Medical claims cost distributions and factors that relate to these costs were studied among 7796 employees who selected an indemnity medical plan for at least one year during 1985 to 1990. Descriptions for medical claims costs were presented for both single- and multiple-year time periods. Factors that associated with high cost status were studied by using multiple logistic regression models. Employees at or above the top tenth cost percentile were accounted for approximately 80%, 65%, and 58% of the total employees' medical costs to the employer in single-year, 3-year, and 6-year periods, respectively. Bivariate analyses indicated that six of the seven selected demographic variables were significantly related to cost status. When the multivariate models excluded health risk measures, four of the demographic variables and the frequency of health risk appraisal completion were significantly associated with cost status. When the multivariate models included health risk measures, the health risk measures became the dominant predictors of the high-cost status.