

Assessment of five foodborne pathogens in full-service Lebanese restaurants

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Foodborne diseases have emerged as an important and growing public health and economic problem in many countries during the last decades especially in Lebanon. In this study we conducted a food control program for full-service restaurants in Keserwan district (North of Beirut) based on main headings of food safety practices to serve as a model for other regions in Lebanon. Foodborne illness is an increasing economic and health problem that is becoming worse in many countries in recent decades, particularly in Lebanon. In this study, we implemented a food control program for full-service restaurants in Keserwan District, based on key food safety and bacteriological testing practices, to serve as a model for food safety for other regions of Lebanon. In fact, 175 samples of raw and ready-to-eat foods were collected from 83 restaurants that received certificates of qualification from the Lebanese Ministry of Public Health ("Gold" certificate or "Silver" certificate) to assess microbiological quality of these foods and to detect the presence of *Clostridium perfringens*, *Escherichia coli*, *Listeria*, *Salmonella* and *Staphylococcus Aureus*, or even the contamination of these foods, by means of two methods: the conventional microbiological culture and the technique of molecular biology the real-time PCR; the latter proved effectiveness and allowed us to obtain quickly very precise results. These results showed unsatisfactory levels of foodborne pathogens. Then, statistical analyzes were carried out to find the possible associations between the various categorical variables. The presence of bacteria was not significantly associated with the obtained certificate. These findings reveal the microbiological quality of foods served in Keserwan district restaurants and thus encourage improved practices to provide consumers healthy food products.

Biography

Lara Hanna-Wakim is Dean of the Faculty of Agricultural and Food Sciences at the Holy Spirit University of Kaslik, (Lebanon) since 2013. She is the first scientist to represent the MENA Region as a regular member of the Governing Council of the International Union of Food Science and Technology –since 2014. Dr. Hanna-Wakim is the Focal Point for Lebanon of the Arab States Green University Network at UNEP and the National Food Safety Expert at UNIDO. She served as Vice-President of GCHERA 2015 Conference. Dr. Hanna-Wakim is member of the Lebanese Association of Food Scientists and Technologists. She has been honored as Women Leader in Lebanese universities and research pioneers, at the Lebanese Parliament, by the National Initiative for the Centennial of Greater Lebanon, "Lebanon the State of Knowledge". Dr. Hanna-Wakim holds an Agricultural Engineering Diploma from USEK (Lebanon), an MS in Food Science from the INAP-G (France), and a PhD in Food Process Engineering from AgroParis Tech (France). Dr. Hanna-Wakim holds as well an MA/PG Diploma in Learning and Teaching in Higher Education from University of Chester (UK).