

TITLE: MICROBIOLOGICAL ANALYSIS OF FOODS INVOLVED IN FOODBORNE DISEASE OUTBREAKS OCCURED IN SALVADOR – BA

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ABSTRACT:

Foodborne diseases, caused by the ingestion of food contaminated by pathogenic micro-organisms and their toxins, are considered a serious public health problem worldwide. In Brazil, *Salmonella*, *Bacillus cereus*, *Staphylococcus aureus* and *Escherichia coli* are the main pathogens involved in foodborne diseases outbreaks. The factors that contribute to its occurrence are the maintenance of food for long periods under inadequate temperatures, cross contamination and inadequate hygienic handling conditions. Considering such aspects, it was investigated the microbiological quality of 77 samples form different types of ready-to-eat food preparations from several restaurants in the city of Salvador, Bahia, which were analysed in the Laboratory of Food Microbiology of the Faculty of Pharmacy from the Federal University of Bahia, with suspicion of causing foodborne illness. The samples were submitted to the most probable number (NMP) test for coliforms at 45°C, coagulase positive staphylococci counting, *Bacillus cereus*, sulfite reduction test for clostridia at 46°C and tests for *Salmonella* according the methodologies described on Compendium of Methods for the Microbiological Examination of Foods. The quality parameters recomended by the RDC No. 12/2001, from the National Ministry of Health were used as reference. From all samples, nine (11.68%) were not suitable for human consumption because presented results above the limits allowed by the sanitary legislation. From this group, seven samples (9.09%) presented coliforms thermotolerants (45°C); three (3.9%) were contaminated with *Bacillus cereus*; one (1.3%) showed the presence of sulphite reducer clostridia (46°C) and coagulase positive staphylococci and two samples (2.6%) presented *Salmonella*. The results indicated possible failures in the preparation and/or storage of these foods, with a potential risk of developing foodborne diseases outbreaks. Such data are important to alert the health surveillance agencies concerning the importance of severe and intensified inspection in these establishments in order to promote food security for the consumers.

Keywords: public health, *Salmonella*, *Bacillus cereus*, *Staphylococcus aureus*