# Evaluation of the Microbial and Coliform Contamination During Dry and Rainy Seasons in Water Samples Collected From Some Selected Schools

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Waterborne gastrointestinal infections remain one of the major causes of morbidity and mortality worldwide. The objectives of the present studies were to evaluate the microbial contamination of drinking water and the examination of the coliform occurrence in some selected schools during dry and wet seasons. For this study five schools situated in Jaffna peninsula belongs to zone 1 were selected. School A obtained water supply from one dug well. Water from this well was collected at different sites contained statistically non significant ($p>0.05$) number of cells during dry season, while that collected in the canteen contaminated statistically significant ($p>0.05$) number of cells than the standard level prescribed by Sri Lankan Standard (100 colonies/mL). School B, obtains the water supply from water board supply and one of the well situated in the school. Both supplies of water was contaminated with statistically non significant ($p>0.05$) number of cells during dry season while that from water board supply contained statistically non significant ($p<0.05$) number of aerobic counts during wet season and the well water supply contained significant ($p<0.05$) number of cells that of the Sri Lankan level. In school C, there are two dug wells and. During dry season water from well 1 contaminated statistically non significant ($p>0.05$) number of cells and the water from well 2 contained statistically significant ($p<0.05$) bacterial counts than the standard level prescribed by the Sri Lankan Standard. During wet season supply water from well 1 contained statistically non significant ($p>0.05$) number of cells and the canteen which obtained water from the same well showed significant ($p<0.05$) number of cells while supply from well 2 contaminated statistically non significant ($p>0.05$) number of counts than the baseline level established by the Sri Lankan Standard. School D obtains drinking water from three dug wells. During dry season the water sample obtained from the canteen from well 3 contaminated statistically non significant ($p>0.05$) aerobic counts and the other well water samples contained significant ($p<0.05$) aerobic counts than the standard level. But during rainy season well 1 sample contained statistically non significant ($p>0.05$) number of counts and the other well samples showed statistically significant ($p<0.05$) amount of aerobic bacterial contamination than the standard level. In school E, water from three dug wells and one tube well is used for the consumption. All the water samples contained statistically significant ($p<0.05$) number of contamination than the standard level during dry season and well 1 and well 3 contained significant ($p>0.05$) number of counts than the baseline level during rainy season. The water samples collected from all the schools contained no anaerobic bacterial contamination. Coliform occurrence was only found in the school A. In all the water samples the pH ranged from $7.37(\pm0.15)$, - $7.87(\pm0.15)$, during dry season while $6.72(\pm0.27)$, - $7.64(\pm0.27)$, during rainy season. Water samples did not show optical density at 550 and 600 nm.