

# VENDING: FOOD SAFETY EVALUATION THROUGH MODELS OF HYGIENE ASSESSMENT SYSTEM AND CHECKLIST

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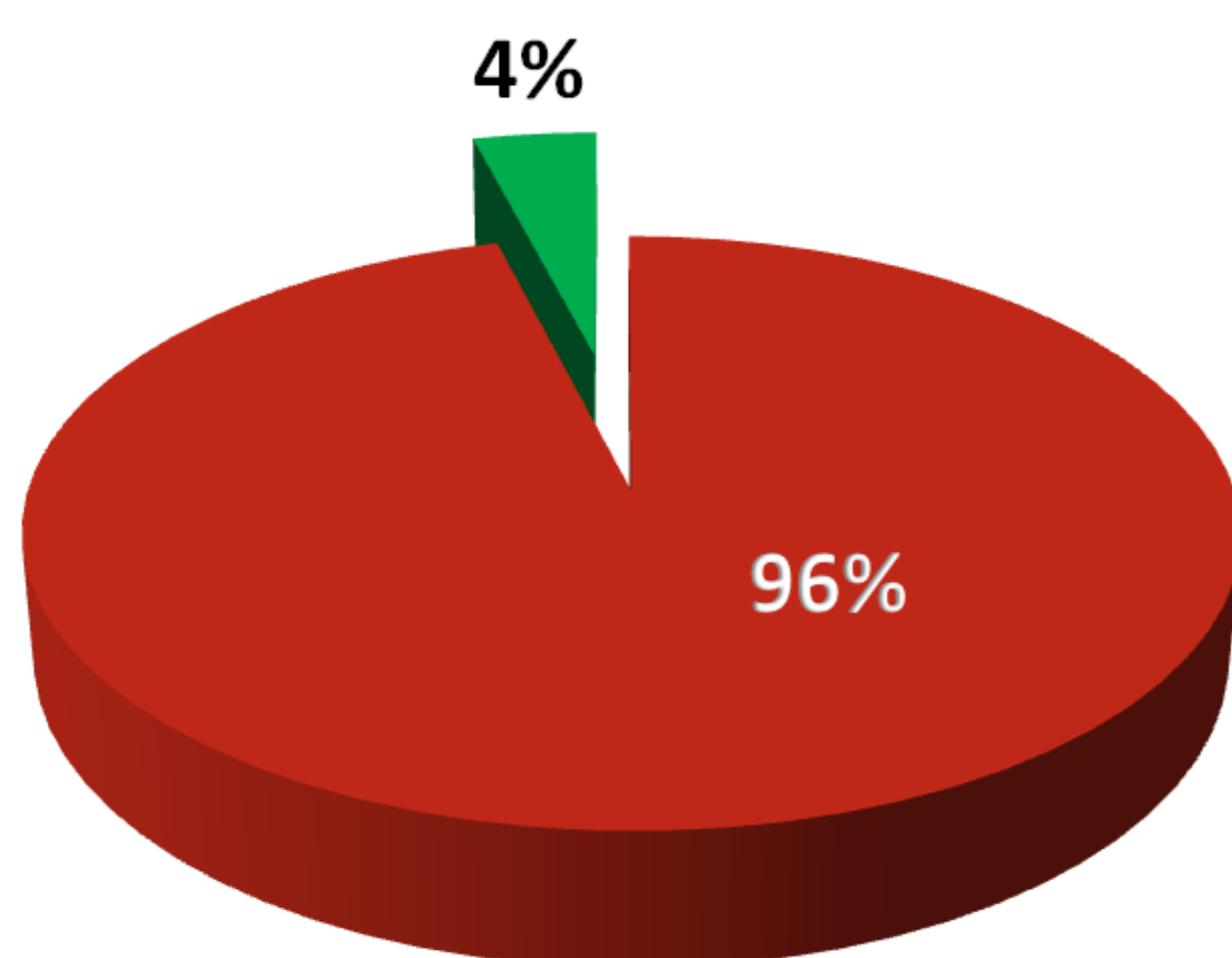
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The importance of food safety has gained increased emphasis in contemporary societies, both by consumers and food industries. Taking into account the expansion experienced by the vending industry and being Spain a European power in this sector, has proved of great interest to conduct a study aimed focused on evaluating the hygienic-sanitary state of the vending machines located in different areas of the island Gran Canaria, Spain, including all vending machines present on university campus.

A specific hygiene assessment system model for the different types of vending machines was designed, as well as for the evaluation of food handlers responsible for shipping and replacement foods in vending machines.

A parallel checklist model to complement hygienic-sanitary evaluation of each type of vending machine was also prepared. Numerical variables were summarized in medians and interquartile ranges and categorical in frequencies and percentages. For each food handler, the average total score of the assigned machines was obtained.



- Appropriate hygienic and sanitary conditions
- Not appropriate hygienic and sanitary conditions

Of the total assessed vending machines (338), 96% exceeded the limits set in hygienic-sanitary terms according to the hygiene assessment system model. Regarding food handlers responsible for shipping and replacement of food, the hygiene assessment system applied demonstrated that on the items regarding the location of machines and personal responsible for replacement / transportation of food, score was high, P50 = 17/20 and P50 = 35.5/40 respectively.

However, it has not been possible to establish a statistically significant correlation between hygienic-sanitary status of the machines to the assessment of food handlers ( $p > 0.05$ ).

The checklist evaluation model revealed a hygienic-sanitary heightened state of all types of vending machines evaluated, and the hot drinks vending machines were the best punctuated in their specific aspects.