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Appendix S4: The Case for Routine Mental Health Screening

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THE CASE FOR ROUTINE MENTAL HEALTH SCREENING

The American Academy of Pediatrics Task Force on Mental Health (TFOMH) undertook a review of the literature and drew on the opinions of experts in the field to answer 3 key questions about mental health screening: (a) Does use of a validated tool accurately identify children with mental health problems or improve identification of children with psychosocial problems? (b) Do the identification of problems and linkage to services improve outcomes? (c) What is the feasibility of screening in a busy primary care practice? While recognizing that further research is needed to answer each of these questions definitively, the TFOMH based its recommendations for screening, summarized in tables 1 and 2, on literature currently available.

Table 1. Proposed Mental Health Screening of Children and Adolescents in Primary Care Settings

1. Use validated instruments to screen for socio-emotional problems in children 0 to 5 years of age with abnormal developmental screening tests (typically performed at 9 months, 18 months, and 24 or 30 months) or abnormal autism screening test (typically performed at 18 and 24 months); at any time clinician observes poor growth or attachment or symptoms such as excessive crying, clinginess, or fearfulness for developmental stage, or regression to earlier behavior; and at any time family identifies psychosocial concerns.
2. Use validated instruments to screen all school-aged children (5 years through adolescence) for symptoms of mental illness and impaired psychosocial functioning at health maintenance visits; at any time of family disruption, poor school performance, reported behavioral difficulties, recurrent somatic complaints, or involvement of a social service or juvenile justice agency; and when child or family identifies psychosocial concerns.^a
3. In addition, screen all adolescents for substance use (including tobacco) at each health maintenance visit and whenever circumstances such as an injury, car crash, or fall in school performance suggest the possibility of substance abuse.^a If adolescent reports using substance(s), assess for extent of use.

^aFor adolescents, screening with paper and pencil tools is more likely to elicit concerns than an interview; electronic tools are more likely to elicit concerns than paper and pencil¹ and may be perceived as more confidential.²

Table 2. Proposed Screening and Surveillance of Family and Social Environment for Risk Factors

1. Obtain a history of trauma exposure and update child and family's psychosocial history (eg, parental distress or discord, domestic violence, parental substance abuse or mental illness, youth and family social support, grief and loss issues) at each health maintenance visit and as dictated by clinical need.
2. Screen for maternal depression in the first year of life of the child and when psychosocial history indicates. The peak time for postpartum depression is when the infant is between 6 weeks and 3 months of age.³

Does use of a validated tool accurately identify children with mental health problems or improve identification of children with psychosocial problems?

The TFOMH reviewed literature on the lifetime prevalence of mental health disorders and studies of primary care clinicians' ability to identify and refer them.^{4–12} Overall, despite a lifetime prevalence of 46.4%, usually with the first onset in childhood or adolescence, fewer than 50% of children and adolescents receive psychosocial surveillance and generally, fewer than 1 of 3 children with a mental health problem is identified in primary care settings.^{5,9,13–15}

Review of the available English literature supports the conclusion that screening with a validated tool is useful in identifying children with mental health problems in a variety of settings.^{16–24} These settings include regular health maintenance visits, acute visits, and visits for children at risk (eg, children in foster care, children with special health care needs, adolescents). Adequate screening requires the use of a tool with strong psychometric properties (reliability and validity). In further support of the routine use of general psychosocial screening, the President's New Freedom Commission (2003)²⁵ provided a comprehensive review of policy options to promote children's mental health. The commission recommended screening of children 0 to 5 years of age for social-emotional development as part of routine health care visits; screening of high-risk adolescents in primary care settings, schools, and mental health settings for depression and substance use; screening of children and adolescents in primary care settings for adverse childhood events; screening and linking to services for those children

in high-risk situations, such as children in the juvenile justice and child welfare systems; screening of children who receive Medicaid; and developmentally and culturally appropriate behavioral health screening as part of Early and Periodic Screening, Diagnosis, and Treatment (the routine Medicaid health supervision program). A number of studies indicate that the use of screening methods improves identification of children in need of services.

Although the overall body of evidence describing the accuracy of depression-screening instruments for children and adolescents is limited in quantity and quality, the US Preventive Services Task Force (USPSTF), in its April 2009 report,²⁶ identified tools that had reasonable sensitivity and specificity to aid in the accurate identification of depressed adolescents. With regard to substance use screening in adolescents, a systematic evidence review by the Agency for Healthcare Research and Quality yielded fair evidence that brief, standardized, valid, reliable questionnaires for screening drug use and misuse are potentially useful in practice settings. One instrument (CRAFFT) has been adequately validated for screening adolescents for drug use and misuse,^{27–31} and 3 other instruments deemed appropriate for primary care (ASSIST, CAGE-AID, DAST-20) have been validated for screening adults. The evidence was felt to be insufficient to determine the positive predictive value of these tests in those general clinical settings in which the prevalence of drug use may be low.

Children may also be at increased risk for emotional and behavioral problems because of environmental conditions. Therefore, the TFOMH also reviewed early identification approaches related to family and community factors—screening for maternal depression, screening for domestic violence, and general surveillance for exposure to trauma.^{32,33} The USPSTF does recommend that all adults receive depression screening with 2 questions (assessing mood and anhedonia) derived from the Edinburgh Postnatal Depression Scale³⁴ and linkage to needed services. A recent study has found maternal depression screening during well-child visits feasible and beneficial.³⁵ While the literature does indicate the increased complexity of assessing maternal depression in different cultural and ethnic groups, the Edinburgh has functioned well across a wide range of cultural and ethnic groups and in various modes of administration.^{36–40}

Clinical guidelines developed by the Family Violence Prevention Fund³² concluded that anecdotal evidence, expert opinion, and an expanding body of data support the use of routine screening in identifying women who are victims of domestic violence or at risk for domestic violence. Identification of women experiencing domestic violence should lead to development of a safety plan and further questioning about exposure to violence by children in that household and assessment for possible maltreatment.

Parental stress and the absence of social support for youth may mediate a child's emotional well-being. While no systematic review has been done of the utility of routinely screening for these in primary care, many investigators have demonstrated the utility of tools such as the Parenting Stress Index/Short Form (PSI/SF), the McMaster, and the Multidimensional Scale of Perceived Social Support (MSPSS) in reliably assessing these domains. The utility of the MSPSS has been shown in cross-cultural studies.^{41–51}

In the area of exposure to traumatic events (eg, community violence, traumatic loss, child maltreatment), there is a growing body of information to indicate the adverse effects of childhood exposure to trauma^{52,53} and the need for early identification of such exposure and intervention. A number of studies have also shown that the use of brief tools adapted for primary care, emergency care, or hospitalization can reliably and accurately detect acute stress and post-traumatic stress disorder in a general pediatric population, in children following medical procedures or injuries, and following disasters.^{54–57}

Do the identification of problems and linkage to services improve outcomes?

A number of studies have concluded that screening for depression improves outcomes in adolescents when coupled with system changes that help ensure adequate treatment and follow-up. In April 2009 these findings led the USPSTF to recommend routinely screening adolescents for depression.^{26,33,58–61} While its review identified no trials that examined health outcomes of depression-screening programs in youth and no trials that examined whether screening led to an increased proportion of children or adolescents identified with or treated for depression, it identified efficacious treatment in the form of selective serotonin reuptake inhibitors and psychotherapy (ie, cognitive behavior therapy and interpersonal behavior

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therapy) and reasonably deduced that screening of adolescents could lead to increased detection of depression, earlier detection of depression, and greater or earlier improvement in depression symptoms than if patients had never been screened, provided systems are in place to ensure accurate diagnosis, treatment, and follow-up.

One study not cited in the USPSTF review was that of Asarnow et al,⁶² which also lends support for screening adolescents for depression. This randomized, controlled trial of an identification program combined with high-quality depression treatment (ie, care by mental health providers trained in cognitive behavioral therapy and care management) was more effective than treatment as usual (ie, care by primary care clinicians who received enhanced training and educational materials, eg, manuals, pocket cards for clinicians). Authors of the Guidelines for Adolescent Depression in Primary Care, through review of the literature and a consensus process, also concluded that high-risk adolescents should be screened.^{24,63}

A number of mental health disorders, in addition to depression, are prevalent in children and adolescents, eg, behavior or conduct problems and attention-deficit/hyperactivity disorder in 6.3% and 8.8%, respectively, of children 6 to 17 years old; anxiety disorders in 16% of children 9 to 17 years old.^{64,65} There are no systematic reviews of clinical outcomes related to isolated screening for these individual conditions or for general psychosocial screening of children and adolescents. However, prevention and early intervention efforts targeted to children, youth, and families have been shown to be cost-effective, reducing use of more costly services such as welfare dependency and juvenile detention.⁶⁶ Emotional and behavioral problems in young children may persist or worsen and adversely affect early and later school performance,⁶⁷ and children from poor families are generally at greater risk.⁶⁸ These findings suggest that early detection and intervention, particularly in low-income populations, may prevent or ameliorate mental health problems in children and adolescents.

What is the feasibility of screening in a busy primary care practice?

Numerous studies have pointed to the feasibility of using brief, psychometrically sound mental health screening tools in primary care settings.^{18,23} Experience in the field suggests that in communities with relatively high prevalence

of social-emotional problems, it may be easier to institute broad systematic screening by age group rather than to seek to identify children at high risk.⁶⁹

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