



## ABSTRACT

Amid the looming crisis regarding availability of safe drinking water in the Philippines, particularly in urban areas, methods of processing and delivering such to the public have also been a pervasive problem. Water-borne diseases cause 55 deaths a day in the country (USAid, n.d.). Most recently, a cholera outbreak in North Cotabato claimed 200 lives after local springs and rivers were contaminated by *V. cholerae* (Unson, 2014). Another data from Kawit Rural Health Unit in year 2002 to 2012 revealed that water-borne diseases were one of the main causes of morbidity in Kawit, Cavite. The researchers, therefore, found the need to further investigate on the current safety levels of drinking water in fifteen (15) barangays in the same Cavite municipality. Through a descriptive analysis, this paper investigated on the possible presence of *E. coli* among three local water sources. This was done by testing three (3) water samples from deep wells, National Water and Sewerage Authority (NAWASA) piping, and local water refilling stations of each barangay through a multiple tube fermentation technique. The findings showed that out of fifteen samples, one from a water refilling station yielded  $>8.0$  MPN/100 mL and, thus, was positive of *E. coli* contamination. This result expresses the need for communities and the local and national government to consider stricter implementation of water treatment measures to assure public health safety. Future studies should, likewise, consider including the physical and chemical compositions of water samples in compliance to the standards of the Department of Health.

Keywords: bacteriological analysis, *E. coli*, multiple tube fermentation, water treatment