REPORT - NO. 5
NOVEMBER 2010

STRENGTHENING PREVENTIVE CARE TO BETTER ADDRESS MULTIPLE HEALTH RISKS AMONG ADOLESCENTS

Unhealthy behaviors among today's adolescents place them at considerable risk for poor health outcomes. Yet, they are not receiving the clinical preventive care they need. This report summarizes the presentations and discussions at the Adolescent Preventive Services Institute held at the American College of Preventive Medicine 2010 Annual Meeting. In addition to presenting new research on multiple risk behaviors among adolescents and the underutilization of preventive services, speakers addressed effective strategies for improving clinical and community-based services and opportunities through health reform implementation to strengthen adolescent preventive care.

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This report summarizes the presentations and discussions at the Adolescent Preventive Services Institute held at the American College of Preventive Medicine's 2010 Annual Meeting. The Institute's speakers provided new information on multiple risk behaviors among adolescents and on adolescents' underutilization of clinical preventive services. They addressed strategies for improving clinical and community prevention services for teens engaged in multiple risks and showed how a comprehensive, interdisciplinary primary care model can deliver these services in practice. Speakers also examined opportunities to enhance preventive interventions for adolescents under the Patient Protection and Affordable Care Act.

Adolescent Preventive Services Institute
American College of Preventive Medicine Annual Meeting
February 17, 2010

Presentations

Harriette Fox, Chief Executive Officer, The National Alliance to Advance Adolescent Health
Multiple Risk Behaviors Among High School Students

Peggy McManus, President, The National Alliance to Advance Adolescent Health
Reducing Multiple Risk in Adolescents through Clinical and Community-Based Prevention

Susan Maloney, Managing Senior Fellow and Senior Program Officer, Partnership for Prevention
Adolescent Preventive Services: Clinical Preventive Services Recommendations and Primary Care Visit Patterns

Angela Diaz, Director, Mount Sinai Adolescent Health Center
The Mount Sinai Adolescent Health Center Approach to Delivering Clinical Preventive Services

Anne Morris, Legislative Analyst, House Energy and Commerce Committee
Prevention and Health Promotion in Health Reform Legislation

Prevalence and Co-Occurrence of Teen Risk Behaviors

Data reveal an alarming prevalence of risk behaviors among adolescents. A recent study completed by The National Alliance to Advance Adolescent Health shows not only a high prevalence of individual risk behaviors, but also significant co-occurrence of multiple risk behaviors among high school students in the U.S. This study, based on the 2007 Youth Risk Behavior Survey data, examined 12 significant risk behaviors including unsafe sexual behavior, unhealthy eating and exercise patterns, mental health and substance abuse problems, and behaviors that contribute to violence.[1]

Prevalence of risk behaviors. Almost 30% of students reported feeling persistent sadness, and the same proportion engaged in problem alcohol behavior. About one in five were involved in two or more fights in the past year, used marijuana in the last month, or had ever used other drugs besides marijuana. The prevalence rates for six of the 12 risk behaviors increased significantly from ninth to twelfth grade, with the greatest change occurring in the prevalence of unprotected sex and frequent smoking. For seven of the behaviors, males reported higher prevalence than females; females reported higher prevalence of persistent sadness, abnormal weight loss behavior, unprotected sex, and not exercising. Hispanic students reported higher prevalence than White students for seven of the 12 indicators, and Black students reported higher prevalence than White students on six behaviors.

Prevalence of Selected Risk Behaviors Among High School Students[1]

Risk Behaviors	Total
Intercourse before age 13	7.5%
Last intercourse unprotected	17.5
Persistent sadness	28.7
Suicidal thoughts or plans	17.6
Abnormal weight loss behavior	16.0
No exercise in the past week	16.6
Current frequent smoker	8.2
Problem alcohol behavior	28.7
Used marijuana in the past month	20.1
Ever used other drug	20.3
Two or more fights in the past year	21.8
Carried a weapon in the past month	18.5

Co-occurring risk behaviors. This analysis, building on a large body of literature, specifically looked at how these risky behaviors cluster at the individual level. It reveals the predisposition of students engaging in specific behaviors to be engaged in others. Two low-prevalence behaviors -- having intercourse before age 13 and frequent smoking -- are tied to high prevalence of seven other risk behaviors. Only 8% of students reported having intercourse before age 13, but among these adolescents, more than 40% have been in two or more fights within the past year, and the same proportion carried a weapon to school, felt persistently sad, had unprotected sex, engaged in problem alcohol behavior, used marijuana in the past month, and ever used other drugs. Similarly, only 8% of students reported frequent smoking, but these students engaged in other risk behaviors at higher rates than non-smokers. In fact, 75% reported problem alcohol behavior, 70% reported recent marijuana use, and more than 60% reported other drug use. Students engaged in one substance abuse risk behavior tended to engage in others. Of note is the fact that the only risk behavior included in the study *not* linked to high likelihood of other risks was lack of exercise within the last week.

More than half of students reported engaging in two or more risk behaviors, and nearly a quarter engaged in four or more. From ninth to twelfth grade, the prevalence of multiple risk behaviors increased consistently, with males more likely than females to be engaged in multiple

risk behaviors. Black and Hispanic students were more likely than White students to report two or more risk behaviors, though Blacks were significantly less likely than White or Hispanic students to report five or more risk behaviors.

These findings underscore the need to adequately capture the complexities of adolescent behavior and distinguish between a teen experimenting with risky behaviors and a teen who is engaged in multiple risk-taking behaviors that may indicate the potential for serious health problems. The teen with multiple risk behaviors may benefit from more intensive behavioral counseling, additional preventive or primary care visits, and coordinated follow-up. In addition, attention should be given to improving and validating existing risk assessment tools.

Prevalence of Multiple Risk Behaviors Among Students Engaging in At Least One Risk Behavior

Risk Behaviors	Co-Occurring Risk Behaviors											
	Intercourse before age 13	Last intercourse unprotected	Persistent sadness	Suicidal thoughts or plans	Abnormal weight loss behavior	No exercise in the past week	Current frequent smoker	Problem alcohol behavior	Used marijuana in the past month	Ever used other drug	Two or more fights	Carried a weapon
Intercourse before age 13	--	44.3%	39.1%	28.8%	26.9%	14.7%	22.6%	43.6%	41.6%	43.6%	50.2%	43.5%
Last intercourse unprotected	19.0%	--	43.5	27.8	25.8	24.5	20.2	45.9	37.3	37.8	30.7	23.6
Persistent sadness	10.2	26.5	--	41.5	30.4	20.9	12.6	37.0	28.1	34.0	30.3	22.9
Suicidal thoughts or plans	12.3	27.6	67.7	--	35.3	22.6	15.4	41.7	31.9	41.2	33.7	27.6
Abnormal weight loss behavior	12.6	28.2	54.5	38.8	--	18.1	14.9	45.7	32.0	39.8	32.2	24.1
No exercise in the past week	6.6	25.9	36.1	24.0	17.4	--	12.3	26.4	21.2	23.0	18.3	15.6
Current frequent smoker	20.6	43.0	43.9	33.0	29.1	24.7	--	75.1	70.4	63.2	42.3	39.9
Problem alcohol behavior	11.4	28.0	37.0	25.5	25.5	15.2	21.5	--	48.6	40.6	34.6	29.5
Used marijuana in the past month	15.5	32.5	40.1	27.9	25.5	17.5	28.8	69.3	--	48.0	40.9	33.5
Ever used other drug	16.1	32.6	48.1	35.8	31.4	18.8	25.6	57.4	47.5	--	41.1	33.6
Two or more fights in the past year	17.3	24.7	39.9	27.2	23.6	13.9	15.9	45.7	37.8	38.2	--	42.3
Carried a weapon in the past month	17.7	22.3	35.6	26.3	20.9	14.0	17.7	45.9	36.5	36.9	49.9	--

Source: Fox HB, McManus MA, Arnold KN. *Significant Multiple Risk Behaviors Among U.S. High School Students*. Washington, DC: The National Alliance to Advance Adolescent Health, March 2010.

Clinical Preventive Services for Adolescents

Underutilization of clinical preventive services for adolescents. For adolescents aged 11 to 17 years, there are currently eight screening and counseling services that have met the rigorous evaluation criteria of the U.S. Preventive Services Task Force (USPSTF) and four immunizations recommended by the Advisory Committee on Immunization Practices. However, despite an obvious need for preventive care, few adolescents are accessing even these recommended services.

Literature on the prevalence of clinical preventive service delivery for adolescents is sparse and generally based on self-reports from physicians. Two exceptions are Pap smears to detect cervical cancer and chlamydia screening for sexually active young women.[2] According to 2009 HEDIS data, Pap smears were delivered to 77% of eligible females in commercial health plans and 66% in Medicaid health plans; chlamydia screening stood at 41% and 54%, respectively.[3]

USPSTF and ACIP Recommended Services and Immunizations	
Screening and Counseling	
Cervical cancer (Pap)	Sexually active women
Chlamydia	Sexually active women
Depression	All adolescents
Tobacco	All adolescents
Gonorrhea	Sexually active women
Syphilis	Increased risk for STDs
HIV	Increased risk for STDs
Obesity	Ages 6 and over
Immunizations	
Tdap, influenza	All adolescents
Meningococcal vaccines	All adolescents
HPV	Adolescent girls
Pneumococcal, hepatitis A	At risk adolescents

To understand more about opportunities to deliver preventive care, HealthPartners Research Foundation analyzed primary care visit patterns and found utilization of recommended adolescent preventive services was quite low in a large Minnesota health plan that serves both commercially and Medicaid-insured patients. Based on claims data from over 40,000 continuously insured 13 to 18-year-olds, the mean rate of preventive visits per year was as low as 0.2 for males and 0.3 for females. Averaged across the group, this means that only about 2 or 3% of teens are seen annually for a preventive care visit. However, the annual mean visit rate for non-preventive visits was 1.7 for females and 1.3 for males, indicating that teens visit their primary care source much more frequently for reasons not associated with prevention. Over the course of their teen years, these continuously insured adolescents averaged one preventive visit, while females had 7.7 visits for acute or chronic care, and males had 5.9 such visits.[4] Given this current underutilization of clinical preventive services, it is important that clinicians use every adolescent visit as an opportunity to deliver recommended clinical preventive services.

Poor evidence base for adolescent clinical preventive services. Reviews of clinical preventive services demonstrate inconsistent efficacy, lack of evidence, and low delivery prevalence, even of recommended services. A summary of the evidence gaps identified by the USPSTF revealed inadequate evidence about the short-term and long-term effects of counseling and screening services for adolescents in a primary care setting. Additionally, there was little evidence regarding the acceptability or harms of interventions. For many clinical preventive services, the interventions had been adequately studied in adults, but not in adolescents.[2]

Barriers to Delivery of Preventive Services

Several barriers to providing comprehensive and appropriate preventive services for adolescents have been well documented in the literature.[5-11]

- **Variable provider comfort and skill levels.** Many primary care providers report that they are uncomfortable discussing sensitive topics with teens and do not believe that they are effective in screening and counseling adolescents.
- **Time constraints.** Time constraints for adolescent preventive visits limit the potential for clinicians to provide all the recommended clinical preventive services. Moreover, much of the time is used for obtaining a health history and performing the physical examination rather than helping teens to adopt and maintain healthy behaviors and providing more extensive behavioral counseling services to teens with moderate to high risks.
- **Payment limits.** Few insurers reimburse primary care practices for health education for teens and parents, behavioral health counseling, and follow-up. In addition, many public and private insurers do not even cover annual preventive visits for adolescents.
- **Problem-based versus strength-based approaches.** Clinicians often emphasize problem-based approaches rather than strength-based approaches, which often results in lack of communication and engagement with teens.
- **Lack of an organized team approach to preventive care.** Few primary care practices have incorporated a team-based approach for delivering preventive services to adolescents using nurse educators, health educators, or behavioral health or mental health staff, and few have created optimal arrangements, including targeted outreach and youth input, to support more effective delivery of adolescent-centered preventive care.
- **Lack of ability to ensure confidential services.** Current rules requiring plans to provide notification of an adverse benefit determination have led health plans and insurers to routinely issue an explanation of benefits statement following the receipt of services. This practice has the effect of inadvertently breaching confidentiality for adolescents, especially regarding sensitive services such as those for sexually transmitted diseases, substance use, or mental health.
- **Weak clinical-community prevention linkages.** Few organized efforts have been undertaken to link community-based adolescent prevention programs, such as self-help support groups and health education programs, with clinical preventive services.

Improving Clinical Preventive Care in Tandem with Community Efforts

Despite the challenges, successful strategies for providing clinical preventive services certainly exist. Since adolescents access preventive services so infrequently, experts cite the importance of using *every* clinical encounter as an opportunity for preventive care. Tools like charting forms or pre-visit screening instruments can improve the coordination and efficiency of visits. Reaching out and engaging teens -- providing targeted outreach, soliciting their feedback and preferred methods of contact, eliciting teen-identified questions and concerns, and explaining confidentiality and consent -- also strengthens preventive care practice. Involving medical, health plan, and quality improvement leadership facilitates sustainable change.

Research on improving clinical and community-based preventive services for adolescents, particularly those with multiple risk factors, has found a combination of strategies to be effective.[7,12,13,14,15,16,17,18,19,20]

- **Risk Assessments.** More systematic and continuous assessments of adolescents' risks and strengths are needed at regular preventive and primary care visits. Literature shows that having teens complete health screening tools while waiting for their appointments improves the quality of the preventive visit. While numerous risk assessment tools exist for use in adolescent clinical preventive services, these tools vary widely in their length and depth, often ask only yes/no questions, and elicit little information on the frequency and combination of risks (see Appendix). Importantly also, clinicians have little guidance on how to translate risk assessment results into effective preventive counseling interventions, by distinguishing normal experimentation from moderate to high risks and identifying underlying physical or mental health conditions.
- **Counseling and brief interventions.** A growing body of literature underscores the importance of behavioral counseling and motivational interviewing in responding to adolescent risk and intervening to improve adolescent health outcomes. Interviewing and counseling strategies are most effective when they involve "cooperative participation" between the clinician and patient, accommodate the multi-step process of behavioral change, and incorporate reflective listening, open-ended questions, and allowing the teen to set conversation and behavioral change priorities.
- **Organized office processes and knowledgeable prevention staff.** In addition to careful attention to risk assessment and behavioral counseling, the literature documents the importance of organized office processes to support systematic and consistent delivery of preventive services. This includes mechanisms to identify teens in need of brief or ongoing behavioral counseling and follow-up, a summary of needed preventive services and supports in the chart, and reminders for clinicians. It also includes having prevention staff, such as nurses, health educators, or behavioral health counselors, to team up with primary care physicians to deliver the necessary health education and behavioral health counseling during and after the visit. Expanded communication methods are also critical, including telephone counseling, text messaging, group meetings and classes, and online resources and websites. Finally, knowledge of effective school and community resources is necessary to make appropriate referrals for

parent support, youth development, self-help, and also specialized services for adolescents with mental health, substance abuse, and reproductive health problems.

- **New community models for addressing multiple risks.** Addressing multiple risk behaviors among adolescents also happens in the community. Innovative community prevention programs share a number of common features. They start early, often in middle school and sometimes earlier. They use a combination of approaches, emphasizing strengths and building adolescents' skills, particularly around self esteem, problem solving, resisting peer pressure, relationship building, and setting life goals. Often teens are employed as peer health educators or have an important role to play in designing, conducting, and evaluating these community-based programs. Further, effective community programs incorporate support for parents and provide adult supervision of adolescent activities with the aim of building sustained relationships with caring adults.

Registries of Effective Programs

- Child Trends "What Works" Listings (www.childtrends.org)
- CDC's Registry of Programs Effective in Reducing Youth Risk Behaviors (www.CDC.gov)
- SAMHSA's National Registry of Evidence-Based Programs and Practices (www.nrepp.samhsa.gov)
- Interagency Working Group on Youth Programs (www.findyouthinfo.gov)
- Office of Juvenile Justice and Delinquency Prevention's Model Programs Guide (www.ojjdp.gov)

Case Study: Mount Sinai Adolescent Health Center

The Mount Sinai Adolescent Health Center (MSAHC) in New York is an innovative primary care model for delivering preventive services to adolescents. One of the largest adolescent practices in the U.S., MSAHC delivers an array of preventive services both in clinical settings and within the community. Prevention is integrated into all of their services, which include primary and reproductive health care, mental health and psychosocial support, health promotion and risk reduction, medical-legal services, community services, advocacy, education and training, and research and technical assistance. MSAHC's mission is to help adolescents grow up happy, healthy, and well educated -- with hopes and opportunities -- by promoting health and preventing disease. In addition to its East Harlem outpatient clinic, MSAHC operates three school-based health centers and a number of special prevention programs, including a Youth Advisory Board; a peer health education program; a healthy eating and wellness group; services for lesbian/gay/bisexual/transgender/questioning youth; a substance abuse prevention program; an HIV/AIDS prevention and education program and support groups; violence prevention programs and support groups; teen parenting education; and youth development supports such as tutoring, photography, mentoring, and dance. These programs have largely been supported through federal, state, and foundation grants.

Several essential elements were identified in this adolescent-centered model.

- Geographic and financial accessibility regardless of ability to pay;
- Assurance of confidentiality;
- Visible messages that convey a diverse and safe place;
- Adolescent-specific and developmentally appropriate services provided in a warm, respectful, and welcoming manner;
- Care delivered in a holistic, interdisciplinary way and including education, prevention, primary care, acute care, and tertiary care;
- Staff that enjoy teens and have the necessary skills and sense of purpose;
- Services founded on a relationship with the teen community, with parents, with target communities, and that is sustained over time;
- Recognition that engagement with adolescents is a constant and ongoing process;
- Importance of addressing immediate problems while also conducting a comprehensive assessment; and
- Speaking in ways teens understand.

The MSAHC model demonstrates that an adolescent-focused health center can offer real results in delivering appropriate and effective care for adolescents, particularly preventive services. The incidence of both teen pregnancy and chlamydia among Mount Sinai patients is far lower than New York City, state, or national figures. Adolescents also routinely return for care: more than 70% of MSAHC's patients have been in its care for three or more years, and 84% of adolescents coming in for a primary care visit return for another visit within a year.

Opportunities Provided by Health Reform

The recently enacted Patient Protection and Affordable Health Care Act addresses prevention in several ways that directly and indirectly benefit adolescents. Coverage of clinical preventive services without cost-sharing is now required in all new individual and group health insurance policies and in all new employer health plans. This coverage includes the screening services and immunizations recommended by USPSTF and ACIP. It also includes the evidence-informed preventive care and screenings listed in Bright Futures, the guidelines supported by the Health Resources and Services Administration, which for adolescents ages 11 to 21 encompass growth and development, emotional well-being, risk reduction, violence and injury prevention, and social and academic competence. In addition, coverage of preventive and wellness services will be an essential benefit offered by plans in the exchanges that will become operational in 2014 and available in the future to uninsured adolescents in families with incomes above 133% of the

federal poverty level (FPL). Also in 2014, Medicaid coverage, including Medicaid's EPSDT preventive benefit, will be available to all adolescents up to age 21 living in families with incomes below 133% FPL.[21]

The health reform law has the potential to benefit adolescents in other ways as well. It includes substantial funding for support of community-based programs, including Community Transformation Grants focused broadly on preventable risk factors, an education and outreach campaign regarding preventive benefits, a demonstration project with community health centers to create individualized wellness plans for at-risk individuals, and obesity demonstration projects. It provides funding for evidenced-based teen pregnancy prevention activities. Additionally, a new national strategy on prevention and public health will be developed to coordinate and guide interagency efforts around prevention and public health, and the Task Force on Community Preventive Services has been elevated to a status similar to that of the USPSTF. If adolescents are identified as an important target of preventive interventions and federal efforts are well coordinated, ideally under the leadership of the HHS Office of Adolescent Health, there is a real potential for making policy and program changes that can reduce high-risk behaviors among adolescents and improve their health outcomes.

Acknowledgements

This report was produced by The National Alliance to Advance Adolescent Health with Partnership for Prevention. We gratefully acknowledge the writing assistance of Katherine Rogers from The National Alliance and Alana Ward from Partnership for Prevention. The National Alliance appreciates the funding provided by the National Adolescent Health Information Center (NAHIC) and the additional support provided by the Elizabeth C. Ely Educational Foundation. We also wish to acknowledge the helpful comments provided by Charles Irwin, Jane Park, and Claire Brindis from NAHIC, Trina Anglin from the Maternal and Child Health Bureau, and Michele Surricchio, Robert Gilchick, and Kenneth Hoffman from the American College of Preventive Medicine.

Appendix

Adolescent Risk Assessment Tools												
Selected Tools	Number of Items	Target Age Range	Assessment Method	Teen-Identified Questions / Concerns	Individual Strengths	Risks Addressed					
						School and Family Life	Nutrition / Physical Activity	Sexual Health	Mental Health	Substance Use	Violence / Injury
Adolescent Health Review[22]	30	12+	Q			✓	✓	✓	✓	✓	✓
Bright Futures[23]	Varies	11-14, 15-17, 18-21	Q	✓		✓	✓	✓	✓	✓	✓
Guidelines for Adolescent Preventive Services (GAPS)[24]	61	11-14, 15-17, 18-21	Q	✓	✓	✓	✓	✓	✓	✓	✓
Home, Education/ Employment, Activities, Drugs, Sexuality, and Suicide/depression (HEADSS)[25]	Varies	All	I	✓		✓	✓	✓	✓	✓	✓
Pediatric Symptom Checklist (PSC)[26]	35	3-16	Q			✓			✓		
Problem Oriented Screening Instrument for Teenagers (POSIT)[27]	139	12-19	Q			✓	✓	✓	✓	✓	✓
Rapid Assessment of Preventive Service (RAAPS)[28]	21	10-19	Q			✓	✓	✓	✓	✓	✓
Sexuality, Affect and Abuse, Family, Exam, Timing of Development, Immunization, Minerals, Education/ Employment, Safety (SAFE TIMES)[29]	45	All	Q			✓		✓	✓	✓	✓
Stay Healthy Risk Assessment[30]	29	12-17	Q	✓			✓	✓	✓	✓	✓
Strengths and Difficulties Questionnaire[32]	30	3-16	Q			✓			✓		✓
Strengths, School, Home, Activities, Drugs, Emotions, Sexuality, and Safety (SSHADESS)[33]	Varies	All	I	✓	✓	✓	✓	✓	✓	✓	✓

Q = Questionnaire; I = Interview
Source: The National Alliance to Advance Adolescent Health

Endnotes

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The National Alliance to Advance Adolescent Health provides education, research, policy analysis, and technical assistance to achieve fundamental improvements in the way that adolescent health care is structured and delivered in the United States. Its mission is to enhance the physical and emotional well-being of adolescents, especially those who are low-income and minority, by improving the health care delivery model for adolescents and achieving the infrastructure changes needed to support it. The National Alliance seeks to promote comprehensive, interdisciplinary models of physical, mental, behavioral, and reproductive health care that incorporate a youth development philosophy and operate in collaboration with schools and other community-based programs. It also seeks to ensure that all adolescents have health insurance coverage for the services they require.

For more information about our work and available publications, contact Corinne Dreskin at The National Alliance to Advance Adolescent Health: cdreskin@TheNationalAlliance.org. Also visit our website: www.TheNationalAlliance.org.

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