

United States General Accounting Office

Report to the Honorable Eleanor Holmes Norton, House of Representatives

May 2002

VIOLENCE AGAINST WOMEN

Data on Pregnant Victims and Effectiveness of Prevention Strategies Are Limited



Contents

Letter		1
	Results in Brief	2
	Background Available Data on Pregnant Victims of Violence Are Incomplete	4
	and Lack Comparability	6
	Multiple Strategies Designed to Prevent Violence, But Effect Is Unknown Concluding Observations	12 17 17
	Agency Comments	
Appendix I	Scope and Methodology	19
Appendix II	Description of the Pregnancy Risk Assessment	
	Monitoring System	21
Appendix III	Pregnancy Status Questions on States' Death	
	Certificates	23
Appendix IV	Comments from the Department of Health and	
	Human Services	24
Appendix V	GAO Contacts and Staff Acknowledgments	29
Table		
	Table 1: PRAMS Estimates of the Prevalence of Physical Abuse by Husband or Partner during Pregnancy, 1998	22
Figure		
	Figure 1: Pregnancy Status Categories on Proposed U.S. Standard Death Certificate Revision	11

Abbreviations

ACOG	American College of Obstetricians and Gynecologists
BJS	Bureau of Justice Statistics
CDC	Centers for Disease Control and Prevention
FBI	Federal Bureau of Investigation
HHS	Department of Health and Human Services
HRSA	Health Resources and Services Administration
NIH	National Institutes of Health
NIJ	National Institute of Justice
NVDRS	National Violent Death Reporting System
OJP	Office of Justice Programs
PRAMS	Pregnancy Risk Assessment Monitoring System
SAMHSA	Substance Abuse and Mental Health Services
	Administration
UCR	Uniform Crime Reporting Program
VAWA	Violence Against Women Act
VAWO	Violence Against Women Office



United States General Accounting Office Washington, DC 20548

May 15, 2002

The Honorable Eleanor Holmes Norton House of Representatives

Dear Ms. Norton:

Violence against women, including violence that results in homicide, is a significant health and criminal justice problem. The problem is magnified when the victim of violence is pregnant because there are additional health risks to both the woman and her unborn child. Objectives to decrease violence against women were included in Healthy People 2010, the nation's health promotion and disease prevention strategy.¹ In response to its concerns about violence against women, the Congress passed the Violence Against Women Act (VAWA),² which funds, among other things, programs to shelter battered women, training for law enforcement officers and prosecutors, and research on violence against women.

Violence against women largely involves intimate partners, such as husbands, boyfriends, and dates. A recent federal report estimated that about 2.1 million women are raped or physically assaulted annually.³ Of surveyed women who reported being raped or physically assaulted since the age of 18, about three quarters reported being victimized by a current or former spouse, cohabiting partner, or date.

Due to your concern about pregnant women being victims of homicide and other violence, you asked us to provide information on this problem. In response to your request, this report will discuss (1) the availability of

³Patricia Tjaden and Nancy Thoennes, *Prevalence, Incidence, and Consequences of Violence Against Women: Findings From the National Violence Against Women Survey,* NCJ 172837 (Washington, D.C.: U.S. Department of Justice, November 1998).

¹U.S. Department of Health and Human Services, *Healthy People 2010: Understanding and Improving Health*, 2nd ed. (Washington, D.C.: U.S. Government Printing Office, November 2000).

²VAWA was enacted in 1994 as Title IV of the Violent Crime Control and Law Enforcement Act of 1994, P.L. No. 103-322, 108 Stat. 1796, 1945. In 2000, VAWA was reauthorized and amended—adding several new programs. See Victims of Trafficking and Violence Protection Act of 2000, P.L. No. 106-386, 114 Stat. 1464, 1491.

information on the prevalence and risk of violence against pregnant women and on the number of pregnant women who are victims of homicide and (2) strategies and programs to prevent violence against pregnant women.

To answer these questions, we interviewed and obtained documents from officials at the Department of Health and Human Services' (HHS) Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), and Health Resources and Services Administration (HRSA) and the Department of Justice's Office of Justice Programs (OJP) and Federal Bureau of Investigation (FBI). We also interviewed and collected information from researchers and representatives of four states' departments of health and vital statistics, medical examiners' offices, local law enforcement, domestic violence coalitions, violence prevention programs, health care professional organizations, and advocacy groups. We reviewed literature on the prevalence and risk of violence toward women during pregnancy; we identified 11 studies published since 1998 that contained prevalence estimates. We conducted our work from July 2001 through April 2002 in accordance with generally accepted government auditing standards. (For additional information on our methodology, see app. I.)

Results in Brief

Available data on the number of pregnant women who are victims of violence, including violence that results in homicide, are incomplete and lack comparability. Our review found that there is no current national estimate of the prevalence of violence against pregnant women-that is, the proportion of pregnant women who experience violence. Estimates that are available cannot be generalized or projected to all pregnant women. For example, CDC's Pregnancy Risk Assessment Monitoring System (PRAMS) produces estimates of the prevalence of violence, but only for women whose pregnancies resulted in live births and only for participating states. For 1998, PRAMS prevalence estimates for the 15 participating states ranged from 2.4 percent to 6.6 percent. Many studies focus on narrowly defined populations and use varying definitions of violence, producing prevalence estimates that are not comparable. Research findings on whether women are at increased risk for violence during pregnancy are inconclusive. CDC reported that, while additional research is needed in this area, current study findings suggest that for most abused women, the risk of physical violence does not seem to increase during pregnancy. Moreover, some women who previously experienced violence do not experience violence during their pregnancies. Factors that studies have found to be associated with violence during

pregnancy include violence before pregnancy, younger age of the victim, and unintended pregnancy.

Little information is available on the number of pregnant homicide victims. Federal homicide data collected by CDC and the FBI do not capture the pregnancy status of female victims. Seventeen states try to collect pregnancy data on death certificates, but these data may understate the number of pregnant homicide victims because autopsies, if conducted, might not include examinations for pregnancy, and pregnancies, if identified, might not be reported on death certificates. Officials in the four states we contacted have attempted to improve the data by linking multiple data sources, such as medical examiners' reports and death certificates. However, some of these officials told us that they do not have the resources to conduct such database links on a continuing basis. CDC has begun two initiatives that could result in better data on homicides of pregnant women-a revision to the U.S. standard death certificate to include pregnancy status and a proposed national violent death reporting system, both of which involve federal and state participation. Continued federal-state collaboration to gather and analyze more complete and comparable data, such as these initiatives and PRAMS, could improve policymakers' knowledge of violence against women and guide future research and resource allocation.

Health and criminal justice officials have designed multiple strategies to prevent violence against women, but their effect is unknown. Strategies to prevent violence against pregnant women are similar to those to prevent violence against all women. These strategies include public health efforts to keep violence from occurring in the first place and intervention activities that identify and respond to violence after it occurs, as well as criminal justice strategies that focus on incarcerating or rehabilitating batterers. Screening, or asking women about their experience with violence, is generally the initial component of interventions. However, recent studies found that fewer than half of physicians routinely screen for violence during prenatal visits. Reasons cited for physicians' reluctance to screen include lack of training on how to conduct screenings and not knowing how to respond if a woman discloses violence. Little information is available on the effectiveness of strategies to prevent violence against women, including batterer prevention programs and routine screening. CDC has not recommended routine screening for intimate partner violence because of the lack of scientific evidence about its effectiveness. HRSA is currently funding four small prevention projects, each of which includes an evaluation component. Evaluating the outcomes of violence prevention

programs and strategies could help identify successful approaches for reducing violence against women.

We requested comments on a draft of this report from the Attorney General and the Secretary of HHS. Justice informed us that it did not have any comments. HHS agreed that limited information is available on violence against pregnant women. In addition, HHS discussed several issues and efforts that it considers important regarding violence against women.

Background

Violence against women can include a range of behaviors such as hitting, pushing, kicking, sexually assaulting, using a weapon, and threatening violence. Violence sometimes includes verbal or psychological abuse, stalking, or enforced social isolation. Victims are often subjected to repeated physical or psychological abuse.

The federal public health agencies that address violence against women include CDC, NIH, HRSA, and the Substance Abuse and Mental Health Services Administration (SAMHSA). They focus on activities such as defining and measuring the magnitude of violence, identifying causes of violence, and evaluating and disseminating promising prevention, intervention, and treatment strategies. CDC's National Center for Injury Prevention and Control and National Center for Chronic Disease Prevention and Health Promotion have funded efforts to document the prevalence of violence against women, improve maternal health, and prevent intimate partner violence. CDC's National Center for Health Statistics operates the National Vital Statistics System, which maintains a national database of death certificate information. The National Center for Health Statistics has a contract with each state to support routine production of annual vital statistics data, generally covering from onefourth to one-third of state vital statistics operating costs. NIH has funded research to study violence against women through several of its institutes-the National Institute on Alcohol Abuse and Alcoholism, National Institute of Child Health and Human Development, National Institute on Drug Abuse, National Institute of Nursing Research, and National Institute of Mental Health—and the National Center for Research Resources. HRSA's Maternal and Child Health Bureau, as part of its mission to promote and improve the health of mothers and children, funds demonstration grant programs that focus on violence against women during the prenatal period. SAMHSA funds efforts focused on the mental health and substance abuse treatment of women who have been victims of violence.

The federal criminal justice agencies that address violence against women are OJP's Violence Against Women Office (VAWO), National Institute of Justice (NIJ), and Bureau of Justice Statistics (BJS). Using VAWA funds, VAWO administers grants to help states, tribes, and local communities improve the way criminal justice systems respond to intimate partner violence, sexual assault, and stalking. VAWO also works with victims' advocates and law enforcement agencies to develop grant programs that support a range of services for victims, including advocacy, emergency shelters, law enforcement protection, and legal aid. VAWO administers these funds through both formula and discretionary grant programs.⁴ NIJ conducts and funds research on a variety of topics, including violence, drug abuse, criminal behavior, and victimization. BJS collects, analyzes, publishes, and disseminates information on crime, criminal offenders, victims of crime, and the operation of justice systems at all levels of government.

The FBI administers the Uniform Crime Reporting Program (UCR). Under this program, city, county, and state law enforcement agencies voluntarily provide information on eight crimes occurring in their jurisdictions: criminal homicide, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson. The FBI assembles and publishes the data and distributes them to contributing local agencies, state UCR programs, and others interested in the nation's crime problems.

CDC homicide data indicate that from 1995 through 1999, homicide was the second leading cause of death for women aged 15 to 24, after accidents. CDC data also show that almost 2,600 women of childbearing age (15 through 44) were homicide victims in 1999. BJS reported that intimate partner homicides accounted for about 11 percent of all murders nationwide in that year.⁵ Seventy-four percent of these murders (1,218 of 1,642) were of women. About 32 percent of all female homicide victims were murdered by an intimate partner, in comparison to about 4 percent of all male homicide victims.

⁴VAWA funds programs in both Justice and HHS. Justice's fiscal year 2002 appropriation for VAWA programs was \$390.6 million. HHS's fiscal year 2002 appropriation for VAWA programs was \$176.7 million for battered women's shelters, a domestic violence hotline, rape prevention and education, and community programs on intimate partner violence.

⁵Callie Marie Rennison, *Intimate Partner Violence and Age of Victim*, 1993-99, Bureau of Justice Statistics Special Report, NCJ 187635 (Washington, D.C., U.S. Department of Justice, October 2001).

Available Data on Pregnant Victims of Violence Are Incomplete and Lack Comparability	There is no current national estimate of the prevalence of violence against pregnant women. Estimates that are currently available cannot be generalized or projected to all pregnant women. CDC's PRAMS develops statewide estimates of the prevalence of violence for women whose pregnancies resulted in live births; 1998 estimates for 15 participating states ranged from 2.4 percent to 6.6 percent. Research on whether women are at increased risk for violence during pregnancy is inconclusive. However, CDC reported that study findings suggest that, for most abused women, physical violence does not seem to be initiated or to increase during pregnancy. National data are also not available on the number of pregnant homicide victims, and such data at the state level are limited. The two federal agencies collecting homicide data, the FBI and CDC, do not identify the pregnancy status of homicide victims. CDC is exploring initiatives that could result in better data on homicides of pregnant women.
Knowledge of Prevalence of Violence during Pregnancy Is Limited, Although Several Risk Factors Have Been Identified	There is no current national estimate measuring the prevalence of violence during pregnancy—that is, the proportion of pregnant women who experience violence. Some state- and community-specific estimates are available, but they cannot be generalized or projected to all pregnant women. CDC developed PRAMS, an ongoing population-based surveillance system that generates state-specific data on a number of maternal behaviors, such as use of alcohol and tobacco, and experiences—including physical abuse—before, during, and immediately following a woman's pregnancy. CDC awards grants to states to help them collect these data. The number of states that participate in PRAMS has increased since its inception. Five states and the District of Columbia participated in fiscal year 1987 and 32 states and New York City participated in fiscal year 2001. CDC officials reported that lack of funds has prevented additional states from being added; six states were approved for participation in PRAMS but were not funded in 2002. CDC's goal is to fund all states that want the surveillance system. The estimated 1998 PRAMS prevalence rates of physical abuse by husband or partner during pregnancy, which CDC reported for 15 states, ranged

from 2.4 percent to 6.6 percent.⁶ (See app. II for PRAMS prevalence estimates for the 15 participating states and a description of PRAMS's methodology.) States participating in PRAMS use a consistent data collection methodology that allows for comparisons among states, but it does not allow for development of national estimates because states participating in PRAMS were not selected to be representative of the nation. In addition, PRAMS data cannot be generalized to all pregnant women because they represent only those women whose pregnancies resulted in live births; the data do not include women whose pregnancies ended with fetal deaths or abortions or women who were victims of homicide.⁷ PRAMS is based on self-reported data and, because some women are unwilling to disclose violence, the findings may underestimate abuse.

Studies have also estimated the prevalence of violence within certain states and communities and among narrowly defined study populations. These estimates lack comparability and cannot be generalized or projected to all pregnant women. Many of the studies do not employ random samples and are disproportionately weighted toward specific demographic or socioeconomic populations. Most of the 11 such studies we reviewed, which were published from 1998 through 2001, found prevalence rates of violence during pregnancy ranging from 5.2 percent to 14.0 percent. In a CDC-sponsored 1996 review of the literature, the majority of studies reported prevalence levels of 3.9 percent to 8.3 percent.⁸ The variability in estimates could reflect differences in study populations and methodologies, such as differences in how violence is defined, the time period used to measure violence, and the method used to collect the data.

Research on whether being pregnant places women at increased risk for violence is inconclusive. CDC reported that additional research is needed in this area, but that current study findings suggest that for most abused women, physical violence does not seem to be initiated or to increase

⁶The most recent year for which CDC has reported comprehensive data for PRAMS is 1998. CDC reported data for those 15 participating states that had fully implemented PRAMS data collection procedures and achieved CDC's required response rate of at least 70 percent. One additional state participated in PRAMS but did not meet these criteria.

⁷CDC reported that, in 1997, 63 percent of pregnancies resulted in live births.

⁸Julie A. Gazmararian and others, "Prevalence of Violence Against Pregnant Women," *JAMA* 275, no. 24 (1996): 1915-1920.

during pregnancy.⁹ Although some women experience violence for the first time during pregnancy, the majority of abused pregnant women experienced violence before pregnancy. In one study we reviewed, only 2 percent of women who reported not being abused before pregnancy reported abuse during pregnancy.¹⁰ The same study also found that, for some women, the period of pregnancy may be less risky, with violence abating during pregnancy; 41 percent of the women who reported abuse in the year before pregnancy did not experience abuse during pregnancy. Studies have found other factors to be associated with violence during pregnancy, including younger age of the woman, lower socioeconomic status, abuse of alcohol and other drugs by victims and perpetrators of violence, and unintended pregnancy.¹¹

To increase the generalizability of research on the prevalence and risk of violence to women during pregnancy, researchers have reported the need for more population-based studies that would allow for comparisons of pregnant and nonpregnant women. These studies would draw their samples from all pregnant women, not just those receiving health care or giving birth, as well as nonpregnant women. Such research could indicate whether pregnant women are at increased risk for violence compared to their nonpregnant counterparts. Researchers have also suggested using methodologies that consistently define and measure the prevalence of violence. A recent report by the Institute of Medicine on family violence recommended that the Secretary of HHS establish new, multidisciplinary education and research centers to, among other things, conduct research on the magnitude of family violence and the lack of comparability in current research.¹²

¹²Family violence includes intimate partner violence, child abuse and neglect, and elder abuse. Institute of Medicine, *Confronting Chronic Neglect: The Education and Training of Health Professionals on Family Violence* (Washington, D.C.: 2001).

⁹Melissa Moore, "Reproductive Health and Intimate Partner Violence," *Family Planning Perspectives* 31, no. 6 (1999): 302-306, 312.

¹⁰Sandra L. Martin and others, "Physical Abuse of Women Before, During, and After Pregnancy," *JAMA* 285, no. 12 (2001): 1581-1584.

¹¹For example, see Mary M. Goodwin and others, "Pregnancy Intendedness and Physical Abuse Around the Time of Pregnancy: Findings from the Pregnancy Risk Assessment Monitoring System, 1996-1997," *Maternal and Child Health Journal* 4, no. 2 (2000): 85-92; and Vilma E. Cokkinides and others, "Physical Violence During Pregnancy: Maternal Complications and Birth Outcomes," *Obstetrics & Gynecology* 93, no. 5 (1999): 661-666.

Pregnancy Status Often Not Reflected in Data on Homicide Victims

There is also little information available on violence against pregnant women that results in homicide. The FBI and CDC are the two federal agencies that collect and report information on homicides nationwide; however, neither agency collects data on whether female homicide victims were pregnant or recently pregnant. According to CDC, 17 states, New York City, and Puerto Rico collect data related to pregnancy status on their death certificates, but the data collected are not comparable. Included in these data are victims who may not have been pregnant at the time of death but had been "recently" pregnant; in addition, states' criteria for recent pregnancy ranged from 42 days to 1 year after birth. (See app. III for a list of the questions on pregnancy status that states include on their death certificates.)

The ability to identify pregnant homicide victims from death certificates is limited. While there are questions on some states' death certificates regarding pregnancy status, officials in the four states we contacted (Illinois, Maryland, New Mexico, and New York) told us that these data are incomplete and may understate the number of pregnant homicide victims. For example, if the pregnancy item on the death certificate is left blank, there is no way to easily determine whether an autopsy, if conducted, included a test or examination for pregnancy. Moreover, researchers have reported that physicians completing death certificates after a pregnant woman's death failed to report that the woman was pregnant or had a recent pregnancy in at least 50 percent of the cases.¹³

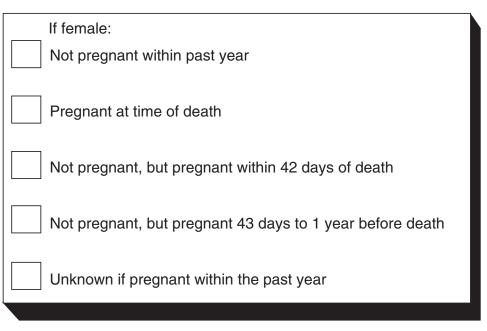
To address these limitations, all four states we contacted are making efforts to compare death certificate data with other datasets and records—such as medical examiners' reports—to identify pregnant or recently pregnant homicide victims. They told us that they are reviewing the data in order to determine if there is something they can do to prevent violent deaths of pregnant women or help women who are victimized. For example, the Maryland medical examiner's office conducted a study of the deaths of females aged 10 to 50 to determine if these women were pregnant when they died. Several sources of data—death certificates, medical examiners' reports, and recent live birth and fetal death records—from a 6-year period were linked. Of the 247 women who were identified as pregnant or recently pregnant, 27 percent were identified through

¹³Isabelle L. Horon and Diana Cheng, "Enhanced Surveillance for Pregnancy-Associated Mortality—Maryland, 1993-1998," *Journal of the American Medical Association* 285, no. 11 (2001): 1455-1459.

examining cause of death information on death certificates. The remaining 73 percent were identified by matching the woman's death certificate with recent birth and fetal death records and by reviewing data from medical examiners' records, such as autopsy reports or police records. Similarly, New York officials determined through dataset links (death certificates, fetal death records, recent birth certificates, and hospital discharge records) that, in 1997, 9 of 174 female homicide victims aged 10 to 54 were pregnant or recently pregnant at the time of death, rather than the 1 of 174 that death certificate data alone would have indicated. Officials from New York and Maryland told us these efforts to link datasets are dependent on records being computerized. Some state officials also told us they did not have the resources to conduct these analyses on a continuing basis.

There are two federal initiatives under development that propose to collect data on the number of homicides of pregnant women. CDC is proposing a revision of the U.S. standard certificate of death used for the National Vital Statistics System to include five categories related to pregnancy status. (See fig. 1.) Each state has the option of adopting the U.S. standard certificate for its death certificate or excluding or adding data elements. If the revision is approved, CDC expects several states to implement it in 2003, with an increasing number using it each year.

Figure 1: Pregnancy Status Categories on Proposed U.S. Standard Death Certificate Revision



Source: CDC.

CDC is also beginning to implement the National Violent Death Reporting System (NVDRS), which, as currently envisioned, would collect data that could determine the number of pregnant homicide victims. CDC plans to collect data from a variety of state and local government databases on deaths resulting from homicide and suicide. Like the Maryland and New York efforts, NVDRS would link several databases, such as death and medical examiners' records, to identify pregnant homicide victims. According to CDC, implementation of NVDRS depends on future funding; full implementation would take at least 5 years. The estimated federal cost of this system is \$10 million in start-up costs and \$20 million in annual operating costs; these estimates primarily consist of expenditures for providing technical assistance to the states and funding for state personnel to collect the data.

Multiple Strategies Designed to Prevent Violence, But Effect Is Unknown	Violence prevention strategies for both pregnant and nonpregnant women include measures to prevent initial incidents of violence, such as educating women about warning signs of abuse, and intervention activities that identify and respond to violence after it has occurred. Typically, the initial component of an intervention is screening, or asking women about their experiences with violence. Many health care organizations and providers recommend routine screening for intimate partner violence. Studies have found, however, that fewer than half of physicians routinely screen for violence during prenatal visits. Reasons for physicians' reluctance to screen include lack of training on how to screen and how to respond if a woman discloses violence. Violence prevention strategies also include criminal justice measures, which focus on apprehending, sentencing, incarcerating, and rehabilitating batterers. Little information is available on the effectiveness of violence prevention strategies and programs. Researchers have reported the need for evaluations of the effectiveness of screening protocols and batterer intervention programs.
Violence Prevention Programs Use Health and Criminal Justice Strategies	Measures to prevent violence against pregnant women are similar to those to prevent violence against all women. Public health violence prevention programs can include primary prevention measures to keep violence from occurring in the first place and interventions that ask women about their experiences with violence and respond if violence has occurred. Criminal justice strategies to prevent violence against women focus on apprehending, sentencing, incarcerating, and rehabilitating batterers.
	Efforts to prevent initial incidents of violence concentrate on attitudes and behaviors that result in violence against women. These efforts include educating children, male and female, about ways to handle conflict and anger without violence and social norms about violence, such as attitudes about the acceptability of violence toward women. They also include training parents, police officers, and other community officials to be resources for youth seeking assistance about teenage dating violence. Primary prevention efforts also have been targeted to pregnant women. For example, the Domestic Violence During Pregnancy Prevention Program in Saginaw, Michigan, provided 15-minute counseling sessions to pregnant women who reported that they had not experienced violence. ¹⁴ Women were educated about intimate partner violence and given tools and information to help prevent abuse in their lives, including information

¹⁴This program is a component of the Saginaw Fetal-Infant Mortality Review Program.

on behaviors typical of abusive men, warning signs of abuse, and community resources.

Interventions to deal with violence that has occurred are designed to identify victims and to prevent additional violence through such actions as providing an assessment of danger, developing a safety plan, and providing information about and referral to community resources. For example, HRSA has funded a demonstration program to develop or enhance systems that identify pregnant women experiencing intimate partner violence and provide appropriate information and links to services. The HRSA program funds four projects; each project is funded at \$150,000 a year for 3 years.¹⁵

Screening for the presence of violence is generally the initial component of intervention efforts to prevent additional violence against pregnant women. Many experts view the period of pregnancy as a unique opportunity for intervention. Pregnant women who receive prenatal care may have frequent contact with providers, which allows for the development of relationships that may facilitate disclosure of violence. For example, the American College of Obstetricians and Gynecologists (ACOG) recommends that physicians screen all patients for intimate partner violence and that screening for pregnant women occur at several times over the course of their pregnancies. Some women do not disclose abuse the first time they are asked, or abuse may begin later in pregnancy. Some of the barriers to women's disclosure of violence are fear of escalating violence, feelings of shame and embarrassment, concern about confidentiality, fear of police involvement, and denial of abuse. In addition, some health care officials told us that the period of pregnancy may be a difficult time for a woman to leave or take action against the abuser because of financial concerns and pressures to provide the child with a father.

¹⁵The projects are the Comprehensive Services for Pregnant Women Experiencing Substance Abuse and Violence in Baltimore, Maryland; Systems for Pregnancy Education and Awareness of Safety in New York, New York; Improving Systems of Care for Pregnant Women Experiencing Domestic Violence in St. Clair County, Illinois; and Perinatal Partnership Against Domestic Violence: Improving Systems of Care for Pregnant/Post Partum Women in the Asian and Pacific Islander Community in Seattle, Washington. HRSA is planning to initiate another demonstration program in June 2002 to address family violence during or around the period of pregnancy. The primary focus of the program is women experiencing violence, but its projects will also link to child abuse, elder abuse, and perpetrator rehabilitation programs.

Studies have found that fewer than half of physicians routinely screen women for violence during pregnancy. For example, a survey of ACOG fellows reported that 39 percent of respondents routinely screened for violence at the first prenatal visit.¹⁶ The study found that screening was more likely to occur when the obstetrician-gynecologist suspected a patient was being abused. Another study that surveyed primary care physicians who provide prenatal care found that only 17 percent of respondents routinely screened at the first prenatal visit and 5 percent at follow-up visits.¹⁷ Across the 15 states with PRAMS data for 1998, from 25 percent to 40 percent of women reported that a physician or other health care provider talked to them about intimate partner violence during any of their prenatal care visits.

CDC and providers of prevention services have reported that reasons for physicians' reluctance to screen women for violence include lack of time and resources, personal discomfort about discussing the topic, concern about offending patients, belief that asking invades family privacy, and frustration with patients who are not ready to leave or who return to their abusers. Lack of training and education on how to screen for intimate partner violence and lack of knowledge about what to do if a woman reports experiencing intimate partner violence have also been cited as barriers to physician screening. In its report on family violence, the Institute of Medicine stated that health professionals' training and education about family violence are inadequate and recommended that the Secretary of HHS establish education and research centers to develop training programs that prepare health professionals to respond to family violence.

Criminal justice approaches to preventing violence against women include apprehending and sanctioning the batterer, preventing further contact between the abuser and the victim, and connecting the victim to community services. In addition, batterer intervention programs, which have existed for over 20 years as a criminal justice intervention, are often used as a component of pretrial or diversion programs or as part of sentencing. Batterer programs can include classes or treatment groups,

¹⁶Deborah L. Horan and others, "Domestic Violence Screening Practices of Obstetrician-Gynecologists," *Obstetrics & Gynecology* 92, no. 5 (1998): 785-789.

¹⁷Linda Chamberlain and Katherine A. Perham-Hester, "Physicians' Screening Practices for Female Partner Abuse During Prenatal Visits," *Maternal and Child Health Journal* 4, no. 2 (2000): 141-148.

evaluation, individual counseling, or case management; their goals are rehabilitation and behavioral change.

To assist communities, policymakers, and individuals in combating violence against women, the National Advisory Council on Violence Against Women and VAWO developed a Web-based resource for instruction and guidance.¹⁸ These guidelines include recommendations for strengthening prevention efforts and improving services and advocacy for victims. For example, the guidelines recommend that communities increase the cultural and linguistic competence of their sexual assault, intimate partner violence, and stalking programs by recruiting and hiring staff, volunteers, and board members who reflect the composition of the community the program serves. The guidelines also recommend that all health and mental health care professional school and continuing education curricula include information on the prevention, detection, and treatment of sexual assault and intimate partner violence. Little Information Is Researchers have reported that little information is available on the effectiveness of strategies to prevent and reduce violence against women. Available on the For example, many health care organizations and providers advocate **Effectiveness of Violence** routine screening of pregnant women for intimate partner violence, but **Prevention Programs** questions have been raised about the effectiveness of screening, the most effective way to conduct screening, and the optimal times for conducting screening. In addition, limited information is available on the impact of screening on women and their children. A CDC official told us that CDC has not issued guidelines or recommendations related to routine screening for violence in health care settings, primarily due to the lack of scientific evidence about the effectiveness of screening. CDC recently funded a cooperative agreement to measure the effectiveness of an intimate partner violence intervention that includes evaluation of a screening protocol and computerized screening.¹⁹ The results of the study are expected to provide data on the array of outcomes that need to be considered in implementing

¹⁸National Advisory Council on Violence Against Women and the Violence Against Women Office, *Toolkit to End Violence Against Women* (Washington, D.C.: U.S. Department of Justice, November 2001). *http://toolkit.ncjrs.org* (downloaded on February 12, 2002).

¹⁹The cooperative agreement is between CDC, Johns Hopkins University, and the State University of New York at Albany.

intervention programs to decrease intimate partner violence. CDC officials told us that additional studies are necessary to evaluate screening and intervention strategies and that CDC is in the process of identifying additional study topics and designs that could complement this effort.

CDC and other researchers on violence against women and providers of prevention services have identified several other areas in which research could be fruitful. For example, they have reported the need to

- develop information on the most effective ways to promote women's safety after screening;
- develop and evaluate the effectiveness of programs that coordinate community resources from the medical, social services, law enforcement, judicial, and legal systems; and
- develop and evaluate the effectiveness of prevention strategies that incorporate cultural perspectives in serving ethnic and immigrant populations.

An example of an effort to conduct such research is HRSA's program to improve interventions for pregnant women experiencing violence; however, the projects' evaluation components are small and, according to HHS, their results may not be generalizable to the nation. Each funded project will evaluate whether its intervention was effective in improving rates of screening, assessment, and referral or links to community services; the projects may also assess the impact of the intervention on women's behaviors. For example, the Comprehensive Services program in Baltimore is assessing whether the project was effective in linking families to needed services and whether women report improvement in their physical or psychosocial status after the intervention. The Systems for Pregnancy Education and Awareness of Safety in New York is evaluating whether the project increases the number of women who disclose violence and receive services and referrals to community services, such as shelters. The Perinatal Partnership Against Domestic Violence in Seattle is evaluating the effectiveness of screening protocols and interventions that are tailored to the culture and values of women who are Asian and Pacific Islanders.

Researchers have also reported that there is little evaluative information on the effectiveness of violence prevention programs for batterers. A VAWO-funded study of the effectiveness of batterer programs concluded that they have modest effects on violence prevention when compared with traditional probationary practices and that there is little evidence to support the effectiveness of one batterer program over another in

	reducing recidivism. ²⁰ The study concluded, however, that batterer programs are a small but critical element in an overall violence prevention effort that includes education, arrest, prosecution, probation, and victim services. The study authors advocated experimenting with different program approaches and performing outcome evaluations of batterer programs.
Concluding Observations	The magnitude of the problem of violence against pregnant women is unknown. Current collaborative efforts by federal and state governments to gather and analyze more complete and comparable data could improve policymakers' knowledge of the extent of this violence and guide future research and resource allocation. These efforts can also help in setting priorities for prevention strategies. Continuing evaluation of prevention strategies and programs could help identify successful approaches for reducing violence against women.
Agency Comments	We provided a draft of this report to Justice and HHS for comment. Justice informed us that it did not have any comments. HHS agreed with our finding that limited information is available regarding violence against pregnant women. HHS also noted reasons why the data are incomplete, such as the difficulty of collecting data from a representative sample of pregnant victims because they are such a small percentage of the U.S. population. Other reasons HHS cited are legal and ethical issues in conducting research on this population, such as maintaining privacy and confidentiality. HHS commented that several states are conducting mortality reviews to better understand pregnancy-related deaths and their underlying causes.
	HHS raised several issues that it considers important regarding violence against women, such as the need to evaluate factors correlated with violence against women, and identified additional efforts within the department that focus on intimate partner violence. We recognize that there are many issues and efforts related to violence against women; however, our focus was on violence against pregnant women, and therefore much of our discussion relates to this population. HHS noted

²⁰Larry Bennett and Oliver Williams, *Controversies and Recent Studies of Batterer Intervention Program Effectiveness*, Grant number 98-WT-VX-K001 (Washington, D.C.: U.S. Department of Justice, 2001).

that although HRSA's demonstration program to improve interventions for pregnant women experiencing violence will result in new qualitative information, the evaluation component is small and the findings would likely be limited. We modified our discussion of this program to indicate that it is a small demonstration program and its results may not be generalizable to the nation. In response to HHS's comments, we added a description of another demonstration program focused on violence against pregnant women that HRSA plans to initiate in June 2002. HHS also provided technical comments, which we incorporated where appropriate. (HHS's comments are reprinted in app. IV.)

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after its issue date. We will then send copies to the Secretary of Health and Human Services; the Attorney General; the Administrator of the Health Resources and Services Administration; the Directors of the Centers for Disease Control and Prevention, National Institutes of Health, Office of Justice Programs, and Federal Bureau of Investigation; appropriate congressional committees; and others who are interested. We will also make copies available to others on request.

If you or your staff have any questions, please contact me at (202) 512-8777 or Janet Heinrich, Director, Health Care—Public Health Issues, at (202) 512-7119. Additional GAO contacts and the names of other staff members who made contributions to this report are listed in appendix V.

Sincerely yours,

Paul 2. for

Paul L. Jones Director, Tax Administration and Justice

Appendix I: Scope and Methodology

To do our work, we interviewed and obtained information from officials at the Department of Health and Human Services' Centers for Disease Control and Prevention (CDC), Health Resources and Services Administration (HRSA), and National Institutes of Health, and the Department of Justice's Office of Justice Programs (OJP) and Federal Bureau of Investigation (FBI). We also interviewed representatives of and obtained information from the American College of Obstetricians and Gynecologists, Institute of Medicine, Family Violence Prevention Fund, National Coalition Against Domestic Violence, and National Association of Medical Examiners; several state domestic violence coalitions; and researchers.

To determine the availability of information on the prevalence and risk of violence against pregnant women, we reviewed literature on the prevalence and risk of violence to women during pregnancy. We identified 11 studies published since 1998 that contained prevalence estimates and assessed their methodologies to ensure the appropriateness of the data collection and analysis methods and the conclusions. We also interviewed CDC officials and reviewed data collected through CDC's Pregnancy Risk Assessment Monitoring System (PRAMS).

To determine the availability of data on the number of pregnant women who are victims of homicide in the United States, we interviewed officials and collected and analyzed homicide statistics and reports from CDC, the FBI, and OJP's Bureau of Justice Statistics. We also interviewed officials from state departments of health and vital statistics in Illinois, Maryland, New Mexico, and New York to determine how they collect and use data on pregnant homicide victims. We selected these states because, in addition to collecting pregnancy data on their state death certificates, they are active in collecting and analyzing information from various sources to study maternal health issues. The states were not intended to be representative of all states. We also interviewed and obtained information from CDC and Justice officials to identify federal initiatives that are under way to improve the availability of information on homicides of pregnant women.

To identify strategies and programs to prevent violence against pregnant women, we gathered information through a literature review and interviews with and information collected from researchers and officials from federal agencies, health care associations, and advocacy groups. We reviewed a HRSA-funded program (with projects located in Illinois, Maryland, New York, and Washington) and two other programs (located in Michigan and Pennsylvania) because they focused specifically on violence against pregnant women and served varied populations, including adolescents, diverse ethnic groups, and women with substance abuse problems.

We conducted our work from July 2001 through April 2002 in accordance with generally accepted government auditing standards.

Appendix II: Description of the Pregnancy Risk Assessment Monitoring System

CDC developed PRAMS, a population-based survey of women whose pregnancies resulted in live births. CDC awards grants to states to help them collect information on women's experiences and behaviors before, during, and immediately following pregnancy. CDC funded about \$6.2 million for PRAMS in fiscal year 2001; grant awards to states ranged from \$100,000 to \$150,000. CDC's funding for PRAMS also includes costs for CDC staff and contractors to provide technical support to the states.

States participating in PRAMS use a consistent methodology to collect data. Each state selects a stratified sample of new mothers every month from eligible birth certificates and then collects data through mailings and follow-up telephone calls to nonrespondents. A birth certificate is eligible for the PRAMS sample if the mother was a resident of the state. For 1998, the most recent year for which CDC has reported comprehensive data for PRAMS, states used a standardized questionnaire that asked women if their husbands or partners physically abused them during their most recent pregnancy. PRAMS defined physical abuse as pushing, hitting, slapping, kicking, or any other way of physically hurting someone.¹ Table 1 lists 1998 PRAMS estimates of the prevalence of intimate partner violence during pregnancy.

¹Some states have also added questions on verbal and emotional abuse.

Table 1: PRAMS Estimates of the Prevalence of Physical Abuse by Husband orPartner during Pregnancy, 1998

State	Percentage
Alabama	3.8
Alaska	3.8
Arkansas	5.5
Colorado	2.8
Florida	4.1
Illinois	4.1
Louisiana	5.2
Maine	2.5
New Mexico ^b	6.6
New York [°]	2.4
North Carolina	4.2
Oklahoma	5.1
South Carolina	3.9
Washington	3.5
West Virginia	4.7

Note: PRAMS includes data only for women whose pregnancies resulted in live births.

^aThis column represents the proportion of pregnant women who reported physical abuse (i.e., pushing, hitting, slapping, kicking, or any other way of physically hurting someone).

^bData represent births from July 1997 through December 1998.

°Data do not include New York City.

Source: L.E. Lipscomb and others, PRAMS 1998 Surveillance Report (Atlanta, Ga.: Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 2000).

Appendix III: Pregnancy Status Questions on States' Death Certificates

State	Question
Alabama	Was there a pregnancy in last 90 days or 42 days?
Florida	If female, was there a pregnancy in the past 3 months?
Georgia	If female, indicate if pregnant or birth occurred within 90 days of death.
Illinois	If female, was there a pregnancy in the past 3 months?
Indiana	Was decedent pregnant or 90 days postpartum?
Iowa	If female, was there a pregnancy in the past 12 months?
Louisiana	If deceased was female 10-49, was she pregnant in the last 90 days?
Maine	Indicate if the decedent was pregnant or less than 90 days postpartum at time of death.
Maryland	If female, was decedent pregnant in the past 12 months?
Missouri	If deceased was female 10-49, was she pregnant in the last 90 days?
Nebraska	If female, was there a pregnancy in the past 3 months?
New Jersey	If female, was she pregnant at death or any time 90 days prior to death?
New Mexico	Was decedent pregnant within last 6 weeks?
New York	If female, was decedent pregnant in last 6 months?
New York City ^a	If female under 54, pregnancy in last 12 months?
North Dakota	Was deceased pregnant within 18 months of death?
Puerto Rico	If female, was deceased pregnant?
Texas	Was decedent pregnant at time of death; within last 12 months?
Virginia	If female, was there a pregnancy in last 3 months?

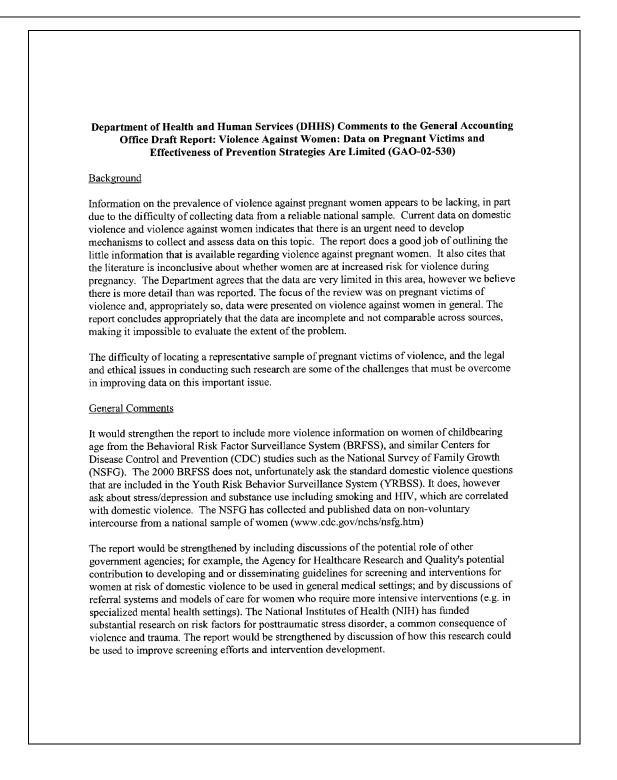
Note: According to CDC, these are the only states that include questions on pregnancy status on their death certificates. The term "states" includes New York City and Puerto Rico.

^aAccording to New York state officials, New York City uses a different death certificate from the rest of the state. The New York City death certificate is used for the five boroughs of the city: Manhattan, Brooklyn, Queens, the Bronx, and Staten Island.

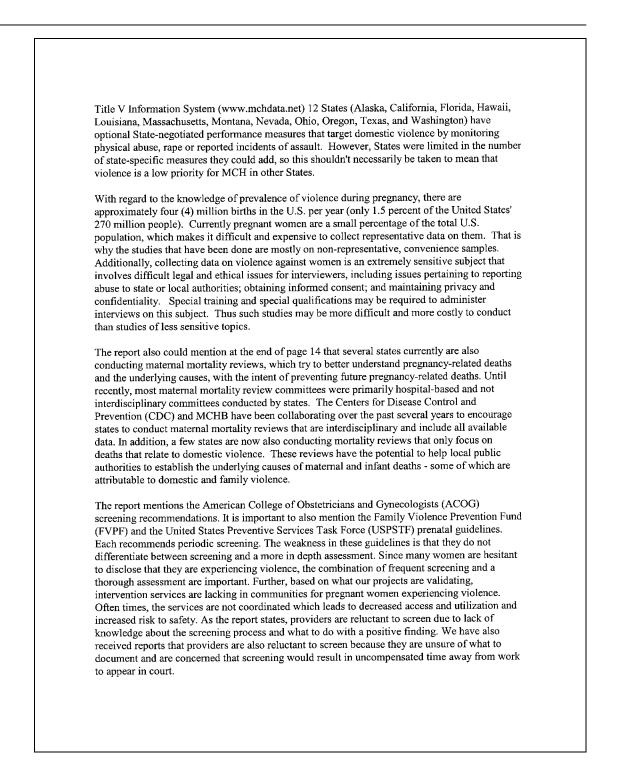
Source: CDC.

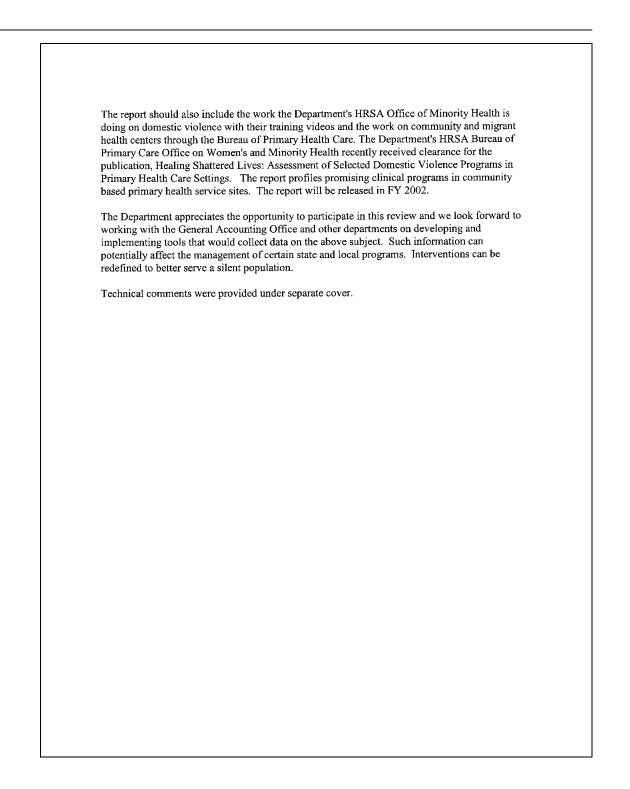
Appendix IV: Comments from the Department of Health and Human Services

DEPARTMENT OF HEALTH & HUMAN SERVICES	Office of Inspector General
	Washington, D.C. 20201
May 3 2002	
Mr. Paul L. Jones Director, Tax Administration	
and Justice United States General	
Accounting Office	
Washington, D.C. 20548	
Dear Mr. Jones:	
Enclosed are the Department's comments on your draft report on Pregnant Victims and Effectiveness of Prevention Strategic represent the tentative position of the Department and are subj version of this report is received.	es Are Limited." The comments
The Department also provided technical comments directly to	your staff.
The Department appreciates the opportunity to comment on the publication.	is draft report before its
Sincerely,	
michael	Mangano
Janet Rehnquist	0
Inspector Genera	ıl
Enclosure	
The Office of Inspector General (OIG) is transmitting the De	
report in our capacity as the Department's designated focal p Accounting Office reports. The OIG has not conducted an in	oint and coordinator for General ndependent assessment of these
comments and therefore expresses no opinion on them.	









Appendix V: GAO Contacts and Staff Acknowledgments

GAO Contacts	Weldon McPhail, (202) 512-8644	
	Helene F. Toiv, (202) 512-7162	
Staff Acknowledgments	In addition to those named above, contributors to this report were Janina Austin, Nancy Kawahara, Emily Gamble Gardiner, Geoffrey Hamilton, Anthony Hill, Hiroshi Ishikawa, Alice London, Behn Miller, and Sara-Ann Moessbauer.	

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Public Affairs	Jeff Nelligan, managing director, <u>NelliganJ@gao.gov</u> (202) 512-4800 U.S. General Accounting Office, 441 G Street NW, Room 7149 Washington, D.C. 20548	