Prevention of familial cardiovascular disease by screening for family history and lipids in youths.

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We analyzed medical family history information from 51,053 families of high school students in Utah and Texas and cholesterol measurements from 853 youths and 1618 adults in Utah families with cardiovascular disease (CVD) to assess the utility of different approaches to risk-factor evaluation for youths. The major question addressed was in which youths should blood cholesterol be measured.
His family history reveals that his maternal grandfather had a heart attack at 75 years of age and that his 52-year-old father has started taking a medication for elevated cholesterol levels. In Utah families ascertained for CVD in adults, blood cholesterol levels among youths were significantly bimodal with hFH present in 84% of youths in the upper cholesterol mode. Blood cholesterol levels in adults from the same families were less bimodal with hFH present in 38% of adults in the upper mode. More overlap existed between high and normal modes in adults than in youths. Data from this study suggest that family histories and cholesterol concentrations obtained from high school students may meet the needs of cholesterol screening, education, and follow-up in a controlled and cost-effective setting.

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