It has been estimated that more than half of today’s youths are predestined to cardiovascular disease (CVD) morbidity and mortality (Frank, Webber, & Berenson, 1982). Because cardiovascular diseases are usually considered adult maladies, some readers may ask why risk factors should be a cause for concern during childhood and adolescence. Autopsy studies of youths provide a compelling answer to this question: Although signs of disease are rarely obvious before midlife, atherosclerosis begins in infancy, with fatty streaks evident by age 3 and fibrous plaques appearing during adolescence (Cresanta et al., 1986). Behavioral indicators further underscore the importance of childhood and adolescence to CVD risk, given evidence of a gradual and consistent decline in health behaviors from the early primary to high school years (Leventhal, Prohaska, & Hirschman, 1985). As Berenson (1986) asserts, “Maximum potential for prevention occurs in early life, especially for high-risk individuals” (p. 21). In the following paragraphs, we consider four fundamental indications for a focus on CV risk in youth: risk factor tracking or continuity, the clustering
of health risk indicators and behaviors, the preferability of prevention to intervention, and natural developmental windows or sensitive periods.

*Risk Factors Track across the Life Span*

Emerging evidence of progressive subclinical disease in youth has been accompanied by increased empirical attention to the CVD risk factors most relevant during childhood: elevated serum lipids and lipoproteins, hypertension, smoking, obesity, and sedentary habits combined with lack of exercise. These risk factors show tracking across the life span, beginning during childhood. Several independent studies have provided strong evidence of continuity in blood pressure, with children maintaining their relative rank with respect to their peers over extended time periods. The evidence for tracking of cholesterol levels seems even more robust than that for blood pressure. In the longitudinal Bogalusa studies, for example, correlations of low-density lipoprotein cholesterol (LDL-C) levels over a 5-year period ranged from 0.62 to 0.78 (Cresanta et al., 1986). Moreover, of the children whose LDL-C levels reached the 90th percentile during their first examination, 80% were at the 80th percentile or above 5 years later.

Continuity of cigarette smoking and weight status have also been documented repeatedly. Johnston (1986) reported that of those adolescents who smoked daily during their high school years, 73% were still daily smokers 8 years later. An obese preschooler has about a 25% chance of becoming an obese adult, and the figure increases to between 70% and 75% by ages 10 to 13 (Epstein, Wing, & Valoski, 1985; Garn & LaVelle, 1985). Clarke, Woolson, and Lauer (1986) found that a child between the ages of 5 and 8 who is in the upper quintile (20%) of his or her age group for ponderosity has a 55% chance of being in the upper quintile 10 years later. In contrast, a child in one of the bottom four quintiles has only one chance in eight of rising to the top quintile over the next 10 years.

Thus there seems to be no doubt either about the presence of CVD risk factors during childhood or about their relative stability over the years. Despite significant developmental changes and individual differences, people tend to maintain their ranks relative to their peers, and this continuity is particularly apparent at the health-endangering extreme of each factor.

*Risk Factors and Risky Behaviors Tend to Cluster*

It is no longer appropriate to treat individual risk factors in isolation, describing etiology and prescribing treatment as though each dimension had a distinct course and consequence. Risk factors show robust patterns