

“Discovering previously unidentified foodborne illness risks through discussion”

Model Practice Submission to NACCHO 3/3/05

Overview:

This practice is a practical way of implementing what really effective sanitarians have been doing for decades. It was eloquently described in 1988 by Sanford M. Brown, writing in the Journal of Environmental Health:

“...a results-oriented style that is flexible, that emphasizes responsiveness, forbearance, and the communication of information. Conciliatory health professionals utilize discretion in the process of education, consultation, and negotiating to obtain compliance...”

The practice is, “Discovering previously unidentified foodborne illness risks through discussion.” The target population was licensed food service managers and operators in Olmsted County, Minnesota; 100% of them were reached.

The goal was to promote the active management of foodborne illness risk factors by food service operators. Its objectives were to: shift the food safety program’s focus from counting violations to evaluating food safety risks and “systems,” use an assessment process based on discussion of foodborne illness risks with the manager/operator, and develop the ability to track assessment results toward the Healthy People 2010 goals.

The practice resulted in identification of 50% more foodborne illness risk factors, improved relationships with food service operators, and improved staff productivity and morale.

Attitude is an important part of replicating the practice. There needs to be a willingness to: a) see food service operators as customers and partners in preventing foodborne illness, b) see the assessment process as a food safety “movie” instead of a legal “snapshot,” c) allow and encourage sanitarians to act as consultants, d) concentrate on behaviors known to lead to foodborne illness risk factors (from epidemiology), and e) shift enforcement criteria from lack of compliance with specific violations to a prevention strategy that includes active managerial control of foodborne illness risk factors. Also needed are good interpersonal communication skills, and knowledge of the causes of foodborne illness outbreaks.

Responsiveness:

This practice addresses the causes of foodborne illness outbreaks as shown by epidemiological data, which are primarily practices and behaviors of food workers. It fosters long-term change by recognizing that the operator is ultimately responsible for food safety by actively managing foodborne illness risk factors. This is achieved by helping operators recognize their responsibility for proactive food safety—that they cannot prevent foodborne illness by just reacting to inspection findings.

Investigating foodborne illness outbreaks led Olmsted County Public Health Services (OCPHS) staff to question the value of routine inspections and became the impetus to seek improvements. Outbreak investigations are different from routine inspections—they concentrate on honest communication with the operator, food worker health and hygiene, risk assessment. There is analysis of how food is stored, prepared, and served, and advice on how to develop systems to do this safely. When restaurant owners stated that all establishments could benefit from this approach before an outbreak happens, OCPHS staff began to wonder how this approach could be practically applied.

The practice addresses the issue by asking the operator to describe critical food safety policies and practices, especially those strongly linked to outbreaks but not easily observable, such as employee illness policy. For instance, an operator is required to have a “system” for excluding employees who are ill with vomiting or diarrhea. The system would include formulating a policy, informing employees of the policy, and monitoring employee health. The practice allows the application of HACCP (hazard analysis and critical control points) principles without doing flow charts or classifying processes as control points, critical control points, good retail practices, etc. Simply, if there is a foodborne illness risk associated with the practice, there needs to be a system for doing it safely. If the operator does not have a safe system (policy, training, and monitoring) they will be expected to implement one, and will be offered information and advice on how to do so.

After the discussion, observation is used to confirm that a system exists, and that it is firmly in place. Observed “violations” are seen as symptoms of system problems, not as problems in themselves. When there are discrepancies between discussion and observation, this means the operator knows what needs to be done (policy), but is not making sure it gets done (training and/or monitoring).

Innovation:

The practice, which OCPHS refers to as an “assessment,” differs from the traditional inspection approach in the following ways:

- 1) Instead of assuming that simply correcting violations identified during inspection will lead to fewer foodborne illnesses, it assumes that long-term change of unsafe policies and practices are the means to reducing illness risks.
- 2) Operators are seen as partners in this effort instead of adversaries. Their participation is made easier by scheduling visits instead of the tradition of surprise inspections.
- 3) Instead of depending on the observation of activities occurring during a short window of time, there is a discussion of food safety systems, some of which are not easily observable, such as policies for excluding ill employees and safe cooling of food. This focus on risk leads operators to see value in the assessment process instead of viewing it as an intrusion.
- 4) The main form of communication with operators is oral, and a simple written report is left with the operator.
- 5) Instead of keeping track of violations only, acceptable policies and practices are also tracked. Acceptability can be determined through discussion, not just observation.

Collaboration/Agency and Community Roles

The role of OCPHS in this practice was to take suggestions and inspiration from others throughout the country and develop a practical risk-based method that could be sustained. An FDA Food Program Leadership Workshop provided the impetus for the enhancement of the practice. Initial partners included the Minnesota Department of Health and several local public health agencies in Minnesota. OCPHS initiated a pilot program to experiment with different strategies and techniques until the practice, including the process, forms and supporting materials was formalized. With support from an FDA Innovative Food Safety Grant, a local Food Safety Advisory Task Force (FSAT) was formed and a national conference on Active Managerial Control was sponsored. The FSAT and reports to OCPHS' Advisory Board and Olmsted County Commissioners were avenues for input and feedback throughout the practice development, and provided additional forums for community involvement.

Implementation

The specific tasks that achieve each objective of the practice are:

- 1) Shifting the program focus from violations to systems and risks:
Sanitarians were trained to focus on the food and food workers, and how to evaluate foodborne illness risks using principles from microbiology and epidemiology, such as bacterial requirements for growth, time-temperature relationships, fecal-oral transmission of illness, etc.
- 2) Using an assessment process based on discussion of foodborne illness risks with the manager/operator:
Sanitarians were trained in risk-based assessment and communication techniques (menu analysis, asking open questions, active listening, etc.), and making appointments with operators to ensure their availability for discussion.
- 3) Developing the ability to track assessment results
The assessment form was changed from a checklist to a report that allows the sanitarian to track whether unsafe food safety systems were discovered by discussion or observation. This is part of an ongoing effort to build a comprehensive data collection system that integrates assessment results, licensing, accounts receivable, complaint response, time accounting, etc. This data is used throughout the year to track assessment activity and timeliness, and annually to evaluate outcomes related to the Healthy People 2010 goal of a 25% reduction in risk factors.

Practice development has been a Continuous Improvement process over the last several years; no specific timelines were set for task completion.

Cost and Sustainability:

The funding source to support and sustain this practice is license and service fees (100%). An FDA Innovative Food Safety Grant for \$40,000 was awarded to initiate the practice development. Also, an Olmsted County Research and Development grant for \$10,000 was received to offset costs involved in the data management system development. Approximately 3.4 FTE are budgeted to the food program, out of about 10 FTE total in Environmental Health Services.

The stakeholder commitment to perpetuate the practice is partly ensured by the system itself, because operators see value in the service they receive. Also, Boards accept the underlying premise that seeing operators as partners in preventing foodborne illness is a more responsive and cost-effective way to tackle the problem. This is of particular concern in Olmsted County because there are many businesses catering to a clientele susceptible to foodborne illness: patients at the Mayo Clinic and elderly who retire here because of the availability of high-quality health care.

Future practice enhancements include plans to strengthen the review and outcome measures of the FDA concept of Active Managerial Control (AMC) using the "Duties of a Certified Food Manager" as given in Minnesota rule. These duties provide a framework in which AMC can be realized: policies and procedure to prevent foodborne illness are developed (policy), food workers are trained to take corrective action as needed (training), and periodic self-inspections are conducted (monitoring) to control the risk factors in the day-to-day operations.

Process Evaluation

It was determined that the tasks were an effective strategy as follows:

Shifting the program focus to systems and risks was determined to be an effective strategy by overwhelmingly positive survey results, and continuing, unsolicited positive feedback from both operators and sanitarians. Effectiveness of the assessment process based on discussion was judged by the increased number of unsafe food safety systems identified during assessments. This increase quantified how much wasn't being identified with the traditional approach. Developing the ability to track assessment results was determined to be effective by the use of the resulting data, which was used to evaluate the effectiveness of the entire practice.

The challenges encountered while carrying out the tasks included:

1) Getting buy-in from staff members who were skeptical of the proposed changes.

This was addressed by starting with just the staff who were willing to try the new method and a few food service operators who had traditionally had a good working relationship with OCPHS. These staff then used the new approach with some of the most challenging operations (and operators) and reported very positive results. Defusing adversarial relationships allowed assessment and follow-up time to be focused on food safety. When the staff reported having positive experiences, other staff and operators were added.

2) Deciding what data to collect and developing a form that could be left with the operator, but wouldn't be handwritten or require taking a computer and printer to the restaurant. While this took time and several Continuous Improvement cycles, it resulted in the form that has been in use for the past three years.

The lessons learned about implementing the practice lead to the following recommendations for this practice:

1) The most important lesson for agencies interested in adapting or replicating this practice is that they do not have to reinvent the wheel—the format and forms can be provided by OCPHS.

2) Introduce the practice as a pilot, initially involving the staff members who are the most interested in it, and the highest-risk establishments. When these staff have gained some confidence, include some operators who have expressed dissatisfaction in the past—they are often won over by the new focus on food, and the simple gesture of making an appointment with an operator is amazingly powerful—it can turn around a previously adversarial relationship.

3) It has been extremely helpful to realize that operators and sanitarians have different "cultures." Operators tend to value personal relationships and oral communications. When sanitarians' preferences are different, as they often are, effective communication can be hindered.

4) When the consultative approach fails, an effective enforcement strategy has been a system of unannounced re-inspections with an hourly charge to the operator.

5) When a food safety program is built on a public health foundation, the legal system can be used as a last resort without losing the public health focus. When a program is built on a legal foundation, the original public health goals are easily lost.

Outcome Evaluation:

The data collection methods used were opinion surveys and collection of assessment results.

The outcomes were:

1) Identification of 50% more foodborne illness risk factors

Prior to implementation, conditions were identified only by observations and illness risk factors were not a priority. During the last three years, 55% of the risk factors identified during 1142 assessments were identified by discussion. Because some of these risk factors are difficult to find by observation, such as safe cooling of food, it is fairly certain the outcome can be attributed to the practice.

2) Improved relationships with food service operators.

Prior to implementation, surprise assessments and the citation of large numbers of low-risk conditions resulted in reports of operators who looked at the assessment process as an intrusion and of little "value." After implementation, operators were surveyed and asked to compare scheduled assessments to unannounced inspections; 83% thought the scheduled assessment resulted in better working relations with the inspector.

3) Improved staff morale and productivity

Prior to implementation, staff members frequently expressed frustration with operators' perceived lack of concern about food safety. Sanitarians spent large amounts of time on preparing inspection reports, requesting plans for correction of low-risk conditions, and doing re-inspections—only to see the same problems at the next visit. After implementation, staff

members were spending roughly the same amount of time per establishment, but all expressed increased job satisfaction. Follow-up was less likely to be reinspections, and more likely to be continued consultation. This has been especially true of safe cooling practices. Operators who have not verified cooling times are asked to do and send in cooling charts; sanitarians evaluate them and call operators with the results. Operators who cool food overnight can borrow an “I-button” temperature recorder from OCPHS. Because staff members still periodically state that they are completely unwilling to go back to the “old way” it is fairly certain the outcome can be attributed to the practice.

The practice is worth the resources invested in it because the product is perceived as valuable. Sanitarians have better credibility and obtain increased cooperation from operators when the focus is food safety risks and foodborne illness. The survey results indicated that the practice prompted 87% of respondents to make food safety improvements to their operations. Operators are also relaying complaints of illness from their customers to OCPHS. In 2004, one-third of the 84 illness complaints received by OCPHS were called in by food service managers.

It is also a way of prioritizing resources, an increasingly important aspect of public health practice. Improved staff morale leads to less stress and improved productivity. Staff are more valuable in general due to development of critical thinking skills, which have been vital in other environmental health programs such as clandestine drug lab cleanup, radon monitoring, smoke-free restaurants, and emergency preparation and response efforts.

One of the unintended consequences of the practice was that the most important criterion for hiring new staff shifted from knowledge of environmental health to analytical and communication skills—knowledge can be taught; skills cannot always be developed.

The practice achieved the goals and objective set out for it. The focus has shifted from violations to risks. Enforcement is not chiefly done when operators fail to correct conditions, but when they fail to assume their responsibility to control foodborne illness risk factors, i.e., display a lack of active managerial control. A discussion format is used for every food service establishment, from a special event food stand to a full-service restaurant. The ability to track assessment results is evidenced by the existence of the data this practice is based on.

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