An assessment of the microbiological quality of street foodsin selected areas of Jakarta

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Abstrak

ABSTRAK
Street food is recognized as very important in the urban food supply. However due to the unsanitary conditions associated with most street food vending sites, the consumption of street foods is viewed as a potential health hazard. A cross sectional study was carried out from January to April, 1996 in order to assess the variability in the microbiological quality of different types of street foods in four urbanization areas (Atmajaya, Jl. Kendal, Thamrin and Pasar Jatinegara) of Jakarta. The possible influence of location and other related factors on the microbiological quality of street foods were also investigated. A total of 101 food samples, comprising of 11 food items (meals, meat, vegetable, staple and side dish) a beverage and ice were taken from the four locations and analyzed for Aerobic Plate Count (APC), Total Coliforms and E.coli using the pour plate and the most probable number techniques respectively.

By using Aerobic Plate Counts as an Indicator, it was found that 6% of the overall food items had counts 105. In contrast E.coli was found in a larger number of the food items (25%). The highest bacterial counts were found in Nasi Rames (Rice, Fried Beef, Vegetables and Chili sauce (self made), 50% of the samples contained APC > 105 and 62.5% had E.coli present in them. Ayam and lkan goreng (Fried Chicken and Fried Fish) were comparatively safer food items. None of the samples contained E.coli and APC ranged from 103 to 104.

Comparison between food types (high protein, low protein and meal} in the degree of bacterial contamination, showed significant differences between the meal and the high protein groups in the levels of Total Coliforms and E.coli Contamination ($p<0.05$). The meal group had higher bacterial counts. Further, foods that were composed of a larger number of ingredients had significantly higher counts of Coliforms than those with a single major ingredient. Statistical significant differences were found between the four urbanization areas in terms of APC counts ($p<0.01$) and Total Coliforms ($p<0.05$). These differences were attributable to the availability of basic facilities and sanitary conditions.

The results indicate that handling practices, environmental sanitation and potable water supply are important factors influencing the microbiological quality of street foods.