

5

Health Policy for Children and Youth

Kathleen Rounds

Thomas C. Ormsby

Purpose and Overview of Health Policies for Children and Youth

The primary purpose of policies aimed at children and youth is to provide access to preventive and medical care. Access to care is defined as the ability to obtain needed care: lack of access to care is an indication of unmet health care needs of children and youth (Shi & Singh, 2001). Access to health care includes a number of dimensions: availability (Does the service exist?); cultural acceptability (Is there a fit between the cultural belief system and language of the client and the provider?); accessibility (Does the client have transportation to the service, and can the client access the service at a convenient time?); and affordability (Can the client pay for the service, or does the client have private or public insurance to cover the cost? (Anderson, 1995; Donabedian, 1973).

The U.S. health care environment is distinguished from health care systems in other industrialized nations by three critical features. First and foremost, the United States is the only country in the Western world that does not have universal health care coverage for its children and adolescents

132 Social Policy for Children and Families

(Stein, 1997). Second, the health care delivery system is a heavily privatized delivery system financed by public dollars. Federal, state, and local dollars constitute approximately 40 percent of all health care expenditures (Barr, Lee, & Benjamin, 2003). The system is an amalgam of private and government sources that operates in a market-oriented, commodity-oriented economy where many of the key players are driven by a profit motive (Halfon & Hochstein, 1997; Shi & Singh, 2001). Finally, for the most part, U.S. health care is a poorly coordinated system that is primarily characterized by “fragmentation” (Shortell, Gillies, Anderson, Erickson, & Mitchell, 2000).

Halfon and Hochstein (1997) pose two major policy questions regarding the delivery of health care for children and youth. They refer to the first question as the “insurance question,” which focuses on expanding access to health insurance for children and youth as well as elimination of other non-financial barriers to access (e.g., outreach and transportation). Halfon and Hochstein label the second question the “systems question.” This question asks how health care services could be organized and integrated with other systems that serve children and youth to more effectively meet their needs.

Federal health care policies affect all children, youth, and their families. However, these policies more dramatically affect low-income families and their children, who are disproportionately African American, Latino, or members of other ethnic minority groups. According to the Kaiser Commission on Medicaid and the Uninsured, “The gaps in our nation’s health coverage system fall at the doorstep of low-income families” (Williams et al., 2004). These families are more likely to have children with health problems (Starfield, 1997), and they are less likely to have health insurance.

Because of special vulnerabilities, some federal health care policies are specifically directed at infants, very young children, or adolescents. For example, eligibility for public health insurance programs, such as Medicaid, has been expanded to include more infants and young children, based on the recognition that these early years are important for preventive care (i.e., well-baby checkups and immunizations) as well as early screening for developmental and health problems. Adolescents are another developmentally vulnerable group because they are more likely to engage in high-risk behaviors, such as unprotected sex and substance use, which have long-term health consequences. It is during early adolescence that most youths develop health behaviors that will last into adulthood (Green & Palfrey, 2000; Greydanus, Patel, & Greydanus, 2003; Knopf & Gordon, 1997).

Federal health policy also targets children who fall under the definition of “children with special health care needs” (CSHCN), that is, “children who have, or are at increased risk for, chronic physical, developmental,

behavioral, or emotional conditions and who also require health and related services of a type or amount beyond that required by children generally” (Maternal and Child Health Bureau, 2000a; McPherson et al., 1998). Based on this definition, children with special health care needs comprise 15 percent to 20 percent of the population under 18 years of age (Newacheck & Halfon, 1998). Furthermore, other researchers estimate that about one out of every seven children living in the United States has a chronic health condition or disability. This estimate does not include the “at risk category” included in the definition used by the federal Maternal and Child Health Bureau (Stein & Silver, 1999).

In this chapter we review the prevalence of four health problems—low birth weight (LBW), asthma, obesity, and sexually transmitted infections—experienced by children and youth, and we identify the risk and protective factors associated with these health problems. We summarize the historical development of child health policy and examine ways in which child health policy has been based on risk and protective factors. Using a case example, we discuss strategies to integrate health care with other service systems that serve children and youth.

Risk and Protective Factors for Health Problems in Childhood and Adolescence

Infants, children, and adolescents in the United States experience a wide range of health problems. LBW, asthma, obesity, and sexually transmitted infections are widespread and affect many children. In this chapter we focus on the prevalence of these health problems; health disparities associated with race, ethnicity, and socioeconomic status; and risk factors across multiple system levels. (See Table 5.1 for prevalence data on LBW, asthma, overweight, and obesity.) This section concludes with a discussion of protective factors related to access to health care services.

Low Birth Weight

In 2002, 7.8 percent of live births in the United States were LBW infants (LBW—less than 2,500 grams, or 5 pounds, 8 ounces), the highest level in more than 30 years (Centers for Disease Control and Prevention [CDC], 2004c). In the same year, 1.46 percent of live births were very low birth weight (VLBW—less than 1,500 grams) (CDC, 2004c). LBW infants are at increased risk for many problems, including neonatal mortality, neurodevelopmental disorders (Jaffee & Perloff, 2003), and delayed social development (Hediger,

134 Social Policy for Children and Families

Table 5.1 Estimated Prevalence of Health Conditions Among Children and Adolescents in the United States

	<i>U.S. Population (all races)</i>	<i>African American (not Hispanic or Latino)</i>	<i>Latino or Hispanic</i>	<i>White (not Hispanic or Latino)</i>
Low Birth Weight				
2001—Percent of Live Births < 2,500 grams	7.68%	13.07%	6.47%	6.76%
2001—Percent of Live Births < 1,500 grams	1.44%	3.08%	1.14%	1.17%
Overweight				
1999–2000—Percent Overweight* Children 6–11 years	15.3%	N/A	N/A	N/A
Boys	16.0%	17.6%	(Mexican only) 27.3%	11.9% ^a
Girls	14.5%	22.1%	(Mexican only) 19.6%	12.0% ^b
Adolescents 12–19 years	15.5%	N/A	N/A	N/A
Boys	15.5%	20.5%	(Mexican only) 27.5%	13.0%
Girls	15.5%	25%	(Mexican only) 19.4%	12.2%
2002—Asthma < age 18				
Percent ever told had asthma	12.2%	17.7%	10.3%	11.4%
Percent had asthma attack in past 12 months	5.8%	8.6%	4.4%	5.5%

a. Overweight is defined as BMI at or above the sex- and age-specific 95th percentile BMI cutoff points from the 2000 CDC growth charts.

b. These data are considered unreliable and have a relative standard error of 20% to 30%. The standard error calculations for white boys and white girls aged 6 to 11 are 3.0 and 3.6, respectively.

Overpeck, Ruan, & Troendle, 2002). Compared with normal-birth-weight infants, LBW infants face a greater than fivefold increase in risk of death during the first year, and VLBW infants incur a 100-fold increase of death in the first year (CDC, 2004c).

Racial and ethnic disparities in the incidence of LBW and VLBW infants present a serious public health issue in the United States. The rate of LBW live births among non-Hispanic African American mothers in 2002 (13.4 percent) was approximately twice that of both non-Hispanic white mothers (6.9 percent) and Latino mothers (6.5 percent) (CDC, 2004c). Non-Hispanic African American mothers were also more than twice as likely to have a VLBW live birth than Latino mothers (3.15 percent and 1.17 percent, respectively) (CDC, 2004c). Jaffee and Perloff (2003) suggest that racial/ethnic disparities in the occurrence of LBW may be attributable to the inequality of living conditions. In a study of 158,174 singleton births in New York City, Rauh, Andrews, and Garfinkel (2001) found that African American women were more likely than white women to receive Medicaid, report substance use during pregnancy, be unmarried at time of birth, and report less years of formal education.

Genetic, lifestyle, and environmental factors may have a significant impact on birth weight outcomes. According to Jaffee and Perloff (2003), risk factors for LBW include smoking during pregnancy, drug use, limited or late utilization of prenatal care, and number of previous births. In the decades since Simpson's report (1957) on the impact of smoking on birth outcomes, maternal smoking during pregnancy has been well established as a major risk factor for LBW. According to Kramer (1987), maternal smoking is the most significant risk factor for LBW in developed countries. In 2001, 11.9 percent of U.S. mothers who smoked during pregnancy had a LBW newborn, compared with 7.3 percent of nonsmoking mothers (CDC, 2004c). Jaakola and Gissler (2004) found a 250-gram average reduction in birth weight of infants among mothers who smoked more than 10 cigarettes daily, as compared with nonsmoking mothers.

Early adolescent childbearing (maternal age 15 and under) has been noted as a significant risk factor for VLBW. In a 1995 study of U.S. singleton first births, Phipps and Sowers (2002) found that the rate of VLBW among very young mothers (age 15 and under) was 24 per 1,000 live births, compared with a rate of 15 per 1,000 live births for 16- to 19-year-old mothers, and 12 per 1,000 live births among mothers who were 20 to 23 years old. Additional findings from Phipps and Sowers revealed that mothers age 15 and under had higher rates of inadequate prenatal care—a well-known risk factor for LBW. Although early adolescent childbirth occurs across the socioeconomic spectrum, Koniak-Griffin and Turner-Pluta (2001) argue

that its incidence is much higher among ethnic minority and impoverished young women. They note that the poverty faced by many young women contributes to their late entry into prenatal care and, through poor nutrition, to their increased incidence of medical complications (Koniak-Griffin & Turner-Pluta, 2001). One factor that may contribute to the increased prevalence of LBW among adolescent mothers is that, because of the normal adolescent growth period, there is maternal-fetal competition for nutrients within the mother's body (Koniak-Griffin & Turner-Pluta, 2001). This competition may be exacerbated in resource-limited households and communities where nutritional foods may be less available or cost-prohibitive.

In recent years, the United States has experienced a significant rise in the rate of multiple births, due, in part, to the increased use of fertility drugs and procedures. Between 1981 and 1997 in the United States, there was a 39 percent increase in the twin birth rate and an astounding 358 percent increase in the triplet birth rate (Blondel et al., 2002). Such increases in multiple births, particularly twin births, have had a significant impact on raising the incidence rate of LBW in the United States (Blondel et al., 2002).

Childhood Asthma

Asthma is the most common chronic illness and the most prevalent cause of disability among children in the United States (Newacheck & Halfon, 1998). Between 1980 and 1996, the prevalence of childhood asthma increased from 3.2 to 6.2 percent, representing an annual average increase of 4.3 percent (Akimbani & Shoendorf, 2002). In 2002, 9 million U.S. children and adolescents under the age of 18 had been diagnosed with asthma at some point in their lives, representing 12.2 percent of the U.S. population under 18 years of age (CDC, 2004a). Also in 2002, 5.8 percent of U.S. children had experienced an asthma attack in the previous 12 months (CDC, 2004a). According to the CDC (2004b), asthma is the third leading cause of hospitalization among those under age 15, and it annually accounts for 14 million missed school days.

The prevalence of asthma varies by race and ethnicity. Non-Hispanic black children (17.7 percent) were more likely than either non-Hispanic white children (11.4 percent) or Latino children (10.3 percent) to have ever been diagnosed with asthma, and they were more likely to have had an asthma attack in the past 12 months (8.6 percent versus 5.5 percent and 4.4 percent, respectively) (CDC, 2004a). In a recent population-based study of 6,004 children in Los Angeles County, the prevalence of childhood asthma among African American children was 15.8 percent, compared with 7.3 percent among whites and 3.9 percent among Latinos (Simon, Zeng,

Wold, Haddock, & Fielding, 2003). Similar disparities in childhood asthma exist in terms of health outcomes and health care utilization. Compared with white children in 1997 and 1998, African American children were three times more likely to be hospitalized due to asthma, and they were four times more likely to die from asthma (Akimbani & Shoendorf, 2002).

A wide array of risk factors, many related to poverty, increase the risk of children developing asthma. Poverty status and family income have been found to be associated with both previous asthma diagnosis and incidence of asthma attacks (CDC, 2004a). Children living below the federal poverty level were more likely to have been diagnosed with asthma (15.0 percent) than those living between 100 percent and 200 percent of federal poverty guidelines (12.1 percent), as well as those living at or above 200 percent of the federal poverty level (11.7 percent) (CDC, 2004a). In 2002, 11 percent of children in families receiving Temporary Assistance for Needy Families (TANF) had asthma, compared with only 6 percent of children in families who did not receive such benefits (Child Trends Databank, 2004). Children receiving Medicaid (15.8 percent) were much more likely to have been diagnosed with asthma at some point in their lives than were children with private insurance or no insurance (11.1 percent and 9.5 percent, respectively) (CDC, 2004a). The lower prevalence of lifetime asthma diagnosis among uninsured children may be partly attributable to limited access to health care, resulting in a decreased likelihood of diagnosis even if asthma exists. Children living in single-mother-headed households were markedly more likely to have been diagnosed with asthma (16.6 percent) than children living with both a father and a mother (11.0 percent) (CDC, 2004a).

It has been well established that certain environmental conditions may be associated with the development of childhood asthma and that several indoor and outdoor environmental pollutants may exacerbate existing asthma (Woodruff et al., 2004). For example, environmental tobacco smoke (ETS), most commonly from parental smoking in the household, is a risk factor for increasing the likelihood of developing childhood asthma, as well as for exacerbating existing asthma in children (Strachan & Cook, 1998). In addition, dust mite and cockroach allergens have been linked to *asthma*-related health problems among inner-city children (Bradbury, 1997). A recent study found that children who were exposed to cockroaches at some point in their life incurred a significantly increased risk for developing childhood asthma and that cockroach exposure during infancy was associated with a twofold increase in risk for developing asthma (Salam, Li, Langholz, & Gilliland, 2004). In one study of 476 inner-city children with asthma, children who were both allergic and exposed to cockroaches were hospitalized for asthma more often, had more unscheduled asthma-related

medical visits, and missed school more often than asthmatic children without significant cockroach exposure (Rosenstreich et al., 1997).

A wide array of other factors also affect the risk of asthma among children. Findings from recent studies suggest that maternal smoking during pregnancy increases the risk of subsequent childhood asthma (Gilliland, Li, & Peters, 2001; Infante-Rivard, Gautrin, Malo, & Suissa, 1999; Jaakola & Gissler, 2004). Another recent study suggests that there is an association between LBW and childhood asthma (Steffenson et al., 2000). Both early day-care attendance and a history of recurrent ear infections have also been found to be associated with increased risk for childhood asthma (Eldeirawi & Persky, 2004; Salam et al., 2004). A recent study of almost 3,800 young people aged 7 to 18 years found that obese and overweight children were 50 percent more likely to be diagnosed with new-onset asthma and that new-onset asthma was diagnosed twice as often in overweight and obese boys, compared with normal-weight male counterparts (Gilliland et al., 2003).

Overweight and Obesity Among Children and Adolescents

Overweight has grown to epidemic proportions and is the most common health problem facing children in the United States (Strauss & Pollack, 2001). During 1999 and 2000, 15.3 percent of U.S. children aged 6 to 11 were overweight, as defined by the CDC. The CDC defines overweight as the Body Mass Index (BMI) at or above the sex- and age-specific 95th percentile BMI cutoff points from year 2000 CDC growth charts (CDC, 2004c). Overall, boys 6 to 11 years of age were more likely than girls to be overweight (16.0 percent versus 14.5 percent, respectively). Significant disparities exist between racial and ethnic groups (CDC, 2004c). The overweight prevalence rate in 1999–2000 among Mexican boys aged 6 to 11 was 27.3 percent, compared with 17.6 percent among black, non-Hispanic boys, and 11.9 percent in white, non-Hispanic boys (CDC, 2004c). Among U.S. girls aged 6 to 11, the prevalence of overweight was highest among non-Hispanic black girls (22.1 percent), compared with both Mexican and non-Hispanic white girls (19.6 percent and 12.0 percent, respectively) (CDC, 2004c).

Marked racial and ethnic differences in childhood overweight prevalence are also seen among U.S. adolescents aged 12 to 19 (CDC, 2004c). Among U.S. adolescent males aged 12 to 19 in 1999–2000, 27.5 percent of Latino adolescents of Mexican descent were overweight, a significantly higher percentage than both non-Hispanic African Americans and non-Hispanic whites (20.5 percent and 13.0 percent, respectively) (CDC, 2004c). Among female adolescents in the U.S., non-Hispanic African American females

(25.7 percent) were more likely to be overweight than either Mexican Latinas (19.4 percent) or non-Hispanic whites (12.2 percent) (CDC, 2004c). Between 1986 and 1998, overweight prevalence among white children increased by more than 50 percent, and increased by more than 120 percent among African Americans and Latinos (Strauss & Pollack, 2001). One recent study of youth aged 13 to 15 in 15 industrialized countries found that U.S. teens were the most likely to be overweight (Lissau et al., 2004). Obesity among older children has been found to be a significant risk factor for subsequent adult obesity, as has early obesity among children with obese parents (Whitaker, Wright, Pepe, Seidel, & Dietz, 1997).

Studies across disciplines have demonstrated that childhood obesity is caused by an interplay of factors (Gable & Lutz, 2000). Findings from a recent study by Stettler, Zemel, Kumanyika, and Stallings (2002) revealed that a pattern of rapid weight gain in the first three months of life was associated with childhood overweight at age 7. Findings from another recent study showed an association between clinically significant behavior problems in normal-weight children and an increased risk of becoming overweight 2 years later (Lumeng, Gannon, Cabral, Frank, & Zuckerman, 2003). Excessive television viewing has been identified as a significant risk factor for childhood overweight. Anderson, Crespo, Bartlett, Cheskin, and Pratt (1998) found that children who viewed television 4 or more hours each day had greater body fat and a greater BMI than children who viewed television less than 2 hours daily. One randomized controlled school-based intervention to reduce television, videotape, and videogame use among elementary school students resulted in statistically significant decreases in body mass index as compared with controls (Robinson, 1999). Gable and Lutz posit that food intake and eating habits depend on food availability in the home and that food availability depends largely on parental income and time availability. Gable and Lutz further argue that time to prepare healthy meals may not be available in dual-worker or single-parent homes and that low-income households may not be able to afford nutritional foods.

Sexually Transmitted Infections Among Adolescents

Sexually transmitted infections (STIs) are a significant health problem facing adolescents in the United States. Compared with older adults, adolescents and young adults are at increased risk for acquiring STIs (CDC, 2003a). Although those aged 15 to 24 represent only 25 percent of the sexually experienced population in the United States, almost half (48 percent) of the estimated 18.9 million new STI cases in 2000 were among young people aged 15 to 24 (Weinstock, Berman, & Cates Jr., 2004). Every year, approximately

140 Social Policy for Children and Families

one in four sexually active teens will contract a STI (Alan Guttmacher Institute [AGI], 1999). Despite a steady decline in the teen pregnancy rate in the United States over the past decade, the United States continues to have one of the highest rates of teen pregnancies among developed nations (AGI, 2002). The connection between unintended teen pregnancies and STI risk is crucial, considering that the risky sexual behaviors that may result in pregnancy also place teens at high risk for sexually transmitted infections.

It is difficult to estimate national STI rates due to state differences in reporting requirements. Currently, chlamydia, gonorrhea, syphilis, HIV, and hepatitis B are the only STIs that every state reports to the CDC (CDC, 2003a, 2004d). The accurate collection of incidence and prevalence data is profoundly inhibited by the wide variation in the quality of surveillance data at local and state levels as well as the lack of standardized state reporting mechanisms for many common STIs, including genital herpes and human papilloma virus (HPV). Disparities in reporting between public and private providers further challenge accurate STI data collection, resulting in the potential underestimation of many STIs diagnosed in the private health sector (Rounds, 2004). Additionally, many STIs can be asymptomatic and remain undetected, further contributing to the underestimation of STI rates among adolescents (Rounds, 2004). Lack of access to health care, which poses a significant issue among many adolescents, may also add to the underestimation of STI rates. Table 5.2 provides estimates of the incidence of STIs among 15- to 24-year-olds in the United States.

Among STIs that are required to be reported by states, chlamydia and gonorrhea are more prevalent, and each can cause serious health consequences if undetected or left untreated, particularly in young women (CDC, n.d.). In 2000, 74 percent of all reported chlamydia infections (that included age data) were among young people aged 15 to 24 (Weinstock et al., 2004). Among women in 2002, the highest age-specific reported prevalence rate of chlamydia was in young women aged 15 to 19, with 2,619 cases per 100,000 females, a significantly higher rate than among male age-mates (CDC, 2003a). According to the CDC (2003b), the year 2002 median state-specific chlamydia rate among young women aged 15 to 24 in selected prenatal clinics was 7.4 percent. Compared with many other STIs, syphilis and hepatitis B are relatively rare among adolescents and young adults in the United States. It is estimated that for the year 2000, there were 21 new syphilis cases and 19 new hepatitis B cases per 100,000 young people aged 15 to 24 (U.S. Census Bureau, 2004; Weinstock et al., 2004).

Sixty percent of reported gonorrhea infections in 2000 were among those aged 15 to 24 years (CDC, 2003a). In 2002 gonorrhea was reported highest among women between the ages of 15 and 24 and among men aged

Table 5.2 Common Risk Factors for Risky Adolescent Sexual Behaviors

<i>System Level</i>		
<i>Individual Characteristics</i>	<i>Family Conditions</i>	<i>Environmental Conditions</i>
<ul style="list-style-type: none"> • Inadequate communication skills • Substance abuse • Depression • Sense of invulnerability • Negative attitudes, beliefs, and intentions about safer sex practices • Inadequate perception of risk • Lack of knowledge about sexuality and safer sex practices • Having been sexually abused • Early puberty • Early initiation of sexual activity • Incomplete cognitive development • Intention to initiate intercourse • Inability to use condoms properly 	<ul style="list-style-type: none"> • Poor parental supervision • Family sexual abuse • Older siblings who are sexually active • Chaotic family life • Family norms that accept early initiation of sexual intercourse and multiple partners • Poor parent–adolescent relationship and communication 	<ul style="list-style-type: none"> • Limited sexuality education (e.g., abstinence-only) • Lack of easy/free condom availability in community • Peer pressure • Community norms that accept early initiation of sexual intercourse and multiple partners • Media that sexualizes women and promotes risky sexual practices • Lack of emphasis on prevention • Environments or activities where alcohol and drugs are used • High-risk environment

20 to 24 (CDC, 2003a). In young women aged 15 to 19, there were 675.6 cases of gonorrhea per 100,000 in 2002, representing a slight decrease from 2001 (CDC, 2003a). Among males aged 15 to 19, the gonorrhea prevalence rate in 2002 was significantly lower at 287.9 cases per 100,000 (CDC, 2003a).

As previously noted, states are not required to report cases of herpes simplex virus (HSV) and human papilloma virus (HPV) to the CDC (CDC, 2003a). Both of these viral infections can be asymptomatic and therefore are frequently transmitted to others by those unaware of their infection. There is little precise information about the prevalence or incidence of either STI among adolescents in the United States, though both are widely prevalent among young people.

The overall U.S. STI rates do not reflect the disproportionate impact of STIs on certain high-risk adolescent populations—for example, youth in the juvenile justice system. The presence of chlamydia. The term *presence of Chlamydia* does not work well. I think that this should read: “Prevalence rates of *Chlamydia* among young women entering juvenile detention facilities has been found to be markedly higher than rates among women entering adult correctional facilities.” among young women entering juvenile detention facilities has been found to be markedly higher than that among women entering adult correctional facilities. In 2002 the median prevalence rate among adolescent females entering juvenile correction facilities was 16.7 percent (positivity was more than 10 percent in 31 of 32 reporting facilities), compared with 3.2 percent of women entering adult corrections facilities (CDC, 2003a). Among young men entering juvenile correctional facilities in 2002, the median prevalence of chlamydia was 6.0 percent (CDC, 2003a). The median site-specific gonorrhea rate among adolescent females entering 22 juvenile correctional facilities in 2002 was 5.6 percent, compared with 1.7 percent among males entering 25 facilities (CDC, 2003a). One study of adolescents in two juvenile detention facilities found that 22.2 percent of females had chlamydia, compared with 8.7 percent of males (Kelly, Bair, Baillargeon, & German, 2000).

Through the Adolescent Women Reproductive Health Monitoring Project, young women under 20 years of age are screened for STIs in nontraditional settings such as school clinics, juvenile corrections facilities, substance abuse treatment facilities, and organizations serving street youth (CDC, 2003a). In 2002 the median site-specific chlamydia rate in school clinics was 13.2 percent. The median site-specific gonorrhea prevalence rate in school clinics was 4.3 percent in 2002 (CDC, 2003a). Chlamydia has also been found to be highly prevalent (median state-specific positivity was 10.1 percent) among economically disadvantaged young women 16 to 24 years of age in the National Job Training Program, through which an average of 20,000 young women have been screened for chlamydia each year since 1990 (CDC, 2003a).

Human immunodeficiency virus (HIV), the virus that over time leads to acquired immunodeficiency syndrome (AIDS), disproportionately impacts adolescents in the United States. Researchers estimate that half of all new HIV infections in the United States occur among young people aged 15 to 24, of which 15,000 (out of 20,000) acquire the virus through sexual transmission (Rosenberg & Biggar, 1998; Weinstock et al., 2004). In areas with confidential reporting, HIV infections in females aged 13 to 24 have accounted for 47 percent of all HIV cases among women (CDC, 2002a). Young women, young men who have sex with men (MSM), and young

African Americans are particularly impacted by HIV/AIDS (CDC, 2002a). In a sample of MSM aged 15 to 22 in seven urban areas, researchers found that 7 percent were living with HIV infection (CDC, 2002a). The rate of HIV infection among young white males in this sample was 3 percent, compared with 14 percent of young African American males (CDC, 2002a). In areas with confidential HIV reporting, 56 percent of all HIV cases ever reported for those aged 13 to 24 have been among African Americans (CDC, 2002a). Between 1981 and 2000, African American adolescent females were 3.7 times more likely to report HIV infection than white adolescent females, and African American adolescent males were 1.7 times more likely to report HIV infection than their white counterparts (Maternal and Child Health Bureau, 2003). The link between HIV and infection with other sexually transmitted diseases is important because individuals with STIs other than HIV are at higher risk than uninfected individuals of becoming infected with HIV when exposed to the virus through sexual contact (CDC, 2004e).

Many biological, developmental, and social factors place sexually active adolescents at higher risk than older adults for STIs. (See Table 5.2 for a summary of risk factors that have been found to be associated with risky adolescent sexual behavior.) Adolescents are more likely than older adults to have unprotected sex and multiple sex partners (either concurrent or sequential), resulting in an increased risk of exposure to a STI-infected partner (CDC, n.d.). According to the Youth Risk Behavior Survey in 2001, only half of all sexually active 12th graders reported using a condom during their last sexual intercourse (CDC, 2002b). One in four sexually active high school seniors reported having used alcohol or other drugs before their last sexual intercourse, and more than one in five self-reported having four or more lifetime sex partners (CDC, 2002b). Young women are at increased risk for STIs because, compared with young men, they have an increased biological susceptibility to many STIs, and they have a greater likelihood of choosing older, more experienced, and therefore potentially exposed sexual partners (CDC, n.d.).

One recent study found that adolescent females who self-reported a history of sexual abuse were more likely to have had consensual sexual intercourse before age 14, to have contracted a STI, and to have had three or more sexual partners in the past 3 months (Buzi et al., 2003). Findings from Raj, Silverman, and Amaro (2000) revealed that both adolescent males and females who report a history of sexual abuse also report increased sexual risk behaviors. Shrier, Harris, and Beardslee (2002) found that both female and male adolescents with higher frequency of depressive symptoms were more likely to have been diagnosed with an STI 1 year later. Shrier et al. posit that depressed individuals may engage in risky sexual behaviors as a way of coping with

depressive symptoms. In a study of African American adolescent females, body image dissatisfaction was associated with a greater likelihood of unprotected vaginal intercourse, perceived limited control in sexual relationships, and fear of abandonment as a result of negotiating condom use (Wingood, DiClemente, Harrington, & Davies, 2002). Adolescents may face numerous barriers to high-quality STI prevention and treatment services. Lack of insurance or alternative payment source, lack of youth-friendly services, lack of transportation, and confidentiality concerns can all inhibit adolescents from accessing quality services that address sexual health needs (CDC, 2003a).

Access to Care as a Protective Factor

Although research has clearly identified biological, developmental, lifestyle, and environmental risk factors associated with health problems, research on protective factors has been more limited. In the case of children and youth at risk for poor health outcomes, access to health care is a protective factor. A host of factors that facilitate access to health care may also be seen as providing a protective effect. Health insurance and health care delivery models that make health care accessible (e.g., community-based care, school-based care, convenient hours, support services, perceived confidentiality among adolescents, and culturally competent services) have a major impact on whether or not services are accessible and utilized. Access to health care (i.e., an acceptable provider is available, the individual can get to the provider, and the individual has health insurance to pay for medical care) serves as a protective factor when a child needs medical care (Fraser & Terzian, in press). That is, access to medical treatment may reduce or buffer the effect of the health condition. For example, ongoing medical treatment for asthma reduces the likelihood that a child will experience an acute episode requiring treatment in the emergency room. Access to health care can also serve as a protective factor by interrupting a chain of risk (Fraser & Terzian, in press). For instance, early medical treatment for chlamydia, combined with counseling and education on safe sexual practices may reduce the likelihood that an adolescent girl will develop long-term reproductive-health problems. As a protective factor, access to care can also prevent or block the onset of a risk factor (Fraser & Terzian, in press). One example of this aspect of the protective factor is found in the case of a mother of a young child who has access to ongoing preventive health services that may prevent her child from becoming at risk for obesity.

Access to health services, or the lack thereof, is closely related to the discussion of poverty-related risk factors identified for each of the previously

discussed childhood and adolescent health problems. Ford, Bearman, and Moody (1999) found that older adolescents, racial/ethnic minorities, sexually active youth, uninsured youth, and those in single-parent homes were more likely to have neglected health care—a significant risk factor for a wide array of health problems. Newacheck, Hughes, Hung, Wong, and Stoddard (2000) found that 7.3 percent of children in the United States had at least one unmet health need. In addition, they found that poor and near-poor children had a threefold increase of risk for having an unmet health need.

Availability of health insurance as one component of access to care serves [take out serves] is a critical protective factor to increase the likelihood that children and adolescents will receive health care. It is estimated that 12 percent of children in the United States had no form of health insurance in 2001 (Annie E. Casey Foundation, 2004). Newacheck, Brindis, Cart, Marchi, and Irwin (1999) found that 14.1 percent of adolescents were uninsured in 1995 and that older adolescents, minorities, those in low-income families, and those in single-parent households were significantly more likely to be uninsured. Additional findings from the same study revealed that adolescents without health insurance, either public or private, were five times more likely to lack a usual health care provider, four times more likely to have unmet health needs, and twice as likely to miss at least annual contact with a health care provider.

Although the absence of insurance coverage is a major factor related to access to health care (Newacheck et al., 1999), health insurance alone may not be enough to ensure that children and adolescents have easy [take out “easy”] access to health care services, particularly among those who are low-income (Rosenbach, Irvin, & Coulam, 1999). As previously noted, having a usual source of care may reduce many barriers to health care services, although it does not ensure that such services will be utilized (Rosenbach et al., 1999). Many nonfinancial factors also appear to affect health care accessibility and utilization. These include delivery system structure, provider availability, preventive care education, enabling services (e.g., transportation and translation), child care, and appointment reminders (Newacheck, Hung, Park, Brindis, & Irwin, 2003; Rosenbach et al., 1999).

Risk, Resilience, and Protection in Health Policy for Children and Youth

In this section we present a brief overview of the development of child health policy from the beginning of the twentieth century to the present. We also examine the effectiveness of health policies in meeting the health care needs

of children and youth. We conclude by discussing the degree to which policy has been based on risk and protective factors.

Historical Development of Child Health Policy

Child health policy has developed in a piecemeal way, with policy initiatives often having been episodic responses to the failure of the private market place (Barr et al., 2003). Although the federal government was involved to some extent in responding to children's health and mental health needs through the establishment of the Children's Bureau in 1912 and then later through the establishment of the Maternal and Child Health service system, it did not become heavily involved in financing health care for children and youth until the establishment of the Medicaid Program in 1965. Table 5.3 provides a chronological listing of major policy initiatives and their primary purposes.

At the turn of the twentieth century, living conditions were so poor for many American families that the average state infant mortality rate was 150/1,000. In some industrial cities it was as high as 180/1,000 (Margolis, Cole, & Kotch, 1997). In response to this high infant mortality rate, social workers joined forces with public health workers and advocates from the fields of education, medicine, and labor to lobby for passage of legislation to establish the Children's Bureau in 1912 (Margolis et al., 1997). The Children's Bureau was initially created with a mandate to study the problem of infant mortality and address the problem by disseminating information on promising interventions to the states. Based on the success of the Children's Bureau, Congress passed the Sheppard-Towner Maternity and Infancy Act in 1921, creating the first national maternal and child health program that provided grants in aid to states. The Sheppard-Towner Act represented the first federal effort to establish a maternal and child health infrastructure within the states, and it laid the groundwork for future collaboration between state and federal governments to address maternal and child health (Kessel, Jaros, & Harker, 2003; Margolis et al., 1997). During the 8 years the Act was in effect, the number of permanent maternal and child health centers and state child hygiene and welfare programs increased.

The Sheppard-Towner Act was not renewed in 1929, and the Great Depression had a major impact on the ability of states to provide maternal and child health services. These events contributed to an increase in infant mortality across the nation. In response to rising infant mortality rates and the widespread poverty among women and children, Title V of the Social Security Act was passed in 1935. Title V had three parts that were administered under the Children's Bureau: (1) Maternal and Child Health Services

Table 5.3 Chronology of Key Child Health Policy Legislation 1900 to Present

<i>Legislation</i>	<i>Purpose</i>
1912 Children's Bureau Established	Studied and began to address the high rates of infant mortality
1921 Sheppard-Towner Maternity and Infancy Act	Established the first national Maternal and Child Health program, provided grants-in-aid to states to develop local and state maternal and child health infrastructures
1935 Social Security Act, including Title V Maternal and Child Health Program	Title V—Created a coordinated Maternal and Child Health service system based on a federal-state partnership
1965 Title XIX amended the Social Security Act to establish the Medicaid program	Provided health insurance to children and families in poverty
1981 Omnibus Budget Reconciliation Act of 1981 (OBRA '81) Maternal and Child Health Services Block Grant Amendments to Title V	Shifted program planning, control, accountability for Maternal and Child Health programs from federal to state and local governments
1989 Omnibus Budget Reconciliation Act (OBRA '89)	Established stricter reporting requirements for Title V and supported development of systems of care for Children with Special Health Care Needs (CSHCN); expanded the Early and Periodic, Screening, Diagnosis, and Treatment (EPSDT) program; mandated Medicaid coverage of children younger than 6 years with family income up to 133% of Federal Poverty Level (FPL)
1996 Personal Responsibility Work and Opportunity Reconciliation Act (PRWORA)	De-linked Medicaid eligibility with public assistance
1997 Title XXI (SSA), State Child Health Insurance Program (SCHIP) established	Expanded the health insurance safety net to cover more low-income children who were not eligible for Medicaid and whose families could not afford private insurance

148 Social Policy for Children and Families

(MCH) enabled states to expand services that had been provided by the Sheppard-Towner Act; (2) Services for Crippled Children's Program (CCS) enabled states to locate and provide medical and other services for children who had "crippling conditions"; and (3) Child Welfare Services (CWS) enabled states to provide services to homeless, dependent, and neglected children (Kessel et al., 2003). Title V funding through the Services for Crippled Children's Program was the only source of federal funding for children with special health care needs (the majority of whom needed orthopedic treatment as a result of the polio epidemic) until 1965, when the Medicaid Program was established.

Title V has been amended numerous times over the past decades. The Omnibus Budget Reconciliation Act of 1981, PL 97-35, consolidated seven Title V categorical programs into a block grant program. The Omnibus Budget Reconciliation Act of 1989 (OBRA '89) PL 101-239, introduced stricter requirements for state planning and reporting regarding use of Title V funds. OBRA '89 gave authority to the Maternal and Child Health Bureau to help develop systems of care for children with special health care needs (CSHCN) and their families, and expanded the mission of CSHCN programs to promote the development of community-based systems of services (McPherson et al., 1998). State health departments administer the Title V MCH Services Block Grant Program (Maternal and Child Health Bureau, 2000b). The federal government requires states to conduct a statewide needs assessment every 5 years and to submit a plan for meeting those needs. Title V Block Grant funds are used primarily for service system development to reduce infant mortality and the incidence of disabilities and to provide and ensure access to health care for women of reproductive age, access to preventive and primary care services for children, and access to family-centered, community-based, coordinated care for children with special health care needs.

The Medicaid program was enacted in 1965 as a joint state and federally funded health insurance program for women who were on public assistance and their children and other persons who were elderly, blind, or disabled. Each state administers its own Medicaid program according to federal guidelines. The federal government provides matching funds for some of the state Medicaid costs (on average about 57 percent of costs are matched). In 1967 the Early and Periodic Screening, Diagnosis, and Treatment Program (EPSDT) was created as a unique prevention component of the Medicaid program to ensure that children receiving Medicaid would receive preventive health services in addition to acute and chronic medical care (Sardell & Johnson, 1998). The EPSDT program requires states to offer age-appropriate screenings and immunizations, follow-up diagnostic

services, and medical treatment. Because many states never completely implemented their EPSDT program and in order to increase the number of children receiving preventive care, Congress included provisions in the Omnibus Budget Reconciliation Act (OBRA '89) that expanded EPSDT by requiring states to conduct aggressive outreach and case-finding efforts as well as to provide enabling services such as case management, transportation, and translation services (Rosenbach & Gavin, 1998).

During the 1980s and 1990s the rates of children and youth covered by private health insurance substantially declined. This was due to several factors, including the loss of manufacturing jobs that often offered employees and their families affordable health insurance and a concomitant rise in lower-paying service jobs, which often did not offer employees affordable health insurance. The proportion of workers who were hired in contract or part-time positions, which typically do not carry health insurance benefits for the worker or his or her family, also increased. In addition, during this period the cost of health insurance for employers rose significantly, and many employers changed policies to cover only the employee and not the family (Moniz & Gorin, 2003; Newacheck et al., 1999).

To deal with the loss of private health insurance coverage and the resulting increase in uninsured children and youth, Congress passed a series of Medicaid expansions beginning in the mid-1980s. For example, the Omnibus Budget Reconciliation Act of 1989 (OBRA '89) required states to cover pregnant women and children up to the age of 6 with family incomes that were up to 133 percent of federal poverty guidelines. The early expansions focused solely on infants and young children. Later, the Omnibus Budget Reconciliation Act of 1990 (OBRA '90) mandated coverage of adolescents up to 16 years of age with family incomes of as much as 100 percent of the federal poverty guidelines (Newacheck et al., 1999).

These Medicaid expansions began the "de-linking" of Medicaid with public assistance status. This de-linking process was finally completed in 1996 with the passage of the Personal Responsibility Work and Opportunity Reconciliation Act (PRWORA) (Moniz & Gorin, 2003). PRWORA separated the determination of eligibility for Medicaid from Temporary Assistance for Needy Families (TANF). Currently, the federal government requires states to provide Medicaid coverage for children up to age 5 in families with incomes of as much as 133 percent of the poverty guidelines and to cover children from the ages of 6 to 18 in families with incomes as much as 100 percent of the poverty guidelines.

The Balanced Budget Act of 1997 created the State Children's Health Insurance Program (SCHIP) to address the large number of uninsured children of low-income working families who were not eligible for Medicaid because

150 Social Policy for Children and Families

their family income exceeded the eligibility criteria. Unlike Medicaid, SCHIP is not an entitlement program. Under federal legislation, states have been given tremendous flexibility to use SCHIP allocations to create separate SCHIP programs, expand their Medicaid programs, or develop a combination of both. States are also allowed to determine eligibility; among the states, eligibility ranges from 133 percent to 350 percent of the federal poverty guidelines. State dollars are matched by federal dollars. States with lower per capita income receive a higher federal match rate. States are also allowed to require monthly premiums or co-payments for participation in their SCHIP programs; but these may not exceed 5 percent of a family's annual income (Gehshan, 2003).

The success of SCHIP has been highly variable and largely dependent upon each state conducting aggressive and effective outreach, enrollment, and renewal efforts. Although Medicaid and SCHIP "constitute a genuine safety net for most low-income children," there are still close to 8.5 million children who are uninsured, and it is estimated that more than half of these are eligible for Medicaid or SCHIP (Families USA, 2004). Because of barriers to enrollment and renewal, many eligible children are currently not enrolled. In addition, because of constraints on state budgets, outreach efforts have been reduced in many states, and some states have frozen enrollment in their SCHIP programs (Families USA, 2004). According to some reports, Medicaid and SCHIP "if implemented effectively—by aggressively enrolling all eligible children, eliminating barriers to coverage for immigrant children, and modestly expanding coverage to more low-income families" could provide coverage to all children in families with incomes under 200 percent of federal poverty guidelines in the U.S. (Baron, Kleinmann, & Sylvester, 2003).

The Degree to Which Policy Has Been Based on Risk and Protective Factors

As stated earlier in this chapter, for many children and youth, access to care serves as a protective factor in the face of health risk. Federal health policy has primarily attempted to address risk factors associated with poor health outcomes by increasing access to preventive and medical care services. Federal health policy has attempted to increase access in two ways: (1) through the creation of public health insurance programs for low-income children (first through Medicaid and then through SCHIP); and (2) through supporting infrastructure development to ensure that services are delivered in a coordinated and accessible manner (primarily through Title V of the Social Security Act).

Protective Role of Health Insurance

Numerous studies have demonstrated the key role that health insurance plays in increasing access to health care for children and youth (Newacheck et al., 1999; Newacheck, Pearl, Hughes, & Halfon, 1998). Beginning in the 1980s with the expansion of eligibility for Medicaid and extending through the implementation of the SCHIP program, the federal insurance safety net has covered an increasing percentage of low-income children. However, many children still remain uninsured. In 2002, more than half of the 8 million children who were uninsured were eligible for either Medicaid coverage or SCHIP (Institute of Medicine, 2002).

Some policymakers and researchers argue that the most effective way to ensure that children have health insurance coverage and receive needed care is to approach insurance coverage at the family level as opposed to the individual level. In the Institute of Medicine's *Health Insurance Is a Family Matter* (2002) experts posit that the health of the parents affects children's health, well-being, and opportunities in later life and that the insurance status of parents influences the use of health services by their children. The federal government has yet to take a family approach to providing public health insurance.

Concept of a "Medical Home"

Although public insurance programs such as Medicaid and SCHIP have provided an important health insurance safety net for children and youth, insurance coverage alone is not sufficient for ensuring access to health services (Dubay & Kenney, 2001; Newacheck et al., 2003; Rosenbach et al., 1999). Coordinated systems of care also need to be in place to respond to health care needs of children and youth. Federal policymakers have addressed systems issues primarily through programs funded by Title V of the Social Security Act. For example, one of the hallmarks of coordinated care is to ensure that children have continuous access to routine health care and that medical services are integrated with other child/youth services. The American Academy of Pediatrics and other advocacy groups have worked closely with the Maternal and Child Health Bureau to implement the "medical home" concept for all children, especially children with special health care needs (American Academy of Pediatrics, 2002). Although the term *medical home* was originally defined as a place, it has evolved to define a partnership with families to ensure that children and youth are receiving care that is "accessible, family centered, coordinated, comprehensive, continuous, compassionate, and culturally effective" (Sia, Tonniges, Osterhus, & Taba,

2004). Examining data from the National Survey of Children with Special Health Care Needs, investigators found that when children have a medical home, they experience significantly less delay in seeking care, fewer unmet health care needs, and fewer unmet needs for family support services (Strickland et al., 2004). One of the child health objectives in *Healthy People 2010* is to “increase the proportion of children with special health care needs who have access to a medical home” (U.S. Department of Health and Human Services, n.d.). The Head Start program and the MCHB Title V Block Grant program require that states report on how and to what degree they are achieving this objective.

Another systems approach to increasing access to health care for children and youth is to deliver health care where a majority of children spend a large portion of their day. Policy initiatives to support the development and ongoing operation of school-based and school-linked health centers reflect this approach. Delivering integrated services through school-based health centers will be discussed in the next section on service integration.

The Case of “Abstinence Only” Versus More Comprehensive Programs

One area of controversy regarding how well federal health policy has been informed by risk and protective factors is that of adolescent sexual health. Comprehensive sexual health education can serve as a protective factor by providing youth with the knowledge and skills necessary to make healthy decisions about sexual behavior. In fiscal year 2002, \$102 million in federal funds were allocated for abstinence-only education, yet there was no federal program that supported comprehensive sex education to teach young people about both abstinence and contraception (AGI, 2002). Federal law requires that abstinence-only sexuality education teach that sexual activity outside of marriage is wrong and harmful for everyone, irrespective of age (AGI, 2002). This mandate restricts educators from providing information on contraceptive methods, with the exception of emphasizing their ineffectiveness (AGI, 2002). Perhaps most disturbing is that after years of evaluation of abstinence-only programs, no credible evidence has shown that such restrictive education delays adolescent sexual activity (AGI, 2002). However, empirical evidence does suggest that abstinence-only models may reduce contraceptive use among sexually active young people, thereby increasing their risk for STIs and unplanned pregnancies (AGI, 2002). Furthermore, research has demonstrated that the most effective sexuality education programs are comprehensive in nature, incorporating both abstinence promotion and discussion of safer

sex options (Centers for Disease Control and Prevention, 2002a). Abstinence-only policies continue to exist widely despite the fact that more than 75 percent of parents support sexuality education that addresses the use of condoms and other contraceptive methods, sexual orientation, and peer pressure to have sex (AGI, 2002).

Using Knowledge of Risk, Protection, and Resilience to Achieve Service Integration in Health Policy

Meeting the needs of children and youth, especially those involved in multiple service systems, requires policies that promote integration and collaboration among service systems. In this section we use a case study of an adolescent with multiple problems to illustrate how integrated service systems can best meet the needs of children and youth. We use the school-based health center model as an example of how services can be integrated to respond to the multiple challenges of children and youth. School-based health centers (SBHC) serve as an important safety net for primary care—nearly two thirds of students who have access to SBHCs are ethnic minorities and a substantial proportion of schools are in low-income communities (American Academy of Pediatrics Committee on School Health, 2001). These centers have been successful at integrating health and mental health care with educational services because services are delivered where the majority of children and youth spend a large portion of their day. For adolescents in particular, who are more likely to use health care services on a “spontaneous basis” (Pastore & Techow, 2004, p.195), school-based health centers offer location, convenience, confidentiality, and trust—all factors associated with the utilization of health and mental health services by adolescents (Brandis et al., 2003).

Background and Current Status of School-Based Health Centers

During the 1970s several communities established school-based health clinics to serve low-income children. The Robert Wood Johnson Foundation (RWJ) joined these efforts in 1978 by underwriting a 5-year School Health Services Program that put nurse practitioners in elementary schools serving 150,000 students in Colorado, New York, North Dakota, and Utah. In response to a national concern over the deteriorating health status of children and adolescents, RWJ launched the Community Care Funding Partners Program in 1981. Five of the eight cities in this program located

community health centers in secondary schools. Based on the success of this program, in 1986 RWJ launched the School-Based Adolescent Health Care Program to evaluate whether or not school-based health centers could be sustained by communities and could effectively deliver comprehensive medical and mental health services to teens. The foundation used strict criteria to fund 24 centers in 14 cities. The criteria emphasized the need for community advisory committees and coalition building among corporations, foundations, schools, and health and welfare agencies (Brodeurk, 2000).

Early Findings

A 1993 evaluation of the School-Based Adolescent Health Care Program found that, although the program had little effect on decreasing high-risk behavior, the centers had increased access to care for students (especially low-income students) who had previously not received care. More than half of the students who were enrolled in the participating schools were receiving care from the centers. Another critical issue revealed in the evaluation was that the centers had not been sufficiently successful in obtaining reimbursement from third-party insurers, including Medicaid.

Through the early 1990s local health departments, private foundations, and the Maternal and Child Health Bureau funded school-based health centers. Because of limited funding to support the development of centers, the RWJ Foundation initiated "Making the Grade: State and Local Partnerships to Establish School-Based Health Centers." The goal of this initiative was to reorganize state and local funding policies to support comprehensive health care for children and adolescents as well as to improve administrative procedures enabling school-based health centers to receive reimbursements through Medicaid (Brodeurk, 2000).

Recent Findings

Two recent national reports on school-based health centers indicate that the centers are no longer in a demonstration phase, the number of centers has been growing, and the centers are an effective model for health and mental health care delivery to children and youth (Juszczak, Schlitt, & Odium, 2003; Schlitt et al., 2000; The Center for Health and Health Care in Schools, 2002). The summary of the results from the national survey conducted by the National Assembly on School-Based Health Care, *Creating Access to Care for Children and Youth: School-Based Health Center Census 1998-1999* (Schlitt et al., 2000) reported [that] there are 1,135 centers located in 45 states (51 percent of the centers are located in schools with

high school grades). Hospitals, local health departments, and community health centers represent[ed] 73 percent of sponsors. Approximately 70 percent of the centers provide mental health services. More than one-half of the centers have opened within the past 4 years, and 70 percent of these centers opened in elementary or middle schools. Once primarily located only in urban areas, school-based health centers have expanded to suburban and rural schools (Juszczak et al., 2003).

Providing Concurrent Health and Mental Health Care Through School-Based Clinics

According to the National Assembly report, nearly all SBHCs offer the following: comprehensive health assessments (90 percent), minor acute illness care (96 percent), psychosocial assessments (80 percent), crisis intervention (79 percent), and brief therapy for mental health problems (67 percent). Approximately 70 percent also offer substance abuse counseling and case management, evaluation, and treatment for mental health problems. In the secondary school centers, 56 percent provide gynecological exams and 60 percent provide diagnosis and treatment of STIs (Juszczak et al., 2003). Other studies have shown that SBHCs are an important secondary access point for teens, especially with regard to behavioral health care services. In Kaplan's 3-year study conducted in Denver, researchers found that teens who were enrolled both in a SBHC and in a managed-care organization were much more likely to use the SBHC for behavioral health care. Only 3 percent of youth who were enrolled in both used the managed-care organization for behavioral health care (Kaplan, Calonge, & Guernsey, 1998). In an evaluation of a SBHC serving two schools in New York City, Pastore and Techow (2004) concluded that "on-site mental health services and their immediate availability for crisis intervention allow teenagers to engage in individual, family and group treatment before problems become so severe that they interfere with their education" (Pastore & Techow, 2004, p. 194).

The following case study illustrates how a SBHC serves as a protective factor by providing access to care to a youth with several risk factors for poor health and mental health outcomes. Because of their location (where the majority of children and youth spend their day) and their collaborative philosophy and interdisciplinary approach to providing services, SBHCs are well positioned to integrate services for children and youth. [should this sentence be the beginning sentence for the paragraph? It might flow better and lead right into the case]

Case Study

James, a 14-year-old African American male, lives with his 31-year-old single mother and 8-year-old sister in a public housing project on the outskirts of town. James's mother works in a local fast-food restaurant and has no health insurance. As a freshman in high school, James is experiencing a great deal of anxiety about fitting in with his classmates, often feels sad, is not sleeping well, and is falling behind in his course work because of his lack of motivation and problems concentrating. Like many of his friends, James is experimenting with alcohol, marijuana, and other drugs, and has recently become sexually active. He had unprotected vaginal sex at a party the previous week, and he has been experiencing a firelike burning during urination for the past 2 days. James is worried that he might have gonorrhea, but he has no idea of where to go for help. He is very uncomfortable and does not want to go to school, yet he feels that there is no way he can let his mom find out about his condition.

James is fortunate in that he attends a school with a school-based health center that offers comprehensive services. On the urging of his best friend, who has had several good experiences at the center, James drops by the center for a visit during lunch. Because his mother signed an enrollment form for the health center when he entered high school, he is able to receive confidential services without the center contacting her. A nurse practitioner sees him initially for assessment and medical treatment of his STI. The social worker also conducts an initial psychosocial assessment and schedules a time to meet with James the next day. She plans to follow up with his concerns about school and his feelings of sadness, and to learn more about his recent drug and alcohol use and sexual behavior. James has given the social worker permission to access his school records and talk with his teachers and school counselor. The social worker will be able to contact other staff at the health center for assistance in evaluating James and providing him with needed services. A psychiatrist provides consultation services to the school-based health center staff and conducts psychiatric evaluations and prescribes and monitors psychiatric medications. In addition, the health center staff provides counseling and conducts groups on a number of health and mental health topics, such as substance abuse, sexual health, and coping with relationships. The health center has recently begun participating in an innovative SCHIP outreach initiative to increase the enrollment of eligible youth. The social worker thinks that James probably meets the eligibility criteria and with James's permission she will contact James's mother to assist her in enrolling both of her children. James's enrollment in the SCHIP program will allow the center to be reimbursed for services as well as help the social worker access additional health and mental health services for James if he needs them.

Case Study Questions for Discussion

What would most likely happen to James if a school-based health center did not exist in his school?

How would he find out how to get care?

Where would he receive care and when?

Who would pay for his care?

How comprehensive would his care likely be?

What is the likelihood that James would be assessed and treated for any other conditions or problems than his presenting symptoms (i.e., burning on urination)?

Summary

In this chapter we have reviewed risk factors for several major health problems (LBW, asthma, overweight and obesity, and sexually transmitted infections) experienced by children and youth. Although there are risk factors that are unique to each of these health problems, two major risk factors are common across health problems. These are poverty and living in socially and physically unhealthy environments (Fraser, 2004; Moniz & Gorin, 2003). Access to care, which includes both access to health insurance and to coordinated systems of care, plays a major role in decreasing the risk for poor health outcomes and protecting children and youth from developing health problems.

U.S. health care policy has increased children's access to health services through the creation of public health insurance programs (e.g., Medicaid and SCHIP). Through Title V of the Social Security Act and other initiatives, the federal government has supported the development of a more coordinated and comprehensive service system. The concepts of the "medical home" and SBHCs are recent examples of efforts at coordination and integration. SBHCs are a promising example of integration of health, mental health, and educational services provided in a location that is accessible to children and youth enrolled in schools. However, attempts to fully integrate services for children and youth across major service systems (health, mental health, education, child welfare, and juvenile justice) are still in their infancy and much remains to be accomplished. Furthermore, federal policy has had very limited success in reducing the number of children living in poverty or near poverty or ensuring that children and youth live in healthy environments. To truly make a significant difference in the health of children and youth, federal policy cannot be constrained to the mere creation of coordinated systems of care, though this would be a substantial achievement. It must address also the poverty and social inequities associated with poor health and well-being.

Questions for Discussion

1. Unlike any other industrialized nation, the United States does not have universal health coverage for its children and youth. Why is this?
 2. Given the success of school-based health clinics in integrating service systems for children and youth, why has their establishment not been more widespread?
 3. What other service delivery models are you aware of that integrate service systems, including health care for children and youth? What policies needed to be in place for these service delivery models to be created?
-

Additional Reading

- Alan Guttmacher Institute. (1999). *Facts in brief: Teen sex and pregnancy*. http://www.agi-usa.org/pubs/fb_teen_sex.html
- American Academy of Pediatrics Committee on School Health. (2001). School health centers and other integrated school health services. *Pediatrics*, *107*, 198–201.
- Baron, J., Kleinmann, J. H., & Sylvester, K. (2003). Health insurance for children: Issues and ideas. *The Future of Children*, *13*, 1–32.
- Green, M., & Palfrey, J. S. (Eds.). (2000). *Bright futures: Guidelines for health supervision of infants, children, and adolescents* (2nd ed.). Arlington, VA: National Center for Education in Maternal and Child Health.
- Institute of Medicine. (2002). *Health insurance is a family matter*. Washington, DC: The National Academies Press.
- Newacheck, P. W., Hughes, D. C., Hung, Y. Y., Wong, S., & Stoddard, J. J. (2000). The unmet health needs of America's children. *Pediatrics*, *105*, 989–997.
- Rounds, K. A. (2004). Preventing sexually transmitted infections among adolescents. In M. W. Fraser (Ed.), *Risk and resilience in childhood: An ecological perspective* (2nd ed., pp. 251–280). Washington, DC: NASW.

References

- Akimbani, L. J., & Shoendorf, K. C. (2002). Trends in childhood asthma: Prevalence, health care utilization, and mortality. *Pediatrics*, *110*, 315–322.
- Alan Guttmacher Institute. (1999). *Facts in brief: Teen sex and pregnancy*. Retrieved May 24, 2004, from http://www.agi-usa.org/pubs/fb_teen_sex.html
- Alan Guttmacher Institute. (2002). *Facts in brief: Sexuality education*. Retrieved May 24, 2004, from http://www.agi-usa.org/pubs/fb_sex_ed02.pdf
- American Academy of Pediatrics Committee on School Health. (2001). School health centers and other integrated school health services. *Pediatrics*, *107*, 198–201.
- American Academy of Pediatrics. (2002). The medical home. *Pediatrics*, *110*, 184–186.
- Anderson, R. E., Crespo, C. J., Bartlett, S. J., Cheskin, L. J., & Pratt, M. (1998). Relationship of physical activity and television watching with body weight and level of fatness among children: Results from the third National Health and Nutrition Examination Survey. *Journal of the American Medical Association*, *279*, 938–942.
- Anderson, R. M. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior*, *36*, 1–10.
- Annie E. Casey Foundation. (2004). *Kids count 2004 data book online: Profile for the United States*. Retrieved June 18, 2004, from <http://www.aecf.org/cgi-bin/kc.cgi?action=profile&area=United+States>

- Baron, J., Kleinmann, J. H., & Sylvester, K. (2003). Health insurance for children: Issues and ideas. *The Future of Children*, 13, 1–32.
- Barr, D. A., Lee, P. R., & Benjamin, A. E. (2003). Health care and health care policy in a changing world. In H. M. Wallace, G. Green & K. Jaros (Eds.), *Health and welfare for families in the 21st century* (2nd ed., pp. 26–42). Boston: Jones and Bartlett.
- Blondel, B., Kogan, M. D., Alexander, G. R., Dattani, N., Kramer, M. S., Macfarlane, A., et al. (2002). The impact of increasing number of multiple births on the rates of preterm birth and low birth weight: An international study. *American Journal of Public Health*, 92, 1323–1330.
- Bradbury, J. (1997). The culprit may be cockroaches. *Lancet*, 349, 1453.
- Brandis, C. D., Klein, J., Schlitt, J., Santelli, J., Juszczak, L., & Nystrom, R. (2003). School-based health centers: Accessibility and accountability. *Journal of Adolescent Health*, 32S, 98–107.
- Brodeurk, P. (2000). School-based health clinics. In S. L. Isaacs & J. R. Knickman (Eds.), *To improve health and health care: The Robert Wood Johnson Foundation anthology*. San Francisco: Jossey-Bass.
- Buzi, R. S., Tortolero, S. R., Roberts, R. E., Ross, M. W., Addy, R. C., & Markham, C. M. (2003). The impact of a history of sexual abuse on high-risk sexual behaviors among females attending alternative schools. *Adolescence*, 38, 595–605.
- The Center for Health and Health Care in Schools. (2002). *2002 state survey of school-based health center initiatives*. Retrieved 6/14/04, from <http://www.healthinschools.org/sbhcs/survey02.htm>
- Centers for Disease Control and Prevention. (2002a). *Young people at risk: HIV/AIDS among America's youth*. Retrieved May 24, 2004, from <http://www.cdc.gov/hiv/pubs/facts/youth.pdf>
- Centers for Disease Control and Prevention. (2002b). Trends in sexual risk behaviors among high school students—United States, 1991–2001. *Morbidity and Mortality Weekly Report*, 51, 856–859.
- Centers for Disease Control and Prevention. (2003a). *Sexually Transmitted Disease Surveillance, 2002*. Retrieved May 24, 2004, from <http://www.cdc.gov/std/stats/toc2002.htm>
- Centers for Disease Control and Prevention. (2003b). *Sexually transmitted disease surveillance 2002 supplement: Chlamydia prevalence monitoring project annual report 2002*. Retrieved May 24, 2004, from <http://www.cdc.gov/std/chlamydia2002/chlamydia2002.pdf>
- Centers for Disease Control and Prevention. (2004a). *Summary health statistics for U.S. children: National health interview survey, 2002*. Retrieved May 29, 2004, from http://www.cdc.gov/nchs/data/series/sr_10/sr10_221.pdf
- Centers for Disease Control and Prevention. (2004b). *Asthma's impact on children and adolescents*. Retrieved May 24, 2004, from <http://www.cdc.gov/asthma/children.htm>
- Centers for Disease Control and Prevention. (2004c). *Health, United States, 2003*. Retrieved May 24, 2004, from <http://www.cdc.gov/nchs/products/pubs/pubd/hs/trendtables.htm>

160 Social Policy for Children and Families

- Centers for Disease Control and Prevention. (2004d). *Guidelines for viral hepatitis surveillance and case management*. Retrieved May 24, 2004, from <http://www.cdc.gov/ncidod/diseases/hepatitis/resource/surveillance>
- Centers for Disease Control and Prevention. (2004e). *STD prevention: The role of STD detection and treatment in HIV prevention*. Retrieved June 16, 2004, from http://www.cdc.gov/nchstp/dstd/Fact_Sheets/facts_std_testing_and_treatment.htm
- Centers for Disease Control and Prevention. (n.d.). *Tracking the hidden epidemics: Trends in the STD epidemics in the United States*. Retrieved May 24, 2004, from http://www.cdc.gov/nchstp/dstd/Stats_Trends/STD_Trends.pdf
- Child Trends Databank. (2004). *Health status and disability: Asthma*. Retrieved May 24, 2004, from <http://www.childtrendsdatabank.org/indicators/43Asthma.cfm>
- Donabedian, A. (1973). *Aspects of medical care administration*. Cambridge, MA: Harvard University Press.
- Dubay, L., & Kenney, G. (2001). Health care access and use among low-income children: Who fares best? *Health Affairs*, 20, 112–121.
- Eldeirawi, K., & Persky, V. W. (2004). History of ear infections and prevalence of asthma in a national sample of children aged 2 to 11 years: The Third National Health and Nutrition Examination Survey, 1988 to 1994. *Chest*, 125, 1685–1692.
- Families USA. (2004). *Working without a net: The health care safety net still leaves millions of low-income workers uninsured*. Retrieved 5/24/04, from www.familiesusa.org
- Ford, C. A., Bearman, P. S., & Moody, J. (1999). Foregone health care among adolescents. *Journal of American Medical Association*, 282, 2227–2234.
- Fraser, M. W. (2004). The ecology of childhood: A multisystems perspective. In M. W. Fraser (Ed.), *Risk and resilience in childhood: An ecological perspective* (2nd ed., pp. 1–12). Washington, DC: NASW.
- Fraser, M. W., & Terzian, M. A. (in press). Risk and resilience in child development: Practice principles and strategies. In G. P. Mallon & P. McCartt Hess (Eds.), *Handbook of children, youth, and family services: Practices, policies, and programs*. New York: Columbia University Press.
- Gable, S., & Lutz, S. (2000). Household, parent, and child contributions to childhood obesity. *Family Relations*, 49, 293–300.
- Gehshan, S. (2003). The state children's health insurance program: A progress report. In H. M. Wallace, G. Green, & K. Jaros (Eds.), *Health and welfare for families in the 21st century* (2nd ed., pp. 259–268). Boston: Jones and Bartlett.
- Gilliland, F. D., Berhane, K., Islam, T., McConnell, R., Gauderman, W. J., Gilliland, S. S., et al. (2003). Obesity and the risk of newly diagnosed asthma in school-age children. *American Journal of Epidemiology*, 158, 406–415.
- Gilliland, F. D., Li, Y. F., & Peters, J. M. (2001). Effects of maternal smoking during pregnancy and environmental tobacco smoke on asthma and wheezing in children. *American Journal of Respiratory Critical Care*, 163, 429–436.

- Green, M., & Palfrey, J. S. (Eds.). (2000). *Bright futures: Guidelines for health supervision of infants, children, and adolescents* (2nd ed.). Arlington, VA: National Center for Education in Maternal and Child Health.
- Greydanus, D. E., Patel, D. R., & Greydanus, E. K. (2003). Adolescent health. In H. M. Wallace, G. Green, & K. Jaros (Eds.), *Health and welfare for families in the 21st century* (2nd ed.). Sudbury, MA: Jones and Bartlett.
- Halfon, N., & Hochstein, M. (1997). Developing a system of care for all: What the needs of vulnerable children tell us. In R. E. K. Stein & P. Brooks (Eds.), *Health care for children: What's right, what's wrong, what's next* (pp. 303–338). New York: United Hospital Fund.
- Hediger, M. L., Overpeck, M. D., Ruan, W. J., & Troendle, J. F. (2002). Birthweight and gestational age effects on motor and social development. *Pediatric and Prenatal Epidemiology*, *16*, 33–46.
- Infante-Rivard, C., Gautrin, D., Malo, J. L., & Suissa, S. (1999). Maternal smoking and childhood asthma. *American Journal of Epidemiology*, *150*, 528–531.
- Institute of Medicine. (2002). *Health insurance is a family matter*. Washington, DC: The National Academies Press.
- Jaakola, J. K., & Gissler, M. (2004). Maternal smoking in pregnancy, fetal development, and childhood asthma. *American Journal of Public Health*, *94*, 136–140.
- Jaffee, K. D., & Perloff, J. D. (2003). An ecological analysis of racial differences in low birthweight: Implications for maternal and child health social work. *Health and Social Work*, *28*, 9–22.
- Juszczak, L., Schlitt, J., & Odlum, M. (2003). *School-based health centers: National census school year 2001–2002*. Washington, DC: National Assembly on School-Based Health Care.
- Kaplan, D. W., Calonge, B. M., & Guernsey, B. P. (1998). Managed care and school-based health centers. *Archives of Pediatric and Adolescent Medicine*, *152*, 25–33.
- Kelly, P. J., Bair, R. M., Baillargeon, J., & German, V. (2000). Risk behaviors and the prevalence of *Chlamydia* in a juvenile detention facility. *Clinical Pediatrics*, *39*, 521–528.
- Kessel, W., Jaros, K., & Harker, P. T. (2003). The Social Security Act and maternal and child health services: Securing a bright future. In H. M. Wallace, G. Green, & K. Jaros (Eds.), *Health and welfare for families in the 21st century* (pp. 164–170). Sudbury, MA: Jones and Bartlett.
- Knopf, D., & Gordon, T. E. (1997). Adolescent health. In J. B. Kotch (Ed.), *Maternal and child health: Programs, problems, and policy in public health* (pp. 173–217). Gaithersburg, MD: Aspen Publishers.
- Koniak-Griffin, D., & Turner-Pluta, C. (2001). Health risks and psychosocial outcomes of early childbearing: A review of the literature. *Journal of Perinatal and Neonatal Nursing*, *15*, 1–17.
- Kramer, M. S. (1987). Intrauterine growth and gestational duration determinants. *Pediatrics*, *80*, 502–511.

162 Social Policy for Children and Families

- Lissau, I., Overpeck, M. D., Ruan, W. J., Due, P., Holstein, B. E., & Hediger, M. L. (2004). Body mass index and overweight in adolescents in 13 European countries, Israel, and the United States. *Archives of Pediatrics and Adolescent Medicine*, *158*, 27–33.
- Lumeng, J. C., Gannon, K., Cabral, H. J., Frank, D. A., & Zuckerman, B. (2003). Association between clinically meaningful behavior problems and overweight in children. *Pediatrics*, *112*, 1138–1145.
- Margolis, L. H., Cole, G. P., & Kotch, J. B. (1997). Historical foundations of maternal and child health. In J. B. Kotch (Ed.), *Maternal and child health: Programs, problems, and policy in public health* (pp. 19–43). Gaithersburg, MD: Aspen Publishers.
- Maternal and Child Health Bureau. (2000a). *Fact sheet: Division of Services for Children with Special Health Care Needs*. Retrieved 5/23/04, from www.mchb.hrsa.gov/about/default.htm
- Maternal and Child Health Bureau. (2000b). *Understanding Title V of the Social Security Act*. Retrieved 5/24/04, from <ftp://ftp.hrsa.gov/mchb/titleVtoday/UnderstandingTitleV.pdf>
- Maternal and Child Health Bureau. (2003). *Child health USA 2002: Adolescent HIV infection*. Retrieved May 24, 2004, from http://www.mchb.hrsa.gov/chusa02/main_pages/page_38.htm
- Maternal and Child Health Bureau. *Division of Services for Children with Special Health Care Needs (DSCSHN) Fact Sheet*. Retrieved 5/23/04, from www.mchb.hrsa.gov
- McPherson, M., Arango, P., Fox, H., Lauver, C., McManus, M., Newacheck, P. W., et al. (1998). A new definition of children with special health care needs. *Pediatrics*, *102*, 137–140.
- Moniz, C., & Gorin, S. (2003). *Health and health care policy: A social work perspective*. Boston: Allyn & Bacon.
- Newacheck, P. W., Brindis, C. D., Cart, C. U., Marchi, K., & Irwin Jr., C. E. (1999). Adolescent health insurance coverage: Recent changes and access to care. *Pediatrics*, *104*, 195–202.
- Newacheck, P. W., & Halfon, N. (1998). Prevalence and impact of disabling chronic conditions in childhood. *American Journal of Public Health*, *88*, 610–617.
- Newacheck, P. W., Hughes, D. C., Hung, Y. Y., Wong, S., & Stoddard, J. J. (2000). The unmet health needs of America's children. *Pediatrics*, *105*, 989–997.
- Newacheck, P. W., Hung, Y. Y., Park, M. J., Brindis, C. D., & Irwin, C. E. (2003). Disparities in adolescent health and health care: Does socioeconomic status matter? *Health Services Research*, *38*, 1235–1252.
- Newacheck, P. W., Pearl, M., Hughes, D. C., & Halfon, N. (1998). The role of Medicaid in ensuring children's access to care. *Journal of the American Medical Association*, *280*, 1789–1793.
- Pastore, D., & Techow, B. (2004). Adolescent school-based health care: A description of two sites in their 20th year of service. *The Mount Sinai Journal of Medicine*, *71*, 191–196.

- Phipps, M. G., & Sowers, M. (2002). Defining early adolescent childbearing. *American Journal of Public Health, 92*, 125–128.
- Raj, A., Silverman, J. G., & Amaro, H. (2000). The relationship between sexual abuse and sexual risk among high school students: Findings from the 1997 Massachusetts Youth Risk Behavior Survey. *Maternal and Child Health Journal, 4*, 125–134.
- Rauh, V. A., Andrews, H. F., & Garfinkel, R. S. (2001). The contribution of maternal age to racial disparities in birthweight: A multilevel perspective. *American Journal of Public Health, 91*, 1815–1824.
- Robinson, T. N. (1999). Reducing children's television viewing to prevent obesity. *Journal of the American Medical Association, 282*, 1561–1567.
- Rosenbach, M. L., & Gavin, N. I. (1998). Early and periodic screening, diagnosis, and treatment and managed care. *Annual Review of Public Health, 19*, 507–525.
- Rosenbach, M. L., Irvin, C., & Coulam, R. F. (1999). Access for low-income children: Is health insurance enough? *Pediatrics, 103*, 1167–1174.
- Rosenberg, P. S., & Biggar, R. J. (1998). Trends and HIV incidence among young adults in the United States. *Journal of the American Medical Association, 279*, 1894–1899.
- Rosenstreich, D. L., Eggleston, P., Kattan, M., Baker, D., Slavin, R. G., Gergen, P., et al. (1997). The role of cockroach allergy and exposure to cockroach allergen in causing morbidity among inner-city children with asthma. *The New England Journal of Medicine, 336*, 1356–1363.
- Rounds, K. A. (2004). Preventing sexually transmitted infections among adolescents. In M. W. Fraser (Ed.), *Risk and resilience in childhood: An ecological perspective* (2nd ed., pp. 251–280). Washington, DC: NASW.
- Salam, M. T., Li, Y. F., Langholz, B., & Gilliland, F. D. (2004). Early-life environmental risk factors for asthma: Findings from the children's health study. *Environmental Health Perspectives, 112*, 760–765.
- Sardell, A., & Johnson, K. (1998). The politics of EPSDT policy in the 1990s: Policy entrepreneurs, political streams, and children's health benefits. *The Milbank Quarterly, 76*, 175–205.
- Schlitt, J., Santelli, J., Juszczak, L., Brindis, C. D., Nystrom, R., Klein, J., et al. (2000). *Creating access to care: School-based health center census 1998–1999*. Washington, DC: National Assembly on School-Based Health Care.
- Shi, L., & Singh, D. (2001). *Delivering health care in America: A systems approach* (2nd ed.). Gaithersburg, MD: Aspen Publishers.
- Shortell, S. M., Gillies, R. R., Anderson, D. A., Erickson, K. M., & Mitchell, J. B. (2000). *Remaking health care in America: The evolution of organized delivery systems* (2nd ed.). San Francisco: Jossey-Bass.
- Shrier, L. A., Harris, S. K., & Beardslee, W. R. (2002). Temporal associations between depressive symptoms and self-reported sexually transmitted disease among adolescents. *Archives of Pediatrics and Adolescent Medicine, 156*, 599–606.
- Sia, C., Tonniges, T. F., Osterhus, E., & Taba, S. (2004). History of the medical home concept. *Pediatrics, 113*(5), 1473–1478.

164 Social Policy for Children and Families

- Simon, P. A., Zeng, Z., Wold, C. M., Haddock, W., & Fielding, J. E. (2003). Prevalence of childhood asthma and associated morbidity in Los Angeles County: Impacts of race/ethnicity and income. *Journal of Asthma*, *40*, 535–543.
- Simpson, W. J. (1957). A preliminary report on cigarette smoking and the incidence of prematurity. *American Journal of Obstetrics and Gynecology*, *73*, 808–815.
- Starfield, B. (1997). Social, economic, and medical care determinants of children's health. In R. E. K. Stein & P. Brooks (Eds.), *Health care for children: What's right, what's wrong, what's next?* (pp. 39–52). New York: United Hospital Fund of New York.
- Steffenson, F. H., Sorenson, H. T., Gillman, M. W., Rothman, K. J., Sabroe, S., Fischer, P., et al. (2000). Low birth weight and preterm delivery as risk factors for asthma and atopic dermatitis in young adult males. *Epidemiology*, *11*, 185–188.
- Stein, R. E. K. (1997). Changing the lens: Why focus on children's health? In R. E. K. Stein & P. Brooks (Eds.), *Health care for children: What's right, what's wrong, what's next?* (pp. 1–12). New York: United Hospital Fund of New York.
- Stein, R. E. K., & Silver, E. J. (1999). Operationalizing a conceptually based non-categorical definition: A first look at US children with chronic conditions. *Archives of Pediatric Adolescent Medicine*, *153*, 68–74.
- Stettler, N., Zemel, B. S., Kumanyika, S., & Stallings, V. A. (2002). Infant weight gain and childhood overweight status in a multicenter, cohort study. *Pediatrics*, *109*, 194–199.
- Strachan, D., & Cook, D. (1998). Health effects of passive smoking: Parental smoking and childhood asthma: Longitudinal and case-control studies. *Thorax*, *53*, 204–212.
- Strauss, R. S., & Pollack, H. A. (2001). Epidemic increase in childhood overweight. *Journal of the American Medical Association*, *286*, 2845–2848.
- Strickland, B., McPherson, M., Weissman, G., van Dyck, P., Huang, Z. J., & Newacheck, P. (2004). Access to the medical home: Results of the National Survey of Children With Special Health Care Needs. *Pediatrics*, *113*, 1485–1492.
- U.S. Census Bureau. (2004). *Annual estimates of the population by sex and five-year age groups for the United States: April 1, 2000 to July 1, 2003*. Retrieved June 22, 2004, from <http://eire.census.gov/popest/data/national/tables/nc-est2003-01.pdf>
- U.S. Department of Health and Human Services. (n.d.). *Healthy people 2010*. Retrieved July 20, 2004, from <http://www.healthypeople.gov/document/html/objectives/16-22htm>
- Weinstock, H., Berman, S., & Cates Jr., W. (2004). Sexually transmitted diseases among American youth: Incidence and prevalence estimates, 2000. *Perspectives on Sexual and Reproductive Health*, *36*, 6–10.
- Whitaker, R. C., Wright, J. A., Pepe, M. S., Seidel, K. D., & Dietz, W. H. (1997). Predicting obesity in young adulthood from childhood and parental obesity. *New England Journal of Medicine*, *337*, 869–873.

- Williams, C., AZA Consulting, Rosen, J., Hudman, J., O'Malley, M., & The Kaiser Commission on Medicaid and the Uninsured. (2004). *Challenges and tradeoffs in low-income family budgets: Implications for health coverage*. The Henry J. Kaiser Family Foundation.
- Wingood, G. M., DiClemente, R. J., Harrington, K., & Davies, S. L. (2002). Body image and African American females' sexual health. *Journal of Women's Health and Gender-Based Medicine*, *11*, 433-438.
- Woodruff, T. J., Axelrad, D. A., Kyle, A. D., Nweke, O., Miller, G. G., & Hurley, B. J. (2004). Trends in environmentally related childhood illnesses. *Pediatrics*, *113*, 1133-1140.

Web-Based Resources

- Centers for Disease Control and Prevention <http://www.cdc.gov/>
- Center for Health and Health Care in Schools <http://www.healthinschools.org>
- Child Trends DataBank <http://www.childtrendsdatabank.org>
- Families USA <http://www.familiesusa.org>
- The Future of Children, The David and Lucile Packard Foundation
<http://www.futureofchildren.org>
- Kaiser Commission on Medicaid and the Uninsured, The Henry J. Kaiser Family Foundation <http://www.kff.org/about/kcmu.cfm>
- March of Dimes <http://www.modimes.org/>
- Maternal and Child Health Bureau <http://mchb.hrsa.gov/>
- Maternal and Child Health Information Resource Center, Maternal and Child Health Bureau <http://www.mchb.hrsa.gov/mchirc/>
- The National Assembly on School Based Health Care <http://www.nasbhc.org/>
- The Robert Wood Johnson Foundation <http://www.rwjf.org>

