Ectodermal Dysplasia (ED) represents a group of inherited conditions characterized by abnormal development of ectodermally derived tissues, such as skin, hair, nails, sweat glands and dentition. Inheritance patterns include autosomal dominant, autosomal recessive, as well as the most frequently reported type, X-linked. Treatment modalities for ED vary markedly depending on the clinical manifestations, but to date there are no studies exploring the potential economic impact of ED. Based on anecdotal reports the costs of dental treatment for this condition can have substantial financial impact on families. Objectives: The purpose of this pilot study was to develop an economic model for various treatment modalities for individuals with hypohidrotic ectodermal dysplasia with severe hypodontia. Methods: A comprehensive review of literature and expert panel judgment was used to establish treatment modalities for ED. Chart reviews were completed to obtain sample treatment and costs information. Using this data, a model of treatment options and associated costs was then constructed. Results: Our pilot sample included 19 patients that were treated for ED at the University of North Carolina: 42% female, 58% male. The ages ranged from 4yrs 11mo to 31yrs 1mo. Forty-two percent had dental insurance coverage while over half paid for services out of pocket. An estimated 84% had undergone prosthodontic treatment, 37% orthodontic treatment and 42% implant surgery. Depending on age of the patient and range of treatment there was a wide array of costs associated with dental treatment for ED. This ranged from $2038-$3298 for those with prosthodontic treatment only to $12,632-$41,146 for those with a combination of prosthodontic, orthodontic and implant treatment. Conclusions: Dental treatment for Ectodermal Dysplasia had a marked financial impact on families and varied depending on type and duration of treatment. Research was supported in part by the NFED.