Social Policy for Children and Families

A Risk and Resilience Perspective

Third Edition

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PURPOSE AND OVERVIEW OF HEALTH POLICIES FOR CHILDREN AND YOUTH

The primary purpose of health policies aimed at children and youth is to provide access to preventive and medical care. Access is defined as the ability to obtain needed care, and lack of access is an indication of unmet health care needs (Shi & Singh, 2001). Access to health care encompasses a number of dimensions, including:

- **Availability**: Does the service exist?
- **Cultural acceptability**: Is there a fit between the cultural belief systems and languages of the client and the provider?
- **Convenience**: Does the client have transportation to the service, and can the client access the service at a convenient time?
- **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, the United States is the only country in the Western world that does not have universal health-care coverage for its children and adolescents (Stein, 1997). The full implementation of the Patient Protection and Affordable Care Act (ACA) will increase coverage considerably, but universal coverage will
still not be a reality in the United States (Nardin, Zallman, McCormick, Woolhandler, & Himelstein, 2013). Second, the U.S. health care system is a heavily privatized delivery system financed by public dollars. In 2011, federal, state, and local dollars constituted about 52% of all health-care expenditures (National Center for Health Statistics, 2014). The current system is an amalgam of private and government sources that operates in a market-oriented, commodity-driven economy in which many of the key players are motivated by profit margins (Halffon & Hochstein, 1997; Shi & Singh, 2001). Third, in large part, U.S. health care is a poorly coordinated, fragmented system (Institute of Medicine of the National Academies, 2012).

Halffon and Hochstein (1997) posed two major policy questions regarding the delivery of health care for children and youth. The first question is referred to as the “insurance question.” It focuses on expanding access to health insurance for children and youth in addition to the elimination of nonfinancial barriers to access (e.g., outreach and transportation). Halffon and Hochstein labeled the second question the “systems question.” It asks how health-care services might be organized and integrated with other systems to meet the needs of children and youth more effectively.

Federal health-care policies affect all children, youth, and their families. However, these policies have a more dramatic effect on low-income households, which are disproportionately African American, Latino, or other racial/ethnic minorities. The public insurance programs Medicaid and Children’s Health Insurance (CHIP) have made a significant positive difference in coverage for minority children who are more likely to have health problems and be uninsured than White children (Kaiser Commission on Medicaid and the Uninsured, 2013). Even with these federal programs, gaps in eligibility for Medicaid and CHIP have left large numbers of minority children without insurance. Researchers have found that children who lack insurance coverage or experience insurance instability (i.e., disruptions in coverage) are significantly more likely to lack a usual source of care, to delay care, or to have unmet medical needs than children with insurance (Cassedy, Fairbrother, & Newacheck, 2008). Starfield (2008) noted that having both insurance and a usual source of care are critical; the insurance is the pathway to a usual source of care, which then leads to children receiving needed services. The ACA addresses insurance gaps through provisions aimed at expanding and stabilizing insurance coverage and through promoting “patient-centered medical homes” (PCMH). These increase the likelihood that all children and youth will have a usual source of care.

Because of special vulnerabilities, some federal health-care policies specifically target infants, very young children, or adolescents. For example, eligibility for public health-insurance programs (e.g., Medicaid) has been expanded to provide access to greater numbers of infants and young children, who otherwise would likely have unmet health needs. This policy change was based on the recognition that a child’s early years are important not only for preventive care (i.e., well-baby checkups and immunizations) but also for screenings to detect developmental and health problems. Adolescents are another developmentally vulnerable group because they have a high likelihood of engaging in high-risk behaviors (e.g., unprotected sex, substance use, smoking) that have long-term health consequences. During early adolescence, most youths develop health behaviors that persist into adulthood (Greydanus, Patel, & Greydanus, 2003).
CHAPTER 6 Health Policy for Children and Youth

Federal health policy also targets children who meet the definition of "children with special health care needs." However, uncertainty over which children made up this population prompted the Maternal and Child Health Bureau (MCHB) of the U.S. Department of Health and Human Services (DHHS) to form a work group expressly to establish a clear definition. This definition has been adopted by the DHHS as well as the American Academy of Pediatrics: "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" (McPherson et al., 1998, p. 138). Based on this definition, and according to the 2011/12 National Survey of Children with Special Health Care Needs, 19.8% of U.S. children between the ages of 0 and 17 years have special health-care needs. The prevalence of special health-care needs has been estimated at 23% of U.S. households with children (Child and Adolescent Health Measurement Initiative, 2013). However, these rates do not include children in the at-risk category that is encompassed in the definition used by the MCHB (Bethell, Read, Blumberg, & Newacheck, 2008).

In this chapter, we review the prevalence of four health problems experienced by children and youth: low birth weight, asthma, overweight and obesity, and sexually transmitted infections. 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 for integrating 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 range of health problems, with the most frequent being low birth weight, asthma, overweight or obesity, and sexually transmitted infections. 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 6.1 for prevalence data on low birth weight, asthma, overweight, and obesity.) This section concludes with a discussion of protective factors related to access to health-care services.

**Low Birth Weight**

Infants with low birth weight (LBW) are defined as those weighing less than 2,500 grams (about 5.5 pounds). The incidence of LBW in the United States increased nearly 20% between 1990 and 2006 and is a serious public-health concern because it can lead to adverse health outcomes throughout life. In 2012, the rate was 7.99%, a 3% dip from the 2006 high of 8.26%. The rate of infants born in 2012 with very low birth weight (VLBW), that is, weighing less than 1,500 grams, also edged downward to 1.42% from a 2006 high of 1.49% (Martin, Hamilton, Osterman, Curtin, & Mathews, 2013). LBW and VLBW infants...
are at increased risk for a host of health and developmental problems, including neonatal mortality, neurodevelopmental disorders, respiratory distress syndrome, cardiac problems (March of Dimes Foundation, 2014), and delayed cognitive functioning (Reuner, Hasenpflug, Pietz, & Philipp, 2009). Compared with infants of normal birth weight, LBW infants face a greater than fivefold increase in risk of death during their first year and VLBW infants incur a 100-fold increase risk of death in their first year (Martin et al., 2013).

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 2012 (15.18%) was about 2 times the rate reported for either non-Hispanic White mothers (6.97%) or Hispanic mothers (6.96%; Martin et al., 2013). In addition, non-Hispanic African American mothers were nearly 2 times more likely to have a VLBW live birth than non-Hispanic White mothers or Hispanic mothers (2.94%, 1.13%, and 1.2%, respectively; Martin et al., 2013). Researchers are increasingly examining the impact of maternal stress, particularly stress caused by maternal perceived racism (Dominguez, 2008; Holland, Kitzman, & Veazie, 2009; Rosenthal & Lobel, 2011) and the role of living in hypersegregated residential areas (Love, David, Rankin, & Collins, 2010; Oreyuk & Acevedo-Garcia, 2008) and their contribution to low birth weight. Using a life-course approach to explain birth outcome disparities, Lu et al. (2010) developed a model that accounts for the life-long cumulative effect of experiencing racism and social inequality and the resulting allostatic load and its impact on birth outcomes.

A variety of factors, including genetics, lifestyle, and environmental conditions, can substantially affect birth weight. Maternal characteristics that are risk factors for LBW include smoking or drug use during pregnancy, limited or late prenatal care, and the number of previous pregnancies (Institute of Medicine of the National Academies, 2006). In the decades since Simpson’s 1957 report on the prenatal effects of maternal smoking, smoking during pregnancy has become well established as one of the most preventable risk factors for LBW (Bailey, McCook, Hodge, McGrady, 2012; Rogers, 2008). According to the CDC Pregnancy Risk Assessment Monitoring System (PRAMS) in 2010, 12.3% of pregnant women smoked during their pregnancy and 10.7% smoked during the last trimester of their pregnancy (Tong et al., 2013). Researchers analyzing 2002 birth data estimated that 5% to 8% of very and moderately preterm births and 15% to 19% of term LBW deliveries could be attributed to maternal smoking during pregnancy (Dietz et al., 2010).

Early childbearing (i.e., maternal age 15 years or younger) has been noted as a significant risk factor for preterm delivery and low birth weight. In a systematic review of 20 studies, Gibbs, Wendt, Peters, and Hogue (2012) found a relationship between maternal age and LBW; as maternal age increased, this association decreased. Their review provides evidence that very young maternal age (15 years or younger) has a negative, biological impact on preterm delivery and birth weight. Most likely, biological as well as social factors contribute to this relationship. Although early childbearing occurs across the socioeconomic spectrum, researchers investigating maternal age trends have argued that the incidence of early childbearing is disproportionately high among ethnic minority and impoverished young women (Chen, Wen, Fleming, Yang, & Walker, 2008). Chen and colleagues noted that the poverty faced by many young women also contributes to their delayed entry into prenatal care, to their inadequate weight gain during pregnancy, and to their increased incidence of perinatal medical complications. The nutritional demands of
normal physiological development during adolescence may be one factor contributing to the increased prevalence of LBW among newborns of adolescent mothers because these demands create a maternal–fetal competition for nutrients (Kramer & Lancaster, 2010). This competition may be exacerbated in low-income families, which often experience food insecurity because they cannot afford food and live in communities where nutritional foods may be less available or cost-prohibitive.

### Table 6.1 Estimated Prevalence of Health Conditions Among Children and Adolescents in the United States

<table>
<thead>
<tr>
<th></th>
<th>U.S. Population (all races)</th>
<th>African American (not Hispanic or Latino)</th>
<th>Hispanic or Latino</th>
<th>White (not Hispanic or Latino)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Birth Weight</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Percent of live births &lt;2,500 grams</td>
<td>7.99</td>
<td>13.18</td>
<td>6.0</td>
<td>6.97</td>
</tr>
<tr>
<td>Percent of live births &lt;1,500 grams</td>
<td>1.42</td>
<td>2.94</td>
<td>1.13</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Overweight and Obesity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent overweight or obese (ages 2–5)</td>
<td>23</td>
<td>22</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>Percent overweight or obese (ages 6–11)</td>
<td>34</td>
<td>38</td>
<td>46</td>
<td>29</td>
</tr>
<tr>
<td>Percent overweight or obese (ages 12–19)</td>
<td>35</td>
<td>40</td>
<td>38</td>
<td>31</td>
</tr>
<tr>
<td>Percent obese (ages 2–5)</td>
<td>8</td>
<td>11</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>Percent obese (ages 6–11)</td>
<td>18</td>
<td>24</td>
<td>26</td>
<td>13</td>
</tr>
<tr>
<td>Percent obese (ages 12–19)</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td><strong>Asthma (&lt;age 18)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent ever told had asthma</td>
<td>14</td>
<td>22</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Percent who still have asthma</td>
<td>9</td>
<td>16</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Percent with current asthma who had an asthma attack in past 12 months</td>
<td>55</td>
<td>56</td>
<td>51</td>
<td>58</td>
</tr>
</tbody>
</table>

*Note.* Overweight is defined as Body Mass Index (BMI) at or above the 85th percentile and lower than the 95th percentile; obesity is defined as a BMI at or above the 95th percentile (Centers for Disease Control and Prevention [CDC], 2014a,b,c; Ogden, Carroll, Kit, & Flegal, 2014).
In the last three decades, the United States experienced a significant increase in the rate of multiple births, which—in part—was the result of delayed childbearing and increased use of fertility drugs and procedures. These increases in multiple births, particularly twin births, had a significant impact on the increased incidence of LBW, preterm delivery, and prenatal mortality in the United States (Boulet et al., 2008). However, the rising incidence seems to have peaked. Between 1980 and 2009, the number of twin births doubled in the United States. In 2012, the twin birth rate was 33.1 per 1,000 total births, unchanged from 2009 to 2011 (Martin et al., 2013). Similarly, between 1980 and 1998, the rate of higher-order multiple births increased from 37 to 193.5 births per 100,000 live births. The rate in 2012 was 124.4 per 100,000 births, which is more than a one-third reduction from the 1998 high (Martin et al., 2013).

Asthma

Asthma, a long-term lung disease that is characterized by recurrent periods of inflammation in the airways, shortness of breath, coughing, and wheezing, is the most common chronic illness and the most prevalent cause of disability among children in the United States (Williams, Sternthal, & Wright, 2009; Wu, Smith, Bohlhour, Hohman, & Lieu, 2008). Indeed, the prevalence of childhood asthma has more than doubled since 1980 (Akinbami, Moorman, Garbe, & Sondik, 2009). Approximately 10 million U.S. children and adolescents have been diagnosed with asthma at some point in their lives, representing 14% of the U.S. population younger than 18 years (CDC, 2013a). Over half of children with asthma reported at least one attack in the past year (CDC, 2014a). During an asthma attack or episode, a child's airways narrow, making it difficult to breathe, often resulting in wheezing. Asthma is the third leading cause of hospitalization among children under the age of 15 years, and each year asthma accounts for more than 14 million missed school days (American Lung Association, 2012). Asthma is the second most costly health problem among children in the United States (Sonl, 2014).

Racial and ethnic minority children have higher rates of asthma. Lifetime and current prevalence rates of asthma were higher for both African American children (22% and 16%, respectively) and Hispanic children (14% and 9%, respectively) as compared with White children (12% and 8%, respectively) (CDC, 2013a). In addition, compared with White children, African American children are 4 times more likely to be hospitalized because of asthma and 5 times more likely to die from asthma (Wu et al., 2008).

Although the exact causes of asthma are not fully understood, an array of risk factors increases children's risk of developing asthma; many of these risk factors are related to poverty. Low socioeconomic status and family income are associated with both previous asthma diagnosis and incidence of asthma attacks (Williams et al., 2009). Children living below the federal poverty level (FPL) are more likely to have been diagnosed with asthma (19%) than those living between 100% and 200% of federal poverty guidelines (14%) and those living at or above 200% of the FPL (12%) (CDC, 2013a). Children receiving Medicaid are much more likely to have been diagnosed with asthma (18%) at some point in their lives than children with private insurance (12%) (CDC, 2013a).

Social and environmental factors are associated with increased risk for the development of asthma during childhood and adolescence. Exposure to tobacco smoke, most commonly
from parental smoking in the household, increases the likelihood of developing childhood asthma as well as exacerbating existing asthma (Baena-Cagnani, Gomez, Baena-Cagnani, & Canonica, 2009; Gerald et al., 2009; Lawson, Janssen, Bruner, Hossain, & Pickett, 2014). Research also indicates that prenatal exposure to tobacco smoke increases the risk that a child will subsequently develop childhood asthma (Baena-Cagnani et al., 2009; Miododzi, Rowe, Majaesic, Saunders, & Senthilvelan, 2010). Other environmental risks include dust mite, cat, and cockroach allergens (Subbarao, Mandhane, & Sears, 2009; Wang et al., 2009). One study showed that exposure to cockroaches at some point in childhood significantly increased the risk for developing childhood asthma, and exposure to cockroach allergens during infancy was associated with a twofold increase in the risk of developing asthma (Salam, Li, Langholz, & Gilliland, 2004). Research suggests that poverty at the individual, household, and community levels is directly associated with both increased risk of developing asthma and increased risk of experiencing greater severity of asthma attacks (Hildon et al., 2010; Subbarao et al., 2009; Thakur et al., 2013; Williams et al., 2009).

Other health-related factors also affect children’s risk of asthma. There is evidence of an association between LBW and childhood asthma (Ahmad et al., 2009; Miododzi et al., 2010). In addition, overweight and obese children and adolescents not only are more likely to develop asthma but also are more likely to develop severe asthma, which is associated with more frequent hospital and clinic visits for asthma-related issues (Black, Zhou, Takayanagi, Jacobsen, & Koebnick, 2013; Liu, Kleehefer, & Gau, 2013).

**Overweight and Obesity**

Since the 1960s, the prevalence of overweight and obese children and adolescents in the United States has tripled (Ogden & Carroll, 2010). Overweight and obesity are terms that refer to ranges of body weight that exceed what is considered healthy for a given height. Overweight is defined as a body mass index (BMI) at or above the 85th percentile and lower than the 95th percentile, and obesity is defined as a BMI at or above the 95th percentile for youth of the same age and sex (Barlow & Expert Committee, 2007).

Almost one-third (32%) of children and adolescents in the United States are overweight or obese (15% and 17%, respectively) (Ogden et al., 2014). Prevalence rates of obesity increase with age: 8% of children between the ages of 2 and 5 years are obese, 18% of children between the ages of 6 and 11 years are obese, and 21% of adolescents between the ages of 12 and 19 years are obese. Rates of overweight and obesity do not differ markedly by gender. On the other hand, there are significant differences by race/ethnicity. Rates of overweight and obesity are highest among Hispanic (39%) and Black (55%) children, with White (29%) and Asian (20%) children showing lower prevalence rates (Ogden et al., 2014). Childhood and adolescent obesity is associated with a number of health problems, including high blood pressure, high cholesterol, impaired glucose tolerance, insulin resistance, type-2 diabetes, sleep apnea, asthma, bone and joint problems, fatty liver disease, gallstones, heartburn, and low self-esteem (Freedman, Mei, Srinivasan, Berenson, & Dietz, 2007; Han, Lawlor, & Kim, 2010; Sutherland, 2008; Swartz & Puhl, 2003; Taylor, Theim, & Mirch, 2006).

Various risk factors predispose children and adolescents to become overweight and obese. Emerging research suggests that maternal obesity during pregnancy may be associated with childhood obesity (Catalano et al., 2009; Dabelea, 2007; Krat et al., 2006; Lawlor
et al., 2008). Children’s dietary behaviors also influence their weight. Strong evidence supports the relationship between the consumption of sugar-sweetened beverages and child obesity (Moreno & Rodriguez, 2007). Children’s food and beverage intake is highly dependent on what is available at home, which is highly dependent on the availability and cost of foods and beverages in local food outlets (Powell & Bao, 2009). Researchers found that higher prices for fresh fruits and vegetables in neighborhood food outlets were significantly associated with higher BMIs among children (Powell & Bao, 2009). In addition, lower-income children and adolescents are more likely to be obese than their higher-income peers (Ogden, Lamb, Carroll, & Flegal, 2010). Other dietary risk factors for child obesity include buying lunch at school, eating dinner without parental supervision, missing breakfast, and consuming fewer calories at breakfast and more at dinner (Moreno & Rodriguez, 2007). In terms of health education for children and adolescents, 18% of U.S. school districts do not require that elementary, middle, and high schools teach students about nutrition and dietary behavior. In addition, 31% of U.S. school districts do not require that elementary, middle, and high schools teach students about physical activity and fitness (CDC, 2013b).

Low levels of physical activity are associated with childhood obesity (Jimenez-Pavon, Kelly, & Reilly, 2010). Approximately 40% of U.S. school districts do not require that elementary schools provide students with regularly scheduled recess. In addition, 8% of districts do not have a policy requiring physical education for middle and high school students (CDC, 2013b). Engagement in sedentary activities, such as watching television, playing video games, using a computer, and using the telephone, is associated with child obesity (Marshall, Biddle, Gorely, Cameron, & Murdey, 2004). Higher levels of screen time are associated with lower family income and the presence of a television in a child’s bedroom (He, Harris, Piché, & Beynon, 2009). On the other hand, protective factors include participating in sports and after-school programs (He et al., 2009).

Sexually Transmitted Infections

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, 2014b). Although those between the ages of 15 and 24 years represent only 25% of the sexually experienced population in the United States, this age group accounts for almost half of the estimated 20 million new STI cases each year (CDC, 2014b).

Unprotected sexual intercourse can lead not only to STIs but also to unwanted pregnancy; therefore, teen pregnancy rates are considered to be an indicator of rates of high-risk sexual behavior. The most recent data show that 57 out of 1,000 women between the ages of 15 and 19 years became pregnant in 2010 (Kost & Henshaw, 2014). In other words, approximately 6% of teens became pregnant in 2010. This rate represents a 30-year low in the teen pregnancy rate due to significant drops between 2008 and 2010. Nonetheless, 82% of teen pregnancies are unplanned (Finer & Zolna, 2011). The connection between unintended teen pregnancies and STI risk is crucial because risky sexual behaviors that may result in pregnancy also place teens at high risk for STIs.
It is difficult to estimate national STI rates because states have different reporting requirements. Currently, chancroid, chlamydia, gonorrhea, syphilis, HIV, and hepatitis B are the only STIs reported by every state to the CDC (Workowski & Berman, 2010). 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 (herpes simplex viruses type 1 and type 2) and human papillomavirus. Disparities in reporting between public and private health-care providers further challenge accurate STI data collection, resulting in the potential underestimation of STIs diagnosed in the private health sector (Rounds, 2004). In addition, many STIs can be asymptomatic and remain undetected, which further contributes to the underestimation of STI rates among adolescents (Rounds, 2004). Lack of access to health care—a significant issue among many adolescents—may also add to the underestimation of STI rates.

Chlamydia and gonorrhea are the most prevalent among the STIs that states are required to report to the CDC, and each can cause serious health consequences if undetected or left untreated, particularly in young women (CDC, 2014b). In 2012, nearly 69% of all reported chlamydia infections (for which data on age were available) were among young people between the ages of 15 and 24 years (CDC, 2014b). Among women in 2012, the highest age-specific reported prevalence rates of chlamydia were in young women between the ages of 15 and 19 years and those between the ages of 20 and 24 years, with 3,291 and 3,695 cases per 100,000 females, respectively. These rates were significantly higher than those among males in the same age groups (CDC, 2014b). Compared with many other STIs, syphilis is relatively rare among U.S. adolescents and young adults. The prevalence rates of syphilis for 2012 are based on estimates of reported cases and indicate about four reported cases per 100,000 persons 15 to 19 years old and 15 reported cases per 100,000 persons 20 to 24 years old (CDC, 2014b).

Approximately 58% of gonorrhea infections reported in 2012 were among those 15 to 24 years old (CDC, 2014b). In 2012, the incidence was highest among women between the ages of 15 and 24 years old and among men between 20 and 24 years old (CDC, 2014b). For young women (15 to 19 years old) in 2012, there were 521 cases of gonorrhea per 100,000 (CDC, 2014b). Among young men (15 to 19 years old) in 2012, the gonorrhea incidence rate was significantly lower, at 239 cases per 100,000 (CDC, 2014b).

As previously noted, states are not required to report cases of herpes simplex virus and human papillomavirus to the CDC (Workowski & Berman, 2010). 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, although both are widely prevalent among young people. However, the prevalence of these STIs is an important public health concern because prior exposure to STIs has been linked to predisposition for contracting the HIV virus (CDC, 2014c).

The overall U.S. STI rates do not reflect the disproportionate impact of STIs on certain high-risk adolescent populations such as youth involved with the juvenile justice system. Youth in the juvenile justice system have elevated rates of engaging in sexual risky behavior and have higher rates of STIs than their peers. These rates may be attributable to three
factors: Youth involved in the juvenile justice system report onset of sexual activity at younger ages and with more partners than their peers; youth involved in the juvenile justice system are disproportionately African American, and African Americans are disproportionately affected by STIs; and youth involved in the juvenile justice system have higher rates of psychiatric disorders, which are associated with engaging in high-risk sexual behaviors, than the general population (Elkington et al., 2008). The prevalence rates of chlamydia and gonorrhea in juvenile detention settings are consistently higher than in any other subpopulation group (CDC, 2012). In 2011, the overall chlamydia prevalence rate was 16% among adolescent females entering juvenile correction facilities and 6% among young men entering juvenile correctional facilities (CDC, 2012). The median site-specific gonorrhea rate among adolescent females entering juvenile correctional facilities in 2011 was 3%, compared with 1% among males (CDC, 2012).

Human immunodeficiency virus (HIV), the virus that over time leads to acquired immunodeficiency syndrome (AIDS), disproportionately affects adolescents in the United States. In 2010, 26% of all new HIV infections in the United States occurred among young people 13 to 24 years old, the majority of whom acquired the virus through sexual transmission (CDC, 2014c). Within this age group, gay, bisexual, and other men who have sex with men are particularly affected by HIV/AIDS (CDC, 2014c). The large majority of new HIV/AIDS cases among male adolescents 13 to 19 years old were attributed to male-to-male sexual contact (CDC, 2014c). In addition, there is a racial disparity in the HIV/AIDS epidemic in the United States, with African American adolescents disproportionately affected. The link between HIV and other STIs is important because the presence of an STI places an individual at greater risk for contracting HIV when exposed to the virus through sexual contact (CDC, 2014c).

As compared with older adults, many biological, developmental, and social factors place sexually active adolescents at higher risk for contracting STIs. Table 6.2 presents a summary of risk factors associated with adolescents’ risky sexual behaviors. Adolescents are more likely than are older adults to have unprotected sex and multiple sex partners (either concurrent or sequential), which increases the risk of exposure to an STI-infected partner (Monasterio, Hwang, & Shafer, 2007). According to the Youth Risk Behavior Survey, 41% of all sexually active adolescents reported not using a condom during their last sexual intercourse and 22% of sexually active youth reported having used alcohol or other drugs before their last sexual intercourse (Kann et al., 2014). As compared with young men, the higher rates of STIs among young women appear to be based in both behavior and physiology. Behaviorally, young women have a greater likelihood of choosing older, experienced sexual partners, which increases their potential exposure to STIs (Manlove, Terry-Humen, & Ikrumullah, 2006). The higher rates of STIs among young women are also accounted for, in part, by anatomy, which makes females physiologically more susceptible to many STIs than males (Manlove et al., 2006).

Research has shown that there is a link between childhood sexual abuse and re-victimization and high-risk sexual behaviors (Lalor & McElvaney, 2010). Adolescent females who self-report a history of childhood and adolescent sexual abuse are more likely to have had consensual intercourse at a younger age, to have not used birth control, to have had multiple sex partners, and to have used alcohol or drugs during their most recent sexual experience
Table 6.2 Common Risk Factors for Risky Adolescent Sexual Behaviors

<table>
<thead>
<tr>
<th>Individual Characteristics</th>
<th>Family Conditions</th>
<th>Environmental Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inadequate communication skills</td>
<td>• Poor parental supervision</td>
<td>• Limited sexuality education (e.g., abstinence-only)</td>
</tr>
<tr>
<td>• Substance abuse</td>
<td>• Family sexual abuse</td>
<td>• Lack of easy/free condom availability in community</td>
</tr>
<tr>
<td>• Depression</td>
<td>• Older siblings who are sexually active</td>
<td>• Peer pressure</td>
</tr>
<tr>
<td>• Sense of invulnerability</td>
<td>• Chaotic family life</td>
<td>• Community norms that accept early initiation of sexual intercourse and multiple partners</td>
</tr>
<tr>
<td>• Negative attitudes, beliefs, and intentions about safer sex practices</td>
<td>• Family norms that accept early initiation of sexual intercourse and multiple partners</td>
<td>• Media that sexualize women and promote risky sexual practices</td>
</tr>
<tr>
<td>• Inadequate perception of risk</td>
<td>• Poor parent–adolescent relationship and communication</td>
<td>• Lack of emphasis on prevention</td>
</tr>
<tr>
<td>• Lack of knowledge about sexuality and safer sex practices</td>
<td></td>
<td>• Environments or activities where alcohol and drugs are used</td>
</tr>
<tr>
<td>• Having been sexually abused</td>
<td></td>
<td>• High-risk environment</td>
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<tr>
<td>• Early puberty</td>
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<td>• Early initiation of sexual activity</td>
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<td>• Incomplete cognitive development</td>
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<tr>
<td>• Intention to initiate intercourse</td>
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<tr>
<td>• Inability to use condoms properly</td>
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(Senn, Carey, & Vanable, 2008; Morrison-Beedy, Carey, Peng, and Tu (2008) found that adolescent females with a history of psychological distress were at increased risk for multiple adverse sexual and reproductive health outcomes. Lee, O’Riordan, and Lazebnik (2009) posited 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, a history of depressive symptoms was associated with a greater number of lifetime sexual partners, history of STIs, and previous or current pregnancy (Lee et al., 2009). Adolescents may face numerous barriers to accessing 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 (Monasterio et al., 2007).

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 services are accessible and used. 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, 2005). 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, 2005). 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, 2005).

One example is the case of a mother whose access to ongoing preventive health services may prevent her young 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. According to U.S. national data, older adolescents, racial/ethnic minorities, sexually active youth, and uninsured youth are more likely to have neglected health care—a significant risk factor for a wide array of health problems (Kaiser Commission on Medicaid and the Uninsured, 2013).

The availability of health insurance as one component of access to care is a critical protective factor to increase the likelihood that children and adolescents will have a usual source of care, which increases their likelihood to receive health care. Children and adolescents without health insurance, either public or private, are more likely to lack a usual health care provider, to have unmet health needs, and to miss at least annual contact with a health-care provider (DeVoe, Petering, & Krois, 2008). It is estimated that 10.9% of children in the United States had no form of health insurance in 2007; this percentage dropped to 6.6% in 2012 (Kaiser Commission on Medicaid and the Uninsured, 2013). Between 2002 and 2012, among children in families with income just above the poverty level (100% to 199% of poverty guidelines), the percentage of uninsured children under the age of 18 years dropped from 17.0% to 10.4%, while the percentage with coverage through Medicaid or the Children’s Health Insurance Program (CHIP) increased from 38.6% to 57.3%. In 2011 to 2012, 28.4% of uninsured children did not have a usual source of health care, compared with 1.7% of children who were covered by private insurance and 3.1% of those who were covered by Medicaid (National Center for Health Statistics, 2014).

Although the absence of insurance coverage is a major factor related to access to health care, health insurance alone may not be enough to ensure that children and adolescents receive needed health-care services, particularly among those who are low income (DeVoe et al., 2007). As previously noted, having a usual source of care may reduce many barriers to accessing health-care services, although it does not ensure that such services will be used or received when needed (Szilagyi, Schuster, & Cheng, 2009). Many nonfinancial factors also appear to affect health-care accessibility and utilization. These factors include delivery system structure, provider availability and cultural competence, preventive care education, enabling services (e.g., transportation and translation), child care, and appointment reminders (Newacheck, Hung, Park, Brindis, & Irwin, 2003).
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 20th 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 extent 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 hav-
ing been episodic responses to the failure of the private marketplace (Barr, Lee, & Benjamin,
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 6.3 provides a 
chronological listing of major policy initiatives and their primary purposes.

At the turn of the 20th century, living conditions were so poor for many American 
families that the average state infant mortality rate was 150 per 1,000. In some industrial 
cities, it was as high as 180 per 1,000 (Margolis & Kotch, 2013). 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 the passage of legisla-
tion to establish the Children’s Bureau in 1912 (Margolis & Kotch, 2013). 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 repre-
sented 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 & Kotch, 2013). During the 8 years for which 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 (MCH) enabled states 
to expand services that had been provided by the Sheppard-Towner Act; (2) the Services for 
Crippled Children’s Program enabled states to locate and provide medical and other ser-
ices for children who had “crippling conditions”; and (3) Child Welfare Services enabled
<table>
<thead>
<tr>
<th>Year</th>
<th>Legislation</th>
<th>Purpose</th>
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<tr>
<td>1912</td>
<td>Children's Bureau established</td>
<td>Studied and began to address the high rates of infant mortality</td>
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<tr>
<td>1921</td>
<td>Sheppard-Towner Maternity and Infancy Act</td>
<td>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</td>
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<td>1935</td>
<td>Social Security Act, including Title V Maternal and Child Health Program</td>
<td>Title V—Created a coordinated Maternal and Child Health service system based on a federal–state partnership</td>
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<td>1965</td>
<td>Title XIX amended the Social Security Act to establish the Medicaid program</td>
<td>Provided health insurance to children and families in poverty</td>
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<td>1981</td>
<td>Omnibus Budget Reconciliation Act of 1981 (OBRA '81) Maternal and Child Health Services Block Grant Amendments to Title V</td>
<td>Shifted program planning, control, and accountability for Maternal and Child Health programs from federal to state and local governments</td>
</tr>
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<td>1989</td>
<td>Omnibus Budget Reconciliation Act (OBRA '89)</td>
<td>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 FPL</td>
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<td>1996</td>
<td>Personal Responsibility Work and Opportunity Reconciliation Act (PRWORA)</td>
<td>Delinked Medicaid eligibility and public assistance</td>
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<td>1997</td>
<td>Title XXI (SSA). State Child Health Insurance Program (SCHIP) established</td>
<td>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</td>
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<td>2003</td>
<td>Jobs and Growth Tax Relief Reconciliation Act</td>
<td>Raised all state Medicaid matching rates by 2.95 percentage points for the period of April 2003 through June 2004 as a temporary federal fiscal relief for the states due to the downturn of the economy, provided that the state maintains its Medicaid eligibility levels</td>
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<td>2006</td>
<td>Deficit Reduction Act of 2005 (DRA)</td>
<td>Allowed states to impose cost-sharing for most services on children eligible for Medicaid on an &quot;optional&quot; basis (generally those with family incomes above 100% of the FPL); required all children and parents who apply for Medicaid and who claim to be U.S. citizens to document their citizenship and identity; Medicare beneficiaries and most individuals with disabilities are exempt from this requirement; allowed states to offer disabled children under 19 with family incomes below 300% of FPL to purchase Medicaid coverage by paying income-related premiums</td>
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<td>Year</td>
<td>Legislation</td>
<td>Purpose</td>
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<td>2009</td>
<td>Children’s Health Insurance Program Reauthorization Act (CHIRPA)</td>
<td>Expanded Child Health Insurance Program (CHIP) to an additional 4 million children; gave states the option to eliminate a 5-year waiting period for legal immigrant children and pregnant women to be eligible for Medicaid and CHIP; rescinded the August 17 Directive, which had restricted states’ ability to cover children in families with income above 250% of the FPL</td>
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<tr>
<td>2009</td>
<td>American Recovery and Reinvestment Act (ARRA)</td>
<td>Provided enhanced Medicaid matching funds to states from October 1, 2008, through December 31, 2010, to help states maintain Medicaid eligibility levels and enrollment</td>
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<tr>
<td>2010</td>
<td>Patient Protection and Affordable Care Act (ACA)</td>
<td>Expands health insurance coverage to 32 million people by 2019; prevents states from reducing income eligibility threshold for CHIP and maintains current income eligibility for children’s Medicaid until 2019; regulates insurance companies to prevent insurers from dropping individuals when they become sick and denying coverage for pre-existing conditions</td>
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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 97-55, 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 and their families and expanded the mission of related 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, n.d.). 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% 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 fully implemented their EPSDT program, and to increase the number of children receiving preventive care, Congress included provisions in OBRA '89 that expanded the EPSDT program. The expanded provisions required 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 decline was the result of several factors, including the loss of manufacturing jobs, which often offered employees and their families affordable health insurance, and the concomitant rise in lower-paying service jobs, which often did not offer employees health insurance. The proportion of workers who were hired to fill 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, 2014).

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 years with family incomes that were up to 133% 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% of the federal poverty guidelines (Newacheck, Brindis, Calt, Marchi, & Irwin, 1999).

These Medicaid expansions began the "delinking" of Medicaid and public assistance status. This delinking process was finally completed in 1996 with the passage of the Personal Responsibility Work and Opportunity Reconciliation Act (PRWORA) (Moniz & Gorin, 2014). PRWORA separated the determination of eligibility for Medicaid from receipt of public assistance, which was called Temporary Assistance for Needy Families (TANF). The federal government required states to provide Medicaid coverage for children up to the age of 5 years in families with incomes of as much as 133% of the poverty guidelines and to cover children from the ages of 6 to 19 years old in families with incomes at or below the FPL.

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 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 SCHIP eligibility; among the states, eligibility ranges from less
than 200% to 400% 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 copayments for participation in their SCHIP programs. In 2009, premiums were required by 35 states, with some premiums as high as $100 or more per month (Henry J. Kaiser Family Foundation, 2009). The success of SCHIP has been highly variable and largely dependent on each state conducting aggressive and effective outreach, enrollment, and renewal efforts. 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 enacted measures to restrict coverage in their SCHIP programs (Henry J. Kaiser Family Foundation, 2009).

In 2009, Congress passed the Children’s Health Insurance Program Reauthorization Act (CHIPRA) and increased the funding by $33 billion with the expectation that 4.1 million additional children would be covered by 2013 (Moniz & Gorin, 2014). The Children’s Health Insurance Program (now called CHIP) is currently authorized through 2019; however, funding is only guaranteed through 2015.

Landmark health-care-reform legislation, The Patient Protection and Affordable Care Act (ACA), was signed into law by President Barack Obama in March 2010. The overall goals of the ACA are to (1) expand health insurance coverage, (2) increase focus on prevention, and (3) improve health-care efficiency and reduce costs (Hellerstedt, 2013). Key provisions of the act that affect children and youth include (1) eliminating lifetime caps on insurance coverage; (2) preventing states from reducing the income eligibility threshold for CHIP, extending CHIP through 2019 with funding through 2015, and providing funding for increased outreach efforts to enroll eligible children; (3) requiring insurers to cover comprehensive screenings and preventative care at no cost to the patient; (4) mandating Medicaid coverage for children aging out of the foster care system up to the age of 26 years; (5) barring insurance companies from denying coverage for pre-existing conditions; (6) allowing families to purchase child-only insurance packages from the Exchanges; (7) allowing young adults to remain on their parents’ insurance until they reach 26 years of age; (8) establishing a $200 million federal authorization program to expand school-based health centers; and (9) including $1.5 billion for the Home Visitation Grant Program to implement evidence-based maternal, infant, and early childhood visitation models (First Focus, 2012).

Under the ACA, individuals are required to have minimal health insurance coverage or pay a penalty; federal subsidies or tax credits may be used to help offset costs for low- and middle-income people who must purchase individual plans.

Since the enactment of the ACA, numerous cases have been filed against specific provisions of the Act. In June 2012, the U.S. Supreme Court upheld the constitutionality of the ACA but ruled that the ACA mandated expansion of Medicaid coverage would not be required for states. This expansion would have covered adults under the age of 65 years, including many low-income parents with incomes up to 133% of the FPL. Also, at the time of this writing, the Halbig v. Burwell case is working its way through the federal court system; this case challenges the health-care insurance subsidies used by close to 5 million Americans who bought insurance through the Exchange established by the federal government (Perkins & Singh, 2014).
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. It has been addressed in two ways: (1) through the creation of public health insurance programs for low-income children (e.g., Medicaid and CHIP, and provisions of the ACA) 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 and, most recently, the ACA).

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, & Halton, 1998). Beginning in the 1980s, with the expansion of eligibility for Medicaid, and extending through the implementation of the CHIP program, and provisions of the ACA, the federal insurance safety net has covered an increasing percentage of low-income children. A study of the New York state SCHIP program demonstrated that enrollment in SCHIP reduced preexisting racial/ethnic disparities in unmet need and access to and continuity of care among 2,290 children (Shone, Dick, Klein, Zwartziger, & Szilagyi, 2005). Kempe and associates (2005) in a study of Colorado's SCHIP program, found that one year after enrollment, families (N = 480) reported improved access to care, a decrease in unmet medical needs, an increase in routine-care visits, and a higher perception of quality care. Experts 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. DeVoe, Tillotson, and Wallace (2008) found that, compared with insured children who had at least one insured parent, children with uninsured parents were more likely to have never received preventive counseling services, to have insurance coverage gaps, and to have unmet health-care needs. Research findings such as these undergird the ACA's goal of expanding health insurance coverage to low-income adults, many of whom are parents.

Concept of a "Medical Home"

Although public insurance programs such as Medicaid, CHIP, and provisions of the ACA provide an important health insurance safety net for children and youth, insurance coverage alone is not sufficient for ensuring access to health services (Newacheck et al., 2005). A usual source of care and coordinated systems of care (Starfield, 2008) also need to be in place to respond to the 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 and youth services. The American Academy of Pediatrics and other advocacy groups have worked closely with the MCHB to implement the "medical home" concept for all children, especially children with special health care needs (American Academy of Pediatrics, 2012).

Although the term medical home was originally defined as a physical location, 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, p. 1475). 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 and have 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 2020 is to "increase the proportion of children with special health care needs who have access to a medical home" (U.S. DHHS, n.d.). The Head Start program and the Maternal and Child Health Bureau Services V Block Grant program require that states report on how and to what extent they are achieving this objective.

One of the goals of the ACA is to improve the quality and efficiency of health-care delivery. To meet this goal, the ACA has incorporated the medical home concept as one of its initiatives; the ACA uses the term patient-centered medical home (PCMH). The Agency for Healthcare Research and Quality (AHRQ) defines PCMH as a "model for organizing primary care that is comprehensive, patient-centered, coordinated, accessible, and high quality and safe" (AHRQ, n.d.).

Another systems-change approach to increasing access to health care for children and youth is to deliver health care in settings where the majority of children spend a large portion of their day. This approach is reflected in policy initiatives to support the development and ongoing operation of school-based and school-linked health centers. 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 (Chin et al., 2012). In fiscal year 2008, the federal government allocated $176 million for abstinence-only education. At that time, there was no federal program that supported comprehensive sex education to teach young people about both abstinence and contraception (Boonstra, 2009). Federal law required that abstinence-only sexuality education teach that sexual activity outside of marriage is wrong and harmful for everyone, irrespective of age (Boonstra, 2009). This mandate prohibited educators from providing information on contraceptive methods, with the exception of emphasizing their ineffectiveness (Boonstra, 2009). 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 (Boonstra, 2009).
However, empirical evidence did suggest that abstinence-only models may reduce contraceptive use among sexually active young people, thereby increasing their risk for STIs and unplanned pregnancies (Boonstra, 2009; Rosenbaum, 2009).

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 (Kohler, Manhart, & Lafferty, 2008). In 2009, the Obama administration created the Office of Adolescent Health (OAH) and introduced a new initiative that replaced the Community Based Abstinence Program. This initiative, called the Teen Pregnancy Prevention Initiative, focused on replicating programs that have proven effectiveness, allocated funds to develop and test innovative models and new strategies for preventing teen pregnancy, and developed a collaboration with the CDC to develop community-wide, multicomponent interventions (National Campaign to Prevent Teen and Unplanned Pregnancy, 2010; Sexuality Information and Education Council of the United States [SIECUS], 2012). More recently, the Affordable Care Act of 2010 created the Personal Responsibility Education Program (PREP), which is administered by the Administration for Children & Families. This program provides grants to states to fund evidence-based programs to educate adolescents about abstinence and contraception to prevent HIV, STIs, and pregnancy (SIECUS, 2012). PREP specifically targets adolescents who are in foster care or homeless, live in rural areas or areas with a high teen birth rate, or are from a racial or ethnic minority group. During the Obama administration, there has been a clear move toward funding evidence-based interventions that target risk and protective factors related to adolescent sexual health.

USING KNOWLEDGE OF RISK, PROTECTION, AND RESILIENCE TO ACHIEVE SERVICE INTEGRATION IN HEALTH POLICY

Service Integration in Health Policy: School-Based Health Centers

Meeting the health and social needs of children and adolescents, especially those involved in multiple service systems, requires policies that promote integration and collaboration among service systems. School-based health centers (SBHCs) are a prime example of effective service integration in the area of health and social policy. We will provide an overview of the history and funding of SBHCs, followed by a discussion of the services provided and evidence regarding their impact. This section is followed by a case study of an adolescent with multiple problems to illustrate how integrated service systems can best meet the needs of children and youth.

Historical Overview

In the United States, the first school-based health initiative began in New York City in 1894 to assess and contain children with contagious diseases, such as measles, scarlet fever, whooping cough, and tuberculosis (Keeton, Soleimanpour, & Brindis, 2012). In 1902, the first school nurse began providing treatment and care to students and also making home visits to provide health education to families regarding hygiene and other methods of disease control. The first SBHCs were opened in the late 1960s and early 1970s in
Cambridge, Massachusetts, Dallas, Texas, and Saint Paul, Minnesota, to provide accessible and affordable health care to poor children. In 1978, the Robert Wood Johnson Foundation sponsored the expansion of SBHCs throughout the United States in an effort to increase access to community-based health care for children and adolescents in underserved communities. Through these efforts, policymakers became more aware of SBHCs and their value. In 1995, the Health Resource and Service Administration began providing grant funding for SBHCs (Gustafson, 2005). Since the 1990s, the number of SBHCs has increased with the help of multiple funding streams. As part of the Affordable Care Act, $200 million was appropriated to SBHCs between 2010 and 2013 to improve and expand services to an estimated 875,000 youth per year, a 50% increase compared with youth served in 2009 (U.S. Department of Health and Human Services, 2011). A national SBHC advocacy organization, the School-Based Health Alliance, in a position statement, noted that the SBHC model has the components of a Patient Centered Medical Home (PCMH) as outlined in the ACA and that SBHCs across the country should strive to meet PCMH goals and standards (School-Based Health Alliance, n.d.).

There are nearly 2,000 school-based health centers located on elementary, middle, and high school campuses across the country (Keeton et al., 2012). These centers provide a range of services, including primary medical care, mental and behavioral health care, reproductive health services, dental/oral health care, and health education and promotion. Once primarily located in inner cities, SBHCs have expanded to rural, suburban, and urban areas (Lofink et al., 2013). SBHCs typically operate via a partnership between a school district and a local health organization such as a community health center, hospital, or health department. Most SBHCs are open five days a week before, during, and after school. SBHC staff include a mix of professionals: physicians, nurse practitioners, physician assistants, nurses, dieticians, dental hygienists, psychologists, counselors, social workers, and health educators (Brown & Bolen, 2012).

SBHCs rely on various funding and billing sources. Over 80% of SBHCs bill a state Medicaid agency, 71% bill Medicaid managed care organizations, 64% bill private insurance, and 40% bill Tri-Care (i.e., the health insurance program for military families). In addition to billing, SBHCs receive funds from state governments (75%), the federal government (53%), private foundations (40%), school districts (33%), hospitals (33%), local governments (32%), private health insurance organizations (27%), businesses (18%), and professional associations (7%) (Lofink et al., 2013).

**Primary Care**

SBHCs provide a range of primary care services including physical exams, immunizations, treatment for acute illnesses and injuries, treatment for common chronic diseases (e.g., asthma and diabetes), and routine health screening (Brown & Bolen, 2012). Researchers found overall significantly higher completion rates for immunization series among adolescents at SBHCs compared to those at community health centers despite serving an adolescent population with lower health insurance coverage (Federico, Abrams, Everhart, Melinkovich, & Hambrige, 2010). In a study of children with asthma, those with SBHCs showed less activity restriction due to asthma and fewer emergency department visits compared with the non-SBHC group (Mansour, Rose, Toole, Luzader, & Atherton, 2008).
Mental and Behavioral Health Care

In order to meet both the physical and mental health needs of youth, 78% of SBHCs provide some form of mental/behavioral health care (Lofink et al., 2013). These services include crisis intervention (78%), individual psychosocial assessment and treatment (75%), case management (69%), classroom behavior support (62%), substance abuse counseling (53%), assessment and treatment of learning problems (50%), peer mediation (45%), and prescription and management of psychoactive medication (39%). A longitudinal study showed that adolescents who were enrolled in a school with a SBHC were more likely to access mental health services (Guo, Wade, & Keller, 2008). The authors of another study 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).

Health Education and Prevention

Most SBHCs are also involved in health education and prevention activities in the areas of violence, substance use, nutrition, and physical activity. SBHC engagement in prevention activities varies by the type of preventive intervention (i.e., individual, small group, classroom, and school-wide interventions). Depending on the intervention format, 35% to 83% of SBHCs were involved in bullying and violence prevention, 30% to 76% were involved in school safety planning, 20% to 76% were involved in sexual assault and rape prevention and counseling, and 23% to 76% were involved in intimate partner and dating violence prevention and counseling. In terms of substance use, 36% to 82% of SBHCs were involved in some form of tobacco preventive intervention, 34% to 78% were involved in alcohol preventive interventions, and 33% to 78% were involved in drug preventive interventions. Finally, 37% to 90% of SBHCs were involved in health promotion activities regarding healthy eating, active living, and weight management (Lofink et al., 2013).

Reproductive Health Care

Many SBHCs in middle and high schools provide reproductive health services in the form of abstinence counseling (82%), pregnancy testing (81%), STD diagnosis and treatment (69%), testicular examinations (69%), contraceptive counseling (65%), and gynecological examinations (59%) (Lofink et al., 2013). Half of SBHCs were prohibited from dispensing contraceptives, most often due to school, district, and state policies. In centers that were allowed to provide contraceptive services, SBHCs were more likely to provide condoms as opposed to other methods of birth control such as the pill (Fothergill & Fejio, 2000). Although prenatal care is not available in most SBHCs, a study comparing adolescents receiving prenatal care in SBHCs had babies with higher birth weight compared with those receiving prenatal care in hospitals (Barnet, Duggan, & Devoe, 2003). Further, studies show that receiving prenatal care in SBHCs is associated with lower rates of absenteeism and dropout (Barnet, Arroyo, Devoe, & Duggan, 2004; Barnet et al., 2003).
**Oral and Dental Health Care**

Dental and oral health services are becoming more available at SBHCs and are provided on-site and through mobile units. Over 70% of SBHCs reported conducting dental screenings, which may be conducted by a dental/oral health or primary care provider. In addition, almost 40% of SBHCs provide dental examinations by either a dentist or dental hygienist and over 50% of SBHCs provide dental cleanings. Barriers to providing these services include cost, equipment needs, provider availability, space, and reimbursement (Lofink et al., 2013).

**Evaluations of School-Based Health Centers: Acceptability and Accessibility**

Evaluation findings of the acceptability of SBHCs among students have been promising. One study found that 86% of students rated the quality of care from their SBHC as satisfactory to excellent and 79% rated privacy in their SBHC as satisfactory to excellent (Santelli, Kouzis, & Newcomer, 1996). Similarly, another study found that 92% of students were satisfied with the services received at their SBHC, 79% felt comfortable receiving care at their SBHC, and 74% felt that their visits were confidential (Pastore, Juszczak, Fisher, & Friedman, 1998).

SBHCs provide developmentally appropriate and comprehensive care to children and adolescents in a familiar and accessible setting. The SBHC model links schools, communities, and health systems to provide an array of primary and preventive health-care services. SBHCs were designed to address barriers in access to care and help meet the needs of underserved children. The convenient location allows youth to access care in a timely manner, which might otherwise be delayed. Parents do not have to take time off from work to take their child to a provider, which may be particularly challenging for low-income and single-parent families. Furthermore, children do not have to miss school to receive care (Gustafson, 2005). In addition, despite recent improvements to expand health insurance coverage among children, millions of children remain uninsured or underinsured. Low-income and racial/ethnic minority children are less likely to have a regular source of health care and therefore may benefit from the SBHC model (Brown & Bolen, 2012). In some rural areas, SBHCs are the only source of primary care for children and youth (Hossain, Coughlin, & Zickafoose, 2014). SBHCs are also beneficial for youth with multiple health needs as well as high-risk youth, who benefit from immediate access to care (Jepson, Juszczak, & Fisher, 1998). Youth are more likely to use health-care services on a "spontaneous basis" (Pastore & Teychenow, 2004, p. 195); therefore, SBHCs offer location, convenience, confidentiality, and trust—all factors associated with the utilization of health and psychosocial services by youth (Brindis et al., 2003).

The following case study illustrates how a school-based health center 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 in school settings and the collaborative philosophy and interdisciplinary approach to providing services, school-based health centers are well positioned to integrate services for children and youth.
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 coursework 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 for the past 2 days, he has been experiencing a sore, burning sensation during urination. James is worried that he might have gonorrhea, but he has no idea 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 James 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. The psychiatrist also 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 CHIP 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 his mother to assist her in enrolling both of her children. James's enrollment in the CHIP program will allow the center to be reimbursed for services and will 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 other 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 STIs) 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: poverty and living in socially and physically unhealthy environments (Fraser, 2004; Moniz & Gorin, 2014). Access to care, which includes both access to health insurance and availability of coordinated and integrated 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 such as Medicaid and CHIP and now through the Affordable Care Act (ACA). Through Title V of the Social Security Act and provisions of the ACA, the federal government has supported the development of a more coordinated and comprehensive service system. The medical home and school-based health centers are examples of efforts at coordination and integration. School-based health centers are a promising example of integration of primary care, behavioral health, and prevention 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 creation of coordinated and integrated systems of care, although this would be a substantial achievement. National policy must also address the poverty and social inequities that contribute to poor health and well-being.

QUESTIONS FOR DISCUSSION

1. How do socioeconomic inequalities and physical and social environments contribute to health outcomes of children and youth? Given the existence of these inequalities, what effect will the full implementation of the Affordable Care Act, which expands insurance coverage to the uninsured and thereby increases access to medical care, have on the existing health disparities among children and youth?

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 models are you aware of that integrate service systems, including health care for children and youth? What policies and environmental factors need to be in place for these service delivery models to be developed, implemented and sustained?


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Midodzi, W. K., Rowe, B. H., Majesic, C. M., Saunders, L. D., & Senthilvelan, A. (2010). Early life factors associated with incidence of physician-diagnosed asthma in preschool children: Results from the


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**ADDITIONAL READING**


**WEB-BASED RESOURCES**

Association of Maternal and Child Health Programs (AMCHP), http://www.amchp.org/
Center for Health and Health Care in Schools, http://www.healthinschools.org
Centers for Disease Control and Prevention, http://www.cdc.gov/
Families USA, http://www.familiesusa.org/
March of Dimes, http://www.modimes.org/
The National Assembly on School Based Health Care, http://www.nashbc.org/