Abstract

During 2005-2008, 32.1% of the population from San Simon (Yucatán, México) was diagnosed with acute diarrheal disease (ADD). During this period the population most affected was children under 10 years of which 40% have different range of malnutrition. Objective. Identify predisposing factors of acute diarrheal disease (ADD) in the San Simon community, based on a nutritional and environmental vulnerability analysis (VA). Material and methods. A population census was carried out focusing on socio-cultural, economic and health aspects to identify indicators of demand (D) and supply (S) as components of the VA (VA=D/S). The threat assessment was determined taking into account the predisposition to the risk factor and its effect on population health. The risk (R) was calculated multiplying the vulnerability index by the threat value. The nutritional vulnerability was determined using anthropometric indicators (n = 106). The presence of threat factor (TF) represented by Escherichia coli O157: H7 and Salmonella spp. was determined on vegetables (n=45) and animal feces (n=64). Results. The nutritional disorders, the morbidity rate and the low educational level were the main indicators in the vulnerability analysis. There were 43.2% children with severe malnutrition, 60.6% of women and 53.5% of men with obesity. Regarding the study of the risk, 80.6% of the pigs were E. coli O157: H7 positive. Salmonella spp. was found in 35.7% of chicken and 8.3% of vegetables. Conclusion. The population of San Simon has a high environmental risk (R=39±10.6) and intermediate vulnerability (V=4.9) of suffering EDA.

Keywords

Nutritional and environmental vulnerability, Acute diarrheal disease, Yucatán, México.