the

turkey burger correctly and use it to check the doneness of the burger (U.S. Department of Agriculture, 2018). These studies show that requiring food handler training for individuals can enhance their knowledge and compliance with standards.

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