

## **ABSTRACT**

**Background:** *Diarrhea remains a public health problem in Indonesia, both in terms of mortality and its outbreak. Diarrhea is related to the environment. Objective of this study was to determine the relationship of environmental sanitation and the diarrhea incidence in children at Bandarharjo Primary Health Center Working Area.*

**Methods:** *This was an observational analytical research with a case control design. The study population was children aged 5-11 years in Semarang. The numbers of samples in this study were 33 cases and 33 controls with an error rate of 5% and power of 20% with a proportion of at least 30%. The sampling technique used in this study was proportional random sampling method. Environmental sanitation data were obtained from closed questionnaires and a direct observation, while the diarrhea data were obtained from medical records of Bandarharjo Primary Health Center Working Area. Data were analyzed with chi square and contingency coefficient test.*

**Results:** *The number of diarrhea cases in children with poor and good environmental sanitation were 88.9% and 23.1% respectively. Chi-square resulted in  $p= 0.000$  with  $OR= 26.67$  (95.9% CI: 6.494-109.209), and the contingency coefficient value of the relationship between environmental sanitation and diarrhea incidence was 0.543.*

**Conclusion:** *Environmental sanitation was moderately correlated with the incidence of diarrhea in children at Bandarharjo Primary Health Center Working Area. Children with a poor environmental sanitation had 26.67 times higher risk to get diarrhea.*

**Keywords:** *Environmental Sanitation, Diarrhea*

## INTISARI

Penyakit diare merupakan masalah kesehatan masyarakat di Indonesia, ditinjau dari angka kematian serta kejadian luar biasa (KLB) yang ditimbulkan. Kejadian penyakit Diare berkaitan dengan sanitasi lingkungan. Tujuan penelitian ini mengetahui hubungan sanitasi lingkungan dengan kejadian diare anak di wilayah kerja Puskesmas Bandarharjo.

Penelitian analitik observasional dengan rancangan *case control*. Populasi penelitian adalah anak umur 5-11 tahun di Kota Semarang. Jumlah sampel yaitu 33 kasus dan 33 kontrol dengan tingkat kesalahan 5% dan power 20% dengan proporsi minimal 30%. Teknik pengambilan sampel menggunakan metode *proportional random sampling*. Data sanitasi lingkungan diperoleh dari kuesioner dengan pertanyaan tertutup dan observasi langsung, sedangkan data diare diperoleh dari catatan medis Puskesmas Bandarharjo. Analisis data menggunakan Uji *chi square* dan koefisien kontingensi.

Jumlah kasus diare dengan sanitasi lingkungan buruk 88,9% sedangkan pada sanitasi lingkungan baik 23,1%. Uji *Chi-square* diperoleh nilai  $p = 0,000$  dengan OR = 26,67 (IK95%: 6,494-109,209), dan nilai koefisien kontingensi dari hubungan sanitasi lingkungan dan kejadian diare sebesar 0,543.

Terdapat hubungan sanitasi lingkungan dengan kejadian diare anak di wilayah kerja Puskesmas Bandarharjo dengan tingkat kekuatan sedang. Sanitasi lingkungan buruk beresiko menderita diare 26,67 kali daripada sanitasi lingkungan baik.

**Kata kunci:** Sanitasi Lingkungan, Diare