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A BACTERIOLOGICAL SURVEY OF THE COLOMBO MUNICIPAL WATER SUPPLY— SOURCES AND TREATMENT WORKS

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The bacteriological quality of the source water and of the water after different treatment procedures were assessed during the period January to December 1979. Enumeration of indicators of faecal pollution of water (total and faecal coliforms) and isolation of enteric pathogens (salmonella, vibrio, yersinia and shigella) were carried out.

The total coliform densities of the Kalatuwawa and Labugama reserviors ranged from 49-1600/100 ml. of water and faecal coliform from 8-920/100 ml. during the twelve month period. A significant difference of the coliform counts were observed between rainy and dry months in the Kalatuwawa reservoir, while this was not observed with Labugama reservoir water. Only salmonella species was isolated out of the specific pathogens searched. Ambatale river water showed total coliform densities ranging from 170-5400/100 ml. and faecal coliforms 170-3500/100 ml. None of the specific pathogens were isolated from river water.

In all three treatment plants (Kalatuwawa, Labugama and Ambatale) the initial process of chlorination reduced the raw water coliform densities to undetectable levels by the most probable number technique, and this was continued with the processes followed. Coliforms and specific pathogens were not detected in any of the 44 samples of final water leaving the three treatment plants.