Background and aim: Asthma is the most prevalent chronic disease in childhood. The aim of this study is to analyze the influence of factors related to income, home environment and occurrence of asthma among students.

Method: Cross-sectional study using hierarchical approach of determinants of asthma among students residents in Alta Floresta, Brazilian Amazon. A questionnaire with information about the socio economic level, the living conditions and the health status was applied. Questions of the International Study of Asthma and Allergies in Childhood were applied. The variables were clustered in three levels: distal (socio economic variables), intermediate (smoking and the parent’s educational level) and proximal (the student’s characteristics).

Results: After the adjustment to the distal level the following variables presented statistically signifiance: Students living in houses with only one room (OR = 3.68; CI 95%: 1.34-10.10) and with missing waste disposal (OR = 2.43; CI 95%: 1.26-4.67). On the intermediate level mothers smoking during pregnancy (OR = 3.58; IC 95%: 1.47-11.30), even after the adjustment by variables of the distal level.

Conclusion: The occurrence of asthma among children living in Alta Floresta is associated to the characteristics of the home environment and the environmental conditions to which the children are exposed.

Key-words: Asthma; Risk Factors, Environmental Variables