



# National Institute of Justice Centers for Disease Control and Prevention

R e s e a r c h i n B r i e f

November 1998



The findings from this second in a series of reports issued jointly by the National Institute of Justice and Centers for Disease Control and Prevention paint a picture of the violence against women as seen daily by emergency room, law enforcement, and court professionals.

Accurate information of the kind presented in this Research in Brief and in the full report contributes to our Nation's efforts to stop violence against women and alleviate the suffering of its victims, much of which occurs in the privacy of homes rather than in public.

This information will help the U.S. Department of Justice direct and evaluate efforts to work within the legal system to protect Americans and provide justice for those who violate the rights of others. This knowledge also will help the U.S. Department of Health and Human Services direct efforts toward preventing the physical injury and psychological abuse that results from violence. Ultimately, the knowledge gained from surveys like this one has the power to call the Nation's attention to how pervasive the problem is and how many women face dangers in our communities.

**Jeremy Travis, Director  
National Institute of Justice**

**Mark Rosenberg, Director  
National Center for Injury  
Prevention and Control, Centers  
for Disease Control and Prevention**

## Prevalence, Incidence, and Consequences of Violence Against Women: Findings From the National Violence Against Women Survey

by Patricia Tjaden and Nancy Thoennes

Violence against women first came to be viewed as a serious social problem in the early 1970s, in part because of the re-emergence of the Women's Movement.<sup>1</sup> In unprecedented numbers, scholars trained in such diverse disciplines as philosophy, literature, law, and sociology began to examine violence against women in the context of a feminist ideology.<sup>2</sup> Despite the resulting outpouring of research on violence against women, particularly in the areas of rape and intimate partner violence, many gaps remain in our understanding of violence against women.<sup>3</sup>

Until now, empirical data on the relationship between certain types of violence against women, such as childhood victimization and subsequent adult victimization, have been limited. Reliable information on minority women's experiences with violence and on the consequences of violence against women, including rates of injury and use of medical services, is also limited.<sup>4</sup>

To further an understanding of violence against women, the National Institute of Justice (NIJ) and the Centers for Disease Control and Prevention (CDC) jointly sponsored—through a grant to the Center for Policy Research—a national telephone survey on violence against women, which

was conducted from November 1995 to May 1996. To provide a context in which to place women's experiences, the National Violence Against Women (NVAW) Survey sampled both women and men. Thus the survey provides comparable data on women's and men's experiences with violent victimization.

Respondents to the NVAW Survey were queried about:

- Physical assault they experienced as children by adult caretakers.
- Physical assault they experienced as adults by any type of perpetrator.
- Forcible rape or stalking they experienced at any time in their life by any type of perpetrator.

Respondents who disclosed victimization were asked detailed questions about the characteristics and consequences of their victimization, including injuries sustained and use of medical services (see "Survey Screening Questions," page 13 and "Survey Methodology," page 14).

Several features set the NVAW Survey apart from other victimization surveys:

- State-of-the-art techniques protected confidentiality and minimized the potential for retraumatizing victims of violence

## Issues and Findings

**Discussed in this Brief:** Results of a nationally representative telephone survey of 8,000 women and 8,000 men about their experiences with rape, physical assault, and stalking cosponsored by the National Institute of Justice and the Centers for Disease Control and Prevention and conducted by the Center for Policy Research.

**Key issues:** This study provides empirical data on the prevalence and incidence of rape, physical assault, and stalking; the prevalence of male-to-female and female-to-male intimate partner violence; the prevalence of rape and physical assault among women of different racial and ethnic backgrounds; the rate of injury among rape and physical assault victims; and injured victims' use of medical services.

**Key findings and policy implications:** Although the survey sampled both women and men, this report focuses on women's experiences with violence. Analysis of survey data produced the following results:

- Using a definition of physical assault that includes a range of behaviors, from slapping and hitting to using a gun, the survey found that physical assault is widespread among American women: 52 percent of surveyed women said they were physically assaulted as a child by an adult caretaker and/or as an adult by any type of perpetrator; 1.9 percent of surveyed women said they were physically assaulted in the previous 12 months. Based on these estimates, approximately 1.9 million women are physically assaulted annually in the United States. More research is needed to understand the relationship between physical assault experienced in childhood and physical assault experienced in adulthood.
- Using a definition of rape that includes forced vaginal, oral, and anal intercourse, the survey found that rape is a crime committed primarily against youth: 18 percent of women surveyed said they experienced a completed or attempted rape at some

time in their life and 0.3 percent said they experienced a completed or attempted rape in the previous 12 months. Of the women who reported being raped at some time in their lives, 22 percent were under 12 years old and 32 percent were 12 to 17 years old when they were first raped. Given these findings, research and intervention strategies should focus on rapes perpetrated against children and adolescents.

- Among women of different racial and ethnic backgrounds, the difference in the prevalence of reported rape and physical assault is statistically significant: American Indian/Alaska Native women were most likely to report rape and physical assault victimization, while Asian/Pacific Islander women were least likely to report rape and physical assault victimization. Hispanic women were less likely to report rape victimization than non-Hispanic women. More research is needed to determine how much of the difference can be explained by the respondent's willingness to report information to interviewers and how much by social, demographic, and environmental factors.
- Women experience significantly more partner violence than men do: 25 percent of surveyed women, compared with 8 percent of surveyed men, said they were raped and/or physically assaulted by a current or former spouse, cohabiting partner, or date in their lifetime; 1.5 percent of surveyed women and 0.9 percent of surveyed men said they were raped and/or physically assaulted by such a perpetrator in the previous 12 months. According to survey estimates, approximately 1.5 million women and 834,700 men are raped and/or physically assaulted by an intimate partner annually in the United States. Because women are also more likely to be injured by intimate partners, research aimed at understanding and preventing partner violence against women should be stressed.
- Violence against women is primarily partner violence: 76 percent of the women who

were raped and/or physically assaulted since age 18 were assaulted by a current or former husband, cohabiting partner, or date, compared with 18 percent of the men. It is therefore imperative that strategies for preventing violence against women should focus on ways of protecting women from risks posed by current and former intimates.

- Women are significantly more likely than men to be injured during an assault: 32 percent of the women and 16 percent of the men who were raped since age 18 were injured during their most recent rape; 39 percent of the women and 25 percent of the men who were physically assaulted since age 18 were injured during their most recent physical assault. About one in three women who were injured during a rape or physical assault required medical care. To better meet the medical needs of women who are victims of violence, medical professionals should receive comprehensive training on the physical consequences of violence against women and appropriate treatment strategies.
- Using a definition of stalking that requires the victim to feel a high level of fear, the survey found that stalking is more prevalent than previously thought: 8 percent of surveyed women and 2 percent of surveyed men said they were stalked at some time in their life; 1 percent of surveyed women and 0.4 percent of surveyed men said they were stalked in the previous 12 months. According to survey estimates, approximately 1 million women and 371,000 men are stalked annually in the United States. Given these findings, stalking should be considered a serious criminal justice and public health concern.

**Target audience:** Criminal justice and public health researchers and practitioners, legislators, policymakers, and intervention planners at all levels of government.

and jeopardizing the safety of respondents. In addition to lessening the possibility that respondents would be harmed by their participation in the survey, these techniques increased the quality of the information being gathered.

- Information about both the prevalence (lifetime and annual) and incidence of violence was gathered. Thus victimization estimates from the NVAW Survey can be compared with victimization estimates from a wide variety of other surveys.
- Behaviorally specific questions screened respondents for rape, physical assault, and stalking victimization. These questions were designed to leave little doubt in the respondents' minds as to the type of information being sought.
- Detailed information about the characteristics and consequences of victimization for each type of perpetrator identified by the respondents was gathered. While this approach created a very complicated data set, it also created the opportunity to track victimizations by the same perpetrator (e.g., the victim's first ex-husband).

This Research in Brief summarizes the survey's findings on the prevalence and incidence of rape, physical assault, and stalking; the rate of injury among rape and physical assault victims; and injured victims' use of medical services. Complete details about men's and women's experiences with stalking are contained in an earlier report. This Research in Brief therefore focuses primarily on rape and physical assault. The full report detailing the prevalence, incidence, and consequences of violence against women will be available through the CDC (see "Other Publications in the Series").

### Rape: Prevalence and incidence

Using a definition of rape that includes forced vaginal, oral, and anal sex, the survey found that 1 of 6 U.S. women

and 1 of 33 U.S. men has experienced an attempted or completed rape as a child and/or an adult; specifically, 18 percent of surveyed women and 3 percent of surveyed men said they

experienced a completed or attempted rape at some time in their life (see exhibit 1). These findings are similar to findings from the National Health and Social Life Survey, which found that

### Other Publications in the Series

To obtain other publications in the series from the National Violence Against Women Survey:

- *Stalking in America: Findings From the National Violence Against Women Survey*, Research in Brief, by Patricia Tjaden and Nancy Thoennes, Washington, D.C.: U.S. Department of Justice, National Institute of Justice, April 1998 (NCJ 169592).

Visit NIJ's Web site at <http://www.ojp.usdoj.gov/nij> or contact the National Criminal Justice Service at P.O. Box 6000, Rockville, MD 20849-6000, (800) 851-3420 or (301) 519-5500, or send an e-mail message to [askncjrs@ncjrs.org](mailto:askncjrs@ncjrs.org).

- *Final Report on Prevalence, Incidence, and Consequences of Violence Against Women* by Patricia Tjaden and Nancy Thoennes, Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, forthcoming 1998.

Learn about the availability of the *Final Report* and other CDC family and intimate violence prevention activities by visiting the National Center for Injury Prevention and Control's Web site at <http://www.cdc.gov/ncipc/dvp/fivpt>.

Additional reports in the series are forthcoming.

Exhibit 1: Persons Raped or Physically Assaulted in Lifetime by Sex of Victim

Type of Assault	Percentage		Number <sup>a</sup>	
	Women (n=8,000)	Men (n=8,000)	Women (100,697,000)	Men (92,748,000)
<b>Total rape<sup>b</sup></b>	<b>17.6</b>	<b>3.0</b>	<b>17,722,672</b>	<b>2,782,440</b>
Completed <sup>b</sup>	14.8	2.1	14,903,156	1,947,708
Attempted only <sup>b</sup>	2.8	0.9	2,819,516	834,732
<b>Total physical assault<sup>b</sup></b>	<b>51.9</b>	<b>66.4</b>	<b>52,261,743</b>	<b>61,584,672</b>
Threw something <sup>b</sup>	14.0	22.4	14,097,580	20,775,552
Pushed, grabbed, shoved <sup>b</sup>	30.6	43.5	30,813,282	40,345,380
Pulled hair	19.0	17.9	19,132,430	16,601,892
Slapped, hit <sup>b</sup>	43.0	53.7	43,299,710	49,805,676
Kicked, bit <sup>b</sup>	8.9	15.2	8,962,033	14,097,696
Choked, tried to drown <sup>b</sup>	7.7	3.9	7,753,669	3,617,172
Hit with object <sup>b</sup>	21.2	34.7	21,347,764	32,183,556
Beat up <sup>c</sup>	14.1	15.5	14,198,277	14,375,940
Threatened with gun <sup>b</sup>	6.2	13.1	6,243,214	12,149,988
Threatened with knife <sup>b</sup>	5.8	16.1	5,840,426	14,932,428
Used gun <sup>b</sup>	2.6	5.1	2,618,122	4,730,148
Used knife <sup>b</sup>	3.5	9.6	3,524,395	8,903,808
<b>Rape and/or physical assault<sup>b</sup></b>	<b>55.0</b>	<b>66.8</b>	<b>55,383,350</b>	<b>61,955,664</b>

a. Based on estimates of women and men in the United States aged 18 years and older, U.S. Bureau of the Census, Current Population Survey, 1995.

b. Differences between women and men are statistically significant: p-value ≤ .001.

c. Differences between women and men are statistically significant: p-value ≤ .01.

**Exhibit 2: Persons Raped or Physically Assaulted in Previous 12 Months by Sex of Victim**

Type of Violence	Percentage		Number <sup>a</sup>	
	Women (n=8,000)	Men (n=8,000)	Women (100,697,000)	Men (92,748,000)
Rape <sup>b</sup>	0.3	0.1	302,091	92,748
Physical assault <sup>b</sup>	1.9	3.4	1,913,243	3,153,432
Rape and/or physical assault <sup>b</sup>	2.1	3.5	2,114,637	3,246,180

a. Based on estimates of men and women in the United States aged 18 and older, U.S. Bureau of the Census, Current Population Survey, 1995.

b. Differences between men and women are statistically significant: p-value ≤ .001.

22 percent of surveyed women and 2 percent of surveyed men had been “forced to do something sexual” at some time in their lifetime.<sup>5</sup>

The survey also found that 0.3 percent of surveyed women and 0.1 percent of surveyed men said they experienced a completed or attempted rape in the previous 12 months.<sup>6</sup> These estimates equate to approximately 302,100 women and 92,700 men who are forcibly raped each year in the United States (see exhibit 2).

Because some rape victims experienced more than one rape in the 12 months preceding the survey, the *incidence* of rape (number of separate victimizations) exceeded the *prevalence* of rape (number of rape victims). Specifically, women who were raped in the previous 12 months averaged 2.9 rapes, while men averaged 1.2 rapes. According to survey estimates, approximately 876,100 rapes were perpetrated against women and approximately 111,300 rapes were perpetrated against men in the United States during the 12 months preceding the survey (see exhibit 3).

The annual rape victimization estimates generated by the NVAW Survey are higher than comparable victimization estimates generated by the Bureau of Justice Statistics (BJS) National Crime Victimization Survey (NCVS). The NCVS estimates for 1994—the most

recent year for which estimates are available—are 432,100 rapes and sexual assaults of women age 12 and older and 32,900 rapes and sexual assaults of men age 12 and older.<sup>7</sup> However, direct comparisons between the NVAW Survey and the NCVS are difficult to make. Estimates reported by the two surveys refer to somewhat different populations and sexual victimizations. Moreover, the two surveys differ substantially with respect to other methodological issues.

Specifically, the NVAW Survey estimates include victimizations against persons age 18 and older, while the NCVS estimates include victimizations against persons 12 years of age and older. The NVAW Survey estimate for forcible rape is being compared to an NCVS estimate that includes rape and

other forms of sexual assault, such as grabbing, fondling, and verbal threats of a sexual nature.

In addition, the screening questions used by the two surveys differ substantially. The NVAW Survey uses five questions to screen respondents for rape victimization, while the NCVS uses only two questions.<sup>8</sup> Although empirical data on this issue are limited, some researchers assume that increasing the number of screening questions increases disclosure rates.<sup>9</sup> Furthermore, the NVAW Survey screening questions are more explicit than those used by the NCVS.<sup>10</sup>

Moreover, published NCVS estimates count series victimizations—reports of six or more crimes within a 6-month period for which the respondent cannot recall details of each crime—as a single victimization. Thus, published NCVS estimates of the number of rape and sexual assault victimizations are lower than would be obtained by including all incidents reported to its survey interviewers. To produce NCVS estimates for direct comparison with the NVAW Survey estimates, each crime in a series of victimizations reported to the NCVS interviewers would have to be counted separately.

Finally, the sampling errors associated with the estimates from the NVAW

**Exhibit 3: Number of Rapes and Physical Assaults Perpetrated in Previous 12 Months by Sex of Victim**

Type of Violence	Number of Victims	Average Number of Victimization per Victim <sup>a</sup>	Total Number of Victimization
<b>Women</b>			
Rape	302,091	2.9	876,064
Physical assault	1,913,243	3.1	5,931,053
<b>Men</b>			
Rape	92,748	1.2	111,298
Physical assault	3,153,432	2.5	7,883,580

a. The standard error of the mean for each estimate in this column is 1.431, 0.167, 0.539, 0.225, respectively.

*Exhibit 4: Women Raped or Physically Assaulted in Lifetime by Race/Ethnicity of Victim*

	Women Raped or Physically Assaulted in Lifetime (%)					
	Total (n=7,850)	White (n=6,452)	African- American (n=780)	Asian/ Pacific Islander (n=133)	American Indian/ Alaska Native (n=88)	Mixed Race (n=397)
Rape <sup>a</sup>	18.2	17.7	18.8	6.8	34.1	24.4
Physical assault <sup>b</sup>	51.8	51.3	52.1	49.6	61.4	57.7
Rape and/or physical assault <sup>b</sup>	55.0	54.5	55.1	51.9	64.8	61.2

a. Differences between racial/ethnic groups are statistically significant: p-value ≤ .001.  
 b. Differences between racial/ethnic groups are statistically significant: p-value ≤ .05.

Survey and the NCVS would have to be compared. This is important given the relatively high margin of error associated with NVAW Survey estimates of the average number of rape victimizations experienced by male and female victims (see footnote in exhibit 3). Comparisons of sampling errors would help determine whether the estimates are actually different or whether apparent differences are not statistically significant.

A study now under way and funded by NIJ, BJS, and CDC will provide more comprehensive information about the differences between the two surveys, including error ranges for the estimates. Using data from the two surveys, the study is calculating estimates using the same counting rules and the same age populations. The results of this detailed comparison will be published in early 1999.

**Physical assault: Prevalence and incidence**

The NVAW Survey used a modified version of the Conflict Tactics Scale<sup>11</sup> to query respondents about a variety of physical assaults they may have suffered. Responses revealed that physical assault is widespread in American society: 52 percent of surveyed women and 66 percent of

surveyed men said they were physically assaulted as a child by an adult caretaker and/or as an adult by any type of perpetrator.

For both women and men, the most frequently reported physical assault was slapping and hitting, followed by pushing, grabbing, shoving, and hitting with an object. Relatively few respondents reported that an adult caretaker or other adult pulled their hair or threw something at them that could hurt. Still fewer reported that an adult caretaker or other adult choked or almost drowned them, kicked or bit them, beat them up, threatened them with a gun or knife, or used a gun or knife on them (see exhibit 1).

The NVAW Survey also found that 1.9 percent of surveyed women and 3.4 percent of surveyed men said they were physically assaulted in the previous 12 months. These estimates equate to approximately 1.9 million women and 3.2 million men who are physically assaulted annually in the United States (see exhibit 2). Female victims averaged 3.1 assaults and male victims averaged 2.5 assaults per year, which equate to approximately 5.9 million physical assaults perpetrated against women and 7.9 million physical assaults perpetrated against men in the 12 months preceding the survey (see

exhibit 3). These estimates probably underestimate the number of physical assaults perpetrated against women and men annually because the NVAW Survey categorized victimizations involving both rape and physical assault only as rapes.

The NVAW Survey estimates of annual physical assaults are greater than the NCVS estimates. The NCVS estimate for 1994 is 4.1 million aggravated and simple assaults of women age 12 and older and 5.7 million aggravated and simple assaults of men age 12 and older.<sup>12</sup> Comparisons between the NVAW Survey and NCVS estimates of physical assault are confounded by the same methodological differences discussed earlier and are being addressed in ongoing research funded by NIJ, BJS, and CDC that is comprehensively reviewing the two surveys' estimates for physical violence.

**The risk of violence varies among minority women**

The survey found that American Indian/Alaska Native women were significantly more likely to disclose rape and physical assault victimization than women of other racial/ethnic backgrounds, while Asian/Pacific Islander women were significantly less likely to report rape and physical assault victimization (see exhibit 4).

These findings must be viewed with caution, however, given the relatively small numbers of American Indian/Alaska Native and Asian/Pacific Islander women included in the sample. Because information on violence against American Indian/Alaska Native women is limited, it is difficult to explain why they report more rape and physical assault victimization. A previous study found that Native-American couples were significantly more violent than their white counterparts.<sup>13</sup> Another study found that the overall homicide rates for Native Americans were approximately two

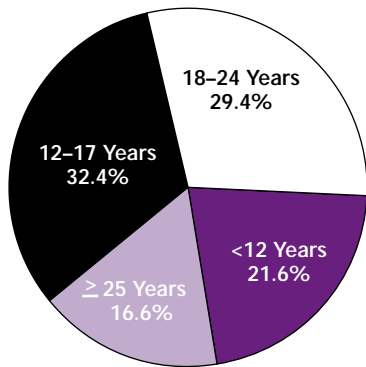
Exhibit 5: Women Raped or Physically Assaulted in Lifetime by Hispanic/ Non-Hispanic Origin of Victim

	Women Raped or Physically Assaulted in Lifetime (%)		
	Total (n=7,945)	Hispanic <sup>a</sup> (n=628)	Non-Hispanic (n=7,317)
Rape <sup>b</sup>	18.1	14.6	18.4
Physical assault	51.9	53.2	51.8
Rape and/or physical assault	55.1	54.9	55.1

a. Persons of Hispanic origin may be of any race.

b. Differences between Hispanics and non-Hispanics are statistically significant: p-value ≤ .05.

Exhibit 6: Women Victims' Age at Time of First Rape<sup>a</sup>



a. n=1,323 women victims.

times greater than U.S. national rates.<sup>14</sup> Information from this study published elsewhere shows that Native-American women report significantly more stalking victimization than do women of other racial/ethnic backgrounds.<sup>15</sup> Thus there is some evidence that Native Americans are at significantly greater risk of violence than other Americans.

How much of the difference in rape and physical assault prevalence can be explained by differences in willingness to report victimization to interviewers and how much can be explained by actual victimization experiences is unclear and requires further study. Research is also needed to ascertain how social, environmental,

and demographic factors intersect with race and ethnicity to produce differences in rape and physical assault prevalence. Finally, research is needed to determine whether victimization rates vary significantly among women of diverse American Indian tribes and Alaska Native communities.

Because information is also lacking on violence against Asian/Pacific Islander women, it is unclear why they report less rape and physical assault victimization. Information from focus groups and nonrandom samples of Asian-American women suggests that intimate partner violence is a major concern among these women.<sup>16</sup> However, there are no accurate estimates of intimate partner violence among Asian-American or Pacific Islander women, and the differences between Asian-American and Pacific Islander women in rape and physical assault prevalence also may be significant. Such differences, however, cannot be discerned from the NVAW Survey because data on these two groups were combined. Clearly, more research is needed on violence against Asian-American and Pacific Islander women.

The survey found that Hispanic women were less likely to report rape victimization than were non-Hispanic women (see exhibit 5). Previous studies comparing violence prevalence among Hispanic and non-Hispanic women

have produced contradictory conclusions;<sup>17</sup> hence, findings from the NVAW Survey neither confirm nor contradict earlier findings.

### Rape is primarily a crime against youth

It has been previously reported that rape in America is a “tragedy of youth” because the majority of rapes occurs against children and adolescents.<sup>18</sup> Results from the survey support this assertion: More than half (54 percent) of the female rape victims identified by the survey were under 18 years old when they experienced their first rape (see exhibit 6). Of the women disclosing rape, 22 percent were under 12 years old when they experienced their first rape, while 32 percent were 12 to 17 years old.

Several authors have reported that women who are sexually assaulted as children and adolescents are at greater risk of being sexually assaulted as adults.<sup>19</sup> Results from the NVAW Survey provide further evidence of the link between sexual assault as a minor and subsequent sexual assault as an adult: 18 percent of the women who reported being raped before age 18 said they were also raped after the age of 18, compared with 9 percent of the women who did not report being raped before the age of 18.

### Women experience more partner violence than men do

The NVAW survey found that women are significantly more likely to be assaulted by an intimate partner than men are. Twenty-five percent of surveyed women, compared with 8 percent of surveyed men, said they were raped and/or physically assaulted by a current or former spouse, cohabiting partner, or date at some time in their life; 1.5 percent of all surveyed women compared with 0.9 percent of all surveyed men said they were raped

**Exhibit 7: Persons Raped or Physically Assaulted by an Intimate Partner in Lifetime and in Previous 12 Months by Sex of Victim**

Type of Violence	In Lifetime <sup>a</sup>			
	Percentage		Number <sup>b</sup>	
	Women (n=8,000)	Men (n=8,000)	Women (100,697,000)	Men (92,748,000)
Rape <sup>c</sup>	7.7	0.3	7,753,669	278,244
Physical assault <sup>c</sup>	22.1	7.4	22,254,037	6,863,352
Rape and/or physical assault <sup>c</sup>	24.8	7.6	24,972,856	7,048,848

Type of Violence	In Previous 12 Months <sup>a</sup>			
	Percentage		Number <sup>b</sup>	
	Women (n=8,000)	Men (n=8,000)	Women (100,697,000)	Men (92,748,000)
Rape	0.2	— <sup>e</sup>	201,394	— <sup>e</sup>
Physical assault <sup>d</sup>	1.3	0.9	1,309,061	834,732
Rape and/or physical assault <sup>d</sup>	1.5	0.9	1,510,455	834,732

- a. Intimate partner includes current and former spouses, opposite-sex cohabiting partners, same-sex cohabiting partners, dates, and boyfriends/girlfriends.
- b. Based on estimates of men and women in the United States aged 18 years and older, U.S. Bureau of the Census, Current Population Survey, 1995.
- c. Differences between women and men are statistically significant: p-value ≤ .001.
- d. Differences between women and men are statistically significant: p-value ≤ .05.
- e. The number of men rape victims was insufficient to reliably calculate prevalence estimates.

**Exhibit 8: Percentage of Persons Physically Assaulted by an Intimate Partner in Lifetime by Type of Assault and Sex of Victim<sup>a</sup>**

Type of Assault	Women (n=8,000)	Men (n=8,000)
<b>Total physical assault by intimate partner<sup>b</sup></b>	<b>22.1</b>	<b>7.4</b>
Threw something <sup>b</sup>	8.1	4.4
Pushed, grabbed, shoved <sup>b</sup>	18.1	5.4
Pulled hair <sup>b</sup>	9.1	2.3
Slapped, hit <sup>b</sup>	16.0	5.5
Kicked, bit <sup>b</sup>	5.5	2.6
Choked, tried to drown <sup>b</sup>	6.1	0.5
Hit with object <sup>b</sup>	5.0	3.2
Beat up <sup>b</sup>	8.5	0.6
Threatened with gun <sup>b</sup>	3.5	0.4
Threatened with knife <sup>b</sup>	2.8	1.6
Used gun <sup>b</sup>	0.7	0.1
Used knife	0.9	0.8

- a. Intimate partner includes current or former spouses, opposite-sex cohabiting partners, same-sex cohabiting partners, dates, and boyfriends/girlfriends.
- b. Differences between women and men are statistically significant: p-value ≤ .001.

and/or physically assaulted by such a partner in the previous 12 months. Based on U.S. Census estimates of the number of women and men in the country, these findings equate to approximately 1.5 million women and 834,700 men who are raped and/or physically assaulted by an intimate partner annually in the United States (see exhibit 7).

Results from the survey show that most physical assaults perpetrated against women by intimate partners consist of pushing, grabbing, shoving, slapping, and hitting. Fewer women reported that an intimate partner threw something at them that could hurt, pulled their hair, kicked or bit them, hit them with an object, or beat them up. Relatively few reported that an intimate partner threatened them with a knife or gun. Only a negligible number reported that an intimate partner actually used a knife or gun on them (see exhibit 8).

It is important to note that differences between women’s and men’s rates of physical assault by an intimate partner become greater as the seriousness of the assault increases. For example, women were two to three times more likely than men to report that an intimate partner threw something that could hurt or pushed, grabbed, or shoved them. However, they were 7 to 14 times more likely to report that an intimate partner beat them up, choked or tried to drown them, threatened them with a gun, or actually used a gun on them (see exhibit 8).

The NVAW Survey finding that women are significantly more likely than men to be victimized by intimate partners contradicts findings from some previous national surveys that found men and women to be at nearly equal risk of physical assault by an intimate partner.<sup>20</sup> The finding, however, supports data from the NCVS, which have consistently shown women to be at greater risk of intimate partner violence.<sup>21</sup>

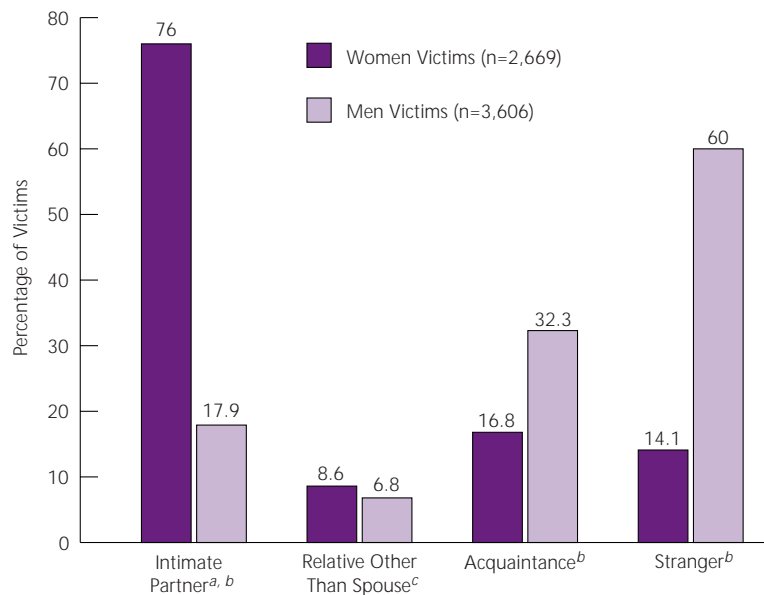
**Violence against women is primarily partner violence.** The survey confirms previous reports that U.S. women are primarily raped and/or physically assaulted by intimate partners:<sup>22</sup> 76 percent of the women who were raped and/or physically assaulted since the age of 18 were assaulted by a current or former husband, cohabiting partner, or date; 17 percent were victimized by an acquaintance, such as a friend, neighbor, or coworker; 14 percent were victimized by a stranger; and 9 percent were victimized by a relative other than a husband (see exhibit 9). By comparison, the survey found that U.S. men are primarily raped and physically assaulted by strangers and acquaintances, not intimate partners.

**Violence against women is primarily male violence.** The survey also found that most violence perpetrated against adults is perpetrated by males: 93 percent of the women and 86 percent of the men who were raped and/or physically assaulted since the age of 18 were assaulted by a male. In comparison only 11 percent of these women and 23 percent of these men were assaulted by a female (see exhibit 10). Given these findings, adult violence prevention strategies should focus primarily on the risks posed by male perpetrators.

**Rate of injury among rape and physical assault victims**

To generate information on violence-related injuries, respondents disclosing rape and physical assault were asked whether they were injured during their most recent victimization. The survey found that women who were raped since age 18 were nearly twice as likely as their male counterparts to report an injury other than the rape itself (32 and 16 percent, respectively) (see exhibit 11). Similarly, women who were physically assaulted since age 18 were significantly more likely than

*Exhibit 9: Distribution of Adult Rape and Physical Assault Victims by Victim-Perpetrator Relationship and Sex of Victim*



- a. Intimate partner includes current and former spouses, same-sex cohabiting partners, opposite-sex cohabiting partners, dates, and boyfriends/girlfriends.
  - b. Differences between women and men are statistically significant: p-value ≤ .001.
  - c. Differences between women and men are statistically significant: p-value ≤ .01.
- Note: Total percentages by sex of victim exceed 100 because some victims had multiple perpetrators.

*Exhibit 10: Distribution of Adult Rape and Physical Assault Victims by Sex of Perpetrator and Sex of Victim*



Note: Total percentages by sex of victim exceed 100 because some victims had multiple perpetrators.



**Exhibit 11: Distribution of Adult Rape and Physical Assault Victims by Injury, Type of Medical Care Received, and Sex of Victim<sup>a</sup>**

Injury/Medical Care	Rape Victims (%)		Physical Assault Victims (%)	
	Women	Men	Women	Men
Was victim injured?	(n=734)	(n=62)	(n=1,862)	(n=2,972)
Yes	31.5 <sup>c</sup>	16.1	39.0 <sup>c</sup>	24.8
No	68.5	83.9	61.0	75.2
Did injured victim receive medical care? <sup>d</sup>	(n=236)		(n=722)	(n=736)
Yes	35.6	— <sup>b</sup>	30.2	37.1
No	64.4	— <sup>b</sup>	69.8	62.9
Type of medical care received <sup>e</sup>	(n=84)		(n=218)	(n=306)
Hospital	81.9	— <sup>b</sup>	76.1	85.7
Physician	54.8	— <sup>b</sup>	52.8	42.1
Dental	16.9	— <sup>b</sup>	9.6	10.6
Ambulance/paramedic	19.0	— <sup>b</sup>	17.5	23.5
Physical therapy	16.7	— <sup>b</sup>	9.2	12.8
Type of hospital care received <sup>f</sup>	(n=68)		(n=166)	(n=234)
Emergency room	50.0	— <sup>b</sup>	61.4	66.7
Outpatient	36.8	— <sup>b</sup>	22.3	22.6
Overnight	13.2	— <sup>b</sup>	15.1	10.3

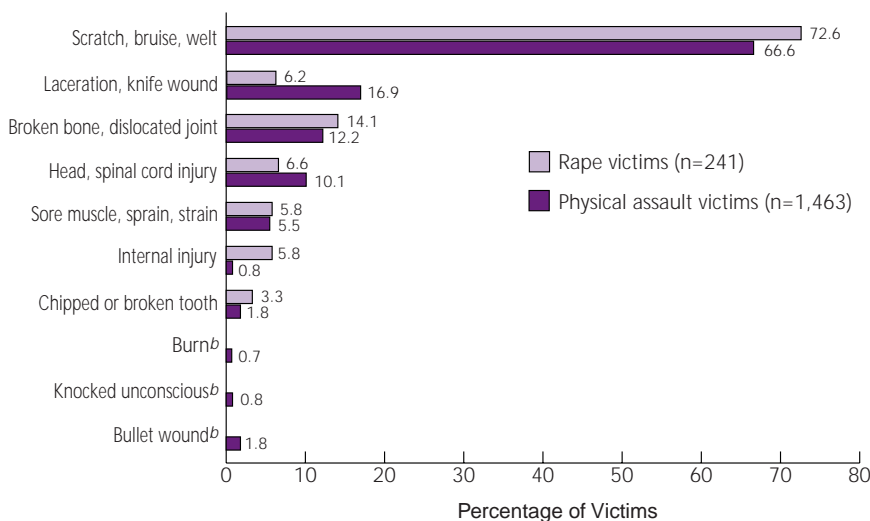
- a. Estimates are based on the most recent victimization since the age of 18.
  - b. The number of men rape victims was insufficient to reliably calculate medical utilization estimates.
  - c. Differences between women and men are statistically significant: p-value ≤ .001.
  - d. Estimates are based on responses from victims who were injured.
  - e. Estimates are based on responses from victims who received medical care.
  - f. Estimates are based on responses from victims who received hospital care.
- Note: Total percentages for type of medical and hospital care received exceed 100 because some victims had multiple forms of medical/hospital care.

their male counterparts to report that they were injured during their most recent physical assault (39 and 25 percent, respectively). When only physical assaults by intimates are considered, the difference between injury rates for women and men is even greater (41 and 19 percent, respectively).

Most of the adult rape and physical assault victims (both men and women) who reported being injured sustained relatively minor injuries, such as scratches, bruises, and welts. Relatively few sustained more serious types of injuries, such as broken bones, dislocated joints, concussions, lacerations, or bullet wounds (see exhibit 12).

**Victims’ use of medical services.** The survey found that 36 percent of the women injured during their most recent rape since age 18 and 30 percent of the women injured during their most recent physical assault since age 18 received some type of medical treatment (e.g., ambulance/paramedic services, treatment in a hospital emergency department, physical therapy) (see exhibit 11). Some medically treated victims received more than one type of medical treatment (e.g., hospitalization as well as outpatient physical therapy). Others received one type of medical treatment more than once—for example, three nights in the hospital or 10 physical therapy sessions. Hence, the annual number of medical treatments provided to rape and physical assault victims exceeds the annual number of rapes and physical assaults that resulted in treatment.

**Exhibit 12: Percentage of Injured Adult Rape and Physical Assault Victims Who Sustained Specific Types of Injuries: Men and Women Combined<sup>a</sup>**



- a. Estimates are based on the most recent victimization since the age of 18.
- b. The number of rape victims was insufficient to reliably calculate injury estimates.

Exhibit 13 provides estimates of the average number of nights spent in the hospital or the average number of visits made to specific medical providers by rape and physical assault victims. These estimates are based on responses from victims who received the specific type of medical care considered. For example, the estimate of the average number of nights spent in the hospital by female rape victims (3.6) is based

only on responses by female rape victims who were treated in a hospital on an inpatient basis. It should be noted that some of these average frequency estimates have a relatively high margin of error (see footnotes c through e in exhibit 13) and should be viewed with caution.

Exhibit 14 presents estimates of the number of female rapes and physical assaults resulting in injuries annually, as well as estimates of the number of specific types of medical treatment to these victims annually. It is important to note that because women are primarily raped and physically assaulted by intimate partners, the injury and medical utilization estimates for women presented in exhibits 13 and 14 pertain mostly to rapes and physical assaults perpetrated by current and former husbands, cohabiting partners, dates, and boyfriends. Because men are primarily raped and physically assaulted by male strangers and acquaintances, the injury and medical utilization estimates for men pertain primarily to violence perpetrated by men other than intimate partners.

According to estimates generated by the NVAW Survey, hospital emergency department personnel treated approximately 1.3 million adults for injuries related to rapes and physical assaults in the 12 months preceding the survey (128,700 female rape victims, 546,900 female physical assault victims, and 588,300 male physical assault victims). This figure is somewhat lower than an estimate generated from the Study of Injured Victims of Violence (SIVV), a hospital record-extraction study conducted for the Bureau of Justice Statistics by the U.S. Consumer Product Safety Commission. The SIVV found that during 1994, hospital emergency department personnel treated an estimated 1.4 million people for injuries from confirmed or *suspected* interpersonal violence.<sup>23</sup>

Included in the SIVV estimate (but excluded from the NVAW Survey estimate) are hospital emergency department treatments to victims of all ages (including children and adolescents), victims of *suspected* interpersonal violence, male rape victims, and male and female sexual assault and robbery

victims. Because these groups were excluded from the NVAW Survey estimate, it is not surprising that it is lower than the SIVV estimate of 1.4 million.

### Stalking is a significant social problem

Using a definition of stalking that requires victims to feel a high level of fear, the survey found that stalking is much more prevalent than previously thought: 8 percent of surveyed women and 2 percent of surveyed men said they were stalked at some time in their life; 1 percent of surveyed women and 0.4 percent of surveyed men said they were stalked in the previous 12 months. Based on U.S. Census estimates of the number of women and men in the country, these findings equate to approximately 1 million women and 371,000 men who are stalked annually in the United States (see exhibit 15).

If a less stringent definition of stalking is used, one requiring victims to feel only somewhat frightened or a little frightened of their assailant's behavior, the lifetime stalking prevalence rate increases from 8 to 12 percent for women and from 2 to 4 percent for men; the annual stalking prevalence rate increases from 1 to 6 percent for women and from 0.4 to 1.5 percent for men. Based on these higher prevalence rates, approximately 12.1 million women and 3.7 million men are stalked at some time in their life, and an estimated 6 million women and 1.4 million men are stalked annually.

Stalking prevalence estimates generated by the NVAW Survey are higher than previous nonscientific stalking estimates. In 1992, when asked by a reporter to estimate the extent of stalking in America, forensic psychiatrist Park Dietz guessed that 5 percent of U.S. women are stalked at some time in their lifetime and 200,000 U.S. women are stalked annually.<sup>24</sup> The NVAW Survey estimate that 8 percent

*Exhibit 13: Average Number of Visits/Overnights in Hospital for Rape and Physical Assault Victims by Type of Medical Care and Sex of Victim<sup>a</sup>*

Type of Medical Care	Rape Victims <sup>b</sup>		Physical Assault Victims
	Women <sup>c</sup>	Women <sup>d</sup>	Men <sup>e</sup>
Emergency room	3.2	1.7	1.4
Outpatient	2.2	5.0	2.8
Overnight in hospital	3.6	8.5	13.3
Physician visit	4.8	3.3	7.2
Dental visit	5.0	3.8	5.7
Ambulance/paramedic visit	1.2	1.1	1.0
Physical therapy visit	13.0	18.5	10.8

- a. Estimates are based on the most recent victimization since the age of 18.
- b. The number of men rape victims was insufficient to reliably calculate medical utilization estimates.
- c. The standard error of the mean for each estimate in this column is 1.539, 0.433, 1.049, 0.889, 1.995, 0.145, and 4.273, respectively.
- d. The standard error of the mean for each estimate in this column is 0.2, 2.011, 3.365, 0.454, 1.016, 0.07, and 7.61, respectively.
- e. The standard error of the mean for each estimate in this column is 0.132, 0.789, 3.0, 1.252, 1.6, 0.023, and 2.475, respectively.

Note: Estimates are based on responses from victims who received the specific type of care considered.

of women have been stalked at some time in their life is nearly two times greater than Dietz's earlier guess, and the survey's estimate that 1 million women are stalked annually is five times greater than Dietz's earlier guess. Given the high rate of stalking victimization uncovered by the NVAW Survey, it is imperative that stalking be treated as a legitimate criminal justice problem and public concern.

**Policy implications**

The NVAW Survey provides compelling data on the prevalence, incidence, and physical consequences of violence against women, as well as victims' utilization of medical services. Information presented in this report can help inform policy and intervention directed at violence against women. Based on findings from the survey, the authors conclude the following:

**1. Violence against women should be treated as a significant social problem.** The survey data validate opinions held by many professionals about the pervasiveness of violence against women. More than half the surveyed women reported being physically assaulted as a child by an adult caretaker and/or as an adult by another adult, and nearly one-fifth reported being raped at some time in their lives. Further, 2 percent of the surveyed women reported being raped, physically assaulted, or both in the 12 months preceding the survey. This equates to an estimated 2.1 million U.S. women who are raped and/or physically assaulted annually. Because some rape and physical assault victims experience multiple victimizations per year, an estimated 876,000 rapes and 5.9 million physical assaults are perpetrated against U.S. women annually (see exhibit 14). Given the pervasiveness of rape and physical assault among American women, it is imperative that violence against women be treated as a major criminal justice and public health concern.

**2. Rape should be viewed as a crime committed primarily against youth.** The survey confirms previous reports that most rape victims are children or adolescents. Eighteen percent of surveyed women reported being the victim of a completed or attempted rape

at some time in their lives. Of these, more than half (54 percent) were raped before the age of 18. The survey also found that women who are raped before the age of 18 are significantly more likely to be raped as adults. Given these findings, rape prevention strategies

*Exhibit 14: Average Annual Injury and Care Utilization Estimates for Adult Rape and Physical Assault Victims by Sex of Victim*

	Estimated Number of Victimization per Year		
	Rape Victims <sup>a</sup>	Physical Assault Victims	
	Women	Women	Men
Victimization	876,064	5,931,053	7,883,580
Victimization with injury	275,960	2,313,111	1,970,895
Victimization with injury receiving medical treatment	98,242	693,933	729,231
Victimization treated medically with:			
Hospital care	80,460	527,389	627,139
Physician care	53,837	367,784	306,277
Dental care	16,603	69,393	80,215
Ambulance/paramedic care	18,666	124,908	175,015
Physical therapy	16,406	62,454	94,800
Victimization treated in the hospital with:			
Emergency room care	40,230	321,707	420,183
Outpatient care	29,609	116,026	144,242
Inpatient care	10,621	79,108	62,714
Visit/Overnight			
Emergency room visit	128,736	546,902	588,256
Outpatient visit	65,140	580,130	403,878
Overnight in hospital	144,828	672,418	834,096
Physician visit	258,418	1,213,687	2,205,194
Dental visit	83,015	263,694	457,226
Ambulance/paramedic visit	22,399	137,399	175,015
Physical therapy visit	213,278	1,155,399	1,023,840

a. The number of men rape victims was insufficient to reliably calculate medical utilization estimates.

*Exhibit 15: Persons Stalked in Lifetime and in Previous 12 Months by Sex of Victim*

	Percentage		Number <sup>a</sup>	
	Women (n=8,000)	Men (n=8,000)	Women (100,697,000)	Men (92,748,000)
Stalked in lifetime <sup>b</sup>	8.1	2.2	8,156,460	2,040,460
Stalked in previous 12 months <sup>b</sup>	1.0	0.4	1,006,970	370,990

a. Based on estimates of men and women in the United States aged 18 years and older, U.S. Bureau of the Census, Current Population Survey, 1995.

b. Differences between women and men are statistically significant: p-value ≤ .001.

should focus on rapes perpetrated against minors, and rape research should focus on the long-term effects of rape occurring at an early age.

**3. Studies are needed to determine why the prevalence of rape and physical assault varies significantly among women of different racial and ethnic backgrounds.**

The survey found that American Indian/Alaska Native women were most likely to report rape and physical assault victimization, while Asian/Pacific Islander women were least likely to report rape and physical assault victimization. The survey also found that Hispanic women were less likely to report rape victimization than non-Hispanic women.

It is unclear from the survey data whether the differences in prevalence rates among women of different racial and ethnic groups are caused by differences in reporting practices or differences in actual victimization experiences. It is also unclear how social, environmental, and demographic factors intersect with race and ethnicity to produce differences in rape and physical assault prevalence among women of different racial and ethnic backgrounds. Thus more research is needed to establish the degree of variance in prevalence among women of different racial and ethnic groups and to determine how much of the variance may be explained by differences in willingness to disclose information and how much by social, environmental, and demographic factors. Research is also needed to determine whether differences exist in rape and physical assault prevalence among women of diverse Asian/Pacific Islander groups, American Indian tribes, and Alaska Native communities.

**4. Women are at greater risk of partner violence than men.** The survey found that women were significantly more likely than men to report being raped and physically assaulted by a current or former intimate partner, whether the timeframe considered was the person’s lifetime or the 12 months preceding the survey. Moreover, women who were raped or physically assaulted by a current or former intimate partner were significantly more likely to sustain injuries than men who were raped or physically assaulted by a current or former intimate partner. Given these findings, intimate partner violence should be considered first and foremost a crime against women.

**5. Violence against women is predominantly partner violence.** Data from the survey confirm previous reports that violence against women is predominantly intimate partner violence. Of the women who reported being raped and/or physically assaulted since the age of 18, three-quarters (76 percent) were victimized by a current or former husband, cohabiting partner, date, or boyfriend. Given these findings, violence-against-women intervention strategies should focus on the risks posed to women by current and former husbands, cohabiting partners, dates, and boyfriends.

**6. America’s medical community should receive comprehensive training about the medical needs of female victims of crime.** The injury and medical utilization data generated by the NVAW Survey provide compelling evidence of the physical and social costs associated with violence against women.

The survey found that in about one-third of all rapes and physical assaults perpetrated against women, the victim

sustains an injury. Further, in about one-third of all such injury victimizations, the victim receives some type of medical care (e.g., paramedic care, emergency room treatment, dental care, or physical therapy). Thus, of the estimated 6.8 million rapes and physical assaults perpetrated against U.S. women annually, 2.6 million will result in an injury to the victim and 792,200 will result in the victim receiving some type of medical care. Because many rape and physical assault victims receive multiple forms of care for the same injury victimization, medical personnel in the United States treat literally millions of rape and physical assault victimizations annually.

Given the high number of injury victimizations perpetrated against women annually and the extensiveness of medical treatment to female victims of violence, it is imperative that medical professionals receive information about the physical consequences of violence against women and the medical needs of female victims.

**7. Stalking should be treated as a significant social problem.** Using a definition of stalking that requires victims to feel a high level of fear, the survey found that stalking is more widespread than previously thought. Eight percent of women and 2 percent of men reported being stalked at some time in their lives, and 1 percent of women and 0.4 percent of men reported being stalked in the 12 months preceding the survey. Thus an estimated 1.4 million people are stalked annually in the United States. Given the high number of stalking victims, it is important that stalking be treated as a legitimate criminal justice and public health concern.

## Rape Survey Screening Questions

**Rape** was defined as an event that occurred without the victim's consent, that involved the use or threat of force to penetrate the victim's vagina or anus by penis, tongue, fingers, or object, or the victim's mouth by penis. The definition included both attempted and completed rape. The following questions were used to screen respondents for rape victimization:<sup>1</sup>

- *[Female respondents only] Has a man or boy ever made you have sex by using force or threatening to harm you or someone close to you? Just so there is no mistake, by sex we mean putting a penis in your vagina.*
- *Has anyone, male or female, ever made you have oral sex by using force or threat of force? Just so there is no mistake, by oral sex we mean that a man or boy put his penis in your mouth or someone, male or female, penetrated your vagina or anus with their mouth.*
- *Has anyone ever made you have anal sex by using force or threat of harm? Just so there is no mistake, by anal sex we mean that a man or boy put his penis in your anus.*
- *Has anyone, male or female, ever put fingers or objects in your vagina or anus against your will or by using force or threats?*
- *Has anyone, male or female, ever attempted to make you have vaginal, oral, or anal sex against your will, but intercourse or penetration did not occur?*

**Physical assault** was defined as behaviors that threaten, attempt, or actually inflict physical harm. A modified version of the Conflict Tactics Scale<sup>2</sup> was used to screen respondents for physical assault they experienced as a child at the hands of an adult caretaker and physical assault

they experienced as an adult at the hands of another adult:

- *[Physical assault as a child] When you were a child did any parent, step-parent, or guardian ever . . .*
  - *[Physical assault as an adult] Not counting any incidents you have already mentioned, after you became an adult did any other adult, male or female, ever . . .*
- *Throw something at you that could hurt?*
  - *Push, grab, or shove you?*
  - *Pull your hair?*
  - *Slap or hit you?*
  - *Kick or bite you?*
  - *Choke or attempt to drown you?*
  - *Hit you with some object?*
  - *Beat you up?*
  - *Threaten you with a gun?*
  - *Threaten you with a knife or other weapon?*
  - *Use a gun on you?*
  - *Use a knife or other weapon on you?*

**Stalking** was defined as a course of conduct directed at a specific person that involves repeated visual or physical proximity; non-consensual communication; verbal, written, or implied threats; or a combination thereof that would cause fear in a reasonable person (with repeated meaning on two or more occasions). The survey used the following questions to screen for stalking victimization:

- *Not including bill collectors, telephone solicitors, or other salespeople, has anyone, male or female, ever . . .*
- *Followed or spied on you?*

- *Sent you unsolicited letters or written correspondence?*
- *Made unsolicited phone calls to you?*
- *Stood outside your home, school, or workplace?*
- *Showed up at places you were even though he or she had no business being there?*
- *Left unwanted items for you to find?*
- *Tried to communicate in other ways against your will?*
- *Vandalized your property or destroyed something you loved?*

Respondents who answered yes to one or more of these questions were asked whether anyone had ever done any of these things to them on more than one occasion and whether they felt frightened or feared bodily harm as a result of these behaviors. Only respondents who reported being victimized on more than one occasion and who were very frightened or feared bodily harm were counted as stalking victims.

### Notes

1. Rape screening questions were adapted from those used in The National Women's Study, see *Rape in America: A Report to the Nation*, National Victim Center and the Crime Victims Research and Treatment Center, 211 Wilson Boulevard, Suite 300, Arlington, Virginia 22201, April 23, 1992, p.15.
2. Straus, Murray, "Measuring Intrafamily Conflict and Violence: The Conflict Tactics (CT) Scale," *Journal of Marriage and the Family* 41 (February 1979): 75–88.

## T Survey Methodology

The National Violence Against Women (NVAW) Survey was conducted from November 1995 to May 1996 by interviewers at Schulman, Ronca, and Bucuvalas, Inc. (SRBI), under the direction of John Boyle.<sup>1</sup> The authors of this report designed the survey and conducted the analysis.

The national sample was drawn by random-digit dialing from households with a telephone in all 50 States and the District of Columbia. The sample was administered by U.S. Census region. Within each region, a simple random sample of working residential "hundreds banks" of phone numbers was drawn. (A hundreds bank is the first eight digits of any 10-digit telephone number; e.g., 301-608-38xx.) A randomly generated two-digit number was appended to each randomly sampled hundreds bank to produce the full 10-digit, random-digit number. Separate banks of numbers were generated for male and female respondents. These random-digit numbers were called by SRBI interviewers from their central telephone facility, where nonworking and nonresidential numbers were screened out. Once a residential household was reached, eligible adults (i.e., women and men 18 years of age and older) in each household were identified. In households with more than one eligible adult, the adult with the most recent birthday was selected as the designated respondent.

A total of 8,000 women and 8,005 men 18 years and older were interviewed using a computer-assisted telephone interviewing system. (Five completed interviews with men were subsequently eliminated from the sample during data editing due to an excessive amount of incongruous data.) Only female interviewers surveyed female respondents. For male respondents, approximately half of the

interviews were conducted by female interviewers and half by male interviewers.

A Spanish-language translation was administered by bilingual interviewers for Spanish-speaking respondents.

To determine the representativeness of the sample, select demographic characteristics of the NVAW Survey sample were compared with demographic characteristics of the general population as measured by the U.S. Census Bureau's 1995 Current Population Survey of adult men and women. Sample

weighting was considered to correct for possible biases introduced by the fact that some households had multiple phone lines and multiple eligibles, and for over- and under-representation of selected subgroups. Although there were some instances of over- and under-representation, the overall unweighted prevalence rates for rape, physical assault, and stalking were not significantly different from their respective weighted rates. As a result, sample weighting was not used in the analysis of the NVAW Survey data.

**Exhibit 16: Estimated Standard Errors Multiplied by the z-Score (1.96) for a 95-Percent Confidence Level by Sample or Subsample Size**

Size of Sample or Subsample	Percentage of the Sample or Subsample Giving a Certain Response or Displaying a Certain Characteristic for Percentages Exactly or Approximately Equal to:				
	10 or 90	20 or 80	30 or 70	40 or 60	50/50
16,000	0.5	0.6	0.7	0.8	0.8
12,000	0.6	0.7	0.8	0.9	0.9
8,000	0.7	0.9	1.0	1.1	1.1
4,000	0.9	1.2	1.4	1.5	1.5
3,000	1.1	1.4	1.6	1.8	1.8
2,000	1.3	1.8	2.0	2.1	2.2
1,500	1.5	2.0	2.3	2.5	2.5
1,300	1.6	2.2	2.5	2.7	2.7
1,200	1.7	2.3	2.6	2.8	2.8
1,100	1.8	2.4	2.7	2.9	3.0
1,000	1.9	2.5	2.8	3.0	3.1
900	2.0	2.6	3.0	3.2	3.3
800	2.1	2.8	3.2	3.4	3.5
700	2.2	3.0	3.4	3.6	3.7
600	2.4	3.2	3.7	3.9	4.0
500	2.6	3.5	4.0	4.3	4.4
400	2.9	3.9	4.5	4.8	4.9
300	3.4	4.5	5.2	5.6	5.7
200	4.2	5.6	6.4	6.8	6.9
150	4.8	6.4	7.4	7.9	8.0
100	5.9	7.9	9.0	9.7	9.8
75	6.8	9.1	10.4	11.2	11.4
50	8.4	11.2	12.8	13.7	14.0

A technical report describing the survey methods in more detail and recording sample characteristics and prevalence rates using weighted and unweighted data is available from the authors.<sup>2</sup>

Data were analyzed using SPSS Base 7.0 for Windows software. Measures of association (e.g., Lambda) were calculated between nominal-level independent and dependent variables, and the chi-square statistic was used to test for statistically significant differences between men and women ( $p\text{-value} \leq .05$ ). Any estimates based on five or fewer responses were deemed unreliable and therefore were not tested for statistically significant differences between groups and not presented in the tables. Because estimates presented in this report generally exclude "don't know," "refused," and other invalid responses,

sample and subsample sizes (n's) vary from table to table.

The estimates from this survey, as from any sample survey, are subject to random sampling error. Exhibit 16 presents the estimated standard errors multiplied by the z-score (1.96) for specified sample and subsample sizes of 16,000 or less at different response distributions of dichotomous variables (e.g., raped/not raped, injured/not injured). These estimated standard errors can be used to determine the extent to which sample estimates will be distributed around the population parameter (i.e., the true population distribution). As exhibit 16 shows, larger sample and subsample sizes produce smaller estimated standard errors. Thus the estimated standard error at the 95-percent confidence level for a sample or subsample of 8,000 (the number of women and men, respectively, on which life-

time and annual prevalence rates are based) is 1.1 percentage points if the response distribution is a 50/50 split, while the standard error at the 95-percent confidence level for a sample or subsample of 50 is 14 percentage points if the response distribution is a 50/50 split.

### Notes

1. John Boyle, Ph.D., is senior vice president and director of the Government and Social Research Division at SRBI. Dr. Boyle, who specializes in public policy research in the area of health and violence, also manages the firm's Washington, D.C., area office.

2. To obtain copies of the *National Violence Against Women Survey Methodology Report*, call or write to the Center for Policy Research, 1570 Emerson Street, Denver, Colorado, 80218; 303-837-1555.

### Notes

1. Kennedy, Leslie W., in Foreword to *Dangerous Domains: Violence Against Women in Canada* by Holly Johnson, Scarborough, Ontario: International Thomas Publishing, 1996.

2. Wilson, Carolyn F., *Violence Against Women: An Annotated Bibliography*, Boston: G.K. Hall & Co., 1981.

3. National Research Council, *Understanding Violence Against Women*, Washington, D.C.: National Academy Press, 1996: 40-44.

4. Ibid.

5. Michael, Robert T., John H. Gagnon, Edward O. Lauman, and Gina Kolata, *Sex in America: A Definitive Survey*, New York: Warner Books, 1994: 223.

6. The NVAW Survey was conducted from November 1995 to May 1996 (see "Survey Methodology," page 14). Respondents reported on events that spanned the 12 months prior to their interview. For example, a person who was interviewed in November 1995 reported on events that occurred between November 1994 and November 1995; a person who was interviewed in May 1996 reported on events that occurred between May 1995 and May 1996.

7. Craven, Diane, *Sex Differences in Violent Victimization, 1994*, Special Report, Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics, September 1997, NCJ 164508.

8. The two rape/sexual assault screening questions used in the NCVS are as follows: (1) *(Other than any incidents already mentioned,) has anyone attacked or threatened you in any of these ways: . . . (e) Any rape, attempted rape, or other type of sexual attack?* (2) *(Other than any incidents already mentioned,) have you been forced or coerced to engage in unwanted sexual activity by (a) someone you didn't know before, (b) a casual acquaintance, or, (c) someone you know well?*

9. See, for example, Helton, A.M., "The Pregnant Battered Women," *Responses to Victimization of Women and Children* 9. (1) 1986: 22-23; Koss, Mary P., "Detecting the Scope of Rape: A Review of Prevalence Research Methods," *Journal of Interpersonal Violence* 8 (2) (June 1993): 198-222.

10. See "Survey Screening Questions," page 13.

11. Straus, Murray, "Measuring Intrafamily Conflict and Violence: The Conflict Tactics (CT) Scale," *Journal of Marriage and the Family* 41 (February 1979): 75-88.

12. Craven, *Sex Differences in Violent Victimization, 1994*.

13. Bachman, Ronet, *Death and Violence on the Reservation: Homicide, Family Violence, and Suicide in American Indian Populations*, Westport, CT.: Auburn House, 1992.

14. Wallace, L.J.D., A.D. Calhoun, K.E. Powell, J. O'Neill, and S.P. James, *Homicide and Suicide Among Native Americans 1979-1992*, Violence Surveillance Summary Series, No. 2, Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, 1996.

15. Tjaden, Patricia, and Nancy Thoennes, *Stalking in America: Findings From the National Violence Against Women Survey*, Research in Brief, Washington, D.C.: U.S. Department of Justice, National Institute of Justice, April 1998, NCJ 169592.

16. Ho, C.K., "An Analysis of Domestic Violence in Asian American Communities: A Multicultural Approach to Counseling," in *Diversity and Complexity in Feminist Therapy*, ed. L.S. Brown and M. Root, New York: Harrington Park, 1996: 129-150; Huisman, K.A., "Wife Battering in Asian American Communities," *Violence Against Women* 2 (1996): 260-283.

17. Sorenson, S.B., J.A. Stein, J.M. Siegel, J.M. Golding, and M.A. Burnam, "The Prevalence of Adult Sexual Assault: The Los Angeles Epidemiologic Catchment Area Project," *American*

*Journal of Epidemiology* 126: 154–164, 1987; Sorenson, S.B., and C.A. Tells, “Self-Reports of Spousal Violence in a Mexican American and a Non-Hispanic White Population,” *Violence and Victims* 6 (1991): 3–16.

18. See National Victim Center and the Crime Victims Research and Treatment Center, *Rape in America: A Report to the Nation*, 211 Wilson Boulevard, Suite 300, Arlington, Virginia 22201, April 23, 1992.

19. See, for example, Browne, Angela, and David Finkelhor, “Initial and Long-term Effects: A Review of the Research,” in *Sourcebook on Child Sexual Abuse*, ed. David Finkelhor, Beverly Hills: Sage Publications, 1986: 158; Miller, J., D. Moeller, A. Kaufman, P. Divasto, P. Fitzsimmons, D. Pather, and J. Christy, “Recidivism among Sexual Assault Victims,” *American Journal of Psychiatry* 135 (1978): 1103–1104; and Russel, D.E.H., *The Secret Trauma: Incest in the Lives of Girls and Women*, New York: Basic Books, 1986.

20. See, for example, Morse, Barbara, “Beyond the Conflict Tactics Scale: Assessing Gender Differences in Partner Violence,” *Violence and Victims* 10 (Winter 1995): 251–272; Straus, Murray, and Richard Gelles, “Societal Change and Change in Family Violence From 1975 to 1985 as Revealed by Two National Studies,” *Journal of Marriage and the Family* 48 (August 1986): 465–479.

21. See, for example, Bachman, Ronet, *Violence Against Women: A National Crime Victimization Survey Report*, Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics, NCJ 145325; Bachman, Ronet, and Linda Saltzman, *Violence Against Women: Estimates From the Redesigned Survey*, Special Report, Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics, August 1995, NCJ 154348; Gaquin, Diedre, “Spouse Abuse: Data From the National Crime Survey,” *Victimology* 2 (1977–1978): 634–643; and Klaus, Patsy, and Michael Rand, *Family Violence*, Special Report, Wash-

ington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics, April 1984, NCJ 093449.

22. See, for example, Langan, Patrick A., and Christopher A. Innes, *Preventing Domestic Violence Against Women*, Special Report, Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics, 1986, NCJ 102037; Timrots, Anita D., and Michael R. Rand, *Violent Crime by Strangers and Nonstrangers*, Special Report, Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics, January 1987, NCJ 103702.

23. Rand, Michael, *Violence-Related Injuries Treated in Hospital Emergency Departments*, Special Report, Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics, August 1997, NCJ 156921.

24. See Puente, Maria, “Legislators Tackling the Terror of Stalking: But Some Experts Say Measures Are Vague,” *USA Today*, July 21, 1992: A9.

Patricia Tjaden, Ph.D., and Nancy Thoennes, Ph.D., are with the Denver-based Center for Policy Research.

This research was supported by grant number 93-IJ-CX-0012, awarded to the Center for Policy Research by the National Institute of Justice (NIJ) and sponsored jointly by NIJ and the Centers for Disease Control and Prevention (CDC).

The authors thank Lois Mock at NIJ and Linda Saltzman at the CDC for their advice and support in completing this project. The authors also thank anonymous reviewers and Steven Leadbetter and Marcie-jo Kresnow, mathematical statisticians at the CDC, who provided helpful comments on drafts of this report.

*The National Institute of Justice is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, the Bureau of Justice Statistics, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime.*

**NCJ 172837**

Findings and conclusions of the research reported here are those of the authors and do not necessarily reflect the official position or policies of the U.S. Department of Justice or the U.S. Department of Health and Human Services.

**U.S. Department of Justice**

Office of Justice Programs  
National Institute of Justice

Washington, DC 20531

Official Business

Penalty for Private Use \$300

BULK RATE  
U.S. POSTAGE PAID  
DOJ/NIJ  
Permit No. G-91