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ENUMERATION OF INDICATORS OF FAECAL POLLUTION AND ISOLATION OF SALMONELLA FROM CHLORINATED DRINKING WATER

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This study was carried out with the Colombo Municipal supply of drinking water to assess the importance of routinely used indicator system of faecal pollution as a safeguard in preventing enteric diseases.

SECTION A

81 samples of Colombo city drinking water were examined for total and faecal coliform and salmonella species. Membrane filtration technique using selective media was used in the isolation of salmonella, and the most probable number technique was employed in the enumeration of coliforms. The sample sizes used in the isolation of salmonella exceeded five litres.

27% of the total samples examined were positive for faecal coliforms and 20% for salmonella species. 14% of the samples showed presence of salmonella without any coliforms being detected. The residual chlorine level ranged from zero to 0.2 ppm in these samples.

The study presents evidence that the detection of generally accepted indicators of faecal pollution with the method routinely applied do not give an absolute assurance against health hazards. Similar findings of isolation of salmonella from drinking water which fulfilled the bacterial standards in regard to coliforms have been reported.