

# **Screening Women for Intimate Partner Violence and Elderly and Vulnerable Adults for Abuse: Systematic Review to Update the 2004 U.S. Preventive Services Task Force Recommendation**

**Prepared for:**

Agency for Healthcare Research and Quality  
U.S. Department of Health and Human Services  
540 Gaither Road  
Rockville, MD 20850  
[www.ahrq.gov](http://www.ahrq.gov)

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**Prepared by:**

Oregon Evidence-based Practice Center  
Oregon Health & Science University  
Mail Code: BICC  
3181 SW Sam Jackson Park Road  
Portland, OR 97239  
[www.ohsu.edu/epc](http://www.ohsu.edu/epc)

**Investigators:**

Heidi D. Nelson, MD, MPH  
Christina Bougatsos, MPH  
Ian Blazina, MPH

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## Structured Abstract

**Background:** Intimate partner violence (IPV) and abuse of elders and vulnerable persons is common in the United States and often undetected. Screening individuals without obvious signs of abuse in health care settings could identify those at risk and lead to interventions that reduce exposure to violence and abuse and improve health outcomes.

**Purpose:** To update the previous 2004 evidence report on screening for IPV and abuse of elders and vulnerable persons for the U.S. Preventive Services Task Force (USPSTF).

**Data Sources:** We reviewed the Cochrane Central Register of Controlled Trials and Cochrane Database of Systematic Reviews through the fourth quarter of 2011, and MEDLINE and PsycINFO from 2002 to January 9, 2012, for relevant English-language studies, systematic reviews, and meta-analyses. Reference lists of papers and citations of key studies were reviewed manually and by using Scopus.

**Study Selection:** The screening population included adults who have no obvious signs or symptoms of abuse who interact with health care providers in a number of health care settings. Studies were selected based on preestablished selection criteria using randomized, controlled trials to determine the effectiveness of screening and interventions to reduce abuse and improve health outcomes; studies of diagnostic accuracy to evaluate the ability of screening instruments to identify abused individuals; and studies of any design to determine harms of screening and interventions.

**Data Extraction:** For studies of screening and interventions, information about the patient populations, study designs, screening methods, types of interventions, followup, methods of analysis, and results were abstracted. For studies of screening instruments, details about the study designs, instruments, reference standards, populations, methods of administration, and results were abstracted. Predefined criteria developed by the USPSTF were used to rate the quality of studies as good, fair, or poor.

**Data Synthesis:** For IPV, a randomized, controlled trial comparing IPV screening versus no screening in Canadian health care settings indicated that both groups had reductions in IPV recurrence, post-traumatic stress disorder symptoms, and alcohol problems, as well as improvements in scores for quality of life, depression, and mental health after 18 months of followup; however, differences between groups were not statistically significant for these outcomes. Six instruments with 1 to 8 items demonstrated sensitivity and specificity >80 percent in clinical populations of asymptomatic women; results varied between studies and across instruments. A trial of pregnant women reported decreased violence and improved birth outcomes with counseling versus usual care. Two trials of home visitation versus no visitation for young mothers resulted in improved outcomes with visitation. Counseling resulted in decreased pregnancy coercion and resolution of unsafe relationships versus usual care in one trial. Two trials of counseling showed improved outcomes in intervention and control groups without differences between them (counseling vs. referral cards, nurse management vs. usual care in pregnancy).

For abuse of elder and vulnerable adults, few studies met inclusion criteria. A descriptive study of elderly abused veterans who were identified in primary care clinics and referred to case management found that 5 percent were reported to Adult Protective Services and 6 percent required nursing home placement or conservatorship arrangements. A single instrument, the Elder Abuse Suspicion Index, was evaluated for diagnostic accuracy and had sensitivity and specificity of 9 to 47 percent and 75 to 97 percent, respectively, depending on the number of positive responses to specific questions.

**Limitations:** Studies of IPV were limited by heterogeneity, lack of true control groups, high and/or differential loss to followup, self-reported measures, inadequate power, recall bias, missing data, Hawthorne effect among control participants, and reference standards that were not credible or replicable in diagnostic accuracy studies. Studies of elder and vulnerable adult abuse were lacking.

**Conclusions:** A trial of screening showed reductions in IPV recurrence and improvement in related outcomes for both screening and comparison groups, but interpretations are limited by high attrition and the Hawthorne effect. Trials of IPV interventions for pregnant women and young mothers showed improved outcomes for the intervention versus usual care groups. Several instruments have been developed for IPV screening; six instruments with 1 to 8 items demonstrated sensitivity and specificity >80 percent in clinical populations of asymptomatic women, although results varied between studies and across instruments. Studies were lacking to address screening elderly and vulnerable adults for abuse.

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# CHAPTER 1. INTRODUCTION

## Purpose of Review and Prior USPSTF Recommendation

This systematic evidence review is an update for the U.S. Preventive Services Task Force (USPSTF) recommendation on screening women for intimate partner violence (IPV) and elderly and vulnerable adults for abuse and neglect. The USPSTF defines screening as obtaining information about abuse from individuals in health care settings who do not have complaints or obvious signs of abuse, such as physical injuries. This information would be obtained from surrogates for individuals who are unable to provide it themselves. Individuals with signs, symptoms, or complaints of IPV or abuse or neglect would undergo evaluations outside the scope of screening recommendations. (Abbreviations are listed in **Appendix A**.)

In 2004, based on results of a previous review,<sup>1-3</sup> the USPSTF found insufficient evidence to recommend for or against routine screening of women for IPV or of older adults or their caregivers for elder abuse (I Statement).<sup>4,5</sup> The USPSTF could not determine the balance between the benefits and harms of screening because of the lack of critical evidence, particularly the lack of trials of the effectiveness of screening in health care settings and the effectiveness of interventions to reduce harm from abuse. The USPSTF reviewed several existing screening instruments that demonstrated adequate internal consistency and were validated with longer instruments. However, none were evaluated against measurable violence or health outcomes. Also, despite reviewing an extensive literature on IPV, few studies provided data on screening and management to guide clinicians in practice, and there was little to no evidence from studies of elder abuse or neglect.

This update focuses on new studies and evidence gaps that were unresolved at the time of the 2004 recommendation.

## Condition Definitions

### Intimate Partner Violence

The Centers for Disease Control and Prevention (CDC)<sup>6</sup> recognizes four categories of IPV, including physical violence, sexual violence, threat of physical or sexual violence, and psychological or emotional abuse.<sup>7</sup>

*Physical violence* is the intentional use of physical force with the potential for causing death, disability, injury, or harm. Physical violence includes, but is not limited to, scratching, pushing, shoving, throwing, grabbing, biting, choking, shaking, slapping, punching, burning, use of a weapon, and use of restraints or one's body, size, or strength against another person.

*Sexual violence* is divided into three categories: 1) use of physical force to compel a person to engage in a sexual act against his or her will, whether or not the act is completed; 2) attempted or



completed sex act involving a person who is unable to understand the nature or condition of the act, to decline participation, or to communicate unwillingness to engage in the sexual act (e.g., because of illness, disability, or the influence of alcohol or other drugs or because of intimidation or pressure); and 3) abusive sexual contact.

*Threats of physical or sexual violence* use words, gestures, or weapons to communicate the intent to cause death, disability, injury, or physical harm.

*Psychological or emotional violence* involves trauma to the victim caused by acts, threats of acts, or coercive tactics. Psychological or emotional abuse can include, but is not limited to, humiliating the victim, controlling what the victim can and cannot do, withholding information from the victim, deliberately doing something to make the victim feel diminished or embarrassed, isolating the victim from friends and family, and denying the victim access to money or other basic resources. In addition, stalking is often included among the types of IPV. Stalking generally refers to “harassing or threatening behavior that an individual engages in repeatedly, such as following a person, appearing at a person’s home or place of business, making harassing phone calls, leaving written messages or objects, or vandalizing a person’s property.”<sup>8</sup>

## **Abuse and Neglect of Elderly and Vulnerable Adults**

For this review, abuse and neglect of vulnerable adults is also considered with elder abuse. A vulnerable adult is a person age 18 years or older whose ability to perform the normal activities of daily living or to provide for his or her own care or protection is impaired due to a mental, emotional, long-term physical, or developmental disability or dysfunction, or brain damage.<sup>9</sup> Definitions vary by State, and sometimes included in the definition is the receipt of personal care services from others. Types of elder abuse that also apply to vulnerable adults include physical abuse, sexual abuse, emotional or psychological abuse, neglect, abandonment, financial or material exploitation, and self neglect.<sup>10-12</sup> Elder abuse is defined in various ways for research as well as for legal purposes.<sup>13</sup> The CDC provides the following specific definitions.<sup>12</sup>

*Physical abuse* occurs when an individual is injured (e.g., scratched, bitten, slapped, pushed, hit, or burned), assaulted or threatened with a weapon (e.g., knife, gun, or other object), or inappropriately restrained.

*Sexual abuse or abusive sexual contact* is any sexual contact against an individual’s will. This includes acts in which the elderly person is unable to understand the act or is unable to communicate. Abusive sexual contact is defined as intentional touching (either directly or through the clothing) of the genitalia, anus, groin, breast, mouth, inner thigh, or buttocks.

*Psychological or emotional abuse* occurs when an elder experiences trauma after exposure to threatening acts or coercive tactics. Examples include humiliation or embarrassment, controlling behavior (e.g., prohibiting or limiting access to transportation, telephone, or money or other resources), social isolation, disregarding or trivializing needs, or damaging or destroying property.

*Neglect* is the failure or refusal of a caregiver or other responsible person to provide for an elder's basic physical, emotional, or social needs, or failure to protect an elder from harm. Examples include not providing adequate nutrition, hygiene, clothing, shelter, or access to necessary health care, or failure to prevent exposure to unsafe activities and environments. *Abandonment* is the willful desertion of an elderly person by a caregiver or other responsible person.

*Financial abuse or exploitation* is the unauthorized or improper use of an elder's resources for monetary or personal benefit, profit, or gain. Examples include forgery, misuse or theft of money or possessions, use of coercion or deception to surrender finances or property, or improper use of guardianship or power of attorney.

## **Prevalence and Health Burden**

### **Intimate Partner Violence**

Estimates of the prevalence of IPV range widely, due to nonstandardized definitions, variations in reporting, and undisclosed or undiagnosed abuse. Annual estimates for women in the United States range from 1.3 to 5.3 million annually.<sup>14,15</sup> The prevalence of lifetime history of IPV for women was reported as 23.6 percent in the 2005 Behavioral Risk Factor Surveillance System dataset for 18 States (N=10,243).<sup>16</sup> Among pregnant women in the United States during 2008, physical abuse during the 12 months prior to becoming pregnant varied by State, from 1.8 to 6.0 percent, and rates for physical abuse during pregnancy ranged from 1.3 to 4.6 percent.<sup>17</sup> Among postmenopausal women from the Women's Health Initiative study, 11 percent reported abuse during the prior year, of which 2.1 percent was physical abuse, 89.1 percent was verbal abuse, and 8.8 percent was both physical and verbal abuse (N=91,749).<sup>18</sup> Among patients at the Group Health Cooperative, a large nonprofit health maintenance organization serving a predominantly white, middle-class population, Thompson and colleagues reported prevalence of IPV of 7.9 percent in the preceding year and 14.7 percent in the preceding 5 years.<sup>19</sup>

These estimates likely underrepresent the true rates of abuse because it is often underreported for many reasons,<sup>20</sup> including shame, fear, and reprisal.<sup>21</sup> For example, only 35.6 percent of women injured during their most recent rape and 30.2 percent of women injured during their most recent physical assault received medical treatment.<sup>14</sup>

Health consequences of IPV include immediate effects, such as injuries<sup>22</sup> and death<sup>23</sup> from physical and sexual assault, as well as long-term effects. IPV increases sexually transmitted infections, including HIV,<sup>24</sup> pelvic inflammatory disease,<sup>25</sup> and unintended pregnancy.<sup>26</sup> Assaults during pregnancy adversely affect the health of pregnant women and newborns,<sup>27,28</sup> and IPV is associated with preterm birth, low birth weight, and decreased mean gestational age.<sup>29-31</sup>

Chronic mental health conditions related to IPV include post-traumatic stress disorder (PTSD), depression, anxiety disorders, substance abuse, and suicide.<sup>32-36</sup> Physical conditions resulting from IPV include chronic pain, neurological disorders resulting from injuries, gastrointestinal disorders such as irritable bowel syndrome, migraine headaches, and other disabilities.<sup>34,37,38</sup>

Physical and sexual abuse during adolescence and young adulthood have been associated with poor self-esteem, alcohol and drug abuse, eating disorders, obesity, risky sexual behaviors, teen pregnancy, depression, anxiety, suicidality, and other conditions.<sup>39,40</sup>

## **Abuse and Neglect of Elderly and Vulnerable Adults**

The prevalence of abuse and neglect among elderly and vulnerable adults is unknown because of the nonstandardized definitions of abuse and neglect, differences in reporting, and undisclosed or undiagnosed abuse.<sup>41</sup> A recent study estimated that 14 percent of noninstitutionalized older adults had experienced physical, psychological, or sexual abuse; neglect; or financial exploitation during the past year.<sup>42</sup> In a survey, 52 percent of family caregivers of individuals with dementia reported abusive behavior towards them.<sup>43</sup> Women with disabilities are four times more likely to experience sexual assault in the past year than women without disabilities.<sup>44</sup> A comprehensive literature review utilizing studies of self-report, caregiver and professional support, and objective measures found that overall, one in four vulnerable elders are at risk for abuse, but only a small proportion are identified.<sup>45</sup>

Elder abuse is associated with higher mortality. In a large, long-term prospective cohort study in New Haven, Connecticut, mistreated elders had an increased risk for death compared with nonmistreated elders (odds ratio [OR], 3.1 [95% CI, 1.4–6.7]) after adjustment for demographic characteristics, chronic diseases, functional status, social networks, cognitive status, and depression.<sup>46</sup>

## **Risk Factors**

### **Intimate Partner Violence**

The CDC lists a broad array of risk factors for victimization or perpetration of IPV, categorized by individual, relationship, community, and societal factors.<sup>47</sup> The CDC's individual risk factors apply predominantly to perpetrators. Relationship risk factors include marital conflict, tension, and other struggles; marital instability, including divorces or separations; dominance and control of the relationship by one partner over the other; economic stress; and unhealthy family relationships and interactions. Community risk factors include poverty and associated factors such as overcrowding; low social capital such as lack of institutions, relationships, and norms that shape a community's social interactions; and weak community sanctions against IPV. Societal risk factors include traditional gender norms, such as women staying at home, not entering the workforce, and being submissive, while men support the family and make the decisions. In a large observational study of Kaiser Permanente members, the highest predictor of undiagnosed IPV for women was violence that occurred during the 5 years prior to the patient visit for health care (OR, 7.8 [95% CI, 5.3–11.4]).<sup>48</sup> In this study, complications during pregnancy was another predictor for pregnant women.

## Abuse and Neglect of Elderly and Vulnerable Adults

The CDC also categorizes risk for elder abuse by individual, relationship, community, and societal levels.<sup>49</sup> Individual risk factors apply mostly to perpetrators, who are often caregivers, and include mental illness, alcohol abuse, hostility, poor or inadequate preparation or training for caregiving responsibilities, assumption of caregiving responsibilities at an early age, inadequate coping skills, and exposure to maltreatment as a child.

The CDC's relationship risk factors include high financial and emotional dependence upon a vulnerable elder, past experience of disruptive behavior, and lack of social support. Community risk factors include limited, inaccessible, or unavailable supportive services, such as respite care for caregivers. Societal risk factors include cultures in which there is high tolerance and acceptance of aggressive behavior; health care personnel, guardians, and other agents are given greater freedom in routine care provision and decisionmaking; family members are expected to care for elders without seeking help from others; persons are encouraged to endure suffering or remain silent regarding their pains; and there are negative beliefs about aging and elders.

Risk factors for victims of elder abuse determined from research studies include dementia, living in a care facility, advanced age, female sex, widowed marital status, physical and mental disabilities, behavioral problems, substance abuse, psychological factors, economic factors, dependency, and social isolation.<sup>13,18,50,43</sup>

## Rationale for Screening

Routine screening among asymptomatic individuals for IPV and elder and vulnerable adult abuse and neglect could identify abuse not otherwise known, prevent future abuse from occurring, and reduce morbidity and mortality. Because of fear, intimidation, and lack of support, many individuals do not disclose abuse unless directly questioned, and many who are directly questioned will not disclose. Prevention, identification, and stopping abuse is important to avert both short- and long-term serious health outcomes.<sup>15,51-53</sup>

Screening for IPV by health care professionals is generally acceptable to women under conditions that are perceived as private and safe, and when questions are asked in a comfortable manner. There is no consensus regarding the most acceptable screening setting or modality.<sup>54</sup> While screening is generally acceptable to the majority of women surveyed,<sup>54</sup> some patients may experience feelings of being judged by care providers, and may have increased anxiety, feelings of intrusion, and disappointment in provider responses.<sup>55</sup> Some women also raise concerns about increased risk for abuse associated with both screening and mandatory reporting.<sup>56</sup> Studies suggest that victims of elder abuse and neglect may not tell anyone about their experiences.<sup>57,58</sup> Many victims do not seek help from the police, Adult Protective Services (APS), or social and health service providers, especially when the perpetrators are their children.<sup>57,59-61</sup> Some victims may view abuse as normal behavior,<sup>61</sup> and some may blame themselves for the abusive situation.<sup>58,60,62,63</sup>

## **Interventions**

### **Intimate Partner Violence**

There are several types of services for women subjected to IPV that vary by community and accessibility. These include hotlines, shelters, inpatient services, counseling, and advocacy programs. Identification of IPV in health care settings can lead to a referral to social services to help identify appropriate resources or a direct referral to services, or it can provide an opportunity to present information and discuss options for future consideration.

Some States require physicians to report abuse to legal authorities, and most require reporting of injuries resulting from firearms, knives, or other weapons.<sup>64</sup> By federal law, through the passage of the 1994 Violence Against Women Act and the 2005 reauthorization,<sup>65</sup> shelter workers and other advocates are not mandatory reporters, unless they hold a clinical license that otherwise requires them to report abuse, thereby making it easier for women to seek refuge from abuse without fear of losing their children. There is significant controversy in the field over whether legal reporting for IPV should be mandatory to assure victim safety.

### **Abuse and Neglect of Elderly and Vulnerable Adults**

In cases of suspected or known elder abuse, health care workers are required to contact their local APS office, Area Agency on Aging office, or another social service for further investigation. The Social Security Act of 1974 authorized States to create APS offices. The Older Americans Act established local Ombudsman offices and other agencies dedicated to protecting the rights of elderly Americans. Mandatory reporting laws and regulations of elder abuse by physicians and other licensed individuals vary by State; however, most require reporting.<sup>66</sup> If abuse is found, interventions vary and could include services such as advocacy, counseling, money management, out-of-home placement, or conservatorship, among others. Cases of abuse and interventions for vulnerable adults are also handled by local APS offices or other social services, and interventions are implemented on a case-by-case basis.

## **Current Clinical Practice**

### **Intimate Partner Violence**

Screening practices are inconsistent for several reasons, including the existence of a variety of screening instruments, a lack of consensus on which instrument to use, the nonspecificity of risk factors, lack of training, lack of effectiveness studies about what to do if IPV is identified, discomfort with screening, and time constraints. While screening protocols have been implemented in some health systems, screening practices are low in others. While 43 to 85 percent of women considered screening for abuse acceptable when surveyed, only one third of physicians and half of emergency department nurses favored screening.<sup>67</sup>

## Abuse and Neglect of Elderly and Vulnerable Adults

Current screening practices for elder and vulnerable adult abuse and neglect are also limited for many reasons.<sup>50</sup> These include varying definitions of abuse, the wide variety of types of elder abuse, lack of an agreed-upon screening method, wide-ranging risk factors, lack of training, unclear guidance about who to screen and what to do if abuse is identified, physician discomfort with screening, uncertainty about the ramifications of identifying abuse or making allegations, lack of physician control or ability to decide what is in the best interest of the patient,<sup>68</sup> and time constraints. Also, in a recent survey of U.S. physicians, only a quarter were aware that the American Medical Association has guidelines on screening for elder abuse.<sup>69</sup> Identifying abuse and neglect for elderly or vulnerable adults also raises legal issues about mandatory reporting.

## Recommendations of Other Groups

### Intimate Partner Violence

Recommendations of other groups about screening for IPV in health care settings are summarized in **Table 1**. The Canadian Task Force on Preventive Health Care found insufficient evidence to recommend for or against screening women for IPV.<sup>70</sup> A report by the Health Technology Assessment Program in the United Kingdom also concluded that evidence is insufficient to implement a screening program for partner violence against women either in health services generally or in specific clinical settings.<sup>54</sup>

The American Medical Association recommends that physicians routinely inquire about physical, sexual, and psychological abuse as part of the medical history, and consider abuse as a factor in the presentation of medical complaints because patients' experiences with interpersonal violence or abuse may adversely affect their health status.<sup>71</sup> The Institute of Medicine recently recommended screening and counseling for interpersonal and domestic violence for women and adolescent girls,<sup>72</sup> and this recommendation was incorporated into the Affordable Care Act as a preventive health service. The American Congress of Obstetricians and Gynecologists recommends that physicians screen all patients for IPV, and that screening should occur during routine visits and over the course of pregnancy.<sup>73</sup> The American Academy of Pediatrics also recommends screening, stating that pediatricians are in a position to recognize abused women in pediatric settings.<sup>74</sup> Other groups, such as Futures Without Violence (formerly the Family Violence Prevention Fund),<sup>75</sup> Council of International Neonatal Nurses,<sup>76</sup> Emergency Nurses Association,<sup>77</sup> and American College of Emergency Physicians<sup>78</sup> also recommend that health care providers screen patients for IPV. The American Academy of Family Physicians<sup>79</sup> also suggests that physicians be aware of signs of IPV during each patient encounter.

## Abuse and Neglect of Elderly and Vulnerable Adults

Recommendations of other groups about screening for elder abuse in health care settings are summarized in **Table 2**. The American Medical Association,<sup>80</sup> American College of Emergency Physicians,<sup>78</sup> and Emergency Nurses Association<sup>77</sup> specifically suggest screening for elder abuse.

The American Congress of Obstetricians and Gynecologists,<sup>73</sup> American Academy of Pediatrics,<sup>74</sup> Emergency Nurses Association,<sup>77</sup> Council of International Neonatal Nurses,<sup>76</sup> and Futures Without Violence<sup>75</sup> all recommend in more general statements that care providers screen patients for family violence (**Table 1**).

# CHAPTER 2. METHODS

## Key Questions and Analytic Framework

Based on evidence gaps identified from the previous review<sup>1-3</sup> and using the methods of the USPSTF,<sup>81</sup> the USPSTF and Agency for Healthcare Research and Quality (AHRQ) determined Key Questions for this review. Investigators created an analytic framework incorporating the Key Questions and outlining patient populations, interventions, outcomes, and harms of the screening process (**Figures 1 and 2**).

Key Questions for IPV (**Figure 1**) include:

1. Does screening asymptomatic women in health care settings for current, past, or increased risk for IPV reduce exposure to IPV, physical or mental harms, or mortality?
2. How effective are screening techniques in identifying asymptomatic women with current, past, or increased risk for IPV?
3. What are the adverse effects of screening for IPV?
4. For screen-detected women with current, past, or increased risk for IPV, how well do interventions reduce exposure to IPV, physical or mental harms, or mortality?
5. What are the adverse effects of interventions to reduce harm from IPV?

Key Questions for elder and vulnerable adult abuse and neglect (**Figure 2**) include:

1. Does screening asymptomatic elderly and vulnerable adults in health care settings for current, past, or increased risk for abuse and neglect reduce exposure to abuse and neglect, physical or mental harms, or mortality?
2. How effective are screening techniques in identifying asymptomatic elderly and vulnerable adults with current, past, or increased risk for abuse and neglect?
3. What are the adverse effects of screening for abuse and neglect of elderly and vulnerable adults?
4. For screen-detected elderly and vulnerable adults with current, past, or increased risk for abuse and neglect, how well do interventions reduce exposure to abuse and neglect, physical or mental harms, or mortality?
5. What are the adverse effects of interventions to reduce harm from abuse and neglect?

The target populations for screening are individuals presenting for health care, including adult women for IPV screening and elderly and vulnerable adults for screening for abuse and neglect. Screening is defined as obtaining information about abuse from individuals in health care settings who do not have complaints relating to abuse or obvious signs of abuse, such as physical injuries. This information is obtained from surrogates for individuals who are unable to provide it themselves. Individuals with signs, symptoms, or complaints of abuse or neglect undergo evaluations outside the scope of screening recommendations.

Health care settings include primary care clinics, emergency departments, and student health centers, among others. Screening techniques include self-administered (e.g., computer-enabled



tool or patient self-report) as well as person-to-person (e.g., clinician to patient) methods.

Outcomes include both reduction in exposure to IPV or abuse (e.g., decreasing levels of violence or abuse, leaving an unsafe situation), as well as reduction in mortality and physical or mental harms (e.g., physical trauma; unwanted pregnancy and sexually transmitted diseases; emotional trauma, social isolation, and its repercussions such as depression, anxiety, and nightmares; quality of life; and chronic medical conditions).

Possible screening harms include stigma, labeling, clinicians' negative attitudes, psychological distress, escalation of abuse and family tension, loss of personal residence and financial resources, erosion of established family structure, loss of autonomy for the victim, and lost time from work, among others. Abused women and/or their children can become the target of retaliation, which can lead to homicide.<sup>82</sup>

## Search Strategies

We searched the Cochrane Central Register of Controlled Trials and Cochrane Database of Systematic Reviews through the fourth quarter of 2011, and MEDLINE and PsycINFO from 2002 to January 9, 2012, for relevant studies and systematic reviews. Search strategies and additional details are described in **Appendix B1**. We also reviewed reference lists of papers and citations of key studies manually and by using Scopus. Studies published in 2003 or later were eligible for inclusion in this update.

## Study Selection

We selected studies on the basis of inclusion and exclusion criteria developed for each Key Question (**Appendix B2**). **Appendix B3** shows the results of our literature search and selection process. For all studies, we included research conducted in the United States or in other populations similar to the screening populations targeted in this review that received services and interventions applicable to U.S. medical practice.

For Key Questions 1 and 4, we included randomized, controlled trials (RCTs) of the effectiveness of screening (Key Question 1) or interventions (Key Question 4) for IPV or elder abuse in reducing exposure to abuse and health outcomes as defined by the Key Questions. Studies of screening or referral rates, attitudes about screening, plans or intentions, or reporting other types of intermediate outcomes were not included.

For Key Question 2, we included studies of the diagnostic accuracy of screening techniques in identifying asymptomatic women and elderly/vulnerable adults in health care settings with current or past violence and abuse or at high risk for violence and abuse. Screening tests were included if they were used in or were applicable to U.S. primary care settings. These included self-administered, computer-enabled, or patient self-report instruments, as well as clinician-to-patient methods. Instruments were included if they were feasible for use for screening (i.e., brief, easy to interpret, acceptable to patients and clinicians). We included studies of diagnostic

accuracy reporting sensitivity, specificity, area under the curve, or other characteristics (**Table 3**). We excluded studies lacking a validated reference standard, examining instruments that are not feasible for screening in health care settings, or evaluating instruments in populations different than the target populations for this review. Studies of externally validated techniques, particularly if utilizing large and/or multiple samples, were preferred over studies of internally validated or nonvalidated techniques.

For Key Questions 3 and 5, we included studies on adverse effects of screening and interventions. Consistent with other reviews, inclusion criteria were broadened to include studies of multiple designs to describe potential adverse effects. Studies included for Key Questions 1 and 4 were reviewed for outcomes relevant to Key Questions 3 and 5.

Existing relevant systematic reviews were obtained and included if the individual studies within the review meet inclusion criteria; otherwise, we included the relevant individual studies. We excluded studies examining patient or physician education and methods of increasing screening or disclosure rates. We also excluded studies about the use of services or referral for services if they did not also include health outcomes, and the perceptions and attitudes of physicians and nurses on screening for IPV or elder abuse. Excluded studies are listed in **Appendix B4**.

## Data Abstraction and Quality Rating

We abstracted details about the patient population, study design, analysis, followup, and results. USPSTF quality criteria were used to determine the quality of individual studies.<sup>81</sup> Two investigators rated the quality of studies (good, fair, poor) and resolved discrepancies by consensus (described in **Appendixes B5** and **B6**).<sup>81,83-86</sup> Studies with designs that lack quality criteria were qualitatively described.

## Data Synthesis

We assessed the aggregate internal validity (quality) of the body of evidence for each Key Question (good, fair, poor) using methods developed by the USPSTF based on the number, quality, and size of studies, consistency of results between studies, and directness of evidence.<sup>81</sup> No quantitative analysis, such as meta-analysis, was conducted.

## External Review

The draft report was reviewed by content experts, USPSTF members, AHRQ Project Officers, and collaborative partners (**Appendix B7**).

# CHAPTER 3. RESULTS

## Screening for Intimate Partner Violence

### Key Question 1. Does Screening Asymptomatic Women in Health Care Settings for Current, Past, or Increased Risk for Intimate Partner Violence Reduce Exposure to Violence? Reduce Physical or Mental Harms or Mortality?

**Summary.** A large cluster RCT of the effectiveness of screening for IPV in clinical settings included 6,743 Canadian women randomized to screening or nonscreening groups.<sup>87</sup> The primary outcomes were exposure to abuse and quality of life in the 18 months after screening. Secondary outcomes included depression, PTSD, alcohol and drug abuse, global mental and physical health, and use of health and social services. Women in both the screened and nonscreened groups had reductions over time in IPV recurrence, PTSD symptoms, and alcohol problems, as well as improvements in scores for quality of life, depression, and mental health. These outcomes were not significantly different between women in the screened versus nonscreened groups.

Limitations of the trial, rated fair quality, include high loss to followup, and the women lost to followup had higher IPV scores and more risk factors for IPV than women retained in the study. Differences between screened and nonscreened groups were also compromised by the absence of a specific intervention, low number of screen-positive women actually having discussions about IPV with their clinicians during their clinic visits, and lack of differences between groups in accessing additional services during followup. Women randomized to the nonscreening group were provided with information cards of locally available resources for women with IPV, and underwent extensive questioning about IPV that could have increased their awareness and influenced outcomes of the trial.

**Evidence.** A large cluster RCT of the effectiveness of screening for IPV in clinical settings met inclusion criteria for Key Question 1 (**Appendixes C1 and C2**).<sup>87</sup> The trial included 6,743 English-speaking women between the ages of 18 and 64 years randomized to screening or nonscreening groups. The primary outcomes were exposure to abuse and quality of life in the 18 months after screening. Secondary outcomes included depression, PTSD, alcohol and drug abuse, global mental and physical health, and use of health and social services. Harms of screening were actively monitored.

Participants were recruited when they presented for a health care visit at one of 12 primary care, 11 acute care, and three obstetrics/gynecology clinic sites in Ontario, Canada. The units of randomization were days or shifts for sites using shifts, and the screening and nonscreening units were balanced across different times of the day and days of the week. Clinicians at all study sites received standardized training in responding to IPV prior to the beginning of the trial. All women had universal access to health care in accordance with local practice. Women were eligible for the trial if they were ages 18 to 64 years, had a male partner at some time during the previous 12

months, presented for their own health care visit, were able to separate themselves from anyone else accompanying them, lived within 120 km of the clinic site, could speak and read English, were not too ill to participate, and were able to provide informed consent.

On screening days, before seeing their clinicians for the intended health care visit, participants provided baseline information and self-completed the Women Abuse Screening Tool (WAST). The WAST is an eight-item instrument measuring physical, sexual, and emotional abuse in the last 12 months. A score of  $\geq 4$  was considered positive in the trial. Results of the WAST were provided to the clinicians prior to the health care visit for women with positive scores. Discussion of positive findings, referrals, or treatment was left to the discretion of the treating clinician according to usual practice. After their visits and regardless of their WAST scores, all women completed the Composite Abuse Scale (CAS). The CAS is a 30-item validated research instrument to measure IPV. A score of  $\geq 7$  indicates exposure to IPV. The same procedures were followed for nonscreening days, except that participants completed both the WAST and CAS at the end of the visit; however, clinicians could inquire about abuse during the clinic visit if there were indications to do so.

Women with positive scores on both the WAST and CAS in the screened and nonscreened groups were followed for 18 months. Interviewers blinded to group assignment met with participants within 14 days of the initial clinic visit for a baseline interview, and again at 6, 12, and 18 months. At followup, participants self-completed several instruments, including the CAS; World Health Organization (WHO) Quality of Life–BREF; Center for Epidemiologic Studies Depression Scale; SPAN (Startle, Physiological Arousal, Anger, and Numbness) instrument to measure PTSD; alcohol abuse and dependency tool (TWEAK); Drug Abuse Severity Test; Short-Form 12-Item Health Survey, Version 2; Consequences of Screening Tool (COST); and modified version of the Health and Social Service Utilization Questionnaire. Additional services included visits to physicians, nurses, psychologists, or social workers or use of crisis phone lines, sexual assault crisis centers, advocacy or counseling services, women’s shelters, or other type of services.

The 12-month prevalence of IPV at the initial clinic visit was 13 percent in the screened group and 12 percent in the nonscreened group. During the initial clinic visit, 44 percent of screened women and 8 percent of nonscreened women discussed IPV with their clinician. Women in both the screened and nonscreened groups had reductions over time in IPV recurrence, PTSD symptoms, and alcohol problems, and improvements in scores for quality of life, depression, and mental health.

Outcomes for women in the screened versus nonscreened groups at 18 months included statistically nonsignificant reduction in risk for IPV recurrence (OR, 0.82 [95% CI, 0.32–2.12]), more rapid improvement in quality of life (3.74 points higher [95% CI, 0.47–7.00]), and reduced depressive symptoms (-2.32 [95% CI, -4.61 to -0.03]). Results for quality of life and depression were not statistically significant using multiple imputation analysis, and other secondary outcomes were not different between groups. No measures of harm were associated with screening in women with or without IPV exposure.

The trial met criteria for fair quality because loss to followup was high (43 percent of screened

and 41 percent of nonscreened participants). Importantly, women lost to followup had lower levels of education, higher scores on the WAST and CAS, and were more likely to be married compared with those retained in the trial. Women lost to followup in the screened group had the highest WAST and CAS scores among trial participants.

Significant differences in major outcomes between screened and nonscreened groups may have been attenuated for several reasons, including the absence of a specific intervention, low number of screen-positive women actually having discussions about IPV with their clinicians during their clinic visits, and lack of differences between groups in accessing additional services during followup. Most women in the trial had contact with at least one additional service during the course of the trial, despite their screening group, indicating that referral and access to services may be a generally accepted practice among women in a universal health care system. Also, in this trial, women randomized to the nonscreening group were provided with information cards of locally available resources for women with IPV—itsself an IPV intervention in other studies. In addition, women in the nonscreening group underwent extensive questioning about IPV by completing the WAST, CAS, and other instruments over the 18 months of the trial. These experiences could increase their awareness of IPV in their own lives, affect their utilization of services, and influence outcomes of the trial creating a substantial Hawthorne effect (i.e., the phenomenon that study participants change their behavior as a result of being involved in the study).

## **Key Question 2. How Effective Are Screening Techniques in Identifying Asymptomatic Women With Current, Past, or Increased Risk for Intimate Partner Violence?**

**Summary.** Fifteen studies that evaluated the diagnostic accuracy of 13 screening instruments for identifying IPV in asymptomatic adult women in health care settings met inclusion criteria. Most instruments assessed current and/or past abuse rather than risk factors for future abuse, including the Abuse Assessment Screen (AAS); Partner Violence Screen (PVS); Hurt, Insult, Threaten, Scream (HITS); WAST; Humiliation, Afraid, Rape, Kick (HARK); Ongoing Abuse Screen/Ongoing Violence Assessment Tool (OAS/OVAT); Slapped, Threatened, and Throw (STaT); Childhood Trauma Questionnaire–Short Form (CTQ-SF); Secure, Accepted, Family, Even, Talk Survey (SAFE-T); Parent Screening Questionnaire (PSQ); one personal safety question; and five items with nongraphic language.

Screening instruments demonstrating the highest sensitivity and specificity in the included diagnostic accuracy studies include the HITS (English version, 86 percent sensitivity and 99 percent specificity; Spanish version, 100 percent sensitivity and 86 percent specificity), OVAT (93 percent sensitivity, 86 percent specificity), STaT (89 percent sensitivity, 100 percent specificity), HARK (81 percent sensitivity, 95 percent specificity), modified CTQ-SF (85 percent sensitivity, 88 percent specificity), and WAST (88 percent sensitivity, 89 percent specificity). Positive responses on the PVS significantly predicted verbal aggression and violence during the 4 months after screening. Two instruments specifically evaluated in pediatric settings had relatively low sensitivity but high specificity (PSQ, 19 to 29 percent sensitivity and 91 to 93 percent specificity; Zink five questions, 40 percent sensitivity and 91 percent specificity). Sensitivity, specificity, and other measures varied between studies and across instruments.

**Evidence.** Fifteen studies that evaluated the diagnostic accuracy of 13 screening instruments for identifying IPV in asymptomatic adult women in health care settings met inclusion criteria (Tables 4 and 5, Appendixes C3 and C4). Most instruments assessed current and/or past abuse rather than risk factors for future abuse. Screening instruments included the AAS,<sup>88</sup> PVS,<sup>89,90</sup> HITS,<sup>91</sup> WAST,<sup>90-92</sup> HARK,<sup>93</sup> OAS/OVAT,<sup>94,95</sup> StaT,<sup>96,97</sup> CTQ-SF,<sup>98</sup> SAFE-T,<sup>99</sup> PSQ,<sup>100</sup> one personal safety question,<sup>101</sup> and five items with nongraphic language.<sup>102</sup> Five instruments and their modifications were used as reference standards, including the Index of Spouse Abuse (ISA),<sup>91,94,95,97</sup> WAST,<sup>91</sup> Conflict Tactics Scale (CTS),<sup>88,89,100-102</sup> PVS,<sup>99</sup> and CAS.<sup>90,92,93</sup> Structured<sup>98</sup> and semi-structured interviews<sup>96</sup> were used as reference standards in two studies. Additional descriptions of these instruments are provided in Table 4.

Three studies met criteria for good quality,<sup>90,92,98</sup> and 12 for fair quality.<sup>88,89,93-96,97,99,100,101-103</sup> The most common methodologic limitations of these studies include patient spectrum was too narrow or had limited applicability (e.g., single site, not community based, not United States or Canada); sampling method was not random or consecutive, or not described; reference standard was not credible; or dissimilar groups at baseline, high rates of attrition, and lack of information regarding whether the reference standard was independently interpreted. Details of the quality ratings are described in Appendix C4.

Four systematic reviews of screening instruments for IPV were identified by the searches.<sup>54,104-106</sup> Reviews provided descriptive summaries of screening instruments; however, many studies were not included in this update because their publication dates predated 2003.<sup>54,104-106</sup> Also, inclusion criteria for individual studies differed from this update by including studies of men,<sup>104,106</sup> instruments designed to identify perpetrators,<sup>106</sup> studies that did not report screening test performance outcomes,<sup>54,105,106</sup> studies comparing instruments with unclear or inadequate reference standards,<sup>54,105</sup> or instruments intended for research settings.<sup>54</sup>

*Instruments Evaluated in Maternity, Emergency, or Primary Care Clinical Settings.* The AAS, a four-item instrument that considers sexual coercion, lifetime abuse, current abuse, and abuse during pregnancy, was evaluated in two studies.<sup>88,94</sup> When compared with the Conflict Tactics Scale 2 (CTS2) among mothers of premature infants in maternity wards, sensitivity and specificity were 32 and 99 percent for minor violence, 61 and 98 percent for severe violence, and 32 and 99 percent for both.<sup>88</sup> In a prospective study comparing the AAS and the OAS/OVAT with the ISA as the reference standard in a population of men and women presenting to an emergency department, the AAS had a sensitivity and specificity of 93 and 55 percent.<sup>94</sup>

The OAS, a five-item instrument measuring current and past abuse, had sensitivity and specificity of 60 and 90 percent when compared with the ISA in emergency department patients.<sup>94</sup> After factor analysis, this instrument was edited to a four-item version (OVAT) that demonstrated sensitivity and specificity of 93 and 86 percent in the same population.<sup>94</sup> A subsequent study comparing OVAT with the ISA among patients presenting to an emergency department also reported high sensitivity and specificity (86 and 83 percent).<sup>95</sup>

Two studies evaluated the three-item PVS, which measures past physical violence and perceived personal safety.<sup>89,90</sup> A prospective study screened women presenting to an emergency department with the PVS and contacted them by telephone 4 months later to administer the CTS.<sup>89</sup>

Participants who screened positive on the PVS had increased risks for verbal aggression (relative risk [RR], 7.25 [95% CI, 3.2–16.2]) and physical violence (RR, 11.3 [95% CI, 5.0–26.3]) compared with those with negative screens. These findings were similar when a single item from the PVS was used (“Have you been hit, kicked, punched, or otherwise hurt by someone?”). This study reported significant findings despite high loss to followup (53.2 percent) and differences in baseline abuse prevalence rates between participants retained and lost to followup (9.4 vs. 21.8 percent).

Results of the PVS and the WAST were compared with the CAS for 2,461 women presenting to family practice, emergency department, and women’s health clinics in Canada.<sup>90</sup> Sensitivity and specificity were 49 and 94 percent for the PVS and 47 and 96 percent for the WAST. In a subsequent study of a larger sample of women from the same Canadian clinics, the WAST demonstrated higher sensitivity (81 to 88 percent) and specificity (89 percent) using the CAS again as the reference standard.<sup>92</sup> The WAST identified a 12-month IPV prevalence rate of 22 percent, while the CAS found 14 percent.

English and Spanish versions of the four-item HITS instrument were compared with the ISA and the Spanish-version of the WAST in a cross-sectional study.<sup>91</sup> In a sample of women attending a family practice clinic, the sensitivity and specificity of the English-version HITS was maximized at a cut-point score of 10.5 (86 and 99 percent) and 5.5 for the Spanish-version HITS (100 and 86 percent).

The three-item STaT instrument was evaluated among women presenting to primary care clinics in two studies. Compared with a semi-structured interview, STaT demonstrated sensitivity and specificity of 96 and 75 percent for  $\geq 1$  positive responses, 89 and 100 percent for  $\geq 2$ , and 64 and 100 percent for  $\geq 3$ .<sup>96</sup> In a larger sample using the ISA as the reference standard, STaT had sensitivity and specificity of 95 and 37 percent for  $\geq 1$  positive responses, 85 and 54 percent for  $\geq 2$ , and 62 and 66 percent for  $\geq 3$ .<sup>97</sup>

The four-item HARK instrument was compared with the CAS among women presenting to primary care in London.<sup>93</sup> For a positive response on any question, the sensitivity and specificity were 81 and 95 percent.

The SAFE-T instrument includes five questions about a woman’s relationship with her partner (secure at home, accepted by partner, family likes partner, disposition of partner, and talks with partner to resolve differences). A comparison of responses from SAFE-T with one item from the PVS among women in emergency departments indicated sensitivity and specificity of 54 and 81 percent.<sup>99</sup> Responses on one personal safety question were compared to those on the modified CTS among women in an urban family medicine clinic.<sup>101</sup> Sensitivity and specificity were 9 and 91 percent.

Two items from the CTQ-SF, an instrument designed to detect a history of physical or sexual abuse in childhood, were compared with the Evaluation of Lifetime Stressors structured interview among women in a health maintenance organization.<sup>98</sup> Using a single item from the CTQ-SF, sensitivity and specificity were 70 and 94 percent for physical abuse and 82 and 89 percent for sexual abuse. Using two items to screen for physical or sexual abuse resulted in

sensitivity and specificity of 85 and 88 percent.

*Instruments Evaluated in Pediatric Clinical Settings.* The PSQ, which contains three questions about current and lifetime physical abuse and safety, was compared with the CTS2 in a study of mothers of children <6 years old in a pediatric community clinic.<sup>100</sup> Sensitivity and specificity were 19 and 93 percent for physical assault, 29 and 91 percent for injury, and 27 and 92 percent for psychological aggression.

A five-item screening instrument was designed for administration in pediatric settings by presenting questions with nongraphic language (e.g., “How do you and your partner work out arguments?”).<sup>102</sup> Sensitivity and specificity were 40 and 91 percent when compared with the CTS2 in a cohort of women with children presenting to pediatric clinics or family practices in Ohio.

#### **Key Question 4. For Screen-Detected Women With Current, Past, or Increased Risk for Intimate Partner Violence, How Well Do Interventions Reduce Exposure to Intimate Partner Violence? Reduce Physical or Mental Harms or Mortality?**

**Summary.** Six RCTs reported in eight publications met inclusion criteria, including three trials of interventions targeted to pregnant and postpartum women<sup>29,30,107-109</sup> and three trials of women enrolled without regard to pregnancy status.<sup>110-112</sup>

The National Institutes of Health–District of Columbia (NIH-DC) Initiative to Reduce Infant Mortality in Minority Populations is a randomized trial of counseling interventions to reduce multiple risks factors during pregnancy and postpartum compared with usual care.<sup>29,30,109</sup> Screening for cigarette smoking, environmental tobacco smoke exposure, depression, and IPV with the AAS was done using an anonymous computer interview. Results indicated that compared with usual care, women in the counseling intervention group had significantly fewer recurrent episodes of IPV during pregnancy and postpartum, and better birth outcomes, including fewer very preterm neonates ( $\leq 33$  weeks’ gestation), lower rates of very low birth weight neonates ( $< 1,500$  g), and increased mean gestational age.

A randomized trial of home visitation enrolled women in Hawaiian hospitals who gave birth to an infant evaluated as at risk for maltreatment.<sup>107</sup> Primary outcomes were mothers’ IPV victimization and perpetration towards their domestic partners over the subsequent 9 years of followup. Women randomized to the intervention group received home visitation by paraprofessionals for 3 years. During the program, the intervention group had lower rates of IPV victimization that were of borderline statistical significance, and lower rates of IPV perpetration. Results were similar for physical assault victimization and perpetration. Long-term followup rates of overall IPV victimization and perpetration decreased with nonsignificant between-group differences, although rates of verbal abuse suggest an increase for victimization and perpetration among the intervention group.

A cluster randomized trial of pregnant women and mothers of children  $\leq 5$  years old evaluated



the effectiveness of mentor support versus usual care in reducing IPV and depression.<sup>112</sup> The trial enrolled women in primary care clinics in Australia who disclosed IPV or had behavioral symptoms suggestive of abuse. Results indicated that abuse scores were significantly reduced in the intervention versus usual care group, the odds of experiencing violence at followup when adjusted for baseline abuse was reduced, and other differences were not significant (e.g., depression, physical wellbeing, mental wellbeing, parenting stress).

A cluster randomized trial evaluated a counseling intervention compared with usual care in reducing abuse related to pregnancy coercion. Coercion is defined as a lack of control over a woman's reproductive health, including compromised decisionmaking or limited ability to enact contraceptive use and family planning, and fear of condom negotiation.<sup>111</sup> Results indicated that women randomized to the intervention who reported recent IPV at baseline had decreased pregnancy coercion at followup compared with usual care. Women in the intervention group were also more likely to discontinue an unhealthy or unsafe relationship compared with women in the usual care group, regardless of recent IPV status.

A randomized, two-arm trial compared use of a wallet-sized referral card with a nurse management protocol in reducing IPV.<sup>110</sup> Two years after the interventions, both groups reported fewer threats of abuse, assaults, danger risks for homicide, and events of work harassment, and there were no significant differences between groups.

**Evidence.** Five systematic reviews of studies evaluating interventions for IPV have been published since 2003 and were reviewed for this update.<sup>54,105,113-115</sup> Many of the studies cited in the reviews did not meet inclusion criteria because they were either originally published before 2003 or were outside the scope of Key Question 4.

Six RCTs reported in eight publications met inclusion criteria for Key Question 4 (**Table 6; Appendixes C5 and C6**).<sup>29,30,107-112</sup> Three trials evaluated interventions targeted to pregnant and postpartum women,<sup>29,30,107-109</sup> and three trials enrolled women without regard to pregnancy status and were conducted in primary care,<sup>110,112</sup> Women, Infants, and Children (WIC) clinics,<sup>110</sup> and family planning clinics.<sup>111</sup> One trial met criteria for good quality,<sup>30</sup> while two other publications of this trial were rated fair quality.<sup>29,109</sup> Four additional trials met criteria for fair quality<sup>107,110-112</sup> and one for poor quality.<sup>108</sup> Trials were limited primarily by enrollment of dissimilar groups at baseline, high and/or differential loss to followup, lack of power, analysis was not intention-to-treat or not described, use of self-reported measures, recall bias, missing data, lack of blinding, and lack of true control groups, since asking about abuse is itself an intervention. Trials included narrowly-defined patient populations that may not be applicable to broader populations. Although these limitations are important in the interpretation and application of the study results, many are unavoidable in this field of research. The good- and fair-quality rated studies are described below.

*Interventions for Pregnant and Postpartum Women.* The NIH-DC Initiative to Reduce Infant Mortality in Minority Populations is a randomized trial of counseling interventions during pregnancy and postpartum compared with usual care.<sup>29,30,109</sup> This trial enrolled 1,044 women at six prenatal care sites in the District of Columbia. Women were eligible for the trial if they were African American, at least 18 years old,  $\leq 28$  weeks pregnant, a District of Columbia resident,

and English speaking. Screening for cigarette smoking, environmental tobacco smoke exposure, depression, and IPV with the AAS was done using an anonymous computer interview. Additional and followup information was collected by a telephone interviewer blinded to randomization group designations at baseline, 22–26 weeks' gestation, 34–38 weeks' gestation, and at an average of 10.3 weeks postpartum. Exposure to IPV was determined using scores from the CTS, which was also used to categorize women as having minor or severe and physical or sexual IPV. These designations were further defined by the study. Birth outcomes were determined by reviewing participants' medical charts.

Women randomly assigned to the intervention group received prenatal behavioral counseling for two to eight sessions, with up to two postpartum sessions provided by professional counselors. The intervention was delivered during routine prenatal care visits at the clinics by social workers or psychologists trained to respond specifically to each identified risk. The intervention sessions averaged 35 minutes in length. Counseling for IPV emphasized danger assessment, safety behaviors, and information on community resources. Smoking and depression were also specifically addressed for participants with these problems.

At baseline, 32 percent of women reported IPV in the previous year, and rates were similar for intervention and usual care groups. The mean age of participants was 24.5 years, participants initiated prenatal care at an average of 13 weeks' gestation, most were single, 68 percent had at least a high school education, and 79 percent were enrolled in Medicaid. Regarding other risk factors, 22 percent of participants smoked, 78 percent had environmental smoke exposure, 62 percent were depressed, 32 percent used alcohol, and 17 percent used illicit drugs.

Results indicated that women in the intervention group had significantly fewer recurrent episodes of IPV during pregnancy and postpartum (adjusted OR, 0.48 [95% CI, 0.29–0.80]).<sup>29,30</sup> Further analysis showed that reduction in IPV was confined to minor physical violence, but not severe or sexual violence. Alcohol use and depression at baseline were significantly associated with recurrent episodes of IPV (alcohol use: OR, 1.85 [95% CI, 1.09–3.12]; depression: OR, 1.90 [95% CI, 1.11–3.25]).<sup>30</sup>

Women in the intervention group also had better birth outcomes, including fewer very preterm neonates ( $\leq 33$  weeks) (1.5 vs. 6.6 percent;  $p=0.03$ ), lower rates of very low birth weight neonates ( $<1500$  g) (0.8 vs. 4.6 percent;  $p=0.52$ ), and increased mean gestational age (38.2 vs. 36.9 weeks;  $p=0.016$ ). A later publication of this trial also reported fewer very preterm neonates (2.2 vs. 5.0 percent in intervention vs. usual care groups; OR, 0.43 [95% CI, 0.20–0.95]; number needed to treat, 36 mothers).<sup>29</sup> The trial also evaluated other risk factors for adverse pregnancy outcomes and found that smoking and environmental smoke exposure were the only other risk factors to decrease in the intervention group.<sup>109</sup> It is unclear how modification of these risk factors influenced birth outcomes reported in the subsequent publications.<sup>29,30</sup>

A randomized trial of home visitation enrolled 685 English-speaking mothers in Oahu, Hawaii hospitals who gave birth to an infant evaluated as at risk for maltreatment.<sup>107</sup> Primary outcomes were mothers' IPV victimization and perpetration towards their domestic partners. Newborn risk was determined by chart review and score on the Kempe's Family Stress Checklist for screening. Eligible families were not involved with Child Protective Services.

Women randomized to the intervention group received home visitation by paraprofessionals for 3 years. The content of home visits was designed to promote child health and decrease child maltreatment by linking families to appropriate community services, teaching about child development, role modeling positive parenting and problem-solving strategies, and offering emotional support. The intervention was offered by three community agencies and participants averaged 13.6 visits in the first year.

Outcome measures were obtained by interviewers blinded to the group assignment. These occurred within 1 week postpartum, annually during the intervention period when the child was 1 to 3 years old, and annually during the followup period when the child was 7 to 9 years old. Measures included the CTS at baseline and the CTS2 at subsequent data points, with four sexual coercion questions omitted. Additional outcomes were measured by the Mental Health Index for anxiety and depressive symptoms, and questions about alcohol and drug use.

During the program, the intervention group had lower rates of IPV victimization that were of borderline statistical significance (incidence rate ratio [IRR],<sup>116</sup> 0.86 [95% CI, 0.73–1.01]), and lower rates of perpetration towards their domestic partners (IRR, 0.83 [95% CI, 0.72–0.96]). Results were similar for physical assault (victimization IRR, 0.85 [95% CI, 0.71–1.00]; perpetration IRR, 0.82 [95% CI, 0.70–0.96]). Long-term followup rates of overall IPV victimization and perpetration decreased with nonsignificant between-group differences. Rates of verbal abuse suggest an increase for victimization (IRR, 1.14 [95% CI, 0.97–1.34]) and perpetration (IRR, 1.08 [95% CI, 0.92–1.26]) among the intervention group. Sexual violence and injury were not significantly associated with group assignment, although low prevalence rates of self-reported sexual abuse and injury may have limited the comparisons.

Results were likely influenced by several factors. Characteristics of participants at baseline differed between groups. In the intervention group, fewer participants used alcohol and had poor mental health, and more were employed. The specific elements relating to IPV in the intervention were minimal and varied by the needs of the family. Participation in the intervention decreased over time (70 percent at 6 months, 49 percent at 12 months, 25 percent at 36 months). Although >85 percent of participants completed the final interview when the child was 9 years old, women lost to followup differed from women retained in the trial (women lost to followup were more likely to be Asian, less likely to be Native Hawaiian). Also, IPV improved for both intervention and control groups as the children aged, consistent with epidemiologic data indicating IPV prevalence is highest for young women.<sup>117,118</sup>

*Interventions for Women Regardless of Pregnancy Status.* A cluster randomized trial of pregnant women and mothers of children ≤5 years old evaluated the effectiveness of mentor support versus usual care in reducing IPV and depression.<sup>112</sup> The trial enrolled 215 English or Vietnamese speaking women in primary care clinics in Melbourne, Australia who disclosed IPV or had behavioral symptoms suggestive of abuse. Symptoms included depression, anxiety, frequent attendance without obvious causes, and other signs indicative of abuse. Methods of IPV disclosure were not described, except that participating clinicians underwent 6 hours of training to improve their capacity to identify, respond to, and refer women with IPV or at risk for IPV to community-based services.

Women randomized to the intervention received 12 months of weekly home visitation from trained nonprofessional mentors offering advocacy, parenting support, and referrals. Outcome measures obtained at baseline and at 12 months included abuse measured by the CAS, depression (Edinburgh Postnatal Depression Scale), wellbeing (Short-Form 36-Item Health Survey, Parenting Stress Index–Short Form), and social support (Medical Outcomes Study–Short Form) at baseline and followup.

Results indicated that abuse scores from the CAS were significantly reduced in the intervention compared with usual care groups (adjusted difference, -8.67 [95% CI, -16.2 to -1.15]); the odds of experiencing violence at followup when adjusted for baseline abuse was 0.47 (95% CI, 0.21–1.05). Other differences were not significant (depression, physical wellbeing, mental wellbeing, parenting stress). Results of the trial were influenced by low recruitment numbers, imbalance in recruitment to the intervention and usual care arms, dissimilar characteristics of participants at baseline (more depression and parenting stress in the intervention group), and drop off in participation with mentoring. Also, the CAS was developed as a categorical outcome, not as a measure of change along a continuum. The implications of changes in scores are unclear.

A cluster randomized trial evaluated a counseling intervention compared with usual care in reducing abuse related to pregnancy coercion.<sup>111</sup> Coercion is defined as a lack of control over a woman's reproductive health, including compromised decisionmaking or limited ability to enact contraceptive use and family planning, and fear of condom negotiation.<sup>111</sup> The trial enrolled 906 English or Spanish speaking women ages 16 to 29 years in urban family planning clinics in California. All women in the participating clinics were screened for IPV using two questions on an intake form, with a standard clinic protocol as part of usual care. For the trial, the intervention clinics also provided a counseling intervention that educated patients about reproduction coercion and provided information about local IPV and sexual assault resources. Measures included items from the CTS2 and Sexual Experiences Survey, questions about awareness and recent use of IPV services, and relationship changes from baseline. Outcome measures were obtained by computer-assisted followup surveys between 12 to 24 weeks after the baseline survey.

Results indicated that women randomized to the intervention who reported recent IPV at baseline had decreased pregnancy coercion at followup compared with usual care (adjusted OR, 0.29 [95% CI, 0.09–0.91]). Women in the intervention group were also more likely to discontinue an unhealthy or unsafe relationship compared with the usual care group ( $p=0.013$ ), regardless of recent IPV status. The trial was limited by its small sample size (four clinics), underpowered to assess additional outcomes, and restricted in its applicability. Also, followup was short term and demographic characteristics of clinics differed.

A randomized, two-arm trial compared use of a wallet-sized referral card with a nurse management protocol in reducing IPV over the subsequent 2 years.<sup>110</sup> A total of 360 English or Spanish speaking women ages 18 to 45 years who reported physical or sexual abuse in the past 12 months were recruited to the study from urban primary care public health clinics and WIC clinics in the United States. A positive response to either of the two questions on the AAS was used to determine IPV exposure. Women were randomized to receive either a wallet-sized referral card with a safety plan and resources for IPV services or a 20-minute nurse case

management protocol (March of Dimes). This protocol includes a brochure with a 15-item safety plan, supportive care, anticipatory guidance, and guided referrals.

Measures were obtained by interviews at baseline and at 6, 12, 18, and 24 months post-baseline using the Safety Behavior Checklist, Community Resources Checklist, Severity of Violence Against Women Scale, Danger Assessment Scale, and Employment Harassment Questionnaire. Two years after the interventions, both groups reported fewer threats of abuse ( $p < 0.001$ ), assaults, danger risks for homicide, and events of work harassment, and there were no significant differences between groups. Compared with baseline, both groups adopted more safety behaviors by 24 months, and community resource use declined for both groups ( $p < 0.001$ ), with no significant differences between groups. Interpretation of the effectiveness of the counseling intervention is limited by the lack of a true control group, although ethical issues required addressing IPV in an acceptable usual care arm. The counseling intervention did not demonstrate superiority in reducing IPV compared with the information card in this trial. The trial was also limited by its small size and restricted applicability.

### **Key Questions 3 and 5. What Are the Adverse Effects of Screening for Intimate Partner Violence and Interventions to Reduce Harm From Intimate Partner Violence?**

**Summary.** Harms related to IPV screening and interventions were reported in three studies included for Key Questions 1 and 4, and in 11 descriptive studies identified by search strategies and systematic reviews.<sup>54,115</sup>

Harms were actively monitored in a randomized trial of 6,743 women that evaluated screening versus no screening in Canadian primary care, acute care, and specialty care sites.<sup>87</sup> Results of the analysis of a measure developed to monitor harms for this study indicated no differences in reported harms for screened women who were either exposed or not exposed to IPV, and no harms were associated with screening for either group. A randomized trial of a 3-year home visitation intervention for at-risk newborns and their mothers suggested increased verbal abuse victimization and perpetration in the intervention group over long-term followup.<sup>107</sup> A randomized, two-arm trial of women receiving either a wallet-sized referral card or a 20-minute nurse management protocol to address IPV found no adverse effects as a result of the intervention.<sup>110</sup>

Descriptive studies generally indicated low levels of harm related to IPV screening and interventions, but study populations and methods varied widely. Some women indicated discomfort with screening, particularly among those with prior IPV; infringement of privacy; worries about increasing abuse by disclosing IPV; feelings of sadness and depression; and general concerns with IPV screening. These issues were voiced by a minority of respondents in the various surveys and interviews.

**Evidence.** Harms related to IPV screening and interventions were reported in three studies included for Key Questions 1 and 4<sup>87,107,110</sup> and in 11 descriptive studies<sup>55,119-128</sup> identified by search strategies and systematic reviews<sup>54,115</sup> (**Table 7**). Most studies could not be rated for quality because USPSTF criteria do not apply to descriptive studies.

*Harms Reported in Trials of Screening and Interventions.* Harms were addressed in a randomized trial of 6,743 women that evaluated screening versus no screening in Canadian primary care, acute care, and specialty care sites.<sup>87</sup> Harms were actively monitored using the COST instrument administered to the screening group at baseline. COST is a multidimensional questionnaire developed for the study that measures the effect of being asked IPV screening questions. Results of the analysis of the Effects on Quality of Life subscale indicated no differences in reported harms for screened women who were either exposed or not exposed to IPV, and no harms were associated with screening for either group.

A randomized trial of a 3-year home visitation intervention for at-risk newborns and their mothers indicated nonsignificantly increased rates of verbal abuse victimization (adjusted IRR, 1.14 [95% CI, 0.97–1.34]) and perpetration (IRR, 1.08 [95% CI, 0.92–1.26]) in the intervention group over long-term followup.<sup>107</sup> However, this study also found decreased rates of IPV during the 3 years of the program. A randomized, two-arm trial of women receiving either a wallet-sized referral card or a 20-minute nurse management protocol to address IPV found no adverse effects as a result of the intervention.<sup>110</sup>

*Harms Reported in Descriptive Studies of Screening and Interventions.* A prospective, observational study screened 3,083 male and female emergency department patients for IPV, provided resources and information for those who screened positive, and subsequently assessed them for IPV exposure, safety, and use of resources.<sup>119</sup> Screening was administered using the Universal Violence Prevention Screening Protocol on a touch screen kiosk. None of the participants reported safety issues in the emergency department after participating in screening, whether or not they disclosed IPV. Two of the 216 participants who screened positive for IPV reported safety concerns or emotional distress related to the screening in followup, and one of the 65 telephone interview participants reported an adverse issue related to screening. No additional safety issues or increases in injuries, violence, or calls to the police were reported as a result of participating in screening or followup.

Five studies were based on surveys of women in health care settings. In a study of 198 women receiving services in an urban emergency department in the United Kingdom, responses on a modified WHO Multi-Country Domestic Violence Study questionnaire indicated that 24 percent felt uncomfortable when asked about IPV.<sup>124</sup> Women with prior abuse had higher levels of discomfort. Some women commented on the need for privacy and safety and had concerns about direct IPV questions. In a study of 95 women in a trauma center who completed a survey about IPV screening, 18 percent thought screening infringed upon their privacy, but most (90 percent) felt it was appropriate to ask about IPV.<sup>125</sup> Approximately 25 percent of abused women thought reporting would increase their chances of further harm. A survey of 645 women ages 15 to 24 years in U.S. family planning clinics indicated that most women (90 percent) thought universal IPV screening is a good idea, but 36 percent of younger women (ages 15 to 18 years) had concerns.<sup>126</sup> Although most women felt positive after IPV screening in a retrospective survey of screened women in Australia, 6 percent (7/119) of participants indicated sadness or depression, and one woman experienced further abuse as a result of her disclosure.<sup>120</sup> A survey of adults in Canada found that only 10 percent thought it would be inappropriate to ask all women visiting the emergency department about violent or threatening behavior at home.<sup>127</sup>

Five studies were based on data collected from interviews. In a study of 36 women interviewed several weeks after IPV screening in New Zealand, 97 percent perceived it as nonthreatening and safe, and none experienced increased risks.<sup>121</sup> Interviews of 27 abused women in the United States indicated no instances of harmful disclosure in any health care setting (emergency department, obstetrics and gynecology clinics, or primary care clinics), although some disclosures were viewed as not helpful to the women.<sup>122</sup> A study of 519 women used anonymous computer interviews in maternity units that asked about IPV screening and interventions, past disclosure, preferences about screening, and violence during pregnancy. Most women (97 percent) had no feelings of anger or embarrassment and were not offended when screened for IPV.<sup>123</sup> Focus group interviews with women who had experienced IPV described potential negative consequences of screening as feeling judged by the health care provider, increased anxiety about the unknown, feeling that the intervention protocol was cumbersome or intrusive, and disappointment in the health care provider's response to disclosure.<sup>55</sup> Although no one described adverse effects from IPV screening in a study based on interviews of women followed up after disclosing abuse, 40 percent thought it had minimal impact.<sup>128</sup>

## **Screening for Abuse and Neglect of Elderly and Vulnerable Adults**

### **Key Question 1. Does Screening Asymptomatic Elderly and Vulnerable Adults in Health Care Settings for Current, Past, or Increased Risk for Abuse and Neglect Reduce Exposure to Abuse and Neglect? Reduce Physical or Mental Harms or Mortality?**

No RCTs or controlled observational studies of screening for abuse and neglect in elderly or vulnerable adults were identified or met inclusion criteria for this review.

### **Key Question 2. How Effective Are Screening Techniques in Identifying Asymptomatic Elderly and Vulnerable Adults With Current, Past, or Increased Risk for Abuse and Neglect?**

**Summary.** One study evaluating the diagnostic accuracy of the Elder Abuse Suspicion Index (EASI), a six-item dichotomous screening instrument, met inclusion criteria for the systematic review. The EASI was evaluated in a study of elderly men and women in primary care clinics in Canada. Compared with a comprehensive evaluation by a social worker, the sensitivity and specificity of the EASI varied from 9 to 47 percent and from 75 to 97 percent, respectively, depending on the number of positive responses to specific questions.

**Evidence.** One study evaluating the diagnostic accuracy of the EASI met inclusion criteria for the systematic review as well as criteria for fair quality (**Appendixes C7 and C8**).<sup>129</sup> The EASI is a six-item dichotomous screening instrument that measures dependence on assistance for activities such as bathing or shopping; withholding food, care, or other needs; verbal aggression; financial exploitation; physical harm; and physician assessment of visible signs of abuse or

neglect during the preceding 12 months. Its use for screening was evaluated in a cohort of 953 elderly men and women in Montreal, Canada.<sup>129</sup> Patients were seen in university-affiliated teaching family medicine clinics and a government community-based health and social service center. Patients were eligible for the study if they were age  $\geq 65$  years, spoke English or French, scored  $\geq 24$  on the Mini Mental Status Exam, and were capable of providing informed consent. The EASI was administered by physicians during the course of the clinic visit. Screening took  $< 2$  minutes for most participants.

The reference standard was an evaluation by social workers from the Elder Abuse Center using a 1.5- to 3-hour interview protocol for elder abuse assessment that was considered the community standard. Social workers in the study underwent training on the use of the interview protocol to ensure consistency. Social workers were blinded to the results of the EASI when they conducted their interviews, which occurred within 3 weeks of the EASI in the participants' homes or other locations chosen by the participants. If social workers identified elder abuse in the course of their interviews, they followed a protocol to refer study participants to appropriate services for help. A total of 66 percent of enrolled participants completed both the EASI and social work interview; characteristics of participants retained in the study and lost to followup were similar.

Compared with the evaluation by a social worker, the EASI had sensitivity and specificity of 47 and 75 percent with  $\geq 1$  positive responses on questions 1 to 6, 32 and 89 percent with  $\geq 1$  positive responses on questions 2 to 6, 14 and 96 percent with  $\geq 2$  positive responses on questions 1 to 6, and 9 and 97 percent with a positive response to question 1 and  $\geq 1$  positive responses on questions 2 to 6. Nearly one third of the 663 participants who completed all evaluations gave positive responses to at least one question on the EASI.

#### **Key Question 4. For Screen-Detected Elderly and Vulnerable Adults With Current, Past, or Increased Risk for Abuse and Neglect, How Well Do Interventions Reduce Exposure to Abuse and Neglect? Reduce Physical or Mental Harms or Mortality?**

**Summary.** No RCTs or controlled observational studies of interventions for abuse and neglect in elderly or vulnerable adults were identified or met inclusion criteria for this review. One descriptive retrospective study included predominantly male veterans  $\geq 65$  years old who received health care services from the West Los Angeles Veterans Affairs (VA) Medical Center. Veterans were identified as possibly exposed to abuse or neglect, referred by their primary care providers to the Geriatric Research, Education, and Clinical Center's (GRECC's) Outpatient Clinic, and received social work services. Of 575 veterans evaluated, 41 incidents or situations of elder abuse and neglect among 31 veterans (5.4 percent) were identified and reported to APS over a 3-year period, and 33 veterans received specific services after case management, such as nursing home placement or conservatorship arrangements.

**Evidence.** No RCTs or controlled observational studies of interventions for abuse and neglect in elderly or vulnerable adults were identified or met inclusion criteria for this review.

One descriptive retrospective study of predominantly male (96 percent) veterans ages 65 to 103



years evaluated outcomes resulting from social work interventions (**Appendix C9**).<sup>20</sup> The study included veterans who received services from the West Los Angeles VA Medical Center, were identified as possibly exposed to abuse or neglect, and referred by their primary care providers to the GRECC Clinic. It is unclear how patients were identified as abused, and whether individuals identified by primary care physicians had symptoms relating to abuse. Forty-eight percent of the veterans had dementia and 35 percent had depression. At the GRECC Clinic, a social worker (case manager) and APS staff provided individualized services as needed. Outcomes included type of abuse, moving from unsafe living situations to nursing homes or board and care facilities, and implementation of conservatorship arrangements.

Of 575 veterans, 41 incidents or situations of elder abuse and neglect among 31 veterans (5.4 percent) were identified and reported to APS over a 3-year period. Abuse was classified as physical (five incidents), psychological (five incidents), neglect (seven incidents), financial (12 incidents), and self-neglect (12 incidents). After case management, four individuals received conservatorship arrangements, six received conservatorship “plus other,” eight were moved to a nursing home and three to board and care/assisted living, seven remained at home with services, five refused services, and six outcomes were unknown.

### **Key Questions 3 and 5. What Are the Adverse Effects of Screening for Abuse and Neglect of Elderly and Vulnerable Adults and Interventions to Reduce Harm From Abuse and Neglect?**

No studies of the harms of screening or interventions for abuse and neglect in elderly or vulnerable adults were identified or met inclusion criteria for this review. Potential harms include shame, guilt, self-blame, and fear of retaliation by perpetrators.<sup>20</sup>

# CHAPTER 4. DISCUSSION

## Summary of Review Findings

### Screening for Intimate Partner Violence

**Table 8** summarizes the evidence reviewed for this update. For Key Question 1 addressing the effectiveness of screening in reducing exposure to violence, physical and mental harms, and mortality, a fair-quality, cluster RCT of screening for IPV in clinical settings met inclusion criteria. This trial included 6,743 Canadian women randomized to screening or nonscreening groups.<sup>87</sup> The primary outcomes were exposure to abuse and quality of life in the 18 months after screening, and secondary outcomes included depression, PTSD, alcohol and drug abuse, global mental and physical health, and use of health and social services. Women in both the screened and nonscreened groups had reductions over time in IPV recurrence, PTSD symptoms, and alcohol problems, as well as improvements in scores for quality of life, depression, and mental health. Outcomes for these measures were not significantly different between women in the screened compared with nonscreened groups. However, differences were significant for intermediate outcomes, such as initiating discussions about abuse with clinicians (44 percent screened vs. 8 percent nonscreened women).

Limitations of the trial limit its interpretation, however. The study had high loss to followup, and the women lost to followup had more risk and exposure to IPV than women retained in the study. Most importantly, women randomized to the nonscreening group were provided with information cards of locally available resources for women with IPV, and underwent extensive questioning about IPV over 18 months of followup that could increase their awareness, influence their behavior, and affect outcomes of the trial (i.e., Hawthorne effect).

For Key Question 2 regarding the effectiveness of screening techniques in identifying asymptomatic women with IPV, 15 studies rated fair and good quality that evaluated the diagnostic accuracy of 13 screening instruments met inclusion criteria. Screening instruments demonstrating the highest sensitivity and specificity in the included diagnostic accuracy studies include the HITS, OVAT, STaT, HARK, modified CTQ-SF, and WAST. Positive responses on the PVS significantly predicted verbal aggression and violence during the 4 months after screening. Two instruments specifically evaluated in pediatric settings had relatively low sensitivity but high specificity. Results varied between studies and across instruments.

For Key Question 4 evaluating the effectiveness of interventions in reducing exposure to violence, physical and mental harms, and mortality, one good-, four fair-, and one poor-quality RCTs met inclusion criteria. A trial of pregnant women reported decreased IPV and improved birth outcomes with a counseling intervention compared with usual care.<sup>29,30,109</sup> Two trials of home visitation for young mothers resulted in improved IPV outcomes compared with no visitation.<sup>107,112</sup> Compared with usual care, counseling resulted in decreased pregnancy coercion and resolution of unsafe relationships in another trial.<sup>111</sup> Two trials of counseling showed improved outcomes in intervention and control groups, without differences between them

(counseling vs. referral cards,<sup>110</sup> nurse management vs. usual care in pregnancy<sup>108</sup>).

For Key Questions 3 and 5 relating to harms of screening and interventions, three studies included for Key Questions 1 and 4 and 11 descriptive studies identified by search strategies and systematic reviews were reviewed. Harms were actively monitored in a randomized trial of 6,743 women that evaluated screening versus no screening in Canadian primary care, acute care, and specialty care sites.<sup>87</sup> Results of the analysis of a measure developed to monitor harms for this study indicated no differences in reported harms for screened women who were either exposed or not exposed to IPV, and no harms were associated with screening for either group. A randomized trial of a 3-year home visitation intervention for at-risk newborns and their mothers suggested nonsignificant increases in verbal abuse victimization and perpetration in the intervention group over long-term followup.<sup>107</sup> In this study, participants also experienced less physical abuse, so it is possible that perpetrators exchanged physical abuse for verbal abuse. A randomized, two-arm trial of women receiving either a wallet-sized referral card or a 20-minute nurse management protocol to address IPV found no adverse effects as a result of the intervention.<sup>110</sup>

Descriptive studies generally indicated low levels of harm related to IPV screening and interventions, but study populations and methods varied widely. Some women indicated discomfort with screening, particularly among those with prior IPV; infringement of privacy; worries about increasing abuse by disclosing IPV; feelings of sadness and depression; and general concerns with IPV screening. These issues were voiced by a minority of respondents in the various surveys and interviews.

The results of these studies indicate that IPV screening in health care settings can provide benefits that vary depending on the population screened and the outcome measured, while potential harms of screening have minimal impact on most women. Several screening instruments designed for health care settings demonstrate high sensitivity and specificity, providing standardized approaches to screening. How well the results of these studies translate to clinical practice is not clear, although most studies were conducted in settings and populations drawn from clinical practices. The positive predictive value of screening, as well as potential effects of interventions, would be expected to be greatest in populations with high prevalence of IPV.

## Screening for Abuse and Neglect of Elderly and Vulnerable Adults

**Table 9** summarizes the evidence reviewed for this update. For screening for abuse and neglect in elderly and vulnerable adults, no RCTs or controlled observational studies of screening, interventions, or harms were identified or met inclusion criteria for this review. One fair-quality study evaluating the diagnostic accuracy of the EASI, a six-item dichotomous screening instrument, met inclusion criteria for the systematic review. Compared with a comprehensive evaluation by a social worker, the sensitivity and specificity of the EASI varied from 9 to 47 percent and from 75 to 97 percent, depending on the number of positive responses to specific questions. One retrospective study described outcomes of predominantly male elderly veterans who were identified as possibly exposed to abuse or neglect, referred for detailed evaluations, and received social work services. Approximately 5 percent were identified and reported to APS over a 3-year period, and 6 percent received specific services after case management, such as

nursing home placement or conservatorship arrangements.

## Limitations

Limitations of this review include using only English-language articles and studies applicable to U.S. screening populations and clinical practice. Although these inclusion criteria improve applicability to practice in the United States, they also exclude important research. Also, the inclusion criteria targeted specific study designs and health outcomes that disqualified most of the research in this field. RCTs provide the gold standard for evaluating efficacy and effectiveness, but IPV research does not readily fit this standard because of its unique methodological challenges and ethical issues.

Studies of IPV were limited by enrollment of dissimilar groups at baseline, high and/or differential loss to followup, lack of power, recall bias, missing data, and unclear application of the reference standard in diagnostic accuracy studies. Importantly, key studies provided screening and information services to women in control groups that could also be considered interventions, rather than true control conditions. Although designed this way for ethical reasons, this approach reduces measureable differences between intervention and control groups and creates a Hawthorne effect (i.e., the phenomenon that study participants change their behavior as a result of being involved in the study).

The most important limitation of studies of screening elderly and vulnerable adults for abuse and neglect were that they were generally lacking.

## Emerging Issues and Future Research

Several emerging issues are likely to influence research about IPV screening and interventions. The use of alternative screening modalities, such as audio- and computer-assisted screening instrument delivery, has gained interest.<sup>130</sup> Computerized screening has been found to increase rates of domestic violence discussion, disclosure, and service provision.<sup>130-132</sup> Furthermore, computerized screening has been found to be more acceptable for patients.<sup>133,134</sup> Use of an audio questionnaire has also been perceived by patients as more private and less likely to increase risk of abuse.<sup>135</sup> Further evaluation of the accuracy, as well as efficiency and acceptability, of these methods could improve screening processes.

Studies of the diagnostic accuracy of screening instruments are limited by the lack of accepted reference standards. Further development and/or validation of an accepted standard would allow more accurate assessment of performance measures and allow instruments to be more readily compared with each other. The broad and inconsistent definitions of abuse pose challenges for creating screening instruments, especially for detecting abuse and neglect in elderly and vulnerable populations.

Research evaluating health system approaches to screening could improve quality, standardization, and rates of screening compared with approaches that depend on implementation

on an individual clinic or practitioner basis. Methods could include using diagnostic codes to guide screening in emergency department settings<sup>136</sup> or providing screening in the context of the hospital admissions process, for example. Coupled with the systems approach to screening, systems-based protocols for further evaluation and referral for individuals with positive screening results could increase screening effectiveness. Studies that evaluate the feasibility, acceptability, and outcomes of these approaches would provide valuable guidance to health systems interested in implementing them.

Additional studies are needed to evaluate the effectiveness of interventions once IPV has been identified through screening or other processes. Few studies provide these types of evaluations currently, and they are limited by enrolling small numbers of participants from narrowly defined populations. Nonetheless, intervention studies suggest benefits despite their shortcomings and challenges in this field of research. Additional work in this area demonstrating effective interventions once women are identified with IPV through screening could potentially change practice.

All types of studies are needed to improve research for screening elderly and vulnerable adults for abuse and neglect. No RCTs of screening or interventions have been done. Studies of screening instruments are lacking, and most existing instruments remain to be validated. Screening and interventions for this population may be similar in many ways to child abuse because many elderly and vulnerable adults may not have sufficient physical, mental, or financial abilities to engage in screening or interventions. For these situations, instruments need to be framed around third party responses.<sup>45,137</sup> Additional challenges to this research include the legal requirements related to disclosure, underlying medical conditions of patients—particularly cognitive impairments for elderly persons, and dependence on the perpetrator, among other issues.

## Conclusions

A trial of screening for IPV in 6,743 women seen in primary, acute, and specialty care clinics in Canada showed reductions in IPV recurrence and improvement in related outcomes for both screening and comparison groups, with no significant between-group differences for major outcomes after 18 months of followup. However, interpretations are limited by overall high and differential attrition and a substantial Hawthorne effect among the control group, bringing to question the feasibility of evaluating the effectiveness of IPV screening using a RCT design. Trials of IPV interventions for pregnant women and young mothers showed improved IPV outcomes for the intervention versus usual care groups, including improved birth outcomes for women provided with multiple-risk factor intervention. Several instruments have been developed for IPV screening, and their diagnostic accuracy has been evaluated in studies of different populations using various reference standards. Six instruments with 1 to 8 items demonstrated sensitivity and specificity >80 percent in clinical populations of asymptomatic women; results varied between studies and across instruments. Studies are generally lacking to address screening elderly and vulnerable adults for abuse.

## REFERENCES

1. Nelson HD, Nygren P, McInerney Y. Screening for Family and Intimate Partner Violence. Systematic Evidence Review No. 28. Rockville, MD: Agency for Healthcare Research and Quality; 2004. Accessed at <http://www.ahrq.gov/downloads/pub/prevent/pdfser/famviolser.pdf> on 17 April 2012.
2. Nelson HD, Nygren P, McInerney Y, et al. Screening women and elderly adults for family and intimate partner violence: a review of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2004;140(5):387-96.
3. Nygren P, Nelson HD, Klein J. Screening children for family violence: a review of the evidence for the U.S. Preventive Services Task Force. *Ann Fam Med.* 2004;2(2):161-9.
4. U.S. Preventive Services Task Force. Screening for family and intimate partner violence: recommendation statement. *Ann Fam Med.* 2004;2(2):156-60.
5. U.S. Preventive Services Task Force. Screening for Family and Intimate Partner Violence: Recommendation Statement. Rockville, MD: Agency for Healthcare Research and Quality; 2004.
6. Centers for Disease Control and Prevention. Understanding Intimate Partner Violence: Fact Sheet. Atlanta: Centers for Disease Control and Prevention; 2006. Accessed at [http://www.cdc.gov/ViolencePrevention/pub/IPV\\_factsheet.html](http://www.cdc.gov/ViolencePrevention/pub/IPV_factsheet.html) on 17 April 2012.
7. Saltzman LE, Fanslow JL, McMahon PM, Shelley GA. Intimate Partner Violence Surveillance: Uniform Definitions and Recommended Data Elements. Atlanta: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2002. Accessed at [http://www.cdc.gov/ncipc/pub-res/ipv\\_surveillance/intimate.htm](http://www.cdc.gov/ncipc/pub-res/ipv_surveillance/intimate.htm) on 17 April 2012.
8. Tjaden P, Thoennes N. Stalking in America: Findings From the National Violence Against Women Survey. Washington, DC: U.S. Department of Justice; 1998. Accessed at <http://www.ncjrs.gov/pdffiles/169592.pdf> on 17 April 2012.
9. Florida Department of Children and Families, Adult Services Program Office. Comparison of Definitions: Florida Statutes 415 and 825. Tallahassee, FL: Florida Department of Children and Families; 2007. Accessed at [www.dcf.state.fl.us/initiatives/apspanel/docs/comparisonOfDefinitions.doc](http://www.dcf.state.fl.us/initiatives/apspanel/docs/comparisonOfDefinitions.doc) on 17 April 2012.
10. National Center on Elder Abuse. Major Types of Elder Abuse. Washington, DC: Administration on Aging; 2011. Accessed at [http://www.ncea.aoa.gov/ncearoot/Main\\_Site/FAQ/Basics/Types\\_Of\\_Abuse.aspx](http://www.ncea.aoa.gov/ncearoot/Main_Site/FAQ/Basics/Types_Of_Abuse.aspx) on 17 April 2012.
11. Daly JM, Jogerst GJ. Definitions and indicators of elder abuse: a Delphi survey of APS caseworkers. *J Elder Abuse Negl.* 2005;17(1):1-19.
12. Centers for Disease Control and Prevention. Elder Maltreatment: Definition. Atlanta: Centers for Disease Control and Prevention; 2010. Accessed at <http://www.cdc.gov/ViolencePrevention/eldermaltreatment/definitions.html> on 17 April 2012.
13. Kravitz JA. The SAFE ELDERS scales: identifying high risk cases of elder abuse [dissertation]. Malibu, CA: Pepperdine University; 2007.

14. Tjaden P, Thoennes N. Full Report of the Prevalence, Incidence, and Consequences of Violence Against Women: Findings From the National Violence Against Women Survey. Washington, DC: U.S. Department of Justice; 2000. Accessed at <https://www.ncjrs.gov/pdffiles1/nij/183781.pdf> on 17 April 2012.
15. National Center for Injury Prevention and Control. Costs of Intimate Partner Violence Against Women in the United States. Atlanta: Centers for Disease Control and Prevention; 2003. Accessed at [http://www.cdc.gov/violenceprevention/pub/IPV\\_cost.html](http://www.cdc.gov/violenceprevention/pub/IPV_cost.html) on 17 April 2012.
16. Black MC, Breiding MJ. Adverse health conditions and health risk behaviors associated with intimate partner violence —United States, 2005. *MMWR Morb Mortal Wkly Rep.* 2008;57(5):113-7.
17. Centers for Disease Control and Prevention. Pregnancy Risk Assessment Monitoring System (PRAMS): CPONDER. Atlanta: Centers for Disease Control and Prevention; 2008. Accessed at <http://apps.nccd.cdc.gov/cPONDER/default.aspx?page=main> on 17 April 2012.
18. Mouton CP, Rodabough RJ, Rovi SL, et al. Prevalence and 3-year incidence of abuse among postmenopausal women. *Am J Public Health.* 2004;94(4): 605-12.
19. Thompson RS, Bonomi AE, Anderson M, et al. Intimate partner violence: prevalence, types, and chronicity in adult women. *Am J Prev Med.* 2006;30(6): 447-57.
20. Moon A, Lawson K, Carpiac M, Spaziano E. Elder abuse and neglect among veterans in greater Los Angeles: prevalence, types, and intervention outcomes. *J Gerontol Soc Work.* 2006;46(3-4):187-204.
21. Catalano S. Intimate Partner Violence in the United States. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics; 2012. Accessed at <http://bjs.ojp.usdoj.gov/content/intimate/ipv.cfm> on 17 April 2012.
22. Corrigan JD, Wolfe M, Mysiw WJ, et al. Early identification of mild traumatic brain injury in female victims of domestic violence. *Am J Obstet Gynecol.* 2003;188(5 Suppl):S71-6.
23. Brock K. When Men Murder Women: An Analysis of 2000 Homicide Data. Washington, DC: Violence Policy Center; 2003. Accessed at <http://www.ndvfri.org/wp-content/uploads/ndvfri/28839.pdf> on 17 April 2012.
24. Wingood GM, DiClemente RJ, McCree DH, et al. Dating violence and the sexual health of black adolescent females. *Pediatrics.* 2001;107(5):1-4.
25. Letourneau EJ, Holmes M, Chaedunn-Roark J. Gynecologic health consequences to victims of interpersonal violence. *Womens Health Issues.* 1999;9(2):115-20.
26. Hathaway JE, Mucci LA, Silverman JG, et al. Health status and health care use of Massachusetts women reporting partner abuse. *Am J Prev Med.* 2000;19(4):302-7.
27. El Kady D, Gilbert WM, Xing G, Smith LH. Maternal and neonatal outcomes of assaults during pregnancy. *Obstet Gynecol.* 2005;105(2):357-63.
28. Huth-Bocks AC, Levendosky AA, Bogat G. The effects of domestic violence during pregnancy on maternal and infant health. *Violence Vict.* 2002;17(2):169-85.
29. El-Mohandes AA, Kiely M, Gantz MG, El-Khorazaty MN. Very preterm birth is reduced in women receiving an integrated behavioral intervention: a randomized controlled trial. *Matern Child Health J.* 2011;15(1):19-28.

30. Kiely M, El-Mohandes AA, El-Khorazaty MN, Gantz MG. An integrated intervention to reduce intimate partner violence in pregnancy: a randomized controlled trial. *Obstet Gynecol.* 2010;115(2 Pt 1):273-83.
31. Shah PS, Shah J; Knowledge Synthesis Group on Determinants of Preterm/LBW Births. Maternal exposure to domestic violence and pregnancy and birth outcomes: a systematic review and meta-analyses. *J Womens Health.* 2010;19(11):2017-31.
32. Campbell JC. Health consequences of intimate partner violence. *Lancet.* 2002;359(9314):1331-6.
33. Golding JM. Intimate partner violence as a risk factor for mental disorders: a meta-analysis. *J Fam Violence.* 1999;14(2):99-132.
34. Campbell JC, Lewandowski LA. Mental and physical effects of intimate partner violence on women and children. *Psychiatr Clin North Am.* 1997;20(2):353-74.
35. Lehmann P. Posttraumatic stress disorder (PTSD) and child witnesses to mother-assault: a summary and review. *Child Youth Serv Rev.* 2000;22:275-306.
36. Silverman ME, Loudon H. Antenatal reports of pre-pregnancy abuse is associated with symptoms of depression in the postpartum period. *Arch Women Ment Health.* 2010;13(5):411-5.
37. Coker AL, Smith PH, Bethea L, et al. Physical health consequences of physical and psychological intimate partner violence. *Arch Fam Med.* 2000;9:451-7.
38. Coker AL, Davis KE, Arias IA, et al. Physical and mental health effects of intimate partner violence for men and women. *Am J Prev Med.* 2002;23(4):260-8.
39. Trickett P, Putnam F, Noll J. Longitudinal Study on Childhood Sexual Abuse—Summary. Cincinnati: Cincinnati Children’s Hospital; 2005.
40. Sickel AE, Noll JG, Moore PJ, et al. The long-term physical health and healthcare utilization of women who were sexually abused as children. *J Health Psychol.* 2002;7:583-97.
41. National Center on Elder Abuse. Fact Sheet: Elder Abuse Prevalence and Incidence. Washington, DC: Administration on Aging; 2005. Accessed at [http://www.ncea.aoa.gov/ncearoot/Main\\_Site/pdf/publication/FinalStatistics050331.pdf](http://www.ncea.aoa.gov/ncearoot/Main_Site/pdf/publication/FinalStatistics050331.pdf) on 17 April 2012.
42. U.S. Government Accountability Office. Elder Justice: Stronger Federal Leadership Could Enhance National Response to Elder Abuse. Washington, DC: U.S. Government Accountability Office; 2011. Accessed at <http://www.gao.gov/new.items/d11208.pdf> on 17 April 2012.
43. Cooper C, Selwood A, Blanchard M, et al. Abuse of people with dementia by family carers: representative cross sectional survey. *BMJ.* 2009;338:b155.
44. Martin SL, Ray N, Sotres-Alvarez D, et al. Physical and sexual assault of women with disabilities. *Violence Against Women.* 2006;12(9):823-37.
45. Cooper C, Selwood A, Livingston G. The prevalence of elder abuse and neglect: a systematic review. *Age Ageing.* 2008;37(2):151-60.
46. Lachs MS, Williams CS, O’Brien S, et al. The mortality of elder mistreatment. *JAMA.* 1998;285(5):428-32.
47. Centers for Disease Control and Prevention. Intimate Partner Violence: Risk and Protective Factors. Atlanta: Centers for Disease Control and Prevention; 2010. Accessed at <http://www.cdc.gov/violenceprevention/intimatepartnerviolence/riskprotectivefactors.html>



- on 17 April 2012.
48. Bhargava R, Temkin TL, Fireman BH, et al. A predictive model to help identify intimate partner violence based on diagnoses and phone calls. *Am J Prev Med.* 2011;41(2):129-35.
  49. Centers for Disease Control and Prevention. Elder Maltreatment: Risk and Protective Factors. Atlanta: Centers for Disease Control and Prevention; 2010. Accessed at <http://www.cdc.gov/ViolencePrevention/eldermaltreatment/riskprotectivefactors.html> on 17 April 2012.
  50. Anthony EK, Lehning AJ, Austin MJ, Peck MD. Assessing elder mistreatment: instrument development and implications for adult protective services. *J Gerontol Soc Work.* 2009;52(8):815-36.
  51. Svavarsdottir EK, Orlygsdottir B. Intimate partner abuse factors associated with women's health: a general population study. *J Adv Nurs.* 2009;65(7):1452-62.
  52. Martin SL, Rentz ED, Chan RL, et al. Physical and sexual violence among North Carolina women: associations with physical health, mental health, and functional impairment. *Womens Health Issues.* 2008;18(2):130-40.
  53. Coker AL, Hopenhayn C, DeSimone CP, et al. Violence against women raises risk of cervical cancer. *J Womens Health.* 2009;18(8):1179-85.
  54. Feder G, Ramsay J, Dunne D, et al. How far does screening women for domestic (partner) violence in different health-care settings meet criteria for a screening programme? Systematic reviews of nine UK National Screening Committee criteria. *Health Technol Assess.* 2009;13(16):1-156.
  55. Chang JC, Decker M, Moracco KE, et al. What happens when health care providers ask about intimate partner violence? A description of consequences from the perspectives of female survivors. *J Am Med Womens Assoc.* 2003;58(2):76-81.
  56. Gielen AC, O'Campo PJ, Campbell JC, et al. Women's opinions about domestic violence screening and mandatory reporting. *Am J Prev Med.* 2000;19(4):279-85.
  57. Moon A, Williams O. Perceptions of elder abuse and help-seeking patterns among African-American, Caucasian American, and Korean-American elderly women. *Gerontologist.* 1993;33(3):386-95.
  58. Podnieks E. The lived experience of abused older women. *Can Womens Stud.* 1993;12(2):38-44.
  59. Brownell P, Berman J, Salamone A. Mental health and criminal justice issues among perpetrators of elder abuse. *J Elder Abuse Negl.* 1999;11:81-94.
  60. Moon A, Evans-Campbell T. Awareness of formal and informal sources of help for victims of elder abuse among Korean American and Caucasian elders in Los Angeles. *J Elder Abuse Negl.* 2000;11(3):1-23.
  61. Phillips LR. Domestic violence and aging women. *Geriatr Nurs.* 2000;21(4):188-93.
  62. Moon A, Benton D. Tolerance of elder abuse and attitudes toward third-party intervention among African American, Korean American, and white elderly. *J Multicult Soc Work.* 2000;8(3):283-303.
  63. Sanchez Y. Elder mistreatment in Mexican American communities: the Nevada and Michigan experiences. In: Tataro T, ed. *Understanding Elder Abuse in Minority Populations.* Philadelphia: Brunner/Mazel; 1999.
  64. Houry D, Sachs CJ, Feldhaus KM, Linden J. Violence-inflicted injuries: reporting laws in the fifty states. *Annals Emerg Med.* 2002;39:56-60.

65. Violence Against Women and Department of Justice Reauthorization Act, Pub L No. 109-162, 119 Stat 2960-3135 (2005).
66. National Center on Elder Abuse. State Directory of Helplines, Hotlines, and Elder Abuse Prevention Resources. Washington, DC: Administration on Aging; 2011. Accessed at [http://www.ncea.aoa.gov/NCEAroot/Main\\_Site/Find\\_Help/State\\_Resources.aspx](http://www.ncea.aoa.gov/NCEAroot/Main_Site/Find_Help/State_Resources.aspx) on 18 April 2012.
67. Ramsay J, Richardson J, Carter YH, et al. Should health professionals screen women for domestic violence? *BMJ*. 2002;325(7359):314.
68. Rodriguez MA, Wallace SP, Woolf NH, Mangione CM. Mandatory reporting of elder abuse: between a rock and a hard place. *Ann Fam Med*. 2006;4(5):403-9.
69. Cooper C, Selwood A, Livingston G. Knowledge, detection, and reporting of abuse by health and social care professionals: a systematic review. *Am J Geriatr Psychiatry*. 2009;17(10):826-38.
70. Wathen CN, MacMillan HL; Canadian Task Force on Preventive Health Care. Prevention of violence against women: recommendation statement from the Canadian Task Force on Preventive Health Care. *CMAJ*. 2003;169:582-4.
71. American Medical Association. AMA Code of Medical Ethics: Opinion 2.02. Physicians' Obligations in Preventing, Identifying, and Treating Violence and Abuse. Chicago: American Medical Association; 2007. Accessed at <http://www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics/opinion202.shtml> on 18 April 2012.
72. Institute of Medicine. Clinical Preventive Services for Women: Closing the Gaps. Washington, DC: National Academies Press; 2011.
73. American Congress of Obstetricians and Gynecologists. Screening Tools: Domestic Violence. Washington, DC: American Congress of Obstetricians and Gynecologists; 2012. Accessed at [http://www.acog.org/About\\_ACOG/ACOG\\_Departments/Violence\\_Against\\_Women/Screening\\_Tools\\_Domestic\\_Violence](http://www.acog.org/About_ACOG/ACOG_Departments/Violence_Against_Women/Screening_Tools_Domestic_Violence) on 18 April 2012.
74. Thackeray JD, Hibbard R, Dowd MD, et al. Intimate partner violence: the role of the pediatrician. *Pediatrics*. 2010;125(5):1094-100.
75. Family Violence Prevention Fund. National Consensus Guidelines on Identifying and Responding to Domestic Violence Victimization in Health Care Settings. San Francisco: Family Violence Prevention Fund; 2004. Accessed at <http://www.futureswithoutviolence.org/userfiles/file/Consensus.pdf> on 18 April 2012.
76. Council of International Neonatal Nurses. Position Statement on Routine Screening for Intimate Partner Violence. Boston: Council of International Neonatal Nurses; 2010. Accessed at [http://www.coinnurses.org/1\\_documents/resources/p\\_statement/Position\\_Stat\\_Intimate\\_Partner\\_Violence.pdf](http://www.coinnurses.org/1_documents/resources/p_statement/Position_Stat_Intimate_Partner_Violence.pdf) on 18 April 2012.
77. Emergency Nurses Association. Position Statement: Intimate Partner and Family Violence, Maltreatment, and Neglect. Des Plaines, IL: Emergency Nurses Association; 2006. Accessed at [http://www.ena.org/SiteCollectionDocuments/Position%20Statements/Violence\\_-\\_Intimate\\_Partner\\_and\\_Family\\_-\\_ENA\\_PS.pdf](http://www.ena.org/SiteCollectionDocuments/Position%20Statements/Violence_-_Intimate_Partner_and_Family_-_ENA_PS.pdf) on 18 April 2012.

78. American College of Emergency Physicians. Clinical & Practice Management: Domestic Family Violence. Irving, TX: American College of Emergency Physicians; 2012. Accessed at <http://www.acep.org/content.aspx?id=38378> on 18 April 2012.
79. American Academy of Family Physicians. Family and Intimate Partner Violence and Abuse. Leawood, KS: American Academy of Family Physicians; 2012. Accessed at <http://www.aafp.org/online/en/home/policy/policies/f/familyandintimatepartner-violenceandabuse.html> on 18 April 2012.
80. American Medical Association. Diagnostic treatment guidelines on elder abuse and neglect. *Arch Fam Med*. 1993;2(4):371-88.
81. Harris RP, Helfand M, Woolf SH, et al. Current methods of the U.S. Preventive Services Task Force: a review of the process. *Am J Prev Med*. 2001;20(3 Suppl):21-35.
82. Campbell J, Jones AS, Dienemann J, et al. Intimate partner violence and physical health consequences. *Arch Intern Med*. 2002;162(10):1157-63.
83. Leeflang MM, Deeks JJ, Gatsonis C, et al. Systematic reviews of diagnostic test accuracy. *Ann Intern Med*. 2008;149:889-97.
84. Whiting P, Rutjes AW, Reitsma JB, et al. The development of QUADAS: a tool for the quality assessment of studies of diagnostic accuracy included in systematic reviews. *BMC Med Res Methodol*. 2003;3:25.
85. National Institute for Health and Clinical Excellence. The Guidelines Manual. London: Institute for Health and Clinical Excellence; 2006.
86. Oxman AD, Guyatt GH. Validation of an index of the quality of review articles. *J Clin Epidemiol*. 1991;44(11):1271-8.
87. MacMillan HL, Wathen C, Jamieson E, et al. Screening for intimate partner violence in health care settings: a randomized trial. *JAMA*. 2009;302(5):493-501.
88. Reichenheim ME, Moraes CL. Comparison between the abuse assessment screen and the revised conflict tactics scales for measuring physical violence during pregnancy. *J Epidemiol Community Health*. 2004;58(6):523-7.
89. Houry D, Feldhaus K, Peery B, et al. A positive domestic violence screen predicts future domestic violence. *J Interpers Violence*. 2004;19(9):955-66.
90. MacMillan HL, Wathen C, Jamieson E, et al. Approaches to screening for intimate partner violence in health care settings: a randomized trial. *JAMA*. 2006;296(5):530-6.
91. Chen PH, Rovi S, Vega M, et al. Screening for domestic violence in a predominantly Hispanic clinical setting. *Fam Pract*. 2005;22(6):617-23.
92. Wathen C, Jamieson E, MacMillan HL. Who is identified by screening for intimate partner violence? *Womens Health Issues*. 2008;18(6):423-32.
93. Sohal H, Eldridge S, Feder G. The sensitivity and specificity of four questions (HARK) to identify intimate partner violence: a diagnostic accuracy study in general practice. *BMC Fam Pract*. 2007;8:49.
94. Weiss SJ, Ernst AA, Cham E, Nick TG. Development of a screen for ongoing intimate partner violence. *Violence Vict*. 2003;18(2):131-41.
95. Ernst AA, Weiss SJ, Cham E, et al. Detecting ongoing intimate partner violence in the emergency department using a simple 4-question screen: the OVAT. *Violence Vict*. 2004;19(3):375-84.
96. Paranjape A, Liebschutz J. STaT: a three-question screen for intimate partner violence. *J Womens Health*. 2003;12(3):233-9.

97. Paranjape A, Rask K, Liebschutz J. Utility of STaT for the identification of recent intimate partner violence. *J Natl Med Assoc.* 2006;98(10):1663-9.
98. Thombs BD, Bernstein DP, Ziegelstein RC, et al. A brief two-item screener for detecting a history of physical or sexual abuse in childhood. *Gen Hosp Psychiatry.* 2007;29(1):8-13.
99. Fulfer JL, Tyler JJ, Choi NJ, et al. Using indirect questions to detect intimate partner violence: the SAFE-T questionnaire. *J Interpers Violence.* 2007;22(2):238-49.
100. Dubowitz H, Prescott L, Feigelman S, Lane W, Kim J. Screening for intimate partner violence in a pediatric primary care clinic. *Pediatrics.* 2008;121(1):e85-91.
101. Peralta RL, Fleming MF. Screening for intimate partner violence in a primary care setting: the validity of “feeling safe at home” and prevalence results. *J Am Board Fam Pract.* 2003;16(6):525-32.
102. Zink T, Levin L, Putnam F, Beckstrom A. Accuracy of five domestic violence screening questions with nongraphic language. *Clin Pediatr.* 2007;46(2):127-34.
103. Chen JQ, Chen DG. Awareness of child sexual abuse prevention education among parents of grade 3 elementary school pupils in Fuxin City, China. *Health Educ Res.* 2005;20(5):540-7.
104. Rabin RF, Jennings JM, Campbell JC. Intimate partner violence screening tools: a systematic review. *Am J Prev Med.* 2009;36(5):439-45.
105. Trabold N. Screening for intimate partner violence within a health care setting: a systematic review of the literature. *Soc Work Health Care.* 2007;45(1):1-18.
106. Basile KC, Hertz MF, Back SE. Intimate Partner Violence and Sexual Violence Victimization Assessment Instruments for Use in Healthcare Settings. Atlanta: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2007. Accessed at [http://www.cdc.gov/ncipc/pub-res/ipv\\_and\\_sv\\_screening.htm](http://www.cdc.gov/ncipc/pub-res/ipv_and_sv_screening.htm) on 18 April 2012.
107. Bair-Merritt MH, Jennings JM, Chen R, et al. Reducing maternal intimate partner violence after the birth of a child: a randomized controlled trial of the Hawaii Healthy Start home visitation program. *Arch Pediatr Adolesc Med.* 2010;164(1):16-23.
108. Curry MA, Durham L, Bullock L, et al. Nurse case management for pregnant women experiencing or at risk for abuse. *J Obstet Gynecol Neonatal Nurs.* 2006;35(2):181-92.
109. El-Mohandes AA, Kiely M, Joseph JG, et al. An integrated intervention in pregnant African-Americans reduces postpartum risk: a randomized controlled trial. *Obstet Gynecol.* 2008;112(3):611-20.
110. McFarlane JM, Groff JY, O’Brien JA, Watson K. Secondary prevention of intimate partner violence: a randomized controlled trial. *Nurs Res.* 2006;55(1):52-61.
111. Miller E, Decker MR, McCauley HL, et al. A family planning clinic partner violence intervention to reduce risk associated with reproductive coercion. *Contraception.* 2011;83(3):274-80.
112. Taft A, Small R, Hegarty K, et al. Mothers’ Advocates in the Community (MOSAIC): non-professional mentor support to reduce intimate partner violence and depression in mothers: a cluster randomised trial in primary care. *BMC Public Health.* 2011;11(1):178.
113. Ramsay C, Rivas C, Feder G. Interventions to Reduce Violence and Promote the Physical and Psychosocial Well-Being of Women Who Experience Partner Violence: A Systematic Review of Controlled Evidence. London: U.K. Department of Health; 2005. Accessed at

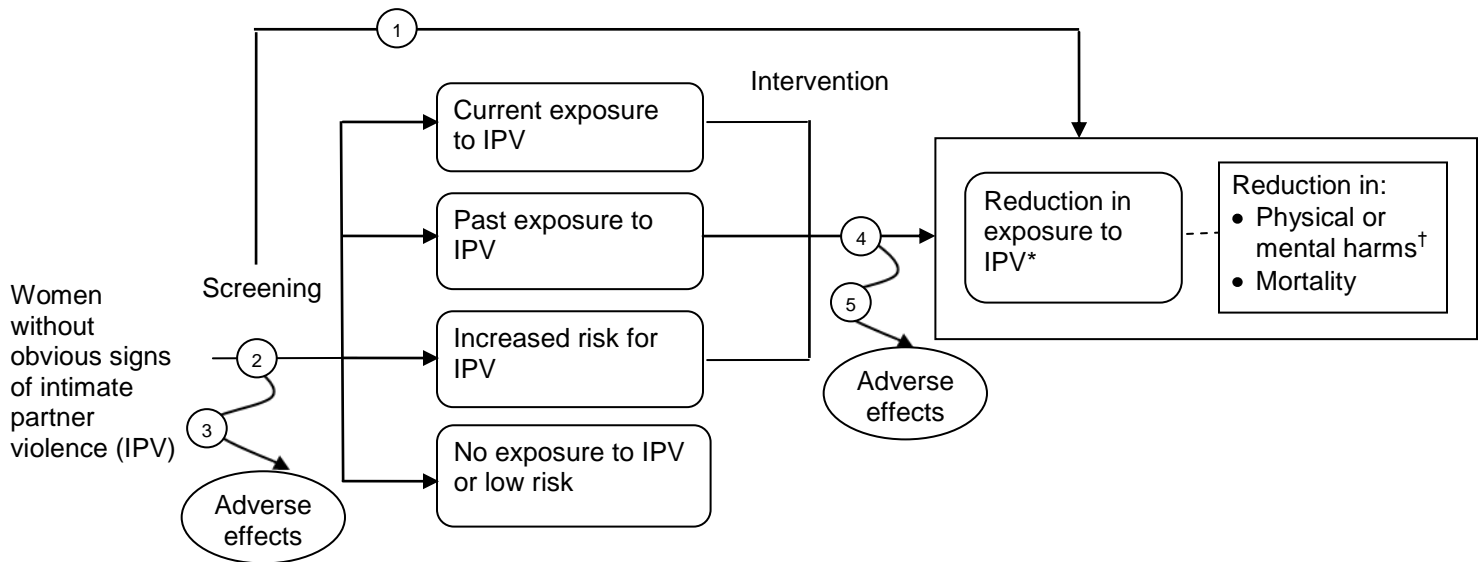
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114. Ramsay J, Carter Y, Davidson L, et al. Advocacy interventions to reduce or eliminate violence and promote the physical and psychosocial well-being of women who experience intimate partner abuse. *Cochrane Database Syst Rev*. 2009(3):CD005043.
115. Wathen CN, MacMillan HL. Interventions for violence against women: scientific review. *JAMA*. 2003;289(5):589-600.
116. Moskovic CS, Guiton G, Chirra A, et al. Impact of participation in a community-based intimate partner violence prevention program on medical students: a multi-center study. *J Gen Intern Med*. 2008;23(7):1043-7.
117. Fantuzzo J, Boruch R, Beriama A, et al. Domestic violence and children: prevalence and risk in five major U.S. cities. *J Am Acad Child Adolesc Psychiatry*. 1997;36(1):116-22.
118. Vest JR, Catlin TK, Chen JJ, Brownson RC. Multistate analysis of factors associated with intimate partner violence. *Am J Prev Med*. 2002;22(3):156-64.
119. Houry D, Kaslow NJ, Kemball RS, et al. Does screening in the emergency department hurt or help victims of intimate partner violence? *Ann Emerg Med*. 2008;51(4):433-42.
120. Spangaro JM, Zwi AB, Poulos RG, Man WY. Six months after routine screening for intimate partner violence: attitude change, useful and adverse effects. *Women Health*. 2010;50(2):125-43.
121. Koziol-McLain J, Giddings L, Rameka M, Fyfe E. Intimate partner violence screening and brief intervention: experiences of women in two New Zealand health care settings. *J Midwifery Womens Health*. 2008;53(6):504-10.
122. Liebschutz J, Battaglia T, Finley E, Averbuch T. Disclosing intimate partner violence to health care clinicians—what a difference the setting makes: a qualitative study. *BMC Public Health*. 2008;8:229.
123. Renker PR, Tonkin P. Women’s views of prenatal violence screening: acceptability and confidentiality issues. *Obstet Gynecol*. 2006;107(2 Pt 1):348-54.
124. Sethi D, Watts S, Zwi A, et al. Experience of domestic violence by women attending an inner city accident and emergency department. *Emerg Med J*. 2004;21(2):180-4.
125. Weinsheimer RL, Schermer CR, Malcoe LH, et al. Severe intimate partner violence and alcohol use among female trauma patients. *J Trauma*. 2005;58(1):22-9.
126. Zeitler MS, Paine AD, Breitbart V, et al. Attitudes about intimate partner violence screening among an ethnically diverse sample of young women. *J Adolesc Health*. 2006;39(1):119.
127. Hurley KF, Brown-Maher T, Campbell SG, et al. Emergency department patients’ opinions of screening for intimate partner violence among women. *Emerg Med J*. 2005;22(2):97-8.
128. Spangaro JM, Zwi AB, Poulos RG. “Persist, persist”: a qualitative study of women’s decisions to disclose and their perceptions of the impact of routine screening for intimate partner violence. *Psychol Violence*. 2011;1(2):150-62.
129. Yaffe MJ, Wolfson C, Lithwick M, Weiss D. Development and validation of a tool to improve physician identification of elder abuse: the Elder Abuse Suspicion Index (EASI). *J Elder Abuse Negl*. 2008;20(3):276-300.
130. Humphreys J, Tsoh JY, Kohn MA, Gerbert B. Increasing discussions of intimate partner violence in prenatal care using Video Doctor plus provider cueing: a randomized, controlled trial. *Womens Health Issues*. 2011;21(2):136-44.

131. Rhodes KV, Drum M, Anliker E, et al. Lowering the threshold for discussions of domestic violence: a randomized controlled trial of computer screening. *Arch Intern Med.* 2006;166(10):1107-14.
132. Ahmad F. Computer-Assisted Screening for Intimate Partner Violence in Family Practice. Toronto: University of Toronto; 2007.
133. Lewis-O'Connor A. When Push Comes to Shove: Screening Mothers for Intimate Partner Violence During a Pediatric Visit [Dissertation]. Boston: Boston College; 2008.
134. Ahmad F, Hogg-Johnson S, Stewart DE, et al. Computer-assisted screening for intimate partner violence and control: a randomized trial. *Ann Intern Med.* 2009;151(2):93-102.
135. Bair-Merritt MH, Feudtner C, Mollen CJ, et al. Screening for intimate partner violence using an audiotape questionnaire: a randomized clinical trial in a pediatric emergency department. *Arch Pediatr Adolesc Med.* 2006;160(3):311-6.
136. Schafer SD, Drach LL, Hedberg K, Kohn MA. Using diagnostic codes to screen for intimate partner violence in Oregon emergency departments and hospitals. *Public Health Rep.* 2008;123(5):628-35.
137. Cooper C, Maxmin K, Selwood A, et al. The sensitivity and specificity of the Modified Conflict Tactics Scale for detecting clinically significant elder abuse. *Int Psychogeriatr.* 2009;21(4):774-8.



**Figure 1. Analytic Framework and Key Questions for Screening Women for Intimate Partner Violence**



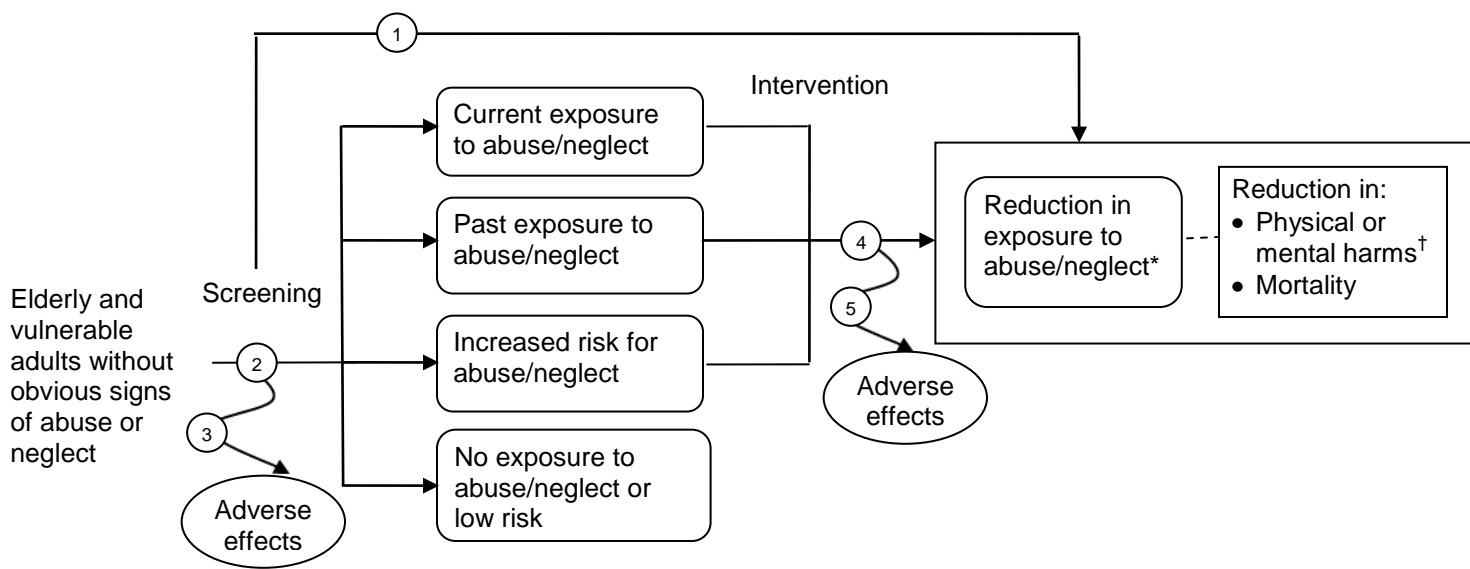
\* Includes reduction in the level of violence or abuse or leaving an unsafe situation.

† Includes physical trauma (e.g., fractures, dislocations, brain injury); unwanted pregnancy and sexually transmitted diseases; mental trauma and its repercussions, such as depression, anxiety, post-traumatic stress disorder; social isolation; quality of life; and chronic medical conditions, among others.

## Key Questions

1. Does screening asymptomatic women in health care settings for current, past, or increased risk for intimate partner violence (IPV) reduce exposure to IPV, physical or mental harms, or mortality? (Health care settings include primary care clinics, emergency departments, and student health centers, among others.)
2. How effective are screening techniques in identifying asymptomatic women with current, past, or increased risk for IPV? (Techniques include self-administered [e.g., computer-enabled tool or patient self-report] as well as person-to-person [e.g., clinician to patient] methods.)
3. What are the adverse effects of screening for IPV?
4. For screen-detected women with current, past, or increased risk for IPV, how well do interventions reduce exposure to IPV, physical or mental harms, or mortality?
5. What are the adverse effects of interventions to reduce harm from IPV?

**Figure 2. Analytic Framework and Key Questions for Abuse and Neglect of Elderly and Vulnerable Adults**



\* Includes reduction in the level of violence or abuse or leaving an unsafe situation.

† Includes physical trauma (e.g., fractures, dislocations, brain injury); unwanted pregnancy and sexually transmitted diseases; mental trauma and its repercussions, such as depression, anxiety, post-traumatic stress disorder; social isolation; quality of life; and chronic medical conditions, among others.

## Key Questions

1. Does screening asymptomatic elderly and vulnerable adults in health care settings for current, past, or increased risk for abuse and neglect reduce exposure to abuse and neglect, physical or mental harms, or mortality? (Health care settings include primary care clinics, emergency departments, and others.)
2. How effective are screening techniques in identifying asymptomatic elderly and vulnerable adults with current, past, or increased risk for abuse and neglect? (Techniques include self-administered [e.g., computer-enabled tool or patient self-report] as well as person-to-person [e.g., clinician to patient] methods.)
3. What are the adverse effects of screening for abuse and neglect in elderly and vulnerable adults?
4. For screen-detected elderly and vulnerable adults with current, past, or increased risk for abuse and neglect, how well do interventions reduce exposure to abuse and neglect, physical or mental harms, or mortality?
5. What are the adverse effects of interventions to reduce harm from abuse and neglect?



**Table 1. Screening Recommendations for Intimate Partner Violence**

Organization, year	Recommendation
American Academy of Family Physicians, 2011 <sup>79</sup>	Family physicians should be aware of the prevalence of violence in all sectors of society, be alert for risk factors as well as signs of family violence with each patient encounter, be capable of providing an appropriate response when these issues are identified, and be able to work to prevent violence in patients who are at risk within their practices and communities. Family physicians are encouraged to offer referral to anyone involved in a violent relationship of any kind to appropriate community and mental health resources.
American Academy of Pediatrics, 2010 <sup>74</sup>	Pediatricians are in a position to recognize abused women in pediatric settings. Intervening on behalf of battered women is an active form of child abuse prevention. Questions about family violence should become part of anticipatory guidance. Pediatricians must understand the dynamics of abusive relationships.
American College of Emergency Physicians, 2011 <sup>78</sup>	Emergency personnel should assess patients for intimate partner violence and child and elder maltreatment and neglect. Emergency physicians should be familiar with signs and symptoms of intimate partner violence and child and elder maltreatment and neglect.
American Congress of Obstetricians and Gynecologists, 2011 <sup>73</sup>	Physicians should screen all patients for intimate partner violence. For women who are not pregnant, screening should occur at routine ob-gyn visits, family planning visits, and preconception visits. For women who are pregnant, screening should occur at various times over the course of the pregnancy, including at the first prenatal visit, at least once per trimester, and at the postpartum checkup.
American Medical Association, 2008 <sup>71</sup>	Physicians should routinely inquire about physical, sexual, and psychological abuse as part of the medical history. Physicians should also consider abuse as a factor in the presentation of medical complaints because patients' experiences with interpersonal violence or abuse may adversely affect their health status or ability to adhere to medical recommendations.
Canadian Task Force on Preventive Health Care, 2003 <sup>70</sup>	<ul style="list-style-type: none"> <li>• There is insufficient evidence to recommend for or against screening for violence in nonpregnant or pregnant women (I Recommendation). This is distinct from the need for clinicians to include questions about exposure to domestic violence as part of their diagnostic assessment of women. This information is important in caring for the patient, and may influence assessment and treatment of other health problems.</li> <li>• There is insufficient evidence to recommend for or against any specific interventions for women exposed to violence (I Recommendation), other than referral to post-shelter advocacy counseling (B recommendation), although suitable programs may not be available in Canada.</li> <li>• The effectiveness of shelters in preventing violence against women is unknown (I Recommendation).</li> <li>• Primary care practitioners may also be asked, either by their male patients or the partners of their male patients, about the effectiveness of programs for male batterers. The group concludes that there is conflicting evidence regarding the effectiveness of batterer interventions (with or without partner participation) in reducing rates of further domestic violence (C Recommendation).</li> </ul>
Council of International Neonatal Nurses, 2010 <sup>76</sup>	<ul style="list-style-type: none"> <li>• Recommends promotion of positive health outcomes for neonates via routine screening for intimate partner violence among women of childbearing age to prevent fetal loss, fetal injury, and premature birth associated with intimate partner violence, in addition to promoting the overall health of the family.</li> <li>• Recommends use of the Family Violence Prevention Fund's "National Consensus Guidelines on Identifying and Responding to Domestic Violence Victimization," which incorporates the use of the Abuse Assessment Screening instrument and the Danger Assessment tool.</li> </ul>
Emergency Nurses Association, 2006 <sup>77</sup>	Emergency nurses should be involved in the development, implementation, and use of routine protocols and procedures for the assessment, identification, and referral of victims of family and intimate partner violence, maltreatment, and neglect.
Futures Without Violence (formerly Family Violence Prevention Fund), 2004 <sup>75</sup>	All health care providers should provide intimate partner violence assessment as part of routine patient care in public health, private practice, and managed care settings.

**Table 1. Screening Recommendations for Intimate Partner Violence**

<b>Organization, year</b>	<b>Recommendation</b>
Institute of Medicine, 2011 <sup>72</sup>	Screening and counseling for interpersonal and domestic violence is recommended, and involve elicitation of information from women and adolescents about current and past violence and abuse in a culturally sensitive and supportive manner to address current health concerns, safety, and future health problems.
United Kingdom Health Technology Assessment Program, 2009 <sup>54</sup>	Evidence is insufficient to implement a screening program for partner violence against women either in health services generally or in specific clinical settings.

**Table 2. Screening Recommendations for Elder Abuse and Neglect**

<b>Organization, year</b>	<b>Recommendations</b>
American College of Emergency Physicians, 2011 <sup>78</sup>	Emergency personnel should assess patients for intimate partner violence and child and elder maltreatment and neglect. Emergency physicians should be familiar with signs and symptoms of intimate partner violence and child and elder maltreatment and neglect.
American Medical Association, 2007 <sup>71</sup>	Physicians should make all efforts to address violence and abuse of patients, including elder abuse.
Emergency Nurses Association, 2006 <sup>77</sup>	Emergency nurses should be involved in the development, implementation, and use of routine protocols and procedures for the assessment, identification, and referral of victims of family and intimate partner violence, maltreatment, and neglect. This is extended to elder abuse in the position statement.

**Table 3. Measures of Diagnostic Accuracy**

<b>Term</b>	<b>Definition</b>	<b>Interpretation</b>
Sensitivity	The proportion of patients with a condition that test positive.	Sensitivity, specificity, PPV, and NPV are expressed as percentages; the higher the percentage, the better the accuracy of the test.
Specificity	The proportion of patients without a condition that test negative.	
Positive Predictive Value (PPV)	The proportion of patients with positive tests that have the condition.	
Negative Predictive Value (NPV)	The proportion of patients with negative tests that do not have the condition.	
Positive Likelihood Ratio (LR+)	Likelihood ratios use sensitivity and specificity to determine if a test result usefully changes the probability that a condition exists. LR+ is the odds of having a condition when the test is positive.	<ul style="list-style-type: none"> <li>● If results &gt;1, then test results are related to the condition.</li> <li>● If results &lt;1, results are associated with absence of the condition.</li> <li>● If results are close to 1, the test is not helpful for screening purposes.</li> </ul>
Negative Likelihood Ratio (LR-)	The odds of not having a condition when the test is negative.	
Area Under the Receiver Operating Characteristic Curve (AUC)	The receiver operating characteristic curve is a graphical plot of sensitivity (or true positive rate) versus 1-specificity (or false positive rate). AUC provides an estimate of the discriminatory accuracy of the test.	<ul style="list-style-type: none"> <li>● If results <math>\leq 0.50</math>, discriminatory accuracy is no better than a coin toss.</li> <li>● If results range between 0.50–0.70, there is moderate accuracy.</li> <li>● If results &gt;0.70, the test may be clinically useful.</li> </ul>

**Table 4. Instruments Used in Studies of Intimate Partner Violence Screening**

Abbreviation	Name	Scales	Scoring	Description
AAS <sup>88</sup>	Abuse Assessment Screen	5 items, dichotomous	0–5	5-item instrument, designed for clinician-administered interviews, assesses sexual coercion, lifetime abuse, current abuse, and abuse during pregnancy. Any affirmative response is considered a positive screen.
CAS <sup>90,92,93</sup>	Composite Abuse Scale	30 items, 6-point Likert scale	0–150	Self-report scale measuring four dimensions of intimate partner violence in the preceding 12 months (severe combined abuse, emotional abuse, physical abuse, and harassment).
CTQ-SF <sup>98</sup>	Childhood Trauma Questionnaire–Short Form	28 items, 5-point Likert scale	Positive response if any answer except “never”	Self-report instrument for adults that assesses abuse and neglect in childhood and includes separate scales for physical and sexual abuse.
CTS2 <sup>88,89,100-102</sup>	Conflict Tactics Scale–Revised	78 items, 8-point Likert scale; various revisions have fewer items	Prevalence, frequency, severity level, or mutuality	Self-report or interview scale, with half of the questions pertaining to the respondent’s behavior and half to the respondent’s partner. The scale includes dimensions of negotiation, psychological aggression, physical assault, sexual coercion, and injury.
HARK <sup>93</sup>	Humiliation, Afraid, Rape, Kick	4 items, dichotomous	0–4	4-item self-report survey, adapted from the AAS.
HITS <sup>91</sup>	Hurt, Insult, Threaten, Scream	4 items, 5-point Likert scale	4–20 points	4-item self-report or clinician-administered survey; each item scored 1 (Never) through 5 (Frequently) on a Likert scale; score ≥11 maximizes differentiation between abused and nonabused respondents.
ISA <sup>91,94,95,97</sup>	Index of Spouse Abuse	30 items	0–100	Self-report scale measuring 11 types of physical abuse (ISA-P) and 19 types of nonphysical abuse perpetrated by a male partner. Higher scores indicate higher frequency of severe abuse.
OAS/OVAT <sup>94,95</sup>	Ongoing Abuse Screen/ Ongoing Violence Assessment Tool	5/4 items, dichotomous	0–5/0–4	OVAT contains 4 items assessing current abuse: “At the present time, does your partner threaten you with a weapon?” “At the present time, does your partner beat you so badly that you must seek medical help?” “At the present time, does your partner act like he or she would like to kill you?” “My partner has no respect for my feelings.”
PSQ <sup>100</sup>	Parent Screening Questionnaire	3 items, dichotomous	0–3	3 items about partner violence: “Have you ever been in a relationship in which you were physically hurt or threatened by a partner?” “In the past year, have you been afraid of a partner?” “In the past year, have you thought of getting a court order for protection?”
PVS <sup>89,90</sup>	Partner Violence Screen	3 items, dichotomous	0–3	3-item clinician-administered instrument measuring past physical violence and perceived personal safety. A score of ≥1 is considered positive for intimate partner violence.

**Table 4. Instruments Used in Studies of Intimate Partner Violence Screening**

<b>Abbreviation</b>	<b>Name</b>	<b>Scales</b>	<b>Scoring</b>	<b>Description</b>
SAFE-T <sup>99</sup>	Secure, Accepted, Family, Even, Talk	5 items, dichotomous	0–5	5 questions about relationship with partner: “secure at home,” “accepted by partner,” “family likes partner,” “even disposition of partner,” and “talks with partner to resolve differences.”
STaT <sup>96,97</sup>	Slapped, Threatened, and Throw	3 items, dichotomous	0–3	3-item self-report survey: “Have you ever been in a relationship where a) your partner has pushed or slapped you?; b) your partner threatened you with violence?; or c) your partner has thrown, broken, or punched things?”
WAST <sup>90-92</sup>	Woman Abuse Screening Tool	8 items, 3-level responses (0=never, 1=sometimes, 2=often)	0–16	8-item instrument measuring physical, sexual, and emotional abuse in the preceding 12 months. A score of $\geq 4$ indicates exposure to intimate partner violence. The WAST short form includes 2 questions about tension in the relationship and how arguments are resolved.
Zink et al, 2007 <sup>102</sup>	5 domestic violence questions	5 items, dichotomous	0–5	5 general domestic violence items with nongraphic language that could be administered with children present.

**Table 5. Studies of Diagnostic Accuracy of Screening Instruments for Intimate Partner Violence**

Study, year	Screening test (reference standard)	N, Population	Administration	Accuracy measures; sensitivity/specificity; predictive values; likelihood ratios; relative risk	Other results	Quality rating
Chen et al, 2005 <sup>91</sup>	HITS (ISA-P English and WAST Spanish)	202 women in an urban family practice clinic	Medical students	<b>Sensitivity/Specificity</b> English (cut-point=10.5): 86%/99% Spanish (cut-point=5.5): 100%/86% <b>+/- Predictive Values</b> English (cut-point=10.5): 86%/99% Spanish (cut-point=5.5): 45%/100% <b>+/- Likelihood Ratios</b> English (cut-point=10.5): 90/0.14 Spanish (cut-point=5.5): 7/0	NR	Fair
Dubowitz et al, 2008 <sup>100</sup>	PSQ (CTS2)	200 mothers of children <6 years old in a pediatric community clinic	Self	<b>Sensitivity/Specificity</b> Physical assault: 19%/93% Injury: 29%/91% Psychological aggression: 27%/92% <b>+/- Predictive Values</b> Physical assault: 63%/63% Injury: 38%/87% Psychological aggression: 46%/83% <b>+/- Likelihood Ratios</b> Physical assault: 2.5/0.88 Injury: 3.3/0.78 Psychological aggression: 3.3/0.79	NR	Fair
Ernst et al, 2004 <sup>95</sup>	OVAT (ISA)	211 women and 94 men in an emergency department	Self	<b>Sensitivity/Specificity:</b> 86%/83% <b>+/- Predictive Values:</b> 56%/96% <b>+/- Likelihood Ratios:</b> 5/0.16 <b>Agreement:</b> 84%	NR	Fair
Fulfer et al, 2007 <sup>99</sup>	SAFE-T (PVS one item)	435 women ≥ 18 years old at 3 Illinois emergency departments	Self	In validation study: <b>Sensitivity/Specificity:</b> 54%/81% <b>+/- Predictive Values:</b> range, 19–44%/ 95–86%	NR	Fair
Houry et al, 2004 <sup>89</sup>	PVS (CTS)	215 women ≥ 18 years old at inner city emergency department in Colorado	Interview by research staff	Prediction of future abuse: <b>Relative risk of domestic violence during 4-mo followup, positive vs. negative screen on PVS</b> Verbal aggression: 7.25 (95% CI, 3.2–16.2) Violence: 11.3 (95% CI, 5.0–26.3) <b>Relative risk of domestic violence during 4-mo followup, single item from PVS</b> ("Have you been hit, kicked, punched, or otherwise hurt by someone?") Verbal aggression: 7.06 (95% CI, 3.3–15.4) Violence: 10.9 (95% CI, 5.0–23.6)	NR	Fair

**Table 5. Studies of Diagnostic Accuracy of Screening Instruments for Intimate Partner Violence**

Study, year	Screening test (reference standard)	N, Population	Administration	Accuracy measures; sensitivity/specificity; predictive values; likelihood ratios; relative risk	Other results	Quality rating
MacMillan et al, 2006 <sup>90</sup>	PVS and WAST (CAS)	2461 women ages 18–64 in emergency departments and primary care clinics in Ontario	Self, physician, or nurse interview or computer	<b>Sensitivity/Specificity vs. CAS</b> PVS: 49%/94% WAST: 47%/96% <b>+/- Predictive Values vs. CAS</b> PVS: 47%/94% WAST: 55%/94% <b>Accuracy vs. CAS</b> PVS: 89% WAST: 91%	Interviews were least desired by participants and written responses had the fewest missing data.	Good
Paranjape et al, 2003 <sup>96</sup>	STaT (Semi-structured interview)	75 women in U.S. urban teaching hospital emergency department	Research interviewers	For 3 items: <b>Sensitivity/Specificity</b> ≥1 positive response: 96%/75% ≥2: 89%/100% ≥3: 64%/100%	NR	Fair
Paranjape et al, 2006 <sup>97</sup>	STaT (ISA)	240 women in U.S. urban public hospital urgent care clinic	Research interviewers	For 3 items: <b>Sensitivity/Specificity</b> ≥1 positive response: 95%/37% ≥2: 85%/54% ≥3: 62%/66% <b>+/- Predictive Values</b> ≥1: 42%/94% ≥2: 48%/88% ≥3: 47%/78%	Prevalence of IPV, most recent relationship (ISA): 79/240 (33%) Prevalence of IPV, current relationship (ISA): 37/240 (15%)	Fair
Peralta et al, 2003 <sup>101</sup>	One personal safety question (modified CTS)	399 women ages 18-36 in urban family medicine clinic in Madison, WI	Self	<b>Sensitivity/Specificity:</b> 9%/91%	CTS indicated 44% experienced any violence, 44% psychological violence, and 10% physical violence during previous 90 days.	Fair
Reichenheim et al, 2004 <sup>88</sup>	AAS (CTS2)	748 women immediately post-delivery in maternity wards in urban Brazil	Research interviewers	<b>Sensitivity/Specificity</b> Minor violence: 32% (95% CI, 24–40)/ 99% (95% CI, 98–99.6) Severe violence: 61% (95% CI, 48–74)/ 98% (95% CI, 96–99) Both: 32% (95% CI, 24–40)/99% (95% CI, 98–99.7)	<b>Prevalence during pregnancy (CTS2):</b> Minor violence: 18% Severe violence: 8% Both: 19% <b>Prevalence of abuse during pregnancy (AAS):</b> 7%	Fair
Sohal et al, 2007 <sup>93</sup>	HARK (CAS)	232 women in general practice waiting rooms in London	Self	For score ≥1: <b>Sensitivity/Specificity:</b> 81%/95% <b>+/- Predictive Values:</b> 83%/94%	12-mo IPV prevalence, HARK score ≥1 vs. CAS: 49/223 (22%) vs. 53/223 (24%)	Fair



**Table 5. Studies of Diagnostic Accuracy of Screening Instruments for Intimate Partner Violence**

Study, year	Screening test (reference standard)	N, Population	Administration	Accuracy measures; sensitivity/specificity; predictive values; likelihood ratios; relative risk	Other results	Quality rating
Thombs et al, 2007 <sup>98</sup>	Modified CTQ-SF (Evaluation of lifetime stressors structured interview)	1225 women in a health management organization in Seattle	Self	<b>Sensitivity/Specificity, one question</b> Physical abuse: 70%/94% Sexual abuse: 82%/89% <b>Sensitivity/Specificity, two questions</b> Physical or sexual abuse: 85%/88% <b>+ Likelihood Ratio, one question</b> Physical abuse: 11 Sexual abuse: 7.6 <b>+ Likelihood Ratio, two questions</b> Physical or sexual abuse: 7	NR	Good
Wathen et al, 2008 <sup>92</sup>	WAST (CAS)	5607 women in primary care, acute care, and specialty clinics in Canada	Self	<b>Sensitivity/Specificity: 88%/89%</b>	12-mo prevalence of abuse, WAST vs. CAS: 22% vs. 14%	Good
Weiss et al, 2003 <sup>94</sup>	OAS/OVAT/AAS (ISA)	530 women and 326 men in emergency department	Self	<b>Sensitivity/Specificity vs. ISA</b> AAS: 93%/55% OAS: 60%/90% OVAT: 93%/86% <b>+/- Predictive Values vs. ISA</b> AAS: 33%/97% OAS: 58%/91% OVAT: 75%/97% <b>+/- Likelihood Ratios vs. ISA</b> AAS: 2/0.12 OAS: 6/0.44 OVAT: 7/0.08	NR	Fair
Zink et al, 2007 <sup>102</sup>	5 items with nongraphic language (CTS2)	393 mothers in pediatric and family medicine clinics in Cincinnati	Research interviewers	<b>Sensitivity/Specificity: 40%/91%</b> <b>+/- Predictive Values: 38%/92%</b>	NR	Fair

**Abbreviations:** AAS = Abuse Assessment Screen; CAS = Composite Abuse Scale; CI = confidence interval; CTQ-SF = Childhood Trauma Questionnaire-Short Form; CTS2 = Revised Conflict Tactics Scale; HARK = Humiliation, Afraid, Rape, Kick; HITS = Hurts, Insults, Threatens, Screams; ISA = Index of Spouse Abuse; NR = not reported; OAS/OVAT = Ongoing Abuse Screen/Ongoing Violence Assessment Tool; PSQ = Parent Screening Questionnaire; PVS = Partner Violence Screen; SAFE-T = Secure, Accepted, Family, Even, Talk; STaT = Slapped, Threatened, and Throw; WAST = Woman Abuse Screening Tool.

**Table 6. Studies of Intimate Partner Violence Interventions**

Author, Year	Study design	N; Population	Intervention	Assessment of outcomes	Results	Quality Rating
Bair-Merritt et al, 2010 <sup>107</sup>	Randomized trial of home visitation vs. none	685 English-speaking mothers in Oahu hospitals who gave birth to an infant evaluated as at risk for maltreatment.	Home visitation by paraprofessionals for 3 years to promote child health and decrease maltreatment by linking families to appropriate community services, teaching about child development, role modeling positive parenting and problem solving strategies, and offering emotional support. Intervention was offered by 3 community agencies (13.6 mean visits in first year).	Interviews within 1 week postpartum, annually when child was 1–3 years old, and followup annually when child was 7–9 years old. Measures include CTS1 at baseline, CTS2 at subsequent data points with 4 sexual coercion questions omitted, Mental Health Index, drug and alcohol use.	During the program, the intervention group had lower rates of IPV victimization (IRR, 0.86 [95% CI, 0.73-1.01]) and perpetration (IRR, 0.83 [95% CI, 0.72-0.96]), lower rates of physical assault victimization (IRR, 0.85 [95% CI, 0.71-1.00]) and perpetration (IRR, 0.82 [95% CI, 0.70-0.96]), and no differences in sexual violence, verbal abuse, or injury. Long-term followup rates of overall IPV victimization and perpetration decreased with no between-group differences. Rates of verbal abuse victimization (IRR, 1.14 [95% CI, 0.97-1.34]) and perpetration (IRR, 1.08 [95% CI, 0.92-1.26]) increased in the intervention group.	Fair
Curry et al, 2006 <sup>108</sup>	Randomized trial of nursing case management during pregnancy vs. none	1000 English-speaking pregnant women ages 14–46 in U.S. prenatal clinics. Risk for abuse was determined by responses from 3 questions from the AAS.	Intervention group participants were classified as low or high risk. Case management included an assessment and care plan, and women were offered an abuse video and continuing access to a nurse case manager. Both intervention and control participants were offered a card with safety and abuse recognition information with phone numbers for national and local domestic violence resources.	Women were evaluated for stress using the Prenatal Psychosocial Profile, with the first assessment prior to 23 weeks of pregnancy and the second between 32 weeks and delivery.	Total stress scores of high-risk case managed women decreased significantly (p<0.001). Stress scores of high-risk control women also decreased, and differences between intervention and control groups were not significant.	Poor

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Author, Year	Study design	N; Population	Intervention	Assessment of outcomes	Results	Quality Rating
El-Mohandes et al, 2008 <sup>109</sup> (NIH-DC Initiative to Reduce Infant Mortality in Minority Populations)	Randomized trial of counseling interventions during pregnancy and postpartum vs. usual care	1044 English-speaking, pregnant African American women at 6 prenatal care sites in the District of Columbia reporting IPV on the AAS.	Prenatal behavioral counseling for 4-8 sessions, with up to 2 postpartum sessions provided by professional counselors. IPV counseling emphasized safety behaviors and information on community resources. Smoking and depression were also addressed.	Interviews at baseline with followup interviews at 22-26 weeks' gestation, 34-38 weeks' gestation, and at an average of 10.3 weeks postpartum.	IPV declined from 36.8% to 9.9% between baseline and postpartum (p<0.001), but differences between groups were not significant.	Fair
El-Mohandes et al, 2011 <sup>29</sup> (NIH-DC Initiative to Reduce Infant Mortality in Minority Populations)	Randomized trial of counseling interventions during pregnancy and postpartum vs. usual care	1044 English-speaking, pregnant African American women at 6 prenatal care sites in the District of Columbia reporting IPV on the AAS.	Prenatal behavioral counseling for 2-7 sessions provided by professional counselors. IPV counseling emphasized safety behaviors and information on community resources. Smoking and depression were also addressed.	Interviews at baseline with followup interviews at 22-26 weeks' gestation, 34-38 weeks' gestation.	Very preterm birth: 2.2% (9/402) intervention group vs. 5.0% (21/416) usual care group (OR, 0.43 [95% CI, 0.20-0.95]; NNT=36) Very low birthweight: 1.0% (4/402) intervention group vs. 2.2% (9/415) usual care group (OR, 0.45 [95% CI, 0.14-1.48]; NNT=83) IPV recurrence: 7.9% intervention group vs. 21.6% usual care group (p=0.04) Among women reporting no risks (smoking, ETSE, depression, IPV) at baseline, more women in the usual care group than the intervention group reported risks during the last followup interview (p=0.04) Women randomized to the intervention group reported a significant reduction in risks if they reported 1-2 risks at baseline (p=0.21), but not if they reported 3-4 risks (p=0.383).	Fair

**Table 6. Studies of Intimate Partner Violence Interventions**

Author, Year	Study design	N; Population	Intervention	Assessment of outcomes	Results	Quality Rating
Kiely et al, 2010 <sup>30</sup> (NIH-DC Initiative to Reduce Infant Mortality in Minority Populations)	Randomized trial of counseling interventions during pregnancy and postpartum vs. usual care	1044 English-speaking, pregnant African American women at 6 prenatal care sites in the District of Columbia reporting IPV on the AAS.	Prenatal behavioral counseling for 4-8 sessions, with up to 2 postpartum sessions provided by professional counselors. IPV counseling emphasized safety behaviors and information on community resources. Smoking and depression were also addressed.	Interviews at baseline with followup interviews at 22-26 weeks' gestation, 34-38 weeks' gestation, and at an average of 10.3 weeks postpartum.	Women in the intervention group had less recurrent episodes of IPV during pregnancy and postpartum (adjusted OR, 0.48 [95% CI, 0.29-0.80]), fewer very preterm (<33 weeks) (1.5% vs. 6.6%; p=0.03) and very low birth weight (<1500 g) (0.8% vs. 4.6%; p=0.052) neonates, and increased mean gestational age (38.2 vs. 36.9 weeks, p=0.016).	Good
McFarlane et al, 2006 <sup>110</sup>	Randomized, 2-arm trial of a wallet-sized referral card vs. 20-minute nurse management protocol	360 English- or Spanish-speaking women ages 18-45 in U.S. urban primary care public health clinics and WIC clinics with physical or sexual abuse in the past 12 months using the AAS.	1) Wallet-sized referral card with a safety plan and resources for IPV services. 2) 20-minute nurse case management protocol (March of Dimes), including a brochure with a 15-item safety plan, supportive care, anticipatory guidance, and guided referrals.	Interviews at baseline and at 6, 12, 18, and 24 months post-baseline.	2 years after treatment, both groups reported fewer threats of abuse (p<0.001), assaults, danger risks for homicide, and events of work harassment, but there were no significant between-group differences. Compared with baseline, both groups adopted more safety behaviors by 24 months. Community resource use declined for both groups (p<0.001) and there were no significant between-group differences. Participants reported no adverse effects of the interventions.	Fair
Miller et al, 2011 <sup>111</sup>	Cluster randomized trial of counseling intervention vs. usual care	906 English- or Spanish-speaking women ages 16-29 in urban family planning clinics in California with responses to an interview suggesting pregnancy coercion.	1) Intervention clinics: counseling intervention that educates patients about reproduction coercion and provides information about local IPV and sexual assault resources. 2) Usual care clinics: usual care includes responding to 2 IPV screening questions on a routine intake form using a standard clinic protocol.	Computer-assisted followup survey 12-24 weeks after baseline survey. Surveys included items from the CTS2 and Sexual Experiences Survey, questions about awareness and recent use of IPV services, and relationship changes from baseline.	Intervention women with recent IPV had decreased pregnancy coercion at followup compared with usual care (adjusted OR, 0.29 [95% CI, 0.09-0.91]). Intervention women were also more likely to discontinue an unhealthy or unsafe relationship compared with usual care (p=0.013).	Fair

**Table 6. Studies of Intimate Partner Violence Interventions**

Author, Year	Study design	N; Population	Intervention	Assessment of outcomes	Results	Quality Rating
Taft et al, 2011 <sup>112</sup> (Taft et al, 2009 protocol and methods described)	Cluster randomized trial of mentor support vs. usual care	174 English- or Vietnamese-speaking mothers of young children in primary care clinics in Melbourne, Australia who disclosed IPV or had behavioral symptoms suggestive of abuse.	1) 12 months of weekly home visits from trained nonprofessional mentors offering advocacy, parenting support, and referrals. 2) Usual care.	Abuse measured by the CAS, depression (Edinburgh Postnatal Depression Scale), wellbeing (SF-36), parenting stress (PSI-SF), and social support (MOS-SF) at baseline and followup.	Abuse scores were significantly reduced in intervention vs. comparison groups (adjusted difference, -8.67 [95% CI, -6.2 to -1.15]; adjusted OR, 0.47 [95% CI, 0.21-1.05]). Other differences were not significant (depression, physical wellbeing, mental wellbeing, parenting stress).	Fair

**Abbreviations:** AAS = Abuse Assessment Screen; CAS = Composite Abuse Scale; CI = confidence interval; CTS = Conflict Tactics Scale; ETSE = environmental tobacco smoke exposure; IPV = intimate partner violence; IRR = incidence rate ratio; NNT = number needed to treat; OR = odds ratio; PSI-SF = Parenting Stress Interview–Short Form; WIC = Women, Infants, and Children.

**Table 7. Harms of Intimate Partner Violence Screening**

Author, Year	Study description	Adverse effect outcome
Bair-Merritt et al, 2010 <sup>107</sup>	Randomized, controlled trial of 685 mothers comparing home visitation after childbirth to reduce IPV vs. no home visitation.	Verbal abuse victimization rates (IRR, 1.14 [95% CI, 0.97-1.34]) and perpetration rates (IRR, 1.08 [95% CI, 0.92-1.26]) increased in the intervention group.
Chang et al, 2003 <sup>55</sup>	7 semi-structured focus group interviews with 41 women in IPV support groups or battered women’s shelters.	Negative consequences of screening included feeling judged by the provider, increased anxiety about the unknown, feeling that the intervention protocol was cumbersome or intrusive, and disappointment in the provider’s response.
Houry et al, 2008 <sup>88</sup>	Prospective, observational study of 3083 men and women in large urban emergency department. Patients were screened using a touch-screen kiosk, and those with positive responses were provided with resources and information and subsequently assessed for IPV, safety issues, and use of resources.	None of the screened participants reported safety issues in the emergency department after screening. 2/216 of IPV positive participants had safety concerns or emotional distress related to the screening during followup. 1/65 of telephone interview participants had an issue related to screening. No increases in injuries, violence, or calls to the police were reported as a result of screening or followup.
Hurley et al, 2005 <sup>127</sup>	Convenience sample of 514 adults visiting the emergency department in Nova Scotia and Newfoundland.	86% thought it was appropriate for all women to be asked if they had experienced violent or threatening behavior from someone close to them; 10% thought it was inappropriate; 3% had no opinion.
Kozioł-McLain et al, 2008 <sup>121</sup>	36 women interviewed several weeks after IPV screening.	97% perceived it as nonthreatening and safe, with no risks incurred.
Liebschutz et al, 2008 <sup>122</sup>	Interviews of 27 abused women.	Women had no instances of harmful disclosure in any health care setting (emergency department, obstetrics/gynecology clinics, or primary care clinics), although some disclosures were not helpful.
MacFarlane et al, 2006 <sup>110</sup>	Randomized, 2-arm trial of 360 women receiving either a wallet-sized referral card or a 20-minute nurse management protocol to address IPV.	Participants reported no adverse effects of the interventions.
MacMillan et al, 2009 <sup>87</sup>	Randomized, controlled trial of 6743 women comparing IPV screening and communication of positive results to clinicians vs. no screening.	Screened women reported no harms related to screening on the Consequences of Screening Tool.
Renker et al, 2006 <sup>122</sup>	519 women completing anonymous computer interviews in U.S. maternity units that asked about IPV screening and interventions, past disclosure, preferences about screening, and violence during pregnancy.	Most women (97%) had no feelings of anger or embarrassment and were not offended when screened for IPV.
Sethi et al, 2004 <sup>124</sup>	198 women receiving services in a U.K. urban emergency department who completed a modified WHO Multi-Country Domestic Violence Study questionnaire.	24% felt uncomfortable when asked about IPV, with higher discomfort among those with prior abuse. Some women commented on the need for privacy and safety and had concerns about direct IPV questions.
Spangaro et al, 2010 <sup>120</sup>	Retrospective survey of screened women in Australia, 122 disclosed abuse and 241 did not report abuse.	5/119 participants with abuse indicated sadness or depression and one woman experienced further abuse as a result of her disclosure.
Spangaro et al, 2011 <sup>128</sup>	Interviews of 20 women followed up 6 months after disclosing abuse in response to screening.	None of the women described adverse effects from screening; however, 8/20 thought it was unremarkable and had minimal impact.
Weinsheimer et al, 2005 <sup>125</sup>	95 women in a trauma center who completed a survey about IPV screening.	18% of women thought screening infringed upon their privacy, but most (90%) felt it was appropriate to ask. Approximately 25% of abused women thought reporting would increase their chances of further harm.
Zeitler et al, 2006 <sup>126</sup>	645 women ages 15 to 24 in U.S. family planning clinics who completed a survey.	Although most women (90%) thought universal IPV screening is a good idea, 36% of younger women (ages 15-18) had concerns.

**Abbreviations:** CI = confidence interval; IPV = intimate partner violence; IRR = incidence rate ratio; WHO = World Health Organization.

**Table 8. Summary of Evidence for Screening for Intimate Partner Violence**

Number of studies	Design	Limitations	Consistency	Applicability	Overall quality	Findings
<b>Key Question 1. Does screening asymptomatic women in health care settings for current, past, or increased risk for IPV reduce exposure to IPV, physical or mental harms, or mortality?</b>						
1	RCT	High attrition rates, differential loss to followup, Hawthorne effect* among control participants.	Not relevant	High	Fair	Women in both groups had reductions in IPV recurrence, PTSD symptoms, and alcohol problems, as well as improvements in scores for quality of life, depression, and mental health, but no between-group differences.
<b>Key Question 2. How effective are screening techniques in identifying asymptomatic women with current, past, or increased risk for IPV?</b>						
15 studies of 13 instruments for identifying IPV in health care settings	Diagnostic accuracy studies with cross-sectional and prospective data	Enrollment of dissimilar groups at baseline, high attrition rates, unclear application of the reference standard.	Consistent	High	Fair to good	6 instruments with 1 to 8 items demonstrated sensitivity and specificity >80% in clinical populations of asymptomatic women: HARK, HITS (English and Spanish versions), modified CTQ-SF, OVAT, STaT, and WAST.
<b>Key Question 4. For screen-detected women with current, past, or increased risk for IPV, how well do interventions reduce exposure to IPV, reduce physical or mental harms, or mortality?</b>						
6	RCT	Enrollment of dissimilar groups at baseline, high and/or differential loss to followup, recall bias, missing data, Hawthorne effect among control participants.	Consistent	Some trials used narrowly defined populations that may limit applicability.	Fair to good	1 trial of counseling vs. usual care during pregnancy reported decreased IPV and improved birth outcomes with counseling. 2 trials of home visitation vs. none for young mothers resulted in improved IPV outcomes with visitation. Counseling resulted in decreased pregnancy coercion and resolution of unsafe relationships vs. usual care in 1 trial. 2 trials showed improved outcomes in intervention and control groups without differences (counseling vs. referral cards, nurse management vs. usual care in pregnancy).
<b>Key Questions 3 and 5. What are the adverse effects of screening for IPV and interventions to reduce harm from IPV?</b>						
14	RCT, prospective cohort, cross-sectional	Descriptive data with variability of populations, measures, and analysis.	Consistent	Unclear, most data are descriptive and come from small samples.	Fair	3 RCTs reported no adverse effects. Descriptive studies indicated that screening has minimal adverse effects, but some women experience discomfort, loss of privacy, emotional distress, and concerns about further abuse.

**Abbreviations:** HARK = Humiliation, Afraid, Rape, Kick; HITS = Hurt, Insult, Threaten, Scream; IPV = intimate partner violence; CTQ-SF = Childhood Trauma Questionnaire–Short Form; OVAT = Ongoing Violence Assessment Tool; PTSD = post-traumatic stress disorder; RCT = randomized, controlled trial; STaT = Slapped, Threatened, and Throw; WAST = Woman Abuse Screening Tool.

\*Hawthorn effect is when subjects modify an aspect of their behavior in response to the fact that they are being studied.

**Table 9. Summary of Evidence for Screening for Abuse and Neglect of Elderly and Vulnerable Adults**

Number of studies	Design	Limitations	Consistency	Applicability	Overall quality	Findings
<b>Key Question 1. Does screening asymptomatic elderly and vulnerable adults in health care settings for current, past, or increased risk for abuse and neglect reduce exposure to abuse and neglect, physical or mental harms, or mortality?</b>						
No studies	Not relevant	Not relevant	Not relevant	Not relevant	Not relevant	Not relevant
<b>Key Question 2. How effective are screening techniques in identifying asymptomatic elderly and vulnerable adults with current, past, or increased risk for abuse and neglect?</b>						
1 study	Diagnostic accuracy study with cross-sectional data	Moderate attrition; reference standard may not be replicable.	Not relevant	Low; single study of a small sample of elderly patients in Canada.	Poor	The Elder Abuse Suspicion Index had sensitivity and specificity of 9-47% and 75-97%, depending on the number of positive responses to specific questions.
<b>Key Question 4. For screen-detected elderly and vulnerable adults with current, past, or increased risk for abuse and neglect, how well do interventions reduce exposure to abuse and neglect, physical or mental harms, or mortality?</b>						
1 study	Descriptive study with retrospective data	Descriptive data with no comparisons; details of the population, detection of abuse, and interventions are unclear.	Not relevant	Low; single study of a small number of VA patients in Los Angeles.	Poor	Abused veterans were identified in primary care clinics and referred to case management; 5% were reported to Adult Protective Services and 6% required nursing home placement or conservatorship arrangements.
<b>Key Questions 3 and 5. What are the adverse effects of screening for abuse and neglect of elderly and vulnerable adults and interventions to reduce harm from abuse and neglect?</b>						
No studies	Not relevant	Not relevant	Not relevant	Not relevant	Not relevant	Not relevant



## Appendix A. Abbreviations

Abbreviation	Meaning
AAS	Abuse Assessment Screen
AHRQ	Agency for Healthcare Research and Quality
APS	Adult Protective Services
AUC	Area under the curve
CAS	Composite Abuse Scale
CDC	Centers for Disease Control and Prevention
CI	Confidence interval
COST	Consequences of Screening Tool
CTQ-SF	Childhood Trauma Questionnaire–Short Form
CTS	Conflict Tactics Scale
CTS2	Conflict Tactics Scale 2
DAST	Drug Abuse Severity Test
EASI	Elder Abuse Suspicion Index
EPC	Evidence-based Practice Center
EPDS	Edinburgh Postnatal Depression Scale
GRECC	Geriatric Research, Education, and Clinical Center
HARK	Humiliation, Afraid, Rape, Kick
HITS	Hurt, Insult, Threaten, Scream
IPV	Intimate partner violence
IRR	Incidence rate ratio
ISA	Index of Spouse Abuse
MOS-SF	Medical Outcome Study–Short Form
NIH-DC	National Institutes of Health–District of Columbia
NR	Not reported
OAS/OVAT	Ongoing Abuse Screen/Ongoing Violence Assessment Tool
OR	Odds ratio
PSI-SF	Parenting Stress Index–Short Form
PSQ	Parent Screening Questionnaire
PTSD	Post-traumatic stress disorder
PVS	Partner Violence Screen
RCT	Randomized, controlled trial
RR	Relative risk
SAFE-T	Secure, Accepted, Family, Even, Talk
SAVAWS	Safety Behavior Checklist, Community Resources Checklist, Severity of Violence Against Women Scale
SF-36	36-Item Short-Form Health Survey
SPAN	Startle, Physiological Arousal, Anger, and Numbness
STaT	Slapped, Threatened, and Throw
USPSTF	U.S. Preventive Services Task Force
WAST	Women Abuse Screening Tool
WHO	World Health Organization
WHOQOL	World Health Organization Quality of Life
WIC	Women, Infants, and Children
VA	Veterans Affairs

## Appendix B1. Search Strategies

Search strategies of various populations (children, elder/vulnerable individuals, and adult women) were combined into one library and reviewed concurrently; therefore, strategies for all of these populations are included below.

### Searches for Randomized Controlled Trials

#### *Children*

Database: EBM Reviews - Cochrane Central Register of Controlled Trials

- 1 ((domestic\$ or spous\$ or husband\$ or wife or wives or cohabitat\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 2 ((baby or babies or infan\$ or toddler\$ or child\$ or teen\$ or adolescen\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$)).mp.
- 3 from 2 keep 1-808

#### *Elderly*

Database: EBM Reviews - Cochrane Central Register of Controlled Trials

- 1 ((domestic\$ or spous\$ or husband\$ or wife or wives or cohabitat\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 2 ((baby or babies or infan\$ or toddler\$ or child\$ or teen\$ or adolescen\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$)).mp.
- 3 ((elder\$ or parent\$ or mother\$ or father\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 4 from 3 keep 1-396

#### *Spouse*

Database: EBM Reviews - Cochrane Central Register of Controlled Trials

- 1 ((domestic\$ or family or families or spous\$ or husband\$ or wife or wives or cohabitat\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 2 from 1 keep 1-387

### Searches for Systematic Reviews

#### *Children*

Database: EBM Reviews - Cochrane Database of Systematic Reviews

- 1 ((domestic\$ or family or families or spous\$ or husband\$ or wife or wives or cohabitat\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 2 ((baby or babies or infan\$ or toddler\$ or child\$ or teen\$ or adolescen\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$)).mp.
- 3 from 2 keep 1-88

## Appendix B1. Search Strategies

### *Elderly*

Database: EBM Reviews - Cochrane Database of Systematic Reviews

- 1 ((domestic\$ or family or families or spous\$ or husband\$ or wife or wives or cohabit\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 2 ((baby or babies or infan\$ or toddler\$ or child\$ or teen\$ or adolescen\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$)).mp.
- 3 ((elder\$ or parent\$ or mother\$ or father\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 4 from 3 keep 1-56

### *Spouse*

Database: EBM Reviews - Cochrane Database of Systematic Reviews

- 1 ((domestic\$ or family or families or spous\$ or husband\$ or wife or wives or cohabit\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 2 from 1 keep 1-59

## Searches for Interventions

### *Domestic*

Database: Ovid MEDLINE(R)

- 1 exp domestic violence/
- 2 exp battered women/
- 3 1 or 2
- 4 exp Family Practice/
- 5 exp Primary Health Care/
- 6 exp Physicians, Family/
- 7 exp Emergency Medicine/
- 8 exp Emergency Medical Services/
- 9 4 or 5 or 6
- 10 7 or 8
- 11 exp Preventive Health Services/
- 12 exp Counseling/
- 13 exp Mental Health Services/
- 14 exp "Outcome and Process Assessment (Health Care)"/
- 15 3 and 9
- 16 3 and 10
- 17 3 and 11
- 18 3 and 12
- 19 3 and 13
- 20 3 and 14
- 21 15 or 16 or 17 or 18 or 19 or 20

## Appendix B1. Search Strategies

- 22 limit 21 to (english language and yr="2002 -Current")
- 23 from 22 keep 1-1687

Database: PsycINFO

- 1 exp Domestic Violence/
- 2 exp pediatrics/
- 3 (pediatrician\$ or paediatrician\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 4 exp gerontology/
- 5 gerontologist\$.mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 6 exp Family Medicine/
- 7 exp Primary Health Care/
- 8 exp General Practitioners/
- 9 exp Family Physicians/
- 10 (primary care or family medicine or family practice or general practice or gp).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 11 exp Emergency Services/
- 12 (emergency or emergencies).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 13 2 or 3
- 14 4 or 5
- 15 6 or 7 or 8 or 9 or 10
- 16 11 or 12
- 17 1 and 13
- 18 1 and 14
- 19 1 and 15
- 20 1 and 16
- 21 17 or 18 or 19 or 20
- 22 from 21 keep 1-205

### *Children*

Database: Ovid MEDLINE(R)

- 1 exp Child Abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "all child (0 to 18 years)"
- 4 1 or 3
- 5 exp Schools/
- 6 crime/ or exp crime victims/ or exp homicide/ or exp sex offenses/ or exp violence/
- 7 5 and 6
- 8 limit 7 to "all child (0 to 18 years)"
- 9 4 or 8
- 10 exp Family Practice/
- 11 exp Primary Health Care/
- 12 exp Physicians, Family/
- 13 pediatrician\$.mp.

## Appendix B1. Search Strategies

- 14 exp Pediatrics/
- 15 exp Emergency Medicine/
- 16 exp Emergency Medical Services/
- 17 10 or 11 or 12
- 18 9 and 17
- 19 13 or 14
- 20 9 and 19
- 21 15 or 16
- 22 9 and 21
- 23 18 or 20 or 22
- 24 exp Preventive Health Services/
- 25 exp Counseling/
- 26 9 and 24
- 27 9 and 25
- 28 exp Mental Health Services/
- 29 9 and 28
- 30 limit 9 to clinical trial, all
- 31 exp "Outcome and Process Assessment (Health Care)"/
- 32 9 and 31
- 33 23 or 26 or 27 or 30 or 32
- 34 limit 33 to english language
- 35 limit 34 to yr="2002 -Current"
- 36 from 35 keep 1-1317

Database: PsycINFO

- 1 exp Child Abuse/
- 2 exp Child Neglect/
- 3 1 or 2
- 4 exp Domestic Violence/
- 5 limit 4 to (100 childhood <birth to age 12 yrs> or 200 adolescence <age 13 to 17 yrs>)
- 6 exp Physical Abuse/
- 7 exp Emotional Abuse/
- 8 exp Sexual Abuse/
- 9 6 or 7 or 8
- 10 limit 9 to (100 childhood <birth to age 12 yrs> or 200 adolescence <age 13 to 17 yrs>)
- 11 3 or 5 or 10
- 12 exp Pediatrics/
- 13 (pediatrician\$ or paediatrician\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 14 exp Family Medicine/
- 15 exp Primary Health Care/
- 16 exp General Practitioners/
- 17 exp Family Physicians/
- 18 (primary care or family medicine or family practice or general practice or gp).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 19 exp Emergency Services/

## Appendix B1. Search Strategies

- 20 (emergency or emergencies).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 21 12 or 13
- 22 11 and 21
- 23 14 or 15 or 16 or 17 or 18
- 24 11 and 23
- 25 19 or 20
- 26 11 and 25
- 27 22 or 24 or 26
- 28 limit 27 to yr="2002 -Current"
- 29 from 28 keep 1-243

### *Elderly*

Database: Ovid MEDLINE(R)

- 1 exp elder abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "all aged (65 and over)"
- 4 1 or 3
- 5 exp residential facilities/
- 6 crime/ or exp crime victims/ or exp homicide/ or exp sex offenses/ or exp violence/
- 7 5 and 6
- 8 limit 7 to "all aged (65 and over)"
- 9 4 or 8
- 10 exp Family Practice/
- 11 exp Primary Health Care/
- 12 exp Physicians, Family/
- 13 gerontologist\$.mp.
- 14 exp geriatrics/
- 15 exp Emergency Medicine/
- 16 exp Emergency Medical Services/
- 17 10 or 11 or 12
- 18 9 and 17
- 19 13 or 14
- 20 9 and 19
- 21 15 or 16
- 22 9 and 21
- 23 18 or 20 or 22
- 24 exp Preventive Health Services/
- 25 exp Counseling/
- 26 9 and 24
- 27 9 and 25
- 28 exp Mental Health Services/
- 29 9 and 28
- 30 limit 9 to clinical trial, all
- 31 exp "Outcome and Process Assessment (Health Care)"/

## Appendix B1. Search Strategies

- 32 9 and 31
- 33 23 or 26 or 27 or 29 or 30 or 32
- 34 limit 33 to (english language and yr="2002 -Current")
- 35 from 34 keep 1-250

Database: PsycINFO

- 1 exp elder abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "380 aged <age 65 yrs and older>"
- 4 exp Physical Abuse/
- 5 exp patient abuse/
- 6 exp Emotional Abuse/
- 7 exp Sexual Abuse/
- 8 4 or 5 or 6 or 7
- 9 limit 8 to "380 aged <age 65 yrs and older>"
- 10 1 or 3 or 9
- 11 exp gerontology/
- 12 gerontologist\$.mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 13 exp Family Medicine/
- 14 exp Primary Health Care/
- 15 exp General Practitioners/
- 16 exp Family Physicians/
- 17 (primary care or family medicine or family practice or general practice or gp).mp.  
[mp=title, abstract, heading word, table of contents, key concepts]
- 18 exp Emergency Services/
- 19 (emergency or emergencies).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 20 11 or 12
- 21 10 and 20
- 22 13 or 14 or 15 or 16 or 17
- 23 10 and 22
- 24 18 or 19
- 25 10 and 24
- 26 21 or 23 or 25
- 27 limit 26 to yr="2002 -Current"
- 28 from 27 keep 1-63

### *Spouse*

Database: Ovid MEDLINE(R)

- 1 Spouse Abuse/
- 2 ((spous\$ or wife or husband or boyfriend\$ or girlfriend\$ or married or marriage\$ or intimate partner\$ or common law or cohabitat\$) adj5 (abus\$ or violen\$ or attack\$ or assault\$ or batter\$)).mp.
- 3 exp Family Practice/
- 4 exp Primary Health Care/

## Appendix B1. Search Strategies

- 5 exp Physicians, Family/
- 6 exp Emergency Medicine/
- 7 exp Emergency Medical Services/
- 8 3 or 4 or 5
- 9 6 or 7
- 10 exp Preventive Health Services/
- 11 exp Counseling/
- 12 exp Mental Health Services/
- 13 exp "Outcome and Process Assessment (Health Care)"/
- 14 2 and 8
- 15 2 and 9
- 16 2 and 10
- 17 2 and 11
- 18 2 and 12
- 19 2 and 13
- 20 14 or 15 or 16 or 17 or 18 or 19
- 21 limit 20 to (english language and yr="2002 -Current")
- 22 from 21 keep 1-611

Database: PsycINFO

- 1 exp partner abuse/
- 2 exp battered women/
- 3 1 or 2
- 4 exp Domestic Violence/
- 5 exp marriage/
- 6 exp marital status/
- 7 exp cohabitation/
- 8 exp spouses/
- 9 exp couples/
- 10 living arrangements/
- 11 5 or 6 or 7 or 8 or 9 or 10
- 12 4 and 11
- 13 exp Physical Abuse/
- 14 exp Emotional Abuse/
- 15 exp Sexual Abuse/
- 16 13 or 14 or 15
- 17 11 and 16
- 18 3 or 12 or 17
- 19 exp Family Medicine/
- 20 exp Primary Health Care/
- 21 exp General Practitioners/
- 22 exp Family Physicians/
- 23 (primary care or family medicine or family practice or general practice or gp).mp.  
[mp=title, abstract, heading word, table of contents, key concepts]
- 24 exp Emergency Services/



## Appendix B1. Search Strategies

- 25 (emergency or emergencies).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 26 19 or 20 or 21 or 22 or 23
- 27 18 and 26
- 28 24 or 25
- 29 18 and 28
- 30 27 or 29
- 31 limit 30 to yr="2002 -Current"
- 32 from 31 keep 1-148

### Searches for Screening

#### *Domestic*

Database: Ovid MEDLINE(R)

- 1 exp domestic violence/
- 2 exp battered women/
- 3 1 or 2
- 4 exp Mass Screening/
- 5 3 and 4
- 6 screen\$.mp.
- 7 exp questionnaires/
- 8 exp risk assessment/
- 9 exp diagnosis/
- 10 di.fs.
- 11 9 or 10
- 12 7 and 11
- 13 3 and 6
- 14 3 and 8
- 15 3 and 12
- 16 13 or 14 or 15
- 17 limit 16 to (english language and yr="2002 -Current")
- 18 from 17 keep 1-1686

Database: PsycINFO

- 1 exp Domestic Violence/
- 2 exp Screening/
- 3 exp Screening Tests/
- 4 2 or 3
- 5 1 and 4
- 6 screen\$.mp.
- 7 1 and 6
- 8 exp Measurement/
- 9 (diagnos\$ or assess\$ or discover\$ or recogni\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 10 8 and 9

## Appendix B1. Search Strategies

- 11 1 and 10
- 12 5 or 7 or 11
- 13 limit 12 to yr="2002 -Current"
- 14 from 13 keep 1-327

### *Children*

Database: Ovid MEDLINE(R)

- 1 exp Child Abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "all child (0 to 18 years)"
- 4 1 or 3
- 5 exp Schools/
- 6 crime/ or exp crime victims/ or exp homicide/ or exp sex offenses/ or exp violence/
- 7 5 and 6
- 8 limit 7 to "all child (0 to 18 years)"
- 9 4 or 8
- 10 exp Mass Screening/
- 11 9 and 10
- 12 screen\$.mp.
- 13 9 and 12
- 14 exp questionnaires/
- 15 9 and 14
- 16 exp risk assessment/
- 17 9 and 16
- 18 11 or 13
- 19 exp diagnosis/
- 20 di.fs.
- 21 19 or 20
- 22 15 and 21
- 23 17 or 18 or 22
- 24 limit 23 to yr="2002 -Current"
- 25 limit 24 to english language
- 26 from 25 keep 1-1094

Database: PsycINFO

- 1 exp Child Abuse/
- 2 exp Child Neglect/
- 3 1 or 2
- 4 exp Domestic Violence/
- 5 limit 4 to (100 childhood <birth to age 12 yrs> or 200 adolescence <age 13 to 17 yrs>)
- 6 exp Physical Abuse/
- 7 exp Emotional Abuse/
- 8 exp Sexual Abuse/
- 9 6 or 7 or 8
- 10 limit 9 to (100 childhood <birth to age 12 yrs> or 200 adolescence <age 13 to 17 yrs>)

## Appendix B1. Search Strategies

- 11 3 or 5 or 10
- 12 exp Screening/
- 13 exp Screening Tests/
- 14 12 or 13
- 15 11 and 14
- 16 screen\$.mp.
- 17 11 and 16
- 18 15 or 17
- 19 exp Measurement/
- 20 (diagnos\$ or assess\$ or discover\$ or recogni\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 21 19 and 20
- 22 11 and 21
- 23 18 or 22
- 24 limit 23 to yr="2002 -Current"
- 25 limit 24 to english language
- 26 from 25 keep 1-512

### *Elderly*

Database: Ovid MEDLINE(R)

- 1 exp elder abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "all aged (65 and over)"
- 4 1 or 3
- 5 exp residential facilities/
- 6 crime/ or exp crime victims/ or exp homicide/ or exp sex offenses/ or exp violence/
- 7 5 and 6
- 8 limit 7 to "all aged (65 and over)"
- 9 4 or 8
- 10 exp Mass Screening/
- 11 9 and 10
- 12 screen\$.mp.
- 13 9 and 12
- 14 exp questionnaires/
- 15 9 and 14
- 16 exp risk assessment/
- 17 9 and 16
- 18 11 or 13 or 15 or 17
- 19 limit 18 to (english language and yr="2002 -Current")
- 20 from 19 keep 1-412

Database: PsycINFO

- 1 exp elder abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "380 aged <age 65 yrs and older>"
- 4 exp Physical Abuse/

## Appendix B1. Search Strategies

- 5 exp patient abuse/
- 6 exp Emotional Abuse/
- 7 exp Sexual Abuse/
- 8 4 or 5 or 6 or 7
- 9 limit 8 to "380 aged <age 65 yrs and older>"
- 10 1 or 3 or 9
- 11 exp Screening/
- 12 exp Screening Tests/
- 13 11 or 12
- 14 10 and 13
- 15 screen\$.mp.
- 16 10 and 15
- 17 14 or 16
- 18 exp Measurement/
- 19 (diagnos\$ or assess\$ or discover\$ or recogni\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 20 18 and 19
- 21 10 and 20
- 22 17 or 21
- 23 limit 22 to yr="2002 -Current"
- 24 limit 23 to english language
- 25 from 24 keep 1-95

### *Spouse*

Database: Ovid MEDLINE(R)

- 1 Spouse Abuse/
- 2 ((spous\$ or wife or husband or boyfriend\$ or girlfriend\$ or married or marriage\$ or intimate partner\$ or common law or cohabit\$) adj5 (abus\$ or violen\$ or attack\$ or assault\$ or batter\$)).mp.
- 3 exp Mass Screening/
- 4 2 and 3
- 5 screen\$.mp.
- 6 exp questionnaires/
- 7 exp risk assessment/
- 8 exp diagnosis/
- 9 di.fs.
- 10 2 and 5
- 11 2 and 6
- 12 2 and 7
- 13 8 or 9
- 14 11 and 13
- 15 4 or 10 or 12 or 14
- 16 limit 15 to (english language and yr="2002 -Current")
- 17 from 16 keep 1-664

## Appendix B1. Search Strategies

Database: PsycINFO

- 1 exp partner abuse/
- 2 exp battered women/
- 3 1 or 2
- 4 exp Domestic Violence/
- 5 exp marriage/
- 6 exp marital status/
- 7 exp cohabitation/
- 8 exp spouses/
- 9 exp couples/
- 10 living arrangements/
- 11 5 or 6 or 7 or 8 or 9 or 10
- 12 4 and 11
- 13 exp Physical Abuse/
- 14 exp Emotional Abuse/
- 15 exp Sexual Abuse/
- 16 13 or 14 or 15
- 17 11 and 16
- 18 3 or 12 or 17
- 19 exp Screening/
- 20 exp Screening Tests/
- 21 19 or 20
- 22 screen\$.mp.
- 23 exp Measurement/
- 24 (diagnos\$ or assess\$ or discover\$ or recogni\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 25 23 and 24
- 26 18 and 21
- 27 18 and 22
- 28 18 and 25
- 29 26 or 27 or 28
- 30 limit 29 to yr="2002 -Current"
- 31 from 30 keep 1-366

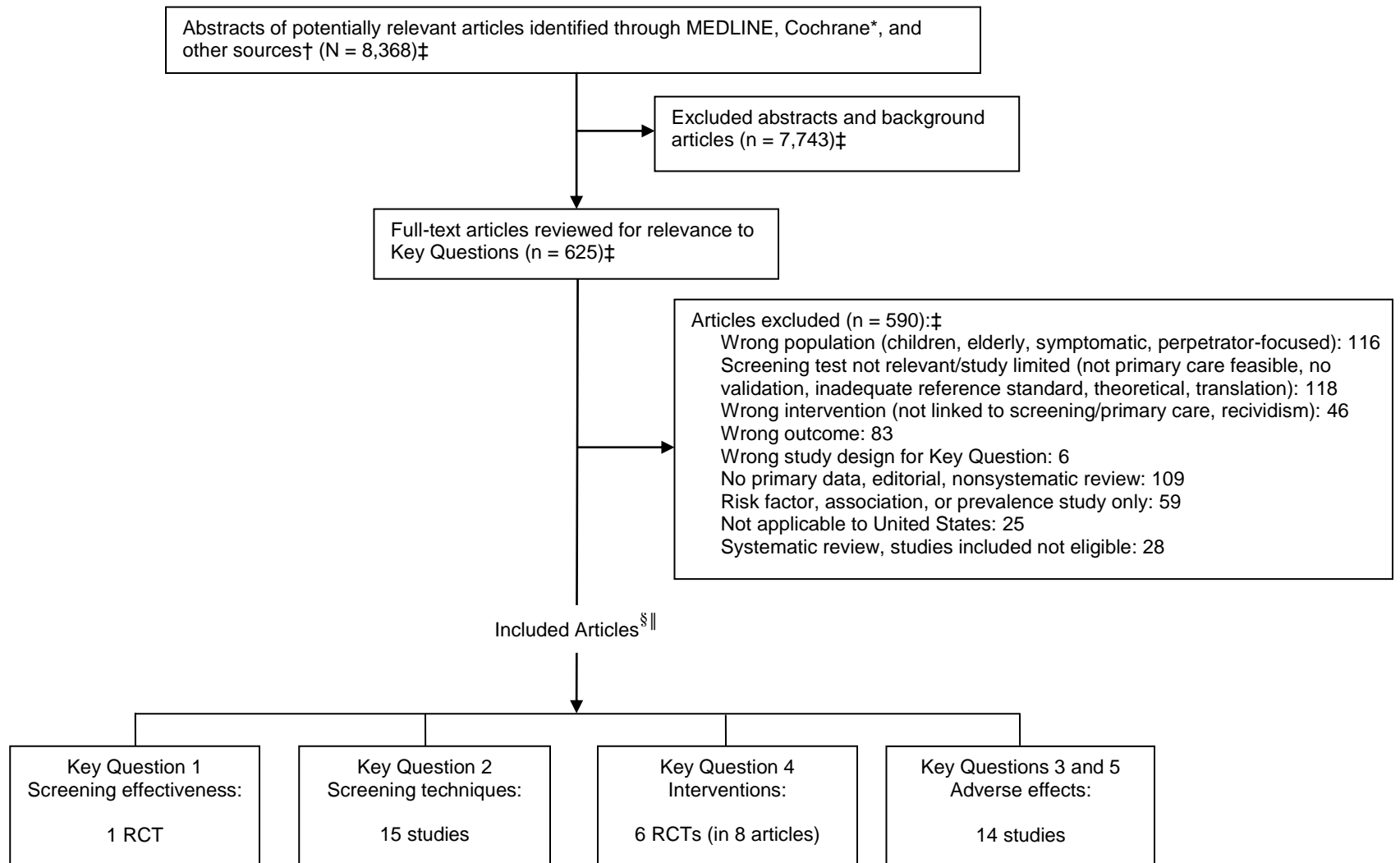
## Appendix B2. Inclusion and Exclusion Criteria

	Inclusion Criteria	Exclusion Criteria
<b>All Key Questions</b>		
Population	Women (age ≥18 years), elderly and vulnerable adult populations, individuals presenting for primary care services.	Symptomatic individuals undergoing diagnostic evaluations for conditions related to violence and abuse (e.g., those presenting with a broken bone or signs of physical abuse in the emergency department).
Languages	Full text published in English.	Not English language.
Settings	Primary care or other settings where primary care services are offered, such as emergency departments, student health centers. Research conducted in the United States or in other populations similar to U.S. populations with services and interventions applicable to U.S. practice.	Nonclinically based settings or nonapplicable settings (e.g., prisons), populations or services/interventions not applicable to U.S. practice.
<b>Key Question 1. Screening</b>		
Screening tests	Screening tests used in or applicable to U.S. primary care settings. These include self-administered, computer-enabled, or patient self-report instruments, as well as clinician-to-patient methods. Instruments may be designed to detect current or past violence or abuse, or risk status for violence or abuse. Instruments must be feasible for use for screening (i.e., brief, easy to interpret, acceptable to patients and clinicians).	Screening tests not used or not applicable to U.S. primary care settings.
Outcomes	Decreasing level of violence or abuse; leaving an unsafe situation; physical trauma (fractures, dislocations, brain injury); sexual trauma, unintended pregnancy, and sexually transmitted diseases; mental trauma; social isolation; mental health repercussions such as depression, anxiety, nightmares; quality of life; and chronic medical conditions, among others.	Screening or referral rates, attitudes about screening, plans or intentions, and other intermediate outcomes.
Study designs	Randomized, controlled trials.	Nonrandomized study designs.
<b>Key Questions 2. Screening tests</b>		
Screening tests	Screening tests used in or applicable to U.S. primary care settings. These include self-administered, computer-enabled, or patient self-report instruments, as well as clinician-to-patient methods. Instruments may be designed to detect current or past violence or abuse, or risk status for violence or abuse. Instruments must be feasible for use for screening (i.e., brief, easy to interpret, acceptable to patients and clinicians). Instrument must be compared with an acceptable reference standard (verified or self-reported abuse or longer validated instrument of abuse).	Screening tests not applicable to U.S. primary care settings. Inadequate or no reference standard comparison.
Outcomes	Sensitivity, specificity, positive and negative predictive values, positive and negative likelihood ratios, diagnostic odds ratios, relative risks for future abuse.	Theory or survey development and validation without correlation to abuse outcomes, focus only on particular risk factors, or assessment of provider or participant attitudes toward the instrument.
Study designs	Studies of diagnostic accuracy.	Other study designs.
<b>Key Question 3. Harms of screening</b>		
Outcomes	False positives, false negatives, any potential effects of screening or identification such as increased abuse.	Outcomes not directly related to the screening process.
Study designs	Any.	All designs considered.

## Appendix B2. Inclusion and Exclusion Criteria

	Inclusion Criteria	Exclusion Criteria
<b>Key Question 4. Interventions</b>		
Interventions	Services that could result from a screening assessment by a clinician; services may be implemented by nonclinicians (e.g., referral).	Public awareness campaigns without specific interventions linked to screening. Studies of other interventions that do not include a health service component (e.g., effectiveness of women’s shelters, unless referred by health clinicians).
Outcomes	Decreasing level of violence or abuse; leaving an unsafe situation; physical trauma (fractures, dislocations, brain injury); sexual trauma, unintended pregnancy, and sexually transmitted diseases; mental trauma; social isolation; mental health repercussions such as depression, anxiety, nightmares; quality of life; and chronic medical conditions, among others.	Screening or referral rates, attitudes about screening, plans or intentions, and other intermediate outcomes.
Study Designs	Randomized, controlled trials.	Nonrandomized study designs.
<b>Key Question 5. Harms of Interventions</b>		
Interventions	Services that could result from a screening assessment by a clinician; services may be implemented by nonclinicians (e.g., referral).	Public awareness campaigns without specific interventions linked to screening. Studies of other interventions that do not include a health service component (e.g., effectiveness of women’s shelters, unless referred by health clinicians).
Outcomes	Any harms that result as an effect of interventions.	Outcomes not directly related to the screening process.
Study Designs	Any.	All designs considered.

## Appendix B3. Literature Flow Diagram



\*Cochrane databases include the Cochrane Central Register of Controlled Trials and the Cochrane Database of Systematic Reviews.

†Identified from reference lists, suggested by experts.

‡Includes search results for child, adult, and elderly populations. Studies of children and elderly populations are included in a separate report.

§Studies that meet inclusion criteria for Key Questions.

|| Some studies apply to more than one Key Question.



## Appendix B4. Excluded Studies

### Wrong Population

- Armstrong KL, Fraser JA, Dadds MR, Morris J. A randomized, controlled trial of nurse home visiting to vulnerable families with newborns. *J Paediatr Child Health*. 1999;35(3):237-44.
- Ayoub CC, Milner JS. Failure to thrive: parental indicators, types, and outcomes. *Child Abuse Negl*. 1985;9(4):491-9.
- Ayranci U, Yenilmez C, Balci Y, Kaptanoglu C. Identification of violence in Turkish health care settings. *J Interpers Violence*. 2006;21(2):276-96.
- Babcock JC, Green CE, Robie C. Does batterers' treatment work? A meta-analytic review of domestic violence treatment. *Clin Psychol Rev*. 2004;23(8):1023-53.
- Barlow J, Davis H, McIntosh E, et al. Role of home visiting in improving parenting and health in families at risk of abuse and neglect: results of a multicentre randomised controlled trial and economic evaluation. *Arch Dis Child*. 2007;92(3):229-33.
- Barth RP. An experimental evaluation of in-home child abuse prevention services. *Child Abuse Negl*. 1991;15(4):363-75.
- Barth RP, Hacking S, Ash JR. Preventing child abuse: an experimental evaluation of the child parent enrichment project. *J Prim Prev*. 1988;8(41):201-17.
- Bowen E, Gilchrist E, Beech AR. Change in treatment has no relationship with subsequent re-offending in U.K. domestic violence sample: a preliminary study. *Int J Offender Ther Comp Criminol*. 2008;52(5):598-614.
- Bradford K. Screening couples for intimate partner violence. *J Fam Psychother*. 2010;21(1):76-82.
- Brownell P, Berman J, Salamone A. Mental health and criminal justice issues among perpetrators of elder abuse. *J Elder Abuse Negl*. 2000;11(4):81-94.
- Bugental DB, Ellerson PC, Lin EK, et al. A cognitive approach to child abuse prevention. *J Fam Psychol*. 2002;16(3):243-58.
- Bugental DB, Schwartz A. A cognitive approach to child mistreatment prevention among medically at-risk infants. *Dev Psychol*. 2009;45(1):284-8.
- Carbone-López K, Kruttschnitt C, Macmillan R. Patterns of intimate partner violence and their associations with physical health, psychological distress, and substance use. *Public Health Rep*. 2006;121(4):382-92.
- Carter-Visscher RM, Naugle AE, Bell KM, Suvak MK. Ethics of asking trauma-related questions and exposing participants to arousal-inducing stimuli. *J Trauma Dissociation*. 2007;8(3):27-55.
- Chaffin M, Funderburk B, Bard D, et al. A combined motivation and parent-child interaction therapy package reduces child welfare recidivism in a randomized dismantling field trial. *J Consult Clin Psychol*. 2011;79(1):84-95.
- Chaffin M, Silovsky JF, Funderburk B, et al. Parent-child interaction therapy with physically abusive parents: efficacy for reducing future abuse reports. *J Consult Clin Psychol*. 2004;72(3):500-10.
- Chaffin M, Valle LA. Dynamic prediction characteristics of the Child Abuse Potential Inventory. *Child Abuse Negl*. 2003;27(5):463-81.
- Chan E, Cavacuiti C. Gay Abuse Screening Protocol (GASP): screening for abuse in gay male relationships. *J Homosex*. 2008;54(4):423-38.

## Appendix B4. Excluded Studies

- Chen W, Balaban R, Stanger V, et al. Suspected child abuse and neglect: assessment in a hospital setting. *Isr Med Assoc J*. 2002;4(8):617-23.
- Connors NA, Whiteside-Mansell L, Deere D, et al. Measuring the potential for child maltreatment: the reliability and validity of the Adult Adolescent Parenting Inventory-2. *Child Abuse Negl*. 2006;30(1):39-53.
- Cooper C, Maxmin K, Selwood A, et al. The sensitivity and specificity of the Modified Conflict Tactics Scale for detecting clinically significant elder abuse. *Int Psychogeriatr*. 2009;21(4):774-8.
- Coulthard P, Yong LS, Adamson L, et al. Domestic violence screening and intervention programmes for adults with dental or facial injury. *Cochrane Database Syst Rev*. 2010;12:CD004486.
- Coulthard P, Yong S, Adamson L, et al. Domestic violence screening and intervention programmes for adults with dental or facial injury. *Cochrane Database Syst Rev*. 2004;2:CD004486.
- DiLillo D, Tremblay GC, et al. Linking childhood sexual abuse and abusive parenting: the mediating role of maternal anger. *Child Abuse Negl*. 2000;24(6):767-79.
- Dubowitz H, Feigelman S, et al. Pediatric primary care to help prevent child maltreatment: the Safe Environment for Every Kid (SEEK) model. *Pediatrics*. 2009;123(3):858-64.
- Duggan KA, McFarlane EC, Windham AM, et al. Evaluation of Hawaii's Healthy Start Program. *Future Child*. 1999;9(1):66-90.
- Duggan A, Caldera D, et al. Impact of a statewide home visiting program to prevent child abuse. *Child Abuse Negl*. 2007;31(8):801-27.
- Duggan A, McFarlane E, et al. Randomized trial of a statewide home visiting program: impact in preventing child abuse and neglect. *Child Abuse Negl*. 2004;28(6):597-622.
- DuMont K, Mitchell-Herzfeld S, et al. Healthy Families New York (HFNY) randomized trial: effects on early child abuse and neglect. *Child Abuse Negl*. 2008;32(3):295-315.
- Easton CJ, Mandel DL, et al. A cognitive behavioral therapy for alcohol-dependent domestic violence offenders: an integrated substance abuse-domestic violence treatment approach (SADV). *Am J Addict*. 2007;16(1):24-31.
- Eckenrode J, Ganzel B, et al. Preventing child abuse and neglect with a program of nurse home visitation: the limiting effects of domestic violence. *JAMA*. 2000;284(11):1385-91.
- El-Mohandes AA, Katz KS, et al. The effect of a parenting education program on the use of preventive pediatric health care services among low-income, minority mothers: a randomized, controlled study. *Pediatrics*. 2003;111(6 Pt 1):1324-32.
- El-Mohandes AA. (2006). A psycho-behavioral intervention on African American pregnant women with a history of intimate partner violence (IPV) improves birth weight distribution of their newborns [abstract]. Proceedings of the 17th Pediatric Academic Societies Annual Meeting; 2006 Apr 29-May 2; San Francisco.
- Feigelman, S., H. Dubowitz, et al. (2009). Screening for harsh punishment in a pediatric primary care clinic. *Child Abuse Negl*. 33(5): 269-277.
- Fergusson DM, Grant H, et al. Randomized trial of the Early Start program of home visitation. *Pediatrics*. 2005;116(6):e803-9.
- Fergusson DM, Grant H, et al. Randomized trial of the Early Start program of home visitation: parent and family outcomes. *Pediatrics*. 2006;117(3):781-6.

## Appendix B4. Excluded Studies

- Fraser JA, Armstrong KL, et al. Home visiting intervention for vulnerable families with newborns: follow-up results of a randomized controlled trial. *Child Abuse Negl.* 2000;24(11):1399-429.
- Friedrich WN, Fisher JL, et al. Child Sexual Behavior Inventory: normative, psychiatric, and sexual abuse comparisons. *Child Maltreat.* 2001;6(1):37-49.
- Gielen AC, O'Campo PJ, et al. Women's opinions about domestic violence screening and mandatory reporting. *Am J Prev Med.* 2000;19(4):279-85.
- Goldbeck L, Laib-Koehnemund A, et al. A randomized controlled trial of consensus-based child abuse case management. *Child Abuse Negl.* 2007;31(9):919-33.
- Grieten, H, Geeraert L, et al. A scale for home visiting nurses to identify risks of physical abuse and neglect among mothers with newborn infants. *Child Abuse Negl.* 2004;28(3):321-37.
- Halpern LR. Orofacial injuries as markers for intimate partner violence. *Oral Maxillofac Surg Clin North Am.* 2010;22(2):239-46.
- Halpern LR, Dodson TB. A predictive model to identify women with injuries related to intimate partner violence. *J Am Dent Assoc.* 2006;137(5):604-9.
- Hardy JB, Streett R. Family support and parenting education in the home: an effective extension of clinic-based preventive health care services for poor children. *J Pediatr.* 1989;115(6):927-31.
- Heckert DA, Gondolf EW. Battered women's perceptions of risk versus risk factors and instruments in predicting repeat reassault. *J Interpers Viol.* 2004;19(7):778-800.
- Helfritsch CA, Beer DW. Use of the FirstSTEp screening tool with children exposed to domestic violence and homelessness: a group case study. *Phys Occup Ther Pediatr.* 2007;27(2):63-76.
- Helmus L, Bourgon G. Taking stock of 15 years of research on the Spousal Assault Risk Assessment Guide (SARA): a critical review. *Int J Forensic Mental Health.* 2011;10(1):64-75.
- Hsieh HF, Wang JJ, et al. Educational support group in changing caregivers' psychological elder abuse behavior toward caring for institutionalized elders. *Adv Health Science Educ Theory Pract.* 2009;14(3):377-86.
- PRAISE Investigators; Bhandari M, et al. Prevalence of Abuse and Intimate Partner Violence Surgical Evaluation (PRAISE): rationale and design of a multi-center cross-sectional study. *BMC Musculoskelet Disord.* 2010;11:77.
- Johnson M, Stone S, et al. (2008). Assessing parent education programs for families involved with child welfare services: evidence and implications. *J Evid Based Soc Work.* 2008;5(1-2):191-236.
- Johnson MA, Stone S, et al. Assessing Parent Education Programs for Families Involved With Child Welfare Services: Evidence and Implications. Berkeley, California: University of California at Berkeley; 2006.
- Jouriles EN, McDonald R, et al. Improving parenting in families referred for child maltreatment: a randomized controlled trial examining effects of Project Support. *J Fam Psychol.* 2010;24(3):328-38.
- Kaye DK, Mirembe FM, et al. Domestic violence during pregnancy and risk of low birthweight and maternal complications: a prospective cohort study at Mulago Hospital, Uganda. *Trop Med Int Health.* 2006;11(10):1576-84.
- Kethineni S, Blimling L, et al. Youth violence: an exploratory study of a treatment program in a central Illinois county. *Int J Offender Ther Comp Criminol.* 2004;48(6):697-720.

## Appendix B4. Excluded Studies

- Kimerling R, Gima K, et al. The Veterans Health Administration and military sexual trauma. *Am J Pub Health*. 2007;97(12):2160-6.
- Kitzman H, Olds DL, et al. Effect of prenatal and infancy home visitation by nurses on pregnancy outcomes, childhood injuries, and repeated childbearing. *JAMA*. 1997;278(8):644-52.
- Koniak-Griffin D, Verzemnieks IL, et al. Nurse visitation for adolescent mothers: two-year infant health and maternal outcomes. *Nurs Res*. 2003;52(2):127-36.
- Koziol-McLain J, Garrett N, et al. A randomized controlled trial of a brief emergency department intimate partner violence screening intervention. *Ann Emerg Med*. 2010;56(4):413-23.
- Kropp P, Gibas A. *The Spousal Assault Risk Assessment Guide (SARA): Handbook of Violence Risk Assessment*. New York: Routledge/Taylor & Francis Group; 2010.
- Krysiak J, LeCroy CW. The evaluation of Healthy Families Arizona: a multisite home visitation program. *J Prev Interv Community*. 2007;34(1-2):109-27.
- Lane WG, Dubowitz H, et al. Screening for occult abdominal trauma in children with suspected physical abuse. *Pediatrics*. 2009;124(6):1595-602.
- Larson CP. Efficacy of prenatal and postpartum home visits on child health and development. *Pediatrics*. 1980;66(2):191-7.
- Lau AS, Weisz JR. Reported maltreatment among clinic-referred children: implications for presenting problems, treatment attrition, and long-term outcomes. *J Am Acad Child Adolesc Psychiatry*. 2003;42(11):1327-34.
- Letarte MJ, Normandeau S, et al. Effectiveness of a parent training program: Incredible Years in a child protection service. *Child Abuse Negl*. 2010;34(4):253-61.
- Lowell DI, Carter AS, et al. A randomized controlled trial of Child FIRST: a comprehensive home-based intervention translating research into early childhood practice. *Child Dev*. 2011;82(1):193-208.
- MacMillan HL, Thomas BH, et al. Effectiveness of home visitation by public-health nurses in prevention of the recurrence of child physical abuse and neglect: a randomised controlled trial. *Lancet*. 2005;365(9473):1786-93.
- Margolis PA, Stevens R, et al. From concept to application: the impact of a community-wide intervention to improve the delivery of preventive services to children. *Pediatrics*. 2001;108(3):E42.
- Martin SL, Young SK, et al. Health care-based interventions for women who have experienced sexual violence: a review of the literature. *Trauma Violence Abuse*. 2007;8(1):3-18.
- McRae RE. *The Treatment of Child Neglect Through a comprehensive Service Strategy Including Home-Based Therapy, Play Therapy, Parent Education, and Parent-Child Interaction Therapy* [dissertation]. San Diego, California: Alliant International University; 2003.
- Miccio-Fonseca L. MEGA: an ecological risk assessment tool of risk and protective factors for assessing sexually abusive children and adolescents. *J Aggress Maltreat Trauma*. 2010;19(7):734-56.
- Mills TJ, Avegno JL, et al. Male victims of partner violence: prevalence and accuracy of screening tools. *J Emerg Med*. 2006;31(4):447-52.
- Milner JS. Medical conditions and Child Abuse Potential Inventory specificity. *Psychol Assess*. 1991;3(2):208-12.

## Appendix B4. Excluded Studies

- Milner JS, Gold RG. Screening spouse abusers for child abuse potential. *J Clin Psychol.* 1986;42(1):169-72.
- Milner JS, Gold RG, et al. Predictive validity of the Child Abuse Potential Inventory. *J Consult Clin Psychol.* 1984;52(5):879-84.
- Moon A, Benton D. Tolerance of elder abuse and attitudes toward third-party intervention among African American, Korean American, and white elderly. *J Multicult Soc Work.* 2000;8(3):283-303.
- Moon A, Evans-Campbell T. Awareness of formal and informal sources of help for victims of elder abuse among Korean American and Caucasian elders in Los Angeles. *J Elder Abuse Negl.* 2000;11(3):1-23.
- Moon A, Lawson K, et al. Elder abuse and neglect among veterans in greater Los Angeles: prevalence, types, and intervention outcomes. *J Gerontol Soc Work.* 2006;46(3-4):187-204.
- Moon A, Tomita SK, et al. Elder mistreatment among four Asian American groups—an exploratory study on tolerance, victim blaming and attitudes toward third-party intervention. *J Gerontol Soc Work.* 2002;36(1):153-69.
- Moss E, Dubois-Comtois K, et al. Efficacy of a home-visiting intervention aimed at improving maternal sensitivity, child attachment, and behavioral outcomes for maltreated children: a randomized control trial. *Dev Psychopathol.* 2011;23(1):195-210.
- Noether CD, Finkelstein N, et al. Design strengths and issues of SAMHSA’s women, co-occurring disorders, and violence study. *Psychiatr Serv.* 2005;56(10):1233-6.
- Olds DL, Henderson CR, et al. Preventing child abuse and neglect: a randomized trial of nurse home visitation. *Pediatrics.* 1986;78(1):65-78.
- Olds DL, Henderson CR, et al. Does prenatal and infancy nurse home visitation have enduring effects on qualities of parental caregiving and child health at 25 to 50 months of life? *Pediatrics.* 1994;93(1):89-98.
- Olds DL, Kitzman H, et al. Effects of nurse home-visiting on maternal life course and child development: age 6 follow-up results of a randomized trial. *Pediatrics.* 2004;114(6):1550-9.
- Olds DL, Kitzman H, et al. Effects of nurse home visiting on maternal and child functioning: age 9 follow-up of a randomized trial. *Pediatrics.* 2007;120(4):e832-45.
- Olds DL, Robinson J, et al. Home visiting by paraprofessionals and by nurses: a randomized, controlled trial. *Pediatrics.* 2002;110(3):486-96.
- Olds DL, Robinson J, et al. Effects of home visits by paraprofessionals and by nurses: age 4 follow-up results of a randomized trial. *Pediatrics.* 2004;114(6):1560-8.
- Ondersma SJ, Chaffin MJ, et al. A brief form of the child abuse potential inventory: development and validation. *J Clin Child Adolesc Psychol.* 2005;34(2):301-11.
- Parish WL, Wang T, et al. Intimate partner violence in China: national prevalence, risk factors and associated health problems. *Int Fam Plan Perspect.* 2004;30(4):174-81.
- Perciaccante VJ, Carey JW, et al. Markers for intimate partner violence in the emergency department setting. *J Oral Maxillofac Surg.* 2010;68(6):1219-24.
- Perciaccante VJ, Susarla SM, et al. Validation of a diagnostic protocol used to identify intimate partner violence in the emergency department setting. *J Oral Maxillofac Surg.* 2010;68(7):1537-42.
- Peters R, Barlow J. Systematic review of instruments designed to predict child maltreatment during the antenatal and postnatal periods. *Child Abuse Rev.* 2003;12(6):416-39.

## Appendix B4. Excluded Studies

- Phillips LR. Domestic violence and aging women. *Geriatr Nurs*. 2000;21(4):188-93.
- Phillips LR. Abuse of aging caregivers: test of a nursing intervention. *Adv Nurs Sci*. 2008;31(2):164-81.
- Reid RJ, Bonomi AE, et al. Intimate partner violence among men: prevalence, chronicity, and health effects. *Am J Prev Med*. 2008;34(6):478-85.
- Salvagni EP, Wagner MB. Development of a questionnaire for the assessment of sexual abuse in children and estimation of its discriminant validity: a case-control study. *J Pediatr (Rio J)*. 2006;82(6):431-6.
- Sanchez Y. Elder mistreatment in Mexican American communities: the Nevada and Michigan experiences. In: Tataro T, ed. *Understanding Elder Abuse in Minority Populations*. Philadelphia: Brunner/Mazel; 1999.
- Shakil A, Donald S, et al. Validation of the HITS domestic violence screening tool with males. *Fam Med*. 2005;37(3):193-8.
- Siegel E, Bauman KE, et al. Hospital and home support during infancy: impact on maternal attachment, child abuse and neglect, and health care utilization. *Pediatrics*. 1980;66(2):183-90.
- Sikkema KJ, Hansen NB, et al. The clinical significance of change in trauma-related symptoms following a pilot group intervention for coping with HIV-AIDS and childhood sexual trauma. *AIDS Behav*. 2004;8(3):277-91.
- Smedslund G, Dalsbo TK, et al. Cognitive behavioural therapy for men who physically abuse their female partner. *Cochrane Database Syst Rev*. 2011;(2):CD006048.
- Starn JR. Community health nursing visits for at-risk women and infants. *J Community Health Nurs*. 1992;9(2):103-10.
- Stevens-Simon C, Nelligan D, et al. Adolescents at risk for mistreating their children, part II: a home- and clinic-based prevention program. *Child Abuse Negl*. 2001;25(6):753-69.
- Stover CS, Poole G, et al. The domestic violence home-visit intervention: impact on police-reported incidents of repeat violence over 12 months. *Violence Vict*. 2009;24(5):591-606.
- Swan SC. A review of research on women's use of violence with male intimate partners. *Violence Vict*. 2008;23(3):301-14.
- Swenson CC, Schaeffer CM, et al. Multisystemic therapy for child abuse and neglect: a randomized effectiveness trial. *J Fam Psychol*. 2010;24(4):497-507.
- Thackeray J, Stelzner S, et al. Screening for intimate partner violence: the impact of screener and screening environment on victim comfort. *J Interpers Violence*. 2007;22(6):659-70.
- Thomas NJ, Shaffer ML, et al. Temporal factors and the incidence of physical abuse in young children: decreased nonaccidental trauma during child abuse prevention month. *J Pediatr Surg*. 2007;42(10):1735-9.
- Waxman HC, Houston WR, et al. The long-term effects of the Houston Child Advocates, Inc., program on children and family outcomes. *Child Welfare*. 2009;88(6):23-46.
- Wherry JN, Graves LE, et al. The convergent validity of the trauma symptom checklist for young children for a sample of sexually abused outpatients. *J Child Sex Abuse*. 2008;17(1):38-50.
- Williams KR, Grant SR. Empirically examining the risk of intimate partner violence: the revised Domestic Violence Screening Instrument (DVSI-R). *Pub Health Rep*. 2006;121(4):400-8.
- Williams TL. *The Development and Validation of a Multi-Dimensional Assessment Instrument of Child Sexual Abuse Experiences [dissertation]*. College Station, TX: Texas A&M University; 2002.

## Appendix B4. Excluded Studies

- Woodman J, Pitt M, et al. Performance of screening tests for child physical abuse in accident and emergency departments. *Health Technol Assess.* 2008;12(33):1-95.
- Wu V, Huff H, et al. Pattern of physical injury associated with intimate partner violence in women presenting to the emergency department: a systematic review and meta-analysis. *Trauma Violence Abuse.* 2010;11(2):71-82.
- Yaffe MJ, Wolfson C, et al. Development and validation of a tool to improve physician identification of elder abuse: the Elder Abuse Suspicion Index (EASI). *J Elder Abuse Negl.* 2008;20(3):276-300.
- Zink T, Klesges LM, et al. Abuse behavior inventory: cutpoint, validity, and characterization of discrepancies. *J Interpers Violence.* 2007;22(7):921-931.
- Zun LS, Downey L, et al. The effectiveness of an ED-based violence prevention program. *Am J Emerg Med.* 2006;24(1):8-13.

### Issue With Screening Test

- Ahmad F. Computer-Assisted Screening for Intimate Partner Violence in Family Practice. Toronto: University of Toronto; 2007.
- Ahmad F, Hogg-Johnson S, Stewart DE, et al. Computer-assisted screening for intimate partner violence and control: a randomized trial. *Ann Intern Med.* 2009;151(2):93-102.
- Anderson BA, Marshak HH, et al. Identifying intimate partner violence at entry to prenatal care: clustering routine clinical information. *J Midwifery Womens Health.* 2002;47(5):353-359.
- Ast E. The Development and Validation of the Ast Physical Discipline Inventory–2006 (ADPI). Fresno, California: Alliant International University; 2007.
- Bair-Merritt MH, Jennings JM, et al. Screening for domestic violence and childhood exposure in families seeking care at an urban pediatric clinic. *J Pediatr.* 2008;152(5):734-736.
- Begun AL, Brondino MJ, et al. The revised Safe At Home instrument for assessing readiness to change intimate partner violence. In: Murphy CM, Maiuro RD, eds. *Motivational Interviewing and Stages of Change in Intimate Partner Violence.* New York: Springer; 2009.
- Begun AL, Murphy C, et al. Characteristics of the Safe at Home instrument for assessing readiness to change intimate partner violence. *Res Soc Work Pract.* 2003;13(1):80-107.
- Berk RA, He Y, et al. Developing a practical forecasting screener for domestic violence incidents. *Eval Rev.* 2005;29(4):358-83.
- Bifulco A, Bernazzani O, et al. The childhood experience of care and abuse questionnaire (CECA.Q): validation in a community series. *Br J Clin Psychol.* 2005;44(Pt 4):563-581.
- Bonomi AE, Thompson RS, et al. Ascertainment of intimate partner violence using two abuse measurement frameworks. *Injury Prev.* 2006;12(2):121-124.
- Bremner J, Bolus R, et al. Psychometric properties of the Early Trauma Inventory-Self-Report. *J Nerv Ment Dis.* 2007;195(3):211-218.
- Campbell JC, Webster D, et al. The danger assessment: validation of a lethality risk assessment instrument for intimate partner femicide. *J Interpers Violence.* 2009;24(4):653-74.
- Carr GD, Moretti MM, et al. Evaluating parenting capacity: validity problems with the MMPI-2, PAI, CAPI, and ratings of child adjustment. *Prof Psychol Res Pract.* 2005;36(2):188-196.
- Carroll JC, Reid AJ, et al. Effectiveness of the Antenatal Psychosocial Health Assessment (ALPHA) form in detecting psychosocial concerns: a randomized controlled trial. *Can Med Assoc J.* 2005;173(3):253-259.

## Appendix B4. Excluded Studies

- Cerezo MA, Pons-Salvador G. Improving child maltreatment detection systems: a large-scale case study involving health, social services, and school professionals. *Child Abuse Negl.* 2004;28(11):1153-1169.
- Chang DC, Knight VM, et al. The multi-institutional validation of the new screening index for physical child abuse. *J Pediatr Surg.* 2005;40(1):114-119.
- Colarossi LG, Breitbart V, et al. Screening for intimate partner violence in reproductive health centers: an evaluation study. *Women Health.* 2010;50(4):313-326.
- Conrad KJ, Iris M, et al. Self-report measure of financial exploitation of older adults. *Gerontologist.* 2010;50(6):758-773.
- Cooper C, Manela M, et al. Screening for elder abuse in dementia in the LASER-AD study: prevalence, correlates and validation of instruments. *Int J Geriatr Psychiatr.* 2008;23(3):283-8.
- Curry MA, Powers LE, et al. Development of an abuse screening tool for women with disabilities. *J Aggress Maltreat Trauma.* 2003;8(4):123-41.
- Curry M, Renker P, et al. Development of measures of abuse among women with disabilities and the characteristics of their perpetrators. *Violence Against Women.* 2009;15(9):1001-25.
- Datner EM, Wiebe DJ, et al. Identifying pregnant women experiencing domestic violence in an urban emergency department. *J Interpers Violence.* 2007;22(1):124-135.
- Davis RC, Taylor BG. A proactive response to family violence: the results of a randomized experiment. *Criminology.* 1997;35(2):307-333.
- Dienemann J, Glass N, et al. The Domestic Violence Survivor Assessment (DVSA): a tool for individual counseling with women experiencing intimate partner violence. *Issues Mental Health Nurs.* 2007;28(8):913-925.
- DiLillo D, Hayes-Skelton SA, et al. Development and initial psychometric properties of the Computer Assisted Maltreatment Inventory (CAMI): a comprehensive self-report measure of child maltreatment history. *Child Abuse Negl.* 2010;34(5):305-314.
- Elzevier HW, Voorham-van der Zalm PJ, et al. How reliable is a self-administered questionnaire in detecting sexual abuse: a retrospective study in patients with pelvic-floor complaints and a review of literature. *J Sex Med.* 2007;4(4 Pt 1):956-963.
- Erlingsson CL, Carlson SL, et al. Elder abuse risk indicators and screening questions: results from a literature search and a panel of experts from developed and developing countries. *J Elder Abuse Negl.* 2003;15(3-4):185-203.
- Falk DR, Shepard MF, et al. Evaluation of a domestic violence assessment protocol used by employee assistance counselors. *Employee Assistance Quarterly.* 2002;17(3):1-15.
- Fogarty CT, Brown JB. Screening for abuse in Spanish-speaking women. *J Am Board Fam Pract.* 2002;15(2):101-111.
- Fricker AE, Smith DW, et al. Effects of context and question type on endorsement of childhood sexual abuse. *J Trauma Stress.* 2003;16(3):265-268.
- Fulmer T, Paveza G, et al. Neglect assessment in urban emergency departments and confirmation by an expert clinical team. *J Gerontol Biol Sci Med Sci.* 2005;60(8):102-1006.
- Gagnon AJ, Tuck J, et al. A systematic review of questionnaires measuring the health of resettling refugee women. *Health Care Women Int.* 2004;25(2):111-149.
- Goetz AT, Shackelford TK, et al. Adding insult to injury: development and initial validation of the partner-directed insults scale. *Violence Vict.* 2006;21(6):691-706.
- Gully KJ. Expectations test: trauma scales for sexual abuse, physical abuse, exposure to family violence, and posttraumatic stress. *Child Maltreat.* 2003;8(3):218-229.



## Appendix B4. Excluded Studies

- Halpern LR, Parry BA, et al. A comparison of 2 protocols to detect intimate partner violence. *J Oral Maxillofac Surg.* 2009;67(7):1453-1459.
- Halpern LR, Perciaccante VJ, et al. A protocol to diagnose intimate partner violence in the emergency department. *J Trauma Injury Infect Crit Care.* 2006;60(5):1101-1105.
- Halpern LR, Susarla SM, et al. Injury location and screening questionnaires as markers for intimate partner violence. *J Oral Maxillofac Surg.* 2005;63(9):1255-1261.
- Hamby S, Sugarman DB, et al. Does questionnaire format impact reported partner violence rates? An experimental study. *Violence Vict.* 2006;21(4):507-518.
- Harrington D, Zuravin S, et al. The Neglect Scale: confirmatory factor analyses in a low-income sample. *Child Maltreat.* 2002;7(4):359-368.
- Hegarty K, Bush R, et al. The Composite Abuse Scale: further development and assessment of reliability and validity of a multidimensional partner abuse measure in clinical settings. *Violence Vict.* 2005;20(5):529-547.
- Heinzer MM, Krimm JR. Barriers to screening for domestic violence in an emergency department. *Holist Nurs Pract.* 2002;16(3):24-33.
- Heron SL, Thompson MP, et al. Do responses to an intimate partner violence screen predict scores on a comprehensive measure of intimate partner violence in low-income black women? *Ann Emerg Med.* 2003;42(4):483-491.
- Hewitt LN, Bhavsar P, et al. The secrets women keep: intimate partner violence screening in the female trauma patient. *J Trauma Injury Infect Crit Care.* 2011;70(2):320-323.
- Holtrop TG, Fischer H, et al. Screening for domestic violence in a general pediatric clinic: be prepared! *Pediatrics.* 2004;114(5):1253-1257.
- Houry D, Kemball RS, et al. Development of a brief mental health screen for intimate partner violence victims in the emergency department. *Acad Emerg Med.* 2007;14(3):202-209.
- Hymel KP, Stoiko MA, et al. Head injury depth as an indicator of causes and mechanisms. *Pediatrics.* 2010;125(4):712-720.
- Irizarry-Irizarry A. Development and validation of a questionnaire about the attitude and exposure of aged-Puerto Ricans to abuse and neglect. *P R Health Sci J.* 2008;27:129-33.
- Jones C, Bonner M. Screening for domestic violence in an antenatal clinic. *Aust J Midwifery.* 2002;15(1):14-20.
- Jones S, Davidson WS 2nd, et al. Validation of the subtle and overt psychological abuse scale: an examination of construct validity. *Violence Vict.* 2005;20(4):407-416.
- Jory B. The Intimate Justice Scale: an instrument to screen for psychological abuse and physical violence in clinical practice. *J Marital Fam Ther.* 2004;30(1):29-44.
- Kantor GK, Holt MK, et al. Development and preliminary psychometric properties of the Multidimensional Neglectful Behavior Scale-Child Report. *Child Maltreat.* 2004;9:409-28.
- Kataoka Y, Yaju Y, et al. Self-administered questionnaire versus interview as a screening method for intimate partner violence in the prenatal setting in Japan: a randomised controlled trial. *BMC Pregnancy Childbirth.* 2010;10:84.
- Kearney MH, Haggerty LA, et al. Birth outcomes and maternal morbidity in abused pregnant women with public versus private health insurance. *J Nurs Scholarsh.* 2003;35(4):345-9.
- Kilpatrick KL. The parental empathy measure: a new approach to assessing child maltreatment risk. *Am J Orthopsychiatr.* 2005;75(4):608-620.
- Koenig LJ, Whitaker DJ, et al. Violence during pregnancy among women with or at risk for HIV infection. *Am J Pub Health.* 2002;92(3):367-370.

## Appendix B4. Excluded Studies

- Kropp P. Development of the Spousal Assault Risk Assessment Guide (SARA) and the Brief Spousal Assault Form for the Evaluation of Risk (B-SAFER). In: Baldry AC, Winkel FW, eds. *Intimate Partner Violence Prevention and Intervention: The Risk Assessment and Management Approach*. Hauppauge, NY: Nova Science Publishers; 2008.
- Lam WK, Fals-Stewart W, et al. The timeline followback interview to assess children's exposure to partner violence: reliability and validity. *J Fam Violence*. 2009;24(2):133-143.
- Lewis-O'Connor A. *When push comes to shove: screening mothers for intimate partner violence during a pediatric visit*. Boston: Boston College; 2008.
- Lounds JJ, Borkowski JG, et al. Reliability and validity of the Mother-Child Neglect Scale. *Child Maltreat*. 2004;9(4):371-381.
- Lutz KF. Living two lives: a grounded theory of abuse during pregnancy. *Comm Nurs Res*. 2004;37:101-109.
- McClennen JC, Summers AB, et al. The Lesbian Partner Abuse Scale. *Res Social Work Pract*. 2002;12(2):277-292.
- McFarlane J, Greenberg L, et al. Identification of abuse in emergency departments: effectiveness of a two-question screening tool. *J Emerg Nurs*. 1995;21(5):391-394.
- McFarlane J, Hughes R, et al. Abuse Assessment Screen-Disability (AAS-D): measuring frequency, type, and perpetrator of abuse toward women with physical disabilities. *J Womens Health Gender Based Med*. 2001;10:861-866.
- McWhinney-Dehaney L. *The Development and Psychometric Testing of the Risk for Abuse Assessment Scale and the Abuse Assessment Tool for Use in Jamaican Women*. Atlanta: Emory University; 2007.
- Melchert TP, Kalemeera A. A brief version of the Family Background Questionnaire. *Meas Eval Couns Dev*. 2009;41(4):210-222.
- Midmer D, Bryanton J, et al. Assessing antenatal psychosocial health: randomized controlled trial of two versions of the ALPHA form. *Can Fam Physician*. 2004;50:80-87.
- Moran PM, Bifulco A, et al. Exploring psychological abuse in childhood, I: developing a new interview scale. *Bull Menninger Clin*. 2002;66(3):213-240.
- Murphy S, Orkow B, et al. Prenatal prediction of child abuse and neglect: a prospective study. *Child Abuse Negl*. 1985;9(2):225-235.
- Naik AD, Teal CR, et al. Conceptual challenges and practical approaches to screening capacity for self-care and protection in vulnerable older adults. *J Am Geriatr Soc*. 2008;56(Suppl 2):S266-70.
- Nilsson D, Wadsby M, et al. The psychometric properties of the Trauma Symptom Checklist for Children (TSCC) in a sample of Swedish children. *Child Abuse Negl*. 2008;32(6):627-36.
- Nusbaum N, Cheung V, et al. Role of first responders in detecting and evaluating elders at risk. *Arch Gerontol Geriatr*. 2006;43(3):361-367.
- Paivio SC, Cramer KM. Factor structure and reliability of the Childhood Trauma Questionnaire in a Canadian undergraduate student sample. *Child Abuse Negl*. 2004;28(8):889-904.
- Paranjape A, Rodriguez M, et al. Psychometric properties of a new scale to assess family violence in older African American women: the Family Violence Against Older Women (FVOW) Scale. *Violence Against Women*. 2009;15(10):1213-1226.
- Parkinson GW, Adams RC, et al. Maternal domestic violence screening in an office-based pediatric practice. *Pediatrics*. 2001;108(3):1-9.
- Peterson L, Tremblay G, et al. The parental daily diary: a sensitive measure of the process of change in a child maltreatment prevention program. *Behav Modifi*. 2002;26(5):627-47.

## Appendix B4. Excluded Studies

- Pierce MC, Kaczor K, et al. Bruising characteristics discriminating physical child abuse from accidental trauma. *Pediatrics*. 2010;125(1):67-74.
- Plazaola-Castano J, Ruiz-Perez I, et al. Validation of the Spanish version of the Index of Spouse Abuse. *J Womens Health*. 2009;18(4):499-506.
- Pless IB, Sibald AD, et al. A reappraisal of the frequency of child abuse seen in pediatric emergency rooms. *Child Abuse Negl*. 1987;11(2):193-200.
- Powers LE, Renker P, et al. Interpersonal violence and women with disabilities: analysis of safety promoting behaviors. *Violence Against Women*. 2009;15(9):1040-1069.
- Prosser LA, Corso PS. Measuring health-related quality of life for child maltreatment: a systematic literature review. *Health Qual Life Outcomes*. 2007;5:42.
- Ramirez IL, Straus MA. The effect of question order on disclosure of intimate partner violence: an experimental test using the Conflict Tactics Scales. *J Fam Violence*. 2006;21(1):1-9.
- Regan KV, Bartholomew K, et al. Measuring physical violence in male same-sex relationships: an item response theory analysis of the Conflict Tactics Scales. *J Interpers Violence*. 2002;17(3):235-252.
- Reichenheim ME, Klein R, et al. Assessing the physical violence component of the Revised Conflict Tactics Scales when used in heterosexual couples: an item response theory analysis. *Cad Saude Publica*. 2007;23(1):53-62.
- Reichenheim ME, Moraes CL. Psychometric properties of the Portuguese version of the Conflict Tactics Scales Parent-Child Version (CTSPC) used to identify child abuse. *Cad Saude Publica*. 2006;22(3):503-515.
- Renker PR, Tonkin P. Postpartum women's evaluations of an audio/video computer-assisted perinatal violence screen. *Comput Inform Nurs*. 2007;25(3):139-47.
- Rickert VI, Davison LL, et al. A randomized trial of screening for relationship violence in young women. *J Adolesc Health*. 2009;45(2):163-170.
- Robertson KR, Milner JS. Construct validity of the Child Abuse Potential Inventory. *J Clin Psychol*. 1983;39(3):426-429.
- Russell BS. Revisiting the measurement of shaken baby syndrome awareness. *Child Abuse Negl*. 2010;34(9):671-676.
- Scafidi EC. Understanding partner psychological abuse and depressive symptoms: a new measure and a new theoretical model. New Brunswick, NJ: Rutgers, The State University of New Jersey; 2007.
- Schafer SD, Drach LL, et al. Using diagnostic codes to screen for intimate partner violence in Oregon emergency departments and hospitals. *Pub Health Rep*. 2008;123(5):628-635.
- Schofield MJ, Mishra GD. Validity of self-report screening scale for elder abuse: Women's Health Australia Study. *Gerontologist*. 2003;43(1):110-120.
- Schofield MJ, Reynolds R, et al. Screening for vulnerability to abuse among older women: Women's Health Australia Study. *J Appl Gerontol*. 2002;21(1):24-39.
- Schwartz L, Jensen MP, et al. The development and psychometric evaluation of an instrument to assess spouse responses to pain and well behavior in patients with chronic pain: the Spouse Response Inventory. *J Pain*. 2005;6(4):243-252.
- Shackelford TK, Goetz AT. Men's sexual coercion in intimate relationships: development and initial validation of the Sexual Coercion in Intimate Relationships Scale. *Violence Vict*. 2004;19(5):541-556.

## Appendix B4. Excluded Studies

- Shaffer A, Huston L, et al. Identification of child maltreatment using prospective and self-report methodologies: a comparison of maltreatment incidence and relation to later psychopathology. *Child Abuse Negl.* 2008;32(7):682-692.
- Short LM, Rodriguez R. Testing an intimate partner violence assessment icon form with battered migrant and seasonal farmworker women. *Women Health.* 2002;35(2-3):181-192.
- Slep AM, Heyman RE. Severity of partner and child maltreatment: reliability of scales used in America's largest child and family protection agency. *J Fam Violence.* 2004;19:95-106.
- Sprecher AG, Muelleman RL, et al. A neural network model analysis to identify victims of intimate partner violence. *Am J Emerg Med.* 2004;22(2):87-89.
- Stappenbeck CA, Fals-Stewart W. Measuring intimate partner violence: a comparison of the Conflict Tactics Scale and the Timeline Followback Spousal Violence Interview. In: Morgan JP, ed. Focus on Aggression Research. Hauppauge, NY: Nova Science; 2004.
- Straus MA, Douglas EM. A short form of the Revised Conflict Tactics Scales, and typologies for severity and mutuality. *Violence Vict.* 2004;19(5):507-520.
- Svavarsdottir EK. Detecting intimate partner abuse within clinical settings: self-report or an interview. *Scand J Caring Sci.* 2010;24(2):224-232.
- Thombs BD. Measurement Invariance of the Childhood Trauma Questionnaire Across Gender and Race/Ethnicity: Applications of Structural Equation Modeling and Item Response Theory (TEXAS). New York: Fordham University; 2005.
- Thombs BD, Bernstein DP, et al. A validation study of the Dutch Childhood Trauma Questionnaire-Short Form: factor structure, reliability, and known-groups validity. *Child Abuse Negl.* 2009;33(8):518-523.
- Thombs BD, Bernstein DP, et al. An evaluation of screening questions for childhood abuse in 2 community samples: implications for clinical practice. *Arch Intern Med.* 2006;166(18):2020-2026.
- Tilden VP, Shepherd P. Increasing the rate of identification of battered women in an emergency department: use of a nursing protocol. *Res Nurs Health.* 1987;10(4):209-224.
- Torres A, Navarro P, et al. Detecting domestic violence: Spanish external validation of the Index of Spouse Abuse. *J Fam Violence.* 2010;25(3):275-286.
- Trautman DE, McCarthy ML, et al. Intimate partner violence and emergency department screening: computerized screening versus usual care. *Ann Emerg Med.* 2007;49:526-34.
- Uchison TJ. Using the CBCL to Screen for Maltreatment in Young Children. Keene, NH: Antioch University New England; 2007.
- Vega EM, O'Leary KD. Reaction time and item presentation factors in the self-report of partner aggression. *Violence Vict.* 2006;96(4):519-532.
- Veltman MW, Browne KD. Identifying abused children using assessments and observations in the classroom: a preliminary study. *Child Abuse Rev.* 2003;12(5):315-334.
- Vivilaki VG, Dafermos V, et al. Identifying intimate partner violence during the postpartum period in a Greek sample. *Arch Womens Mental Health.* 2010;13(6):467-476.
- Wahl RA, Sisk DJ, et al. Clinic-based screening for domestic violence: use of a child safety questionnaire. *BMC Med.* 2004;2:25.
- Waller A, Hohenhaus S, et al. Development and validation of an emergency department screening and referral protocol for victims of domestic violence. *Ann Emerg Med.* 1996;27(6):754-760.

## Appendix B4. Excluded Studies

- Walsh CA, MacMillan HL, et al. Measurement of victimization in adolescence: development and validation of the Childhood Experiences of Violence Questionnaire. *Child Abuse Negl.* 2008;32(11):1037-1057.
- Webster J, Holt V. Screening for partner violence: direct questioning or self-report? *Obstet Gynecol.* 2004;103(2):299-303.
- Wrangle J, Fisher JW, et al. Ha sentido sola? Culturally competent screening for intimate partner violence in Latina women. *J Womens Health.* 2008;17(2):261-268.

### Wrong Intervention

- Acierno R, Resnick H, et al. Assessing elder victimization—demonstration of a methodology. *Soc Psychiatry Psychiatr Epidemiol.* 2003;38(11):644-653.
- Backos AK. Indicators of PTSD in the Draw-a-Person and Kinetic Family Drawing With Mothers and Children Exposed to Domestic Violence. San Francisco: Alliant International University; 2010.
- Baird S, Jenkins SR. Vicarious traumatization, secondary traumatic stress, and burnout in sexual assault and domestic violence agency staff. *Violence Vict.* 2003;18(1):71-86.
- Barlow J, Smailagic N, et al. Individual and group based parenting programmes for improving psychosocial outcomes for teenage parents and their children. *Cochrane Database Syst Rev.* 2011;(5):CD002964.
- Bennett L, Riger S, et al. Effectiveness of hotline, advocacy, counseling, and shelter services for victims of domestic violence: a statewide evaluation. *J Interpers Violence.* 2004;19:815-29.
- Berk RA, Campbell A, et al. The deterrent effect of arrest in incidents of domestic violence: a Bayesian analysis of four field experiments. *Am Sociol Rev.* 1992;57(5):698-708.
- Berzin SC, Cohen E, et al. Does family group decision making affect child welfare outcomes? Findings from a randomized control study. *Child Welfare.* 2008;87(4):35-54.
- Brown SD. An Investigation of Trauma Symptom Reduction in a Clinical Sample of Sexually Abused Children Using the Trauma Symptom Checklist for Children. Atlanta: Georgia State University; 2008.
- Calderon SH, Gilbert P, et al. Cueing prenatal providers effects on discussions of intimate partner violence. *Am J Prev Med.* 2008;34(2):134-137.
- Campbell JC, Coben JH, et al. An evaluation of a system-change training model to improve emergency department response to battered women. *Acad Emerg Med.* 2001;8(2):131-8.
- Cohen JA, Mannarino AP, et al. Treating sexually abused children: 1 year follow-up of a randomized controlled trial. *Child Abuse Negl.* 2005;29(2):135-145.
- Conley A, Berrick JD. Community-based child abuse prevention: outcomes associated with a differential response program in California. *Child Maltreat.* 2010;15(4):282-292.
- Fanslow JL, Norton RN, et al. Outcome evaluation of an emergency department protocol of care on partner abuse. *Aust N Z J Pub Health.* 1998;22(5):598-603.
- Finkelhor D. Prevention of sexual abuse through educational programs directed toward children. *Pediatrics.* 2007;120(3):640-645.
- Gomez-Beloz A, Williams MA, et al. Intimate partner violence and risk for depression among postpartum women in Lima, Peru. *Violence Vict.* 2009;24(3):380-398.
- Lefever JB, Howard KS, et al. Cell phones and the measurement of child neglect: the validity of the Parent-Child Activities Interview. *Child Maltreat.* 2008;13(4):320-333.

## Appendix B4. Excluded Studies

- Lobbestael J, Arntz A, et al. Development and psychometric evaluation of a new assessment method for childhood maltreatment experiences: the Interview for Traumatic Events in Childhood (ITEC). *Child Abuse Negl.* 2009;33(8):505-517.
- Madera SR, Toro-Alfonso J. Description of a domestic violence measure for Puerto Rican gay males. *J Homosex.* 2005;50(1):155-173.
- McColgan MD, Cruz M, et al. Results of a multifaceted intimate partner violence training program for pediatric residents. *Child Abuse Negl.* 2010;34(4):275-283.
- McFarlane J, Malecha A, et al. Protection orders and intimate partner violence: an 18-month study of 150 black, Hispanic, and white women. *Am J Pub Health.* 2004;94(4):613-618.
- McFarlane JM, Groff JY, et al. Behaviors of children exposed to intimate partner violence before and 1 year after a treatment program for their mother. *Appl Nurs Res.* 2005;18(1):7-12.
- McFarlane JM, Groff JY, et al. Behaviors of children following a randomized controlled treatment program for their abused mothers. *Issues Compr Pediatr Nurs.* 2005;28(4):195-211.
- McWhirter PT. Differential therapeutic outcomes of community-based group interventions for women and children exposed to intimate partner violence. *J Interpers Violence.* 2011;26(12):2457-2482.
- Nagle GA. Maternal Participation, Depression and Partner Violence in a State Run Child Abuse Prevention Program: Louisiana Nurse Home Visitation 1999-2002. New Orleans: Tulane University; 2002.
- Nucero P, O'Connor P. Identification of domestic violence in the emergency department. *N J Nurse.* 2002;32(7):15.
- Padala P, Madison J, et al. Risperidone monotherapy for post-traumatic stress disorder related to sexual assault and domestic abuse in women. *Int Clin Psychopharmacol.* 2006;21:275-80.
- Palmer S, Stalker CA, et al. Balancing positive outcomes with vicarious traumatization: participants' experiences with group treatment for long-term effects of childhood abuse. *Soc Work Groups.* 2007;30(4):59-77.
- Reich DB, Winternitz S, et al. A preliminary study of risperidone in the treatment of posttraumatic stress disorder related to childhood abuse in women. *J Clin Psychiatry.* 2004;65(12):1601-1606.
- Resick PA, Nishith P, et al. How well does cognitive-behavioral therapy treat symptoms of complex PTSD? An examination of child sexual abuse survivors within a clinical trial. *CNS Spectr.* 2003;8(5):340-355.
- Ruch LO, Wang CH. Validation of the Sexual Assault Symptom Scale II (SASS II) using a panel research design. *J Interpers Violence.* 2006;21(11):1440-1461.
- Schultz PN, Remick-Barlow GA, et al. Equine-assisted psychotherapy: a mental health promotion/intervention modality for children who have experienced intra-family violence. *Health Soc Care Community.* 2007;15(3):265-271.
- Short LM, Alpert E, et al. A tool for measuring physician readiness to manage intimate partner violence. *Am J Prev Med.* 2006;30(2):173-180.
- Short LM, Hadley SM, et al. Assessing the success of the WomanKind program: an integrated model of 24-hour health care response to domestic violence. *Women Health.* 2002;35(2-3):101-119.

## Appendix B4. Excluded Studies

- Sikkema KJ, Hansen NB, et al. Outcomes from a group intervention for coping with HIV/AIDS and childhood sexual abuse: reductions in traumatic stress. *AIDS Behav.* 2007;11(1):49-60.
- Simpson LE, Atkins DC, et al. Low-level relationship aggression and couple therapy outcomes. *J Fam Psychol.* 2008;22(1):102-111.
- Smith N, Lam D, et al. Childhood experience of care and abuse questionnaire (CECA.Q): validation of a screening instrument for childhood adversity in clinical populations. *Soc Psychiatry Psychiatr Epidemiol.* 2002;37(12):572-579.
- Stader SR, Holmes GR, et al. Comparison of scores for abused and nonabused young adults on the Psychological Trauma and Resources Scale. *Psychol Rep.* 2004;94(2):687-693.
- Thomas R, Zimmer-Gembeck MJ. Accumulating evidence for parent-child interaction therapy in the prevention of child maltreatment. *Child Dev.* 2011;82(1):177-192.
- Timmer SG, Urquiza AJ, et al. Parent-child interaction therapy: application to maltreating parent-child dyads. *Child Abuse Negl.* 2005;29(7):825-842.
- Tourigny M, Hebert M, et al. Efficacy of a group therapy for sexually abused adolescent girls. *J Child Sex Abuse.* 2005;14(4):71-93.
- Vreeman RC, Carroll AE. A systematic review of school-based interventions to prevent bullying. *Arch Pediatr Adolesc Med.* 2007;161(1):78-88.
- Wallis DA. Reduction of trauma symptoms following group therapy. *Aust N Z J Psychiatry.* 2002;36(1):67-74.
- Wolfe DA, Crooks C, et al. A school-based program to prevent adolescent dating violence: a cluster randomized trial. *Arch Pediatr Adolesc Med.* 2009;163(8):692-699.
- Wright DC, Woo WL, et al. An investigation of trauma-centered inpatient treatment for adult survivors of abuse. *Child Abuse Negl.* 2003;27(4):393-406.
- Yoshihama M, Clum K, et al. Measuring the lifetime experience of domestic violence: application of the life history calendar method. *Violence Vict.* 2002;17(3):297-317.
- Young CA, Douglass JP. Use of, and outputs from, an assault patient questionnaire within accident and emergency departments on Merseyside. *Emerg Med J.* 2003;20(3):232-237.

## Wrong Outcome

- Bair-Merritt MH, Feudtner C, et al. Screening for intimate partner violence using an audiotape questionnaire: a randomized clinical trial in a pediatric emergency department. *Arch Pediatr Adolesc Med.* 2006;160(3):311-316.
- Barr R, Barr M, et al. Do educational materials change knowledge and behavior about crying and shaken baby syndrome? A randomized controlled trial. *Can Med Assoc J.* 2009;180:727-733.
- Blackmore ER, Carroll J, et al. The use of the Antenatal Psychosocial Health Assessment (ALPHA) tool in the detection of psychosocial risk factors for postpartum depression: a randomized controlled trial. *J Obstet Gynaecol Can.* 2006;28(10):873-878.
- Bonds DE, Ellis SD, et al. Patient attitudes toward screening. *N C Med J.* 2007;68(1):23-29.
- Bullock LF, Browning C, et al. Telephone social support for low-income pregnant women. *J Obstet Gynecol Neonat Nurs.* 2002;31(6):658-664.
- Cattaneo LB, Bell ME, et al. Intimate partner violence victims' accuracy in assessing their risk of re-abuse. *J Fam Violence.* 2007;22(6):429-440.

## Appendix B4. Excluded Studies

- Chen PH, Rovi S, et al. Randomized comparison of 3 methods to screen for domestic violence in family practice. *Ann Fam Med*. 2007;5(5):430-435.
- Connors NA, Whiteside-Mansell L, et al. Measuring the potential for child maltreatment: the reliability and validity of the Adult Adolescent Parenting Inventory–2. *Child Abuse Negl*. 2006;30(1):39-53.
- Crouch JL, Skowronski JJ, et al. Parental responses to infant crying: the influence of child physical abuse risk and hostile priming. *Child Abuse Negl*. 2008;32:702-710.
- Daly JM, Jogerst GJ. Readability and content of elder abuse instruments. *J Elder Abuse Negl*. 2005;17(4):31-52.
- Datner EM, O'Malley M, et al. Universal screening for interpersonal violence: inability to prove universal screening improves provision of services. *Eur J Emerg Med*. 2004;11(1):35-38.
- Daugherty JD, Houry DE. Intimate partner violence screening in the emergency department. *J Postgrad Med*. 2008;54(4):301-305.
- DePanfilis D, Zuravin SJ. The effect of services on the recurrence of child maltreatment. *Child Abuse Negl*. 2002;26(2):187-205.
- DiLillo D, DeGue S, et al. Participant responses to retrospective surveys of child maltreatment: does mode of assessment matter? *Violence Vict*. 2006;21(4):410-424.
- Duggan A, Fuddy L, et al. Randomized trial of a statewide home visiting program to prevent child abuse: impact in reducing parental risk factors. *Child Abuse Negl*. 2004;28:625-45.
- Duggan A, Fuddy L, et al. Evaluating a statewide home visiting program to prevent child abuse in at-risk families of newborns: fathers' participation and outcomes. *Child Maltreat*. 2004;9(1):3-17.
- Eckenrode J, Campa M, et al. Long-term effects of prenatal and infancy nurse home visitation on the life course of youths: 19-year follow-up of a randomized trial. *JAMA*. 2010;164:9-15.
- Edelen MO, McCaffrey DF, et al. Measurement of teen dating violence attitudes: an item response theory evaluation of differential item functioning according to gender. *J Interpers Violence*. 2009;24(8):1243-1263.
- Enriquez M, Cheng AL, et al. Development and feasibility of an HIV and IPV prevention intervention among low-income mothers receiving services in a Missouri day care center. *Violence Against Women*. 2010;16(5):560-578.
- Fernandez-Fuertes AA, Fuertes A, et al. Assessment of violence in adolescent couples: validation of the Conflict in Adolescent Dating Relationships Inventory (CADRI)-Spanish version. *Int J Clin Health Psychol*. 2006;6(2):339-358.
- Fleegler EW, Lieu TA, et al. Families' health-related social problems and missed referral opportunities. *Pediatrics*. 2007;119(6):e1332-1341.
- Furniss K, McCaffrey M, et al. Nurses and barriers to screening for intimate partner violence. *MCN Am J Matern Child Nurs*. 2007;32(4):238-243.
- Gillum TL, Sun CJ, et al. Can a health clinic-based intervention increase safety in abused women? Results from a pilot study. *J Womens Health*. 2009;18(8):1259-1264.
- Glowa PT, Frasier PY, et al. Increasing physician comfort level in screening and counseling patients for intimate partner violence: hands-on practice. *Patient Educ Couns*. 2002;46(3):213-220.
- Glowa PT, Frasier PY, et al. What happens after we identify intimate partner violence? The family physician's perspective. *Fam Med*. 2003;35(10):730-736.
- Goff HW, Shelton A, et al. Preparedness of health care practitioners to screen women for domestic violence in a border community. *Health Care Women Int*. 2003;24(2):135-148.



## Appendix B4. Excluded Studies

- Grafton D, Wright BL, et al. Successful implementation of universal woman abuse inquiry. *Pub Health Nurs.* 2006;23(6):535-540.
- Graham-Bermann SA, Lynch S, et al. Community-based intervention for children exposed to intimate partner violence: an efficacy trial. *J Consult Clin Psychol.* 2007;75(2):199-209.
- Green CE Jr. Intimate partner violence and health care utilization: a randomized controlled trial. Houston, TX: University of Houston; 2005.
- Gutmanis I, Beynon C, et al. Factors influencing identification of and response to intimate partner violence: a survey of physicians and nurses. *BMC Pub Health.* 2007;7:12.
- Heckert D, Gondolf EW. Battered women's perceptions of risk versus risk factors and instruments in predicting repeat reassault. *J Interpers Violence.* 2004;19(7):778-800.
- Higgins LP, Hawkins JW. Screening for abuse during pregnancy: implementing a multisite program. *MCN Am J Matern Child Nurs.* 2005;30(2):109-114.
- Hiscock H, Bayer JK, et al. Universal parenting programme to prevent early childhood behavioural problems: cluster randomised trial. *Br Med J.* 2008;336(7639):318-321.
- Humphreys J, Tsoh JY, et al. Increasing discussions of intimate partner violence in prenatal care using Video Doctor plus provider cueing: a randomized, controlled trial. *Womens Health Issues.* 2011;21(2):136-144.
- Jack SM, Jamieson E, et al. The feasibility of screening for intimate partner violence during postpartum home visits. *Can J Nurs Res.* 2008;40(2):150-170.
- Jonassen J, Mazor K. Identification of physician and patient attributes that influence the likelihood of screening for intimate partner violence. *Acad Med.* 2003;78(10 Suppl):S20-3.
- Joseph JG, El-Mohandes AA, et al. Reducing psychosocial and behavioral pregnancy risk factors: results of a randomized clinical trial among high-risk pregnant African American women. *Am J Pub Health.* 2009;99(6):1053-1061.
- Katz C, Hershkowitz I. The effects of drawing on children's accounts of sexual abuse. *Child Maltreat.* 2010;15(2):171-179.
- Katz KS, Blake SM, et al. The design, implementation and acceptability of an integrated intervention to address multiple behavioral and psychosocial risk factors among pregnant African American women. *BMC Pregnancy Childbirth.* 2008;8(1):22.
- Kim J, Dubowitz H, et al. Comparison of 3 data collection methods for gathering sensitive and less sensitive information. *Ambul Pediatr.* 2008;8(4):255-260.
- Kitzman H, Olds DL, et al. Enduring effects of prenatal and infancy home visiting by nurses on children: follow-up of a randomized trial among children at age 12 years. *Arch Pediatr Adolesc Med.* 2010;164(5):412-418.
- Kosterman R, Hawkins JD, et al. Preparing for the drug free years: session-specific effects of a universal parent-training intervention with rural families. *J Drug Educ.* 2001;31(1):47-68.
- Krugman SD, Witting MD, et al. Perceptions of help resources for victims of intimate partner violence. *J Interpers Violence.* 2004;19(7):766-777.
- Lane WG, Dubowitz H. Primary care pediatricians' experience, comfort and competence in the evaluation and management of child maltreatment: do we need child abuse experts? *Child Abuse Negl.* 2009;33(2):76-83.
- Leppakoski T, Astedt-Kurki P, et al. Identification of women exposed to acute physical intimate partner violence in an emergency department setting in Finland. *Scand J Caring Sci.* 2010;24(4):638-647.

## Appendix B4. Excluded Studies

- McCord-Duncan EC, Floyd M, et al. Detecting potential intimate partner violence: which approach do women want? *Fam Med*. 2006;38(6):416-422.
- McCurdy K. Risk assessment in child abuse prevention programs. *Soc Work Res*. 1995;19:77-87.
- McFarlane J, Malecha A, et al. Increasing the safety-promoting behaviors of abused women. *Am J Nurs*. 2004;104(3):40-50.
- McGuigan WM, Katzev AR, et al. Multi-level determinants of retention in a home-visiting child abuse prevention program. *Child Abuse Negl*. 2003;27(4):363-380.
- Melendez RM, Hoffman S, et al. Intimate partner violence and safer sex negotiation: effects of a gender-specific intervention. *Arch Sex Behav*. 2003;32(6):499-511.
- Miller E, Decker MR, et al. Pregnancy coercion, intimate partner violence and unintended pregnancy. *Contraception*. 2010;81(4):316-322.
- Neale AV, Hwalek MA, et al. Validation of the Hwalek-Sengstock elder abuse screening test. *J Appl Gerontol*. 1991;10(4):406-418.
- Nelson CS, Higman SM, et al. Medical homes for at-risk children: parental reports of clinician-parent relationships, anticipatory guidance, and behavior changes. *Pediatrics*. 2005;115(1):48-56.
- Norton I, Schauer J. A hospital-based domestic violence group. *Psychiatr Serv*. 1997;48:1186-90.
- Undersma SJ, Svikis DS, et al. Computer-based brief intervention: a randomized trial with postpartum women. *Am J Prev Med*. 2007;32(3):231-238.
- Oschwald M, Renker P, et al. Development of an accessible Audio Computer-Assisted Self-Interview (A-CASI) to screen for abuse and provide safety strategies for women with disabilities. *J Interpers Violence*. 2009;24(5):795-818.
- Owen-Smith A, Hathaway J, et al. Screening for domestic violence in an oncology clinic: barriers and potential solutions. *Oncol Nurs Forum*. 2008;35(4):625-633.
- Post LA, Klevens J, et al. An examination of whether coordinated community responses affect intimate partner violence. *J Interpers Violence*. 2010;25(1):75-93.
- Pruitt DL, Erickson MT. The Child Abuse Potential Inventory: a study of concurrent validity. *J Clin Psychol*. 1985;41(1):104-111.
- Ramsay J, Richardson J, et al. Should health professionals screen women for domestic violence? Systematic review. *BMJ*. 2002;325(7359):314.
- Reynolds AJ, Temple JA, et al. Effects of a school-based, early childhood intervention on adult health and well-being: a 19-year follow-up of low-income families. *Arch Pediatr Adolesc Med*. 2007;161(8):730-739.
- Rhodes KV, Frankel RM, et al. You're not a victim of domestic violence, are you? Provider patient communication about domestic violence. *Ann Intern Med*. 2007;147(9):620-627.
- Richard L, Gauvin L, et al. Integrating the ecological approach in health promotion for older adults: a survey of programs aimed at elder abuse prevention, falls prevention, and appropriate medication use. *Int J Pub Health*. 2008;53(1):46-56.
- Robinson-Whelen S, Hughes RB, et al. Efficacy of a computerized abuse and safety assessment intervention for women with disabilities: a randomized controlled trial. *Rehab Psychol*. 2010;55(2):97-107.
- Rodriguez ML, Dumont K, et al. Effects of Healthy Families New York on the promotion of maternal parenting competencies and the prevention of harsh parenting. *Child Abuse Negl*. 2010;34(10):711-723.

## Appendix B4. Excluded Studies

- Russa MB, Rodriguez CM. Physical discipline, escalation, and child abuse potential: psychometric evidence for the Analog Parenting Task. *Aggress Behav.* 2010;36:251-60.
- Savell JK, Kinder BN, et al. Effects of administering sexually explicit questionnaires on anger, anxiety, and depression in sexually abused and nonabused females: implications for risk assessment. *J Sex Marital Ther.* 2006;32(2):161-172.
- Schofield MJ, Mishra GD. Three year health outcomes among older women at risk of elder abuse: Women's Health Australia. *Qual Life Res.* 2004;13(6):1043-1052.
- Scholle SH, Buranosky R, et al. Routine screening for intimate partner violence in an obstetrics and gynecology clinic. *Am J Pub Health.* 2003;93(7):1070-1072.
- Siemieniuk RA, Krentz HB, et al. Domestic violence screening: prevalence and outcomes in a Canadian HIV population. *AIDS Patient Care STDS.* 2010;24(12):763-770.
- Smith CO, Thompson MP, et al. Service utilization patterns of maltreated and nonmaltreated children from low-income, African-American families. *Psychiatr Serv.* 2009;60:1386-9.
- Spangaro JM, Zwi AB, et al. Who tells and what happens: disclosure and health service responses to screening for intimate partner violence. *Health Soc Care Community.* 2010;18(6):671-680.
- Stayton CD, Duncan MM. Mutable influences on intimate partner abuse screening in health care settings: a synthesis of the literature. *Trauma Violence Abuse.* 2005;6(4):271-285.
- Straus H, Cerulli C, et al. Intimate partner violence and functional health status: associations with severity, danger, and self-advocacy behaviors. *J Womens Health.* 2009;18:625-31.
- Thombs BD, Bennett W, et al. Cultural sensitivity in screening adults for a history of childhood abuse: evidence from a community sample. *J Gen Intern Med.* 2007;22(3):368-373.
- Tyrka AR, Price LH, et al. Childhood maltreatment and telomere shortening: preliminary support for an effect of early stress on cellular aging. *Biol Psychiatr.* 2010;67(6):531-534.
- Wathen CN, Jamieson E, et al. (2007). Risk indicators to identify intimate partner violence in the emergency department. *Open Med.* 2007;1(2):113-122.
- Zelenko MA, Huffman LC, et al. The Child Abuse Potential Inventory and pregnancy outcome in expectant adolescent mothers. *Child Abuse Negl.* 2001;25:1481-1495.
- Zielinski DS, Eckenrode J, et al. Nurse home visitation and the prevention of child maltreatment: impact on the timing of official reports. *Dev Psychopathol.* 2009;21(2):441-453.
- Zink T, Fisher BS. Family violence quality assessment tool for primary care offices. *Qual Manag Health Care.* 2007;16(3):265-279.
- Zink T, Siegel R, et al. Physician knowledge and management of children exposed to domestic violence in Ohio: a comparison of pediatricians and family physicians. *Clin Pediatr.* 2005;44(3):211-219.
- Zun L. Violence prevention in the ED. *Am J Emerg Med.* 2003;21(6):454-457.
- Zun LS, Downey LV, et al. Violence prevention in the ED: linkage of the ED to a social service agency. *Am J Emerg Med.* 2003;21(6):454-457.

## Wrong Study Design for Key Question

- Bradshaw JM. Preventing Shaken Baby Syndrome: A Comparison of Two Parent Education Programs. Storrs, CT: University of Connecticut; 2011.
- Dias MS, Smith K, et al. Preventing abusive head trauma among infants and young children: a hospital-based, parent education program. *Pediatrics.* 2005;115(4):e470-477.

## Appendix B4. Excluded Studies

- Eckenrode J, Powers J, et al. Long-term effects of early home visitation on rates of state-verified cases of child abuse and neglect [abstract]. *Pediatr Res*. 1996;39:104.
- El-Mohandes A, Kiely M, et al. Reduction of intimate partner violence in pregnancy: the effect of an integrated intervention in an African-American low income population [abstract]. Proceedings of the 16th Pediatric Academic Societies Annual Meeting; 2005 May 14-17; Washington, DC.
- Grant TM, Ernst CC, et al. An intervention with high-risk mothers who abuse alcohol and drugs: the Seattle advocacy model. *Am J Pub Health*. 1996;86(12):1816-1817.
- Mercier CE, Barry SE, et al. Improving newborn preventive services at the birth hospitalization: a collaborative, hospital-based quality-improvement project. *Pediatrics*. 2007;120(3):481-8.

### No Primary Data, Editorial, Non-Systematic Review

- Telephone intervention works to stop intimate partner violence. *J Psychosoc Nurs Mental Health Serv*. 2004;42(6):12-13.
- Anderson CL. The Parenting Profile Assessment: screening for child abuse. *Appl Nurs Res*. 1996;6(1):31-38.
- Aneja S, Gottlieb AS, et al. Physician intervention for intimate partner violence. *Med Health R I*. 2009;92(9):307-309.
- Annan S. Sexual violence in rural areas: a review of the literature. *Fam Community Health*. 2006;29(3):164-168.
- Anthony EK, Lehning AJ, et al. Assessing elder mistreatment: instrument development and implications for adult protective services. *J Gerontol Soc Work*. 2009;52(8):815-836.
- American Medical Association National Advisory Council on Violence and Abuse. Policy Compendium. Washington, DC: American Medical Association; 2008. Accessed at [http://www.ama-assn.org/ama1/pub/upload/mm/386/vio\\_policy\\_comp.pdf](http://www.ama-assn.org/ama1/pub/upload/mm/386/vio_policy_comp.pdf) on 25 April 2012.
- Auchter B. Intervening with domestic violence offenders: introduction. *Violence Against Women*. 2008;14(2):131-135.
- Baldry AC, Winkel FW. Intimate Partner Violence Prevention and Intervention: The Risk Assessment and Management Approach. Hauppauge, NY: Nova Science; 2008.
- Barr RG, Runyan D. Inflicted childhood neurotrauma: the problem set and challenges to measuring incidence. *Am J Prev Med*. 2008;34(4 Suppl 1): S106-11.
- Barth RP. Preventing child abuse and neglect with parent training: evidence and opportunities. *Future Child*. 2009;19(2):95-118.
- Bomba PA. Use of a single page elder abuse assessment and management tool: a practical clinician's approach to identifying elder mistreatment. *J Gerontol Soc Work*. 2006;46(3-4):103-122.
- Brown K, Streubert GE, et al. Effectively detect and manage elder abuse. *Nurs Pract*. 2004;29(8):22-27.
- Burgess AW, Roberts AR, et al. The stress-crisis continuum: its application to domestic violence. In: Roberts AR, ed. *Battered Women and Their Families: Intervention Strategies and Treatment Programs*. 3rd ed. New York: Springer; 2007.

## Appendix B4. Excluded Studies

- Campbell J, Glass N. Safety planning, danger, and lethality assessment. In: Mitchell C, Anglin D, eds. *Intimate Partner Violence: A Health-Based Perspective*. New York: Oxford University Press; 2009.
- Campbell JC. Health consequences of intimate partner violence. *Lancet*. 2002;359(9314):1331-6.
- Carney DM, McKibbin L. Screening for domestic violence. *J Nurs Manag*. 2003;34(9):35-36.
- Chapin MG, Mackie CF. Research evidence to update practice guidelines for domestic violence screening in military settings. *Mil Med*. 2007;172(7):ii-iv.
- Cole TB. Is domestic violence screening helpful? *JAMA*. 2000;284(5):551-553.
- Colombini M, Mayhew S, et al. Health-sector responses to intimate partner violence in low- and middle-income settings: a review of current models, challenges and opportunities. *Bull World Health Organ*. 2008;86(8):635-642.
- Donelan-McCall N, Eckenrode J, et al. Home visiting for the prevention of child maltreatment: lessons learned during the past 20 years. *Pediatr Clin North Am*. 2009;56(2):389-403.
- Dubowitz H. Tackling child neglect: a role for pediatricians. *Pediatr Clin North Am*. 2009;56(2):363-378.
- Edleson JL, Ellerton AL, et al. Assessing child exposure to adult domestic violence. *Child Youth Serv Rev*. 2007;29(7):961-971.
- Edwards A, Lutzker JR. Iterations of the SafeCare model: an evidence-based child maltreatment prevention program. *Behav Modif*. 2008;32(5):736-756.
- Escriba-Aguir V, Ruiz-Perez I, et al. Screening for domestic violence during pregnancy. *J Psychosom Obstet Gynaecol*. 2007;28(3):133-134.
- Feindler EL, Rathus JH, et al. *Assessment of Family Violence: A Handbook for Researchers and Practitioners*. Washington, DC: American Psychological Association; 2003.
- Feindler EL, Rathus JH, et al. Interview methods. In: *Assessment of Family Violence: A Handbook for Researchers and Practitioners*. Washington, DC: American Psychological Association; 2003.
- Feindler EL, Rathus JH, et al. Self-report inventories. In: *Assessment of Family Violence: A Handbook for Researchers and Practitioners*. Washington, DC: American Psychological Association; 2003.
- Feindler EL, Rathus JH, et al. Self-report inventories for the assessment of children. In: *Assessment of Family Violence: A Handbook for Researchers and Practitioners*. Washington, DC: American Psychological Association; 2003.
- Finn J, Atkinson T. Promoting the safe and strategic use of technology for victims of intimate partner violence: evaluation of the Technology Safety Project. *Violence Against Women*. 2009;15(11):1402-1414.
- Ford-Gilboe M, Wuest J, et al. Developing an evidence-based health advocacy intervention for women who have left an abusive partner. *Can J Nurs Res*. 2006;38(1):147-167.
- Fulmer T. Screening for mistreatment of older adults. *Am J Nurs*. 2008;108(12):52-59.
- Fulmer T, Guadagno L, et al. Progress in elder abuse screening and assessment instruments. *J Am Geriatr Soc*. 2004;52(2):297-304.
- Family Violence Prevention Fund. *National Consensus Guidelines on Identifying and Responding to Domestic Violence Victimization in Health Care Settings*. Washington, DC: Family Violence Prevention Fund; 2004. Accessed at <http://www.futureswithoutviolence.org/userfiles/file/Consensus.pdf> on 25 April 2012 .
- Gillum TL. The benefits of a culturally specific intimate partner violence intervention for African American survivors. *Violence Against Women*. 2008;14(8):917-943.

## Appendix B4. Excluded Studies

- Gillum TL. Improving services to African American survivors of IPV: from the voices of recipients of culturally specific services. *Violence Against Women*. 2009;15(1):57-80.
- Goodyear-Smith F. National screening policies in general practice: a case study of routine screening for partner abuse. *Appl Health Econ Health Policy*. 2002;1(4):197-209.
- Gupton S. Always believe. *Ann Emerg Med*. 2002;40(1):122-123.
- Harris MH, Weber M. Providing crisis counselors on-site to victims of domestic violence in the emergency department: a report of a local pilot project. *S D J Med*. 2002;55(4):147-149.
- Hawkins JW, Pearce CW, et al. Using technology to expedite screening and intervention for domestic abuse and neglect. *Pub Health Nurs*. 2009;26(1):58-69.
- Hayward S. Nurse home visits reduced child abuse and neglect over a 15 year period. *Evid Based Nurs*. 1998;1(3):77.
- Hegarty K. The health consequences of child sexual abuse and partner abuse for women attending general practice. *Aust Fam Physician*. 2003;32(9):760.
- Hegarty KL, Gunn JM, et al. Women's evaluation of abuse and violence care in general practice: a cluster randomised controlled trial (WEAVE). *BMC Pub Health*. 2010;10:2.
- Houry D, Bay L, et al. Arrests for intimate partner violence in female detention patients. *Am J Emerg Med*. 2005;23(1):96-97.
- Howard KS, Brooks-Gunn J. The role of home-visiting programs in preventing child abuse and neglect. *Future Child*. 2009;19(2):119-146.
- Hulme PA. Retrospective measurement of childhood sexual abuse: a review of instruments. *Child Maltreat*. 2004;9(2):201-217.
- Hulme PA. Psychometric evaluation and comparison of three retrospective, multi-item measures of childhood sexual abuse. *Child Abuse Negl*. 2007;31(8):853-869.
- Janssen P, Dascal-Weichhändler H, et al. Assessment for intimate partner violence: where do we stand? *J Am Board Fam Med*. 2006;19(4):413-415.
- Kaye LW, Kay D, et al. Intervention with abused older males: conceptual and clinical perspectives. *J Elder Abuse Negl*. 2007;19(1-2):153-172.
- Klevens J, Saltzman LE. The controversy on screening for intimate partner violence: a question of semantics? *J Womens Health*. 2009;18(2):143-145.
- Klevens J, Whitaker DJ. Primary prevention of child physical abuse and neglect: gaps and promising directions. *Child Maltreat*. 2007;12(4):364-377.
- Korfmacher J. The Kempe Family Stress Inventory: a review. *Child Abuse Negl*. 2000;24(1):129-140.
- Kottwitz D, Bowling S. A pilot study of the Elder Abuse Questionnaire. *Kans Nurse*. 2003;78(7):4-6.
- Koziol-McLain J, Campbell JC. Universal screening and mandatory reporting: an update on two important issues for victims/survivors of intimate partner violence. *J Emerg Nurs*. 2001;27(6):602-606.
- Kravitz JA. The SAFE ELDERS Scales: Identifying High Risk Cases of Elder Abuse. Malibu, CA: Pepperdine University; 2007.
- Kropp PR. Intimate partner violence risk assessment and management. *Violence Vict*. 2008;23(2):202-220.
- Krugman SD, Lane WG, et al. Update on child abuse prevention. *Curr Opin Pediatr*. 2007;19(6):711-718.
- Laughon K, Renker P, et al. Revision of the Abuse Assessment Screen to address nonlethal strangulation. *J Obstet Gynecol Neonat Nurs*. 2008;37(4):502-507.

## Appendix B4. Excluded Studies

- LeCroy CW, Krysyk J. Measurement issues in home visitation: a research note. *Child Youth Serv Rev.* 2010;32(10):1483-1486.
- Lock TG, Levis DJ, et al. The Sexual Abuse Questionnaire: a preliminary examination of a time and cost efficient method in evaluating the presence of childhood sexual abuse in adult patients. *J Child Sex Abuse.* 2005;14(1):1-26.
- Mackay K. To screen or not to screen: identification of domestic violence in Canadian emergency departments. *CJEM.* 2008;10(4):329-332.
- MacMillan HL, Wathen C. Violence against women: integrating the evidence into clinical practice. *Can Med Assoc J.* 2003;169(6):570-571.
- MacMillan HL, Wathen CN, et al. Interventions to prevent child maltreatment and associated impairment. *Lancet.* 2009;373:250-266.
- Marcellus L. The ethics of relation: public health nurses and child protection clients. *J Adv Nurs.* 2005;51(4):414-420.
- McCaw B, Bauer HM, et al. Women referred for on-site domestic violence services in a managed care organization. *Women Health.* 2002;35(2-3):23-40.
- McNutt LA, Waltermaurer E, et al. Rationale for and development of the computerized intimate partner violence screen for primary care. *Fam Violence Prev Health Pract.* 2005;3:1-12.
- Meeks-Sjostrom D. A comparison of three measures of elder abuse. *J Nurs Scholarsh.* 2004;36(3):247-250.
- Midmer D, Carroll J, et al. From research to application: the development of an antenatal psychosocial health assessment tool. *Can J Pub Health.* 2002;93(4):291-296.
- Mowat A. Toolkit will help GPs detect children at risk of abuse. *Practitioner.* 2008;252(1706):5.
- Naumann P, Langford D, et al. Women battering in primary care practice. *Fam Pract.* 1999;16(4):343-352.
- Nelson HD. Screening for domestic violence—bridging the evidence gaps. *Lancet.* 2004;364(Suppl 1):S22-23.
- Newton AW, Vandeven AM. Child abuse and neglect: a worldwide concern. *Curr Opin Pediatr.* 2010;22:226-233.
- Olds DL. Prenatal and infancy home visiting by nurses: from randomized trials to community replication. *Pediatrics.* 2002;3(3):153-172.
- Olds DL, Sadler L, et al. Programs for parents of infants and toddlers: recent evidence from randomized trials. *J Child Psychol Psychiatry.* 2007;48(3-4):355-391.
- Ondersma SJ, Chaffin MJ, et al. A brief form of the Child Abuse Potential Inventory: development and validation: Erratum. *J Clin Child Adolesc Psychol.* 2006;35(4):598.
- Petrucci CJ, Mills LG. Domestic violence assessment: current practices and new models for improved child welfare interventions. *Brief Treat Crisis Interv.* 2002;2(2):153-172.
- Phelan MB. Screening for intimate partner violence in medical settings. *Trauma Violence Abuse.* 2007;8(2):199-213.
- Plichta SB. Intimate partner violence and physical health consequences: policy and practice implications. *J Interpers Violence.* 2004;19(11):1296-1323.
- Prinz RJ, Sanders MR, et al. Population-based prevention of child maltreatment: the U.S. Triple P System Population Trial. *Prev Sci.* 2009;10(1):1-12.
- Proeve M. Issues in the application of Bayes' theorem to child abuse decision making. *Child Maltreat.* 2009;14(1):114-120.
- Pullen RL. Screening for abuse and neglect. *Nursing.* 2007;37(2):69.
- Punukollu M. Domestic violence: screening made practical. *J Fam Pract.* 2003;52(7):537-543.

## Appendix B4. Excluded Studies

- Rathus JH, Feindler EL. Self-report measures specific to the assessment of partner abuse. In: *Assessment of Partner Violence: A Handbook for Researchers and Practitioners*. Washington, DC: American Psychological Association; 2004.
- Reeves S, Wysong J. Strategies to address financial abuse. *J Elder Abuse Negl*. 2010;22(3-4):328-334.
- Reynolds AJ, Mathieson LC, et al. Do early childhood interventions prevent child maltreatment? A review of research. *Child Maltreat*. 2009;14(2):182-206.
- Rhodes KV, Lauderdale DS, et al. Between me and the computer: increased detection of intimate partner violence using a computer questionnaire. *Ann Emerg Med*. 2002;40(5):476-484.
- Rhodes KV, Levinson W. Interventions for intimate partner violence against women: clinical applications. *JAMA*. 2003;289(5):601-605.
- Russell BS, Britner PA, et al. The promise of primary prevention home visiting programs: a review of potential outcomes. *J Prev Interv Community*. 2007;34(1-2):129-147.
- Scribano PV. Prevention strategies in child maltreatment. *Curr Opin Pediatr*. 2010;22(5):616-20.
- Senseman RL. Screening for intimate partner violence among gay and lesbian patients in primary care. *Clin Excell Nurse Pract*. 2002;6(4):27-32.
- Shapiro CJ, Prinz RJ, et al. Population-based provider engagement in delivery of evidence-based parenting interventions: challenges and solutions. *J Prim Prev*. 2010;31(4):223-234.
- Sormanti M, Shibusawa T. Intimate partner violence among midlife and older women: a descriptive analysis of women seeking medical services. *Health Soc Work*. 2008;33(1):33-41.
- Spangaro J, Zwi AB, et al. The elusive search for definitive evidence on routine screening for intimate partner violence. *Trauma Violence Abuse*. 2009;10(1):55-68.
- Spangaro JM. The NSW Health routine screening for domestic violence program. *N S W Pub Health Bull*. 2007;18(5-6):86-89.
- Strand VC, Sarmiento TL, et al. Assessment and screening tools for trauma in children and adolescents: a review. *Trauma Violence Abuse*. 2005;6(1):55-78.
- Strecher V, Wang C, et al. Tailored interventions for multiple risk behaviors. *Health Educ Res*. 2002;17(5):619-626.
- Sugg N. What do medical providers need to successfully intervene with intimate partner violence? *J Aggress Maltreat Trauma*. 2006;13(3-4):101-120.
- Taft A, Hegarty K, et al. Screening women for intimate partner violence in health care settings: protocol. *Cochrane Database Syst Rev*. 2009.
- Taft AJ, Hegarty KL. Intimate partner violence against women: what outcomes are meaningful? *JAMA*. 2010;304(5):577-579.
- Taft AJ, Small R, et al. MOSAIC (Mothers' Advocates in the Community): protocol and sample description of a cluster randomised trial of mentor mother support to reduce intimate partner violence among pregnant or recent mothers. *BMC Pub Health*. 2009;9:159.
- Taket A, Wathen CN, et al. Should health professionals screen all women for domestic violence? *PLoS Med*. 2004;1(1):e4.
- Thackeray JD, Hibbard R, et al. Intimate partner violence: the role of the pediatrician. *Pediatrics*. 2010;125(5):1094-1100.
- Walker CA, Davies J. A critical review of the psychometric evidence base of the Child Abuse Potential Inventory. *J Fam Violence*. 2010;25(2):215-227.
- Walsh C, Jamieson E, et al. Measuring child sexual abuse in children and youth. *J Child Sex Abuse*. 2004;13(1):39-68.



## Appendix B4. Excluded Studies

- Wathen C, MacMillan HL, et al. Screening for intimate partner violence. *Am J Prev Med.* 2006;31(5):453.
- Webster J. Screening for domestic violence: the ‘evidence’ dilemma. *Contemp Nurse.* 2006;21(2):163-164.
- Wetmore M, Fairbairn CD. A regional California program to screen adolescent patients for intimate partner violence. *J Emerg Nurs.* 2003;29(4):373-376.
- Yaffe MJ. Detection and reporting of elder abuse. *Fam Med.* 2010;42(2):83.
- Zink T, Lloyd K, et al. Applying the planned care model to intimate partner violence. *Manag Care.* 2007;16(3):54-61.

### Risk Factor, Association, or Prevalence Study Only

- Acierno R, Lawyer SR, et al. Current psychopathology in previously assaulted older adults. *J Interpers Violence.* 2007;22(2):250-258.
- Adams BL. Assessment of child abuse risk factors by advanced practice nurses. *Pediatr Nurs.* 2005;31(6):498-502.
- Anderst J, Hill TD, et al. A comparison of domestic violence screening methods in a pediatric office. *Clin Pediatr.* 2004;43(1):103-105.
- Blackburn JF. Reading Skills in Children Exposed to Domestic Violence. Bloomington, IN: Indiana University; 2006.
- Bullock L, Bloom T, et al. Abuse disclosure in privately and Medicaid-funded pregnant women. *J Midwifery Womens Health.* 2006;51(5):361-369.
- Buri HM, Daly JM, et al. Elder abuse telephone screen reliability and validity. *J Elder Abuse Negl.* 2009;21(1):58-73.
- Castelda BA, Levis DJ, et al. Extension of the sexual abuse questionnaire to other abuse categories: the initial psychometric validation of the Binghamton Childhood Abuse Screen. *J Child Sex Abuse.* 2007;16(1):107-125.
- Chang DC, Knight V, et al. The tip of the iceberg for child abuse: the critical roles of the pediatric trauma service and its registry. *J Trauma.* 2004;57(6):1189-1198.
- Cleary BS, Keniston A, et al. Intimate partner violence in women hospitalized on an internal medicine service: prevalence and relationship to responses to the review of systems. *J Hosp Med.* 2008;3(4):299-307.
- Cohen M, Halevi-Levin S, et al. Development of a screening tool for identifying elderly people at risk of abuse by their caregivers. *J Aging Health.* 2006;18(5):660-685.
- Cohen M, Levin SH, et al. Elder abuse: disparities between older people’s disclosure of abuse, evident signs of abuse, and high risk of abuse. *J Am Geriatr Soc.* 2007;55(8):1224-1230.
- Coker AL, Flerx VC, et al. Intimate partner violence incidence and continuation in a primary care screening program. *Am J Epidemiol.* 2007;165(7):821-827.
- Coker AL, Flerx VC, et al. Partner violence screening in rural health care clinics. *Am J Pub Health.* 2007;97(7):1319-1325.
- Cooper C, Katona C, et al. Indicators of elder abuse: a cross-national comparison of psychiatric morbidity and other determinants in the Ad-HOC study. *Am J Geriatr Psychiatry.* 2006;14(6):489-497.
- Dichter M E, Rhodes KV. Reports of police calls for service as a risk indicator for intimate partner violence. *Acad Emerg Med.* 2009;16(1):83-86.

## Appendix B4. Excluded Studies

- Dong X, Simon MA. Is greater social support a protective factor against elder mistreatment? *Gerontology*. 2008;54(6):381-388.
- Dubowitz H, Kim J, et al. Identifying children at high risk for a child maltreatment report. *Child Abuse Negl*. 2011;35(2):96-104.
- Ekeus C, Christensson K, et al. Unintentional and violent injuries among pre-school children of teenage mothers in Sweden: a national cohort study. *J Epidemiol Community Health*. 2004;58:680-685.
- Ergonen AT, Ozdemir MH, et al. Domestic violence on pregnant women in Turkey. *J Forens Legal Med*. 2009;16(3):125-129.
- Foran HM, O'Leary D. Alcohol and intimate partner violence: a meta-analytic review. *Clin Psychol Rev*. 2008;28:1222-1234.
- Goodman L, Dutton MA, et al. Women's resources and use of strategies as risk and protective factors for reabuse over time. *Violence Against Women*. 2005;11(3):311-336.
- Grubaugh AL, Frueh B. Intimate partner violence victimization among adults with severe mental illness: results of a cross-sectional study. *J Clin Psychiatry*. 2006;67(9):1472-1473.
- Hegarty K, Gunn J, et al. Physical and social predictors of partner abuse in women attending general practice: a cross-sectional study. *Br J Gen Pract*. 2008;58(552):484-487.
- Hegarty KL, Bush R. Prevalence and associations of partner abuse in women attending general practice: a cross-sectional survey. *Aust N Z J Pub Health*. 2002;26(5):437-442.
- Herzig K, Danley D, et al. Seizing the 9-month moment: addressing behavioral risks in prenatal patients. *Patient Educ Couns*. 2006;61(2):228-235.
- Huth-Bocks AC, Levendosky AA, et al. The effects of domestic violence during pregnancy on maternal and infant health. *Violence Vict*. 2002;17(2):169-185.
- Johnson J K, Haider F, et al. The prevalence of domestic violence in pregnant women. *BJOG*. 2003;110(3):272-275.
- Koziol-McLain J, Rameka M, et al. Partner violence prevalence among women attending a Maori health provider clinic. *Aust N Z J Pub Health*. 2007;31(2):143-148.
- Kumar S, Jeyaseelan L, et al. Domestic violence and its mental health correlates in Indian women. *Br J Psychiatry*. 2005;187:62-67.
- Lee LC, Kotch J, et al. Child maltreatment in families experiencing domestic violence. *Violence Vict*. 2004;19(5):573-591.
- Loxton D, Schofield M, et al. History of domestic violence and health service use among mid-aged Australian women. *Aust N Z J Pub Health*. 2004;28(4):383-388.
- McDonald R, Jouriles EN, et al. Children's adjustment problems in families characterized by men's severe violence toward women: does other family violence matter? *Child Abuse Negl*. 2009;33(2):94-101.
- McFarlane J, Malecha A, et al. Intimate partner physical and sexual assault and child behavior problems. *MCN Am J Matern Child Nurs*. 2007;32(2):74-80.
- McFarlane JM, Groff JY, et al. Behaviors of children who are exposed and not exposed to intimate partner violence: an analysis of 330 black, white, and Hispanic children. *Pediatrics*. 2003;112(3 Pt 1):e202-207.
- Miller E, Decker MR, et al. Intimate partner violence and health care-seeking patterns among female users of urban adolescent clinics. *Matern Child Health J*. 2010;14(6):910-917.
- Neggers Y, Goldenberg R, et al. Effects of domestic violence on preterm birth and low birth weight. *Acta Obstet Gynecol Scand*. 2004;83(5):455-460.

## Appendix B4. Excluded Studies

- Palazzi S, de Girolamo G, et al. Observational study of suspected maltreatment in Italian paediatric emergency departments. *Arch Dis Child*. 2005;90(4):406-410.
- Papadakaki M, Tzamalouka GS, et al. Seeking for risk factors of intimate partner violence in a Greek national sample: the role of self-esteem. *J Interpers Violence*. 2009;24(5):732-750.
- Pulido ML, Gupta D. Protecting the child and the family: integrating domestic violence screening into a child advocacy center. *Violence Against Women*. 2002;8(8):917-933.
- Ramsden C, Bonner M. A realistic view of domestic violence screening in an emergency department. *Accid Emerg Nurs*. 2002;10(1):31-39.
- Reijneveld SA, de Meer G, et al. Detection of child abuse by Dutch preventive child-healthcare doctors and nurses: has it changed? *Child Abuse Negl*. 2008;32(9):831-837.
- Resick PA, Galovski TE, et al. A randomized clinical trial to dismantle components of cognitive processing therapy for posttraumatic stress disorder in female victims of interpersonal violence. *J Consult Clin Psychol*. 2008;76(2):243-258.
- Reynolds AJ, Robertson DL. School-based early intervention and later child maltreatment in the Chicago Longitudinal Study. *Child Dev*. 2003;74(1):3-26.
- Reynolds AJ, Temple JA, et al. School-based early intervention and child well-being in the Chicago Longitudinal Study. *Child Welfare*. 2003;82(5):633-656.
- Rhodes KV, Drum M, et al. Lowering the threshold for discussions of domestic violence: a randomized controlled trial of computer screening. *Arch Intern Med*. 2006;166(10):1107-1114.
- Ross J, Walther V, et al. Screening risks for intimate partner violence and primary care settings: implications for future abuse. *Soc Work Health Care*. 2004;38(4):1-23.
- Roy CA, Perry JC. Instruments for the assessment of childhood trauma in adults. *J Nerv Mental Dis*. 2004;192(5):343-351.
- Schonfeld L, Larsen RG, et al. Behavioral health services utilization among older adults identified within a state abuse hotline database. *Gerontologist*. 2006;46(2):193-199.
- Silverstein MN. Factors Associated With Intimate Partner Violence During Pregnancy: An Evolutionary Feminist Approach. Denver: University of Colorado at Denver; 2003.
- Storer E. Identifying Mothers at Risk for Child Abuse Through the Development of a Maternal Prenatal Assessment Instrument. San Francisco: Alliant International University; 2003.
- Strathearn L, Mamun AA, et al. Does breastfeeding protect against substantiated child abuse and neglect? A 15-year cohort study. *Pediatrics*. 2009;123(2):483-493.
- Suellentrop K, Morrow B, et al. Monitoring progress toward achieving Maternal and Infant Healthy People 2010 objectives—19 states, Pregnancy Risk Assessment Monitoring System (PRAMS), 2000-2003. *MMWR Surveill Summ*. 2006;55(9):1-11.
- Theodore A, Chang JJ, et al. Measuring the risk of physical neglect in a population-based sample. *Child Maltreat*. 2007;12(1):96-105.
- Vest JR, Catlin TK, et al. Multistate analysis of factors associated with intimate partner violence. *Am J Prev Med*. 2002;22(3):156-164.
- Waltermaurer E, McNutt LA, et al. Examining the effect of residential change on intimate partner violence risk. *J Epidemiol Community Health*. 2006;60(11):923-927.
- Weberling LC, Forgays DK, et al. Prenatal child abuse risk assessment: a preliminary validation study. *Child Welfare*. 2003;82(3):319-334.
- Wenzel JD, Monson CL, et al. Domestic violence: prevalence and detection in a family medicine residency clinic. *J Am Osteopath Assoc*. 2004;104(6):233-239.

## Appendix B4. Excluded Studies

- Whitaker DJ, Haileyesus T, et al. Differences in frequency of violence and reported injury between relationships with reciprocal and nonreciprocal intimate partner violence. *Am J Pub Health*. 2007;97(5):941-947.
- Whitfield C L, Anda RF, et al. Violent childhood experiences and the risk of intimate partner violence in adults: assessment in a large health maintenance organization. *J Interpers Violence*. 2003;18(2):166-185.

### Not Applicable to United States

- Ameh N, Shittu SO, et al. Risk scoring for domestic violence in pregnancy. *Niger J Clin Pract*. 2008;11(1):18-21.
- Ayub M, Irfan M, et al. Psychiatric morbidity and domestic violence: a survey of married women in Lahore. *Soc Psychiatry Psychiatr Epidemiol*. 2009;44(11):953-960.
- Connelly CD, Newton RR, et al. A psychometric examination of English and Spanish versions of the Revised Conflict Tactics Scales. *J Interpers Violence*. 2005;20(12):1560-1579.
- Constantino R, Kim Y, et al. Effects of a social support intervention on health outcomes in residents of a domestic violence shelter: a pilot study. *Issues Mental Health Nurs*. 2005;26(6):575-590.
- Dietz TL, Jasinski JL. The effect of item order on partner violence reporting: an examination of four versions of the revised Conflict Tactics Scales. *Soc Sci Res*. 2007;36(1):353-373.
- Dong X, Simon MA. Is impairment in physical function associated with increased risk of elder mistreatment? Findings from a community-dwelling Chinese population. *Pub Health Rep*. 2010;125(5):743-753.
- Hokoda A, Ramos-Lira L, et al. Reliability of translated measures assessing dating violence among Mexican adolescents. *Violence Vict*. 2006;21(1):117-127.
- Ishii T, Asukai N, et al. Development of the Domestic Violence Screening Inventory (DVSI) and its reliability and validity [Japanese]. *Seishin Igaku*. 2003;45(8):817-823.
- Moonesinghe L, Rajapaksa L, et al. Development of a screening instrument to detect physical abuse and its use in a cohort of pregnant women in Sri Lanka. *Asia Pac J Pub Health*. 2004;16(2):138-144.
- Munoz-Rivas MJ, Rodriguez JM, et al. Validation of the modified version of the Conflict Tactics Scale (M-CTS) in a Spanish population of youths [Spanish]. *Psicothema*. 2007;19:693-8.
- Ogioni L, Liperoti R, et al. Cross-sectional association between behavioral symptoms and potential elder abuse among subjects in home care in Italy: results from the Silvernet Study. *Am J Geriatr Psychiatry*. 2007;15(1):70-78.
- Perez-Carceles MD, Rubio L, et al. Suspicion of elder abuse in south eastern Spain: the extent and risk factors. *Arch Gerontol Geriatr*. 2009;49(1):132-137.
- Perez-Rojo G, Castiello MT, et al. Spanish contribution to international advances in the linguistic and cultural adaptation of a screening tool for elder abuse [Spanish]. *Rev Esp Geriatr Gerontol*. 2008;43(3):180-188.
- Phua DH, Ng TW, et al. Epidemiology of suspected elderly mistreatment in Singapore. *Singapore Med J*. 2008;49(10):765-773.
- Reis M, Nahmiash D. Validation of the Indicators of Abuse (IOA) screen. *Gerontologist*. 1998;38(4):471-480.
- Rinfret-Raynor M, Turgeon J, et al. A systematic screening protocol of domestic violence: measurement of efficiency. *Can J Community Mental Health*. 2002;21(1):85-99.

## Appendix B4. Excluded Studies

- Runyan DK, Cox CE, et al. Describing maltreatment: do child protective service reports and research definitions agree? *Child Abuse Negl.* 2005;29(5):461-477.
- Tiwari A, Fong DY, et al. Effect of an advocacy intervention on mental health in Chinese women survivors of intimate partner violence: a randomized controlled trial. *JAMA.* 2010;304(5):536-543.
- Tiwari A, Leung WC, et al. A randomised controlled trial of empowerment training for Chinese abused pregnant women in Hong Kong. *BJOG.* 2005;112(9):1249-1256.
- Wang JJ. Psychological abuse behavior exhibited by caregivers in the care of the elderly and correlated factors in long-term care facilities in Taiwan. *J Nurs Res.* 2005;13(4):271-280.
- Wang JJ, Lin JN, et al. Psychologically abusive behavior by those caring for the elderly in a domestic context. *Geriatr Nurs.* 2006;27(5):284-291.
- Wang JJ, Lin MF, et al. Caregiver factors contributing to psychological elder abuse behavior in long-term care facilities: a structural equation model approach. *Int Psychogeriatr.* 2009;21(2):314-320.
- Wang JJ, Tseng HF, et al. Development and testing of screening indicators for psychological abuse of older people. *Arch Psychiatr Nurs.* 2007;21(1):40-47.
- Widom CS, Button MA, et al. Development and validation of a new instrument to assess lifetime trauma and victimization history. *J Trauma Stress.* 2005;18(5):519-531.
- Wiglesworth A, Mosqueda L, et al. Screening for abuse and neglect of people with dementia. *J Am Geriatr Soc.* 2010;58(3):493-500.

## Systematic Review, Checked Individual Studies

- Allin H, Wathen CN, et al. Treatment of child neglect: a systematic review. *Can J Psychiatry.* 2005;50(8):497-504.
- Bair-Merritt MH, Blackstone M, et al. Physical health outcomes of childhood exposure to intimate partner violence: a systematic review. *Pediatrics.* 2006;117(2):e278-e290.
- Barlow J, Johnston I, et al. Individual and group-based parenting programmes for the treatment of physical child abuse and neglect. *Cochrane Database Syst Rev.* 2006;(3):CD005463.
- Basile KC, Hertz MF, et al. Intimate Partner Violence and Sexual Violence Victimization Assessment Instruments for Use in Healthcare Settings. Atlanta: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2007.
- Bennett C, Macdonald G, et al. Home-based support for disadvantaged adult mothers. *Cochrane Database Syst Rev.* 2009;(1):CD003759.
- Bilukha O, Hahn RA, et al. The effectiveness of early childhood home visitation in preventing violence: a systematic review. *Am J Prev Med.* 2005;28(2 Suppl 1):11-39.
- Feder G, Ramsay J, et al. How far does screening women for domestic (partner) violence in different health-care settings meet criteria for a screening programme? Systematic reviews of nine UK National Screening Committee criteria. *Health Technol Assess.* 2009;13:16.
- Geeraert L, Van den Noortgate W, et al. The effects of early prevention programs for families with young children at risk for physical child abuse and neglect: a meta-analysis. *Child Maltreat.* 2004;9(3):277-291.
- Hahn RA, Bilukha OO, et al. First reports evaluating the effectiveness of strategies for preventing violence: early childhood home visitation. Findings from the Task Force on Community Preventive Services. *MMWR Recomm Rep.* 2003;52(RR-14):1-9.

## Appendix B4. Excluded Studies

- Harding K, Galano J, et al. Healthy Families America effectiveness: a comprehensive review of outcomes. *J Prev Interv Community*. 2007;34(1-2):149-179.
- Hodnett ED, Roberts I. Home-based social support for socially disadvantaged mothers. *Cochrane Database Syst Rev*. 2000;(2):CD000107
- Louwers EC, Affourtit MJ, et al. Screening for child abuse at emergency departments: a systematic review. *Arch Dis Child*. 2010;95(3):214-218.
- Lundahl BW, Nimer J, et al. Preventing child abuse: a meta-analysis of parent training programs. *Res Soc Work Pract*. 2006;16(3):251-262.
- Macdonald G, Bennett C, et al. Home-based support for disadvantaged teenage mothers. *Cochrane Database Syst Rev*. 2007;(3):CD006723
- O'Campo P, Kirst M, et al. Implementing successful intimate partner violence screening programs in health care settings: evidence generated from a realist-informed systematic review. *Soc Sci Med*. 2011;72(6):855-866.
- O'Reilly R, Beale B, et al. Screening and intervention for domestic violence during pregnancy care: a systematic review. *Trauma Violence Abuse*. 2010;11(4):190-201.
- Plichta SB. Interactions between victims of intimate partner violence against women and the health care system: policy and practice implications. *Trauma Violence Abuse*. 2007;8(2):226-239.
- Rabin RF, Jennings JM, et al. Intimate partner violence screening tools: a systematic review. *Am J Prev Med*. 2009;36(5):439-445.
- Ramchandani P, Jones DP. Treating psychological symptoms in sexually abused children: from research findings to service provision. *Br J Psychiatry*. 2003;183:484-490.
- Ramsay C, Rivas C, et al. (2005). Interventions to Reduce Violence and Promote the Physical and Psychosocial Well-Being of Women Who Experience Partner Violence: A Systematic Review of Controlled Evidence. London: U.K. Department of Health; 2005.
- Ramsay J, Carter Y, et al. Advocacy interventions to reduce or eliminate violence and promote the physical and psychosocial well-being of women who experience intimate partner abuse. *Cochrane Database Syst Rev*. 2009(3):CD005043.
- Sadowski L, Casteel C. Intimate partner violence towards women. *Clin Evid (Online)*. 2010 Feb 24;pii:1013.
- Shah PS, Shah J, et al. Maternal exposure to domestic violence and pregnancy and birth outcomes: a systematic review and meta-analyses. *J Womens Health*. 2010;19:2017-31.
- Sharps PW, Campbell J, et al. Current evidence on perinatal home visiting and intimate partner violence. *J Obstet Gynecol Neonat Nurs*. 2008;37(4):480-490.
- Spinks A, Turner C, et al. The 'WHO Safe Communities' model for the prevention of injury in whole populations. *Cochrane Database Syst Rev*. 2009;(3):CD004445.
- Sweet MA, Appelbaum MI. Is home visiting an effective strategy? A meta-analytic review of home visiting programs for families with young children. *Child Dev*. 2004;75:1435-56.
- Trabold N. Screening for intimate partner violence within a health care setting: a systematic review of the literature. *Soc Work Health Care*. 2007;45(1):1-18.
- Wathen C, MacMillan HL. Interventions for violence against women: scientific review. *JAMA*. 2003;289(5):589-600.

## Appendix B5. USPSTF Quality Rating Criteria for Diagnostic Accuracy Studies, Randomized Controlled Trials, and Observational Studies

### Diagnostic Accuracy Studies

#### *Criteria:*

- Screening test relevant, available for primary care, adequately described
- Study uses a credible reference standard, performed regardless of test results
- Reference standard interpreted independently of screening test
- Handles indeterminate results in a reasonable manner
- Spectrum of patients included in study
- Sample size
- Administration of reliable screening test
- Random or consecutive selection of patients
- Screening cutoff predetermined
- All patients undergo the reference standard

#### *Definition of ratings based on above criteria:*

**Good:** Evaluates relevant available screening test; uses a credible reference standard; interprets reference standard independently of screening test; reliability of test assessed; has few or handles indeterminate results in a reasonable manner; includes large number of (more than 100) broad-spectrum patients with and without disease; study attempts to enroll a random or consecutive sample of patients who meet prestated inclusion criteria screening cutoffs.

**Fair:** Evaluates relevant available screening test; uses reasonable although not best standard; interprets reference standard independent of screening test; moderate sample size (50 to 100 subjects) and a “medium” spectrum of patients (i.e., applicable to most screening settings).

**Poor:** Has important limitation, such as: uses inappropriate reference standard; screening test improperly administered; biased ascertainment of reference standard; very small sample size of very narrow selected spectrum of patients.

### Randomized Controlled Trials and Cohort Studies

#### *Criteria:*

- Initial assembly of comparable groups. Randomized controlled trials (RCTs): adequate randomization, including concealment and whether potential confounders were distributed equally among groups; cohort studies: consideration of potential confounders with either restriction or measurement for adjustment in the analysis, consideration of inception cohorts
- Maintenance of comparable groups (includes attrition, cross-overs, adherence, contamination)
- Important differential loss to followup or overall high loss to followup
- Measurements: equal, reliable, and valid (includes masking of outcome assessment)
- Clear definition of interventions
- Important outcomes considered

## Appendix B5. USPSTF Quality Rating Criteria for Diagnostic Accuracy Studies, Randomized Controlled Trials, and Observational Studies

- Analysis: adjustment for potential confounders for cohort studies, or intention-to-treat analysis for RCTs; for cluster RCTs, correction for correlation coefficient

### *Definition of ratings based on above criteria:*

- Good:** Meets all criteria: comparable groups are assembled initially and maintained throughout the study (followup at least 80 percent); reliable and valid measurement instruments are used and applied equally to the groups; interventions are spelled out clearly; important outcomes are considered; and appropriate attention to confounders in analysis.
- Fair:** Any or all of the following problems occur, without the important limitations noted in the “poor” category below: generally comparable groups are assembled initially but some question remains whether some (although not major) differences occurred in followup; measurement instruments are acceptable (although not the best) and generally applied equally; some but not all important outcomes are considered; and some but not all potential confounders are accounted for.
- Poor:** Any of the following major limitations exists: groups assembled initially are not close to being comparable or maintained throughout the study; unreliable or invalid measurement instruments are used or not applied at all equally among groups (including not masking outcome assessment); and key confounders are given little or no attention.

**Sources:** Harris, 2001<sup>81</sup>; Leeflang, 2008<sup>83</sup>; Whiting, 2003.<sup>84</sup>



## Appendix B6. Quality Rating Criteria for Systematic Reviews

Overall quality rating for each systematic review is based on the below questions. Ratings are summarized as good, fair, or poor.

- Search dates reported? *Yes or No*
- Search methods reported? *Yes or No*
- Comprehensive search? *Yes or No*
- Inclusion criteria reported? *Yes or No*
- Selection bias avoided? *Yes or No*
- Validity criteria reported? *Yes or No*
- Validity assessed appropriately? *Yes or No*
- Methods used to combine studies reported? *Yes or No*
- Findings combined appropriately? *Yes or No*
- Conclusions supported by data? *Yes or No*

### *Definitions of ratings based on above criteria:*

**Good:** Meets all criteria: reports comprehensive and reproducible search methods and results; reports predefined criteria to select studies and reports reasons for excluding potentially relevant studies; adequately evaluates quality of included studies and incorporates assessments of quality when synthesizing data; reports methods for synthesizing data and uses appropriate methods to combine data qualitatively or quantitatively; conclusions supported by the evidence reviewed.

**Fair:** Fails to meet one or more of the above criteria, but the limitations are not judged as being major.

**Poor:** Has a major limitation in one or more of the above criteria.

Developed from the following publications: Harris, 2001<sup>81</sup>; National Institute for Health and Clinical Excellence, 2006<sup>85</sup>; Oxman, 1991.<sup>86</sup>

## **Appendix B7. Reviewers of the Draft Report**

**Joseph Chin, M.D., M.S.**

Medical Officer, Centers for Medicare & Medicaid Services, Office of Clinical Standards and Quality, Coverage and Analysis Group

**Claudia Cooper, B.M., M.R.C.Psych., M.Sc., Ph.D.**

Senior Lecturer and Honorary Consultant, Department of Mental Health Sciences, University College London, United Kingdom

**Megan Gerber, M.D., M.P.H.**

Medical Director of Women's Health, Boston Veterans Affairs Medical Center

**Linda S. Kinsinger, M.D., M.P.H.**

Chief Consultant for Preventive Medicine, Veterans Health Administration

**Christina Nicolaidis, M.D., M.P.H.**

Associate Professor of Medicine and Public Health, Oregon Health & Science University

**Marcel E. Salive, M.D., M.P.H.**

Medical Officer, National Institute on Aging, National Institutes of Health

**Julie Weitlauf, Ph.D.**

Clinical Associate Professor, Stanford University School of Medicine

## Appendix C1. Randomized, Controlled Trials of Screening for Intimate Partner Violence

Author, Year	Study Design	N	Population	Setting	Duration	Screening Assessment
MacMillan et al, 2009 <sup>87</sup>	Cluster randomized, controlled trial comparing screening and communication of positive results to clinicians vs. no screening	8293 eligible; 6743 randomized to be screened or not; 707 had + screen results and participated in screened (347) and unscreened (360) conditions	English-speaking women aged 18 to 64 years who had a male partner at some time in the preceding 12 months	12 primary care, 11 acute care and 3 specialty care sites in Ontario, Canada	Interviews at baseline and at 6, 12, and 18 months post-baseline	Women in the screened group self-completed the Women Abuse Screening Tool (WAST); if screened as positive, this information was given to the clinician. Instruments administered at baseline, 6, 12, and 18 months: Composite Abuse Scale (CAS); World Health Organization Quality of Life (WHOQOL-BREF) instrument, psychological scale; Center for Epidemiologic Studies Depression scale; Startle, Physiological Arousal, Anger and Numbness (SPAN) instrument; TWEAK screening tool; 12-item Short-form Health Survey, Version 2; Consequences of Screening Tool (COST); and a modified version of the Health and Social Service Utilization questionnaire. Those in the nonscreened group completed the WAST and CAS after their clinical encounter, and then all subsequent measures as in the screened group.
	<b>Recruitment</b>	<b>Inclusion Criteria</b>	<b>Intervention</b>		<b>Results</b>	<b>Quality Rating</b>
	Women who presented at the study site for a health care visit between July 2005 and December 2006 were approached by a study recruiter to determine eligibility.	Female, aged 18 to 64 years, had a male partner at some time in the past 12 months, presented on their own for a health care visit, were able to separate themselves from those accompanying them, lived within 120 km of the site, able to speak and read English, not too ill to participate, and able to provide consent.	Women in the screened group who screened positive were seen by treating clinicians trained in responding to IPV. These clinicians were informed of the positive status prior to seeing the women and any discussion of positive findings and any further referrals or treatment were left to the discretion of the clinician according to his or her usual practice.		At 18 months (n=411), observed recurrence of IPV among screened vs. nonscreened women was 46% vs. 53% (modeled odds ratio, 0.82 [95% CI, 0.32-2.12]). Screened vs. nonscreened women had about a 0.2-SD greater improvement in quality of life scores (modeled score difference at 18 months, 3.74 [95% CI, 0.47-7.00]). When multiple imputation was used to account for sample loss, differences between groups were reduced and quality of life differences were no longer significant. Screened women reported no harms of screening.	Fair  High loss to followup: 43% (148/347) in screened and 41% (148/360) in nonscreened women.

## Appendix C2. Quality Ratings of Randomized, Controlled Trials of Screening for Intimate Partner Violence

Author, Year	Randomization adequate?		Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
MacMillian et al, 2009 <sup>87</sup>	Yes		NR	Yes	Yes	Yes	Yes	No	Unclear
	Reporting of attrition, crossovers, adherence, and contamination?	Loss to followup differential or high	Intention-to-treat analysis	Post-randomization exclusions	Outcomes prespecified	Funding source	External validity		Quality rating
	Yes, no, yes, no	Yes, high 43% (148/347) of screened; 41% (148/360) nonscreened	Yes	No	Yes	Ontario Women's Health Council/Echo	Possible limitations: Canadian setting offers universal health care and followup care services; site conditions carefully controlled; no specific IPV intervention was provided.		Fair (high loss to followup)

### Appendix C3. Studies of Screening Instruments for Intimate Partner Violence

Author, year	Study design	N	Instrument	Reference standard	Types of abuse	Subjects	Setting	Screener	Results	Quality rating
Chen et al, 2005 <sup>91</sup>	Cross-sectional	202	HITS and WAST	English: ISA-Physical Spanish: WAST	Physical abuse	Women aged ≥18 yrs, currently involved with an intimate partner Mean age: 35.8 yrs 72.3% Hispanic	Urban family practice clinic	Medical students	<p><b>Sensitivity</b> English (cut-point=10.5): 86% Spanish (cut-point=5.5): 100%</p> <p><b>Specificity</b> English (cut-point=10.5): 99% Spanish (cut-point=5.5): 86%</p> <p><b>Positive Predictive Value</b> English (cut-point=10.5): 86% Spanish (cut-point=5.5): 45%</p> <p><b>Negative Predictive Value</b> English (cut-point=10.5): 99% Spanish (cut-point=5.5): 100%</p> <p><b>Positive Likelihood Ratio</b> English (cut-point=10.5): 90.86 Spanish (cut-point=5.5): 7.27</p> <p><b>Negative Likelihood Ratio</b> English (cut-point=10.5): 0.14 Spanish (cut-point=5.5): 0.00</p>	Fair

## Appendix C4. Quality Ratings of Studies of Screening Instruments for Intimate Partner Violence

Author, year	Groups similar at baseline	Representative spectrum	Random or consecutive sample	Eligibility criteria specified	Adequate sample size (>50)	Adequate attrition/attrition explained (ITT?)	Credible reference standard used	Reference standard replicable	Reference standard interpreted independently	Reference standard applied to all subjects or a random subset	Screening test adequately described	Include sensitivity/specificity/PPV/NPV	Quality rating
Chen et al, 2005 <sup>91</sup>	No; Spanish-speaking group tended to be older (p<0.001), lower income (p<0.001), married (p<0.001), and pregnant (p<0.05)	No; approximately 70% of clinic population is Hispanic (72% of study sample)	Yes; consecutive	Yes	Yes	Yes	Yes; ISA and WAST	Yes	No	Yes; all	Yes	Yes	Fair
Dubowitz et al, 2008 <sup>100</sup>	Yes	No	Yes; random	Yes	Yes; 200	Yes	Yes; CTS2	Yes	Unclear	Yes; all	Yes	Yes	Fair
Ernst et al, 2004 <sup>95</sup>	No; no comparison group, no difference between responders and nonresponders	No; men and women included	Yes; consecutive enrollment in randomized time blocks	Yes	Yes; 306	Yes	Yes; ISA	Yes	Unclear	No; 10 participants did not complete ISA	Yes	Yes	Fair
Fulfer et al, 2007 <sup>99</sup>	Unclear	Unclear	Unclear	Yes	Yes	N/A	No	Yes	Unclear	Yes; all	Yes	Yes	Fair
Houry et al, 2004 <sup>89</sup>	No; no comparison group	Unclear	No; attempted to be consecutive but missed patients	Yes	Yes	No; 69% response, reasons for declining not reported	Yes; CTS	Yes	Unclear	No; only 96/215 completed 4-month followup	Yes	No; reported relative risks for future abuse based on index test	Fair
MacMillan et al, 2006 <sup>90</sup>	Yes	Yes	No; attempted to be consecutive but missed 1216/13767 women	Yes	Yes; 2461	Yes	Yes; CAS	Yes	Unclear	Yes; all	Yes	Yes	Good
Paranjape et al, 2003 <sup>96</sup>	N/A; no comparison group	No	Yes; consecutive	Yes	Yes; 75	Yes	No; semi-structured interview	No	Unclear	Yes; all	Yes	Yes	Fair

## Appendix C4. Quality Ratings of Studies of Screening Instruments for Intimate Partner Violence

Author, year	Groups similar at baseline	Representative spectrum	Random or consecutive sample	Eligibility criteria specified	Adequate sample size (>50)	Adequate attrition/attrition explained (ITT?)	Credible reference standard used	Reference standard replicable	Reference standard interpreted independently	Reference standard applied to all subjects or a random subset	Screening test adequately described	Include sensitivity/specificity/PPV/NPV	Quality rating
Paranjape et al, 2006 <sup>97</sup>	Yes (grouped after screening); IPV-negative participants more likely to be in a relationship	No	Yes; consecutive	Yes	Yes; 240	Yes	Yes; ISA	Yes	Unclear	Yes; all	Yes	Yes	Fair
Peralta et al, 2003 <sup>101</sup>	N/A; cross-sectional	No	Unclear	Yes	Yes	Yes	No	Yes	Unclear	Yes; all	Yes	Yes	Fair
Reichenheim et al, 2004 <sup>88</sup>	Yes; case-control	No	Yes; random	Yes	Yes; 748	Yes	Yes; CTS2	Yes	Unclear	Yes; all	Yes	Yes	Fair
Sohal et al, 2007 <sup>93</sup>	N/A (cross-sectional); no comparison group	No	Yes; consecutive	Yes	Yes; 232	Yes; includes ITT analysis	Yes; CAS	Yes	Unclear	Yes; all	Yes	Yes	Fair
Thombs et al, 2007 <sup>98</sup>	Yes; women who screened negative for IPV more likely to be white (p<0.01)	Yes	Yes; random	Yes	Yes; 1225	Yes	Yes; CTQ-SF	Yes	Yes	Yes; random	Yes	Yes	Good
Wathen et al, 2008 <sup>92</sup>	Yes	Yes	Yes; random	Yes	Yes; 399	Yes; includes ITT analysis	Yes; CAS	Yes	Unclear	Yes; all	Yes	Yes; reported from previous studies	Good
Weiss et al, 2003 <sup>94</sup>	No; no comparison group	No; includes both men and women	Yes; consecutive	Yes	Yes; 856	Yes	Yes; ISA	Yes	Unclear	Yes; all	Yes	Yes	Fair
Zink et al, 2007 <sup>102</sup>	N/A; grouped after screening	Unclear	Unclear	Yes	Yes; 393	Yes	Yes; CTS2	Yes	No	Yes; all	Yes	Yes	Fair

## Appendix C5. Studies of Interventions for Intimate Partner Violence

Author, Year	Study design	N	Population	Setting	Duration	Screening assessment
Bair-Merritt et al, 2010 <sup>107</sup>	Randomized controlled trial comparing whether mothers receiving home visitation after giving childbirth had changes in IPV vs. those who did not receive home visitation	897 eligible; 685 randomized	English-speaking mothers in Oahu, Hawaii hospitals who gave birth to an infant evaluated as at risk for maltreatment; 33% Hawaiian/Pacific Islander, 28% Asian Filipino, 37% white	Recruitment from 6 hospitals in Oahu, Hawaii. Intervention provided in home of mother/care provider	Interviews within 1 week post-birth, annually when child was ages 1 to 3 years, and annually when child was ages 7 to 9 years	Conflict Tactics Scale 1 (CTS1) at baseline; CTS2 at subsequent data points with 4 sexual coercion questions omitted.
	<b>Recruitment</b>	<b>Inclusion criteria</b>	<b>Intervention</b>	<b>Results</b>		<b>Quality rating</b>
	Women at 6 hospitals in Oahu, Hawaii who gave birth between November 1994 and December 1995	Families who gave birth Nov 1994 to Dec 1995 in Oahu, had an English-speaking mother, were not involved with protective services and had an infant assessed at high risk for maltreatment	Home visitation with goal of promoting child health and decreasing child maltreatment by linking families to appropriate community services, teaching about child development, role-modeling positive parenting and problem-solving strategies, and offering emotional support. Intervention offered by 3 community agencies. Mean of 13.6 visits in first year.	During program, intervention mothers had lower rates of IPV victimization (incidence rate ratio [IRR] 0.86 [95% CI, 0.73-1.01]) and lower rates of perpetration (IRR, 0.83 [95% CI, 0.72-0.96]). Mothers receiving intervention had lower rates of physical assault victimization (IRR, 0.85 [95% CI, 0.71-1.00]) and perpetration (IRR, 0.82 [95% CI, 0.70-0.96]). Long-term followup rates of overall IPV victimization and perpetration decreased with nonsignificant between-group differences. Verbal abuse victimization rates may have increased in intervention mothers (IRR, 1.14 [95% CI, 0.97-1.34]).		Fair
Author, Year	Study design	N	Population	Setting	Duration	Screening assessment
Curry et al, 2006 <sup>108</sup>	Randomized controlled trial comparing an offer to watch an abuse video and receive 24-hour individualized nursing case management vs. no intervention control on stress levels of pregnant women at risk for or in abusive relationships	1649 eligible; 1000 randomized	English-speaking women aged 14-46 years who were 13 to 23 weeks pregnant at 2 prenatal clinics. Pacific NW HMO clinic: Caucasian 67.6%, African American 16.2%, Hispanic 4.4%, Asian/Pacific Islander 3.8%, Native American 1.2%. Rural midwestern university clinic: 82%, 12.2%, 1.4%, 2.6%, and 0%, respectively.	Prenatal clinics: 1 Pacific NW HMO, 1 rural midwestern university clinic	From early pregnancy (before week 23) to delivery. Duration data not provided; up to 7-8 months is assumed. 1st assessment prior to 23 weeks of pregnancy, 2nd between 32 weeks and delivery.	3 questions from the Abuse Assessment Screen (AAS); Prenatal Psychosocial Profile (PPP). Risk for abuse determined by response from the 3 AAS questions and to 1 PPP question asking how stressed the respondent is regarding current physical, sexual, or emotional abuse. Scores of 24 or more on the PPP stress scale were determined to indicate high risk.
	<b>Recruitment</b>	<b>Inclusion criteria</b>	<b>Intervention</b>	<b>Results</b>		<b>Quality rating</b>
	Pregnant adolescents and women presenting at 2 prenatal clinics from 2001 through 2003.	English-speaking adolescents and women 13 to 23 weeks pregnant who presented at 2 prenatal clinics.	Offer to view abuse video and access nurse case manager 24/7. Intervention participants were classified as low or high risk. Those who were actively case-managed received individual, comprehensive assessment to develop a care plan. Intervention categories: support, assess, educate, monitor, coordinate and coach. All were offered a card with safety and abuse recognition info, with numbers for national and local DV resources.	Total stress scores of high-risk case-managed participants decreased significantly (p<0.001). Item and total stress scores of high-risk control participants also decreased, and differences between intervention and control were not significant. For both intervention and control, only the item related to pregnancy stress increased between T1 and T2. For both groups, total scores and all item scores, except pregnancy stress, were significantly lower at T2.		Poor



## Appendix C5. Studies of Interventions for Intimate Partner Violence

Author, Year	Study design	N	Population	Setting	Duration	Screening assessment
El-Mohandes et al, 2008 <sup>109</sup> (NIH-DC Initiative to Reduce Infant Mortality in Minority Populations)	Randomized trial comparing a clinic-based individually-tailored behavioral intervention with usual care to evaluate the effectiveness of an integrated multiple-risk intervention for pregnant women in reducing risks, including IPV, postpartum	1398 eligible; 1070 randomized	English-speaking, pregnant African American women presenting at 6 prenatal care sites in the District of Columbia.	6 prenatal care sites in the District of Columbia	Interviews at baseline, presumably in the first trimester, with followup interviews at 22-26 weeks' gestation, 34-38 weeks' gestation, and at an average 10.3 weeks postpartum	Audio-Computer Assisted Survey Interview screening. For IPV, women were asked if a current or previous partner, boyfriend, husband, or the baby's father had pushed, shoved, slapped, kicked, or physically hurt them or forced them to have sexual intercourse in the last year, or if they were afraid of their current partner. The baseline interview included the Conflict Tactics Scale. IPV was confirmed if a woman reported being subjected to any of the actions on the revised Conflict Tactics Scale at least once by her partner in the last year.
	Recruitment	Inclusion criteria	Intervention		Results	Quality rating
	Pregnant African American women seeking health care at 6 prenatal care sites in the District of Columbia between July 2001 and October 2003	African American women aged ≥18 years and at 28 weeks or less of pregnancy, DC residents, English speaking, and reporting 1 of 4 designated risks: active smoking, environmental toxic smoke exposure, depression or IPV.	IPV intervention was adapted from the Parker-McFarlane structured intervention to individualized counseling. Behavioral counseling for IPV was integrated from a brochure-based approach using Dutton's empowerment theory. The intervention was intended to be delivered prenatally for a minimum of 4 sessions, with 8 sessions considered ideal. Up to 2 postpartum booster sessions were offered. The intervention was offered by Master's degree trained counselors. Prenatal sessions lasted 36±15 minutes per session, with an average of 3.9 sessions. Postpartum sessions lasted 38±13 minutes per session, with an average of 0.8 sessions. 46% of participants did not receive minimum number of intervention sessions.		IPV reduced from 36.8% to 9.9% between baseline and post-partum (p<0.001). No significant differences in change in IPV between intervention and control groups.	Fair
Author, Year	Study design	N	Population	Setting	Duration	Screening assessment
El-Mohandes et al, 2011 <sup>29</sup> (NIH-DC Initiative to Reduce Infant Mortality in Minority Populations)	Randomized trial comparing a clinic-based individually-tailored behavioral intervention with usual care to evaluate the effectiveness of an integrated multiple-risk intervention for pregnant women in reducing risks, including IPV, postpartum	1044 randomized; 819 analyzed (live, singleton, birth outcomes available)	English-speaking, pregnant African American women Maternal age: 18-22 (43%), 23-27 (31%), 28+ (27%) Single/separated/widowed/divorced: 75% Medicaid: 79% Income <\$2000/month: 71% Prior IPV: 32%	6 prenatal care sites in the District of Columbia	Interviews at baseline, presumably in the first trimester, with followup interviews at 22-26 weeks' gestation, 34-38 weeks' gestation	Audio-Computer Assisted Survey Interview screening was used to screen for risk factors, pregnancy status, and demographic eligibility. Additional questions asked during a telephone interview.

## Appendix C5. Studies of Interventions for Intimate Partner Violence

Author, Year	Recruitment	Inclusion criteria	Intervention	Results	Quality rating	
El-Mohandes et al, 2011 <sup>29</sup> (NIH-DC Initiative to Reduce Infant Mortality in Minority Populations)	Pregnant African American women seeking health care at 6 prenatal care sites in the District of Columbia between July 2001 and October 2003.	African American women aged ≥18 years and at 28 weeks or less of pregnancy, DC residents, English speaking, and reporting 1 of 4 designated risks: active smoking, environmental toxic smoke exposure, depression or IPV.	Designed to occur during prenatal care (immediately after visits) for 8 discrete sessions lasting 35±15 minutes (actually received 1.7-7.1 sessions). IPV intervention was adapted from the Parker-McFarlane structured intervention to individualized counseling. Behavioral counseling for IPV was integrated from a brochure-based approach using Dutton's empowerment theory. Smoking and depression were also addressed.	Very preterm birth (significant): 2.2% (9/402) intervention group vs. 5.0% (21/416) usual care group (OR, 0.43 [95% CI, 0.20-0.95]; NNT=36 mothers) Very low birth weight (not significant): 1.0% (4/402) intervention group vs. 2.2% (9/415) usual care group (OR, 0.45 [95% CI, 0.14-1.48]); NNT=83 mothers) IPV recurrence: 7.9% intervention group vs. 21.6% usual care group (p=0.04) Among women reporting no risks (smoking, environmental toxic smoke exposure, depression, IPV) at baseline, more women in usual care group than intervention group reported risks during the last followup interview (p=0.04) Women randomized to intervention group reported a significant reduction in risks if they reported 1-2 risks at baseline (p=0.21), but not if they reported 3-4 risks (p=0.383).	Fair	
Author, Year	Study design	N	Population	Setting	Duration	Screening assessment
Kiely et al, 2010 <sup>30</sup> (NIH-DC Initiative to Reduce Infant Mortality in Minority Populations)	Randomized trial of counseling interventions during pregnancy and postpartum vs. usual care for recurrent IPV	1398 eligible; 1044 randomized	English-speaking, pregnant African American women Mean age: 24.5 years % Medicaid: 79% 336 (32%) reported prior IPV	6 prenatal care sites in the District of Columbia	Interviews at baseline, presumably in the first trimester, with followup interviews at 22-26 weeks' gestation, 34-38 weeks' gestation, and 8-10 weeks postpartum	Interviews at baseline with followup interviews at 22-26 weeks' gestation, 34-38 weeks' gestation, and 8-10 weeks postpartum. Used the Abuse Assessment Screen and the Conflict Tactics Scale.
Recruitment	Inclusion criteria	Intervention	Results	Quality rating		
Pregnant African American women seeking health care at 6 prenatal care sites in the District of Columbia between July 2001 and October 2003.	African American women aged ≥18 years and at 28 weeks or less of pregnancy, DC residents, English speaking, and reporting 1 of 4 designated risks: active smoking, environmental toxic smoke exposure, depression or IPV.	Prenatal behavioral counseling for 4-8 sessions, with up to 2 postpartum sessions provided by professional counselors. IPV counseling emphasized safety behaviors and information on community resources. Smoking and depression were also addressed.	Women in the intervention group had less recurrent episodes of IPV during pregnancy and postpartum (OR, 0.48 [95% CI, 0.29-0.80]); fewer very preterm neonates (1.5% vs. 6.6%; p=0.03), and increased mean gestational age (38.2 vs. 36.9 weeks; p=0.016).	Good		

## Appendix C5. Studies of Interventions for Intimate Partner Violence

Author, Year	Study design	N	Population	Setting	Duration	Screening assessment
McFarlane et al, 2006 <sup>110</sup>	Randomized, 2-arm trial comparing wallet-sized referral card and 20-min nurse management protocol for prevention of IPV with 360 abused women	433 eligible; 360 randomized	English- or Spanish-speaking women aged 18 to 45 presenting for clinic care. Caucasian: 11.9% Black: 27.9% Hispanic: 59.6%	2 primary care public health clinics and 2 WIC clinics in a large urban area	Interviews at baseline and at 6, 12, 18, and 24 months post-baseline	2 questions from the Abuse Assessment Screen. Those with a positive response to item 1 or 2 were invited to participate. Outcomes were measured with the Safety Behavior Checklist (with an adjustment procedure), the Community Resource Checklist, The Severity of Violence Against Women Scale (SAVAWS), the Danger Assessment Scale, and the Employment Harassment Questionnaire. Baseline measures asked about the preceding 12 months; subsequent measures asked about the time period since the previous interview.
	Recruitment	Inclusion criteria	Intervention	Results	Quality rating	
	Women aged 18 to 45 presenting at 2 primary care and 2 WIC clinics in a large urban area from February 2001 to June 2002.	Women aged 18 to 45 assessed as positive for physical or sexual abuse in the past 12 months.	1) Wallet-sized referral card with a safety plan and sources for IPV services or 2) 20-minute nurse case management protocol (March of Dimes) including a brochure with a 15-item safety plan, supportive care, anticipatory guidance, and guided referrals.	2 years after treatment, both groups reported fewer threats of abuse ( $p<0.001$ ) ( $M=14.5$ [95% CI, 12.6-16.40]), assaults ( $M=15.5$ [95% CI, 13.5-17.4]), danger risks for homicide ( $M=2.6$ [95% CI, 2.1-3.0]), and events of work harassment ( $M=2.7$ [95% CI, 2.3-3.1]), but there were no significant differences between groups. Compared with baseline, both groups adopted more safety behaviors by 24 months ( $M=2.0$ [95% CI, 1.6-2.3]). Community resource use declined for both groups ( $p<0.001$ ; $M= -0.2$ [95% CI, -0.4 to -0.2]). There were no significant differences between groups.	Fair	
Author, Year	Study design	N	Population	Setting	Duration	Screening assessment
Miller et al, 2011 <sup>111</sup>	Cluster randomized trial of counseling intervention versus usual care	1337 eligible; 906 participated	English- or Spanish-speaking women aged 16-29 years. 16-24 years: 76% 25-29 years: 24% White: 22.9% Black: 27.9% Hispanic: 29.7% Asian Pacific Islander: 12.9%	4 urban family planning clinics in California	12-24 months post-intervention	Randomized to intervention or usual care via clinic attended. Computer-assisted followup survey between 12-24 weeks after baseline survey. Surveys included items from the Conflict Tactics Scales 2 and Sexual Experiences Survey, questions about awareness and recent use of IPV services, and relationship changes from baseline.
	Recruitment	Inclusion criteria	Intervention	Results	Quality rating	
	Women presenting to family planning clinics from October 2008 to May 2009	English- or Spanish-speaking women aged 16-29 years attending 4 urban family clinics in Northern California	1) Intervention clinics: counseling intervention that educates patients about reproduction coercion and provides information about local IPV and sexual assault resources. 2) Usual care clinics: includes responding to 2 IPV screening questions on a routine intake form using a standard clinic protocol.	Intervention women with recent IPV had decreased pregnancy coercion at followup compared with usual care (adjusted OR, 0.29 [95% CI, 0.09-0.91]). Intervention women were also more likely to discontinue an unhealthy or unsafe relationship compared with usual care ( $p=0.013$ ).	Fair	

## Appendix C5. Studies of Interventions for Intimate Partner Violence

Author, Year	Study design	N	Population	Setting	Duration	Screening assessment
Taft et al, 2011 <sup>112</sup> (Taft 2009 protocol and methods described)	Cluster randomized trial of mentor support vs. usual care	215 eligible; 174 participated	English- or Vietnamese-speaking mothers, ≥16 years, who were pregnant or had at least 1 child, who disclosed IPV or had behavioral symptoms suggestive of abuse.	Primary care clinics in Melbourne, Australia	12 months	Abuse measured by the Composite Abuse Scale (CAS), depression (Edinburgh Postnatal Depression Scale), wellbeing (SF-36), parenting stress (PSI-SF), and social support (MOS-SF) at baseline and followup.
	Recruitment	Inclusion criteria	Intervention	Results	Quality rating	
	Consecutive, eligible women presenting to primary care clinics in Melbourne from January 2006 to December 2007, recruited by clinicians	English- or Vietnamese-speaking mothers, ≥16 years, who were pregnant or had at least 1 child, who disclosed IPV or had behavioral symptoms suggestive of abuse. Serious mental illness excluded.	1) 12 months of weekly home visits from trained nonprofessional mentors offering advocacy, parenting support, and referrals. 2) Usual care.	Abuse scores were significantly reduced in intervention vs. comparison groups (adjusted difference, -8.67 [95% CI, -16.2 to -1.15]). Other differences were not significant (depression, physical wellbeing, mental wellbeing, parenting stress).	Fair	

Abbreviations: A-CASI = audio-computer assisted survey interview; AAS = Abuse Assessment Screen; CAS = Composite Abuse Scale; CI = confidence interval; CTS = Conflict Tactics Scale; DV = domestic violence; HMO = health maintenance organization; IPV = intimate partner violence; IRR = incidence rate ratio; NW = northwest; OR = odds ratio; PPP = Prenatal Psychosocial Profile; PSI-SF = Parenting Stress Interview-Short Form; SAVAWS = Severity of Violence Against Women Scale; WIC = Women, Infants, and Children.

## Appendix C6. Quality Ratings of Studies of Interventions for Intimate Partner Violence

Author, Year	Randomization adequate?	Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
Bair-Merritt et al, 2010 <sup>107</sup>	Yes	Yes	No	Yes	Yes	Yes	No	No
	Reporting of attrition, crossovers, adherence, and contamination	Loss to follow-up differential/high	Intention-to-treat analysis	Post-randomization exclusions	Outcomes prespecified	Funding source	External validity	Quality rating
	Yes; no; adherence and contamination unclear	Yes, high 280/373 participating families discontinued intervention in year 1	Unclear; adjusted analyses used to address some confounders	Yes; no; unclear	Yes	Federal Maternal & Child Health Bureau, Robert Wood Johnson Foundation, David and Lucile Packard Foundation, Hawaii State Department of Health, NIH, National Institute of Child Health & Human Development		Fair
Author, Year	Randomization adequate?	Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
Curry et al, 2006 <sup>108</sup>	Method NR	NR	No; differ by age, income, and education	No	Yes	No	No	No
	Reporting of attrition, crossovers, adherence, and contamination	Loss to follow-up differential/high	Intention-to-treat analysis	Post-randomization exclusions	Outcomes prespecified	Funding source	External validity	Quality rating
	Yes; yes; yes; no	Unclear	No	Unclear	Yes	NR		Poor
Author, Year	Randomization adequate?	Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
El-Mohandes et al, 2008 <sup>109</sup> (NIH-DC Initiative to Reduce Infant Mortality in Minority Populations)	Method NR	NR	Yes	Yes	Yes	Yes	No	No
	Reporting of attrition, crossovers, adherence, and contamination	Loss to follow-up differential/high	Intention-to-treat analysis	Post-randomization exclusions	Outcomes prespecified	Funding source	External validity	Quality rating
	Yes; no; yes; no	Yes, high Intervention: 350/529 (34%) lost to follow-up Control: 373/541 (31%) lost to follow-up	No	Yes	Yes	National Institute of Child Health & Human Development, National Center on Minority Health & Health Disparities	Restricted to high-risk urban African American women	Fair
Author, Year	Randomization adequate?	Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
El-Mohandes et al, 2011 <sup>29</sup> (NIH-DC Initiative to Reduce Infant Mortality in Minority Populations)	Yes	Yes	Yes	Yes	Yes	Yes	No	No
	Reporting of attrition, crossovers, adherence, and contamination	Loss to follow-up differential/high	Intention-to-treat analysis	Post-randomization exclusions	Outcomes prespecified	Funding source	External validity	Quality rating
	Yes; no; yes; no	No	Yes	Yes	Yes	National Institute of Child Health and Human Development, National Center on Minority Health and Health Disparities	Restricted to high-risk urban African American women	Fair

## Appendix C6. Quality Ratings of Studies of Interventions for Intimate Partner Violence

Author, Year	Randomization adequate?	Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
Kiely et al, 2010 <sup>30</sup> (NIH-DC Initiative to Reduce Infant Mortality in Minority Populations)	Yes	Yes	Yes	Yes	Yes	Yes	NR	No
	Reporting of attrition, crossovers, adherence, and contamination	Loss to follow-up differential/high	Intention-to-treat analysis	Post-randomization exclusions	Outcomes prespecified	Funding source	External validity	Quality rating
	Yes; no; yes; no	No	Yes	Yes	Yes	Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Center on Minority Health and Health Disparities	Analysis restricted to women with prior IPV; study restricted to high-risk urban African American women	Good
Author, Year	Randomization adequate?	Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
McFarlane et al, 2006 <sup>110</sup>	Yes	Yes	No	Yes	Yes	No	No	No
	Reporting of attrition, crossovers, adherence, and contamination	Loss to follow-up differential/high	Intention-to-treat analysis	Post-randomization exclusions	Outcomes prespecified	Funding source	External validity	Quality rating
	Yes; no; no; no	No	No	No	Yes	Agency for Healthcare Research and Quality	Restricted to primarily urban minority women aged 18-44 in public primary care clinics who disclosed abuse when assessed by a nurse.	Fair
Author, Year	Randomization adequate?	Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
Miller et al, 2011 <sup>111</sup>	Unclear; clinics were randomized (N=4)	Yes	No, intervention clinics had more Hispanic/Latina participants who were born outside of U.S.; control clinics had more black participants (p<0.001)	Unclear	Yes	Unclear	No	No
	Reporting of attrition, crossovers, adherence, and contamination	Loss to follow-up differential/high	Intention-to-treat analysis	Post-randomization exclusions	Outcomes prespecified	Funding source	External validity	Quality rating
	Yes; yes; yes; no	No	Yes	No	Yes	National Institute of Child Health and Human Development, UC Davis Health System Research Award, Building Interdisciplinary	At risk of IPV	Fair

## Appendix C6. Quality Ratings of Studies of Interventions for Intimate Partner Violence

						Research Careers in Women's Health Award		
Author, Year	Randomization adequate?	Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
Taft et al, 2011 <sup>112</sup> (Taft et al 2009 protocol and methods described)	Clinics were randomized	Yes	Imbalance of women recruited in trial arms; intervention group had higher level of probable depression; adjustments made	Unclear	Yes	No	No	No
	Reporting of attrition, crossovers, adherence, and contamination	Loss to follow-up differential/high	Intention-to-treat analysis	Post-randomization exclusions	Outcomes prespecified	Funding source	External validity	Quality rating
	Yes; yes; yes; no	No	Yes	No	Yes	National Health and Medical Research Council, VicHealth, Victorian Government Community Support Fund Grant Program, Beyondblue.	At risk for IPV	Fair

Abbreviations: NR = not reported.

## Appendix C7. Studies of Screening Instruments for Elder Abuse and Neglect

Author, year	Study design	N	Instrument	Reference standard	Types of abuse	Subjects	Setting	Screener	Results	Quality rating
Yaffe et al, 2008 <sup>129</sup>	Cohort	953	Elder Abuse Suspicion Index (EASI)	Social work evaluation	Physical abuse and neglect, emotional abuse, financial abuse	Patients ages ≥65, English or French speaking, scores ≥24 on Mini Mental Status Exam Mean age: 75.6 years	2 university-affiliated family medicine centers and 1 government community-based health center in Montreal, Canada.	Physicians	<p><b>Proportion of subjects with at least 1 positive response, EASI</b> 184/663 (28.5%)</p> <p><b>Sensitivity, EASI vs. social work evaluation</b>                      ≥1 on Q. 1-6: 0.47                      ≥1 on Q. 2-6: 0.32                      ≥2 on Q. 1-6: 0.14                      Q1 and ≥1 on Q. 2-6: 0.09</p> <p><b>Specificity, EASI vs. social work evaluation</b>                      ≥1 on Q. 1-6: 0.75                      ≥1 on Q. 2-6: 0.89                      ≥2 on Q. 1-6: 0.96                      Q1 and ≥1 on Q. 2-6: 0.97</p>	Fair



## Appendix C8. Quality Ratings of Studies of Screening Instruments for Elder Abuse and Neglect

Author, year	Groups similar at baseline	Representative spectrum	Random or consecutive sample	Eligibility criteria specified	Adequate sample size (>50)	Adequate attrition/attrition explained (ITT?)	Credible reference standard used
Yaffe et al, 2008 <sup>129</sup>	Yes	Yes	Yes; attempted consecutive but only approached 2133/2832 potentially eligible patients	Yes	Yes; 953	Yes; include ITT	Yes; social work evaluation
	<b>Reference standard replicable</b>	<b>Reference standard interpreted independently</b>	<b>Reference standard applied to all subjects or a random sub-set</b>		<b>Screening test adequately described</b>	<b>Include sensitivity/specificity/PPV/NPV</b>	<b>Quality rating</b>
	Yes	Yes	Unclear		Yes	Yes	Fair

