

## ABSTRAK

**AUREL MEVA SALSABILA**  
**HUBUNGAN KONDISI FISIK SUMUR GALI DAN JARAK**  
**KANDANG TERNAK DENGAN KUALITAS BAKTERIOLOGIS AIR**  
**(Studi Kasus di Desa Jimbaran Kulon Kecamatan Wonoayu Tahun 2022)**  
**(xiv + 112 halaman + 12 tabel + 3 gambar + 7 lampiran)**

Kondisi fisik sumur dan kualitas bakteri total coliform dapat mempengaruhi terjadinya diare di Desa Jimbaran Kulon Kecamatan Wonoayu. Kejadian diare pada semua umur yaitu 19,63% dan untuk balita 18,40%. Hasil survei pendahuluan, terdapat 2 sumur dengan bakteri *total coliform* melebihi baku mutu. Kondisi fisik sumur berupa dinding sumur, lantai sumur, bibir dan tutup sumur belum memenuhi persyaratan. Terdapat kandang ternak yang hanya berjarak 3 meter dengan lokasi sumur gali. Penelitian ini bertujuan untuk mengetahui hubungan kondisi fisik sumur gali dan jarak kandang ternak dengan kualitas bakteri total coliform.

Jenis penelitian ini menggunakan penelitian observasional analitik. Populasi penelitian ini sebanyak 29 sumur dengan jumlah sampel sebanyak 15 sampel sumur gali. Teknik pengambilan sampel menggunakan *simple random sampling*. Analisis data dilakukan dengan menggunakan *fisher exact test* untuk mengetahui hubungan antar variabel

Hasil penelitian menunjukkan bahwa kondisi fisik sumur gali yang tidak memenuhi syarat sebesar 60% meliputi dinding dan bibir sumur yang retak, berlumut, tidak kedap air, dan tinggi yang kurang dari 80cm. Lantai dan tutup sumur sebesar 73,3% kondisinya retak, berlumut. Jarak kandang terhadap sumur yang tidak memenuhi syarat sebesar 60% yang berjarak  $\leq 10$ m. Dari hasil analisis didapatkan nilai p value (0.00) artinya terdapat hubungan yang bermakna antara kondisi fisik sumur gali dan jarak kandang ternak dengan kualitas bakteriologis.

Disarankan kepada instansi terkait untuk melakukan penyuluhan mengenai kondisi fisik sumur yang memenuhi syarat dan penyakit yang dapat ditularkan oleh air yang tercemar. Untuk masyarakat diharapkan selalu menjaga kebersihan di sekitar sumur dan selalu memelihara kondisi fisik sumur.

**Kata Kunci** : kondisi fisik sumur, jarak kandang, bakteri total coliform  
**Daftar Bacaan** : 54 (2005-2022)

## ABSTRACT

**AUREL MEVA SALSABILA**

**THE RELATIONSHIP OF PHYSICAL CONDITIONS OF DUG WELLS AND CATTLE PENS WITH THE BACTERIOLOGICAL QUALITY OF WATER (Case Study in Jimbaran Kulon village, Wonoayu district in 2022)**

**(xiv + 112 pages + 12 tables + 3 pictures + 7 attachment)**

The physical condition of the well and the quality of total coliform bacteria can affect the occurrence of diarrhea in Jimbaran Kulon Village, Wonoayu District. The incidence of diarrhea at all ages is 19.63% and 18.40% for toddlers. The results of the preliminary survey, there were 2 wells with total coliform bacteria exceeding the quality standard. The physical condition of the well in the form of the well wall, well floor, lip and well cover have not met the requirements. There is a cattle pen which is only 3 meters away from the location of the dug well. This study aims to determine the relationship between the physical condition of dug wells and the distance of the cattle pen with the quality of total coliform bacteria.

This type of research uses analytic observational research. The population in this study were 29 wells with the number of samples used as many as 15 samples of dug wells. The sampling technique used is simple random sampling. Data analysis was carried out using fisher's exact test to determine the relationship between variables

The results showed that the physical condition of dug wells that did not meet the requirements by 60% included cracked walls and lips of the well, mossy, not impermeable to water, and a height of less than 80cm. 73.3% of the floor and cover of the well were cracked, mossy. The distance from the cage to the wells that do not meet the requirements is 60% which is 10m away. From the results of the analysis, the p value (0.00) means that there is a significant relationship between the physical condition of the dug wells and the distance of the cattle pen with bacteriological quality.

It is recommended to the relevant agencies to conduct counseling regarding the physical condition of wells that meet the requirements and diseases that can be transmitted by polluted water. The community is expected to always maintain cleanliness around the well and always maintain the physical condition of the well.

**Keywords** : cage distance, well physical condition, total coliform bacteria

**Reading list** : 54 (2005-2022)