

Food safety knowledge, attitudes and practices of food handlers in SME's, Beirut, Lebanon

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In Lebanon's food service sector availability of data on food safety and performance indicators is very limited. Production practices such as the use of untreated waste water for irrigating crops causes concern, particularly when dealing with leafy vegetables to be eaten raw. Contaminated irrigation water has been implicated as a vector of enteric pathogens in fresh vegetables, and has led to growing public health concerns with reported cases of foodborne illnesses.

As food moves along the farm-to-fork continuum, it is subjected to conditions which could allow the pathogen contamination, survival and growth, posing a risk in catering operations. The aim was to identify factors that may contribute to pathogens growth and attachment on the surface of vegetables while exploring handling practices and hygienic conditions, and potential control opportunities along the food supply chain.

For this purpose, a survey was conducted in Beirut to evaluate the knowledge, attitudes and practices related to food safety issues of food handlers (n=80) in food service establishments (n=50) by administering questionnaires and observational survey assessment in the course of vegetables preparation. In general, the respondents demonstrated moderate awareness in food safety with a mean food safety knowledge score of 56.6 ± 21.00 . The results showed also a general trend towards a positive attitude regarding hygienic practices in the kitchen. Almost all surveyed food handlers considered that they serve consumers safe food, and that training in food safety is essential to their work.

At the same time the visual assessment results show inadequate premises and hygienic design of the food service establishments. Almost half (54%) of the food premises do not fulfil the basic hygienic requirements for clean floors, equipment and food contact surfaces. Lack of chips-free and clean color-coded cutting boards poses cross-contamination risks in 48% of the surveyed food outlets.

The Chi-Square cross tabulation results showed a significant relation between the type of management that operates the food outlets and the adequate hygienic and structural standards that are essential for the production of safe food. Resources and lack of space, among others, were reported as barriers against the implementation of a food safety system.

Current work aims to assess the presence of pathogens in fresh produce from farms and post-harvest and means of decontamination. . One of the expected outcomes is the development of applicable mitigating strategies for risk reduction of contaminated produce reaching the small and medium sized food service establishments.