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Health Risks and Developmental Transitions During Adolescence

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CAMBRIDGE
UNIVERSITY PRESS
1997

2 Cultural, Historical, and Subcultural Contexts of Adolescence: Implications for Health and Development

Lisa J. Crockett

Although clearly influenced by biological and psychological growth, adolescent development is also molded by the social and cultural context in which it occurs. As the transition from childhood to adulthood, adolescence is closely tied to the structure of adult society, and the expectations for youth during this period reflect, in important ways, the skills and qualities deemed important for success in adult roles (Benedict, 1937; Havighurst, 1948/1972). Furthermore, prevailing demographic, economic, and political conditions determine the adult occupational and social roles to which young people can aspire, as well as the access to and competition for those roles (Elder, 1975). The integral connection between adolescence and the societal context means that, despite universals such as puberty and cognitive development, adolescents' experiences will vary across cultures and over history. The settings in which young people develop, the skills they are expected to acquire, and the ways in which their progress toward adulthood is marked and celebrated depend on the cultural and historical contexts.

Within stratified, heterogeneous societies, the experience of adolescence also differs among subgroups of youth. Economic and social resources, as well as access to valued adult roles, may differ for youth from distinct racial-ethnic groups, social classes, and geographic regions. Lack of resources and opportunities in some settings may profoundly shape the course of adolescent development by influencing the timing of key developmental transitions and the supports available for coping with these transitions. Moreover, to the extent that anticipated adult lives differ for youth from distinct social subgroups, differences in socialization patterns and goals would be expected (Ogbu, 1985). In heterogeneous societies, therefore, local ecological conditions may alter considerably the normative template of adolescent development, with important implications for adolescents' current health and future life course.

Thus, both macrolevel, societal arrangements and local conditions help shape adolescents' experiences and the course of their development. Both kinds of influences may also have consequences for adolescent health. In particular, they affect the health risks to which young people are exposed

before and during adolescence, as well as the protective factors that may shield them from these risks. In this chapter, I examine the impact of both societal and local contexts, highlighting some of their implications for adolescent health. Essentially, the chapter addresses two questions: First, how has adolescent health and development been affected by changing social and economic conditions in the United States? Second, how does the health and development of adolescents in the contemporary United States vary as a function of the local ecology? Before turning to these issues, however, an overview of sociocultural influences on adolescent development will be presented.

The Cultural Context of Adolescent Development

Whether or not adolescence is formally recognized as a distinct stage of life, virtually all cultures distinguish between young people and adults. Furthermore, most cultures institutionalize a period of preparation for adulthood that may be analogous to adolescence as we know it. Despite some uniformities, however, the structure and content of the adolescent period varies markedly from culture to culture in ways that reflect broader social and institutional patterns (Benedict, 1937). In other words, the “cultural structuring” of adolescence differs among societies. Although a comprehensive review of cross-cultural differences is beyond the scope of this chapter, a few examples will serve to illustrate the ways in which cultural arrangements shape the adolescent period and the course of adolescent development. These include the selection of developmental milestones, practices affecting the clarity of adolescence as a phase of life, and the provision of social roles, settings, and activities that shape the “content” of adolescence.

Critical Developmental Markers

Worthman (1986) suggests that cultures structure the adolescent experience in part by ascribing social significance to particular developmental cues such as menarche, physical size, or acquired skills. These perceptible cues serve as “index” variables or social markers to which the acquisition of privileges and responsibilities is attached. The selected markers have social significance and, consequently, become psychologically meaningful as well. In a sense, cultures co-opt developmental cues, imbue them with social significance, and in this way create social milestones around which young people’s activities and expectations are organized. These milestones serve as landmarks along the path to adulthood, defining the normative course of adolescent development. They become developmental goals to be attained and celebrated.

The developmental markers selected for cultural emphasis vary cross-culturally and appear to be linked to the social and economic organization of society. Biological markers of maturation such as menarche are more fre-

quently celebrated in settings where puberty is linked to marriage and where marriage, in turn, has important political and economic functions (Brooks-Gunn & Reiter, 1990). For example, in some societies, marriage is used politically to cement interfamilial ties. Further, in labor-intensive agrarian economies, in which large numbers of children are desirable, menarche, which is associated with fertility, may increase a daughter's value in the marriage market. Paige (1983) suggests that practices such as chaperonage, seclusion, and residence with the bridegroom's family prior to puberty are all ways of ensuring a daughter's economic value to her family. Thus, puberty is celebrated where it constitutes a political or economic asset.

Puberty may also receive greater emphasis in societies with simple technology and less differentiated economies. In such societies, young people learn adult skills and tasks gradually over the course of childhood and, by the time of puberty, have acquired many of the competencies needed to function successfully as adults. In contrast, in industrialized societies with complex occupational structures and a focus on achieved rather than ascribed social status, puberty occurs long before the requisite level of social and technical competence is reached. Hence, the emphasis on puberty is replaced by a focus on other events (e.g., school completion) that more accurately index readiness for adulthood. Puberty is not celebrated by the community and, in fact, is viewed as a private issue (Brooks-Gunn & Reiter, 1990).

Other events reflecting social maturation may also receive differential cultural emphasis. In most societies, marriage marks the end of adolescence and the beginning of adulthood (Schlegel & Barry, 1991). In industrialized societies, the completion of formal schooling, entry into full-time employment, moving out of the parental household, and becoming financially independent also may serve as markers of entry into adulthood (Elliott & Feldman, 1990). A recent study of American college students indicated that living apart from parents and financial independence were particularly salient milestones for these youth (Arnett, 1994).

The choice of key developmental markers and the age at which particular milestones can be attained affect the temporal boundaries of adolescence. Thus, the social transition from childhood to adolescence may be initiated at different ages in different cultures (Cohen, 1964), and the formal phase of preparation for adulthood may last several months, as in some traditional societies, or many years, as is common in modern industrialized societies. The interdependence of particular milestones may also affect the length and timing of adolescence: For example, the right to marry may be tied to biological maturity; similarly, in Western industrialized societies, entry into full-time employment may depend on the completion of formal schooling.

Importantly, the timing and contingency of developmental milestones are determined by institutional arrangements. In industrialized societies, the transition from school to work is shaped by the educational system and the labor

market. The nature and timing of the school-to-work transition differs, even among modern industrialized societies, due to differences in the degree of alignment between these key institutions (Hamilton, 1994; Petersen, Hurrelmann, & Leffert, 1993).

In summary, both the choice of developmental markers and the timing of these markers are embedded in cultural arrangements. One example of this embeddedness comes from cross-cultural data on the regulation of *maidenhood*, defined as the period between menarche and marriage. Examining data from contemporary nations as well as from ethnographic cross-cultural files, Whiting, Burbank, and Ratner (1986) show that societies differ in both the length of maidenhood and the degree of permissiveness concerning premarital sex. One strategy involves extended maidenhood (5 years or more) combined with restrictive rules governing premarital sex: this approach is common among modern European and Asian societies. It can be contrasted with strategies that involve a shorter maidenhood (combined with either encouragement of or restrictions on premarital sex) or with arrangements in which maidenhood is virtually nonexistent because marriage occurs before or immediately after menarche. The type of arrangement depends, in part, on what characteristics are desired in a bride (e.g., virginity or sexual competence), but it is also related to cultural values concerning family size, which, in turn, depend on population density, the social class system, and the type of economic activity (agricultural, herding, foraging, industrial) (Whiting et al., 1986). In this example, both the length of the maidenhood period and the treatment of female adolescents during this period appear to depend on broader social and economic patterns.

Clarity of Adolescence

Cultures also differ in the clarity of adolescence as a stage of life. Clarity is enhanced by culturally shared milestones that mark the entrance into and exit from adolescence, as well as by consistency in the treatment of young people during that phase of life. In some traditional societies, public ceremonies and physical alteration (e.g., through the use of particular clothing or scarification) accompany the change from child to adult (or preadult) social status (Ford & Beach, 1951). In small communities, and in larger ones in which the physical alterations are commonly recognized, the change in social status is followed by consistent social treatment confirming the young person's new status. In contrast, modern industrialized societies have few publicly celebrated or consistently recognized indicators of the status transition; typically, there are multiple milestones (e.g., completion of secondary schooling, age of legal majority, entry into the labor force, marriage, and parenthood) that are reached at different ages. The abundance of social markers and their spread in timing are thought to increase the ambiguity of the transition to adulthood because

young people are treated inconsistently: on some occasions as adults, on other occasions as juveniles (Steinberg, 1993). In support of this perspective, a recent study of college students in a midwestern university revealed that less than one-quarter of the sample felt they had reached adulthood, whereas almost two-thirds felt they had attained adulthood in some respects but not in others (Arnett, 1994).

The clarity of adolescence may derive in part from institutional arrangements. Hurrelmann (1989) links the ambiguity of adolescence in Western industrialized societies to the ongoing process of institutional differentiation within these societies. Increasingly, social functions related to economics, social control, education, and religion, which were initially carried out within the family unit, have been relegated to specialized institutions (e.g., schools, churches, courts). These institutions have distinct rules, procedures, and reward structures; thus they may place inconsistent demands on young people and permit differing degrees of participation and autonomy. Such inconsistency may lead to confusion among youth about their social status and expected behavior; it may also produce frustration because autonomy is supported in some settings but denied in others. Moreover, inconsistent expectations are thought to impede the formation of a healthy identity (Ianni, 1989) and may also lead young people to engage in "adult" behaviors such as sex and drinking as a way of affirming adult status (Jessor, 1984).

Social Roles and Settings

Institutional arrangements within a society also shape the content of adolescence – the social roles and prescribed activities of youth. First, institutional arrangements and cultural patterns influence the sequencing of important social roles (Hogan & Astone, 1986). In the United States, for example, the preferred sequence of role transitions during late adolescence and early adulthood is from student to worker to spouse/partner to parent. Studies of adolescents' goals and plans confirm that this normative role sequence influences their thinking about their future lives (Greene, Wheatley, & Aldava, 1992; Hogan, 1982; Nurmi, 1989, this volume). Moreover, data on the average ages of school completion, job entry, marriage, and parenthood support the normative sequence, although it is also clear that many individuals do not follow it (Marini, 1987; Rindfuss, Swicegood, & Rosenfeld, 1987).

In addition, cultural theories of the normal or ideal life course, in conjunction with institutional arrangements, prescribe the typical sequence of settings through which a young person passes en route to adulthood, as well as the ideal timing of the transition from one setting to the next. The normative educational sequence in Western societies, for example, specifies a sequence of elementary school, secondary school, and postsecondary education, although the last is not required. This sequence of settings is in marked contrast

to that of agrarian or foraging societies, in which children help with adult tasks and have economic responsibilities from an early age. Not only are the activities different, but so are the companions. In school settings, adolescents tend to be segregated with age-mates, which reduces contact with adults and enables the emergence of peer cultures with distinct values and reward structures. Such outcomes are less likely in societies where children work alongside adults and are more fully integrated into the adult community.

In summary, the experiences of adolescents are integrally tied to prevailing cultural, institutional, and economic patterns. These cultural arrangements define the roles, settings, and activities of youth and determine the temporal boundaries of adolescence. In combination, they also affect the clarity of adolescence as a developmental status.

Adolescence in Contemporary Western Society

In contemporary Western society, the phase of adolescence has taken a particular form as a consequence of economic and social changes associated with the process of industrialization. The length and timing of adolescence, its distinctness as a phase of life, and the ambiguities that currently characterize this period are rooted in the institutional arrangements of industrialized society. The critical role of social conditions in molding contemporary adolescence is best understood in historical perspective. In the following sections, the historical foundations of adolescence are reviewed, followed by a discussion of recent societal changes that have affected the nature of adolescence. Finally, recent trends in adolescent health are examined in relation to social change.

Historical Foundations of Contemporary Adolescence

Preindustrial Era. Prior to industrialization, young people played an important economic role in the family and community. In the relatively undifferentiated agrarian economy of the 16th and 17th centuries, children's labor contributed directly to the economic well-being of the family. Thus, children were recognized as an economic asset (Modell & Goodman, 1990); they were brought into economic activity at an early age and often worked alongside adults. In this sense, young people appeared to be more fully integrated into adult society than is true today.

In determining social status, the focus in the preindustrial era was on capability (Modell & Goodman, 1990). In colonial America, developmental status was linked to economic standing. *Youth* was used to describe the period during which young people were no longer fully dependent on parents but were not yet in a position to set up their own households (Kett, 1977). Until the early 19th century, this period was associated with the practice of *fostering out*, in

which children from the age of 12 were often sent to live with other families in the community to serve as domestics and apprentices (Katz, 1975; Kett, 1977). This practice created a situation in which youngsters were away from home but still under adult supervision. For this reason, the status of youth has been described as one of “semi-independence” (Kett, 1977).

The focus on capability was accompanied by a relative lack of emphasis on chronological age as an indicator of developmental status. General life stage distinctions were made, as indicated by the use of such terms as *childhood* and *youth*, but these distinctions were less elaborated and less tied to age than they would be in later eras. For example, the term *youth* could be applied to someone as young as 12 or as old as 24 (Modell & Goodman, 1990). Thus, age-based distinctions between young people and adults appear to have been less salient than they are today. (For an alternative perspective, however, see Hanawalt, 1993.)

Youth in Industrialized Society. The relation of youth to adult society changed in the late 19th and early 20th centuries as a function of three interrelated trends: a decline in the demand for child labor, an increased emphasis on education, and a transformation in the cultural view of children. The declining demand for youth labor derived in part from changes in the occupational structure brought on by industrialization. Although rapid industrialization in the 19th century created new occupations for children in the United States (e.g., in the southern textile mills), improvements in technology eventually reduced the demand for unskilled labor and made many “children’s” jobs obsolete (Fasick, 1994; Zelizer, 1985). In addition, immigration at the turn of the century provided an alternative source of unskilled labor. Thus, by the early 20th century, industry no longer required child and adolescent labor, and youth employment declined.

The reduction in employment among youth was offset, in part, by an increased emphasis on schooling. Greater family affluence in the late 19th and early 20th century meant that more families could afford to keep their children in school (Fasick, 1994; Zelizer, 1985). In addition, schooling came to be seen as a route to occupational success. As opportunities in farming decreased, many families encouraged their sons to pursue formal education in order to prepare for alternative careers in business or the professions. Although formal schooling was initially a middle-class strategy, American working-class youth also began to pursue formal education as a means to upward mobility (Modell & Goodman, 1990). By the end of the 19th century, an increasing number of American youth attended secondary school, at least temporarily, rather than being immediately absorbed into the adult work force.

A third factor affecting children and adolescents was a cultural change in the view of children (Zelizer, 1985). In 18th-century rural America, children were seen as economic assets as well as objects of sentiment. Among working-class

families, this view persisted through the end of the 19th century. Between the 1870s and the 1930s, however, children were increasingly defined in exclusively sentimental terms. The sentimental view of children made their use for economic gain morally suspect. According to Zelizer (1985), this cultural transformation in the normative view of children gave momentum to child labor movements that progressively excluded children under 14 from most kinds of paid work. Children and young adolescents were recast as emotionally priceless but economically useless.

Implications for Adolescents' Social Role. These historical trends profoundly altered the social roles and daily contexts of children and adolescents. The declining value of youth labor and the increased utility of formal schooling shifted the center of adolescent activity from work to school and the primary social role from worker to student. The progressive exclusion of children from adult work created separate institutional bases for young people and adults and effectively segregated adolescents from adult society. The young adolescent's status in the family also changed. Rather than contributing economically to the family, young adolescents became an economic liability.

The sentimentalized view of children also led to increased public concern about child health and safety. The perceived need to protect children from the hazards (moral and physical) of street life led to a progressive restriction of children's activities to the school and the home (Zelizer, 1985). Similarly, among urban middle-class families, the response to urban dangers was to shift adolescents from semi-independent to fully dependent status in order to protect them (Modell & Goodman, 1990). Although working-class youth continued to work alongside adults and to participate in street life, middle- and upper-class youth increasingly stayed home. Thus, rather than experiencing a period of semiautonomy, middle-class adolescents moved increasingly into a fully dependent status within the family.

Over the course of the 20th century, economic and educational trends in the United States have further differentiated the role of adolescents from that of adults. The emergence of the comprehensive high school in the 1920s and the extension of compulsory schooling through age 16 underscored the importance of school as a primary institutional setting for adolescents. Between 1920 and 1960 the proportion of 14- to 16-year-olds in school rose from about 30% to 90% (Tanner, 1972). In addition, the refinement and extension of child labor laws have largely excluded adolescents under age 16 from full-time work. These twin developments have reinforced the distinct institutional bases of adolescents and adults and the distinct cultural expectations for them regarding activities, orientation, and behavior. Even the increasing prevalence of part-time employment among high school students has not altered this basic pattern: At least among mainstream, middle-class youth, part-time work is

viewed as a secondary activity (the primary activity being school), not as part of the youth's economic responsibility to the family. Earnings tend to be spent on leisure activities and on discretionary items (e.g., stereos) rather than on basic necessities. Thus, developments in the 20th century have tended to reinforce both economic marginality and frivolity as key features of the adolescent role. Exceptions to this rule include farm youth, whose labor contributes directly to the family's economic enterprise, and poor youth, whose earnings may be used for basic necessities.

Timing of Developmental Transitions. Recent changes in the labor market have further extended the length of adolescence for many young people. The past several decades have witnessed a continued decline in employment within the primary sector (especially farming), a sharp drop in manufacturing, and prolonged growth in the service sector (Polk, 1987). Much of the growth is concentrated in high-status service professions, which require a university degree, and in technology, which requires specific training. Growth has also occurred in low-level service jobs (e.g., restaurant work), but these jobs are typically part-time and poorly paid. Thus, the need for postsecondary education has increased. In response to these labor market conditions, college enrollments rose precipitously in the second half of the 20th century (Church, 1976). Increasingly, youth are extending their education into the third decade of life, thereby prolonging their "adolescent" period of economic dependence.

The postponement of key role transitions marking the entry into adulthood is documented in historical studies. A comparison of data from 1880 and 1970 (Modell, Furstenberg, & Hershberg, 1976) indicates that the ages of school completion and entrance into the labor force rose over that period, with the change being especially pronounced for school completion. However, over the same period, the median ages of family transitions (departure from the family home, marriage, and establishment of an independent household) decreased. Thus, the postponement of career-related role transitions co-occurred with an acceleration of family transitions, resulting in a temporal convergence of these distinct role changes.

More recent data indicate that the median ages of first marriage and entering parenthood have been increasing since 1960 (Modell, 1989), suggesting that the trend toward convergence has ceased. Nonetheless, the initial temporal compression of family and nonfamily transitions has increased the potential for these two types of transitions to overlap. Because some of these role transitions are contingent on others (e.g., full-time employment and marriage are supposed to follow completion of full-time schooling), careful orchestration of these transitions may be required (Modell et al., 1976). Thus, the temporal compression has increased the complexity of the transition to adulthood.

Implications of Historical Changes for Adolescent Health

The more sentimentalized view of children that emerged in the early 20th century had clear benefits for the health of children and young adolescents. In the United States, a nationwide campaign for child health resulted in reduced infant and child mortality. In some states, mass inoculation and vaccination campaigns virtually eliminated major communicable diseases among school-children (Zelizer, 1985). Similarly, public efforts in the 1920s successfully reduced traffic fatalities among school-age children at a time when fatalities among older age groups continued to rise (Zelizer, 1985). Although older adolescents were not the focus of these public health campaigns, they probably also benefitted from improved public health and safety.

Some other historical changes, however, may have had less positive consequences for adolescents. In particular, the increasing economic marginality of youth may have negatively affected adolescent psychological well-being. Some scholars have suggested that the contemporary experience of extended economic dependence and exclusion from valued economic and social roles is alienating for youth (Nightingale & Wolverson, 1993). Frustration may lead to a preoccupation with the superficial symbols of adulthood such as alcohol use, sex, and material goods, and possibly to health-risking behaviors such as drug use, unprotected sexual activity, and delinquency (Jessor, 1984).

In addition, the progressive segregation of adolescents from adults has sharpened the discontinuity between adolescence and adulthood. Rather than learning economic roles by observing adults at work, young people are encouraged to focus on learning abstract skills in school. Hamilton (1987) has argued that present institutional arrangements in the United States do not entail strong connections between school work, adolescent jobs, and adult occupational careers. The abstract skills learned in school typically are not utilized in the unskilled part-time jobs most adolescents hold today (Greenberger & Steinberg, 1986); moreover, school achievement does not lead necessarily to adult occupational success. Under these circumstances, school work may seem irrelevant to adolescents, reducing their motivation to achieve in school (Hamilton, 1994). Furthermore, lack of a perceived connection between school achievement and future success may reduce adolescents' commitment to the social order and increase the likelihood of problem behaviors such as substance use and delinquency (Hamilton, 1987).

The historical changes in the organization of adolescence also have implications for the conditions under which some developmental transitions are negotiated. Modell and Goodman (1990) speculate that the practice of fostering out in the preindustrial period reduced tensions in the family by removing adolescents to semi-independent living arrangements. Today, the young person's growing need for autonomy is more likely to be negotiated within the family unit. Moreover, these negotiations are carried out in the closer, more

emotionally charged climate of the modern nuclear family, in which children are viewed as precious and in need of protection. Thus, the negotiation of autonomy today may involve more family tension and conflict than in earlier eras. In addition, the temporal compression of young adult role transitions may have implications for adolescent health. Although the temporal convergence of familial and nonfamilial transitions may have clarified the boundary between adolescence and adulthood, it has also increased the need to coordinate multiple role changes, potentially exacerbating the stressfulness of late adolescence (Modell et al., 1976).

Historical Changes in Adolescent Health and Health Risks

In addition to shaping the adolescent social role, societal changes in the 20th century have directly affected the health risks to which young people are exposed. On the positive side, the present century has seen dramatic improvements in nutrition, public health practices, and medical technology. These advances have significantly reduced mortality among adolescents. By 1985, the mortality rate for adolescents between the ages of 10 and 19 years was only one-third of what it had been in the 1930s (Fingerhut & Kleinman, 1989). Between 1985 and 1990, youth mortality trends differed by race and gender. Death rates declined slightly for white males and females aged 15–24, increased slightly for black females in this age range, and increased sharply for black males (National Center for Education Statistics, 1993).

Illness and Disease. The overall reduction in adolescent mortality during this century is primarily attributable to a decline in adolescent deaths due to natural causes, which dropped 90% between the 1930s and 1985 (Fingerhut & Kleinman, 1989). (See Figure 2.1.) Improved public health practices reduced the incidence of infectious diseases in the United States and the mortality rate associated with these diseases. The reduction in infectious disease can be observed in several youth-related diseases. For example, the incidence of polio in the general population dropped to nearly zero by 1960, and that of measles dropped sharply between 1955 and 1970 (National Center for Education Statistics, 1993). Improved medical technology has also reduced mortality from some noninfectious diseases. For example, the death rate from cancer among youth aged 15–24 declined gradually from 1960 to 1990 (National Center for Education Statistics, 1993).

Against this backdrop of improved physical health, however, are health risks associated with violence, injury, drug use, and sexually transmitted diseases. These risks appear to affect adolescents disproportionately and may account for the rise in adolescent mortality between 1960 and 1980, a period when all other age groups experienced a decline in mortality rates (Shafer & Moscicki, 1991).

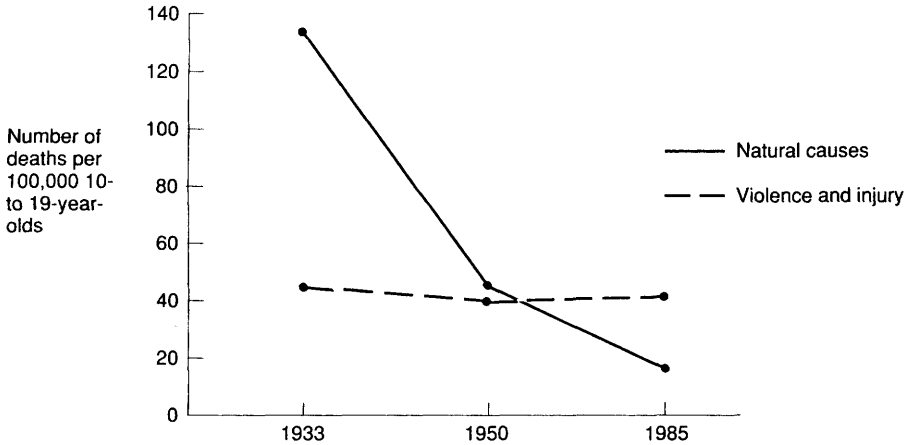


Figure 2.1. Trends in death rates among adolescents. *Source:* Fingerhut, L. A., & Kleinman, J. C. (1989). *Trends and current status in childhood mortality, United States, 1900–85*. Vital and Health Statistics, Series 3, No. 26 (DHHS Pub. No. PHS 89-1410). Hyattsville, MD: National Center for Health Statistics.

Violence and Injury. In contrast to the steep decline in adolescent death rates related to natural causes, death rates related to injury and violence remained stable from the 1930s to the 1980s, accounting for an ever-increasing proportion of adolescent mortality (Figure 2.1). In 1990, motor vehicle accidents were the single leading cause of adolescent death, followed by homicide and suicide (National Center for Education Statistics, 1993). Suicide and homicide rates have increased dramatically in recent decades. Suicide rates for teenagers more than doubled between 1968 and 1985; homicide rates nearly doubled for younger adolescents and increased by 20% for older adolescents (Fingerhut & Kleinman, 1989). Between 1985 and 1990 homicide rates continued to rise among youth aged 15 to 24, whereas suicide rates remained fairly stable (National Center for Education Statistics, 1993). Nonwhite males aged 15–24 have experienced the largest increase in homicide rates in recent decades; in 1990, homicide rates for these males were seven times those of other race-gender groups. In contrast, white males aged 15–24 have the highest suicide rates among youth.

The trend toward increased violence is also seen in victimization rates among adolescents. For youth aged 12 to 19, the rate of victimization from violent crimes (robbery, assault, rape) rose between 1988 and 1991. In 1991, 16- to 19-year-olds experienced higher rates of victimization than either younger adolescents or people aged 20 and older. Victimization rates were higher for males than for females and higher for blacks than for whites (National Center for Education Statistics, 1993).

Adolescents are also perpetrators of violent crimes. In the 1980s, youth under age 18 accounted for roughly one-half of all property crimes, and youth between the ages of 18 and 24 accounted for over one-third of all violent crimes (U.S. Bureau of the Census, 1985). In both cases, the amount of youth crime was disproportionately high, considering the size of the adolescent population. Moreover, a study of age patterns in crime between 1940 and 1980 suggests a shift toward committing offenses at younger ages (Steffensmeier, Allan, Harer, & Streifel, 1989). In line with these trends, arrest rates for adolescents aged 14–17 and for youth aged 18–24 increased dramatically from 1950 to 1990 (National Center for Educational Statistics, 1993).

Substance Use. The 20th century has witnessed a major shift in public attitudes toward drugs, from the official intolerance of the Prohibition years to the relative indulgence of the late 1960s and the 1970s. The shift in public attitudes and in the availability of drugs have been accompanied by changes in adolescent use patterns. Data from representative samples of high school seniors indicate that the prevalence of illicit drug use increased from 1975 to the late 1970s but then declined appreciably in the 1980s (Johnston, O'Malley, & Bachman, 1994). The decline during the 1980s may reflect increased awareness of the risks associated with drug use because the perceived harmfulness of some illicit drugs increased over the same period. Data from the 1990s, however, indicate a reversal of this trend: In 1993, reported use of illicit drugs rose sharply among 8th, 10th, and 12th graders, and negative attitudes toward many drugs declined (Johnston et al., 1994). Although current usage rates are still well below the peak rates observed in the late 1970s and early 1980s, the apparent turnaround is cause for concern. It is also noteworthy that the level of illicit drug use reported by adolescents in the United States is higher than that documented in other industrialized countries (Johnston et al., 1994).

Sexual Activity. Public attitudes about sex also changed in the 20th-century United States, becoming more permissive. Between the 1960s and 1980s, tolerance of nonmarital sex and childbearing increased among adults, along with the acceptance of divorce and cohabitation (Chilman, 1986). As with substance use, adolescent behavior patterns appear to mirror these broader societal trends. Estimates indicate that the rate of premarital intercourse among adolescents increased sharply between the mid-1960s and the 1980s, particularly among white females (Chilman, 1986). During the 1970s, the percentage of metropolitan teenage girls aged 15 to 19 who had experienced sexual intercourse rose from 30% to 50% (Zelnick & Kantner, 1980). Most of this increase occurred among white girls; for black adolescent girls, rates of premarital sexual intercourse rose from 54% in 1971 to 66% in 1976 but then leveled off. Retrospective data from multiple birth cohorts suggest that for

white girls the rate of sexual activity began to level off in the early 1980s, whereas for black girls it declined slightly (Hofferth, Kahn, & Baldwin, 1987). Between 1982 and 1988 the proportion of sexually active adolescent girls increased again – from 47% to 53% – with the largest increase occurring among white girls (Forrest & Singh, 1990).

The increase in adolescent sexual activity in the United States has been accompanied by an increased incidence of sexually transmitted diseases and pregnancy. Cases of gonorrhea among 15- to 19-year-old girls quadrupled between 1940 and 1980 (Shafer, Irwin, & Sweet, 1982). From 1980 to 1990, the number of gonorrhea cases among adolescents aged 15 to 19 dropped, as it did in the general population (National Center for Education Statistics, 1993). Nonetheless, data from the 1980s indicate that approximately 2.5 million adolescents contracted a sexually transmitted disease each year (Moore, 1989). Moreover, it is estimated that one in four sexually active adolescents will contract a sexually transmitted disease before they graduate from high school (Shafer & Moscicki, 1990). In addition, human immunodeficiency virus (HIV) infection has become a serious threat. Adolescents are believed to be at particular risk because acquired immunodeficiency syndrome (AIDS) often appears in young adults who presumably contracted the virus as adolescents. Furthermore, reported cases of AIDS among adolescents between the ages of 15 and 19 quintupled between 1985 and 1990, although the numbers are still small (National Center for Education Statistics, 1993).

The increased prevalence of adolescent sexual activity is also reflected in pregnancy rates. Among 15- to 19-year-old adolescent girls in the United States, the pregnancy rate increased during the 1970s but then stabilized at about 11% a year (Hayes, 1987; Henshaw, Kenney, Somberg, & Van Vort, 1992). An estimated 1 million teenage girls become pregnant each year, most premaritally (Dryfoos, 1990). Birth rates for 15- to 19-year-old girls actually declined between 1960 and 1985 (due in part to the legalization of abortion) but then increased somewhat in the late 1980s; in contrast, *nonmarital* birth rates have been increasing since the 1950s for teenage girls and for women in general (National Center for Education Statistics, 1993). Thus, a larger proportion of births to teenagers now occur outside of marriage.

A comparative study of 30 nations conducted in the early 1980s indicated that rates of adolescent pregnancy and childbearing are considerably higher in the United States than in other Western industrialized nations (Jones et al., 1986). Several explanations have been offered to account for the high rates, including inadequate sex education, lack of easy access to contraceptives, mixed messages about the appropriateness of sex for adolescents, and lack of educational and occupational opportunities that would serve as deterrents to early childbearing (e.g., Brooks-Gunn & Furstenberg, 1989; Crockett & Chopak, 1993; Dryfoos, 1990).

Changing Social Contexts and Adolescent Health. Given the evidence that social change affects adolescent development in part by shaping the nature of key developmental contexts, it is important to evaluate the present constellation of health risks in light of recent changes in adolescent social contexts. For example, societal trends in family structure and the rising prevalence of part-time work among teenagers may increase adolescents' exposure to some risks. Adolescents in nonintact families and adolescents whose mothers are employed outside the home are more likely to be sexually active (Billy, Brewster, & Grady, 1994; Crockett & Bingham, 1995; Newcomer & Udry, 1987), perhaps because these conditions are associated with reduced parental supervision and control. These adolescents are potentially at increased risk for sexually transmitted diseases and early pregnancy. Similarly, extensive participation in part-time work is associated with lower participation in such healthy behaviors as eating breakfast, exercising, and getting enough sleep (Bachman & Schulenberg, 1993); it is also associated with potentially harmful behaviors such as delinquency, drug use, and disengagement from school (Steinberg, Fegley, & Dornbusch, 1993). Whether these associations reflect negative effects of work or simply the characteristics of adolescents who choose to work long hours is a matter of ongoing debate (see Finch, Mortimer, & Ryu, chapter 12, this volume); nonetheless, such patterns have generated concern (Greenberger & Steinberg, 1986).

At the same time, nontraditional family patterns and adolescent part-time work may have certain benefits. Adolescents in families with divorced mothers appear to take on more responsibilities and develop more egalitarian gender role attitudes (Barber & Eccles, 1992), and adolescents with working mothers benefit from increased family income. Similarly, part-time work is associated with increased self-reliance among high school students (Greenberger & Steinberg, 1986), and low-intensity work is positively related to some aspects of behavioral and psychological adjustment for 10th graders (Mortimer, Shanahan, & Ryu, 1994). Thus, it is important to recognize that changes in key contexts may enhance growth as well as risk and may have different implications for adolescent health, depending on other circumstances. In particular, preexisting characteristics of the adolescent may influence both the response to new or changed social contexts and subsequent health and well-being.

Implications for Adolescent Health. Adolescents in the United States today come of age in a society in which violence, drug use, sexually transmitted diseases, and AIDS present ongoing threats to health. These pervasive health risks, in conjunction with our ambivalent treatment of adolescents, which involves inconsistent autonomy and inconsistent messages about sex and substance use, may have increased the likelihood of some negative outcomes.

The current pattern of adolescent health risks needs to be considered in the context of ongoing societal changes in the family and other important developmental contexts. Such contextual changes may either mitigate or exacerbate the health risks to which young people are exposed. Given that most adolescent health risks are linked to behavioral choices (e.g., sex and substance use) or to violence, inadequate adult guidance and supervision might be expected to increase the likelihood of negative health outcomes, particularly for younger adolescents (Carnegie Council on Adolescent Development, 1989). In fact, recent studies attest to the importance of parental supervision and monitoring throughout the secondary school years (Brown, Mounts, Lamborn, & Steinberg, 1993; Jacobson & Crockett, 1995; Small, 1995). Trends in adolescent health should also be considered in the context of broader societal changes such as the economic recession of the 1980s, the economic decline of many urban centers and rural counties, and the growth of urban problems.

Subgroup Differences in Adolescent Transitions and Health

Although national patterns are useful for understanding the general template of adolescent development, they are insufficient for capturing the diversity of young people's experiences in heterogeneous societies. As Elder and his colleagues have noted, "Adolescents do not come of age in society as a whole, but rather in a particular community, school, and family" (Elder, Hagell, Rudkin, & Conger, 1994, p. 261). Rather than operating directly and uniformly, societal influences are filtered through local social contexts and conditioned by opportunities and risks in the immediate social environment (Ianni, 1989). This is especially true in an ethnically heterogeneous and socially stratified society such as the United States, in which local variations in racial and ethnic mix, educational institutions, economic resources, and employment opportunities create distinct ecological niches for developing youth. Across these niches, variations may occur in many of the cultural features of adolescence, such as the timing and sequencing of role transitions, the length of adolescence, and socialization goals; health risks also may vary across ecological niches. Two cases will serve to illustrate these differences: that of inner-city African American adolescents and that of disadvantaged rural youth. These subgroups experience an adolescence that appears to differ from the mainstream pattern in important ways. Further, both of these groups are believed to be at risk for poor psychological and social outcomes (William T. Grant Foundation, 1988).

Inner-City African American Youth

One distinctive ecological niche is that of African American youth growing up in poor inner-city neighborhoods. Although African Americans represent

only one-third of the adolescents aged 10–17 living in cities, they constitute one-half of all impoverished adolescents in these areas (U.S. Bureau of the Census, 1990). Moreover, poor African Americans are more likely than their white counterparts to live in *ghetto* neighborhoods, defined as urban areas with poverty rates of at least 40% (Wilson, 1991). In 1980, 21% of poor blacks, 16% of poor Hispanics, and 2% of poor whites lived in ghettos (Jargowsky & Bane, 1990). In fact, the ghetto poor (poor people who live in ghetto neighborhoods) are disproportionately African American: In 1980, 65% of the ghetto poor were black (Jargowsky & Bane, 1990).

Inner-city neighborhoods are characterized by a scarcity of jobs, unstable, low-wage employment, and the presence of a street economy (Ogbu, 1985). These conditions increase the likelihood that individuals will engage in alternative or illegal activities in order to generate income (Wilson, 1991). Apart from low access to jobs and job networks, residents of inner-city neighborhoods may be constrained by poor-quality schools, a reduced pool of potential marriage partners, and lack of exposure to conventional role models (Wilson, 1987). In extreme cases, illicit drug trafficking makes the streets physically dangerous, particularly at certain times of the day (Burton, 1991).

Implications for Adolescent Development. Burton, Allison, and Obeidallah (1995) argue that adolescence is qualitatively different for African American youth in poor urban neighborhoods than for youth in mainstream contexts. One difference may be the amount of ambiguity concerning one's developmental status. Burton and her colleagues note that inner-city African American youth experience sharply divergent role expectations across school and family settings: At home they are given considerable autonomy and adult responsibilities, whereas at school they are expected to accept the typical subordinate status of high school students. These mixed messages may exacerbate the ambiguity of adolescence as a developmental stage.

In some families, the ambiguity is reinforced by a condensed family age structure in which generations are separated by only 13–17 years. The closeness in age between parents and children blurs generational boundaries and creates a situation in which parent–adolescent relationships are less hierarchical and more peerlike (Burton et al., 1995). This can weaken parental authority and create difficulties in disciplining adolescent children. Similarities between adolescents and their parents are further underscored by considerable overlap in the social worlds of teenagers and their parents, who share economic and child-care tasks and may compete for the same jobs and romantic partners. Such similarities make it difficult to differentiate between the developmental statuses of teenagers and their parents.

Finally, because of the dangers of life in inner-city neighborhoods, many adolescent boys share the expectation of a life cut short by early death. These young boys push to experience the privileges and autonomy of adulthood early

because they believe their time is limited. They engage in adult behaviors at a young age and tend to view themselves as adults, thereby accelerating their transition to adulthood in some domains. A parallel acceleration can be seen among teenage girls, particularly with respect to early childbearing. Burton and her colleagues (1995) argue that adolescence may not exist for these youth; at the very least, it is foreshortened. In any case, the experience of these youth stands in marked contrast to the mainstream adolescent experience, characterized by prolonged dependence, lack of adult responsibilities, and economic uselessness.

Burton and colleagues also find that in these neighborhood settings, adults and adolescents alike have adopted an expanded view of successful developmental outcomes (Burton et al., 1995). Although they may recognize traditional milestones such as finishing high school and securing stable employment, additional markers of developmental success are also accepted. Such markers include dressing well, attaining financial independence (legally or illegally), fathering/giving birth to a child, physical survival, getting out of the neighborhood, spirituality, and contributing to the well-being of the family and community. These alternative conceptions of success appear to reflect adaptations to the physical dangers and limited economic opportunities of inner-city life. They may also reflect a shared knowledge of long-term discrimination and ongoing racial barriers to conventional (mainstream) success. Ogbu (1985) suggests that both current economic resources and a shared knowledge of the opportunity structure shape a population's definitions of the competencies required for success in adulthood. The unique situation of inner-city African Americans would thus be expected to result in the development of alternative developmental milestones and criteria for success.

Implications for Adolescent Health. The neighborhood environment of some inner-city African American youth appears to increase their exposure to some kinds of health-related risks. Apart from increased contact with drugs and street violence, youth in these neighborhoods are at increased risk for engaging in behaviors that have negative implications for their long-term well-being. For example, Brooks-Gunn and her colleagues found that the presence of middle-class neighbors was associated with a reduced risk of teenage childbearing even when family-level characteristics such as socio-economic status were statistically controlled (Brooks-Gunn, Duncan, Kato & Sealand, 1994). In addition, the prevalence of female-headed families in the neighborhood was positively associated with both dropping out and teenage childbearing.

A decade ago, Hogan and Kitagawa (1985) reported an association between neighborhood quality and the risk of adolescent pregnancy in a black urban sample. More recently, Brewster (1994) showed that much of the racial difference in adolescent girls' sexual activity could be attributed to neighborhood

differences in economic resources and the full-time employment rate for women. Her results indicate that nonmarital intercourse is more likely among girls living in neighborhoods where the costs of this activity appear to be low because opportunities are generally limited anyway. Because of residential segregation by race, African American teenagers are more likely than white teenagers to live in such neighborhoods. Such findings reinforce the notion that the local ecology outside the family has important implications for adolescent health and development.

Some neighborhood characteristics may affect adolescents' exposure to health risks indirectly by influencing the social networks and social integration of local adults. Residents of inner-city neighborhoods characterized by high population turnover, ethnic heterogeneity, and scarce resources may exhibit mutual mistrust and low social cohesion (Sampson, 1992). Parents in such neighborhoods tend to rely on individualistic rather than collective child-monitoring strategies (Furstenberg, 1993), which may reduce their ability to supervise teenage peer groups and control delinquency (Sampson, 1992). An adolescent's risk of exposure to violence is likely to be inflated in such neighborhoods.

In addition, it appears that the inconsistent expectations for behavior confronting some inner-city African American youth (Burton et al., 1995) may have implications for their identity formation and psychological well-being. Ianni (1989) argues that inconsistent messages about what constitutes appropriate behavior and future goals may impede the process of developing a coherent sense of self. Conflicting expectations from family, school, and peers, for example, may force adolescents to choose one set of expectations over another in defining their sense of self or may lead to a fragmented (situational) identity rather than a fully integrated sense of self.

Disadvantaged Rural Youth

A second distinctive ecological niche is that of disadvantaged rural youth. In 1990, 25% of adolescents aged 10–17 lived in rural areas (U.S. Bureau of the Census, 1990). Of these youth, 87% were white, 10% were African American, and 3% were from other racial groups. As in cities, poverty rates differ for distinct racial groups: Although the overall poverty rate among rural youth was 18% in 1990, approximately 15% of white rural adolescents were impoverished compared to 44% of African American and Native American rural youth and 5% of Asian/Pacific Islander youth. In contrast to cities, however, most impoverished rural adolescents are white.

In the United States, the economic health of rural communities has been affected by two distinct historical trends. First is the long-term decline in agricultural employment. The number of jobs in farming has decreased sharply since 1910, and the proportion of total jobs accounted for by farming has

been declining since the early 1800s (Freudenberg, 1992). This historical trend, coupled with the farm crisis of the 1980s (e.g., Conger & Elder, 1994), has substantially reduced employment opportunities in agriculture. The second trend involves changes in extractive industries – another traditional mainstay of the rural economy. The proportion of jobs in mining and logging, for example, has been decreasing since the early 1900s (Freudenberg, 1992). The economic downturns in rural areas have been accompanied by increasing poverty; currently, poverty rates are often higher in rural areas than in metropolitan areas (Jensen & McLaughlin, 1992). Thus, downward trends in both farming and extractive industries have created a shrinking opportunity structure for rural youth.

Studies Comparing Rural and Suburban Youth. In several papers, my colleagues and I have explored the future plans and current adjustment of a sample of rural adolescents and a comparison sample of suburban adolescents. The rural adolescents came from a small community in the northeastern United States that has traditionally depended on coal mining and a few small factories. The comparison sample came from two suburban middle- to upper-middle-class communities located outside a large city in the Midwest. Both samples were studied intensively in the 1980s: The suburban study began in 1978 (Petersen, 1984), the rural study in 1985 (Vicary, 1991). Although the studies had somewhat different foci, they were both longitudinal studies of adolescent development and covered the years from junior high school through 12th grade. Importantly, they included identical measures of key developmental constructs.

Residents of all three communities were primarily white. The communities differed markedly, however, in social and economic resources. The rural community was considered disadvantaged: Although residents ranged in socioeconomic status from lower to middle class, school census data from 1980 indicated that the median family income was only \$14,400 and that 12% of families lived below the poverty line. In contrast, the two suburban communities were relatively affluent: Median family incomes were \$42,000 and \$55,000, respectively. Similarly, educational attainment indicated a large community difference in human capital: Only 7% of adults in the rural community had completed college compared to over half of those in the suburban communities. Differential opportunity was also indicated by the employment situation. The rural community was undergoing economic decline at the time of the study, as evidenced by periodic shutdowns of the local coal mine and the closing of another major company (Sarigiani, Wilson, Petersen, & Vicary, 1990); in contrast, the suburban community was thriving.

Our analyses have focused on elucidating the impact of these two distinct community settings on young people's current behavior and expectations for the future. In one set of analyses, we examined the ages at which adolescents

in each context expected to experience several role transitions reflecting the transition to adulthood: finishing their education, getting their first real job, getting married, and becoming a parent. Results indicated that adolescents from both community contexts subscribed to the normative sequence of adult role transitions: The youngest ages were anticipated for school completion and job entry, followed by marriage and parenting. For each of these transitions, however, the average age cited by rural youth was significantly lower than that for the suburban youth, indicating expectations of an earlier transition to adulthood among rural adolescents (Bingham, Crockett, Stemmler, & Petersen, 1994). Importantly, differences in family socioeconomic status did not entirely account for these differences: controlling for parental educational attainment diminished but did not remove the significant community differences.

A second set of analyses focused on rural–suburban differences in health-related behaviors. Rural males reported a higher frequency of drunkenness and minor delinquency than did suburban males; in addition, rural youth of both genders reported an earlier age at first sexual intercourse than suburban youth. Despite these differences in the levels of some problem behaviors, regression analyses revealed that family relationships and peer relationships were important predictors of these behaviors in both communities (Crockett, Stemmler, Bingham, & Petersen, 1991).

Rural youths' earlier involvement in adult behaviors may indicate greater "transition proneness" (Jessor, 1984) and an accelerated developmental timetable. This interpretation is supported by data on adolescent pregnancy and childbearing. In the rural community, 20% of the girls became pregnant as teenagers, and 12% were mothers before age 20. In the suburban community, there was virtually no adolescent childbearing, although a few girls became pregnant. Similar findings have been reported in other studies (Ianni, 1989). The higher rate of teenage childbearing among rural adolescents is consistent with an accelerated transition to adulthood in the rural community, although it could also reflect community differences in family socioeconomic status.

Finally, a comparison of three dimensions of self-image (emotional tone, peer relations, and family relations) indicated a lower self-image in the rural sample. In particular, rural males and females reported significantly poorer emotional well-being, peer relations, and family relations than their suburban counterparts of the same gender (Sarigiani et al., 1990). Interestingly, within-community analyses revealed only modest associations between parental educational attainment and self-image in the rural sample and no associations in the suburban sample.

Implications for Adolescent Development. The findings on projected timing of young adult role transitions suggest that some rural youth anticipate an early

transition to adulthood. This expectation is in accord with data on the actual timing of young adult transitions. For example, rural youth tend to complete fewer years of education than their counterparts in metropolitan areas (Elder, 1963); moreover, rural women marry earlier than women in metropolitan areas (McLaughlin, Lichter, & Johnston, 1993).

Among rural youth, early entry into adult roles may represent a response to limited economic opportunities. For example, restricted job opportunities in rural Appalachia reduce the likely value of extended schooling as a route to occupational attainment and upward mobility (Wilson & Peterson, 1988). In such settings, educational attainment is not stressed, and few youth consider postsecondary education. In the absence of extended schooling, the transition to adult work and family roles proceeds at an accelerated pace.

The timing of adult role transitions may also be influenced by local norms. Rural communities are often characterized as supporting traditional gender role attitudes. Such attitudes encourage marriage and childbearing as an appropriate route to adulthood for women and would be expected to result in accelerated family transitions, especially for females. In addition, such traditional attitudes may combine with a comparative lack of educational and occupational opportunities for women in rural areas, making marriage (and earlier marriage in particular) more attractive for them.

The mingling of economic and cultural influences is also evident in other studies of rural youth. For example, Shanahan, Elder, Burchinal, and Conger (1995) found that working for pay was more common among rural than among urban adolescents. Furthermore, rural adolescents were more likely than urban adolescents to use their earnings to pay for school expenses and to contribute money to their families. Perhaps most interesting, such nonleisure spending was differentially related to parent-child relationships in the rural and urban contexts: The interaction between nonleisure spending and earnings was positively associated with parent-child relations among rural youth but negatively associated among urban youth. Shanahan et al. (1995) interpret this rural-urban difference as reflecting the differential meaning of adolescent work in rural versus urban settings. Adolescent work has traditionally been an acceptable part of rural life; thus, it may be welcomed as a positive sign of maturity and a commitment to the communal good. In the urban setting, however, nonleisure spending by adolescents may be viewed as threatening because it signifies an inability of parents to fill the provider role adequately. Such findings suggest that the expectations of rural adolescents need to be considered within the framework of rural cultural and economic traditions.

Implications for Adolescent Health. Like inner-city African American youth, disadvantaged rural adolescents may experience an accelerated transition to adulthood. Early school completion, marriage, and childbearing may, in turn,

limit future educational and occupational attainment among these youth, although at present we cannot say to what extent later disadvantage is a consequence of premature role transitions per se or of preexisting resource limitations and personal characteristics that spurred an accelerated transition in the first place.

Nonetheless, the limited opportunity structure of many rural communities poses a dilemma for rural youth, especially those with high aspirations. Donaldson (1986) suggests that for many rural youth, the pull to remain close to family and friends is pitted against the need to seek economic opportunities elsewhere. This conflict may increase the psychological stress associated with the transition to adulthood (Schonert-Reichl & Elliott, 1994).

The fact that several studies have found rural youth to have poorer self-images than their metropolitan counterparts (Petersen, Offer, & Kaplan, 1979; Sarigiani et al., 1990) also indicates that some aspects of rural residence may be psychologically debilitating. Given that self-image is positively associated with educational and occupational aspirations (Lee, 1984; Sarigiani et al., 1990), the poorer self-image of rural youth may be a consequence of family and community variables (e.g., lack of resources) that operate to constrain opportunities and reduce aspirations.

In any case, the greater involvement of rural youth in such adult behaviors as drinking and sex may have implications for current and subsequent health. To the extent that rural youth initiate these behaviors at younger ages, they may be at increased risk for negative outcomes. For example, contraception and condom use are less common among younger than older adolescents; thus, adolescents who begin to have intercourse at younger ages may be at increased risk of pregnancy and sexually transmitted diseases. Early initiation of drinking may also increase the risk of some negative outcomes.

Future Directions in the Study of Subgroup Differences

As illustrated by these two cases, adolescence may differ for subgroups of youth in the United States, depending on features of the family and the community ecology. Both inner-city African American youth and disadvantaged white rural youth appear to experience a truncated adolescence, although the foreshortening is more dramatic for the African American sample when it is also combined with other adaptations to the conditions of inner-city life. For disadvantaged rural youth, adolescence appears to follow the mainstream template but may be foreshortened by early school completion and early entry into adult family roles. In both subgroups, the foreshortening is likely to reflect a lack of educational and employment opportunities that may be a function both of family economic resources and of depressed economic conditions in the surrounding community. Cultural and historical traditions may also play a role. For example, the alternative construction of developmen-

tal success among African American youth may reflect responses to the long-term economic oppression of African Americans (Ogbu, 1985), as well as the isolation of inner-city youth from mainstream role models and norms (Wilson, 1987). Similarly, the early transition to adulthood among rural adolescents may be encouraged by traditional sex role attitudes and traditional routes to economic success within rural communities. The health-related risks of the local context appear more pressing for inner-city youth. However, both inner-city youth and rural youth who accelerate the transition to adulthood are likely to be disadvantaged in terms of future earnings and occupational attainment (William T. Grant Foundation, 1988).

Despite the intriguing possibility that community-level cultural and economic variables play an important role in shaping adolescent development, the study of community effects on adolescent development is just beginning. Currently, it is impossible to draw firm conclusions about the extent of these effects and the mechanisms through which they operate. One ongoing problem concerns selection effects (e.g., Tienda, 1991). If certain kinds of people gravitate toward certain kinds of neighborhoods or communities, it is hard to disentangle community effects from person effects. Longitudinal studies in which personal characteristics are assessed before residents move into a particular community or neighborhood would help to disentangle selection effects from socialization effects.

A second issue involves the need to distinguish among the multiple factors that create a particular ecological niche. In most studies, place of residence is confounded with either race or socioeconomic status. Although to some extent this reflects the complexity of ecological niches, which are defined by multiple characteristics, it is important to determine whether community effects depend primarily on one of these factors as opposed to a combination of factors. Thus, we need studies of samples that differ on key dimensions (e.g., white inner-city youth, black middle-class urban youth, well-to-do rural white youth). Large national samples allow us to control statistically on various dimensions and determine the unique variance due to others. However, if such dimensions are truly confounded, this approach may be misleading; thus, studies of multiple naturally occurring subgroups may be more fruitful.

It is also important to recognize the heterogeneity within chosen subgroups. For example, Elder and his colleagues (Elder et al., 1994) have made an important distinction between youth whose families are engaged in farming and nonfarm youth whose families earn their livings through other means. These authors found stronger rural orientations among farm youth than among small-town youth whose fathers were not involved in farming. More important, the meaning of rural ties differed for farm and nonfarm youth: Among farm youth, wanting to live in a rural area was associated with positive psychological adjustment, whereas among nonfarm youth it was associated

with conduct disorder and low self-esteem. Variability undoubtedly exists among inner-city minority youth as well.

A fourth critical need is to identify the mechanisms through which presumed community effects operate. Initially, this involves distinguishing community effects from family influences. It also requires identifying which features of the community are active in producing a particular outcome. Finally, it involves testing hypothesized processes and pathways through which community-level influences operate to affect adolescent behavior and exposure to health risks. For example, some ecological variables appear to operate by affecting parenting processes: Economic stress affects parent-child interaction (Conger & Elder, 1994) and may also lead to ineffective parental monitoring and discipline (Patterson, deBaryshe, & Ramsey, 1989; Sampson & Laub, 1994). Similarly, some neighborhood characteristics appear to affect parenting strategies; for example, high levels of mistrust and low mutual investment among neighbors appear to encourage individualistic parenting strategies rather than collective strategies (Furstenberg, 1993). These strategies may, in turn, have implications for the community's ability to control teenagers (Sampson, 1992).

Equally important, community characteristics may interact with parenting competence in ways that affect both adolescents' opportunities for social mobility and their exposure to health risks (Furstenberg, 1993). Community characteristics would also be expected to interact with characteristics of the adolescent in affecting exposure to health risks. Thus, studies that include measurement at each of these levels (community, family, individual) would be useful. Unfortunately, studies have tended to focus on one or at most two of these levels; data sets with rich measures on all three are rare.

Finally, many studies examine adolescent development in distinct family and community contexts but fail to measure a broad array of health outcomes. Inclusion of more comprehensive health measures within studies of neighborhood and community effects will be needed to understand the role of local conditions in the etiology of health-related behavior and health outcomes.

Conclusions

The primary purpose of this chapter was to explore the connection between adolescents' experiences and dimensions of the broader societal context, showing how adolescent development is embedded in and defined by cultural and institutional arrangements. This connection can be seen on all three levels examined here – cross-cultural, historical, and intrasocietal. Anthropological studies have documented cross-cultural differences in the structuring of adolescence and have demonstrated a connection between this structuring and the social and economic organization of societies. In addition, historical accounts

of the development of contemporary adolescence in Western societies have documented a correspondence between changes in economic and social organization and changes in the conceptions and treatment of youth. Finally, studies of particular subgroups within contemporary U.S. society illustrate the variations in developmental patterns that arise in response to distinct economic and social conditions.

A second goal of the chapter was to examine the implications of societal conditions for adolescent health. An examination of historical changes in adolescent health suggested general improvements in the health of American adolescents during the 20th century. A number of health risks remain, however, and the incidence of some kinds of health problems (e.g., sexually transmitted diseases) has increased. The current array of health risks is worrisome in part because risks are not evenly distributed throughout the population but rather are often concentrated in areas already plagued by a lack of social and economic resources. Therefore, some adolescents are exposed to multiple risks on a continuing basis, with potentially disastrous consequences. In addition, the contemporary pattern of health risks is characterized by a preponderance of risks that involve voluntary participation by the adolescent (e.g., smoking, other substance use, sexual activity, some forms of violence). Thus, the issue of adequate education and guidance for youth is critical, as well as the need to provide educational and occupational opportunities that increase young people's motivation to avoid health-risking behavior. The current demographic picture, which includes increases in single-parent families, increasing poverty within female-headed families, and ongoing residential segregation that isolates some youths from mainstream resources and role models, suggests that enhanced efforts will be needed to meet these important goals.

References

- Arnett, J. J. (1994). Are college students adults? Their conceptions of the transition to adulthood. *Journal of Adult Development, 1*, 213–224.
- Bachman, J. G., & Schulenberg, J. (1993). How part-time work intensity relates to drug use, problem behavior, time use, and satisfaction among high school seniors: Are these consequences or merely correlates? *Developmental Psychology, 29*, 220–235.
- Barber, B. L., & Eccles, J. S. (1992). Long-term influence of divorce and single parenting on adolescent family- and work-related values, behaviors, and aspirations. *Psychological Bulletin, 111*, 108–126.
- Benedict, R. (1937). *Patterns of culture*. Boston: Houghton Mifflin.
- Billy, J. O. G., Brewster, K. L., & Grady, W. R. (1994). Contextual effects on the sexual behavior of adolescent behavior. *Journal of Marriage and the Family, 56*, 387–404.
- Bingham, C. R., Crockett, L. J., Stemmler, M., & Petersen, A. C. (1994). *Community-contextual differences in adolescents' expectations for the timing of adulthood transitions*. Unpublished manuscript.

- Brewster, K. L. (1994). Race differences in sexual activity among adolescent women: The role of neighborhood characteristics. *American Sociological Review*, 59, 408–424.
- Brooks-Gunn, J., Duncan, G. J., Kato, P., & Sealander, N. (1994). Do neighborhoods affect child and adolescent development? *American Journal of Sociology*, 99, 353–395.
- Brooks-Gunn, J., & Furstenberg, F. F. (1989). Adolescent sexual behavior. *American Psychologist*, 44, 249–257.
- Brooks-Gunn, J., & Reiter, E. (1990). The role of pubertal processes. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 16–53). Cambridge, MA: Harvard University Press.
- Brown, B. B., Mounts, N., Lamborn, S. D., & Steinberg, L. (1993). Parenting practices and peer group affiliation in adolescence. *Child Development*, 64, 467–482.
- Burton, L. (1991, May–June). Caring for children in high-risk neighborhoods. *The American Enterprise*, 34–37.
- Burton, L., Allison, K., & Obeidallah, D. (1995). Social context and adolescence: Perspectives on development among inner-city African American teens. In L. J. Crockett & A. C. Crouter (Eds.), *Pathways through adolescence: Individual development in relation to social contexts* (pp. 119–138). Hillsdale, NJ: Erlbaum.
- Carnegie Council on Adolescent Development. (1989). *Turning points: Preparing American youth for the 21st century*. Washington, DC: Carnegie Corporation.
- Chilman, C. S. (1986). Some psychological aspects of adolescent sexual and contraceptive behaviors in a changing American Society. In J. B. Lancaster & B. A. Hamburg (Eds.), *School-age pregnancy and parenthood: Biosocial dimensions* (pp. 191–217). New York: Aldine de Gruyter.
- Church, R. (1976). *Education in the United States*. New York: Free Press.
- Cohen, Y. (1964). *The transition from childhood to adolescence*. Chicago: Aldine.
- Conger, R. D., & Elder, G. H., Jr. (1994). *Families in troubled times: Adapting to change in rural America*. New York: Aldine de Gruyter.
- Crockett, L. J., & Bingham, C. R. (1995). *Family influences on girls' sexual experience and pregnancy risk*. Manuscript submitted for publication.
- Crockett, L. J., & Chopak, J. (1993). Pregnancy prevention in early adolescence: A developmental perspective. In R. M. Lerner (Ed.), *Early adolescence: Perspectives on research, policy, and intervention* (pp. 315–333). Hillsdale, NJ: Erlbaum.
- Crockett, L. J., Stemmler, M., Bingham, C. R., & Petersen, A. C. (1991, July). *Subcultural variation in the development of adolescent problem behaviors*. Poster presentation at the meeting of the International Society for the Study of Behavioral Development, Minneapolis.
- Donaldson, G. A., Jr. (1986). Do you need to leave home to grow up? The rural adolescents dilemma. *Research on Rural Education*, 3, 121–125.
- Dryfoos, J. (1990). *Adolescents at risk: Prevalence and prevention*. New York: Oxford University Press.
- Elder, G. H., Jr. (1963). Achievement orientations and career patterns of rural youth. *Sociology of Education*, 37, 30–58.
- Elder, G. H., Jr. (1975). Adolescence in the life cycle: An introduction. In S. E. Dragastin & G. H. Elder, Jr. (Eds.), *Adolescence in the life cycle: Psychological change and social context* (pp. 1–22). Washington, DC: Hemisphere.
- Elder, G. H., Jr., Hagell, A., Rudkin, K., & Conger, R. D. (1994). Looking forward in troubled times: The influence of social context on adolescent plans and orientations. In R. K. Silbereisen & E. Todt (Eds.), *Adolescence in context: The interplay of family, school, peers, and work in adjustment* (pp. 244–264). New York: Springer-Verlag.
- Elliott, G., & Feldman, S. S. (1990). Capturing the adolescent experience. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 1–13). Cambridge, MA: Harvard University Press.
- Fasick, F. A. (1994). On the “invention” of adolescence. *Journal of Adolescent Research*, 14, 6–23.

- Fingerhut, L. A., & Kleinman, J. C. (1989). *Trends and current status in childhood mortality, United States, 1900–85*. Vital and Health Statistics, Series 3, No. 26 (DHHS Pub. No. PHS 89–1410). Hyattsville, MD: National Center for Health Statistics.
- Ford, C., & Beach, F. (1951). *Patterns of sexual behavior*. New York: Harper & Row.
- Forrest, J. D., & Singh, S. (1990). The sexual and reproductive behavior of American women, 1982–1988. *Family Planning Perspectives*, 22, 206–214.
- Freudenberg, W. R. (1992). Addictive economies: Extractive industries and vulnerable localities in a changing world economy. *Rural Sociology*, 57, 305–332.
- Furstenberg, F. F., Jr. (1993). How families manage risk and opportunity in dangerous neighborhoods. In W. J. Wilson (Ed.), *Sociology and the public agenda* (pp. 231–258). Newbury Park, CA: Sage.
- Greenberger, E., & Steinberg, L. (1986). *When teenagers work: The psychological and social costs of adolescent employment*. New York: Basic Books.
- Greene, A. L., Wheatley, S. M., & Aldava, J. F. (1992). Stages on life's way: Adolescents' implicit theories of the life course. *Journal of Adolescent Research*, 7, 364–381.
- Hamilton, S. F. (1987). Adolescent problem behavior in the United States and West Germany: Implications for prevention. In K. Hurrelmann, F. X. Kaufmann, & F. Lösel (Eds.), *Social intervention: Chances and constraints* (pp. 185–204). Berlin: Walter de Gruyter.
- Hamilton, S. F. (1994). Employment prospects as motivation for school achievement: Links and gaps between school and work in seven countries. In R. K. Silbereisen & E. Todt (Eds.), *Adolescence in context: The interplay of family, school, peers, and work in adjustment* (pp. 267–283). New York: Springer-Verlag.
- Hanawalt, B. A. (1993). *Growing up in medieval London: The experience of childhood in history*. New York: Oxford University Press.
- Havighurst, R. J. (1948/1972). *Developmental tasks and education* (3rd ed.). New York: David McKay.
- Hayes, C. D. (Ed.). (1987). *Risking the future: Adolescent sexuality, pregnancy, and childbearing* (Vol. 1). Washington, DC: National Academy Press.
- Henshaw, S. K., Kenney, A. M., Somberg, D., & Van Vort, J. (1992). *U.S. teenage pregnancy statistics*. New York: Alan Guttmacher Institute.
- Hofferth, S. L., Kahn, J. R., & Baldwin, W. (1987). Premarital sexual activity among U.S. women over the past three decades. *Family Planning Perspectives*, 19, 46–53.
- Hogan, D. P. (1982). *Adolescent expectations about the sequencing of early life transitions*. Unpublished manuscript, University of Chicago.
- Hogan, D. P., & Astone, N. M. (1986). The transition to adulthood. *Annual Review of Sociology*, 12, 109–130.
- Hogan, D. P., & Kitagawa, E. (1985). The impact of social status, family structure, and neighborhood on the fertility of black adolescents. *American Journal of Sociology*, 90, 825–855.
- Hurrelmann, K. (1989). The social world of adolescents: A sociological perspective. In K. Hurrelmann & U. Engel (Eds.), *The social world of adolescents: International perspectives* (pp. 3–26). Berlin: Walter de Gruyter.
- Ianni, F. A. J. (1989). *The search for structure: A report on American youth today*. New York: Free Press.
- Jacobson, K., & Crockett, L. J. (1995). *Parental monitoring and adolescent adjustment: An ecological approach*. Manuscript Submitted for publication.
- Jargowsky, P. A., & Bane, M. J. (1990). *Neighborhood poverty: Basic questions*. Discussion Paper Series, #H-90-3. Cambridge, MA: Malcolm Weiner Center for Social Policy, John F. Kennedy School of Government, Harvard University.
- Jensen, L., & McLaughlin, D. K. (1992). Human capital and nonmetropolitan poverty. In L. J. Beaulieu & D. Mulkey (Eds.), *Investing in people: The human capital needs of rural America* (pp. 111–138). Boulder, CO: Westview Press.
- Jessor, R. (1984). Adolescent development and behavioral health. In J. Matarazzo, S. Weiss, J. Herd, N. Miller, & J. M. Weiss (Eds.), *Behavioral health: A handbook of health enhancement and disease prevention* (pp. 69–90). New York: Wiley.

- Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (1994). *National survey results on drug use from the Monitoring the Future Study, 1975-1993* (Vol. 1). National Institute on Drug Abuse (NIH Pub. No. 94-3809). Washington, DC: U.S. Government Printing Office.
- Jones, E., Forrest, J., Goldman, N., Henshaw, S., Lincoln, R., Rosoff, J., Westoff, C., & Wulf, D. (1986). *Teenage pregnancy in industrialized countries*. New Haven, CT: Yale University Press.
- Katz, M. (1975). *The people of Hamilton, Canada West: Family and class in a mid-nineteenth-century city*. Cambridge, MA: Harvard University Press.
- Kett, J. (1977). *Rites of passage: Adolescence in America, 1790 to the present*. New York: Basic Books.
- Lee, C. C. (1984). An investigation of the psychosocial variables in the occupational aspirations and expectations of rural black and white adolescents: Implications for vocational education. *Journal of Research and Development in Education*, *17*, 28-34.
- Marini, M. M. (1987). Measuring the process of role change during the transition to adulthood. *Social Science Research*, *16*, 1-38.
- McLaughlin, D. K., Lichter, D. T., & Johnston, G. M. (1993). *Journal of Marriage and the Family*, *55*, 827-838.
- Modell, J. (1989). *Into one's own: From youth to adulthood in the United States, 1920-1975*. Berkeley: University of California Press.
- Modell, J., Furstenberg, F. F., Jr., & Hershberg, T. (1976). Social change and transitions to adulthood in historical perspective. *Journal of Family History*, *1*, 7-32.
- Modell, J., & Goodman, M. (1990). Historical perspectives. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 93-122). Cambridge, MA: Harvard University Press.
- Moore, K. A. (1989). *Facts at a glance*. Washington, DC: Child Trends, Inc.
- Mortimer, J. T., Shanahan, M., & Ryu, S. (1994). The effects of adolescent employment on school-related orientation and behavior. In R. K. Silbereisen & E. Todt (Eds.), *Adolescence in context: The interplay of family, school, peers, and work in adjustment* (pp. 304-326). New York: Springer-Verlag.
- National Center for Education Statistics. (1993). *Youth indicators 1993: Trends in the well-being of American youth*. Department of Education. Washington, DC: U.S. Government Printing Office.
- Newcomer, S., & Udry, J. R. (1987). Parental marital status effects on adolescent sexual behavior. *Journal of Marriage and the Family*, *49*, 235-240.
- Nightingale, E. O., & Wolverson, L. (1993). Adolescent rolelessness in modern society. *Teachers College Record*, *94*, 472-486.
- Nurmi, J. (1989). Development of orientation to the future during early adolescence: A four-year longitudinal study and two cross-sectional comparisons. *International Journal of Psychology*, *24*, 195-214.
- Ogbu, J. U. (1985). A cultural ecology of competence among inner-city blacks. In M. B. Spencer, G. K. Brookins, & W. R. Allen (Eds.), *Beginnings: Social and effective development of black children* (pp. 45-66). Hillsdale, NJ: Erlbaum.
- Paige, K. (1983). A bargaining theory of menarcheal responses in preindustrialized cultures. In J. Brooks-Gunn & A. C. Petersen (Eds.), *Girls at puberty: Biological and psychological perspectives* (pp. 301-322). New York: Plenum.
- Patterson, G., deBaryshe, B., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist*, *44*, 329-335.
- Petersen, A. C. (1984). The Early Adolescence Study: An overview. *Journal of Early Adolescence*, *4*, 103-106.
- Petersen, A. C., Hurrelmann, K., & Leffert, N. (1993). Adolescence and schooling in Germany and the United States: A comparison of peer socialization to adulthood. *Teachers College Record*, *94*, 611-628.
- Petersen, A. C., Offer, D., & Kaplan, E. (1979). The self-image of rural adolescent girls. In M. Sugar (Ed.), *Female adolescent development* (pp. 141-155). New York: Brunner/Mazel.
- Polk, K. (1987). The new marginal youth. *Crime and Delinquency*, *30*, 482-480.

- Rindfuss, R. R., Swicegood, C. G., & Rosenfeld, R. A. (1987). Disorder in the lifecourse: How common and does it matter? *American Sociological Review*, 52, 785–801.
- Sampson, R. J. (1992). Family management and child development: Insights from social disorganization theory. In J. McCord (Ed.), *Advances in criminological theory* (Vol. 3, pp. 63–93). New Brunswick, NJ: Transaction.
- Sampson, R. J., & Laub, J. H. (1994). Urban poverty and the family context of delinquency: A new look at structure and process in a classic study. *Child Development*, 65, 523–540.
- Sarigiani, P. A., Wilson, J. L., Petersen, A. C., & Vicary, J. R. (1990). Self-image and educational plans of adolescents from two contrasting communities. *Journal of Early Adolescence*, 10, 37–55.
- Schlegel, A., & Barry, H., III. (1991). *Adolescence: An anthropological inquiry*. New York: Free Press.
- Schonert-Reichl, K. A., & Elliott, J. P. (1994, February). *Rural pathways: Stability and change during the transition to young adulthood*. Paper presented at the biennial meeting of the Society for Research on Adolescence, San Diego, CA.
- Shafer, M. A., Irwin, C. E., & Sweet, R. L., (1982). Acute salpingitis in the adolescent female. *Journal of Pediatrics*, 100, 339–350.
- Shafer, M. A., & Moscicki, A. B. (1991). Sexually transmitted diseases in adolescents. In W. R. Hende (Ed.), *The health of adolescents* (pp. 211–249). San Francisco: Jossey-Bass.
- Shanahan, M. J., Elder, G. H., Jr., Burchinal, M., & Conger, R. D. (1995). *Adolescent earnings and relationships with parents: The work–family nexus in urban and rural ecologies*. Unpublished manuscript.
- Small, S. (1995). Enhancing contexts of adolescent development: The role of community-based action research. In L. J. Crockett & A. C. Crockett (Eds.), *Pathways through adolescence: Individual development in relation to social contexts* (pp. 211–233). Hillsdale, NJ: Erlbaum.
- Steffensmeier, D. J., Allan, E. A., Harer, M. D., & Streifel, C. (1989). Age and the distribution of crime. *American Journal of Sociology*, 94, 803–831.
- Steinberg, L. (1993). *Adolescence* (3rd ed.). New York: McGraw-Hill.
- Steinberg, L., Fegley, S., & Dornbusch, S. M. (1993). Negative impact of part-time work on adolescent adjustment: Evidence from a longitudinal study. *Developmental Psychology*, 29, 171–180.
- Tanner, D. (1972). *Secondary education*. New York: Macmillan.
- Tienda, M. (1991). Poor people and poor places: Deciphering neighborhood effects on poverty outcomes. In J. Huber (Ed.), *Macro–micro linkages in sociology* (pp. 244–262). Newbury Park, CA: Sage.
- U.S. Bureau of the Census. (1985). *Statistical abstract of the United States*. Washington, DC: U.S. Government Printing Office.
- U.S. Bureau of the Census. (1990). *1990 current population survey*. Washington, DC: U.S. Government Printing Office.
- Vicary, J. R. (1991). *Psychological impact of pregnancy on rural adolescents*. Final report to the Office of Adolescent Pregnancy Programs. University Park, PA: Author.
- Whiting, J. W. M., Burbank, V. K., & Ratner, M. S. (1986). The duration of maidenhood across cultures. In J. B. Lancaster & B. A. Hamburg (Eds.), *School-age pregnancy and parenthood: Biosocial dimensions* (pp. 273–302). New York: Aldine de Gruyter.
- William T. Grant Foundation, Commission on Work, Family and Citizenship. (1988). *The forgotten half: Pathways to success for America's youth and young families*. Washington, DC: Author.
- Wilson, S. M., & Peterson, G. W. (1988). Life satisfaction among young adults from rural families. *Family Relations*, 37, 84–91.
- Wilson, W. J. (1987). *The truly disadvantaged: The inner city, the underclass, and public policy*. Chicago: University of Chicago Press.
- Wilson, W. J. (1991). Studying inner-city social dislocations: The challenge of public agenda research. *American Sociological Review*, 56, 1–14.

- Worthman, C. M. (1986). Developmental dyssynchrony as normative experience: Kikuyu adolescents. In J. B. Lancaster & B. A. Hamburg (Eds.), *School-age pregnancy and parenthood: Biosocial dimensions* (pp. 95–112). New York: Aldine de Gruyter.
- Zelizer, V. A. (1985). *Pricing the priceless child: The changing social value of children*. New York: Basic Books.
- Zelnick, M., & Kantner, J. F. (1980). Sexual activity, contraceptive use, and pregnancy among metropolitan area teenagers: 1971–1979. *Family Planning Perspectives*, 12, 230–237.