



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



Journal of Food Distribution Research
Volume 43, Issue 1

Assessing Food Safety Training Needs: Findings from TN Focus Groups

E. Ekanem^a, M. Mafuyai-Ekanem^b, F. Tegegne^c and U. Adamu^d

^a*Enefiok Ekanem, Tennessee State University, Nashville, TN*
Phone: (615) 963-5823, Email: eekanem@tnstate.edu

^b*LaRun and Associates, Greensboro, NC, USA*

^c*Tennessee State University, Nashville, TN, USA*

^d*University of Arkansas, Pine Bluff, AR, USA*

Abstract

Although food safety training is important for the food services industry, there is limited information on the needs for hard-to-reach food service workers. The objectives of this paper are to: (1) identify food safety training issues facing hard-to-reach food service workers, and (2) analyze the opinions collected of participants in food safety focus groups. Data reported in this paper were collected using focus group meetings from selected counties in TN. Qualitative methodology was applied to data collected. Findings showed that food safety training should be offered on a continuous basis using materials that are easy to read, understand and implement. An effective food safety training program is needed to monitor employees to ensure compliance with established guidelines and procedures.

Keywords: food safety, training needs, communications, focus groups, eating places, hard-to-reach audiences, and food service workers

Introduction

According to the 2007 U. S. Census Bureau, there were approximately 566,020 food services and drinking places, 217,282 full service restaurants, 266,534 limited service eating places, and 209,819 limited service restaurants. A glen of industry statistics showed that Tennessee had 8,937 eating and drinking places in 2008. Restaurants employed approximately 271,400 people in Tennessee, contributing **10 percent** of jobs in the state. In 2010, the number of restaurants grew to 9, 017, an increase of nine percent in two years. Between 2010 and 2020, it is projected that the number of jobs created by restaurants will increase from 270,200 to 271,400. This represents 24,600 new jobs, a 9.1% growth in restaurant and food service employment in Tennessee. In 2010, Tennessee's restaurants were expected to generate about \$8.7 billion in sales. Every extra \$1 million spent in Tennessee's eating and drinking places creates 29.3 additional jobs in the state (<http://www.restaurant.org/pdfs/research/state/tennessee.pdf>).

Food safety training is an important component of the American food system. Millions of Americans are at risk of being sick, hospitalized or dying from eating unsafe food. Limited information exist on food safety training needs for limited resource and hard-to-reach food service workers. In a recent study, Ekanem et. al. (2011) noted that food safety training was very important in the food service industry in Tennessee. That study, however neither examine specific training needs nor examine these needs for hard-to-reach food service workers. The present study will attempt to fill that gap.

The objectives of this paper are to identify food safety training issues and analyze the opinions of participants in food safety focus groups. The objectives of this paper are to: (1) identify food safety training issues facing limited resource and hard-to-reach food service workers (2) analyze the opinions collected of participants in food safety focus groups.

Related Literature Review

In 2009, it was estimated that 130 million individuals visited restaurants daily where 70 billion meals or snacks were served. United States restaurants generated a total of \$566 billion in sales. A preview of the 2008 US Census data showed that 34.4 percent of the estimated population was ethnically or racially diverse. Hepatitis A and Norwalk-like virus, accounted for most (60 percent) of the foodborne outbreaks. Eighty-nine percent of these outbreaks occurred in food service establishments/restaurants (Kwon, J. et. al. 2010, 2011). Using a modified Dillman mailed self-administered questionnaire, Walter et. al. (1997) surveyed 132 homes for people with developmental disabilities in western Massachusetts. The study found training needs exist in many areas including: food safety training and storage, handling procedures, attitudes, practices and critical control points in safe food preparation. Cody, M. et. al. (2008) used data collected from 1,174 participants from 121 districts in 33 states to highlight food safety training issues. Among the food safety training issues raised were the need for better training materials, compensation for time to attain training, the lack of expert trainers and follow-up.

Methodology

The project reported in this paper was part of a two state food safety training needs assessment study in Arkansas and Tennessee. Focus group questions were developed by a team of agricultural economists, food scientists, agricultural educators, health specialists and others. The questionnaire was tested and modified for clarity and readability prior to administration with hard-to-reach audiences. Organizers targeted workers, managers or assistant managers, owners, trainers, certified nutritionists, environmental specialists and food inspectors for participation. The targeted audiences were current or previous workers of family owned eating places, fast food restaurants, delis, nursing home cafeterias, hospital dinners, child care eating facilities, correction center canteens and schools eateries.

Data was collected using focus group discussions with food services workers in three selected counties in Tennessee. Shelby, Davidson and Montgomery counties were conveniently selected based on availability and interest of the county extension agents in food safety. Each meeting was 90 to 120 minutes. Collaborating extension specialists and county agents recruited seven to 13 local food service workers per location to participate in the meetings. Participants input were taped, hand-recorded, transcribed, checked for accuracy and computerized. Qualitative methods were used in analyzing opinions expressed by participants. Findings provide insights for discussions, recommendations and policies implications for addressing food safety training needs of limited-resource and hard-to-reach audiences.

Findings

A profile of the focus group members showed that while 30 percent were males, 70 percent were females. Thirty-three percent of the participants resided in a city of less than 20,000 populations, 19 percent lived in a city 20,000 to 50,000 people while 48 percent live in a city of more than 50,000 inhabitants. In terms of ethnic background, 44 percent were Black or African Americans while 44 percent were Whites or Caucasians and 12 percent identified themselves as belonging to other ethnic groups (American Indians, Alaskan Natives, Asians or Hawaiian). While 52 percent of the focus group participants held positions as Managers, Assistant Managers, Trainers or Owners, 26 percent were food inspectors or environmental specialists and 23 percent held the positions of food service workers or others. When asked to provide information regarding their educational background, participants with High School education or less constituted 19 percent, some college 32 percent, bachelor's degree 16 percent, graduate degree 20 percent and other 30 percent. The following income groups and percentage of the participants were recorded: Four percent of the participants earned less than \$10,000, 16 percent generated \$10,001 to \$25,000, 20 percent were paid \$25,001 to \$40,000, eight percent earned \$40,001 to \$55,000, 28 percent made \$55,001 to \$70,000 and 24 percent received more than \$70,000 in gross annual household income. In terms of language, 90 percent of the participants revealed that English was their primary language of communication. As many as 67 percent of the focus group participants provided their contact information to received information about the project, technical assistance, educational programs or future collaborations.

This section presents discussions generated from the focus group meetings on the important issues in food safety training of hard-to-reach workers in food service. In response to this

question, participants acknowledged the importance of food safety training for Tennessee food service workers. Participants agreed that certification should be required for all Tennessee food service workers. Experts in food safety should offer training to top-managers, middle managers and other workers in establishments that serve food. The participants recommended specific training on cooking, chilling temperature and personal hygiene. Involvement of everyone in the food establishment would allow all employees to benefit from a structure training program. Managers' commitment would strengthen any food safety plan that the establishment intends to implement.

According to the responses shared by the participants, offering specific training that emphasize the basic concepts of food safety will allow workers to learn the principles that explain actions they take to keep food safe. Participants also agreed that there was an issue with training material being displayed in a language that the workers are not well-versed in. Therefore, assistance should be provided to food service workers in translating and interpreting information. Additionally, participants also stressed the need for printed materials to be user-friendly, easy and simple to understand. Furthermore, effective food safety training must be offered on an on-going basis. Managers should be well-informed on the incidence of foodborne issues. The cost of food safety training was an issue. To be cost effective, participants suggested that training-the-trainer ought to be provided by city or county government. Continuous monitoring of employees is necessary to ensure that they follow guidelines. Responses to these questions showed the needs identified for food safety training in Tennessee.

Recommendations and Conclusions

The purpose of this paper was to report on findings of focus group discussions on food safety training needs for food service workers in Tennessee. Using eight questions developed for a structured focus group meeting, opinions were gathered from three groups seated in Shelby, Montgomery and Davidson counties during the months of May through June 2011. A total of 31 participants drawn from previous and current food service workers took part in the study. Food safety training is very important in order to maintain the relatively safe position that the United States has enjoyed over the years. In whatever form it is offered, food safety training should provide positive impacts that change behaviors important for safe food storage and handling. With increasing diversity of the U.S. population and workforce, the importance of research like the one conducted here cannot be over emphasized. Focus group meetings can provide useful insights into development of essential content of a good food safety training manual or curriculum. This study shows that good food safety training should acknowledge diversity (the differences in educational, social, cultural and religious backgrounds) of trainees in addition to how the training material is communicated.

Acknowledgements

The authors extend their sincere thanks to the USDA/NIFA for providing financial support through funded food safety grant project. We also appreciate the College of Agriculture, Human and Natural Sciences, Tennessee State University, Department of Agricultural Sciences undergraduate and graduate student assistants and research associates. To Cyndi Thompson, Harini Junmpali, Danielle Towns Belton and Justin Hayes, we are grateful for their assistance in

compiling literature, facilitating focus groups, transcribing information and the development of this manuscript. Rita Fleming, Leslie Speller-Henderson, Alvin Wade, Extension specialists and county extension staff, we are thankful for their collaboration in reviewing, questionnaire, identifying participants, moderating and hosting the focus group sessions in Davison, Shelby and Montgomery counties.

References

- Cody, Mildred M., Virginia S. O’Leary and Josephine Martin. 2008. *Food Safety Training Needs Assessment Survey*.
<http://nfsmi-web01.nfsmi.olemiss.edu/documentlibraryfiles/PDF/20080221033700.pdf>
- Ekanem, E., M. Mafuyai-Ekanem, F. Tegegne and S. Singh. 2011. Determinants of Interest in Food-Safety Training: A Logistic Regression Approach. *Journal of Food Distribution Research*, XLII (1): March, pp. 40-47
http://fdrs.tamu.edu/FDRS/JFDR_Online/Entries/2011/3/15_Entry_1_files/JFDR_2011_42_1.pdf
- Guzewich, Jack and Marianne P. Ross. 1999. *A Literature Review Pertaining to Foodborne Disease Outbreaks Caused By Food Workers, 1975-1998* in US Food and Drug Administration (2010) White Paper Report: Evaluation of Risks Related to Microbiological Contamination of Ready-to-eat Food by Food Preparation Workers and the Effectiveness of Interventions to Minimize Those Risks
<http://foodsafety.k-state.edu/en/article-details.php?a=4&c=26&sc=214&id=453>
- Kwon, J., Roberts, K. R., Shanklin, C. W., Liu, P., & Yen W. S. F. 2010. “Food Safety Training Needs Assessment for Independent Ethnic Restaurants: Review of Health Inspection Data in Kansas”. *Food Protection Trends*. 30, 412-421
<http://www.he.k-state.edu/publications/2011/03/08>
- _____. 2010. Evaluation of Online Health Inspection Reports Indicates Food Safety Practices Lacking in Ethnic and Independent Restaurants in Kansas
http://www.fsis.usda.gov/PDF/Atlanta2010/Slides_FSEC_JKwon.pdf
- Tennessee Restaurant Industry at a Glance.
<http://www.restaurant.org/pdfs/research/state/tennessee.pdf>
- Walter A, Cohen NL, Swicker RC. 1997. Food safety training needs exist for staff and Consumers in a variety of community-based homes for people with developmental disabilities. *J Am Diet Assoc*. 1997 June; 97(6):619-25. <http://www.ncbi.nlm.nih.gov/pubmed/9183322>
- U.S. Census Bureau. 2007. Census Bureau's First Release of Comprehensive Franchise Data Shows Franchises Make Up More Than 10 Percent of Employer Businesses. *Economic Report*.
<http://www.census.gov/econ/industry/current/c722110.htm>