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*Measuring the Costs of Domestic Violence Against Women and the Cost-Effectiveness of Interventions: An Initial Assessment and Proposals for Further Research*

by

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## BACKGROUND

Many national studies have attempted to document the prevalence of domestic violence in intimate relations.<sup>1</sup> These studies lack agreement on a definition of domestic violence against women and have faced extensive difficulties in measurement; still, according to estimates, as much as 20 percent of the adult female population suffers from this type of abuse (Stark and Flitcraft, 1991; Stout, 1989), and 29 percent of all violent acts against women in 1992-1993 were committed by an intimate (Bachman and Saltzman, 1995). To our knowledge, there are no national studies that determine the direct costs of domestic violence against women. Nor are there any national studies that determine the indirect costs, such as the extent of lost or diminished production in businesses, households, and communities that results from domestic violence against women. Finally, there are no data to guide us in determining what kinds of services are cost-effective in reducing the prevalence of abuse. Based on their experience, program advocates claim that the benefits of prevention/intervention programs far outweigh the costs, but data to support this claim are not yet available.

Historically, domestic violence against women was considered a private family problem, but beginning in the late 1960s and early 1970s, the women's movement fought to redefine wife battering as a public issue. Starting at the grass roots level, feminists and battered women's advocates began to put a network of shelters into place. The purpose of these shelters was to provide safe havens for battered women and their children, individuals who received little support

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<sup>1</sup> Domestic violence is defined as violence against women; family violence includes violence against children or adults.

from public and private institutions. The success of this movement in bringing spouse abuse to the attention of the public resulted in the passage of laws such as the Family Violence Prevention and Services Act of 1984 and the Violence Against Women Act of 1994, increased the development of programs to train service providers and protocols to treat victims, and mandated arrests of abusers in some states. As intended, domestic violence laws and mandates assisted victims in obtaining services and caused service agencies and institutions to pay more attention to issues of domestic violence, thus increasing their expenditures. Women are reaching out for help and calling hotlines in record numbers. From July 1994 to June 1995, the Victim Services Domestic Violence Hotline in New York City answered 42,880 domestic violence calls; during the next 12 months, the hotline received 51,487 calls, a 20 percent increase (Corbett, 1996). In its first year of operation, from February 21 to December 31, 1996, the federally funded National Domestic Violence Hotline received 73,540 calls (National Domestic Violence Hotline, 1997). The growing recognition of domestic violence as a widespread problem and serious crime has led to efforts to identify the scope of the domestic violence problem, collect data on its extent, and estimate its costs.

An early study by Straus (1986), based on data about intrafamily homicide, estimated that domestic violence costs the nation \$1.7 billion annually.<sup>2</sup> The article, however, does not specify what costs are included in this estimate. A more recent effort by Gelles (cited in Meyer, 1992) estimated that domestic violence costs between \$5 and \$10 billion annually. This study includes the costs of secondary medical treatment and the indirect costs of lost

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<sup>2</sup> According to a 1976 Joint Economic Committee of Congress, the annual cost of homicide was \$3.6 billion. Inflating this cost to 1984 dollars yields an annual cost of homicide in 1984 of \$7.2 billion. Using estimates that indicated about 24 percent of all homicides involved victims and offenders who belonged to the same family, Straus estimates that the 1984 cost of intrafamily homicide is about \$1.7 billion.

worker productivity. As part of a study on the cost of crime to victims, Miller, Cohen, and Wiersema (1995) estimated the annual losses due to adult domestic violence to be \$67 billion. In this later study, the cost breakdown is presented in three categories -- medical, other tangible, and quality of life -- and includes only the costs of the victim. All of these efforts to estimate costs are based on the limited data available.

Over the last two decades, there has been a growing awareness that the scope and costs of the domestic violence problem go far beyond the cost of injury and death linked to assaults. As described below, domestic violence affects all realms of the lives of victims and their families, and it places an immense burden on society's institutions and resources. Data that enumerate these costs could help to educate the public about the seriousness of the problem and demonstrate the kinds of resources needed to alleviate it. Up-to-date research-based cost estimates would aid funders, policymakers, and program directors in assessing or demonstrating the efficacy of various interventions. They could enable communities to set funding priorities, and to determine how cutbacks in social programs may result in unintended consequences that increase rather than decrease the costs of dealing with domestic violence.

## **PURPOSE**

The purpose of this paper is to develop an economic model for measuring the direct and indirect costs of domestic violence to society and for assessing the cost-effectiveness of interventions. Similar economic models for other social problems have already demonstrated that reliable cost estimates can be made, especially of direct costs. For example, a recent study by the Robin Hood Foundation (1996) estimated that adolescent childbearing itself costs taxpayers \$6.9 billion per year nationwide. The Center on Addiction and Substance Abuse



(CASA, 1996) at Columbia University reported that in 1994, substance abuse and addiction cost New York City over \$20 billion. In developing this model on the costs of domestic violence, we attempt to assess what is currently known and not known about the prevalence and costs of domestic abuse, thereby identifying data sources that could be used with the model to calculate the costs of domestic violence for society, as well as areas where further research is necessary. We review the existing research concerning general population prevalence, use of services that results from domestic abuse (institutional prevalence),<sup>3</sup> and the costs associated with service usage. We focus on institutional prevalence and *direct* costs (costs of treating or preventing domestic violence) in the following areas of service use: health care, child well-being, homelessness, criminal justice, and social services. Additionally, we review available research concerning *indirect* costs that are not directly measurable, such as the cost to an employer of the absenteeism and decreased productivity that result from the behavior of batterers and the cost of lost days of production within the home. Finally, we discuss the social costs in terms of losses in the quality of life that stem from domestic violence.

By providing a model and overview of the data for measuring the costs of domestic violence, the paper begins to lay the groundwork for estimating the costs of domestic violence. The data offered in the cost tables are intended as examples of what is available; further review of this research is necessary before applying the proposed model. We found considerable gaps in the research literature in all of the areas studied, suggesting that more research is needed before reliable cost figures can be determined. In addition, although it addresses many of the immediate effects of spouse abuse on children's well-being, the paper

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<sup>3</sup> Institutional prevalence is defined as the proportion of total usage of a particular service that results from domestic violence.

does not fully investigate the long-term health and mental health impacts of children's exposure to domestic violence, nor does it extensively tabulate the costs of child abuse coincident with the domestic violence. It also does not address an understudied but potentially enormous aspect of costs: the intergenerational transfer of violence. For example, Hotaling and Sugarman's (1986) analysis of 52 case comparison studies suggests that witnessing violence in the family is the single most important factor for becoming an aggressor or a victim.

### **DEFINING THE PROBLEM OF DOMESTIC VIOLENCE**

The definition of domestic violence is a crucial element in determining what to include in a measure of the costs associated with this social problem, yet no consensus exists as to the actual definition of domestic violence against women. A definition that relies solely on the use of physical force will result in lower cost estimates than a broader definition that also includes the pattern of mental abuse and control, including intense criticism, "put downs" and verbal harassment, sexual coercion and assaults, isolation due to restraint of normal activities and freedom, and denial of access to resources. Another part of the definitional problem concerns the unit of analysis in defining domestic violence, i.e., whether the relation should be limited to married couples or to couples that live together, or expanded to include all intimate relationships, both past and present (since women may continue to need services after separation or divorce). There is a growing reliance on the broader definition, in which domestic violence is defined as a course of coercive conduct that goes beyond multiple acts of physical abuse and includes all aspects of intimate relationships. Although we would



recommend the broader definition in the calculation of direct and indirect costs, the studies cited here vary in the breadth of the definitions used.

## THE PREVALENCE OF DOMESTIC VIOLENCE

Despite the vast scholarly literature on battering, we still lack accurate estimates of its incidence (the number of new cases) and its prevalence in the population (total number of cases). Table 1 shows prevalence estimates and victimization rates from four major surveys.

Study	Methodology	Unit of Analysis	Prevalence
Straus and Gelles (1987)	1975 National Family Violence Survey, in-depth interviews & 1985 National Family Violence Resurvey, telephone interviews. Acts of violence in last 12 months.	2,143 couples in 1975 & 3,520 couples in 1985, ages 18 and over	1975 overall rate of husband-to-wife violence was 121/1,000 couples and 1985 overall husband-to-wife rate of violence was 113/1,000 couples.
Commonwealth Fund Survey on Women's Health (1993)	1991 nationally representative survey	2,500 women and 1,000 men, ages 18 and over	84/1,000 women living with a man or married reported abuse in the last year (1991).
National Crime Victimization Survey, 1987-1991 (Bachman, 1994)	Nationally representative survey, interviews	400,000 individual women over the age of 12 years	Overall annual rate of violent victimization events of women (ages 12 and over) by an intimate was 5.4/1,000 and 0.5/1,000 for men. Of all victimization events against women, 28% were by intimates, 5% were by relatives, and 35% were by acquaintances.
National Crime Victimization Survey, 1992-1993 (Bachman & Saltzman, 1995)	Nationally representative survey, interviews -- uses new methodology (see U.S. Department of Justice 1994c and 1994d for information on the survey redesign)	50,000 households and 100,000 individuals over the age of 12 years	Overall annual rate of violent victimization events of women (ages 12 and over) by an intimate was 9.3/1,000 (1.4/1,000 for men). Of all victimization events against women, 29% were by intimates, 9% were by relatives, and 40% were by acquaintances.

Unfortunately, the Straus and Gelles (1987) survey focused only on current mental and physical abuse among intact couples, whereas hospital research and data from the National Crime Victimization Survey (NCVS; U.S. DOJ, 1994a) indicate that 75 percent of abuse victims are single, separated, or divorced. Thus, Straus and Gelles's prevalence measures may not be an accurate measure for the population as a whole. Furthermore, they use the Conflict Tactics Scale as an instrument to measure violence. This survey queries only violence used to resolve conflicts, missing many severe cases when violence or threats are employed to intimidate or coerce a partner.

The 1993 Commonwealth Fund Survey of Women's Health, based on a national sample of 2,500 women and 1,000 men, defined domestic violence as physical, verbal, or emotional, and the survey questions distinguished between these three forms of abuse. Intimates were limited to spouses or partners. Because of the narrow definition of intimates (excluding former partners or current boyfriends), the prevalence rates are likely to be underestimates.

The two NCVS surveys, based on nationally representative samples, provide information on violent crimes including rape and assault by intimates (spouse or other relation of an intimate nature) as well as by acquaintances and strangers. The data are for victimization events, and since some women may report more than one event, the data may overstate prevalence rates (the proportion of women who are victimized). The data may also lead to underestimates, however, as respondents may not report acts of domestic violence for a number of reasons, i.e., "if the offender is present during the interview, or if the respondent does not perceive domestic violence as discrete criminal acts but as a pattern of abuse" (U.S. DOJ, 1994a). To compensate for under reporting of domestic violence, a new version of the NCVS survey included multiple references to domestic violence which were designed to



encourage respondents to report such incidents, even if they did not perceive them as crimes. As a result of this new methodology, the reported rate of victimization events against women by intimates increased from 5.4 events per 1,000 women to 9.3 events for 1,000 women (Bachman and Saltzman, 1995). The two NCVS surveys show markedly lower rates than the Strauss and Gelles survey or the Commonwealth Fund Survey. The main reason for this difference is the vastly greater universe of women surveyed. While both the domestic violence surveys limited questions on domestic violence to women in couples (women living with spouses or partners), a population that is limited to *somewhat less than half of all adult women*, the NCVS surveys address *all women twelve years and older*, many of whom are not likely to be at risk of domestic violence. Clearly, the design of these surveys needs to be improved to establish accurate prevalence rates for domestic violence against women. The four surveys reviewed here measure the prevalence or frequency of domestic violence for various populations of women, but do not establish whether the victim is currently at risk.<sup>4</sup>

### THE ECONOMIC COSTS OF DOMESTIC VIOLENCE

Just as the prevalence of domestic violence has been hidden by narrow definitions and by women's reluctance to reveal the abuse, the range of its costs has been hidden behind its symptomatology. Beyond the physical injuries and resultant medical costs, domestic violence contributes to homelessness, foster care, mental health problems, and other costs, but these connections are not always readily apparent. The cost of prosecuting and incarcerating batterers is often not recognized as a cost of domestic violence because it is not a cost to

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<sup>4</sup> See Stark (1993) for citations of small study estimates concerning the physical and psychological consequences of domestic violence.

battered women, per se. This section outlines a broad range of cost types that result from domestic violence.

### **Direct and Indirect Costs**

The economic costs of domestic violence include *direct costs* and *indirect costs*. Max, Rice, and MacKenzie (1990) define direct costs as the value of the goods and services used in treating or preventing domestic violence and indirect costs as the value of goods and services lost because of domestic violence. Thus, the cost of emergency room treatment for a victim is a direct cost in that it diverts the use of resources away from some other use. In contrast, the productivity losses that result from absenteeism are considered to be indirect costs in that the lost productivity is the direct result of missed work days, which are, in turn, the result of domestic violence. The labor that the employee could have provided is not available on that day and can never be recovered. Throughout the remainder of the text we present studies listing both direct and indirect costs of domestic violence.

This is not intended as an exhaustive review; it is likely that there are other cost areas that are not included. Of those that are included, there are some areas for which we were unable to locate cost data and some areas for which the data do not exist. From this review, it appears that more data are available on health care costs, but all cost areas would benefit from further research. In addition, all available data should be more thoroughly reviewed for methodological rigor and comparability between studies before applying the proposed economic model. Table 2 offers a snapshot of the direct costs of domestic violence in terms of the kinds of services that battered women or batterers are likely to use.

**Table 2. The Direct Economic Costs  
of Domestic Violence Against Women**

**Health Costs**

- Emergency room care
- Hospitalization
- Initial or follow up care at clinic or doctor's office
- Nursing home care
- Dental care
- Mental health care
- Costs of treatment for sexually transmitted diseases<sup>5</sup>
- Pregnancy complications and birth defects
- Alcohol and drug abuse treatment

**Child Well-Being<sup>6</sup>**

- Child protective services
- Foster care
- Counseling
- Special education
- Teen pregnancy
- Positive toxicology infants

**Housing**

- Emergency shelters (homeless and battered women)
- Supported housing (transitional, Section 8, public housing)

**Criminal Justice**

- Police time (arrests, responding to calls)
- Prison and detention costs
- Probation and parole costs
- Prosecution
- Criminal court
- Civil or family court
- Juvenile court

**Social Services**

- Domestic violence prevention/education
- Counseling
- Job Training
- Advocacy program costs
- Training costs (police, doctors, etc.)

**Other Costs**

- Property damage

<sup>5</sup> Women in violent relationships are often unable to negotiate condom use; thus they face a higher risk of AIDS and STDs, along with a higher risk of unwanted pregnancy. This is particularly prevalent in dating violence.

<sup>6</sup> As mentioned previously, these costs do not include the costs of child abuse, but the costs related to living in an environment of domestic violence.



## The Issue of Transfer Payments

What appears to be an obvious cost, welfare payments that go to victims of domestic violence and their children, is not included in either the direct cost or the indirect cost list. These transfer payments include welfare benefits such as Temporary Assistance for Needy Families (TANF)<sup>7</sup> for abused women and their children, food stamps, and disability benefits. Many advocates argue that domestic violence is intimately connected with the growth of the welfare rolls (Raphael, 1995). Battered women fleeing domestic violence lose access to economic resources and many become instantly poor. Those leaving abusive relationships may try to substitute welfare income for income from husbands or from their own earnings during transitional periods when they attempt to establish new lives for themselves and their children.

According to economists, welfare payments are not a cost, per se, but simply a redistribution of resources from one group to another. Welfare benefits such as TANF, for example, represent a redistribution of income from taxpayers or bondholders to those who receive these payments. Technically, then, welfare payments do not fall under direct costs -- the value of resources used -- nor do they fall under the category of indirect cost -- the value of resources lost. However, these transfer payments are a cost to the various levels of government and to taxpayers because they represent the lost ability to use those tax or bond revenues for other public expenditure needs or a reduction in tax rates.

Although economic theory does not consider transfer payments to be an economic cost, advocates, researchers, and policymakers may want to include transfer payments in any analysis of the costs of domestic violence. For example, researchers will likely want to

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<sup>7</sup> In August 1996, the federal government eliminated Aid to Families with Dependent Children (AFDC), replacing it with Temporary Assistance to Needy Families (TANF), under the "Personal Responsibility and Work Opportunities Reconciliation Act of 1996" (PL 104-193).

Table 3 lists examples of indirect economic costs of domestic violence that result from lost production in the work-place and in the home. Lost income from lost days of work outside the home is not included separately; rather it is represented by the lost production at work that is already included. The lost production costs listed in the table are those that are relatively easy to measure.

<b>Table 3. The Indirect Economic Costs of Domestic Violence Against Women</b>
Job loss
Lost productivity of women prevented from working by the batterer
Unemployment
Poor work habits (coming in late, decreased productivity)
Disruption at the work place by the batterer
Lost productivity at work for medical reasons
Lost productivity at work for court appearances or other appointments
Lost home productivity for medical or other reasons
Lost promotion/advancement
Lost productivity due to incarceration
Mortality

Analysts argue that the indirect costs of domestic violence to women, to communities, and to society include losses in the quality of life. However, quality of life costs are difficult to measure and are not listed in Table 3. These *indirect* costs to women include: loss of control over one's environment; alienation from one's self, friends, family, and community; and loss of one's ability to pursue future aspirations. Broader losses to communities and society include women's increased dependency and lack of power and restraints on women's activities. Although there is much descriptive literature on these losses in quality of life, as we will discuss later, quantifying them is difficult.

calculate the marginal cost<sup>8</sup> of domestic violence to the public assistance system, to evaluate the impact of intervention strategies on the use of transfers, and to estimate the impact of welfare reform on the changing prevalence and costs of domestic violence. Any change in transfer payments resulting from an intervention targeted at domestic violence could be counted as a reduction or increase in the expenditures of the government.

## METHODS OF COST CALCULATION

### Direct Cost Estimation Methods

In order to model the direct cost of domestic violence, we need to know how many people are affected, how many are using services as a result of domestic violence, how much of these services are they using, and the cost of each of these services.<sup>9</sup> The model we present below emphasizes direct costs to institutions and agencies in terms of service usage.

Two approaches can be used to estimate the direct costs of domestic violence -- an *incidence-based* approach and a *prevalence-based* approach. These approaches are widely used in cost of illness studies.<sup>10</sup> Both of these approaches are used to capture the impact of domestic violence on the population as a whole (or parts of the population) and on the agencies and institutions that serve this population.

The term "incidence" measures all *first time* occurrences of abuse or use of services in a given time period and the term "prevalence" measures *all* abuse or use of services that occurs in a given time period -- both new and recurring incidences. An incidence-based cost estimate

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<sup>8</sup> Marginal cost in this case means the additional public assistance costs that can be attributed to domestic violence.

<sup>9</sup> Property damage losses are not costs due to use of "services." However, estimates can be calculated in a similar fashion by multiplying the average cost of lost property by the prevalence.

<sup>10</sup> For further explanation and other citations, see Rice, Kelman, Miller, and Dunmeyer (1990).



reflects the stream of costs associated with domestic abuse valued in terms of the year in which it starts. It would not include the costs of all abuse occurring in that year, only the costs of abuse originating in that year. Such an approach is useful when modeling the progression of a disease and its inherent costs over time because the pattern may be similar across all cases. It is less useful in estimating the costs of domestic violence for two reasons. First, there is no single pattern in which the abuse occurs and the services are needed. Usage often depends on varied circumstances -- is the woman employed, what is her marital status, does she have children, does she see herself as an abuse victim, etc. -- and, thus, a model would be difficult to design. Second, if an intervention program is successful in reducing prevalence, then an incidence-based cost estimate is unsatisfactory as a tool for measuring any change in costs resulting from the decline in prevalence.

An annualized prevalence-based cost estimate assigns the costs to the year in which they occur.<sup>11</sup> This method is preferable for determining the efficacy of intervention strategies because, once a baseline cost is established, any change in the cost (either from a decline in prevalence or a decline in costs) from one year to the next can be evaluated after the implementation of the new intervention. Because a prevalence-based cost estimate is preferable, this paper relies on studies that use this method in our review of the literature. Further, we have tried to find prevalence-based studies that would allow us to calculate the percent of any services offered that are used by victims (or perpetrators) of domestic violence.

Using the preferable prevalence-based approach, researchers can determine the annual aggregate direct costs of domestic violence by those involved in domestic violence disputes.

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<sup>11</sup> Should a death occur in that year as a direct result of domestic violence, this approach would include the present discounted value of future losses from the early death.

Ordinarily, the costs of services used by domestic violence victims are estimated as a proportion of all services of a given type offered. Equation 1 illustrates such a calculation:

$$(Eq. 1) \quad TC_{dv} = \sum p_i C_i$$

where  $TC_{dv}$  is the total direct cost of domestic violence against women,  $p_i$  is the proportion of those who use service  $I$  who are victims or perpetrators of domestic violence, and  $C_i$  is the cost of service  $I$ . The costs are summed across all services, from  $I=1$  through  $n$ . This is a basic equation that can be modified for the data at hand. For example, if the researcher has a per child cost estimate for foster care rather than a total cost estimate, then the total cost can be calculated as the cost per child multiplied by the number of children involved in domestic violence who require foster care.

There are two problems in the calculation of direct costs that require further discussion. First, what is included in the calculation of  $C_i$  and, second, what is the appropriate proportion  $p_i$ ? Neither answer is simple. In the first case, one must look at each cost category and characterize it in the following way:

1. Full cost -- if the service *would not* be provided at all were domestic violence absent in society, then the full cost of the service is a cost of domestic violence. Example: shelters for abused women and their children.
2. Marginal cost -- if the service *would* be provided even if domestic violence were absent in society, then only the marginal or additional cost of providing the service to the individual should be counted as a cost of domestic violence. Example: court costs for prosecution of domestic violence offenders. Researchers often use average cost as a proxy for marginal cost as the latter is not typically known. Since average cost is ordinarily larger than marginal cost, the use of this measure tends overestimate the true cost.

In calculating the proportion of service usage that results from domestic violence ( $p_i$ ), it may be difficult to establish a direct causality between domestic violence and a cost. For example,



a victim of abuse may undergo treatment for a disease related to the use of alcohol. One must consider whether the victim would have undergone this treatment had she not been abused. If so, the cost of the treatment cannot be fully attributed to domestic violence. Thus,  $p_i$  must be adjusted downwards by a factor which reflects the proportion of those who use the service who would have required the service in the absence of domestic violence.

### **Application of the Direct Cost Model -- Information Availability and Gaps**

To estimate direct costs, researchers require information on the proportion of persons using various services as a result of domestic violence and the total annual cost of service provision. There are no comprehensive data sets across all social institutions affected by domestic violence. Given this lack of data, researchers are limited to using a variety of secondary sources that reflect different populations and different time periods. This makes it difficult to arrive at a consistent and comparable cost estimate for each service due to domestic violence in a given year. For example, is a study conducted in a Pennsylvania hospital revealing that 20 percent of women receiving emergency room care are victims of domestic violence an adequate proxy for the proportion of all female emergency room patients who are victims of abuse nationwide?

To accurately calculate institutional prevalence (the proportion of services used as a result of domestic violence), we need to know the total population using the service and the number of using the service as a result of domestic violence. In Table 4, we indicate data sources that might be used to determine the institutional prevalence in service areas and cost types outlined in Table 2 above. We also present potential data sources that might be used to

estimate the total cost.<sup>12</sup> In many cases, we do not have a measure of institutional prevalence or total cost. Some can be calculated using other variables. For example, if we have an estimate of the cost per hospital stay, then the total cost of hospital care as a result of abuse can be calculated as the number of abused women requiring hospital care times the cost per stay. Thus, in Table 4, we have included examples of a variety of numbers that could be substituted for institutional prevalence and total cost values; in some cases, additional information would be needed to ascertain prevalence and cost figures. As can be seen from the table, there are broad gaps in knowledge. Some of these gaps may be due to our failure to locate existing relevant usage or cost figures. In addition, these data should be considered only as illustrative of how the model might be applied; further review is necessary before reliable total cost figures can be calculated.

Table 4A. Health Care -- Direct Costs		
Service	Usage	Cost
Emergency room care	1.85 million visits annually (U.S. DOJ:1994a). Between 20% and 50% of women with injuries who present themselves at ER are victims of abuse (Abbot et al.:1995; McLeer & Anwar:1989; Stark & Flitcraft:1991).	A study at Rush Medical Center in Chicago estimated an average charge for medical services to abused women, children, and older people as \$1,633 per person per year, excluding psychological or follow-up costs (Meyer: 1992); New York City emergency room costs are estimated to be \$506 million annually (Zorza: 1994).

<sup>12</sup> A full citation of each study in Table 4 is included in Appendix I.

Table 4A (cont.). Health Care -- Direct Costs

Service	Usage	Cost
Initial and follow up care at a clinic or doctor's office	8 % of abused women seek help at a doctor's office (Stets & Straus:1990). Nonemergent hospital primary care clinics report that 28 % of female patients have suffered severe physical abuse (Rath et al.: 1989), and 23 % of pregnant women report abuse before or during pregnancy (Helton & Snodgrass:1987).	Unable to locate nationally representative data. <sup>a</sup>
Training costs for health professionals	According to the California Survey of Emergency Departments, funded by the Henry J. Kaiser Family Foundation, only 1 in 4 emergency departments have conducted educational sessions on domestic violence (Family Violence Prevention Fund: 1993).	Unable to locate nationally representative data. <sup>a</sup>
Birth defects	Several studies indicate a range of violence or battery incidence among pregnant women, from 8-15% of pregnant women in public and private clinics to as much as 24-26% (Family Violence Prevention Fund:1995), increasing the risk of placental abruption (Sherman, et al., 1990) and fetal injury (Saltzman, 1990).	Unable to locate nationally representative data. <sup>a</sup>
Treatment for STDs and AIDS	12 million cases of STDs each year (all women) (Center for Disease Control:1995).	\$5 billion total treatment costs per year (Center for Disease Control:1995).

<sup>a</sup> According to the organizations listed in Appendix III, these data are not being collected at the national level.

Within the health care area, relatively reliable usage and cost data appear to be available for certain services. These include hospitalization and emergency room care. To calculate the cost of treatment for STDs and AIDS, more specific data on the number or percent of battered women and/or women who use these services are needed. In both areas, the issue of marginal versus total cost remains (i.e., what portion of the total cost can be



attributed to domestic violence?). For many of the remaining health areas, we have been unable to find nationally representative prevalence or cost data.

The health care cost estimates shown here are based on actual services received as a result of domestic abuse. These estimates may in all likelihood underestimate actual costs if some abused women are prevented from receiving necessary care; without sufficient medical attention, future medical costs may be higher and the quality of life may be reduced. To be complete, costs should not be measured on an incident by incident basis. On-going abuse generates additional costs and requires a longer window of measurement.

Table 4B. Child Well-Being – Direct Costs		
Service	Usage	Cost
Foster care	256,000 children in foster care (1995 est.), an estimated 50 percent are victims of abuse or neglect (Committee on Ways & Means: 1994). In 45-59% of child abuse cases the mother is also being abused (McKibben, De Vos, & Newberger: 1989; Stark & Flitcraft: 1988). The percentage of child abuse or foster care that results from domestic violence is unknown.	\$2.5 billion Federal foster care expenditures under Title IV-E (1993) (Committee on Ways & Means:1994); New York City spends \$13,600 per child per year in foster care benefits, excluding protective services (Zorza:1994).

Although there is research attesting to the higher risk to children's physical health, mental health, and other problems as a result of domestic violence, data on the prevalence and cost of other types of children's services are very limited. Overall, however, approximately 3.3 million children are at risk for exposure to domestic violence each year (Carlson, 1984), suggesting the need to collect more information on the impact and the resulting demand on services. Research has shown that approximately half of abused children live in homes where the mother is also

abused (McKibben, DeVos, and Newberger, 1989; Stark and Flitcraft, 1988), and that the majority of children living in homes where there is domestic violence also are abused (Bowker, 1988). In some instances, the child abuse and spousal abuse have the same cause; in other situations, the domestic violence may actually cause child abuse or neglect. For example, a child may be physically harmed when he or she tries to defend the mother, or a child may be emotionally harmed or neglected because of the violence in the home. There are no national data on what percentage of child abuse or neglect is caused by domestic violence. The cost of medical care and social services, including foster care placement, for abused and neglected children would be a direct cost of domestic violence if the domestic violence caused the child abuse or neglect. Since child abuse and neglect are the major causes of foster care placement, foster care could be a substantial direct cost of domestic violence. In addition, children are not always safer when their mother flees a violent home; they may continue to be at risk after couples separate (O'Sullivan, Bernal, & Birns, 1996).

**Table 4C. Homelessness -- Direct Costs**

Service	Usage	Cost
Emergency homeless shelters	11% - 64% homeless women are victims of abuse (D'Ercole & Struening:1990).	Women Against Abuse Center in Philadelphia reported an annual budget of \$2.5 million, or \$68 per person per day. Center for Battered Women in Austin, TX spends slightly less per person per day, with an annual shelter budget of \$900,000. (Working Woman:1994); The Census Bureau is preparing to conduct a survey of homeless assistance providers (National Coalition for the Homeless:1995).
Publicly supported housing (transitional, Section 8, other subsidized public housing)	17% - 70% of publicly housed mothers are victims of abuse (Bassuk & Rosenberg:1988).	\$6,588 million was allocated for FY1995 in total subsidies for public housing. The monthly appropriation rate per occupied unit is \$481 (U.S. HUD:1995).



The research presented in Table 4C indicates a wide range of estimates of the percentage of women in emergency homeless shelters and in supported housing as a result of domestic violence. We were unable to obtain nationally representative cost figures for shelters, although some local cost figures are available (i.e., the total operating budget for local shelters). The cost figures that are available from the U.S. Department of Housing and Urban Development for publicly supported housing are per capita. In order to develop national cost figures, we would need to know the number of formerly abused or battered women in publicly supported housing.

Table 4D. Criminal Justice System -- Direct Costs		
Service	Usage	Cost
Training costs for police	535,629 officers, city, state, county, in 1991 (U.S. DOJ:1992a).	Unable to locate nationally representative data. <sup>b</sup>
Arrests by police	5%-16% of domestic violence calls result in arrest in the District of Columbia (Baker, Cahn & Sands:1989). <sup>a</sup>	Unable to locate nationally representative data. <sup>b</sup>
Responding to calls and writing reports	In the District of Columbia, 22% of calls to 911 are victims of domestic violence, and 34% of police visits to a house resulted in written report (Baker, Cahn & Sands:1989). <sup>a</sup>	Unable to locate nationally representative data. <sup>b</sup>
Criminal court	Out of 32 reporting states, domestic violence cases comprised 16% of all domestic relations cases filed in 1993, or 360,156 out of 2,236,383 (Ostrom & Kauder:1995).	National data on criminal court expenditures are not available. <sup>a</sup> However, in 1990, states and localities spent \$64.9 billion in direct justice expenditures (U.S. DOJ:1993).
Civil court	Out of 21 reporting states, there were approximately 360,158 domestic violence filings in 1993 (Ostrom & Kauder:1995).	Unable to locate nationally representative data. <sup>b</sup>
Juvenile court	Unable to locate nationally representative data. <sup>b</sup>	The National Committee for Prevention of Child Abuse estimated that the annual costs to incarcerate delinquent adolescents who were victims of abuse is about \$15 million (Meyer:1992).

Table 4D (cont.). Criminal Justice System -- Direct Costs

Service	Usage	Cost
Probation and parole costs	In 1990, there were 2,670,234 state and federal probationers, and 531,407 parolees (U.S. DOJ:1993). We would have to estimate how many were arrested for abusing a spouse or intimate.	Unable to locate nationally representative data. <sup>b</sup>
Prison and detention costs of batterers	20,170 state prisoners incarcerated for harming intimate (1991) (U.S. DOJ:1994b; Friedman & Couper: 1987).	In 1990, total annual expenditures for state and federal correctional facilities were \$11.4 billion, with operating expenditures comprising 94 percent. Average annual operating expenditures per inmate in state and federal facilities (nationwide) in 1990 were \$15,513 (U.S. DOJ:1992b).

<sup>a</sup> These data are not nationally representative.

<sup>b</sup> According to the organizations listed in Appendix III, these data are not being collected at the national level.

Much of the available data on the cost of domestic violence to the criminal justice system is not at the national level. For example, data on arrests by police, 911 calls, and protective orders are not necessarily representative because they rely on a single survey of one community (e.g., the District of Columbia). The data on writing reports and incarcerations are based on a national sample and the actual population, respectively. Because they are based on reports from a significant number of states, the data on the use of criminal and civil courts are more reliable.



Table 4E. Social Services – Direct Costs		
Service	Usage	Cost
Job training	16%-84% of women in training are victims of abuse (Raphael:1995).	\$2,120 per participant for adult job training, in Program Year 1994 under Title II Aa of the Job Training Partnership Act (JTPA) (data provided by the U.S. Department of Labor, Office of Employment and Training Programs).
Alcohol and drug abuse treatment	50% of female alcohol abusers were victims of domestic violence. (U.S. DHHS; Stark & Flitcraft:1991)	Estimates (for 1985) of the costs of alcohol abuse are: \$6.3 billion in direct medical costs, i.e. hospital stays, or about \$465 per patient; nearly \$500 million in training costs of medical staff; \$27 billion in reduced productivity; and \$24 billion in terms of premature deaths from alcohol abuse (Rice et al.:1990; National Institute on Alcohol Abuse and Alcoholism:1991). The Center on Addiction and Substance Abuse at Columbia University found that in 1994, substance abuse and addiction cost New York City over \$20 billion (CASA:1996).

Research does exist on the percent of welfare recipients participating in job training program that were victims of domestic violence. The range of percentages is based on estimates from individual training programs. The lowest figure (16 percent) is from a Manpower Demonstration Research Corporation (MDRC) study of 617 women, ages 16-22, participating in New Chance program sites (as cited in Raphael, 1995). The range of estimates, however, makes any inferences about the prevalence of domestic violence among welfare recipients in job training programs nationwide less reliable. Job training cost data for welfare recipients are available, but these costs can be considered as domestic violence costs if domestic violence results in the need for job training. Once we obtain data on the total number of women in job training programs, direct cost estimates could be calculated. For costs attributed to alcohol abuse treatment, figures on the portion of cases of alcohol abuse resulting from the domestic violence would have to be collected. The National Family



Violence Survey asks questions concerning visits to lay and professional counselors, but the data need to be tabulated.

**Estimation Issues: Indirect Costs**

Indirect Economic Costs: Productivity Losses and Mortality

In determining the indirect economic costs of domestic violence, researchers need to consider two kinds of costs: 1) the cost of lost productivity (e.g., from illness, court appearances, or incarceration), and 2) the cost of mortality. The former is far more simple. With knowledge of the distribution of those affected by age and other human capital characteristics, the researcher can estimate the value of lost work days by multiplying those days by the average compensation to a worker with those characteristics. The 1992-1993 NCVS survey provides information on the age and education level of victims of violence by intimates (Bachman and Saltzman, 1995). This compensation cost should include a measure for fringe benefits.

Table 5. Indirect Costs/Productivity Losses		
Cause	Number Affected	Loss
Job loss of victim	24% of abused working women reported losing job and 50% reported being unable to attend school (Shepard & Pence:1988); 30% of abused working women lost their jobs (Stanley:1992).	See <u>Indirect Costs Data Sources</u> in Appendix I for women's average earnings by age (U.S. Bureau of the Census:1993a).
Forced unemployment	Raw data exist in the Straus & Gelles 1985 survey but need to be tabulated.	See <u>Indirect Costs Data Sources</u> in Appendix I for women's average earnings by age (U.S. Bureau of the Census:1993a).

Table 5 (cont.) Indirect Costs/Productivity Losses

Cause	Number Affected	Loss
Poor work habits	62% of battered working women reported that they had been late for work or left work early as a result of being abused, 56% reported having been harassed by phone or in person by their abusers at work (Shepard & Pence:1988); 64% arrived late by an hour 5 times per month (Stanley:1992); 38% left work early (Shepard & Pence:1988; Stanley:1992).	See <u>Indirect Costs Data Sources</u> in Appendix I for women's average earnings by age (U.S. Bureau of the Census:1993a).
Disruption at work place	75% of victims were harassed at work by abuser (Friedman & Couper: 1987).	See <u>Indirect Costs Data Sources</u> in Appendix I for women's average earnings by age (U.S. Bureau of the Census:1993a).
Days of work lost for medical and other reasons	8% of victims of violent crime experience an average of 7.6 days of lost work per year; 94% of abused lost at least one work day per year (U.S. DOJ:1994a); 9.3% of abused working women had time off (Stets & Straus:1990); 50% of abused lost 3 days per month (Stanley:1992).	See <u>Indirect Costs Data Sources</u> in Appendix I for women's average earnings by age (U.S. Bureau of the Census:1993a).
Days of work lost for court appearances	Unable to locate.	See <u>Indirect Costs Data Sources</u> in Appendix I for women's average earnings by age (U.S. Bureau of the Census:1993a).
Days of housework lost for medical reasons	Unable to locate.	Could possibly use a shadow pricing method (e.g. average hourly cost of domestic worker) (Douglas, Kenney, & Miller:1990).
Lost production from incarceration	7% of prisoners in state prisons incarcerated for violent offense against an intimate; Age distribution of prisoners incarcerated for a violent offense (U.S. DOJ:1994b); Distribution of length of time of prison sentence (U.S. DOJ:1994b).	In 1991, 55% of state prisoners were employed full-time, and 12% were employed part-time before they were incarcerated. Of those state prisoners who were free at least a year before admission to prison, 3% had no income; 19% had less than \$3,000; 10% had between \$3,000-\$4,999; 21% had between \$5,000-\$9,999; 17% had between \$10,000-\$14,999; 16% had between \$15,000-24,999; 15% had \$25,000 or more (U.S. DOJ:1993).
Murder by intimate and suicide (this should include the value of lost production -- both market and non-market)	35% of female victims of homicides are murdered by an intimate or other relative (Bachman & Saltzman:1995); See <u>Indirect Costs Data Sources</u> in Appendix I for labor force participation rates by age (U.S. Bureau of the Census:1993b).	See <u>Indirect Costs Data Sources</u> in Appendix I for women's average earnings by age (U.S. Bureau of the Census:1993a).



Although much of the data on productivity losses are based on small scale studies and the prevalence of domestic violence among working women is not available, some calculations for these losses due to domestic violence can be estimated if a series of assumptions are made. The NFVS of 1975 and the resurvey of 1985 conducted by Straus and Gelles (1987) offer information on the number of abused/non-abused women who have lost their jobs in the given year and the number who would like to work but whose partner does not want them to. What wage would they have earned if they had worked? Is the wage of an abused woman equivalent to the wage of a non-abused woman given the same human capital characteristics? In addition, are women's wages an accurate measure of productivity losses? Given discrimination in the labor market, any wage-based indication probably underestimates productivity losses for women. Nonetheless, if assumptions about wage levels are made, we can begin to develop cost estimates.

When estimating the financial costs that domestic violence victims experience due to job loss, it may be simple enough to estimate the loss of income (net of unemployment insurance benefits received) and the cost of finding alternative employment. Yet, there are unquantifiable costs such as loss of seniority and loss of promotion potential. Forced unemployment, on the other hand, is different from job loss in that these women would like to work but are forbidden to work by the abuser. Two pieces of information are needed to measure lost output from these women who are not in the labor market: 1) the number of women who would prefer to work outside the home, and 2) the wage they could obtain if they were in the market. The former can be calculated from the NFVS survey for women only in intact relationships, while the latter would have to be estimated from the characteristics of the victim.



Poor work habits (coming in late, being distracted and less productive at work) also require a measure of lost productivity. This is conceptually difficult. One may have information on the average amount of time abused and non-abused women miss from work due to sick days or late arrivals. These figures could be multiplied by the wage. In addition, there is no direct measure of loss in productivity when the abused is at work. However, in some cases these losses translate into lost income for the worker; in other situations they are losses borne by the employer. We have a similar problem in measuring the cost of disruption in the workplace for both the victim and her co-workers. Also, no prevalence data appear to be available to begin to calculate household productivity losses. However, reliable data exist that would allow us to calculate productivity losses that result from the incarceration of batterers.

To calculate the indirect costs of mortality from domestic abuse, researchers generally use either of two different methods. The *human capital approach* measures the value of an individual's future earnings according to age and sex; the *willingness to pay approach* estimates the value the individual puts on changes in the probability of death. The former is attractive because it reflects the loss of national output and also considers the value for the loss of household services from mortality. But, it is not without its shortcomings. This approach places little value on the life of a child or an elderly person given that they are not in the labor market.<sup>13</sup> In addition, it underestimates the value of those who are discriminated against in the labor market through the payment of wages below that of their true productivity level.

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<sup>13</sup> Forensic economists rely on the characteristics of the child's parents to forecast the lifetime earnings of the child. As Coates (1994) points out in her unpublished manuscript, this approach assumes that the patterns of economic attainment will prevail. Yet, there has been significant structural change in the labor market, e.g., increased labor force participation of women and changes in the types of jobs available.

The willingness-to-pay approach measures the value people place on a reduction in the probability of death. For example, if there are two workers with identical job qualifications, but one is in a riskier job than the other, the difference between the two wage levels is one measure of the value the individuals place on the decreased probability of death. Of course, this method assumes that the individuals correctly perceive the risk. This approach differs from the former in that it includes all aspects of well-being, not just lost income. However, it is far more difficult to construct, and it yields varied estimates (Miller, 1989).

Researchers have found the human capital approach easier to calculate with the available data sets and, thus, it is more widely used. It offers a conservative estimate of the actual loss. As Table 5 shows, we do know the number of women murdered as a result of domestic violence. Data are also available that allow us to use the human capital approach in calculating the productivity losses that result from murder.

### Indirect Social and Psychological Costs

As discussed, analysts have identified additional costs of domestic violence that go beyond direct or indirect economic costs. These costs include losses to women, communities, and society in terms of the quality of life, increased dependency, and restraints on human potential and activities. We refer to these losses as indirect social and psychological costs.

Indirect social and psychological costs are documented in many descriptive studies of battered women. For example, participants in a recent focus group run by Victim Services told stories of constraints on their freedom and losses in their quality of life. They told of being required to stay at home, being forced to sever social relations with neighbors, friends, and family, being embarrassed from visible injuries in public situations, having their clothing



hidden from them, constantly moving in order to avoid their batterers, feeling unable to protect their children, hiding out with family or friends until they became an unacceptable burden, staying in shelters in remote locations so they cannot be tracked, and losing control of joint resources or custody of their children.

The psychological effects of domestic violence that have been named and measured include depression, suicide, chronic anxiety, and sleep deprivation. According to Estes (1993):

...[S]urvivors of physical assaults by male partners show high rates of depression, suicide ideation, and suicide attempts; and for some women, an onset of substance abuse that postdates the onset of violence. (p.13)

...[W]omen abused by male partners also demonstrate long-term responses of fear and terror, flashbacks during which past abusive incidents are reexperienced, marked expressions of denial and avoidance, loss of memory for parts of traumatic episodes, constricted affect, psychic numbing, chronic anxiety, hypervigilance, nightmare, difficulty sleeping and physiological reactivity. (p.20)

Without some measurement of social costs, any cost estimate of domestic violence will be underestimated. Indicators for measuring these costs are still in their infancy; once developed, researchers would have to attach a dollar value to them in order to incorporate them into the estimated indirect costs. Some researchers suggest using average jury awards for lost quality of life. For example, Miller, Cohen, and Wiersema (1995) use a regression analysis method of jury verdicts to arrive at a cost estimate of the decline in the quality of life as a result of domestic violence in the amount of \$50 billion for nonfatal abuse. Ultimately, we need indicators to measure these costs for individual women, aggregate costs for all battered women in communities or in the population as a whole, and the costs of the chilling effects of domestic violence on all women. In the interim, some researchers have suggested that we at least document the existence and prevalence of these psychological and social costs



using existing instruments such as those that measure life satisfaction, fear for personal safety, participation in organizational and social activity, morale, anomie, and alienation (Russell and Megaard, 1988).

### **ASSESSMENT OF INTERVENTION/PREVENTION STRATEGIES**

Estimates of the economic costs of domestic violence against women provide policymakers, advocates, and the public with important information concerning the size of the problem and the resources that are diverted or lost as a result. However, they offer no guidance as to which remedies are cost-effective. Cost-effectiveness studies are designed to demonstrate the relationship between project costs and outcomes, usually expressed as costs per unit of outcome achieved.

Although the general goal of intervention programs is to reduce the prevalence of domestic violence, many intervention programs have been implemented with a variety of more specific goals. Some seek to increase the identification of domestic violence and thus obtain the needed services for those involved, i.e., physician or police training programs. Other programs provide the needed services to those involved in domestic violence, i.e., domestic violence hotlines, shelters for abused women and their children, legal advocates, treatment or counseling programs for both the abuser and the abused. Additionally, some programs are designed to educate the public.

Typically, three types of designs are used to evaluate proposed or existing intervention programs. These include: 1) conceptualization and design evaluations which study the extent of the problem, operationalize target populations, and determine if proposed interventions are suitable; 2) monitoring how the program is implemented; and, 3) assessment of the

effectiveness of the program (impact assessments). Appendix II lists references for a sample of articles using these three types of evaluation strategies. Methods (1) and (3) are frequently used, while method (2) is used less often. In our review of the literature, we have not found systematic evaluations of the cost-effectiveness of programs in terms of reducing the prevalence of domestic violence.

Nevertheless, these other evaluation methods are important. Conceptualization and design evaluations are important because they include "diagnostic" procedures that should be undertaken in order to plan successful intervention programs. For example, a study by Wilson, Cameron, Jaffe, and Wolfe (1989) provides information on the extent of behavioral problems of children of abused women, conceptualizes an intervention program to teach children safety and problem-solving skills, proposes an intervention model that can be used in school and other settings, and operationalizes the target population (in this case children who are not currently experiencing a crisis) for whom the proposed program is suitable.

Monitoring intervention programs is important because such evaluations determine whether the programs are reaching their appropriate target population and whether the delivery of services is consistent with program design specifications. For example, in the case of the Domestic Violence Program (DVP) run by the police department in Bellevue, Washington (Bellevue Police Department, 1984), operations were monitored to determine procedures, experiences, and costs. This allowed program managers to ascertain whether the program was operating as designed and to identify the need for improvements in the practices and policies of each public and private agency involved in the DVP.

Impact assessments are important because they are directed at establishing, with as much certainty as possible, whether or not an intervention is producing its intended effects.



For example, a study by Chen, Bersani, Meyers, and Denton (1989) evaluated the effectiveness of a court-sponsored abuser treatment program. These authors use an evaluation design in which court-referred abusers are placed in either a treatment group or a control group. The researchers found that only abusers who attended 75 percent or more of the treatment sessions experienced decreased recidivism when compared with the control group. This kind of evaluation provides information on whether the program is producing change in the desired direction and under what conditions.

None of these methods provides funders, policymakers, program administrators, or advocates with information showing whether one intervention strategy is more cost-effective than another. The issue of costs is more relevant today in light of tighter budgets at all levels of government and the added competition for research funds from foundations. Some impact evaluations could be turned into cost-effectiveness studies if program cost data could be linked with successful outcomes. For example, in the case of the study done by Chen et al., if we knew that only 10 percent of the 120 member treatment group attended 75 percent or more of all sessions and thereby were not re-arrested for battering their spouses (or had a reduced re-arrest rate), and we knew that the intervention program cost \$25,000, then the cost per successful outcome would be about \$2,100 (if we could assume that the 10 percent with heavy attendance had the same characteristics as the 90 percent who did not faithfully attend). The cost-effectiveness of this program could then be compared to others with similar goals.

The use of cost-effectiveness studies would improve the debate as to the merit of a particular type of intervention program and would enable communities, funders, and program developers to prioritize the types of programs. If there are several methods of intervention to reduce prevalence, cost-effectiveness analysis determines which program produces a common



goal (using the same outcome measure) at a lower per unit cost. Thus, funding of programs with high per unit costs could be scrutinized, possibly freeing scarce funds for more successful programs.

In practice, however, intervention programs have many specific goals, and these goals are not necessarily or easily tied directly to a reduction of the prevalence of domestic violence. In fact, effective identification programs are likely to increase costs in the short run because they identify more cases of abuse and increase the demand for services. Clearly, programs with similar goals and outcomes need to be compared. Some assessment needs to be made concerning the relationship between goals and outcomes and prevalence reduction. And, careful comparisons need to be made to determine if the costs attached are similar among comparable programs. Other researchers suggest that, rather than trying to develop cost-benefit measures or even cost measures, successful outcomes be measured i.e., in terms of decreased days absent from work, lower SSI payments, and reduced homelessness.

### **NEEDED RESEARCH AND INTERVENTION PROJECTS**

This paper demonstrates that more data are needed to accurately describe the direct and indirect costs of domestic violence to society. At the same time, we lack information on the efficacy and cost-effectiveness of current and proposed domestic violence prevention programs. How much of a difference do these programs make in people's lives? Beyond the benefits for individuals, are these programs effective in reducing social costs? The purpose of this section is to stimulate discussion of these questions and to provide suggestions for future research.

In our view, several different types of studies of the costs of domestic violence and the cost-effectiveness of prevention programs would be extremely beneficial for more informed policy making, more appropriate prioritization of resources, and more effective program design.

### **National Estimates of Direct and Indirect Costs**

By demonstrating the effect of domestic violence on individuals and society, reliable estimates of the direct and indirect costs of abuse will help to strengthen the argument for intervention by a wide range of social institutions (government, health care, business, etc.). Based on our preliminary review of the literature, we suggest that estimates for some of the costs can be made from the available data. Although there are several significant knowledge gaps, additional review of the literature and cost information on domestic violence, and additional secondary analysis of the National Family Violence Survey, the Commonwealth Survey, and the revised National Crime Victimization Survey may provide sufficient data for these estimates. In terms of direct costs of service usage by domestic violence victims and perpetrators, relatively robust estimates or ranges of estimates can likely be made for some areas of health costs, criminal justice, social services, and child well-being. In contrast, as Table 5 shows, the data available on the indirect economic costs of domestic violence, generally referring to productivity losses, are not comparable and may not be reliable. Very few studies provide annual estimates of work time lost due to domestic violence. A more thorough review of the literature, coupled with analysis of new survey data, may produce usable information on some of the missing variables and allow for the development of credible

estimates of indirect costs. Significantly more research and analysis is necessary before truly reliable estimates of indirect social costs can be developed.

The research presented in this paper strongly suggests that estimates of all these costs are worth pursuing as a means of educating policymakers, businesses, and taxpayers, and of providing information to help guide decisions about resource allocation and program design. A one- to two-year research review and data analysis project would be useful to develop national estimates of the direct and indirect economic costs of domestic violence. To make progress in estimating the indirect social costs of domestic violence, research needs to be stimulated more widely in the field.

### **Impact of Welfare and Job Training on Domestic Violence**

Given the prominent role of economic independence as a factor in a battered woman's ability to leave an abusive relationship, further research is needed to examine the role of welfare on the well-being of battered women, and the training and supports needed to help them lead safe, independent lives. In Washington State, one of the only states to have collected information on AFDC recipients and the prevalence of domestic violence, 60 percent of women report both physical and sexual abuse by their partners (Washington State Institute for Public Policy, 1993). More recently, researchers at the McCormack Institute and the Center for Survey Research at the University of Massachusetts at Boston found that among a representative sample of the Massachusetts Transitional Aid to Families with Dependent Children (MTAFDC) caseload, 65 percent would be considered victims of domestic violence (McCormack Institute, 1997). For many battered women, welfare is perhaps the only



alternate income source, and the only immediate way to free themselves from financial dependence on the abuser.

Studies show that anywhere from 20 percent to 80 percent of women in welfare-to-work programs around the country were victims of domestic abuse (NOW Legal Defense and Education Fund, 1995; Raphael, 1995). This has important implications for the effectiveness of training and education programs. Many women, once enrolled in these programs, may be prevented from participating by their partners or by their need to leave the community to escape their partners. Additional support services may be needed at the training site, without which enrollees may not be able to complete training programs within expected time limits.

There is also much concern in the advocacy community that federal changes to the welfare policy in the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 and the resulting cut-backs in welfare payments (including food stamps) will lead to increased domestic violence as women, seeing no financial alternative, remain with their batterers. Those who do not return to husbands or male partners may turn to homeless shelters or see their children placed in foster care. Further, the time limits on lifetime welfare benefits and the more stringent work requirements under the new welfare legislation may be especially difficult for women fleeing domestic violence who may lose access to welfare benefits as a result.<sup>14</sup> Finally, for a variety of reasons, battered women will likely be reluctant to name the fathers of their children in order to receive welfare benefits, and may not have the necessary

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<sup>14</sup> The new welfare reform law does allow a state to include "battering and extreme cruelty" among those conditions which exempt recipients from time limits imposed on the receipt of cash assistance. Waivers may be granted in cases where any requirement would make it harder for welfare recipients to escape domestic violence or unfairly penalize past, present, or potential domestic violence victims. The Family Violence Amendment to the welfare bill contains no limitation on how many waivers a state may grant in cases of domestic violence.

proof to be exempted from this requirement. The additional direct costs to private and public services that result from the loss of financial support from welfare may outweigh the gains in cutting back this transfer payment.

Working with battered women's advocacy groups in various communities, comparison studies can be performed by researchers. By interviewing at selected local and county welfare offices, base-line data on spouse abuse among the welfare population can be gathered (see the McCormack Institute study (1997) for an example). Follow-up reports on what happens to these women in terms of abuse and use of services as they either enter training programs, begin to work, or are moved off the welfare rolls could then be conducted, as long as they do not endanger the respondent. Researchers could work with already existing evaluations of state welfare waiver programs.

A series of studies should be developed to evaluate differing provisions in states' welfare programs -- some states are likely to develop harsher plans than others. A two- to five-year project using partners in local areas in four to six states could result in the collection and analysis of both the base-line data and follow-up data. The results would provide significant new information about the role of AFDC in supporting battered women and yield a closer examination of the effectiveness of education and training programs in the presence of domestic violence.

### **Cost-Effectiveness Studies**

We have discussed the importance of initiating cost-effectiveness studies of domestic violence intervention efforts. Given this gap, we propose gathering impact assessment studies that use experimental control group designs (whenever possible), categorizing these studies in



terms of their goals, and attempting to track down the program or agency that ran the intervention study. We would then attempt to gather budget data concerning these programs. Given the availability of impact data and budget data, the cost per successful outcome could likely be developed. The Commonwealth Fund's recent report on Violence Against Women (1995) could serve as an effective guide to these impact assessment studies. The National Research Council's recently published report on violence against women reviews research on the effectiveness of domestic violence programs (Crowell & Burgess, 1996).

Reviewing interventions in a comprehensive manner and gathering the additional data needed to attach cost estimates to successful outcomes in existing programs would likely require between one and two years.

#### **Developing Prevalence, Usage, and Cost Estimates at the Community Level**

An ideal study of the direct and indirect costs of domestic violence would trace a randomly selected group of women, both victims and non-victims, within a community, over several years. The purpose of this study would be to develop an estimate of the prevalence of domestic violence in the community during the previous year, to survey these women's use of the services provided by social service agencies, police and courts, homeless and battered women's shelters, hospitals and health clinics, and children's services (during the previous year), and to obtain their assessment of these services. An institutional survey would also be conducted to obtain a second set of usage estimates and to review records and budget expenditures of government agencies and private social service agencies for direct cost data on each program and intervention during the previous year. In addition, in-person interviews with personnel directors of the largest employers in the community would be conducted to



gather data on their estimates of the (indirect) costs of domestic violence in the workplace.

As a result of this effort, usage rates could be multiplied by costs and the community would then have a baseline cost estimate from which to compare any changes in prevalence and costs that result from new intervention/prevention programs.

The advantage of using a random sample that includes both victims and non-victims of spouse abuse (broadly defined) is that the results could be generalized to the entire community (using Census Bureau data to inflate the sample to the full population numbers). In addition, having usage information from both abused and non-abused women would allow us to calculate the marginal costs of abuse (marginal costs are the additional costs to agencies, such as court costs and police time, of providing services attributable to domestic violence).

Periodic follow-up of the population cohort and the service agencies would allow tracking of any changes in domestic violence prevalence and service usage as well as evaluation of new intervention/prevention programs.

A series of five-year projects in several representative communities (three to five), following an initial test of the base-line stage in one community, would be ideal.

### **A Model Prevention/Research Project**

Given the breadth of the impact of domestic violence on society (through its effects on health, employment, homelessness, etc.), it is likely that a substantial reduction in abuse and its attendant costs will only be achieved through a comprehensive effort that addresses the problem from many directions. Specifically, such a project would concentrate on individual communities, including a broad range of demonstration programs designed to reduce domestic violence, and would simultaneously employ an extensive research component. The effort

would require an eight- to ten-year community-focused, comprehensive demonstration and evaluation project using a saturation model in three to six communities in different parts of the country. Designed to assess the costs of domestic violence and the effectiveness of new and current community preventive interventions, the demonstrations would be developed by and for each community to reflect the needs and characteristics of its population (based on the particular interaction of culture, ethnicity, economic class, etc., and on preexisting institutions and program models in the community). Similar to the comprehensive approach of past efforts to reduce social problems and change behavior, such as the anti-drunk driving and seatbelt campaigns, the project would incorporate a range of prevention strategies addressing the different costs of abuse. The chosen sites might represent a range of community profiles (ethnicity, class) to test the effectiveness of service approaches for different populations; for example, in New York City these might include the Upper West Side of Manhattan, Harlem, East New York (Brooklyn), and Jackson Heights (Queens). These communities would work in partnership with each other, sharing information and strategies, and perhaps even creating an "overground railroad" to provide a new community for battered women who are no longer safe in their own neighborhood. These projects would do the following:

- Develop a baseline study of the prevalence of domestic violence;
- Ensure strong input from communities and from battered women;
- Provide community leadership roles in the project for battered women;
- Target interventions to all segments of the community's population;
- Conduct a needs assessment survey;
- Include all types of public and social institutions in preventive education strategies;

- Include strategies involving a variety of players, including government, community groups and employers;
- Review promising practices;
- Incorporate an array of both primary and secondary prevention strategies;
- Design intervention and evaluation models;
- Evaluate both current and new/experimental prevention strategies for their benefits for individuals and their cost-benefits for society; and,
- Provide follow-up measures and periodic data collection.

Funding for such an extensive project would likely have to come from a combination of public, private, and local sources, and the project would have to be marketed to these different interests. In order to gain the support of multiple parties from different sectors, project leaders might want to construct their community plans based on discrete components, perhaps by cost area (e.g., health, employment), that could be funded individually.

#### **A Final Note: How Accurate Must Estimates Be?**

Although we have not been able to determine the costs of domestic violence against women with absolute precision, this paper makes clear that the costs are potentially enormous. As researchers, we want estimates to be as precise and valid as possible. But how precise must these estimates be to affect the policy process? In the case of most social problems and social programs, we do not have precise estimates. In fact, precise estimates of certain costs may be too difficult to achieve, and thus not as cost-efficient a means to achieve policy change as less precise (though still reliable) figures. More reliable studies are clearly needed to demonstrate the costs of domestic violence to society, but we should not be disheartened by methodological barriers and the difficulty of developing hard figures. The focus of our



research efforts should be guided by what is needed to increase society's awareness and its willingness to recognize domestic violence as a real threat to individuals and communities. Their design should be built on the soundest methodological approaches possible so that the true costs of domestic violence and the importance of taking action to reduce and prevent abuse can be properly understood.

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## APPENDIX I: DATA SOURCES FOR TABLES 4A-4D and TABLE 5

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## APPENDIX II: INTERVENTION STUDIES

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