

ABSTRACT

Drinking water is water that has been processed or without the stage of processing fulfilling the health standards and is potable. Drinking water manufactured by Drinking Water Station (DWS) shall fulfill the Drinking Water Quality Requirements that have been established based on PerMenKes RI (Regulation of Health Minister of the Republic of Indonesia) No. 492 of 2010. This study aimed at analyzing the factors related to the bacteriological quality of produced water in the Drinking Water Stations in Banyuwangi sub-district, Banyuwangi Regency.

This study was an observational study with a cross-sectional approach. The research population was all Drinking Water Stations in Banyuwangi sub-district, namely 33 DWSs taken using total sampling technique. Data collection related to raw water, equipment, knowledge, and hygiene actions by operators as well as supervision was done by distributing questionnaires either online or offline regarding the situation. DWS visits for filling out the questionnaires offline and water sampling were performed by applying the health protocol. Bacteriological quality analysis (the estimation of Coliform count) was done in the laboratory.

The research result based on the laboratory testing showed that 21 DWSs (63.6%) met the bacteriological quality requirements, while 12 DWSs (36.4%) did not meet the requirements, and Coliform was found. After conducting a Chi-Square analysis and Fisher Exact Test, it was found that the factors related to bacteriological quality in the produced water in Drinking Water Stations were equipment ($p=0.047$), hygiene actions by operators ($p=0.016$), and supervision ($p=0.027$).

It is expected that the owners/managers/operators of DWSs apply the hygiene actions well and perform cleaning, checking, and maintenance against the equipment for the processing stage in Drinking Water Stations periodically. For Health Office and Public Health Center, they are expected to be able to improve the development and supervision and provide valid information and education related to the importance of checking the quality of drinking water that has been produced periodically in the laboratory to the owners/managers of DWSs.

Keywords: Bacteriological Quality, Produced Water, Water Drinking Station

ABSTRAK

Air minum adalah air yang melalui proses pengolahan atau tanpa proses pengolahan yang memenuhi syarat kesehatan dan dapat langsung diminum. Air minum yang diproduksi oleh Depot Air Minum harus memenuhi persyaratan kualitas air minum yang sudah ditetapkan berdasarkan PerMenKes RI No. 492 Tahun 2010. Tujuan dari penelitian ini adalah menganalisis faktor yang berhubungan dengan kualitas bakteriologis pada air produksi Depot Air Minum di Kecamatan Banyuwangi, Kabupaten Banyuwangi.

Penelitian ini merupakan penelitian observasional dengan pendekatan *crosssectional*. Populasi penelitian adalah semua Depot Air Minum di Kecamatan Banyuwangi dengan jumlah 33 DAM, yang diambil menggunakan teknik *total sampling*. Pengumpulan data mengenai air baku, peralatan, pengetahuan dan tindakan hygiene operator serta pengawasan dilakukan menggunakan kuesioner yang dibagikan secara *on line* ataupun *off line* sesuai dengan kondisi. Kunjungan DAM untuk pengisian kuesioner secara *off line* dan pengambilan sampel air dilakukan dengan menerapkan protokol kesehatan. Pemeriksaan kualitas bakteriologis (keberadaan bakteri *Coliform*) dilakukan di laboratorium.

Hasil penelitian berdasarkan uji laboratorium menunjukkan sebanyak 21 DAM (63,6%) memenuhi syarat kualitas bakteriologis sedangkan 12 DAM (36,4%) tidak memenuhi syarat dan ditemukan bakteri *Coliform*. Setelah dilakukan analisis uji *Chi Square* dan *Fisher Exact Test* didapatkan faktor yang berhubungan dengan kualitas bakteriologis pada air produksi Depot Air Minum yaitu variabel peralatan ($p=0,047$), variabel tindakan hygiene operator ($p=0,016$) dan variabel pengawasan ($p=0,027$).

Diharapkan kepada pemilik/pengelola/operator DAM untuk menerapkan hygiene dengan baik serta melakukan pembersihan, pengecekan, dan pemeliharaan dalam peralatan pengolahan Depot Air Minum secara berkala. Bagi Dinas Kesehatan dan Puskesmas lebih meningkatkan pembinaan dan pengawasan serta memberikan informasi dan edukasi yang benar terkait pentingnya melakukan pemeriksaan kualitas air minum yang dihasilkan secara berkala di laboratorium kepada pemilik/pengelola DAM.

Kata Kunci : Air produksi, Depot Air Minum, Kualitas Bakteriologis.