Child maltreatment is a complicated and ongoing problem. There are millions of reported cases in the United States each year, and infants and toddlers are the most frequent and most vulnerable victims of child maltreatment (U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2012). Child maltreatment is associated with a wide range of negative consequences for children including cognitive and psychological issues (Crozier & Barth, 2005; Mueller et al, 2010). The current project examines the factors associated with physical child maltreatment of infants and toddlers and efforts to influence these factors and prevent physical child maltreatment. Study 1 examined the data from the Hawaii Healthy Start Program (HSP) to determine the contextual, parental and child variables that predicted the use of severe physical assault on infants and toddlers during their first and second years of life. Results indicate that parental stress, substance use, speaking language other than English, less enriching home environment and child temperament are associated with severe physical assault of young children. Study 2 examined the feasibility of providing Incredible Years: Parents and Babies curriculum to vulnerable families with the intention of preventing physical maltreatment. Results of this study indicate that significant relationship building and parent engagement strategies are necessary to engage this population and data collection strategies must account for positive impression management and reading issues.