



APHL Position Statement

Contributions of State and Local Public Health Laboratories in Development, Implementation and Evaluation of Federal Food Safety Initiatives

A. Statement of Position

Federal agencies should recruit and appoint state and local public health laboratorians to national food safety work groups and advisory committees and should actively seek input and expertise on national initiatives from this professional community.

B. Implementation

APHL will:

- 1) Send this position statement to partners within CDC and FDA at the US Department of Health and Human Services (HHS), the Department of Homeland Security (DHS), partners within DSIS and the US Department of Agriculture, and other Federal agencies and departments as appropriate.
- 2) Encourage members who are currently serving in national roles to mentor their peers on how to leverage their skills and expertise for such roles.
- 3) Support member representation at national food safety meetings, forums and other such venues through travel scholarships, as funding allows, and letters of recommendation or nominations for travel awards
- 4) Nominate member-representatives to USDA NACMF, FDA FAC, FERN advisory groups, FSMA work groups, PFP workgroups and committees, CIFOR and other relevant advisory groups created by HHS, DHS, USDA and other federal agencies and

departments.

C. Background/Data Supporting Position

Food Safety is an Ongoing Concern

Foodborne diseases continue to affect millions of Americans and cause thousands of hospitalizations and deaths each year. The Centers for Disease Control and Prevention (CDC) estimates that 31 major foodborne pathogens cause 9.4 million cases of illness, 55,961 hospitalizations, and 1,351 deaths annually in the United States (1). Based on preliminary 2013 FoodNet data, the overall incidence of infection for six key foodborne pathogens showed no significant change when compared to 2010-2012 or 2006-2008 time periods (2). While some pathogen-specific progress has been made toward meeting Healthy People 2020 (FS 1.1-1.7) objectives, incidence rates for other key foodborne pathogens have taken an upward swing. Continued efforts around food safety are necessary and will require intense resources from federal, state and local public health agencies, the food production and processing industry, the medical community, and the public (2) (3).

Major Federal Initiatives Focused on Food Safety

- In 2010, CDC introduced a plan to achieve measurable impact in seven key areas termed “Winnable Battles” that encompass public health priorities “with large-scale impact on

health and with known, effective strategies to intervene”(4)(5). Food safety is one of those “Winnable Battles,” including efforts to decrease the incidence of *Salmonella* and other food-related pathogens and accelerate the public health response to foodborne illness at the local, national, and global levels (6).

- On January 4, 2011, the FDA Food Safety Modernization Act (FSMA) was signed into law. The first major change to food safety laws in the United States since 1938, FSMA enables FDA to better protect the public’s health by preventing foodborne illness rather than reacting to problems once they have already occurred (7). One of the key components of FSMA focuses on enhanced partnerships both domestic and foreign and across all levels of government including local, state, and federal food safety agencies (7).

Success in both of these initiatives will rely heavily on close collaboration between those federal agencies who have food safety responsibilities and their state and local counterparts.

Key Contributions by State and Local Public Health Laboratories

State and local public health laboratorians have provided valuable contributions to national food safety initiatives and work groups, as follows:

- **Partnership for Food Protection (PFP)** - State and local public health laboratorians are actively participating with FDA on the PFP, a multi-disciplinary collaboration among all levels of government aimed at building the foundation for an integrated food safety system in the U.S. In addition to a holding a seat on PFP’s Governing Council, laboratorians have contributed to several work groups including a Laboratory Task Group which developed the “Food/Feed Testing Laboratories Best Practices

Manual” (8).

- **Council to Improve Foodborne Outbreak Response (CIFOR)** - CIFOR is a multidisciplinary work group convened to increase collaboration across the country and across relevant areas of expertise in order to reduce the burden of foodborne illness in the United States. APHL members have provided a laboratory perspective on several important Council products, including the first and second editions of the CIFOR Guidelines for Foodborne Disease Outbreak Response and the associated CIFOR Toolkit.
- **CDC FSMA Board of Scientific Counselors (BSC) Surveillance Work Group** - CDC’s FSMA BSC Surveillance Work Group is a multidisciplinary team from local, state and federal levels charged with selecting and overseeing five food safety Centers of Excellence (COEs) within the U.S. A state public health laboratorian provides critical laboratory insight on several high profile issues including culture independent diagnostic testing, whole genome sequencing implementation, and antibiotic resistance testing.
- **FDA Food Advisory Committee (FAC)** - FDA’s FAC provides advice to FDA leadership on emerging food safety, food science, nutrition, and other food-related health issues that are of primary importance to FDA. A state chemist assisted in the development of risk prioritization models that recommend use of state inspections and laboratory data to determine food or feed sampling schemes that make the best use of resources to protect human health.

State and Local Public Health Laboratories Play an Essential Role in Food Safety

State and local public health laboratories play an essential role in national food safety activities, as

follows:

- Public health laboratories conduct foodborne disease surveillance testing for important pathogens such as *Salmonella*, *Campylobacter*, Shiga Toxin-producing *Escherichia coli* (STEC) and *Listeria*. Specialized testing is performed on tens of thousands of foodborne disease isolates annually. Epidemiologists, regulators, and policy makers use the information generated by this testing to monitor foodborne disease trends, improve food safety programs, and evaluate food safety policies.
- Public health laboratories play a critical role in foodborne outbreak response efforts by detecting clusters of related disease cases that may later be identified as outbreaks. Without public health laboratory networks such as PulseNet, the national molecular subtyping network formed by public health laboratories working in collaboration with CDC, many widespread outbreaks might never be detected and solved.
- Public health laboratories are responsible for testing food during incidents involving suspect microbial, chemical or radiological contamination of food products. Additionally, public health laboratories perform routine regulatory testing to prevent harm from many hazards that may contaminate the food supply.
- Public health laboratories have a critical role in evaluating and implementing new technologies such as whole genome sequencing (WGS). Public health laboratories often conduct comparison studies of new methods with current gold standard techniques using a large inventory of rare specimens.

APHL is aware of several food safety-related initiatives and work groups that will benefit from state and local laboratory participation. These include but are not limited to: the Integrated

Consortium of Laboratory Networks (ICLN), the Council to Improve Foodborne Outbreak Response (CIFOR), the US Department of Agriculture (USDA) National Advisory Committee on the Microbiological Criteria for Foods (NACMCF), many Food Emergency Response Network (FERN) advisory groups, the USDA National Advisory Committee on Meat and Poultry Inspection, the Food and Drug Administration (FDA) Food Advisory Committee (FAC) and Rapid Response Teams (RRTs), and the Partnership for Food Protection (PFP). National food safety initiatives will benefit greatly from critical input from state and local public health laboratory perspectives.

D. References

1. Scallan E, Hoekstra RM, Angulo FJ, Tauxe RV, Widdowson M-A, Roy SL, et al. Foodborne illness acquired in the United States—major pathogens. *Emerg Infect Dis* [serial on the Internet]. 2011 Jan [05/22/2014]. <http://dx.doi.org/10.3201/eid1701.P11101>
2. Crim SM, Iwamoto M, Huang JY, Griffin PM, Gillis D, Cronquist A, et al. Incidence and Trends of Infection with Pathogens Transmitted Commonly Through Food — Foodborne Diseases Active Surveillance Network, 10 U.S. Sites, 2006–2013. *MMWR Morb Mortal Wkly Rep*. April 18, 2014 / 63(15);328-332. Available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6315a3.htm?s_cid=mm6315a3_w
3. U.S. Department of Health and Human Services. (2014) Healthy People 2020. Food Safety Objectives. Available at <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=14>
4. Centers for Disease Control and Prevention. Winnable Battles Progress Report 2010-2015. Available at <http://www.cdc.gov/winnablebattles/targets/pdf/winnablebattlesprogressreport.pdf>
5. Centers for Disease Control and Prevention <http://www.cdc.gov/winnablebattles/focusareas.html>

(References continued on next page)

C. References (continued)

6. Scallan E, Hoekstra RM, Angulo FJ, Tauxe RV, Widdowson M-A, Roy SL, et al. Foodborne illness acquired in the United States—major pathogens. *Emerg Infect Dis* [serial on the Internet]. 2011 Jan [05/22/2014]. <http://dx.doi.org/10.3201/eid1701.P111101>
7. Operational Strategy for Implementing the FDA Food Safety Modernization Act (FSMA) Protecting Public Health by Strategic Implementation of Prevention-Oriented Food Safety Standards. May 2, 2014. Available at <http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm395105.htm>

Recommended by: The Food Safety Committee, Approved by Board of Directors for Interim Use: March 2015, Approved by Membership: June 2015 Sunset Date: June 2020

Contact: Celia Hagan, Senior Specialist, Public Policy
240.485.2758, celia.hagan@aphl.org.