

Food Safety Differences Between Restaurants Linked and Not Linked to Outbreaks

EHS-Net Study Findings and Recommendations

Each year, roughly 1 in 6 people in the United States gets sick from eating contaminated food. We need to know the causes of foodborne illness outbreaks so we can prevent future outbreaks. This study focused on restaurants because they are the most common place for outbreaks to occur.

What the Study Described

This study described how restaurant traits (for example, number of meals served), policies, and practices were linked to foodborne illness outbreaks and to infected food workers as the cause of outbreaks.

What the Study Found

Restaurants with certified kitchen managers (CKMs) had a lower risk for outbreaks. CKMs are managers who passed a test to show knowledge of food safety.

Kitchen manager certification and policies to keep sick workers from working were not linked with a lower likelihood of an outbreak being caused by an infected food handler.

Outbreak restaurants with CKMs were less likely than those without CKMs to have outbreaks of norovirus and *C. perfringens*. Outbreaks were also less likely to have been caused by workers touching food with bare hands.

Awareness of Hazard Analysis Critical Control Points (HACCP) by CKMs may have led to better control of bare-hand contact with food (a cause of norovirus) and of food temperatures during cooling and reheating (a cause of *C. perfringens*).

Sit-down and ethnic restaurants were more likely to have outbreaks. But they are also more likely to have complex food preparation, which is also a factor in outbreaks. So these traits may be a proxy for complex food preparation. More work is needed to find the link between these traits and outbreaks.

Restaurants with kitchen managers certified in food safety were less likely to have foodborne illness outbreaks.



This study was conducted by the Environmental Health Specialists Network (EHS-Net). EHS-Net is a federally funded collaboration of federal, state, and local environmental health specialists and epidemiologists working to better understand the environmental causes of foodborne and waterborne illness. Visit EHS-Net at <http://www.cdc.gov/nceh/ehs/EHSNet>.

Nonoutbreak restaurants were more likely to have had CKM training from a public agency or restaurant corporation. This suggests that training quality may be linked to whether an outbreak occurs.

EHS-Net Recommends

Restaurants should consider requiring kitchen manager food-safety certification from a high-quality training program.

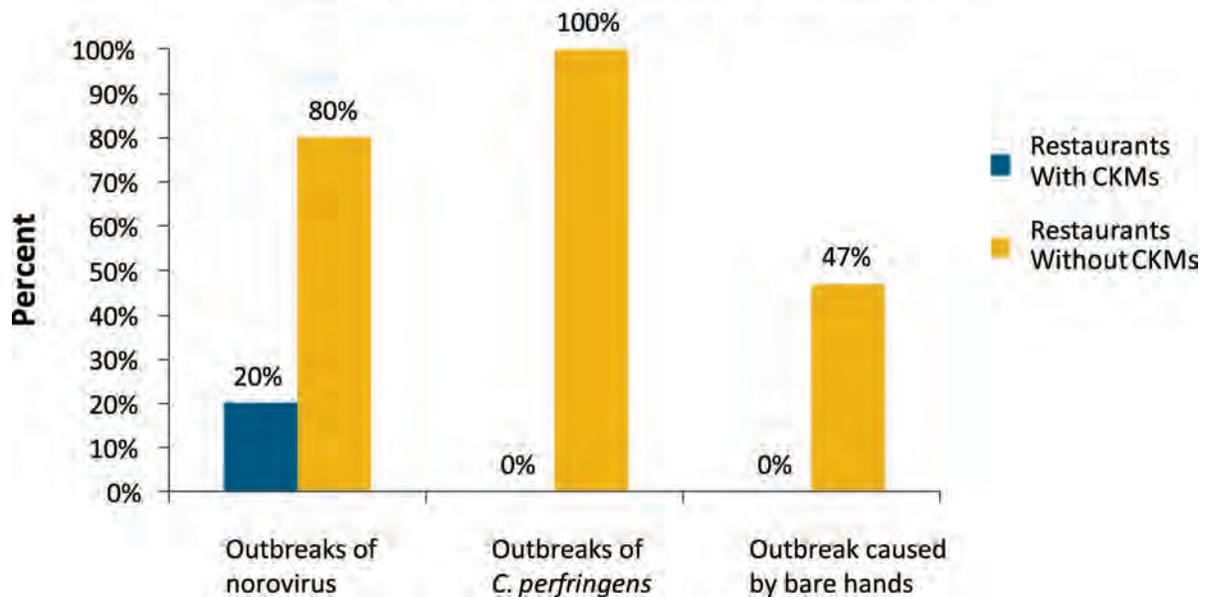
More research is needed to find out how to reduce outbreaks caused by infected food handlers. In the meantime, restaurants should stress the importance of managing illness of food workers.



Key Term

Certified kitchen manager: manager who passed a test to show knowledge of food safety.

Certified Kitchen Managers (CKMs) Are Linked to Restaurants with Fewer Outbreaks



Norovirus: 20% of outbreaks occurred in restaurants with a CKM; 80% occurred in restaurants without a CKM. *C. perfringens*: No outbreaks occurred in restaurants with a CKM; 100% occurred in restaurants without a CKM. Bare-hand contact with food was not a contributing factor in any outbreaks in restaurants with a CKM. It was a contributing factor in 47% of outbreaks in restaurants without a CKM.