

TITLE: EVALUATION OF MICROBIOLOGICAL QUALITY OF *IN NATURA* PORK MEAT COMMERCIALIZED IN OPEN-AIR MARKETS IN RIO DE JANEIRO.

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ABSTRACT:

Currently, there is a gradual increase in the number of people who attend popular trades, intending to obtain products with reduced price and good quality. Among several sectors, the most prominent in the sale of food products are the open-air markets and public markets. Hygiene, in most of the open-air markets, is considered unsatisfactory, which contributes to the increase contamination of the food commercialized there and consequently, the dissemination of pathogenic microorganisms responsible for the occurrence of foodborne disease. The *Salmonella* spp. is one of the most widely distributed microorganisms in nature, being man and animals its main natural reservoirs. It is considered one of the main agents involved in foodborne outbreaks in developed and developing countries. The present study aimed to evaluate the microbiological quality of 20 samples of *in natura* pork meat obtained in 20 different open-air markets in the city of Rio de Janeiro, through the research of *Salmonella* spp. After collecting, the samples were aseptically conditioned in isothermal boxes containing ice and transported immediately to the laboratory of microbiological control of food of the Castelo Branco University, Penha campus, where they were submitted to *Salmonella* spp. research. In the laboratory were weighed 25g of the samples that were subjected to a pre-enrichment in buffered peptone water (BPW). For the isolation, a methodology recommended by brazilian legislation (RIISPOA) was used. According to the results, the presence of *Salmonella* spp. was verified in 14 (70%) samples of *in natura* pork meat collected in open-air markets, being these in non-conformity with the current legislation, and considered unfit for consumption. In the present study, the origin of the meat was not verified in 85% of the samples collected; this fact suggests the probable lack of hygiene during slaughter, transport and marketing. The analysis of the results shows that the microbiological quality of *in natura* pork meat commercialized in open-air markets in Rio de Janeiro, does not meet the microbiological requirements of the legislation that regulates this sector.

Keywords: *Salmonella* sp, pork cuts, retail trade

Development Agency: