

Kualitas mikrobiologi air bersih dari hidran umum yang didistribusikan ke rumah warga melalui jeriken: studi kasus Kecamatan Penjaringan, Jakarta Utara = Microbiological water quality fom public hydrants distributed to the citizens through jerrycan: case study Penjaringan North Jakarta

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Abstrak

ABSTRAK

Air minum mempunyai potensi tercemar dipengaruhi oleh kondisi alat distribusi dan wadah penyimpanannya. Kualitas air minum yang digunakan berhubungan dengan kesehatan manusia. Waterborne disease merupakan penyakit yang dapat ditularkan melalui air dari organisme lain dan dapat menyebabkan mual, muntah, demam, dan diare (Washtenaw Country Departement of Public Health, 2012). Tujuan penelitian ini adalah mengetahui kualitas mikrobiologi air bersih pada hidran umum, jeriken distribusi, dan wadah di rumah warga di Kecamatan Penjaringan, Jakarta Utara serta mengetahui hubungan antara warga yang terserang penyakit diare dengan kualitas air yang digunakan. Sampel air yang ambil diuji kualitas mikrobiologisnya (fecal coliform) dengan metode Multiple Tube Fermentation (MTF). Hasil pengujian dibandingkan dengan Peraturan Menteri Kesehatan Republik Indonesia Nomor 492/MENKES/PER/IV/2010 yaitu sebesar 0 MPN/100mL untuk fecal coliform. Hasilnya, terdapat satu sampel air di hidran umum, satu sampel air pada jeriken distribusi, 60% sampel air di rumah warga di Kelurahan Penjaringan, dan 41.67% sampel air di rumah warga di Kelurahan Kamal Muara yang mempunyai nilai fecal coliform melebihi baku mutu. Korelasi antara persentase warga yang terkena diare dengan persentase sampel air di rumah warga yang melebihi baku mutu adalah negatif ($r = -1$). Oleh karena itu, perlu dilakukan pengaturan pewadahan air dan penambahan klorin untuk mengurangi pencemaran.

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ABSTRACT

Water has potential contamination affected by the conditions of distribution tools and water storage containers. The quality of drinking water relate to human health. Waterborne disease is a disease that can be spread by water from other organisms and may cause nausea, vomiting, fever, and diarrhea (Washtenaw Country Departement of Public Health, 2012). The purpose of this study was to determine the microbiological quality of water in public hydrants, distributed by jerrycans, and containers at homes in Penjaringan, North Jakarta also determine the relationship between citizen diarrheal disease with the quality of the water. The method for testing fecal coliform of the samples is by Multiple Tube Fermentation (MTF). The test results compared with the Regulation of Minister Health of Republic Indonesia No. 492/Menkes/PER/IV/2010 in the amount of 0 MPN/100mL of fecal coliform. The test results showed that there is one water sample in public hydrant, one water sample in jerrycan, 60% water sample at houses in Penjaringan and 41.67% water sample at houses in Kamal Muara that has a value of fecal coliform exceeded the water quality standard. Correlation between the percentage of people that has diarrhea with percentage of water samples at homes exceeded quality standard is negative ($r = -1$). That?s why, it?s needed to manage the water container and add chlorine to reduce the contamination.