# Cemaran mikroba escherichia coli dan total bakteri koliform pada air minum isi ulang

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Abstrak

Jumlah layanan air minum melalui depot air minum di Kota Kupang meningkat dengan rata-rata 1,44 setiap tahun sejak 2010, sementara tidak terdapat jaminan kualitas air minum isi ulang memenuhi syarat setiap saat. Hasil pemeriksaan sampel air minum isi ulang di Kota Kupang tahun 2013 menunjukkan 37,5% tercemar mikroba.

Tujuan penelitian ini adalah menganalisis cemaran mikroba dan mengetahui determinan cemaran Escherichia coli (E. coli) dan total koliform pada air minum isi ulang.

Penelitian ini menggunakan desain studi potong lintang periode Januari - Maret 2015. Populasi penelitian berjumlah 51 depot air minum yang ditentukan menggunakan teknik total sampling. Analisis data dilakukan secara univariat, analisis bivariat menggunakan uji regresi logistik sederhana, dan analisis multivariat menggunakan regresi logistik berganda.

Hasil penelitian terhadap 51 depot air minum menunjukkan air minum telah tercemar mikroba sebanyak 26 depot air minum (51%), tercemar E. coli 33,33%, dan tercemar total koliform 51%. Deteminan cemaran mikroba dengan uji bivariat adalah pengetahuan (nilai p = 0,01), sikap operator (nilai p = 0,05). Sedangkan determinan cemaran mikroba uji multivariat adalah pengetahuan operator (nilai p = 0,026), kebersihan operator (nilai p = 0,05) dan sanitasi depot air minum (nilai p = 0,044). Variabel yang paling dominan memengaruhi cemaran mikroba adalah pengetahuan, kebersihan operator, dan sanitasi depot air minum. <hr><i>Amount of drinking water services through drinking water depots in Kupang City is increasing in avarage of 1.44 every year since 2010, meanwhile there is no guarantee that refill drinking water quality meets any requirement every time. Results of refill drinking water sample in Kupang City in 2013 showed the water was 37.5% contaminated by microbes.

This study aimed to analyze microbial contamination and determine determinants of Escherichia coli (E. coli) and total Coliform on refill drinking water.

This study used cross sectional design on January - March 2015. The population was 51 depots determined using total sampling technique. Data analysis was conducted in univariate, bivariate using simple logistic regression test and multivariate using multiple logistic regression test.

Results showed drinking water contaminated by microbes worth 26 depots (51%), by E. coli 33.33% and by total Coliform 51%. Microbial contamination determinants using bivariate were knowledge (p value = 0.01) and behavior of operator (p value = 0.05). Meanwhile, microbial contamination determinants conducting

multivariate were knowledge (p value = 0.026), hygiene of operator (p value = 0.05) and depot sanitation (p value = 0.044). Most dominating variables influencing microbi.</i>