American Academy of Pediatrics
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POLICY STATEMENT

Achieving Quality Health Services for Adolescents

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of All Children

Committee on Adolescence

ABSTRACT

In recent years, there has been an increased national focus on assessing and improving the quality of health care. This statement provides recommendations and criteria for assessment of the quality of primary care delivered to adolescents in the United States. Consistent implementation of American Academy of Pediatrics recommendations (periodicity of visits and confidentiality issues), renewed attention to professional quality-improvement activities (access and immunizations) and public education, and modification of existing quality-measurement activities to ensure that quality is delivered are proposed as strategies that would lead to improved care for youth. *Pediatrics* 2008;121:1263–1270

www.pediatrics.org/cgi/doi/10.1542/peds.2008-0694

doi:10.1542/peds.2008-0694

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Key Words
quality preventive services, periodicity of visits, confidentiality issues, access, immunizations

Abbreviations
IOM—Institute of Medicine
AAP—American Academy of Pediatrics
STI—sexually transmitted infection
SCHIP—State Children's Health Insurance Program
AHRQ—Agency for Healthcare Research and Quality
CDC—Centers for Disease Control and Prevention
NCQA—National Committee for Quality Assurance
MCHB—Maternal and Child Health Bureau
CAHMI—Child and Adolescent Health Measurement Initiative
YAHCS—Young Adult Health Care Survey
HIPAA—Health Insurance Portability and Accountability Act

INTRODUCTION

In recent years, there has been an increased national focus on assessing and improving the quality of health care.[1,2] In a recently published policy statement, "Principles for the Development and Use of Quality Measures," the AAP's Steering Committee on Quality Improvement and Management and the Committee on Practice and Ambulatory Medicine provided a guide for pediatricians on the appropriate uses of quality measures and the criteria on which they should be based.[3] The Institute of Medicine (IOM) has identified health care quality as a national priority and has framed 4 consumer-oriented perspectives on health care needs: staying healthy, getting better, living with illness or disability, and coping with the end of life. The IOM has also addressed quality issues from the perspective of concern for safety, effectiveness, patient centeredness, and timeliness of care and with regard to equity across population subgroups.[4,5]

Access, affordability, cultural effectiveness, communication, and empathy are important attributes of quality care for all age groups. The American Academy of Pediatrics (AAP) has included quality of care in its strategic priorities. Providing quality care for children and adolescents requires that pediatricians maintain relationships with families and with community institutions such as schools or child care providers while maintaining the relationship with their patient. In providing quality care for adolescents, pediatricians must also help patients and their families as teenagers develop autonomy, responsibility, and an adult identity. Thus, adolescent services should also be developmentally appropriate.[6,7] Confidentiality, both in determining whether youth receive what they need and whether there are opportunities for private one-on-one time during health care visits, is a major factor that affects quality of care for many youth.[8,9]

Most adolescents are healthy. However, the preventable health problems of adolescents make specific screening and counseling services important. Most adult chronic diseases have origins during childhood and adolescence.[10,11] Reduction of risky behavior has great potential for reducing preventable adolescent and adult morbidity and mortality, and primary care clinicians can play a critical role in preventing adverse outcomes and promoting healthy lifestyles. Nonetheless, many youth are at high risk of early unintended pregnancy, sexually transmitted infections (STIs), and tobacco, alcohol, and substance use.[12] Alcohol, substance abuse, drunk driving, sexual activity, depression, suicide, smoking, violence, and guns are the primary causes of morbidity and mortality among adolescents.[13,14] Anticipatory guidance, screening, and counseling to reduce health risks are the centerpiece of pediatric and adolescent preventive care; nonetheless, the content of care delivered to many youth does not meet guidelines for care or the perceived needs of adolescent patients.[15]

With passage of the State Children's Health Insurance Program (SCHIP), commitment has been building to ensure that children and adolescents are part of national, state, and local efforts to improve health care quality. The expansion of health insurance coverage and emergence of new quality measures for children and youth create opportunities to assess and improve health services for America's 40 million adolescents. In 2002, the US Congress

mandated that the Agency for Healthcare Research and Quality (AHRQ) produce an annual report on health care disparities in the United States. The National Healthcare Disparities Report includes a broad set of performance measures used to monitor the nation's progress toward improved health care quality for all Americans and builds on the conceptual framework of reports from the IOM. In addition, in 2002, the AHRQ issued a call for measures for inclusion in its National Quality Measures Clearinghouse. Although performance measurement can help move efforts to improve preventive services for adolescents, federal quality and disparity measures are often restricted to those that can be obtained easily from hospital or other administrative databases. In addition, in 2006, the AHRQ issued the National Healthcare Quality Report,[6] which provided additional data on adolescent care and emphasized the need for assessment and measurements. Despite expert and consumer agreement about the importance of adolescent preventive care for health care system accountability and performance reporting, there are few current measurement methods.[2,16–19]

This statement provides recommendations and criteria for assessment of the quality of adolescent care and the need for comprehensive efforts to improve the quality of primary care delivered to adolescents in the United States. Because much of adolescent morbidity and mortality is preventable, this statement focuses on quality issues that relate to staying healthy—preventive care themes. Quality issues for acute, specialty, and hospital care needs, issues for children with special health care needs, and end-of-life issues, although important, are outside the scope of this review. As the federal government addresses increased attention to measurement and to development of quality indicators, better implementation of AAP guidelines,[12] renewed attention to professional quality-improvement activities and public education, and modification of existing quality-measurement activities to ensure that quality care is delivered are proposed as strategies that will lead to better care for youth.

ADOLESCENT HEALTH STATUS AND RISKY BEHAVIORS

The state of America's youth with regard to progress toward achieving national health objectives is mixed. Adolescents engage in high-risk behaviors that cause significant morbidity and mortality. Adolescents and young adults have higher incidences of substance abuse, unprotected sex, reckless driving, and violent behavior compared with adults. Unintentional injuries are the leading cause of death for children, adolescents, and young adults, and alcohol use plays a role in many injuries. Homicide and suicide are the next leading causes of death for adolescents.[15] Violence affects adolescents as both perpetrators and victims. Adolescents are susceptible to intimate partner violence as well, with between 9% and 60% of adolescents having experienced some form of dating violence, and as many as 21% of child abuse cases are perpetrated against adolescents.[20]

Risky and healthy behaviors that affect adult morbidity also have their origins during the adolescent years. According to the Centers for Disease Control and Prevention (CDC), more than half of all teenagers report having had sex, many do not use appropriate barrier protection, and 25% of all annual STI cases in the United States occur in adolescents. Nearly 13.4% of students in the United States had smoked at least 1 cigarette in the previous 30 days, and 23% have reported current cigarette use. Most American adolescents have consumed alcohol at least once in their lifetimes, almost half (43.3%) had consumed alcohol at least once in the previous 30 days, and more than 1 (25.5%) in 4 reported having consumed 5 or more alcoholic drinks on at least 1 occasion in the preceding month. The recommended daily fruit and vegetable intake in the United States is 5 servings per day; however, only 20.1% of adolescents eat the recommended amount. In addition, most adolescents engage in physical activities at lower-than-recommended levels.[15]

PRIMARY CARE ACCESS AND UTILIZATION

Adolescents are among those least likely to have access to health care, and they have the lowest rate of primary care use of any age group in the United States.[9,13] Adolescents and young adults, especially those in poverty, are more likely to be uninsured than any other age group, and many are underinsured with coverage that does not include preventive care, counseling, or other needed services.[13,21] More than 12 million (14.1%) infants, children, and young adults are uninsured, and an estimated 7 of those 12 million are either adolescents or young adults.[22] Although implementation of the SCHIP has improved access to care for more than 2 million previously uninsured children and adolescents, tremendous variation remains across states.[23]

More than 85% of adolescents in the United States report having a regular source of health care. Most families identify a pediatrician or family practitioner as a source of primary care, and most adolescents report having seen their clinician within the last year.[9,24] A study by the AAP Department of Practice and Research in 2003 found that pediatricians' share of visits from adolescents (ages 12–18) increased from 32.3% to 38.5% during a 10-year study period from 1991 to 2000.[25] For many reasons, including barriers to care for adolescents and lack of provider training and incentives, few adolescents receive recommended comprehensive preventive counseling and screening services on key topics such as alcohol use, depression, sexual activity, smoking, injury prevention, physical activity, and diet.[11,22,26,27]

Currently, even adolescents who receive health care often do not receive adequate preventive counseling, health promotion, or screening. Most physicians perform recommended preventive services at low rates, few adolescent visits are for preventive care, and many adolescent visits do not include health counseling or guidance.[11,26–28] Moreover, nearly half of the visits between adolescents and their doctors do not include an opportunity for the teenager to talk privately with the physician. Almost 1 in 3 adolescent girls and 1 in 4 boys report having missed needed care, almost 4 of 10 girls report

having been too embarrassed to talk about an issue with their physician, and fewer than half who thought they should talk about prevention of pregnancy or STIs had ever done so with their doctor.[9,28] Thus, a substantial proportion of visits could not have provided confidential counseling or screening for preventable risky behaviors.

Data from the National Committee for Quality Assurance (NCQA) in the Health Plan Employer Data and Information Set (HEDIS) are used to determine if adolescents have had an annual well visit as a measure of quality for health maintenance organizations' delivery of preventive care. However, this measure provides information only about how many continuously enrolled adolescents have had a visit that was administratively coded as a well visit. The measure does not provide information about whether counseling and/or screening was provided, whether there was an opportunity for a private and confidential encounter, or whether preventive services were provided outside the context of well visits.[29,30] In addition, few health plans score more than 50% on this measure,[31] despite the higher proportion of visits reported by either parents or adolescents. Adolescents might report a higher proportion of well visits because they believe that the care they receive during school or sports physical encounters is equivalent to regular preventive care. However, sports physicals, especially station-based examinations, are generally not comprehensive, high-quality preventive care encounters. Most station examinations do not include psychosocial screening to identify behavioral and other risks. Station examinations also do not allow for attention to longer-term risks of morbidity and mortality, because they are primarily focused on safety, orthopedic fitness, and risk of death from sports.[32] Station examinations also lack confidentiality. Without comprehensive screening, there are many missed opportunities for early diagnosis and treatment.[32]

Appropriate measures of quality also require definition of adolescents' expectations for the content of care delivered to them. Adolescents cite confidentiality, cost, and convenience as key determinants of their use of and satisfaction with care.[7,10] Confidentiality is the key for addressing many types of preventable problems, because fear of disclosure, diagnosis, and treatment may cause adolescents to delay or avoid needed care. Although most physicians support providing confidential care to adolescents, some are uncomfortable with the family negotiations that may surround independent care and decision-making, and few routinely arrange alternative billing or other systems to facilitate adolescents' using their practices confidentially. Nevertheless, several studies have shown that adolescents are both interested in and willing to talk with clinicians about recommended preventive counseling and screening topics, especially during private, confidential health care visits.[9,10,28,29]

ACCESS TO QUALITY CARE FOR ADOLESCENTS

For health services to meet adolescents' needs, they should meet criteria for both the system of health service delivery and the specific services provided.[7,33] Systems factors affect or facilitate adolescents actually receiving services. They are not services themselves but, rather, form the infrastructure of service delivery. These factors include health service organization and financing as well as various domains of access, including availability, affordability, confidentiality, visibility, convenience, flexibility, and coordination.[7] In contrast, services are a measure of the therapeutic interactions received and reflect service capacity, content, and utilization. Services variables also include quality.

Seven criteria for access to care have been proposed by the Society for Adolescent Medicine,[7] including:

- Availability: age-appropriate services and trained clinicians must be available in all communities.
- Visibility: health services for adolescents must be recognizable and convenient and should not require complex planning by adolescents or their parents.
- Quality: a basic level of service must be provided to all youth, and adolescents should be satisfied with the care they receive.
- Confidentiality: adolescents should be encouraged to involve their families in health decisions, but confidentiality must be ensured.
- Affordability: public and private insurance programs must provide adolescents with preventive and other services designed to promote healthy behaviors and decrease morbidity and mortality.
- Flexibility: services, clinicians, and delivery sites must cater to developmental, cultural, ethnic, and social diversity among adolescents.
- Coordination: service providers must ensure that comprehensive services are available to adolescents.

The developmental characteristics of adolescents make these 7 criteria critical for adolescents' health. Similarly, the preventable health problems of adolescents make the availability and visibility of certain preventive services—including family planning and reproductive health services, diagnosis and treatment of STIs and HIV, mental health counseling and treatment, and substance abuse counseling and treatment—critically important for those in this age group. Confidentiality, or the lack thereof, affects quality of care. In a recent survey, 58% of high school students reported health concerns that they wanted to keep private from their parents, approximately only one third of the respondents knew they were legally entitled to receive confidential care for specific health issues, and 68% reported concerns about the confidentiality of services provided in school-based clinics.[34]

The specific services that should be provided to adolescents are summarized by the AAP in its recommendations for clinical preventive services[35] and in *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*,[12] which recommend comprehensive preventive counseling and screening services, including annual preventive health care visits for adolescents between 11 and 21 years of age. Such visits should include confidential screening (through trigger questionnaires, clinical inter-

views, or other means), early identification, appropriate preventive care interventions, and referrals for behavioral, emotional, and medical risk; education and counseling on behavioral, emotional, and medical risks to health; and recommended immunizations. Ideally, these health services should be provided in the context of a medical home that provides coordinated care for youth and their families. When school-based health clinics serve as medical homes and provide primary care, they should be expected to meet similar criteria for the quality of the care they provide. In contrast, sports physicals conducted in schools, especially station-style examinations, undermine the primary care relationship and are unlikely to provide quality comprehensive care. Thus, school or other policies should not encourage supplanting routine well visits or the primary care relationship with sports physicals. In addition, forms used by schools and athletic teams for preparticipation sports examinations should incorporate preventive health assessment tools into their content.

It is also important to stress the implementation of office systems that prompt annual screening of adolescents. Preventive health prompts that alert the clinician or other members of the health care team when adolescents present for urgent care visits that preventive health services are due and systems that remind clinicians to address specific content can systematically increase the delivery of preventive services.[36]

Education and counseling include encouraging good health habits and providing guidance on avoiding risky behaviors (specifically, promotion of healthy eating, physical activity, and exercise; responsible sexual behaviors; avoidance of tobacco, alcohol, and other substances; use of seat belts and protective helmets; avoidance of drunk driving, interpersonal violence, and weapons; and other injury-prevention strategies). Screening, followed by target counseling or interventions for those found to be at risk, includes assessment for hypertension and hyperlipidemia, obesity, eating disorders, substance abuse, sexual orientation, sexual activity, pregnancy, HIV and other STIs and cervical cancer, school performance and learning disorders, depression and suicidality, involvement in or victimization from violence or abuse, and tuberculosis. In addition to AAP policies, similar components for adolescent preventive services have also been set forth by the American Medical Association, American Academy of Family Physicians, and the US Maternal and Child Health Bureau (MCHB).[12,35,37,38]

Recommendations for delivery of clinical preventive services to adolescents include counseling families to reinforce the importance of setting clear expectations for adolescent behavior, review firearm safety and access issues, and address the importance of parents as role models for healthy behavior.[12,35,37] Recent evidence also supports the importance of providing anticipatory guidance to parents, because it helps support their role in promoting positive youth development and helping develop protective factors in the lives of adolescents.[39]

EMERGING QUALITY MEASURES FOR ADOLESCENT CARE

The IOM conceptual framework for quality addresses 4 consumer-oriented perspectives on health needs: staying healthy, getting better, living with illness or disability, and coping with the end of life.[2] These concepts are crossed by 4 components of health care quality: safety, effectiveness, patient centeredness, and timeliness, each of which has had policy prominence in its own way. In addition, the IOM has identified equity across populations as a cross-cutting issue.[2,4] Equity refers to providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status. The IOM has also delineated criteria to apply in thinking about individual quality measures: the overall importance of the aspect of quality being measured, the scientific soundness of the measure, and the feasibility of measurement.[4]

During the 1990s, numerous observers remarked on the lack of valid or reliable quality measures for children's health care.[40,41] In response, federal and private-sector funders invested in the development, testing, and implementation of quality measures for children's health care. Access (as in provider capacity), immunization rates, and the rates at which children and adolescents have well visits are used by the NCQA as quality indicators for health maintenance organizations, but these measures provide no information about the provision of preventive counseling and screening and do not take into account the fact that preventive services are often provided outside of well visits. Mangione-Smith and McGlynn,[41] of the Rand Corporation, have developed extensive chart-based measures of care quality for children and youth. The AHRQ and CDC have also helped develop other valid and reliable adolescent quality measures that could be used for public health or managed care surveillance. The AHRQ has also called for a research agenda in quality measurement for children's health care, the National Initiative for Children's Health Care Quality has been founded, and the AAP has launched several quality-improvement initiatives for pediatric practice.[19,36]

The Child and Adolescent Health Measurement Initiative (CAHMI) was established in 1998 by the Foundation for Accountability to provide leadership and resources for quality of health care for children and adolescents. The CAHMI collaboration includes the NCQA, the AAP, Children Now, the CDC, the AHRQ, the MCHB, and others.[36] The CAHMI has developed and studied 3 measures for children and youth services quality: a child development measure for children between 0 and 48 months of age; a measure for identification of children with chronic illness or special health needs; and an adolescent preventive care measure, called the Young Adult Health Care Survey (YAHCS),[29] for teenagers 14 to 18 years of age, which assesses whether adolescents are receiving recommended health care services. This YAHCS has also been endorsed by the National Quality Forum.

Adolescents have been found to be more valid and reliable than chart review and other data sources in reporting their experiences with preventive care.[30,42] The YAHCS items have been shown to be valid (compared with audiotaped visits) and more accurate than chart data about processes of care.[42] The YAHCS items have also been shown to be reliable[30] in measuring quality of

adolescent preventive care. The YAHCS measurement scales have also demonstrated strong construct validity (mean factor loading = .64) and reliability (mean Cronbach's α = .77).[29]

The YAHCS items ask adolescents directly about the health care they received in the previous 12 months. In fact, because many of the discussions during adolescents' visits are conducted privately between adolescents and their clinicians, adolescents are likely to be a better source of some kinds of information than either their parents or their charts. The 7 YAHCS quality measures address key aspects of recommended preventive care, including (1) screening and counseling for risky behavior (smoking, alcohol use, violence, and guns); (2) screening and counseling for sexual activity and STIs and pregnancy prevention; (3) screening and counseling for mental health and depression; (4) promotion of healthy lifestyle issues (diet, weight, and exercise); (5) private and confidential health care; (6) perceived helpfulness and effectiveness of visits; and (7) adolescents' rating of their clinician's communication and an overall rating of care. The YAHCS also asks about adolescents' health care use, health status, and participation in risky behaviors, because this information can be helpful in assessing whether an adolescent's needs are being met.

The YAHCS is also aligned with the AAP preventive care policies as well as with guidelines from the American Medical Association, American Academy of Family Physicians, MCHB, and *Healthy People 2010*. Average preventive counseling and screening scores from the YAHCS range from 18.2% for discussing risky behavior topics to 50.4% for discussing diet, weight, and exercise topics.[29] The YAHCS can be used to bridge efforts to measure the performance of health care plans and clinicians, target and improve health care quality, and assess and improve public health.

Health plan accreditation and quality assessment, state policies and surveillance systems, and tracking of quality and disparities by the AHRQ have few measures for adolescent care. The AAP is concerned that the gaps in the proposed measure set reflect inconsistent measurement development and will fail to document quality in important domains such as health status and outcomes of care. Thus, it is critical that the gaps in reporting be seen as mandates for improved measure specification and data collection and not as a de facto standard in our expectations for future reporting. Better implementation of AAP policies, renewed attention to professional quality-improvement activities and public education, and modification of existing quality-measurement activities to ensure that quality care is delivered are proposed as strategies that would lead to better care for youth.

OPPORTUNITIES AND CHALLENGES FOR PRIMARY CARE

The system of primary care for adolescents in the United States is changing along with broader changes in the content, organization, and financing of all health services. These changing patterns in the organization of health care may both improve and hinder the care received by adolescents. Similarly, changes in the science of medicine, as well as in technology both in and out of health care may have significant implications for health care delivery to children and their families. The growth of large, integrated health care delivery systems may lead to greater community orientation and more explicit consideration of adolescents' needs. On the other hand, consolidation of services may lead to fewer opportunities and may not result in greater attention to the quality of care delivered or studies of prevention or treatment effectiveness.

Large systems may threaten the quality of health care for children and adolescents. If service delivery systems are not appropriately designed for them, adolescents' ability to use health care may suffer. Regulations of the Health Insurance Portability and Accountability Act (HIPAA) allow states with permissive confidentiality policies to continue them. However, the HIPAA is also expected to make confidential care more difficult to deliver in some areas. Some clinicians may interpret and view HIPAA regulations as restrictive barriers to delivering preventive health care services to adolescents rather than as protective of confidential care. A focus on costs may erode support for many services. Primary care clinicians may have less opportunity to provide anticipatory guidance, behavioral assessment and interventions, or health promotion and disease-prevention counseling.

Adolescents are often unable to anticipate or plan for their needs. Thus, to serve adolescents appropriately, services must be available in a wide range of health care settings, including community-based adolescent health, family planning, and public health clinics; school-based and school-linked health clinics; physicians' offices and physicians' offices affiliated with health maintenance organizations; health maintenance organizations; and hospitals. Without multiple entry points and a diversity of care resources, adolescents are less likely to connect with the appropriate care resources.

Computer technology and the Internet have affected the practice of medicine in the method and speed of access to information and in the nature of communication among physicians, patients, and other members of the health care team. These technological advances provide opportunities for distance education and support for patients. However, the media and the Internet also may lead to misinformation for physicians and patients. Many consumers have difficulty critically appraising health-related information. The education of primary care clinicians must include training in the informatics of health care and the potential promise and problems inherent in technological change.

Coordinated efforts to address disparities in quality should be part of the quality agenda for adolescents' health. This must include measures and surveillance that can identify disparities based on age as well as sensitivity to cultural differences in interpretation and performance of quality measures. However, there are concerns about both the relevancy and appropriateness of the measure set proposed by AHRQ in tracking quality and disparities for pediatric and adolescent health care. Overreliance on clinical or administrative data will fail to document qual-

ity in important domains such as health status and outcomes of care. In addition, if the national initiatives simply report on available data, they may fail to truly address quality and may lead clinicians and others to focus their attention on what is now measured rather than on what is truly important in improving health care.

CONCLUSIONS AND RECOMMENDATIONS

The IOM refers to the discrepancy between the health care that Americans receive and the health care that Americans should receive as a "quality chasm." Adolescents, although traditionally thought of as healthy, are not exempt from this problem. Adolescents have unique health care needs that are not always addressed, and young people often face significant barriers to obtaining needed health care, including lack of insurance, financial difficulty, and lack of (or perceived lack of) confidentiality. Most adolescent morbidity and mortality is attributable to preventable risk factors, and AAP guidelines for quality adolescent health care include screening and counseling to promote healthy behaviors and prevent risky behaviors and for the provision of confidential care.

The AAP believes that it is possible to raise awareness about these issues and ensure that primary care for children and adolescents provides comprehensive service packages and sufficient support to allow clinicians to identify and coordinate services for the common biomedical, behavioral, and educational problems of children.

Public policy must help support improvements in our health care system so that more children and adolescents receive quality care. Employer-sponsored insurance often leaves uncovered some of the services, such as reproductive health or mental health services, that adolescents need the most. Public insurance programs, including Medicaid and the SCHIP, provide an opportunity to increase the number of children with insurance coverage. The first challenge for these programs, as has been the case for Medicaid, is to enroll eligible children and adolescents. However, as the SCHIP expands insurance coverage to a greater proportion of poor and near-poor youth, understanding and addressing the nonfinancial factors that affect access and quality of care become increasingly important. To be effective, these programs must address the reasons that adolescents miss needed care, such as lack of confidentiality or the ability to choose clinicians who are geographically and culturally accessible.

Meaningful measures that assess the quality of primary care have been developed but have been slow to enter the field, with actual use in the health care system itself far from optimal. Child and adolescent health has unique characteristics that differentiate it from adult health and require the development of specific measures. First, children's growth is rapid and presents challenges that often require distinct measures for different age groups. In addition, children have different patterns of health, illness, and disability. They have fewer chronic conditions than adults do; thus, quality measurement for children with chronic illness requires noncategorical approaches to assessment. Children also depend on adults for access to care, adherence to recommended treatments, and continuity of care. Quality-measurement and -improvement initiatives need to be developed to specifically address the transition of care from adolescence into adulthood. As adolescents assume responsibility for their own health behaviors, the importance of confidential screening and counseling requires clinicians to derive information directly from youth.

Improving the health of children and adolescents is a quality-of-care issue, a professional education issue, and a personal and family responsibility issue. National and community solutions and coordinated efforts are needed to improve health care systems and improve the quality of preventive health care delivered to youth; to help promote improvements in quality through support of professional and consumer education campaigns; and to support quality-improvement initiatives in states, managed care plans, and communities.

Families have a special role to play in advocating for their teenagers' health. Most parents or guardians want a professional they trust, such as their pediatrician, to promote healthy, responsible behavior and provide accurate information about health risks so that youth at risk can be identified and offered appropriate help. Thus, every adolescent's parent or guardian should be supportive of ensuring that their teenager has private, confidential time during their health care encounters so that important, preventable issues are addressed.

Pediatricians need to provide care that includes effective counseling skills and must have the right incentives to work with adolescents and their families. This depends on understanding the adolescent's health-behavior choices in context and helping patients make the healthiest choices for themselves. Skills such as motivational interviewing[43] and tailoring behavior-change counseling to patients' stage of change can help physicians counsel youth and their families more effectively.[44]

There are few current federal initiatives to improve care for adolescents. The MCHB funds the Office of Adolescent Health, interdisciplinary adolescent health training programs, and implementation of comprehensive preventive care guidelines. In addition, the Bureau of Primary Care, the CDC, and some states have supported adolescent prevention services quality-improvement initiatives. However, concerted and sustained federal and state efforts will be needed to ensure quality services for most of our nation's youth.

Public health surveillance and health care quality-assurance activities should use measures that assess adolescents' experiences with care, ensuring that confidential counseling opportunities are provided (rather than by relying on parental report). Use of adolescent self-report to assess the content of primary care delivered to youth via managed care quality assurance and public health surveillance systems has the potential to improve the quality of adolescent care.

The AAP recommends the following:

1. All children and adolescents should receive comprehensive, confidential (as appropriate) primary care as recommended by AAP guidelines,[12] including screen-

ing, counseling, and physical and laboratory evaluations.

2. All children and adolescents should be covered by health insurance that provides benefits and care in accordance with AAP guidelines[12] and that provides coverage and access to pediatric specialists for care identified as medically necessary during recommended screening and health supervision visits.
3. State governments should ensure that adolescent confidentiality is preserved and/or protected as HIPAA regulations and electronic health records undergo implementation.
4. Private-sector and government payers should develop policies and contract standards to promote access to adolescent care and availability of confidential services for adolescents and should provide other incentives for delivery of high-quality care to adolescents.
5. Public education should help parents and other consumers understand what constitutes high-quality adolescent primary care so that consumers can be better advocates for confidential and private screening and counseling in settings they trust to help keep their children healthy.
6. Pediatricians and other adolescent health care clinicians should be provided professional education about effective strategies for delivery of high-quality adolescent primary care.
7. Feasible, valid, and reliable quality measures should be developed and implemented that use adolescent self-reported data to help assess the quality of preventive care provided to youth. In addition, existing measures that were developed in association with initiatives designed to improve the care delivered to adolescent patients should be catalogued and improved for use by external quality-measurement organizations

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REFERENCES

1. Lansky D. Measuring what matters to the public. *Health Aff (Millwood).* 1998;17(4):40–41
2. US Department of Health and Human Services, Domestic Policy Council. *The Challenge and Potential for Assuring Quality Health Care for the 21st Century*. Washington, DC: Domestic Policy Council, US Department of Health and Human Services; 1998. Available at: www.ahrq.gov/qual/21stcena.htm. Accessed May 23, 2007
3. American Academy of Pediatrics, Steering Committee on Quality Improvement and Management, Committee on Practice and Ambulatory Medicine; Hodgson ES, Simpson L, Lannon CM. Principles for the development and use of quality measures. *Pediatrics.* 2008;121(2):411–418
4. Institute of Medicine, Committee on Quality of Health Care in America. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academies Press; 2001
5. Institute of Medicine, Committee on Quality of Health Care in America. *To Err Is Human: Building a Safer Health System.* Kohn LT, Corrigan JM, Donaldson MS, eds. Washington, DC: National Academies Press; 2000
6. Agency for Healthcare Research and Quality. *2006 National Healthcare Quality Report*. Rockville, MD: US Department of Health and Human Services, Agency for Healthcare Research and Quality; 2006. AHRQ publication 07-0013
7. Klein JD, Slap GB, Elster B, Schonberg SK. Access to health care for adolescents. *J Adolesc Health.* 1992;13(2):162–170
8. Resnick MD, Blum RW, Hedin D. The appropriateness of health services for adolescents: youth's opinions and attitudes. *J Adolesc Health Care.* 1980;1(2):137–145
9. Klein JD, Wilson KM, McNulty M, Kapphahn C, Collins KS. Access to medical care for adolescents: results from the 1997 Commonwealth Fund Survey of the Health of Adolescent Girls. *J Adolesc Health.* 1999;25(2):120–130
10. Ford CA, Bearman PS, Moody J. Foregone health care among adolescents. *JAMA.* 1999;282(23):2227–2234
11. Towey K, Fleming M. *Healthy Youth 2010: Supporting the 21 Critical Adolescent Objectives*. Chicago, IL: American Medical Association; 2003
12. Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2008
13. US Office of Technology Assessment. *Adolescent Health: Volume I—Summary and Policy Options.* Washington, DC: US Government Printing Office; 1991. Publication OTA-H-468
14. Kann L, Kinchen SA, Williams BI, et al. Youth risk behavior surveillance: United States, 1999. *J Sch Health.* 2000;70(7):271–285
15. Centers for Disease Control and Prevention. Youth risk behavior surveillance: United States, 2005. *MMWR Surveill Summ.* 2006;55(5):1–108
16. Klein JD, Wilson KM. Delivering quality care: adolescents' discussion of health risks with their providers. *J Adolesc Health.* 2002;30(3):190–195
17. Simpson L. Quality of care: time to make the grade. *Pediatrics.* 2001;107(1):171
18. McGlynn EA, Halfon N. Overview of issues in improving quality of care for children. *Health Serv Res.* 1998;33(4 pt 2):977–1000
19. Ferris TG, Dougherty D, Blumenthal D, Perrin JM. A report card on quality improvement for children's health care. *Pediatrics.* 2001;107(1):143–155
20. Schwarz DF. Violence. *Pediatr Rev.* 1996;17(6):197–201
21. Newacheck PW, Brindis CD, Cart CU, Marchi K, Irwin CE. Adolescent health insurance coverage: recent changes and access to care. *Pediatrics.* 1999;104(2 pt 1):195–202
22. American Academy of Pediatrics, Department of Practice. Chil-

dren's health insurance status and Medicaid/SCHIP eligibility and enrollment. Available at: www.aap.org/research/cps.pdf. Accessed January 24, 2008
23. Dougherty DM, Simpson LA, Eisenberg JM. Children's health care issues: a continuing priority. *Health Serv Res.* 2000;35(4): xi–xix
24. Hedberg VA, Byrd RS, Klein JD, Auinger P, Weitzman M. The role of community health centers in providing preventive care to adolescents. *Arch Pediatr Adolesc Med.* 1996;150(6):603–608
25. American Academy of Pediatrics, Department of Practice and Research. From infants to teens: pediatricians provided primary care for more children, 1991–2000. Available at: www.aap.org/research/PASPoster2003.pdf. Accessed January 11, 2008
26. Igra V, Millstein SG. Current status and approaches to improving preventive services for adolescents. *JAMA.* 1993;269(11): 1408–1412
27. Klein JD, Allan MJ, Elster AB, et al. Improving adolescent preventive care in community health centers. *Pediatrics.* 2001; 107(2):318–327
28. Kapphahn CJ, Wilson KM, Klein JD. Adolescent girls' and boys' preferences for provider gender and confidentiality in their health care. *J Adolesc Health.* 1999;25(2):131–142
29. Bethell C, Klein J, Peck C. Assessing health system provision of adolescent preventive services: the Young Adult Health Care Survey. *Med Care.* 2001;39(5):478–490
30. Santelli J, Klein J, Graff C, Allan M, Elster A. Reliability in adolescent reporting of clinician counseling, health care use, and health behaviors. *Med Care.* 2002;40(1):26–37
31. New York State Department of Health, Office of Managed Care. Managed care. Available at: www.health.state.ny.us/health_care/managed_care/index.htm. Accessed May 23, 2007
32. American Academy of Pediatrics, Committee on School Health. School health assessments. *Pediatrics.* 2000;105(4 pt 1): 875–877
33. Klein JD, Slap GB, Elster AB, Cohn SE. Adolescents and access to health care. *Bull N Y Acad Med.* 1993;70(3):219–235
34. Cheng TL, Savageau JA, Sattler AL, DeWitt TG. Confidentiality in health care: a survey of knowledge, perceptions, and attitudes among high school students. *JAMA.* 1993;269(11): 1404–1407
35. American Academy of Pediatrics, Committee on Practice and Ambulatory Medicine. Recommendations for preventive pediatric health care. *Pediatrics.* 2000;105:645–646. Available at: http://aappolicy.aappublications.org/cgi/content/full/pediatrics%3b105/3/645. Accessed May 22, 2007
36. Child and Adolescent Health Measurement Initiative, Foundation for Accountability. *The Children With Special Health Care Needs (CSHCN) Screener*. Portland, OR: Child and Adolescent Health Measurement Initiative; 2002
37. American Medical Association. *Guidelines for Adolescent Preventive Services.* Levenberg PB, Elster AB, eds. Chicago, IL: American Medical Association; 1995
38. American Academy of Family Physicians, Commission on Public Health and Scientific Affairs. AAFP age charts for periodic health examinations: 13 to 18 years. *Am Fam Physician.* 1992; 45:808–810
39. Resnick MD. Protective factors, resiliency and healthy youth development. *Adolesc Med.* 2000;11(1):157–165
40. Schuster MA, McGlynn EA, Brook RH. How good is the quality of health care in the United States? *Milbank Q.* 1998;76(4): 517–563, 509
41. Mangione-Smith R, McGlynn EA. Assessing the quality of healthcare provided to children. *Health Serv Res.* 1998;33(4 pt 2):1059–1090
42. Klein JD, Graff CA, Santelli JS, Hedberg VA, Allan MJ, Elster AB. Developing quality measures for adolescent care: validity of adolescents' self-reported receipt of preventive services. *Health Serv Res.* 1999;34(1 pt 2):391–404
43. Rollnick S, Heather N, Bell A. Negotiating behavior change in medical settings: the development of brief motivational interviewing. *J Ment Health.* 1992;1:25–37
44. Prochaska JO, Velicer WF. The transtheoretical model of health behavior change. *Am J Health Promot.* 1997;12(1):38–48

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Pediatrics 2008;121;1263
DOI: 10.1542/peds.2008-0694