Overview

San Bernardino County Environmental Health Services (EHS) implemented a plan that aims to reduce foodborne illness (FBI) risk factors at high-risk food facilities.

Challenge

Upon multiple self-assessments, EHS found that many food facilities habitually present a higher risk to the public due to multiple and/or repealing critical violations that could cause a FBI. A FBI is a very serious and costly, yet preventable issue that is caused by consuming contaminated food or beverages. One lapse in food safety practices can potentially cause many people to become ill. From January 2017 to June 2017, 216 food facilities were identified as elevated risk due to persistent or numerous critical violations and were subject to an additional inspection. During subsequent inspections, only 73% of these facilities showed improvement and 27% did not (Attachment 1).

Innovative Solution

The ERP is a step by step strategy that is based on a set of performance criteria. It focuses on improving food facilities that present a higher risk of causing FBIs and provides the operators with the tools and resources necessary to gain and retain food safety knowledge and achieve long-term compliance. The initial development and implementation of the ERP started in July 2016. During this phase, food facilities were grouped into 3 categories based on potential and inherent food safety risk, and an inspection frequency based on the risk categories was developed to focus on food facilities that pose the greatest risk of causing a FBI. The three categories/tiers that were established are as follows: Tier 1: This includes facilities that only serve prepackaged food. They receive 1 routine, scored inspection a year. Tier 2: This includes facilities with limited food handling or open food preparation. They receive 2 routine, scored inspections a year. Tier 3: This includes food facilities from Tier 1 and Tier 2 which met one or more of the following 5 criteria: 1. A score letter of “C” or lower in one of the last two graded inspections, 2. A score letter of “B” on two of the last three graded inspections, 3. Repeated four-point violation risk factors on the last two graded inspections, 4. Four or more critical violations noted during the last graded inspection, or 5. A closure for cause. A flyer was developed and distributed to all food facilities (Attachment 2). Facilities that fall into Tier 3 receive an additional scored inspection that is billed at the hourly rate of $245/hour. This inspection is called an elevated risk inspection. Since implementation, the ERP has gone through several Plan Do Study Act cycles to ensure consistent quality improvement.

As of August 2017, the ERP consists of 8 steps that provides operators with ample opportunities to learn, develop, and implement their own food safety procedures and ultimately comply with food safety regulations (Attachment 3). This strategy includes, but is not limited to 2 scored routine (non-billable) and 2 scored elevated risk (billable) inspections; a custom 5 minute educational video known as the...
Preliminary Education Presentation (PEP) talk that is given during routine and elevated risk inspections if facilities meet high risk criteria (Attachment 4); a one-on-one onsite consultation completed by the Food Safety Health Education Liaison Program (HELP); a risk review meeting to verify food facility operators meet the terms of the compliance agreement made during the HELP consultation; and a comprehensive class known as Liaison Education and Review Network (LEARN) where Active Managerial Control (AMC) is emphasized.

**Originality**

This ERP is unique among California Counties because it is a performance-based strategy. It zeros in on historical data, patterns, and the critical factors that are highly associated with causing a FBI. This strategy allows us to direct our personnel and financial resources on the food facilities that need the most help. We have been able to use existing technology, such as EnvisionConnect, to automate much of the data processing and record keeping. Lastly, since billable inspections are built into the plan, the revenue generated allows us to develop and tailor educational materials (i.e. multilingual handouts, videos, etc.) for the operators.

**Cost Effectiveness**

The onetime expenses incurred were from the development and implementation of PEP Talks, and the reports used to track and monitor the progression of the food facilities. This cost was approximately $5,240 in staff time. By using existing technology, such as EnvisionConnect, Microsoft Video Editor, and an iPhone, there was no additional technological operating costs. Also, no additional personnel cost were included to maintain the ERP. Inspectors are an integral part of the ERP. Currently, there is 1 inspector designated to provide the specialized phases of the ERP: the HELP consultations, the risk review meetings, and the LEARN class. In addition, 1 Public Service Employee dedicates 15 hours per week to schedule the HELP consultations, and 1 EHS Supervisor spends approximately 10% of his/her time evaluating and monitoring the reports. Lastly, the ERP is partially funded from the elevated risks inspections. EHS invoiced $30,210.56 at the end of June 2017, and by the end of June 2018, we are projecting to invoice at least $35,000 (Attachment 5).

**Results**

The steps built into the ERP have greatly improved the food handling practices at food facilities that are of elevated risk. From January 2017 – December of 2017, a total of 375 food facilities received an elevated risk inspection. The data collected from this timeframe reveals that 77% of elevated risk facilities reduced the number of high risk violations from their previous inspection report. This is a 4% increase from our baseline. Although, we’re consistently seeking quality improvement, we’re excited that our ERP is proving to be successful. The PEP Talks and handouts provided between the routine and elevated risk inspections have proven to be a valuable and easy tool to implement in the ERP. Since the implementation of PEP Talks in August 2017, 88% of facilities who received the PEP Talk have shown improvement in their elevated risk inspection, therefore decreasing the number of high risk violations (Attachment 6). Of those high risk facilities that had no change or increased in the number of high risk violations during their elevated risk inspection, one on one consultations were conducted. From August 2017 to December 2017, a total of 20 food facilities received HELP consultations.

**Project Contact**

Joshua Dugas, Division Chief, Department of Public Health/Environmental Health Services, 385 N. Arrowhead Ave., 2nd Floor, San Bernardino, CA 92415-0160, 909-387-5159.