

# Research Supporting the Integration of Mental Health Checkups Into Adolescent Health Care

## Overview

The importance of early detection through screening for mental illness has been well documented through medical research and by governmental entities. In March 2009, the U.S. Preventive Services Task Force published a report calling for annual depression screening by primary care providers for all teens ages 12–18.<sup>1</sup> A separate report published in 2009 by the Institute of Medicine and National Research Council also calls for evidence-based screening of adolescents and highlights primary care settings as a key location for screening.<sup>2</sup> Professional groups in the medical community, including the American Academy of Pediatrics, the Society for Adolescent Medicine, the American Medical Association and the American Academy of Family Physicians, also support early identification and screening for mental illness.<sup>3,4,5,6</sup>

This fact sheet highlights key research that supports the need for incorporating mental health checkups into primary healthcare for adolescents, and that demonstrates the feasibility and effectiveness of screening teens for mental health concerns in primary care settings.

## The Problem of Mental Illness

- 11 percent of our nation's youth suffer from a serious mental illness that causes significant impairment in their lives at home, in school and with peers.<sup>7</sup>
- 80 percent of mentally ill youth are not identified and do not receive mental health services.<sup>7</sup>
- In a study of adolescents who were treated for depression, almost all of the depressed adolescents recovered. However, recurrence of depression occurred in almost half of the recovered adolescents.<sup>42</sup>
- Half of all life-time mental health disorders start by age 14.<sup>8</sup>
- 8 percent of adolescents (2 million youths aged 12 to 17) are estimated to experience a major depressive episode each year, with only two-fifths (39 percent) receiving treatment.<sup>9</sup>
- The first symptoms of mental illness typically occur two to four years before the onset of a full-blown disorder, leaving an important window of opportunity for prevention.<sup>2</sup>
- Untreated mental illness can lead to drug and alcohol abuse, violence, school failure, involvement in the criminal justice system, the loss of critical developmental years and suicide.
- Suicide is the third leading cause of death for youth ages 10–24.<sup>10</sup>
- 15 percent of U.S. high school students report thinking seriously about killing themselves and 7 percent report a prior suicide attempt.<sup>11</sup>

### KEY FACTS

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- ▶ **80% of mentally ill youth are not identified and do not receive mental health services.**
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- Youth with higher levels of depressive symptoms have significantly higher prevalence of obesity, worse perception of health, spend more time in front of a computer, got along less well with parents and friends, had more problems completing school work and had a significantly higher likelihood of having experimented with smoking as well as participating in a wide array of at-risk behaviors associated with alcohol and drugs.<sup>12</sup>

## Mental Illness in Adolescent Primary Care

- Almost one-quarter (24 percent) of pediatric primary care visits involve behavioral, emotional or developmental concerns.<sup>13</sup>
- One-third of mental health visits by privately insured youth are to a primary care provider rather than to a specialist.<sup>14</sup>
- Youth with mental health problems and who experience higher levels of psychosocial distress are more frequent visitors to their primary care providers.<sup>15,16</sup>
- General practice physicians prescribe the majority of all antidepressants in use.<sup>17</sup>
- Chronic physical conditions are associated with an elevated risk for self-harm, suicidal thinking, and attempted suicide.<sup>18</sup>

## Missed Opportunities

- More than 70 percent of adolescents see a physician at least once each year, and more than 50 percent visit a physician for routine health care each year.<sup>19</sup>
- According to a survey of pediatricians and family physicians, only 23 percent routinely screen their adolescent patients for mental disorders.<sup>19</sup>
- Only 34 percent of youth report that their doctor has talked to them about their emotional health.<sup>20</sup>
- A minority of youth identified as having a mental health problem by their pediatrician are referred to a mental health provider.<sup>21</sup>
- As many as two in three depressed youth are not identified by their primary care providers and do not receive any kind of care.<sup>22</sup>
- Primary care providers identify anxiety at rates much lower than the actual prevalence for anxiety disorders.<sup>22</sup>
- As many as 83 percent of adolescents in primary care settings who had attempted suicide were not recognized as suicidal or as being a danger to themselves by their primary care physician, even when examined in the months prior to their suicide attempt.<sup>23</sup>
- An estimated 45 percent of suicide victims visit their primary care provider in the month prior to their death, and 77 percent had contact with their primary care provider in the previous year (all ages).<sup>24</sup>
- 90 percent of adolescent suicide victims have a psychiatric disorder, with 63 percent exhibiting symptoms identifiable by screening for at least a year before their death.<sup>25</sup>
- Since many adverse health behaviors that develop in adolescence continue into adulthood, the association of depressive symptoms with multiple risk behaviors and poor functioning suggest that early interventions are needed at the primary care level.<sup>12</sup>

### KEY FACTS

- ▶ Only 23% of pediatricians and physicians routinely screen their adolescent patients for mental disorders.
- ▶ Only 34% of youth report that their doctor has talked to them about their emotional health.
- ▶ As many as 2 in 3 depressed youth are not identified by their primary care providers and do not receive any kind of care.
- ▶ 45% of suicide victims visit their primary care physician in the month prior to their death.
- ▶ 90% of adolescent suicide victims have a psychiatric disorder, with 63% exhibiting symptoms identifiable by screening for at least a year before their death.

## Mental Illness and Emergency Departments

- Over the past decade, child mental health related visits to hospital emergency departments (ED) have significantly increased, suggesting that emergency departments have become a substitute source of care for routine mental

health problems.<sup>26</sup>

- An estimated 1.5 million adolescents in the U.S. rely on the ED as their usual source of health care, particularly youth who are of low income and are underserved.<sup>27</sup>
- A chart review of 25 hospital emergency departments found that depression was among the top five diagnoses for adolescents 15–18 years old presenting to the ED.<sup>28</sup>
- Youth who attempt suicide or who visit the hospital emergency department because of suicidal behaviors or risks account for 11 percent of pediatric mental health related visits.<sup>29</sup>

## Effectiveness of Mental Health Checkups

- Mental health screening enhances identification and treatment of adolescents with debilitating mental disorders.<sup>28,30,36</sup>
- Screening for depression improves outcomes in adolescents when coupled with system changes that help ensure adequate treatment and follow-up.<sup>43,44</sup>
- Research published in the *Journal of the American Medical Association* showed that screening is safe and does not cause participants to become depressed, suicidal or distressed.<sup>31</sup>
- As a result of screening in a primary care setting in one study, the total number of mental health referrals made by the participating practice represented an increase of almost 100 percent from referrals in the previous year.<sup>32</sup>
- When the Pediatric Symptom Checklist (PSC) was employed for mental health screening in one of several studies, referral rates rose to 12 percent from a baseline of 1.5 percent then returned to 2 percent when the PSC was no longer used. Half of the children who screened positive on the PSC had not been previously identified by their pediatrician as having psychosocial problems and more than half had never received psychological treatment.<sup>33</sup>
- When depression screening is conducted in an adult population and providers are given feedback with the results, depressed patients show significant clinical improvements after treatment.<sup>34</sup>
- Other studies implemented in primary care practices serving adult patients have demonstrated that by identifying and delivering effective treatments to depressed patients, use of inpatient and outpatient medical services can be decreased and cost reductions can be achieved.<sup>35,36,37</sup>

## Feasibility of Mental Health Checkups in Primary Care

- A 2007 study published in *Pediatrics* found that depression screening was feasible in primary care settings and accepted by patients, parents and providers.<sup>30,38</sup>
- Screening is acceptable to many parents and adolescents in a primary care setting, and does not disrupt the flow of patient care.<sup>39,40</sup>
- In a national survey of randomly selected primary care pediatricians, 90 percent of pediatricians felt responsible to identify adolescent depression with a significant proportion of primary care pediatricians noting that they would be willing to change how they identify and manage child and adolescent depression.<sup>41</sup>

### KEY FACTS

- ▶ Depression is among the top 5 diagnoses for adolescents 15–18 years old presenting to the Emergency Department.
- ▶ Mental health screening enhances identification and treatment of children and adolescents with debilitating mental disorders.
- ▶ Research published in *JAMA* showed that screening is safe and does not cause participants to become depressed, suicidal or distressed.
- ▶ By identifying and delivering effective treatments to depressed patients, use of inpatient and outpatient medical services can be decreased and cost reductions can be achieved.
- ▶ A 2007 study published in *Pediatrics* found that depression screening was feasible in primary care settings and accepted by patients, parents and providers.

## References

1. U.S. Preventive Services Task Force. Screening and Treatment for Major Depressive Disorder in Children and Adolescents. Recommendation Statement <http://www.ahrq.gov/clinic/uspstf09/depression/chdeprrs.htm>. Accessed September 10, 2009.
2. The National Research Council and the Institute of Medicine of the National Academies. *Preventing mental, emotional and behavioral disorders among young people: Progress and possibilities*. Washington, DC: National Academies Press; 2009.
3. American Academy of Pediatrics Committee on Adolescents. Suicide and suicide attempts in adolescents. *Pediatrics*. 2000;105:871-874.
4. Society for Adolescent Medicine. Meeting the health care needs of adolescents in managed care: A position paper of the Society for Adolescent Medicine. *Journal of Adolescent Health*. 1998;22:271-277.
5. American Medical Association, ed. *Guidelines for adolescent preventive services (GAPS): Recommendations*. Chicago, IL: American Medical Association; 1997.
6. Montalto N. Implementing guidelines for adolescent preventive services. *American Family Physician*. 1998;57(9):2189-2190.
7. U.S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General*. Rockville, MD 1999.
8. Office of Applied Studies. Results from the 2007 National Survey on Drug Use and Health: National findings. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2008.
9. Kessler RC, Berglund P, Demler O, Jin R, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*. 2005;62:593-602.
10. Center for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS™). July 22, 2008; <http://www.cdc.gov/ncepc/wisqars/default.htm>.
11. Eaton D, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance — United States, 2007. *Morbidity and Mortality Weekly Report*. 2008;57:1-131.
12. Reference: Katon, W., Richardson, L., Russo, J., McCarty, C.A., Rockhill, C., McCauley, E., Richards, J., Grossman, D.C. Depressive symptoms in adolescence: the association with multiple health risk behaviors. *General Hospital Psychiatry*. 2010, 32 (3), 233-239.
13. Cooper S, Valleley R, Polaha J, Begeny J, Evans JH. Running out of time: Physician management of behavioral health concerns in rural pediatric primary care. *Pediatrics*. 2006;118(1):132-138.
14. Rand Corporation Research Highlights. Mental Health Care for Youth [http://www.rand.org/pubs/research\\_briefs/RB4541/index.html](http://www.rand.org/pubs/research_briefs/RB4541/index.html). Accessed August 1, 2007.
15. Navon M, Nelson D, Pagano M, Murphy M. Use of the Pediatric Symptom Checklist in strategies to improve preventative behavioral healthcare. *Psychiatric Services*. 2001;52:800-804.
16. Wren FJ, Scholle SH, Heo J, Comer DM. Pediatric mood and anxiety syndromes in primary care: who gets identified? *International Journal of Psychiatry in Medicine*. 2003;33(1):1-16.
17. Arizona Health Futures. *The Humpty Dumpty Syndrome: Integration and Behavioral Health*. Phoenix, AZ 2003.
18. Reference: Barnes, A.J., Eisenberg, M.E., and Resnick, M.D. Suicide and self-injury among children and youth with chronic health conditions. *Pediatrics*. 2010, 125: 889-895.
19. Frankenfield D, Keyl P, Gielen A, Wissow L, Werthamer L, Baker S. Adolescent patients — Healthy or hurting? Missed opportunities to screen for suicide risk in the primary care setting. *Archives of Pediatric Adolescent Medicine*. 2000;154:162-168.
20. Ozer EM, Zahnd EG, Adams SH, et al. Are adolescents being screened for emotional distress in primary care? *Journal of Adolescent Health*. In press.
21. Stancin T, Palermo TM. A review of behavioral screening practices in pediatric settings: Do they pass the test. *Journal of Developmental and Behavioral Pediatrics*. 1997;18:183-194.
22. Simonian SJ. Screening and identification in pediatric primary care. *Behavior Modification*. 2006;30(1):114-131.
23. Clark D. Suicidal behavior in childhood and adolescence: recent studies and clinical implications. *Psychiatric Annals*. 1993; 23:271-283.
24. Luoma JB, Martin CE, Pearson JL. Contact with mental health and primary care providers before suicide: A review of the evidence. *American Journal of Psychiatry*. 2002;159:909-916.
25. Shaffer D, Gould MS, Fisher P, et al. Psychiatric diagnosis in child and adolescent suicide. *Archives of General Psychiatry*. 1996;53:339-348.
26. Cooper J, Masi R. Child and Youth Emergency Mental Health Care: A National Problem. Vol 1. New York, NY: National Center for Children in Poverty, Columbia University Mailman School of Public Health; 2007:1-12.
27. Wilson KM, Klein JD. Adolescents who use the emergency department as their usual source of care. *Archives of Pediatrics and Adolescent Medicine*. 2000;154:361-365.
28. Alpern ER, Stanley RM, Gorelick MH, et al. Epidemiology of a pediatric emergency medicine research network: The PECARN core data project. *Pediatric Emergency Care*. 2006;22(10):689-699.
29. Melese-d'Hospital IA, Olson LM, Cook L, Skokan EG, Dean JM. Children presenting to emergency departments with mental health problems. Paper presented at: Annual Meeting of the Society for Academic Emergency Medicine, 2002.
30. Dworkin P. Detection of behavioral, developmental, and psychosocial problems in pediatric primary care practice. *Current Opinions in Pediatrics*. 1993;5:531-536.
31. Gould MS, Marrocco FA, Kleinman M, et al. Evaluating Iatrogenic Risk of Youth Suicide Screening Programs: A Randomized Controlled Trial. *Journal of the American Medical Association*. 2005;293(13):1635-1643.
32. Hacker KA, Myagmarjav E, Harris V, Franco Suglia S, Weidner D, Link D. Mental health screening in pediatric practice: Factors related to positive screens and the contribution of parental/personal concern. *Pediatrics*. 2006;118(5):1896-1906.
33. Murphy J, Arnett H, Bishop S, Jellinek M, Reede J. Screening for psychosocial dysfunction in pediatric practice: A naturalistic study of the Pediatric Symptom Checklist. *Clinical Pediatrics*. 1992;31(11):660-667.
34. Pignone MP, Gaynes BN, Rushton JL, et al. Screening for depression in adults: A summary of the evidence for the U.S. Preventive Services Task Force. *Annals of Internal Medicine*. 2002;136:765-776.
35. Henk HJ, Katzelnick DJ, Kobak KA, Greist JH, Jefferson JW. Medical costs attributed to depression among patients with a history of high medical expenses in a health maintenance organization. *Archives of General Psychiatry*. 1996;53:899-904.
36. Katzelnick DJ, Kobak KA, Greist JH, Jefferson JW, Henk HJ. Effect of primary care treatment of depression on service use by patients with high medical expenditures. *Psychiatric Services*. 1997;48:59-64.
37. Mumford E, Schlesinger HJ, Glass G, Patrick C, Cuedon T. A new look at evidence about reduced cost of medical utilization following mental health treatment. *American Journal of Psychiatry*. 1984;141:1145-1158.
38. Zuckerbrot RA, Maxon L, Pagar D, Davies M, Fisher PW, Shaffer D. Adolescent depression screening in primary care: Feasibility and acceptability. *Pediatrics*. 2007;119(1):101-108.
39. Husky MM, Miller K, McGuire L, Flynn L, Olsson M. Screening adolescents for mental health problems in primary care. *55th Annual Meeting of the American Academy of Child and Adolescent Psychiatry*. Chicago, IL; 2008.
40. Asarnow JR, Jaycox LH, Duan N, et al. Depression and role impairment among adolescents in primary care clinics. *Journal of Adolescent Health*. 2005;37:477-483.
41. Olson, A. L., Kelleher, K. J., Kemper, K. J., Zuckerman, B. S., Hammond, C. S., & Dietrich, A. J. (2001). Primary care pediatricians' roles and perceived responsibilities in the identification and management of depression in children and adolescents. *Ambulatory Pediatrics*, 1(2), 91-98.
42. Curry, J., et al. Recovery and recurrence following treatment for adolescent major depression. *Archives of General Psychiatry*. 2010.
43. US Preventive Services Task Force. Screening and treatment for major depressive disorder in children and adolescents: US Preventive Services Task Force recommendation statement. *Pediatrics*. 2009;123(4):1223-1228
44. US Preventive Services Task Force. Screening for depression: recommendations and rationale. *Annals of Internal Medicine*. 2002; 136(10):760-764

## For more information about TeenScreen Primary Care and the TeenScreen National Center for Mental Health Checkups at Columbia University:

- Visit [www.teenscreen.org](http://www.teenscreen.org)
- Call 1-866-TEENSCREEN (1-866-833-6727)
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