

## Symposium of Student Scholars KSU

Title: The Relationship of Delivery Method, Birth Weight and Race on Infant Mortality

Infant mortality is defined as the number of deaths per 1000 births. The U.S. infant mortality rate in 2014 was reported as 5.8 deaths per 1000 births which is very high compared to other countries such as Japan where the rate 2.1 deaths per 1000 births. The leading causes of infant death are congenital malformations, SIDS, low birthweight, pre-term births and maternal complications. For this project, I will analyze birthweight in addition to other factors related to infant death. My research aims to see how the factors of delivery method, birthweight, and race influence infant mortality to see how it can be reduced and to identify groups that are most vulnerable to experiencing high infant death rates. To evaluate this, I analyzed 2007-2016 U.S. infant mortality data from the CDC and created bar charts relating race, birthweight, and delivery method to the death rate. Also, I ran ANOVAs to find significant differences between the variables. I found out that the vaginal delivery method has the lower death rate compared to the C-section delivery method. The ANOVAs revealed that there is a significant difference between race and death rate. American Indians who were born through C-sections have the highest death rate out of all the other races and delivery methods. Small infants delivered through the C-section method are correlated with lower death rates. Large infants delivered through the vaginal method are correlated with lower death rates. I found that American Indians who were born through C-sections have the highest death rate out of all the other races and delivery methods. These results can serve as the beginning of a more comprehensive look into infant mortality.