

ENVIRONMENTAL SANITATION, FAMILY INCOME, AND OTHER FACTORS ASSOCIATED WITH STUNTING IN CHILDREN UNDER FIVE IN KLATEN, CENTRAL JAVA

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ABSTRACT

Background: Stunting is a complex and enduring challenge in public health. There is growing interest in how water, sanitation, and hygiene (WASH) interventions might support strategies to reduce stunting in high-burden settings. The purpose of this study was to examine environmental sanitation, family income, and other factors associated with stunting in children under five.

Subjects and Method: This was an analytic observational study with a case control design. The study was conducted in Klaten, Central Java, from January to March 2019. A sample of 200 children under five was selected randomly. The dependent variable was stunting. The independent variables were education, family income, number of family member, water source, sanitation, history of infectious disease, family eating pattern, and hand washing. The data were collected by questionnaire and analyzed by a multiple logistic regression.

Results: The risk of stunting increased with maternal education <senior high school (OR= 12.34; 95% CI= 3.43 to 44.32; p<0.001), low family income (OR= 8.29; 95% CI= 2.13 to 32.21; p= 0.002), number of family member ≥5 (OR= 4.89; 95% CI= 1.51 to 15.81; p= 0.008), open water source (OR= 5.96; 95% CI= 1.80 to 19.73; p= 0.003), poor sanitation (OR= 8.58; 95% CI= 2.59 to 28.38; p<0.001), history of infection (OR= 6.01; 95% CI= 1.76 to 20.48; p= 0.004), family eating pattern do not vary (OR= 5.65; 95% CI= 1.58 to 20.11; p= 0.007), and poor hand washing (OR= 5.10; 95% CI= 1.49 to 17.47; p= 0.009).

Conclusion: The risk of stunting increases with maternal education <senior high school, low family income, number of family member ≥5, open water source, poor sanitation, history of infection, family eating pattern do not vary, poor hand washing.

Keywords: stunting, sanitation, infection disease, hand washing behavior

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