Background:: Infant mortality rate is a useful indicator of health conditions in the society, the racial and socioeconomic inequality of which is from the most important measures of social inequality.

Objectives:: The aim of this study was to determine the socioeconomic inequality and its determinants regarding infant mortality in an Iranian population.

Patients and Methods:: This cross-sectional study was performed on ٣٧٩٤ children born during ٢٠١٠-٢٠١١ in Shahroud, Iran. Based on children's addresses and phone numbers, ٣٤١٢ were available and finally ٣٢٩٧ participated in the study. A data collection form was filled out through interviewing the mothers as well as using health records. Using principal component analysis, the study population was divided to high and low socioeconomic groups based on the case's home asset, education and job of the household's head, marital status, and composition of the household members. Inequality between the groups with regard to infant mortality was investigated by Blinder-Oaxaca decomposition method.

Results:: The mortality rate was ١٥.١ per ١٠٠٠ live births in the high socioeconomic group and ٤٢.٣ per ١٠٠٠ in the low socioeconomic group. Mother's education, consanguinity of parents, and infant's nutrition type and birth weight constituted ٤٤% of the gap contributing factors. Child's gender, high-risk pregnancy, and living area had no impact on the gap.

Conclusions:: There was considerable socioeconomic inequality regarding infant mortality in Shahroud. Mother's education was the most contributing factor in this inequality.