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Modelling Dietary Exposure to Chemical Components in Heat-Processed Meats

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Several chemical compounds that potentially increase the risk of developing cancer in humans are formed during heat processing of meat. Estimating the overall health impact of these compounds in the population requires accurate estimation of the exposure to the chemicals, as well as the probability that different levels of exposure result in disease. The overall goal of this study was to evaluate the impact of variability of exposure patterns and uncertainty of exposure data in burden of disease estimates. We focus on the first phase of burden of disease modelling, i.e. the estimation of exposure to selected compounds in the Danish population, based on concentration and consumption data. One of the challenges that arises in the probabilistic modelling of exposure is the presence of “artificial” zero counts in concentration data due to the detection level of the applied tests. Zero-inflated models, e.g. the Poisson-Lognormal approach, are promising tools to address this obstacle. The exposure estimates can then be applied to dose-response models to quantify the cancer risk.

Keywords: Burden of disease, Exposure modelling, Model fitting.

Utilizing Customer Requirements' Data to Link Quality Management and Services Marketing Objectives

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This study is built upon the argument that when organizations develop a service strategy, their management should acknowledge the significance of the Voice of the Customer in defining service quality, and interpret it into a set of prioritized marketing strategies to guide service design activities. In this respect, the aim of this work is twofold: (a) to propose and implement a Quality Function Deployment (QFD) framework, comprising a 3-phased process for planning service strategy grounded to customers' data reflecting their requirements, thus aligning quality