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Violence Against Women: Synthesis of Research for Public Health Policymakers

By Kathryn E. Moracco, Carol W. Runyan, and Lisa Dulli

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This report is written for public health policymakers, a broadly defined group that encompasses legislators; funders; agency administrators; chairs of programs and departments in schools of public health, medicine, nursing, and other schools in health affairs; and clinical staff and administrators in hospitals, health departments, and other health care settings—in short, anyone who makes decisions that affect public health policies or their implementation. For this project, violence against women encompasses "physical, emotional, sexual, or psychological abuse committed by intimate partners or acquaintances."¹*

Violence Against Women as a Public Health Problem

Violence is a significant threat to the health and well-being of women, yet it has only recently been recognized as a serious public health problem. Homicide is the fourth leading cause of death for women younger than age 45, the leading cause of death for African-American women ages 15 to 24, and the leading cause of on-the-job death for all women.^{2,3}

Estimates of the magnitude of violence against women vary widely depending on the type of violence being measured, how that violence is defined, the nature of the study sample, and the methodology employed. Every year at least 1 million women will require emergency department care as a result of ongoing battering, 1 million will be stalked, about 500,000 will be raped or sexually assaulted, and an estimated 2 to 4 million will be physically assaulted by partners, relatives, acquaintances, and strangers.^{4–6}

Experiencing physical and sexual violence has profound and long-lasting physical and mental health consequences, including fatal and nonfatal injuries, sexually transmitted diseases, unwanted pregnancies, somatic complaints, chronic pain, gastrointestinal disorders, headaches, posttraumatic stress disorder, substance abuse, depression, chronic fatigue, sexual dysfunction, anxiety, phobias, sleep and eating disorders, suicide ideology and attempts, and persistent feelings of vulnerability.⁷⁻¹³ Furthermore, 30 percent of women who have been stalked reported that they sought counseling, and 26 percent said they lost time from work as a result of their experiences. Stalking victims are more likely to be very concerned about their personal safety and to carry something to protect themselves than are women who have not been stalked.¹⁴ Yet, the consequences of violence against women are much broader than the impact on individual victims; it wreaks immense economic and social havoc. Sexual assault and domestic violence victims have higher rates of health care utilization and report lower perceived health status than nonvictimized women.^{15–17} In fact, violence is one of the most powerful predictors of increased health care utilization for women.^{8,18} In addition, an estimated 25 to 60 percent of homeless women are fleeing battering situations.^{19–23} The annual societal tolls of domestic violence and rape/sexual assault are estimated to be \$67 billion and \$127 billion, respectively.²⁴

Despite its enormous public health impact, the recognition of violence against women as a public health policy issue is a relatively recent development. Until the early 1980s, concerns about violence against women rested almost exclusively within the purview of criminology, sociology,

^{*}The superscript numbers refer to numbered references in the reference list at the end of this report.

psychiatry, or psychology. Violence emerged as a major public health concern for the first time in 1980 when the U.S. Surgeon General's report *Healthy People 2000*^{25,26} identified the control of stress and violent behavior as 1 of 15 priority areas. This landmark document was followed by other reports, workshops, and conferences that addressed violence as a public health issue.^{27–29} Then-Surgeon General C. Everett Koop urged the public health community to "respond constructively to the ugly facts of interpersonal violence."³⁰ The study of violence from a public health perspective was institutionalized in 1991 with the creation of the Division of Violence Prevention within the National Center for Injury Prevention and Control at the Centers for Disease Control and Prevention (CDC).

A public health approach to interpersonal violence, including violence against women, examines violence as a problem that can be studied, understood, and prevented—not as an inevitable phenomenon. Proponents of this perspective point to public health successes in controlling infectious diseases, such as smallpox and polio, which were once considered unavoidable. Advantages of a public health approach to violence include its emphasis on prevention; its interdisciplinary nature; the analytical tools, such as epidemiological methods and surveillance techniques, that public health can contribute; and a focus on policy as an intervention strategy.^{30–36}

The prevalence of violence against women among patient populations varies widely, depending on the screening method used, the sample, and the health care setting. Research in emergency departments suggests that 2 to 7 percent of all female patients present with acute trauma caused by abuse.^{37–42} That proportion increases to 3 to 12 percent when only female patients who currently have intimate partners are considered.^{37,38} More specifically, an estimated 30 to 41 percent of violence-related injuries of female patients in hospital emergency rooms are inflicted by intimate partners.^{43,44} In addition, 4 to 19 percent of all female emergency room patients have been physically or sexually abused in the previous year,^{37,38,40,42} and 15 to 54 percent report a lifetime history of abuse.^{37–39,41,42,45}

Data are more limited for sexual violence. The National Violence Against Women survey found that 36 percent of adult female rape victims reported being injured. Slightly more than one-third of those injured (35.1 percent) received medical care for injuries sustained from the rape.⁶ In its publication *Strategies for the Treatment and Prevention of Sexual Assault*, the American Medical Association estimates that about 17 percent of known sexual assault victims go to an emergency department to seek immediate care.⁴⁶

Intimate partner violence is also common among female primary care patients. Research suggests that 6 to 21 percent of women who are inpatients in primary care centers are currently victims of intimate partner violence, ^{11,47–51} and 34 to 61 percent have experienced intimate partner violence in their adult lifetimes.^{47–51} Studies have also found that intimate partner violence is common during pregnancy; 1 to 20 percent of women in prenatal care settings reported that they experienced violence during their pregnancies.^{52–60}

Research Reviews and Syntheses

In the context of this report, public health policy is considered as a strategy that modifies social and institutional structures and practices through governmental or institutional change to improve health at a population level. The objective is to communicate key findings from the scientific, peer-reviewed research literature on violence against women and thereby assist in making informed policy decisions regarding violence against women. As the literature is synthesized, gaps in understanding are also identified. In this report, the content and implementation of several potential policy interventions are addressed: universal screening, mandatory reporting, professional education and training, data collection, and mortality reviews. The number of peerreviewed papers on each topic varies widely, and the depth of coverage differs accordingly.

Universal Screening for Violence Against Women in Health Care Settings

In recent years, health care facilities have been called on to develop and implement universal screening policies for violence against women-that is, routine inquiry about violence for all women, at every visit. The American Medical Association,⁶¹ American College of Emergency Physicians,⁶² American College of Obstetricians and Gynecologists (who also recommend routine screening for sexual assault),⁶³ and other professional health care organizations have recommended screening for intimate partner violence of female patients. Proponents of universal screening cite the high prevalence and incidence of violence among both the general female and specific patient populations,^{2,4-6} serious health-related consequences of violence,⁷⁻¹³ and the lack of a consistently discernible "victim profile^{6,64,65} They also indicate that many victims present for health problems other than injuries.^{37,45} For example, one prevalence study found that 77 percent of the battered women presenting to an urban emergency department needed assistance for nontrauma concerns.⁴⁵ The rationales for repeated screening are that health effects may appear long after violent incidents,^{7–13} women's abuse status changes over time,^{66,67} and women may be ready to reveal violence histories at different points in their experience.^{66,67} As with all questions routinely asked during medical visits, health care providers who ask about violence in women's lives are publicly acknowledging the problem of violence and identifying it as a legitimate health concern.

Policies and protocols concerning sexual assault are much less common than those related to intimate partner violence. In 1988, the U.S. Department of Justice sponsored the development of a national hospital/community model protocol for forensic and medical examination of sexual assault victims, which States have used to develop their own uniform protocols.^{46,68} Many hospitals and acute care facilities also have sexual assault evidence collection protocols.^{46,68} However, no national standards currently exist for protocols for identifying past victims of sexual violence.⁶⁸

Public health and medical personnel are in optimal settings for identifying and referring victims of violence. Health care providers come into contact with past, current, and future victims and perpetrators daily, yielding multiple opportunities to reduce morbidity and mortality caused by violence against women. Health care providers, particularly those in primary care settings, are also in influential and trusted roles. As a result, they are potentially in a good position to elicit information from women, work effectively with other helping professions, and influence policy.

Despite all this, health care interventions concerning violence against women are generally not incorporated into standard medical care, health data reporting systems, or health care reimbursement policies.⁶⁹ At the individual level, health care providers are often reluctant to ask their female patients about domestic violence and seldom do so.^{49,53,70–79} Researchers estimate that only 7 to 25 percent of women who have experienced violence are identified in health care settings.⁷³ Underidentification is attributed largely to the lack of screening, which, in turn, has been attributed to many individual provider and system-level barriers.

Individual provider barriers include the following:

- Concern about offending patients, invading family privacy, or both. ^{53,75–79}
- Personal discomfort about discussing the topic, lack of experience with abused patients, or concern about misdiagnosis.^{53,73–80}
- A feeling of powerlessness to do anything about the problem.^{53,71,75,76–80}
- Frustration with patients who return to their abusers.^{53,75}
- Concern that identification may compromise the victim's ability to obtain or keep health insurance.⁷⁷
- Fear for personal safety.^{44,73}
- Cultural differences between patients and clinicians.⁷⁸
- Reluctance to become involved with the justice system.^{77,79}
- Belief that abuse is not a medical problem.⁷⁶
- Lack of awareness about violence against women.⁷⁹

System-level barriers include the following:

- Inadequate provider training.⁷⁶
- Shortage of time during patient visits.^{53,72,73}
- Lack of privacy, particularly in emergency department settings.^{44,45}
- Providers' underestimation of the prevalence of violence among their female patients.^{70,71}
- Lack of availability of 24-hour access to social workers.⁷⁹
- Marginalization of practitioners who take leadership roles in dealing with family violence.⁷⁹

The views of the intended beneficiaries of the policy are important in any consideration of policy creation or change. Several studies have examined women's perspectives of screening in health care settings. Hamberger and colleagues surveyed 115 battered women to identify desirable and

undesirable physician behaviors related to abuse and to describe encounters between these women and their physicians.⁸¹ They identified three categories of physician behaviors—medical service, emotional support, and practical support—and noted desirable and undesirable behaviors in each category. They found that battered women "value medical support that includes taking a complete history, with detailed assessment of current and past violence, but without creating an atmosphere of interrogation" (p. 580). In terms of emotional support, confidentiality, careful listening, validation, and assurance that the abuse was not the woman's fault were desirable. Desirable practical support included telling the woman that abuse is illegal and wrong, providing her with information about local resources, planning for her safety, and scheduling followup visits.⁸¹ Other studies of female patients revealed that the majority favored physician inquiry about violence and would answer truthfully about their experiences if asked directly.^{49,80–85}

Emergency departments have received particular attention as settings for universal domestic violence screening. Since 1992, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has required that accredited emergency departments have domestic violence policies, procedures, and educational opportunities in place. Although JCAHO standards do not specify that universal screening must be done, they require facilities to establish written policies about their screening procedures. That same year, all active emergency departments were surveyed to assess their compliance with JCAHO standards. The survey revealed that slightly more than half (54 percent) reported that they had written policies for treating domestic violence victims, yet only a subset was able to produce documents for the researchers.⁸⁶

Despite the often-cited need to screen for violence against women in emergency departments, relatively few emergency department personnel screen for and identify victims of domestic violence. In a 1995 survey of physicians, nurses, and social workers working at an adult emergency department trauma center, a pediatric emergency department, and a women's urgent care center in Providence, Rhode Island, 55 percent of physicians reported they "never or rarely" screened for domestic violence and 68 percent reported they "never or rarely" screened for sexual assault. Self-reported screening practices were even worse for nurses: 64 percent reported they "never or rarely" screened for domestic violence and 80 percent reported they "never or rarely" screened for sexual assault. In contrast, only 1 of the 16 social workers surveyed reported that she "never or rarely" screened for domestic violence or sexual assault.⁵³ The same study found that 34 percent of physicians and 45 percent of nurses reported they had had no prior training in domestic violence and 24 percent of physicians and 36 percent of nurses had no sexual assault training. Providers who had received training were significantly more likely to report that they screened their patients for domestic violence and/or sexual assault.⁵³

Those who do screen may do so selectively, based on their perceptions of who is at greatest risk of violence. One study of an urban level I trauma center that had procedures for universal screening of partner violence found that less than a third (29.5 percent) of female patients were screened. Women who were less ill, presented with medical or trauma (versus psychiatric) complaints, and presented during the day were more likely to be screened for intimate partner violence. Interestingly, demographic characteristics of the patients and the providers did not prove to be predictive of screening.⁷⁰

Both abused and nonabused women favor health care provider screening for domestic violence.^{49,87,88} Furthermore, most victims will respond truthfully when asked. However, few women will volunteer the information if not asked directly about abuse.^{49,87,88} A study of 130 ever-abused women in an emergency department noted that 36 percent would disclose domestic violence only if they were directly asked, 25 percent would volunteer the information, and 11 percent would not disclose the abuse, even if asked directly.⁸⁷

Few studies have examined the effectiveness of various methods of screening in emergency departments. One pilot study conducted in West Virginia compared in-person interviews to tape-recorded questionnaires as methods of asking female patients about domestic violence. The results indicated no significant differences in the proportion of women who refused to participate or who reported abuse using the two different methods of screening.⁴¹ Another study compared a brief, three-item screening tool, the Partner Violence Screen (PVS), to the more lengthy "gold standards," the Conflict Tactics Scales (CTS), and Index of Spouse Abuse (ISA). The researchers concluded that the PVS would detect 64.5 to 71.4 percent of women with a history of partner violence (as identified by CTS and ISA), and voiced concern over the PVS's sensitivity, that is, its ability to correctly identify abused women without missing cases or incorrectly identify nonabused women as abused. They noted that more research is needed to determine the best tools and methods for detecting partner abuse.⁴⁰

Abused women also often make contact with primary care providers; however, routine universal screening for violence among female patients in primary care settings is uncommon. A statewide survey of California primary care physicians' screening practices found that practices varied substantially by clinical situation. More than three-quarters (79 percent) of physicians reported asking direct questions about intimate partner violence when the patient presented with physical injury. However, only 11 percent routinely screened at the first prenatal visit, 10 percent at new patient visits, and 9 percent during routine checkups, suggesting that primary care physicians missed many opportunities to detect partner violence.⁷⁸ In a similar study of a sample of primary care physicians in Alaska, only 17 percent of physicians who provide prenatal care reported that they screen for intimate partner violence on the initial visit, and 5 percent reported that they screen on followup visits.⁸⁹

Data from the North Carolina Pregnancy Risk Assessment Monitoring System revealed that only a little more than one-third (37 percent) of pregnant women had been screened for intimate partner violence during prenatal care. Women who received prenatal care from a public provider paid by a public source were more likely to be screened than women who received their prenatal care from private providers whether the source of payment was public or private.⁹⁰

Helton and colleagues found that none of the 24 pregnant women who sought medical treatment for injuries due to violence were screened for violence during their prenatal care.⁵⁴ A mail survey of a national sample of obstetrician-gynecologists found that only 18 percent routinely queried their patients about physical or sexual violence.⁷⁶ Even when screening protocols are instituted, compliance remains low. An evaluation of the RADAR Training Project (described in "Education and Training About Violence Against Women for Public Health Professionals"),

which aims to increase domestic violence screening in community health centers, found the proportion of clients screened for domestic violence increased from 5 to 25 percent following training.⁹¹

In an effort to identify attitudes and practices about domestic violence among registered nurses, researchers surveyed a convenience sample of 158 public health, private office, and hospital nurses. More than half (54 percent) reported some education on domestic violence. Public health nurses were more likely to screen women for abuse than private office and hospital nurses, and a higher proportion reported taking such actions as documenting abuse in charts and making referrals. The two barriers to screening that appeared the most prevalent among both public and private nurses were lack of training about domestic violence and a shortage of time to deal with victims effectively.⁹² Similarly, a study of nurses and physicians in Florida found that only 8 percent of nurses and 17 percent of physicians routinely asked their female patients about domestic violence.⁹³

As with emergency department patients, it appears that women want their primary care providers to ask them about violence in their lives, even though they are rarely screened.^{49,58,80,84,85,94,95} In a survey of patients and physicians at three primary care facilities in Boston, 78 percent of patients favored routine inquiry about physical violence and 68 percent favored routine inquiry about sexual violence. Patients who had experienced physical violence (16 percent) were as likely as patients without a history of abuse to support routine inquiry about physical and sexual violence; those who had experienced sexual violence (17 percent) were even more likely to support routine inquiry about physical and sexual violence.⁴⁹ In contrast, only about one-third of the physicians thought that patients should be asked about physical or sexual violence. Both patients (90 percent) and physicians (81 percent for physical and 74 percent for sexual) thought that physicians could help with problems associated with violence. Unfortunately, only a relatively small fraction of the patients reported that they had been asked about physical (7 percent) or sexual (6 percent) violence during routine health visits.⁴⁹ Similarly, 85 percent of female patients in a Veterans Affairs ambulatory care clinic agreed that physicians should routinely screen for abuse in their practices, and 90 percent thought they would respond truthfully if asked about abuse. The women's responses did not vary according to their personal histories with abuse. Again, only a small proportion of these women (12 percent) reported ever having been asked about abuse. In contrast to these findings indicating women's support for health care provider screening for intimate partner violence, only 48 percent of female patients in a large metropolitan health maintenance organization agreed that health care providers should routinely screen patients for intimate partner violence. Interestingly, 86 percent of this same group felt that it would be easier for an abused woman to get help if health care providers routinely screened for intimate partner violence.⁸⁸

A few studies have examined the role of pediatricians in routine screening for intimate partner violence among mothers. The American Academy of Pediatrics issued a policy statement in 1998 advocating the integration of intimate partner violence training into pediatric residency programs and the implementation of intimate partner violence screening in pediatric practice.⁹⁶ A cross-sectional survey of mothers seeking treatment for their children in a pediatric emergency department revealed that 52 percent of the women reported a history of adult physical abuse, 21

percent reported a history of adult sexual abuse, and 10 percent reported being in an abusive relationship during the past year. Only 21 percent of the women had ever been screened for intimate partner violence; those who reported abuse were no more likely to have been screened than those who did not.⁹⁷ During a 3-month study of 154 women who received routine screening for intimate partner violence when they accompanied their children to a well-child visit in a suburban pediatric office, 17 percent reported intimate partner violence within the previous 2 years. Before this implementation of routine screening in the office, only one case of intimate partner violence had been identified in 4 years.⁹⁸ In a survey of 553 mothers who visited a private 3-pediatrician office, 16.9 percent of mothers recalled ever having been asked about intimate partner violence, and 82.8 percent of the mothers surveyed favored intimate partner violence screening by pediatricians.⁹⁹

Two studies assessed system changes within health care settings that proved to be successful in increasing universal intimate partner violence screening of female patients. The first of these studies examined implementation of an abuse-assessment protocol that was integrated into the routine procedures of the prenatal clinics of a large urban health department. A review of 540 maternity patient charts revealed an increase in abuse assessment from 0 percent to 88 percent among the clinics using the protocol. No change in abuse assessment was seen in the clinic that did not implement the intervention.¹⁰⁰ The second study evaluated an administrative intervention on health care provider compliance with universal domestic violence screening. A hospital created a policy mandating that nurses screen all female emergency department patients aged 18 and older for intimate partner violence. The researchers found that guarterly provider education and formal quality assurance feedback did not significantly improve screening policy adherence. One year after implementation of the mandatory screening policy, an intervention to improve screening adherence was introduced. The intervention consisted of a four-tiered, hospitalapproved formal disciplinary process for nurses who did not comply with the mandatory screening policy. Pre-intervention screening rates were 29.5 percent, and post-intervention screening rates improved to 72.8 percent.^{101,102}

Because the findings of research on the effectiveness of violence screening have been inconclusive, Ramsay and colleagues conducted a systematic literature review on the topic. Synthesizing the findings of the 20 papers that met their inclusion criteria, the authors noted that numerous barriers were reported by health care providers; screening increased referral to outside agencies; "little evidence" existed for such changes in outcomes as decreased exposure to violence; and no studies examined quality of life, mental health outcomes, or potential harm to women from screening.¹⁰³

Summarizing the elements of successful screening programs, Chalk and King note that effective and efficient screening in public health settings requires provider awareness that domestic violence exists in both general and clinical populations, screening tools that can be incorporated into routine health histories, adequate training to overcome individual barriers, and sufficient resources to facilitate referral.⁶⁹

Finally, some researchers have recommended that primary health care providers screen their male patients for perpetrating violent behavior toward their intimate partners.^{104–108} An anonymous

written survey of male patients conducted at three family medicine clinics in the Midwest revealed that 4.2 percent reported committing at least one episode of "severe violence" in the past 12 months, and 13.5 percent reported committing "minor violence" during the same time period. Men who reported elevated alcohol consumption, depression, and a history of suffering abuse as children were more likely to report violent behaviors toward their intimate partners.¹⁰⁴

Unanswered questions about screening for violence against women. As health institutions consider developing and implementing screening policies, additional questions should be addressed to ensure that the policies achieve maximum effectiveness by serving women's needs while minimizing costs to the institution. Specific questions worthy of attention include the following:

- In which settings is screening most successful in identifying female victims of violence?
- What types of providers are most successful in screening?
- What types of intervention (e.g., safety planning, referral, followup) must accompany screening for it to be effective in protecting women?
- What instruments and screening methods are optimal for detecting violence against women in various health settings?
- How and how often must providers be trained to ensure that they are screening women consistently and appropriately?
- How can barriers to compliance by providers be overcome?

Mandatory Reporting by Health Care Providers of Violence Against Women

Mandatory reporting of domestic violence has been suggested as a means to enhance patient safety and care; increase identification, documentation, and data collection on domestic violence; improve the health care response to domestic violence; assist law enforcement agencies in addressing domestic violence; and hold perpetrators accountable.¹⁰⁹ Yet, evidence as to the effectiveness of this policy is scarce, and a number of concerns have been raised about potential unintended consequences.

Most States and the District of Columbia have general laws that mandate health care providers to report injuries resulting from weapons (41 States and the District of Columbia), and criminal/illegal acts (22 States and the District of Columbia).¹⁰⁹ The provisions of these laws vary from State to State, with some requiring the injury to be sufficiently grave and others relying more on the nature of the assault. All 50 States and the District of Columbia have laws requiring the reporting of child abuse to authorities. Some require this only of certain types of health or social service providers; other States mandate that any individual with knowledge of abuse file a report.¹¹⁰

Penalties for noncompliance exist under some of these statutes, including fines ranging from \$10 to \$1,000 and jail sentences. Most also provide civil and/or criminal immunity from potential liability for making a report.^{109,110} Although most of these statutes do not specifically require reporting violence against women, in some instances adult victims of sexual assault, domestic violence, or stalking may be included.

Currently, seven States (California, Colorado, Kentucky, Mississippi, Ohio, Rhode Island, and Texas) have mandatory reporting laws that specifically address health care practitioners' reporting of injuries resulting from intimate partner violence.¹¹¹ The health care providers that are mandated to report, as well as the criteria, format, and reporting agency, vary from State to State.^{110,111a} For example, in Kentucky, medical professionals must report suspected abuse to the Cabinet for Families and Children, and in California and Colorado, reports must be made to local law enforcement agencies.^{109, 110, 111a}

Mandatory domestic violence reporting laws are recent and have not been extensively evaluated. An evaluation of California's mandatory reporting statute (Assembly Bill 1652, chaptered 1993; Cal. Penal Code § 11160–11163.6; West 2002) examined Los Angeles County Sheriff Department (LASD) dispatches to medical facilities and found that medical personnel did not increase their reporting of domestic violence to the police during the 2 years following the law's implementation. Specifically, neither the absolute number of LASD dispatches to medical facilities nor the percentage of total LASD dispatches to medical facilities increased.¹¹² The authors speculated that possible reasons for the findings included provider ignorance of the law, provider noncompliance, domestic violence victims' increased initiative to contact law enforcement before medical treatment, and victims' reluctance to seek medical care because of the law. They recommended further research on the effects of mandatory reporting laws before other States introduce similar legislation.¹¹²

A Kentucky study conducted 4 months after that State's mandatory reporting law was enacted revealed that only 29 percent of physicians were aware of their obligation to report domestic violence.¹¹³ A survey of 508 California physicians from emergency medicine, internal medicine, family medicine, and obstetrics/gynecology found that although 61 to 86 percent of those surveyed were aware of their State's mandatory reporting legislation, 59 percent reported that they would not comply with the law if a patient objected. Not surprisingly, given their greater familiarity with their patients, primary care physicians were more likely than those in emergency medicine to report noncompliance. However, more than 90 percent of the respondents overall noted that the presence of children or guns in the home, pregnancy, obvious injuries or repeated complaints of partner abuse, or immediate threats to the patient's safety necessitated reporting to the police regardless of the law.¹¹⁴

In San Francisco, researchers explored patients' attitudes toward mandatory reporting by physicians by conducting eight focus groups with battered women. The women reported fear of retaliation by their abusers, fear of family separation, mistrust of the legal system, desire for police protection, and a preference for confidentiality and autonomy in patient-provider relationships. The authors concluded that mandatory reporting "may pose a threat to the safety

and well-being of abused women and create barriers to their seeking help and communicating with health care professionals about domestic violence."¹¹⁵

These same researchers, in a cross-sectional survey, examined the attitudes of female emergency department patients toward mandatory reporting of domestic violence to police. Twelve percent of survey respondents reported physical or sexual abuse by a current or former partner. Fifty-seven percent of the women who reported abuse supported mandatory reporting, while 44.3 percent opposed mandatory reporting, preferring that physicians never report abuse to police (7.9 percent) or that physicians report only with the patient's consent (36.4 percent). Of respondents who did not report abuse, 70.7 percent supported and 29.3 percent opposed mandatory reporting. Among those who opposed mandatory reporting, women who were currently seeing or living with partners, non-English speakers, and those who had experienced physical or sexual abuse within the past year were more likely than others to oppose mandatory reporting of domestic violence to police.¹¹⁶

In contrast, in a survey of patients in two emergency departments and an outpatient clinic in Denver, where mandatory reporting of domestic violence has been in effect since 1995, 62 percent of respondents said that the law would not influence their decision to seek care if they were injured by a current or ex-partner, and 27 percent replied that they would be more likely to seek care. However, 12 percent said that they would be less likely to seek care.¹¹⁷

Many professional organizations, health care providers, and domestic violence service providers oppose mandatory reporting of domestic violence. For example, in 1997 both the American College of Emergency Physicians and the American Medical Association approved policy statements opposing mandatory reporting of domestic violence to the criminal justice system.^{118,119} Similarly, in 1997, the Family Violence Prevention Fund issued a position paper describing its objections to mandatory reporting laws.¹²⁰ Physicians surveyed in California raised concerns that mandatory reporting created potential barriers to care (60 to 79 percent), may escalate abuse (53 to 82 percent), and violates patient confidentiality (59 to 85 percent) and autonomy (62 to 75 percent). However, they also noted that the law improves data collection (77 to 88 percent), prosecution of perpetrators (72 to 87 percent), and physician responsiveness to domestic violence (53 to 73 percent).¹¹⁴

Opponents of mandatory reporting policies cite a number of concerns that have not been empirically assessed. They argue that requiring physicians to report domestic violence may jeopardize patient safety and well-being by placing victims and their children at greater risk of reprisal by the abuser, who may blame the woman for revealing the origins of her injuries.^{109,111,111a,120} Some suggest that these policies may make battered women reluctant to come into contact with authorities, particularly if they are undocumented immigrants.^{109,110,111} Clinicians who are opposed argue that mandatory reporting removes the patient's fundamental right to make choices concerning her own care, violating the principle of informed consent. They fear that it will diminish victims' trust in and candor with their providers and discourage battered women from seeking medical care at all and/or disclosing violence in their lives.^{109,110,111,113} Some opponents also argue that data obtained through mandatory reporting are likely to be inaccurate due to noncompliance and biased compliance, and that poor and minority families may be disproportionately likely to be reported.¹¹¹

Still, in an effort to ameliorate the public health impact of violence against women, legislators in many States are considering revising or creating reporting requirements. Unfortunately, there is little scientific evidence to support or oppose mandatory reporting.

In an effort to address this policy dilemma, Hyman and colleagues, in a 1995 article in the *Journal of the American Medical Association*, recommend asking the following questions when assessing existing or proposed reporting statutes:

- What is the purpose of the statute?
- What is to be reported?
- Who makes the report?
- What level of knowledge or suspicion is required of the reporter?
- Who receives the report and what is their response?
- Are there penalties for failing to report?
- Is immunity from liability provided?
- Are there provisions for confidentiality of reports?
- Are provider-patient privileges explicitly revoked?
- Is there case law interpreting provider liability?¹¹¹

Unanswered questions about mandatory reporting. Unanswered questions about mandatory reporting including the following:

- Do existing mandatory reporting laws accomplish the intended goals of protecting women from further violence?
- Are there certain situations in which reporting is more beneficial to women? If so, please describe these.
- What are the unintended negative consequences of reporting statutes? How can they be avoided?

Education and Training for Public Health Professionals About Violence

Against Women

Empirical literature is scarce on the existence, outcomes, and effectiveness of health care provider curriculums and training programs pertaining to violence against women. Most of the evaluations are limited to preintervention and postintervention surveys of participants' knowledge and attitudes. Additionally, although both the American Medical Association and the American College of Emergency Physicians have issued policies and procedures for treating victims of sexual assault,^{46,121} virtually all of the training programs described and evaluated in the literature focus only on intimate partner violence. Even attention to intimate partner violence

has been exceedingly limited in the curriculums of health professions, and very little research has documented the nature or impact of this training.

Medical schools. Until recently, most medical school curricula made limited, if any, reference to violence against women.^{122,123} Currently, most medical schools include some sort of training on violence against women, although there is no standard approach to the topic. For example, some schools include a single lecture on domestic violence in the context of a particular course, and others integrate violence content into a range of course offerings.¹²²⁻¹²⁵ It is estimated that U.S. medical schools require an average of 2 hours of training in intimate partner violence; training about sexual violence and stalking is even more limited.¹²⁵ The 1999 Association of American Medical Colleges Medical School Graduation Questionnaire found that 31 percent of medical school graduates felt that the amount of time devoted to instruction about domestic violence was inadequate.¹²⁶ Medical school curricula that address violence against women often fail to include measurable objectives that specify the knowledge, attitudes, skills, and behaviors that participants should demonstrate on completion, ^{122,124,125} making it difficult to evaluate their effectiveness.

During a conference on medical student education in 1995, the Association of American Medical Colleges concluded that medical schools should improve teaching about family violence.¹²⁶ Professional organizations are also increasingly recognizing the importance of violence against women as a health issue and recommending that it be incorporated into training programs^{63, 127} and certification exams. For example, the Council on Resident Education in Obstetrics and Gynecology included domestic violence among its educational objectives for residency education programs, and the American College of Obstetricians and Gynecologists included written and oral questions on domestic violence in certification exams.⁶³

Little evaluation research can be found in the literature about medical school curricula on domestic violence. One example of such research is an evaluation of the UCLA School of Medicine's Domestic Violence Issues Module, which included a curriculum review that assessed module content and design, documented project implementation, and measured student outcomes. In the curriculum review, the reviewers identified the module's problem-based learning approach and use of varied training methods as strengths. They cited the need for more opportunities for students to practice skills and receive feedback, potential inconsistencies in learning across groups of students, and the need for tutors to have more intensive training. In the student outcome evaluation, researchers compared the attitudes, skills, and abilities of students who participated in the module with those of a group of students at a different medical school. They found that students in both groups viewed domestic violence as a legitimate medical concern and felt it was their responsibility to intervene. After participating in the domestic violence module, the UCLA students had significantly higher scores on scales measuring their confidence in their ability to identify and refer victims and their intention to do so, while the students from the comparison school showed no change.¹²⁸

In a similar study, researchers developed and evaluated an educational intervention that was integrated into the existing medical school curriculum at the Medical College of Pennsylvania Hahnemann School of Medicine and evaluated over the course of a 3-year period from 1995 to

1997. The intervention consisted of a 3-hour program conducted by an interdisciplinary teaching team. Students were evaluated on their knowledge based on the 3-hour program and additional required readings by an examination given 3 weeks after the intervention. Ninety-eight percent of the 18 students who completed the 3-week examination received perfect scores in 1995, as did 92 percent of the 50 students who participated in 1996. In 1997, 74 percent of the 54 student participants received perfect scores on the postintervention examination. Student evaluation of the program revealed that overall the students rated their satisfaction with the course as very high; however, written comments indicated that the students felt the duration of time dedicated to the program was too short.¹²⁹

At the University of Massachusetts, two cohorts of third-year medical students participated in an intensive domestic violence "interclerkship"—short, interdisciplinary modules that took place between the required clinical internships. The 2-day interclerkships combined classroom, small-group, and interactive sessions and were taught by clinical and nonclinical faculty as well as community-based providers.¹³⁰ The students who participated in the interclerkships showed improved knowledge about intimate partner violence immediately afterward and partially maintained the improvement 6 months afterward. Nine months after the interclerkship, students who had participated expressed greater comfort with intimate partner violence screening and performed screening more effectively than students who did not participate.¹³⁰ Similarly, preintervention and postintervention surveys of a first-year medical school class at Tulane indicated that students had increased knowledge about domestic violence following 3 hours of formal instruction about the topic.¹³¹

The effectiveness of an educational intervention and the long-term retention of information on intimate partner violence were examined among a class of first-year medical students. A survey on intimate partner violence knowledge was given to students before a 3-hour education intervention. The survey was then repeated at 1 month and 2 years postintervention. Seventy percent (104 of 148) of participants completed the third survey at the 2-year followup. Results showed significant improvement in intimate partner violence knowledge at 2 months. At the 2-year followup, responses to several of the survey questions revealed that long-term retention of intimate partner violence knowledge on these topics was good; however, many survey questions were answered incorrectly, showing a lapse of knowledge when compared with the 2-month survey.¹³²

Another study assessed patients' recall of being asked about intimate partner violence during clinical visits to internal medicine residents. Before an educational intervention targeting the residents, only 0.8 percent of the patients reported being asked about intimate partner violence. After the intervention, 17 percent of patients reported being asked.¹³³

Finally, residents who attended a brief (20-minute) session on the importance of screening for intimate partner violence during their hospital orientation were slightly (35 percent) more likely to screen patients 12 months later than residents who did not attend the session; these differences were not statistically significant. Among the residents, rate of screening varied widely by specialty, ranging from 100 percent of family medicine residents to 0 percent of surgery residents.¹³⁴

Other professional training. Practicing health care providers often have inadequate training in screening and effectively intervening with patients who are victims of domestic violence. A study of the attitudes, training, and current intimate partner violence screening practices of general pediatricians and family practitioners in the Cincinnati area, including southwestern Ohio and northern Kentucky, revealed that 74 percent of respondents had no specific domestic violence training. Only 23 percent of Ohio providers reported specific domestic violence training. Among Kentucky providers, for whom domestic violence training is necessary for State licensure, only 60 percent of respondents reported such training. The researchers also reported that providers with domestic violence education were 10.9 times more likely to screen for domestic violence than providers without such training.

Ongoing continuing education for staff in emergency departments, health departments, managedcare facilities, mental health services, substance abuse agencies, primary care settings, and Indian Health Service facilities may improve responses to violence against women in these settings.

For example, in a Family Violence Prevention Fund pilot project conducted to train emergency department personnel to respond more effectively to domestic violence, interdisciplinary teams of emergency department staff from six California hospitals, including physicians, nurses, social workers, administrators, residents, and medical students, participated in a 2-day intensive training program. Following the training, the teams returned to their institutions to train the entire emergency department staff and develop and implement new programs. Preproject and postproject surveys showed a significant increase in participants' tendency to document women's abuse in their medical records (increasing from 39 percent to 66 percent) and to provide battered women with information (increasing from 45 percent to 73 percent) and referrals for domestic violence services (increasing from 70 percent to 92 percent).¹³⁶

An evaluation study of a two-phase intervention trial, conducted by the Pediatric Family Violence Awareness Project, examined whether health care providers, trained to conduct intimate partner violence assessment during the first phase of the intervention, would increase their screening rates of women if an onsite referral service (second phase of intervention) for victims was available. Seventy-nine percent of health care providers did not increase their screening rates following the implementation of the onsite victim services. According to the researchers, unadjusted screening rates actually declined significantly from phase 1, during which 33 percent of patients were screened, to phase 2 when 23 percent of patients were screened.¹³⁷

The RADAR Training Project was designed to increase domestic violence knowledge and awareness among health care staff (including physicians, nurses, and other clinical providers; social workers; security staff; and front desk staff) and to improve their ability to perform routine screening, documentation, safety assessment, and referrals for domestic violence victims. An evaluation was conducted on a sample of 372 staff members from community health centers in Philadelphia who completed pretraining, posttraining, and 3-month followup surveys. Nearly all of the respondents were satisfied with the format and facilitation of the training and perceived that their comfort with and knowledge about domestic violence had increased. By the 3-month followup, however, some of these positive changes had decreased, particularly the respondents'

perceived comfort. The evaluation also examined medical records of samples of female patients at the 12 facilities preintervention (baseline) (n = 251) and postintervention (n = 255) to see whether the patients were screened for domestic violence, whether and how the abuse was documented, whether a safety assessment was completed, and what referrals were made. Although trained staff members were significantly more likely to screen for domestic violence, assess patient safety, and refer victims to outside agencies, they did not improve documentation of domestic violence in medical charts.⁹¹

A study of five primary care clinics of a large health maintenance organization tested the effectiveness of a multifaceted intervention to improve screening rates among health care providers. At baseline, overall recorded asking about intimate partner violence was 3.5 percent for both the intervention and control groups. Medical record reviews at the 9-month followup revealed increased rates of documented questioning of patients about intimate partner violence among the intervention group, from 3.5 percent at baseline to 20.5 percent at 21 months postintervention. Rates of documented questioning of patients about intimate partner violence also increased among the control group, but to a much lesser degree (3.5 percent to 6.2 percent). Statistically significant improvements in scores were detected on measures of self-efficacy, fear of offending the patient, safety concerns, and how often the staff perceived the necessity of asking about intimate partner violence at 9 months postintervention. However, there was no significant increase in case-finding rates for either group.¹³⁸

In sum, recommendations about educational policies are limited due to the lack of data to clarify what type and sequence of training and experiences work for different types of professionals. It appears that health professionals are receiving little education about violence against women in either their pregraduate or postgraduate years. The attention given to this topic requires much more serious consideration in medical school curriculums and in other curriculums, and in efforts to strengthen continuing education for practicing professionals.

Unanswered questions about educational policies. Unanswered questions about educational policies include the following:

- What educational policies and practices need to be changed to ensure that all health care personnel receive adequate training related to violence against women?
- During the training of physicians and health care personnel, when is violence against women content most effectively incorporated?
- What content should be included in the training of different types of health professionals?
- What training methods are most effective for different groups and settings?

Data Collection on Violence Against Women

Surveillance, a central component of public health practice, is defined by the Centers for Disease Control and Prevention as:

The ongoing, systematic collection, analysis, and interpretation of health data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know. The final link of the surveillance chain is the application of these data to prevention and control.¹³⁹

The purpose of public health surveillance is to monitor the occurrence of health problems at the population level, examine trends over time, and enable the assessment of progress of interventions in improving the population's health.^{139,140} To be successful, surveillance activities must be developed and carried out systematically, and the same type of information must be collected in different settings. Some surveillance systems collect information about every person affected (e.g., all deaths), and others identify only a systematic sample of the population affected (e.g., representative sample hospitals). To be most useful, data should include information about the context of the violence and descriptions of the outcomes. Public health surveillance usually encompasses both fatalities (mortality) and cases in which the harm is measurable but less severe (morbidity). Ideally, surveillance should also attempt to assess long-term as well as short-term outcomes and capture information about not only the physical health dimension but also mental health and social functioning. Although both the Uniform Crime Report and National Criminal Victimization Survey provide widely cited statistical information, no policies have been established to implement surveillance systems or other mechanisms to monitor violence against women at the State or national level. The lack of surveillance data contributes to confusion about the incidence and prevalence of violence against women and limits efforts to target funding for effective intervention strategies.¹⁴¹

Information on violence against women collected in public health settings is a potentially rich source of surveillance data. Survivors of sexual assault, domestic violence, and stalking, although often isolated from family and friends, make frequent and repeated contact with health care providers. Health-related data offer a wealth of information, including measures of physical and mental trauma resulting from violence, and are not limited to women who have contact with the criminal justice system.¹⁴²

As part of a congressional mandate under the Violence Against Women Act (VAWA), the Justice Research and Statistics Association and the Bureau of Justice Statistics gathered a panel of experts and developed and mailed a survey to all State or territorial Statistical Analysis Centers to determine "how the States may collect centralized data bases on the incidence of sexual and domestic violence offenses." Thirty-five of the 47 responding States and territories collected some data on domestic violence and 30 collected information on rape and sexual assault.¹⁴³ Only a few States collected public health data on domestic violence (five States) and sexual assault (four States). The source, definitions, quality, and quantity of these data vary considerably, however, making reliable and comparable State-level estimates and aggregate national estimates difficult.¹⁴³ The panel recommended establishing or improving statewide data collection, and using consistent and appropriate definitions of domestic violence and sexual assault.¹⁴³

CDC has given three States (Michigan, Massachusetts, and Rhode Island) funding to develop and evaluate surveillance systems for monitoring intimate partner violence; all of these systems may serve as models for other States. In addition, VAWA also provides funding to all States for use in establishing or improving statewide surveillance for sexual assault, although the use of these funds varies greatly. For example, the Arizona Rape and Sexual Assault Surveillance Project collects data on sexual assault incidence, education, and counseling from rape prevention education programs and rape crisis toll-free hotlines funded by the Arizona Department of Health Services and from police departments around the State. In contrast, the Michigan Sexual Assault Surveillance System encompasses a wide range of data sources, including data from hospitals (emergency department and inpatient), mental health organizations, child protective services, medical examiner files, substance abuse treatment clinics, crisis centers, nursing homes, HIV testing sites, and adult foster care, in addition to criminal databases.¹⁴²

In a review article, Waller and colleagues identify and evaluate the merits of potential State and local sources of health-related data on domestic violence and sexual assault, such as mortality data, hospital discharge data, emergency department data, trauma registries, State health department data, health surveys, managed care organizations, and local health department data. They note a number of consistent problems with these sources of information, including coding issues, accurate and complete documentation, and lack of standardization. In their recommendations, Waller and colleagues suggest that policies be developed to implement universal screening for violence against women in health care settings; provide routine training for personnel in health care settings on protocols for victim screening and documentation; implement continuous quality improvement to ensure the appropriate use of protocols in health care settings, creating and/or using valid and reliable screening questions; conduct analyses of the effectiveness of screening and interventions for violence against women; and encourage the use of some VAWA funds for needs assessments, surveillance, and evaluation.¹⁴²

Unanswered questions about surveillance policies on violence against women. Unanswered questions regarding surveillance policies include the following:

- How can an effective surveillance be established to monitor the incidence, prevalence, and consequences of violence against women?
- What information should be routinely collected?
- What are some effective methods to ensure accurate and complete data collection?
- What are the best policies to ensure that surveillance data on violence against women are applied appropriately to program planning and evaluation?

Fatality Reviews

Fatality is an all too frequent outcome of violence against women. Research on female homicide^{144–146} reveals that women are much more likely than men to be killed by intimate partners, who constitute one-third to one-half of all female homicide perpetrators.^{4,145–155} These partner homicides are typically preceded by a history of domestic violence and often involve the

woman's recent separation from her partner.^{145–155} Although domestic violence consistently has been shown to be an antecedent to female partner homicide, other risk factors for female homicide are less well established. Homicide rates among minority, young, and low-income women are elevated, but researchers have not yet disentangled the influences responsible for these observed variations.^{4,145,148}

In an effort to examine the circumstances surrounding these deaths and to improve the application of intervention strategies, a number of States and counties have created multidisciplinary, multiagency fatality review teams. Modeled in part on child fatality review^{156–158} and internal death reviews in medical settings, the goals of the teams are to better understand, intervene in, and prevent homicides.¹⁵⁸ More specifically, these teams engage in a process to identify deaths of interest and document the circumstances surrounding them. The teams do this to identify modifiable risk factors, potential points of intervention, and policy recommendations. Public health representation on death review teams includes medical examiners. State and county health department staff, emergency medical services personnel, physicians, nurses, and hospital administrators. A paper describing domestic violence fatality review efforts nationwide reported that 24 State- and county-level domestic violence fatality review teams existed in 1998. These teams varied widely in their origins, size, definitions of domestic violence, case inclusion criteria, team membership, protocols, and caseload.¹⁵⁸ Fatality review teams are often created and funded by State legislatures or receive funding through VAWA (e.g., Washington, New Mexico, Florida), grants, or outside agencies, and their funding and mandates are frequently time limited.¹⁵⁸⁻¹⁶⁰

Virtually all currently existing fatality review teams concentrate on homicides and in a few cases, suicides, related to domestic violence. However, a history of sexual violence committed by the killer, as well as his stalking behavior, is often noted in the data collection process. Some teams also include partner homicides involving male victims, regardless of whether they were the perpetrators of the domestic violence that preceded their deaths. A few, such as four teams in Florida, include deaths of children due to abuse and neglect.^{158–160}

The literature on the success of child fatality reviews is very limited, but one recent paper has reported how the review process in Philadelphia has been helpful in creating a fuller understanding of the problems associated with deaths, identifying needed areas of focus, and improving collaboration among agencies that share concerns for the identified problems.¹⁵⁷ However, to date no empirical evaluations of fatality teams' effectiveness in reducing fatal violence against women have been conducted. The teams have generated a considerable amount of descriptive data about the circumstances surrounding female homicides, particularly domestic violence homicides, and many have made recommendations that have resulted in changes in laws, policies, and protocols. For example, the New Mexico Female Intimate Violence Death Review Team examined female partner homicide deaths occurring from 1993 to 1996. They found that 46 (36 percent) of the 129 women murdered during that period were killed by current or former intimate partners. Of these, 17 percent had protection orders, 20 percent were stalked by the perpetrator before the homicides, and 13 percent were both sexually assaulted and killed. The team identified two "failures" of health care services: the failure of medical personnel to diagnose, document, and refer women who had experienced partner violence; and the lack of

available mental health and substance abuse services for battered women. They recommended that standardized protocols for a "medical response to intimate partner violence" be implemented in health care settings; that substance abuse and mental health services be made more readily available within health care settings; and that medical providers at all levels be trained to understand, recognize, treat, document, and refer patients who experience domestic violence.¹⁵⁹

Similarly, the Florida Mortality Review Project examined "domestic homicides" occurring in 1994. Although the Florida Department of Law Enforcement documented 230 domestic homicides, the team identified 328. According to the team, this disparity existed primarily because the police often do not include child abuse and neglect deaths, suicide victims in domestic murder-suicides, or "boyfriend/girlfriend" deaths in their count. They identified a number of "red flags," or common precursors, to these events, including a history of domestic violence with increasing entrapment, perpetrators "obsessively possessive beliefs," recent separation, prior police involvement, perpetrator criminal history, threats to kill the eventual victim and her family and friends, issuance of protection orders, and escalating alcohol or drug use.¹⁶⁰

The development of policies to apply strategies of fatality review to violence against women is new, and few reports in the empirical literature document the processes used to conduct these reviews or attempt to measure the effects of this strategy. Consequently, to develop the evidence base to support enactment or implementation of fatality review policies will require substantially more work. Research on female partner homicide suggests, however, that these deaths are not random. Most are preceded by a known history of domestic violence, and many occur after repeated interactions with law enforcement and other service systems.^{145–155} Consequently, the opportunity to identify relevant points of intervention may be possible with regular, ongoing reviews of deaths.

Unanswered questions about fatality review policies. The following questions about fatality review policies remain unanswered:

- To what extent have fatality review teams been effective in identifying modifiable precursors to domestic violence?
- What are the best methods of translating identification of precursors into concrete strategies for decreasing domestic violence-related deaths?
- Should the fatality review process be extended to women killed by persons other than their partners?
- What are the economic and social costs and benefits of implementing fatality review policies in every State?

Conclusions

This chapter has examined five potential health policy strategies to address violence against women: universal screening in health care settings, mandatory reporting, professional education, surveillance, and fatality reviews. For each topic, the overall policy approach has been described and findings from the empirical peer-reviewed literature about various aspects of the approach have been presented. In addition, unanswered questions to be considered in justifying the strategy and assessing implementation efforts have been listed.

Each of the topics chosen represents a cutting-edge dilemma in the public health approach to violence against women. For none of these issues was there sufficient evidence to thoroughly assess how well the strategy will work in preventing or reducing violence and its consequences.

As with any area of public health policy or practice, prevention strategies often must be implemented before all the scientific data can be obtained, analyzed, and interpreted. However, the potential unintended consequences of strategies designed to improve the public's health also must be considered carefully, and the impact of these consequences in the context of the desired outcome must be anticipated. Sometimes inaction in the absence of data is wise, despite a perceived urgency to "do something." In other situations, it is necessary to apply one's best judgment, drawing parallels from similar public health issues and preliminary research. Mistakes may be inevitable, but they also can be helpful if they are examined carefully so that ineffective or harmful strategies may be aborted, their negative effects may be minimized, and necessary improvements may be made for future applications.

Funding and implementation of rigorous evaluations that can document the positive and negative effects of policy changes are critical. These evaluations should examine potential flaws in the policies themselves and ways to improve policy implementation. Evaluations should address both the effectiveness of implementation and the economic and social costs inherent in implementing or failing to implement policies.

Another crucial component in successful policy development and implementation is the interplay of science and policy advocacy through continuous and open communication among researchers, advocates, and policymakers. As our lists of unanswered questions indicate, all three groups researchers, advocates, and policymakers—must continually examine the rationales behind policies and their desired outcomes; assess how best to implement policy strategies; and critically examine alternative strategies for accomplishing the same goal. Critical examination should address policies' effectiveness in reducing harm to women and, as a result, to the overall society, and should also attempt to address other values inherent in the policies or their implementation. For example, policymakers should ask whether the policies are fair, whether they are stigmatizing, what the costs of implementation and nonimplementation are, and how the intended recipients view the benefits and dangers of the strategies.

Evaluation studies must be subject to peer review and accessible to the research community so that the field may continue to gain scientific rigor and credibility. However, the findings must not be limited to scientific audiences. Rather, they must be carefully communicated to policy

advocates and decisionmakers so that reasoned advocacy and policymaking can proceed. This means that both positive and negative findings must be released and substantively debated with equal rigor, regardless of their popularity. Equally important is the recognition that meaningful participation from practitioners (e.g., clinicians, domestic violence service providers, and others), as well as women who have survived domestic violence, is a critical component of policy development, implementation, and evaluation.

Finally, policymakers need to ensure that funding to conduct evaluations is available so that the science and practice of preventing and ameliorating violence against women may move forward.

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