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Primary Care Interventions to Prevent Child Maltreatment: U.S. Preventive Services Task Force Recommendation Statement

Virginia A. Moyer, MD, MPH, on behalf of the U.S. Preventive Services Task Force*

Description: Update of the child abuse and neglect portion of the 2004 U.S. Preventive Services Task Force (USPSTF) recommendation statement on screening for family and intimate partner violence.

Methods: The USPSTF commissioned a systematic review on interventions to prevent child maltreatment for children at risk, focusing on new studies and evidence gaps that were unresolved at the time of the 2004 recommendation. Beneficial outcomes considered include reduced exposure to maltreatment and reduced harms to physical or mental health or mortality.

Population: This recommendation applies to children in the general U.S. population from newborn to age 18 years who do not have signs or symptoms of maltreatment.

Recommendation: The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment. (I statement)

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For author affiliation, see end of text.

* For a list of USPSTF members, see the **Appendix** (available at www.annals.org).

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The U.S. Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific preventive care services for patients without related signs or symptoms.

It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.

Summary of Recommendation and Evidence

The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment. This recommendation applies to children who do not have signs or symptoms of maltreatment. (I statement)

See the Suggestions for Practice Regarding the I Statement in the Clinical Considerations for more information.

See the **Figure** for a summary of the recommendations and suggestions for clinical practice.

Appendix Table 1 describes the USPSTF grades, and **Appendix Table 2** describes the USPSTF classification of levels of certainty about net benefit (both tables are available at www.annals.org).

Rationale

Importance

In 2011, approximately 680 000 children were confirmed victims of maltreatment and approximately 1570 died of such treatment (1). Approximately 78% experienced neglect, 18% physical abuse, and 9% sexual abuse; many experienced several forms of maltreatment (1).

Benefits of Interventions

There is inadequate evidence that primary care interventions can prevent maltreatment among children who do not already have signs or symptoms of such treatment. Reasons for this conclusion include significant heterogeneity in study methods and interventions. There is also inconsistent and limited evidence on outcomes or how they were measured.

Harms of Detection and Early Intervention or Treatment

Although there are numerous concerns about the possible harms of interventions for child maltreatment, evidence of these harms is limited.

See also:

Print
Summary for Patients I-30

Web-Only
Consumer Fact Sheet

Figure. **Primary care interventions to prevent child maltreatment: clinical summary of U.S. Preventive Services Task Force recommendation.**

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U.S. Preventive Services TASK FORCE
www.USPreventiveServicesTaskForce.org

PRIMARY CARE INTERVENTIONS TO PREVENT CHILD MALTREATMENT CLINICAL SUMMARY OF U.S. PREVENTIVE SERVICES TASK FORCE RECOMMENDATION

Population	Children and adolescents aged 0 to 18 y without signs or symptoms of maltreatment
Recommendation	No recommendation. Grade: I statement

Risk Assessment	There are numerous risk factors associated with child maltreatment, including but not limited to: Young, single, or nonbiological parents Parental lack of understanding of children's needs, child development, or parenting skills Poor parent–child relationships/negative interactions Parental thoughts or emotions that support maltreatment behaviors Family dysfunction or violence Parental history of abuse or neglect in family of origin Substance abuse within the family Social isolation, poverty, or other socioeconomic disadvantages Parental stress and distress
Interventions	Although the evidence is insufficient to recommend specific preventive interventions, most child maltreatment prevention programs focus on home visitation. Home visitation programs usually comprise a combination of services provided by a nurse or paraprofessional in the family's home on a regularly scheduled basis; most programs are targeted to families with young children and often begin in the prenatal or postnatal period.
Balance of Benefits and Harms	The evidence on interventions in primary care to prevent child maltreatment among children without signs or symptoms of maltreatment is insufficient, and the balance of benefits and harms cannot be determined.
Other Relevant USPSTF Recommendations	The USPSTF has made recommendations on screening for intimate partner violence and abuse of elderly and vulnerable adults. These recommendations are available at www.uspreventiveservicestaskforce.org.

For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, please go to www.uspreventiveservicestaskforce.org.

USPSTF Assessment

The USPSTF concludes that the evidence is limited and inconsistent and is therefore insufficient to determine the balance of benefits and harms of interventions in primary care to prevent child maltreatment among children without signs or symptoms of such treatment.

CLINICAL CONSIDERATIONS

Patient Population Under Consideration

This recommendation applies to children in the general U.S. population from newborn to age 18 years who do not have signs or symptoms of maltreatment. "Child maltreatment" is defined by the Centers for Disease Control and Prevention as any act or series of acts of commission or omission by a parent or other caregiver that results in harm, potential for harm, or threat of harm to a child (2). "Child abuse" (acts of commission) includes physical, sexual, and psychological abuse. "Child neglect" (acts of omission) includes the failure to provide for a child's basic physical, emotional, health care, or educational needs or to protect a child from harm or potential harm (3).

Assessment of Risk

Numerous risk factors are associated with child maltreatment, including but not limited to young, single, or nonbiological parents; parental lack of understanding of children's needs, child development, or parenting skills; poor parent–child relationships or negative interactions; parental thoughts or emotions that support maltreatment behaviors; family dysfunction or violence; parental history of abuse or neglect in the family of origin; substance abuse within the family; social isolation, poverty, or other socioeconomic disadvantages; and parental stress and distress.

Interventions

Although the evidence is insufficient to recommend specific preventive interventions in a clinical setting, most programs for prevention of child maltreatment studied and recommended by others focus on home visitation, which is generally considered to be a community-based service. Home visitation programs usually comprise a combination of services provided by a nurse or paraprofessional in a family's home on a regularly scheduled basis. Most home

visitation programs are targeted to families with young children and often begin in the pre- or postnatal period.

The services provided in home visitation programs often include parent education on normal child development, counseling, problem solving, free transportation to health clinic appointments, enhancement of informal support systems, linkage to community services, promotion of positive parent–child interactions, ensuring a source for regular health care, promotion of environmental safety, and classes for preparing for motherhood. The 1 trial reviewed by the USPSTF that was not a home visitation program used a multistep approach in a primary care clinic, with a social worker available to help parents who self-reported psychosocial problems, such as substance abuse.

Suggestions for Practice Regarding the I Statement

Potential Preventable Burden

Child maltreatment is a serious problem that affected more than 680 000 children and resulted in approximately 1570 deaths in 2011. It can result in lifelong negative consequences for victims. Most child maltreatment is in the form of neglect (approximately 78%), and most deaths occur in children younger than 4 years (approximately 80%) (1).

Potential Harms

There is limited evidence on the harms of interventions to prevent child maltreatment. Reported potential harms include dissolution of families, legal concerns, and an increased risk for further harm to the child.

Current Practice

All states and the District of Columbia have laws mandating that all professionals who have contact with children, including all health care workers, report suspected maltreatment to Child Protective Services (CPS) (4). Pediatricians, family physicians, and other primary care providers are in a unique position to identify children at risk for maltreatment through well-child and other visits. However, although pediatricians state that preventing maltreatment is one of their primary roles (5), they rarely explicitly screen for family violence in practice or screen only in selected cases (6, 7). All states have home visitation programs to support families with young children, but the services provided in these programs and the eligibility criteria vary by state.

Useful Resources

The USPSTF has updated its recommendation on screening for intimate partner violence and abuse of elderly and vulnerable adults (available at www.uspreventiveservicestaskforce.org).

The Community Preventive Services Task Force has issued a recommendation on early childhood home visitation to prevent child maltreatment (available at www.thecommunityguide.org/violence/home/index.html).

Other Considerations

Research Needs and Gaps

The USPSTF recognizes the importance of this serious health problem and that research in numerous areas related to reducing child maltreatment should be a priority. The relationship between harsh punishment (such as spanking) and abuse needs to be further explored, as does that between intimate partner violence and child maltreatment. Additional research is also needed to determine effective methods for physicians and other health care clinicians to identify children at risk for or currently experiencing maltreatment. The lack of studies on the prevention of maltreatment of older children, which was identified in the USPSTF's previous recommendation as an important evidence gap, has yet to be addressed. Research is also needed to confirm the efficacy and expand the applicability of the observed benefits reported in some of the intervention studies reviewed by the USPSTF.

Standardization of interventions and outcomes would strengthen the evidence and allow quantitative meta-analysis. Research is also needed to determine whether there are unintended harms from screening, risk assessment, and interventions. In all areas related to child maltreatment, more data are needed on how best to measure outcomes related to child abuse and neglect.

Discussion

Burden of Disease

In 2011, approximately 680 000 children were confirmed victims of maltreatment (1). Approximately 78% of these children experienced neglect, 18% physical abuse, and 9% sexual abuse; many experienced more than 1 type of maltreatment. In addition, 10.3% were victims of other types of maltreatment, including threatened abuse, parental drug or alcohol abuse, and lack of supervision. An estimated 1570 children died of maltreatment in 2011 (2.1 per 100 000 children) (1).

Rates of maltreatment are similar for boys and girls, but younger children are much more likely to be victims. In 2011, nearly half (47%) of all victims were 5 years or younger, and children younger than 1 year had the highest rate of victimization at 21.2 per 1000 children (1). This age group also experienced the highest fatality rates; in 2011, 81.6% of children who died of maltreatment were younger than 4 years and many (42.4%) were younger than 1 year (1).

Although the definition of child maltreatment varies by state (8), there are minimum standards under federal law (42 USCA §5106g), which defines child abuse and neglect as "any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act

or failure to act which presents an imminent risk of serious harm" (1, 9, 10).

For victims who survive childhood, many well-documented, long-term medical and psychological problems are associated with a history of maltreatment. Possible long-term psychiatric effects include psychosis, personality disorders, and substance abuse (11–19). In addition, victims of child maltreatment more commonly have physical health abnormalities, from chronic pain (20, 21) and disabilities (22) to diabetes and autoimmune disorders (23, 24).

Risk Factors

The Centers for Disease Control and Prevention (25) and recent studies report the following risk factors for child maltreatment: parental lack of understanding of children's needs, child development, and parenting; parental history of maltreatment in the family of origin (26); substance abuse in the family; young, single (27), or nonbiological parents; parental thoughts and emotions that support maltreatment behaviors; and parental stress and distress, as well as depression or other mental health disorders. Family risk factors include social isolation (26), poverty (28, 29) and other socioeconomic disadvantages (26), intimate partner violence, and poor parent–child relationships and negative interactions. Child-specific risk factors include being younger than 4 years; having physical (1, 26, 27) or intellectual disabilities; and being born at medical risk, such as being preterm, born with addiction, or hospitalized in the neonatal intensive care unit (30).

Scope of Review

In updating its 2004 recommendation (31), the USPSTF commissioned a systematic review (3) on interventions to prevent maltreatment for children at risk. This update focuses on new studies and evidence gaps that were unresolved at the time of the 2004 recommendation. Beneficial outcomes considered include reduced exposure to maltreatment (primarily measured by CPS reports) and reduced harms to physical or mental health or mortality. Although the original scope of the review focused on screening and interventions, the USPSTF changed the scope to focus on preventive interventions (that are implemented in or can be referred by providers in the primary care setting) rather than screening.

Effectiveness of Preventive Interventions

The USPSTF reviewed studies of asymptomatic children who received primary care–accessible interventions to prevent child maltreatment. The main outcomes that the USPSTF considered were mortality, substantiated CPS reports, and removal from the home. The USPSTF found 1 fair-quality study of an intervention provided in a clinical setting and 10 fair-quality studies of home visitation programs to prevent child maltreatment. The trial implemented in a clinical setting evaluated the Safe Environment for Every Kid model, which includes risk assessment, physician training, resources for parents and physicians, and social work services for families desiring them (32). This trial enrolled 729 parents of children who were newborn to age 5 years and assessed risk by using the Parent Screening Questionnaire, a 20-item self-report of common psychosocial problems. Results indicated significantly reduced CPS reports (13% vs. 19%; $P = 0.03$) among children randomly assigned to the intervention group compared with usual care up to 44 months after the intervention. This study had limitations, including more than 20% loss to attrition, not enough information to determine whether the trial maintained comparable groups throughout the study, and lack of intention-to-treat analysis.

Ten new trials of home visitation in early childhood have been published since the previous USPSTF recommendation. Most trials enrolled patients on the basis of risk factors for child abuse and neglect, including inadequate prenatal care; young age of parents; limited finances, education, and social support; or a history of substance abuse. All of the trials had some methodological limitations leading to an assessment as fair quality; these limitations include inadequate inclusion and exclusion criteria, inadequate randomization or allocation concealment, inadequate blinding, low adherence to the intervention, high loss to follow-up (>20%), dissimilar groups at baseline or follow-up, and lack of intention-to-treat analysis (3).

Home visits were provided by trained paraprofessionals or nurses and began before or soon after birth and continued for 3 to 36 months. One trial reported mortality; this study included 743 children with 9 years of follow-up. Children receiving home visits by a nurse as infants were less likely to die by age 9 years than those in the usual care control group, although results were not significant (1 vs. 10 deaths; $P = 0.080$). In this study, the 1 death in the home visit group was the result of chromosomal abnormalities, whereas the 10 deaths in the control group were from complications of prematurity ($n = 3$), the sudden infant death syndrome ($n = 3$), injury ($n = 3$ [homicide assault by firearm, accidental injury from firearm, and motor vehicle accident]), and intestinal infection ($n = 1$).

Six of the home visitation trials published since the last USPSTF review used CPS reports as an outcome (33–38). No trials reported differences in rates of CPS reports between home visit and control groups during the period of home visitation (33–38). However, 1 trial found that children visited by a professional clinical team had decreased CPS involvement at 3 years after enrollment (odds ratio for effect of the intervention, 2.1 [95% CI, 1.0 to 4.4]) (38).

The previous USPSTF review found inconsistent effects on CPS reports in 3 included studies. In 1 trial with 15 years of follow-up (39), results of a subgroup analysis at 2 years found that poor, high-risk teenage mothers who were visited by nurses were less likely to commit acts of confirmed child abuse and neglect than those who did not receive such visits, but this result was not significant (4% vs. 19%; $P = 0.07$). However, there were no differences

for the entire sample, and results at 3 and 4 years showed no differences (40).

After 15 years of follow-up, children in the home visit group were less likely to be involved in substantiated CPS reports (incidence rate, 0.44 vs. 0.73; $P = 0.04$) (41). Mothers who received home visits were less likely to be a substantiated perpetrator of child abuse (incidence rate, 0.32 vs. 0.65; $P = 0.01$) toward the child being studied or another child over the same 15-year period. Two other trials of visits by paraprofessionals found no differences in total CPS reports after 1 (42) or 3 (43) years of follow-up.

Two recent trials reported removal of the child from the home (33, 34) and did not report a significant difference between the intervention and control groups over 12 (6% vs. 0%; $P =$ not reported [33]) or 36 (1.8% vs. 0.8%; $P =$ not reported [34]) months of follow-up.

Estimate of Magnitude of Net Benefit

The USPSTF concludes that the evidence is insufficient to assess the balance of benefits and harms of interventions delivered in primary care to prevent child maltreatment. The level of certainty of the magnitude of the benefits and harms of these interventions is low.

Response to Public Comments

A draft version of this recommendation statement was posted for public comment on the USPSTF Web site from 22 January to 18 February 2013. Several comments agreed with the draft recommendation; several other comments noted the limitations of using CPS reports as a measure of child maltreatment. The USPSTF recognizes the limitations of the evidence on child maltreatment measures and outcomes and added this to the Research Needs and Gaps section. A few comments expressed confusion over the meaning of "primary care–referable"; this was clarified in the statement. One comment requested clarification of the description of the Safe Environment for Every Kid model study, which was added to the Discussion section.

Update of Previous Recommendation

This recommendation updates the child abuse and neglect portion of the 2004 recommendation on screening for family and intimate partner violence. The updated recommendation on screening for intimate partner violence and abuse of elderly and vulnerable adults was published separately. As previously discussed, the current recommendation differs from the previous recommendation in that it focuses on preventive interventions for child maltreatment instead of screening and treatment. This recommendation is similar to the 2004 recommendation in that the evidence to assess the balance of benefits and harms is still insufficient.

Recommendations of Others

In 2010, the American Academy of Pediatrics published a clinical report advocating for a prominent role of pediatricians in prevention of maltreatment and provided specific guidelines and information on risk factors and protective factors (5). The American Medical Association recommends routine inquiry about child abuse or neglect (44). The American Academy of Family Physicians recently concluded that the current evidence is insufficient to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment (45). Other organizations do not specifically recommend universal screening but recommend that pediatricians and family practice clinicians remain alert for indications of maltreatment (46) or recommend screening in pediatric offices for intimate partner and family violence (47, 48).

The Canadian Task Force on Preventive Health Care issued several recommendations related to child maltreatment in 2000 and recommended against screening for persons at risk of experiencing or committing child maltreatment (D recommendation). However, it recommended home visitation for disadvantaged families from the prenatal period through infancy but found no good evidence to include or exclude a referral for a comprehensive health care program; a parent education and support program; or a combined service program that includes case management, education, and psychotherapy for the prevention of child maltreatment (49). "Disadvantaged families" are defined as first-time mothers with 1 or more of the following characteristics: age younger than 19 years, single-parent status, and low socioeconomic status. The Community Preventive Services Task Force recommends early childhood home visitation interventions to prevent child maltreatment (50).

Disclaimer: Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.

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Requests for Single Reprints: Reprints are available from the USPSTF Web site (www.uspreventiveservicestaskforce.org).

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Appendix: U.S. Preventive Services Task Force

Members of the U.S. Preventive Services Task Force at the time this recommendation was finalized† are Virginia A. Moyer, MD, MPH, *Chair* (American Board of Pediatrics, Chapel Hill, North Carolina); Michael L. LeFevre, MD, MSPH, *Co-Vice Chair* (University of Missouri School of Medicine, Columbia, Missouri); Albert L. Siu, MD, MSPH, *Co-Vice Chair* (Mount Sinai School of Medicine, New York, and James J. Peters Veterans Affairs Medical Center, Bronx, New York); Linda Ciofu Baumann, PhD, RN (University of Wisconsin, Madison, Wisconsin); Kirsten Bibbins-Domingo, PhD, MD (University of California, San Francisco, San Francisco, California); Susan J. Curry, PhD (University of Iowa College of Public Health, Iowa City, Iowa); Mark Ebell, MD, MS (University of Georgia, Athens, Georgia); Glenn Flores, MD (University of Texas Southwestern, Dallas, Texas); Francisco A.R. García, MD, MPH (Pima County Department of Health, Tucson, Arizona); Adelita Gonzales Cantu, RN, PhD (University of Texas Health Science Center, San Antonio, Texas); David C. Grossman, MD, MPH (Group Health Cooperative, Seattle, Washington); Jessica Herzstein, MD, MPH (Air Products, Allentown, Pennsylvania); Wanda K. Nicholson, MD, MPH, MBA (University of North Carolina School of Medicine, Chapel Hill, North Carolina); Douglas K. Owens, MD, MS (Veteran Affairs Palo Alto Health Care System, Palo Alto, and Stanford University, Stanford, California); William R. Phillips, MD, MPH (University of Washington, Seattle, Washington); and Michael P. Pignone, MD, MPH (University of North Carolina, Chapel Hill, North Carolina). Bernadette Melnyk, PhD, RN, a former USPSTF member, also contributed to the development of this recommendation.

† For a list of current Task Force members, go to www.uspreventiveservicestaskforce.org/members.htm.

Appendix Table 1. What the USPSTF Grades Mean and Suggestions for Practice

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer/provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer/provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer/provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the Clinical Considerations section of the USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

Appendix Table 2. USPSTF Levels of Certainty Regarding Net Benefit

Level of Certainty*	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by such factors as: the number, size, or quality of individual studies; inconsistency of findings across individual studies; limited generalizability of findings to routine primary care practice; and lack of coherence in the chain of evidence. As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of: the limited number or size of studies; important flaws in study design or methods; inconsistency of findings across individual studies; gaps in the chain of evidence; findings that are not generalizable to routine primary care practice; and a lack of information on important health outcomes. More information may allow an estimation of effects on health outcomes.

* The USPSTF defines *certainty* as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general primary care population. The USPSTF assigns a certainty level on the basis of the nature of the overall evidence available to assess the net benefit of a preventive service.