Infant colic is defined as persistent inconsolable crying in healthy babies between 2 weeks and 4 months of age in which the baby appears to be in great discomfort and difficult to soothe. Infant colic is not a disease, but a serious and prevalent condition with serious medical and social consequences that, as of yet, remains a mystery for medical research. Estimates of the number of affected infants aged 0-4 months who cry three or more hours a day for three or more days a week for no clear cause (Wessel’s criteria), range from 5% to 40%. Medical literature on colic provides a wide range of hypotheses to explain this condition. These include lack of bacteria in the intestines, reflux, lactose intolerance, maternal smoking, and parental depression, to cite a few. A RISE award allowed us to lay groundwork to study this condition, gather a multi-disciplinary team and collect a large scale data from electronic health records. Our ongoing efforts and goals are to propose a refined diagnostic tool as well as study the underlying risk factors that lead to infant colic.