PEMERIKSAAN KUALITAS MIKROBIOLOGI DENGAN METODE MEMBRAN FILTER DEPOT AIR MINUM ISI ULANG DI KECAMATAN MANGKUBUMI KOTA TASIKMALAYA

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ABSTRAK

PEMERIKSAAN KUALITAS MIKROBIOLOGI DENGAN METODE MEMBRAN FILTER DEPOT AIR MINUM ISI ULANG DI KECAMATAN MANGKUBUMI KOTA TASIKMALAYA

MICROBIOLOGICAL QUALITY INSPECTION USING THE MEMBRANE FILTER METHOD OF REFILLED DRINKING WATER DEPOT IN MANGKUBUMI DISTRICT, TASIKMALAYA CITY

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Abstrak

Ketersediaan air minum yang aman penting bagi kesehatan masyarakat. Depot Air Minum Isi Ulang (DAMIU) menjadi sumber alternatif karena harganya yang terjangkau, namun kualitas mikrobiologinya masih diragukan. Penelitian ini menilai keberadaan *Coliform* dan *Escherichia coli* pada 10 sampel air DAMIU di Kecamatan Mangkubumi Kota Tasikmalaya, menggunakan metode membran filter pada media *Compact Dry EC.* Hasil menunjukkan 2 sampel positif *Coliform,* 2 sampel positif *Coliform* dan *Escherichia coli*, serta 6 sampel negatif. Sebanyak 40% sampel tidak memenuhi syarat Permenkes No. 2 Tahun 2023 (0 CFU/100 mL). Kontaminasi dipengaruhi jarangnya pembersihan filter, penggunaan UV yang kurang optimal, dan rendahnya higiene operator. Temuan ini menegaskan perlunya peningkatan pengawasan kualitas DAMIU untuk melindungi kesehatan masyarakat.

Kata Kunci: Depot Air Minum Isi Ulang, *Coliform*, *Escherichia coli*, Membran Filter, *Compact Dry EC*

Abstrack

The availability of safe drinking water is crucial for public health. Refillable Drinking Water Depots (DAMIU) serve as an alternative source due to their affordability; however, their microbiological quality remains questionable. This study assessed the presence of Coliform and Escherichia coli in 10 DAMIU water samples from Mangkubumi District, Tasikmalaya City, using the membrane filter method on Compact Dry EC media. The results showed that 2 samples were positive for Coliform, 2 samples were positive for both Coliform and Escherichia coli, and 6 samples were negative. A total of 40% of the samples did not meet the standards set by the Indonesian Ministry of Health Regulation No. 2 of 2023 (0 CFU/100 mL). Contamination was influenced by infrequent filter cleaning, suboptimal UV usage, and poor operator hygiene. These findings emphasize the need to strengthen the monitoring of DAMIU water quality to protect public health.

Keywords: Refillable Drinking Water Depot, Coliform, Escherichia coli, Membrane Filter, Compact Dry EC