

**IMPROVEMENT OF MICROBIOLOGICAL QUALITY OF CLEAN
WATER WITH *THE CHLORINE DIFFUSER METHOD* AT THE
SAMIGALUH II HEALTH CENTER, KULON PROGO REGENCY IN
2024**

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ABSTRACT

Background : Water is an environmental medium that cannot be separated from humans. In meeting the needs of an agency or community, of course, the need for clean water is not spared. At Samigaluh II Health Center, the source of raw clean water comes from spring water sources whose microbiological quality does not meet health requirements.

Objective: The purpose of this study is to find out the description of the microbiological quality of clean water in t Samigaluh II Health Center before and after treatment using *a chlorine diffuser*.

Method: This type of research is a pseudo-experiment. With the subject of clean water research that was treated using *a chlorine diffuser*.

Results: The results of the study were based on the description of the microbiological quality of clean water in the Samigaluh II Health Center before and after the *chlorine diffuser treatment* with the results on the 0th day or before the treatment was carried out as many as 87 colonies, the 1st day after the treatment with the result of 0 colonies, the result on the 3rd day as many as 300 colonies, and the result on the 9th day as many as 300 colonies.

Conclusion: Based on the results of the study, it can be concluded that the microbiological quality of clean water at the Samigaluh II Health Center has not met the requirements based on the Indonesian Minister of Health Regulation No.2 of 2023.

Keywords : Clean Water, Total *Coliform*, *Chlorine Diffuser*

PERBAIKAN KUALITAS MIKROBIOLOGIS AIR BERSIH DENGAN METODE *CHLORINE DIFFUSER* DI PUSKESMAS SAMIGALUH II KABUPATEN KULON PROGO TAHUN 2024

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INTISARI

Latar Belakang : Air merupakan media lingkungan yang tidak dapat dipisahkan dari manusia. Dalam pemenuhan kebutuhan suatu instansi atau masyarakat tentunya tidak luput dari kebutuhan air bersih. Di Puskesmas Samigaluh II sumber air bersih baku berasal dari sumber mata air yang kualitas mikrobiologisnya tidak memenuhi persyaratan kesehatan.

Tujuan : Tujuan Penelitian ini untuk mengetahui gambaran kualitas mikrobiologi air bersih yang berada di Puskesmas Samigaluh II sebelum dan sesudah dilakukan treatment menggunakan *chlorine diffuser*.

Metode : Jenis penelitian ini adalah eksperimen semu. Dengan subyek penelitian air bersih yang dilakukan treatment menggunakan *chlorine diffuser*.

Hasil : Hasil penelitian berdasarkan gambaran kualitas mikrobiologi air bersih di Puskesmas Samigaluh II sebelum dan sesudah dilakukan treatment *chlorine diffuser* dengan hasil pada hari ke-0 atau sebelum dilakukan treatment sebanyak 87 koloni, Hari ke-1 setelah treatment dengan hasil 0 koloni, hasil hari ke-3 sebanyak 300 koloni, dan hasil hari ke-9 sebanyak 300 koloni.

Kesimpulan : Berdasarkan hasil penelitian dapat disimpulkan bahwa kualitas mikrobiologi air bersih di Puskesmas Samigaluh II belum memenuhi persyaratan berdasarkan Permenkes RI No.2 Tahun 2023.

Kata Kunci : Air bersih, Total *Coliform*, *Chlorine Diffuser*