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DO COLLECTIVE EFFICACY AND COMMUNITY CAPACITY MAKE A DIFFERENCE "BEHIND CLOSED DOORS"?

Report to the National Institute of Justice

December, 2001

FINAL REPORT Approved

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DEDICATION

This project is dedicated to the women and their families who allowed Chicago Women's Health Risk Study into their lives and were willing to overcome fear and grief to share their stories.

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December 24, 2001

FINAL REPORT TO THE NATIONAL INSTITUTE OF JUSTICE
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EXECUTIVE SUMMARY

The purpose of the "Behind Closed Doors" study is to determine whether or not the degree of collective efficacy and community capacity in the neighborhood in which an abused woman lives has a positive effect on her help-seeking and increases the probability that the violence will decline or cease, taking into account other factors in the woman's situation that may make the probability of violence cessation more or less likely. To address this question, we combine two data sets, longitudinal data on a sample of 210 abused women from the Chicago Women's Health Risk Study, and community context data for each woman's residential neighborhood from the Chicago Alternative Policing Strategy (CAPS) evaluation.

Other research has focused on the contextual effects of neighborhood or city on population-based risk of intimate partner violence. In contrast, the purpose of this study is to examine effects of a woman's neighborhood on the cessation of violence against her. The unit of analysis in the Behind Closed Doors study is the individual abused woman. Given that a woman is experiencing intimate partner violence, does the collective efficacy

and community capacity of her neighborhood facilitate or erect barriers to her ability to escape violence, other things equal?

After placing each woman in her residential neighborhood, defined as the Chicago Police Beat, we ask whether the neighborhood's collective efficacy and capacity to solve problems, measured by indicators of Informal Social Control, Organizational Involvement and Downtown Connections, have an effect, over and above the woman's individual situation, on the kind of help she seeks and whether she is able to escape future intimate partner violence. The answer to this question is "no." Abused women living in organized neighborhoods where collective efficacy is high and abused women living in other neighborhoods are equally likely to escape further violence and to seek various kinds of help, other things being equal.

This finding has clear implications for both research and practice. Most community-level research studies have concentrated on street violence and ignored violence within the family. The findings of the Behind Closed Doors study indicate that researchers do this at their peril. But more importantly, the findings indicate that, while collective efficacy and community capacity in a neighborhood may reduce levels of "street crime," they may not make a difference for one of the most prevalent kinds of violence, violence behind closed doors.

STATEMENT OF THE PROBLEM

In the Behind Closed Doors study, we want to know whether the context of the neighborhood in which an abused woman lives makes a difference in her ability to extricate herself from the violent situation and escape further violence.[1] While many

[1]We use "neighborhood" and "community" interchangeably to mean "a collection of people and institutions occupying a subsection of a larger city" Sampson, *et al.*, (1997:919).

studies (for example, Bursik, 1988; Avakame, 1998, 1999; Miles-Doan, 1998; Rosenfeld & Messner, 1999; Van Wyk, Fox & Benson, 1999; Benson, *et al.*, 1999, 2000; Frye & Wilt, 2000; DeMaris, *et al.*, 2001; Thistlethwaite & Wooldredge, 2001; Browning, 2001) have looked at relationships between social disorganization and other area characteristics, and rates of violence against women, in such population-based risk studies it is difficult to disentangle the risk of an initial violent incident and the risk of continued violence (Pease, 1993). As the Chicago Women's Health Risk Study (2000) has demonstrated, risk factors for initial violence are not necessarily the same as risk factors for continued violence.

Intimate violence is seldom a single event, but rather a continuing relationship punctuated by verbal and physical abuse. Empirical evidence (Johnson, 1995; Block, 1987) indicates that previous events cumulate to determine the development of each succeeding event, though escalation is not inevitable (Feld & Straus, 1989; Johnson, 1995). Efforts at prevention or intervention, if they are to be effective, must take into account not just one event or circumstance, but the pattern of repetition (Farrell & Pease, 1993; Pease & Laycock, 1996; Morley & Mullender, 1994; Lloyd, *et al.*, 1993; Hanmer & Griffiths, 1998) and the changing situation over time (Fagan, 1989; Feld & Straus, 1989; Healey, Smith & O'Sullivan, 1998).

These violent events take place at a location. That location lies within a neighborhood context. Research suggests that a neighborhood's collective efficacy (Sampson, Raudenbush & Earls, 1997; Morenoff, Sampson & Raudenbush, 2001) and capacity to solve problems (Skogan, 1990) are linked to neighborhood violence. Collective efficacy and community capacity are each a "social good" under James Coleman's (1988, 1990) concept of social capitol -- a resource for the entire neighborhood, derived from the social interaction of neighborhood residents (Sampson, 1999: 255). Collective efficacy is "social

cohesion among neighbors combined with their willingness to intervene on behalf of the common good" (Sampson, Raudenbush & Earls, 1997: 918). Community capacity to solve problems includes collective efficacy as well as social resources derived from neighborhood organizations and the neighborhood's "clout" with the city (Skogan, *et al.*, 1999).

Though it has become axiomatic that "people stop crime by forming a community" (DeLeon-Granados, 1999:6), almost all research on collective efficacy and violence has focused on street crime, not on violence committed within the family. Although Morenoff, *et al.* (2001) mention that neighborhoods with higher collective efficacy have lower intimate partner homicide rates, only Browning (2001) has specifically explored effects of neighborhood collective efficacy on rates of intimate partner violence. A case study of women living in a public housing complex (DeKeseredy, *et al.*, 2001) also found a relationship between collective efficacy and victimization. Though these findings suggest that, when a neighborhood enjoys greater collective efficacy, the violence-reduction benefits accrue not only to those who are victimized on the street or in public places, but also to those who are victimized "behind closed doors," their data make it difficult to determine the processes underlying the association. To examine the effect of neighborhood context on an abused woman's ability to escape further violence, it is necessary to follow the experiences of individual abused women over time.

There are many avenues through which a woman's neighborhood can provide resources and support for help-seeking and the reduction of violence. They include, but go beyond, the physical availability and cultural accessibility of nearby support services (Rosenfeld, 1997; Browne & Williams, 1989). Intervention from a public health, public safety or helping agency may not be sufficient or even necessary for a woman to escape a dangerous situation (Dobash, Dobash & Cavanagh, 1985; Bowker, 1983). Formal interven-

tions occur in a context of interventions initiated by the woman herself with the support of natural helping networks. An abused woman's ability to "mobilize social control" effectively (Johnson, 1998: 63-74) is an interactive process related to her resources and individual situation, as well as to the availability of services. Therefore, support from informal social networks may be as vital as support from formal public services (Fagan, 1993; Campbell, *et al.*, 1993; DeKeseredy, *et al.*, 2001).

In addition to providing support, a woman's neighborhood context can erect obstacles when she tries to escape the violence or to seek help. There are many barriers to a woman's use of services (Landenburger, 1988), some of which can be exacerbated by the culture of her neighborhood (Greenleaf & Dugan, 1998; Sampson & Bartusch, 1998, 1999). Browning (2001) finds that neighborhood "norms of non-intervention in intimate conflict" correlate with collective efficacy. Conflict or territoriality among helping agencies can make it difficult for women to negotiate the system (Lane, Lucera & Ferrell, 2001). Moreover, informal relationships among neighborhood men can foster peer support for a batterer's violent behavior (Fagan, 1989; DeKeseredy,1990; Smith, 1991; DeKeseredy & Schwartz, 1993; Schwarz, *et al.*, 2001; Godenzi, *et al.*, 2001). Fear of "what the neighbors will think" can dissuade neighbors from offering acceptance and support to a woman experiencing abuse (Paquin, 1992; O'Neil, 1979). When "legal cynicism" prevails in a neighborhood's culture, residents may hesitate to turn to formal sources for help with a "private" problem (Sampson & Bartusch, 1999). Thus, just as social capital can have a circular relationship with levels of street crime (Rosenfeld & Messner, 1999), it is possible that a tightly-knit neighborhood culture may increase a woman's difficulty in escaping a violent situation.

Though many agree that analysis of the contextual effect of the community on an abused woman's help-seeking and on violence reduction is sorely needed (Diez-Roux, 2001, 1997; Miles-Doan & Kelly, 1997; O'Campo, *et al.*, 1995), such an analysis is not simple. It requires longitudinal data on women being physically abused by an intimate partner, not only the standard demographics and mental and physical health data, but also on the characteristics and timing of violent incidents; the abuser's controlling behavior, stalking and harassment; her attempts to leave the relationship and the outcome; her children and household arrangements; her informal social support network and access to resources; and the kind of help she has sought from informal and formal sources. It also requires data on the efficacy and capacity of the neighborhoods where each woman lives. Together, the Chicago Women's Health Risk Study (CWHRS) and the Chicago Alternative Policing Strategy (CAPS) Evaluation can provide this information.

SECONDARY DATA ANALYSIS OF TWO DATASETS

The Behind Closed Doors study linked two unique Chicago datasets, one collected by the Chicago Women's Health Risk Study and containing data from two or three extensive interviews for 497 physically abused women, and one collected by the CAPS (Chicago Alternative Policing Strategy) Evaluation and containing citywide survey data across many years plus community characteristics. For a sample of women gathered as part of the Chicago Women's Health Risk Study, we placed each woman in a neighborhood by matching her address to the community in which she lived, and then used community, police and Census data from the CAPS Evaluation to provide contextual information about that neighborhood. This made it possible to look at the degree to which specific aspects of the community enhanced or detracted from a woman's formal or informal help-seeking and whether the violence ceased.

CHICAGO WOMEN'S HEALTH RISK STUDY

The Chicago Women's Health Risk Study (CWHRS) was designed to give nurses, beat officers and other primary support people information they need to know in order to help women who are experiencing violence at the hands of an intimate partner lower the risk of life-threatening injury or death. Previous research did not provide this practical information. The purpose of the CWHRS was to identify factors indicating significant danger of life-threatening injury or death in situations in which an intimate partner is physically abusing a woman. The CWHRS accomplished this by conducting a study that compared longitudinal data on abused women with similar data on women who had been killed by or who killed her intimate partner.

The CWHRS was designed around comparison of a "homicide sample" of all intimate partner homicides involving a woman that occurred in Chicago over a two-year period, and a "clinic/hospital sample" of detailed, longitudinal interviews with women sampled as they came into hospitals and clinics in Chicago neighborhoods where the risk for intimate partner violence was high. The Behind Closed Doors study was based on secondary data analysis of the clinic/hospital sample only.

For the clinic/hospital sample, the CWHRS conducted domestic violence screening with 2,616 women as they came into a hospital or health care clinic for any kind of treatment (see Appendix I). Given as part of the clinic or hospital routine, the screening included three short questions: current violence, current sexual abuse, and whether she was afraid to go home. The CWHRS attempted to interview all women aged 18 or older who were in a current relationship who answered "yes" to at least one screening question, and 30% of women aged 18 or older who were in a current relation-

ship and did not answer "yes" to any of the screening questions. Of the 705 women interviewed, 497 had experienced at least one incident of intimate partner violence in the past year.

CWHRS screening sites included the Roseland Health Center of the Chicago Department of Health, Erie Family Health Center, and Cook County Hospital. The staff of each site, and the separate clinics or practices within each site, worked hand-in-hand with the interviewers and project staff to ensure that safety and privacy standards were upheld. So that high-risk but understudied groups would not be excluded from the CWHRS sample, such as women who were at high risk but who were not known to be at risk by any helping agency, the CWHRS collaborators designed instruments and procedures to minimize selection bias. In addition, two-thirds of the 497 women were re-interviewed at least once over the following twelve months.

Interviews covered demographics; household composition; physical health; pregnancy; substance use; mental health (depression, anxiety and post-traumatic stress disorder); firearm availability; social support network; the partner's power, control, harassment or stalking; and interventions and help-seeking. The questionnaires and other study instruments were developed over many months of intense work by members of the collaborating team. Advocates, activists, community members, academics and researchers all took an active role in finding, evaluating and devising scales for the various dimensions the study hoped to capture. The Spanish translations were done by community members (the Erie Site Advisory Board) and by two members of the collaborative team. Though the process was time-consuming, it produced translations that were correct and culturally sensitive to Latina/Hispanic women from different countries of origin.

Some of the issues covered by the CWHRS related to highly sensitive topics, and women from different cultural backgrounds might have different perceptions of these sensitive issues. Therefore, the collaborators spent a great deal of effort to word questions, and to provide a context for those questions, that would encourage women to disclose personal and sensitive experiences, to keep the questionnaire short enough so that the woman would not be fatigued, and to build in enough flexibility to encourage a natural flow of talk.

In the initial interview, CWHRS women developed a "calendar history" of every violent incident and other important events that had happened in the past year. In each follow-up interview, woman developed a calendar history for the period from the last interview to the follow-up. The 497 women told CWHRS interviewers about 4,976 incidents in the past year. The number of incidents per woman ranged from only one (29%) to 172 (one woman), with 23% of the women having experienced ten or more in the past year. The most severe incident was a threat for 5% of the women, and slapping, pushing or throwing something with no injury for 23%. However, almost half (49%) had suffered at least one incident the CWHRS defined as "severe or life threatening" (permanent injury, being completely "beaten up," being choked or burned, internal injury, head injury, broken bones, or a threat or attack with a weapon). Of the 323 re-interviewed women, 46% did not experience any violence or threat of violence at the hands of an intimate partner in the follow-up period, 25% experienced at least one violent incident but not a severe incident, and 29% experienced at least one severe or life-threatening incident.

In the CWHRS, questions about the abusing intimate partner reflected the complexity of women's lives, and did not assume that the woman's current partner and the

abusing partner were the same person. For 74 of the 497 women (15%), her current partner (the one she was "closest to") had not been violent towards her in the past year, but another intimate partner or former intimate partner had been violent. In addition, 33 of the 497 women (7%) had experienced violence at the hands of more than one intimate partner in the year prior to the initial interview. The interviewer asked these women to choose one abusing partner to talk about in detail, and variables such as relationship and living arrangements in the Behind Closed Doors study refer to this chosen person.

For 145 of the 173 women who experienced violence or the threat of violence at the hands of an intimate partner during the follow-up period, the abuser on follow-up was the same person as the abuser at the initial interview. Twenty of the 145 women experienced violence at the hands of the original abuser plus another intimate partner during the follow-up period. For 23 women, the abusive partner during the follow-up period was a different person than the original abuser, and for five women the CWHRS did not identify who the abuser was at follow-up.

CHICAGO ALTERNATIVE POLICING STRATEGY (CAPS) EVALUATION

A process and impact evaluation of CAPS (Chicago Alternative Policing Strategy), one of the largest community policing initiatives in the country, has been funded by ICJIA (1997), the McArthur Foundation, the Bureau of Justice Assistance and the National Institute of Justice since 1993 (CCPEC, 1994, 1995, 1996, 1997, 1999). The evaluation, led by Wesley Skogan, is being conducted by a consortium of researchers at Loyola University Chicago, Northwestern University, DePaul University and the University of Illinois at Chicago (Skogan & Hartnett, 1997b; Hartnett & Skogan, 1999).

The Behind Closed Doors study used two kinds of data that were assembled or created for the CAPS Evaluation (see Appendix II): 1) a database that includes Census data, crime indicators, neighborhood disorder data, and many indicators of community participation for each of the city's 278 Police Beats, and 2) neighborhood collective efficacy and community capacity data from citywide surveys conducted annually since 1993 (Skogan, *et al.*, 2000).

From its inception, the CAPS Evaluation methodology included an important geographic component (CCPEC, 1994:25-28). Information from a number of sources, including the Census, police reports, traffic, schools, and housing, was geocoded into area boundaries that were consistently maintained throughout the evaluation period, and the datasets collected by the evaluation were also geocoded into the same boundaries. After seven years of data compilation, this continuing process has produced a large, unique and invaluable resource.

The CAPS Evaluation conducted citywide random-digit dialing surveys in English or Spanish. Because the residential address of each CAPS Survey respondent could be geocoded, CAPS Survey data are available for almost all larger areas (such as Chicago Community Areas or Police Districts) and for many smaller areas (such as Police Beat).[2] (See Appendix III.) The aggregation of individual respondents across survey years was possible, because each annual CAPS Survey was based on an independent city-wide random-digit-dial sample. In total, there were 8,145 respondents to the three surveys in 1997, 1998 and 1999 (Skogan & Hartnett, 1997a).

The CAPS Evaluation Surveys are the source for three of the four Community Context indicators used in the Behind Closed Doors study, Informal Social Control, Organi-

[2]For example, 3,066 adult Chicago residents were interviewed in 1997, a 48% response rate.

zational Involvement, and Station Protest (one of the Downtown Connections indicators). The second Downtown Connections indicator, Voter Turnout, is one of the area-level variables assembled in the CAPS Evaluation geographic datasets. All of the area-level control variables are also from the CAPS Evaluation datasets.

RESEARCH METHODOLOGY

The unit of analysis of the Behind Closed Doors study is the individual abused woman, not the neighborhood. The study takes the point of view of a woman standing at a street address and looking around her. The characteristics of the small geographical area immediately surrounding her residential address form the Community Context for that woman. Although some women live in the same neighborhood as each other, or in neighborhoods with similar Community Contexts, each woman responds to that context in a unique way, depending on her individual situation.

We want to know whether the context of the neighborhood where an abused woman lives makes a difference, over and above her individual situation, in whether or not she is able to escape the violence. There are, therefore, two chief methodological issues in this study – how to place each woman in her residential neighborhood, and how to measure the multitude of variables that could be related to the woman's experience of violence in the future. This section covers these methodological issues.

PLACING EACH SAMPLED WOMAN IN HER RESIDENTIAL NEIGHBORHOOD

To link each woman to the community where she was living at the initial interview, we geocoded her residential address (determined its longitude and latitude). It was then possible to overlay the woman's geocoded address on a Chicago map

showing various area boundaries, such as Chicago Community Areas, Census tracts, Census block groups, Chicago Police Districts, or Chicago Police Beats. Therefore, we could determine the area where each woman was living at the initial interview, for a large variety of alternative area definitions. As a result, the Behind Closed Doors study had a wide choice of definitions for "residential community."

How is the Woman's Residential Community Defined?

After a careful review of the quality of data available for a number of alternatives, we chose the Police Beat, the smallest geographical administrative unit in the Chicago Police Department, as the definition of a woman's residential community in the Closed Doors Study. The 278 Chicago Police Beats contain an average of 1.5 square miles and had an average of about 10,000 residents in 1990. The most populous Police Beat in 1990 contained 24,947 people.

There were three reasons for this decision. First, the 278 Chicago Police Beats are much smaller geographic areas than the 71 Chicago Community Areas or the 24 Police Districts.[3] Smaller areas are likely to be more homogeneous than larger areas. Therefore, we can be more certain in making the assumption that beat-level measures of Community Context apply to all parts of a beat, than we would be about making the same assumption for a Community Area or Police District. Second, unlike the 869 Census tracts, the drawing of Police Beat boundaries takes into account the historical and social neighborhoods in Chicago, as well as natural barriers such as main streets or waterways. Third, more data are available at the Police Beat level than at the Census

[3]Although there are 279 Chicago Police Beats, one of the beats is not a geographical area but rather a place for the Police Department to record events that occur outside of the Chicago city limits. Thus, there are 278 beats in Chicago.

tract or block group levels. U.S. Census block data can be aggregated to the Police Beats, but Police Beat data cannot be disaggregated to Census tracts.

For three variables and 29 women, there was an exception to the use of Police Beat. These three variables were based on the CAPS Evaluation Survey data, and the number of CAPS Survey respondents was too small for reliable estimates in 18 Police Beats, where 29 women lived. (We considered "too small" to be fewer than ten CAPS Survey respondents over the three-year period. See Appendix III.) For these women, we used CAPS Survey data aggregated across a slightly larger area, the three to five contiguous beats comprising a Police Sector, for the three variables.

In placing a woman in her neighborhood, the Behind Closed Doors study takes the point of view of a woman standing at an address and looking around her. In using Police Beat as her Community Context, we assume that such a woman potentially could perceive characteristics of her neighborhood as they were perceived by those respondents to the CAPS Evaluation surveys who lived in the same beat. For the 29 women living in the 18 beats in which the number of survey respondents was too small for beat-level averages to be reliable, we substituted the next-best indicator for the three variables taken from the CAPS Survey. The woman is still standing at her address, but looking out at a slightly wider area, the Police Sector.

Who Are the Sampled Women?

The sample in the Behind Closed Doors study includes those women who had been identified in the Chicago Women's Health Risk Study as having experienced physical violence at the hands of an intimate partner in the previous year, who had a Chicago residential address at the initial interview, and who had been re-interviewed at least once in the CWHRS follow-up.

Of the 497 women initially interviewed in the CWHRS, 27 were eliminated from the Behind Closed Doors Study because they had not experienced physical violence in the past year (though they had been threatened with violence), and four women were eliminated because they had not completed a calendar history for the previous year. This left 466 women who were known to have been physically abused by an intimate partner in the previous year.

Because the purpose of the Behind Closed Doors study was to examine the contextual effects of the woman's neighborhood on future violence, it focused only on the women who completed at least one follow-up interview. Analysis of the complete CWHRS data set (Block, 2000: 93-95) showed that the women who were not followed-up did not differ significantly from the women who were followed-up in any demographic characteristic, or in the nature of the violence in the past year. They did differ in one way, however. Women who were homeless or living in a group home or institution at the initial interview were significantly less likely to complete a follow-up interview.

Address at the Initial Interview

Because of safety considerations, the CWHRS allowed women to provide several different kinds of address. At the end of the initial interview, the interviewer asked each woman for permission to contact her later for a follow-up interview. The 491 women who gave their consent were asked "the best address or way to contact" her. Specifically, each woman was asked the following question:

> If we send you a letter, would it be safe and private to send it to the address where you are currently living? Please give me the best address or way to contact you now.

If a woman said that it would not be safe to contact her at the address where she was living, she was asked if there was another "safe address" where she could be contacted. Each of the consenting women was also asked for the address or addresses of a person or people who would always know how to contact her:

> Is there anyone who will always know where you are, and who we can contact if we cannot reach you?

Thus, the CWHRS collected a variety of types of address information. For example, a woman might not provide her own address, but might say that she could be contacted through her mother and give her mother's address. In all, 296 women provided their own address at the initial interview. Sixteen other women were living in a shelter or treatment center at the initial interview but gave their home address; 34 were living in a shelter or treatment center, and did not provide their home address. Twenty-five women provided their address at the first follow-up interview but not at the initial interview, 26 women provided a "safe address" (not necessarily their own address) for follow-up contact, two women gave a safe address at the first follow-up, 32 women gave an address of a safe contact person who would know where they were, 21 women gave only a telephone number or a PO Box address for themselves, eight women gave only a telephone number for a safe contact person, and seven gave no contact information at all. Of the women who provided any address, 27 gave addresses that were not in Chicago.

For the Behind Closed Doors analysis, we made a conservative decision about the woman's address, and included only those 312 women who had provided their address at the initial interview, or who were temporarily living in a shelter or treatment center and provided their home address. We also eliminated the 18 women among the 312 whose address was not in Chicago, leaving 293 women who had provided a Chicago residential

address at the initial interview. To check for sample retention bias, we mapped and compared the spatial patterns of the addresses provided by women under each of the above definitions, and found no difference. In addition, we conducted a comparative analysis of the women with addresses that could be used for this study and other women who did not. There is no difference between the two groups in their demographic characteristics, nor in the type of violence they had experienced.

Of the 293 women with information on their Chicago residential address at the initial interview, the CWHRS completed at least one follow-up interview with 210. Of the 83 women who were not followed-up, one woman did not consent, three were incarcerated, one was interviewed but the woman was very confused and incoherent and the interview was dropped, and the remaining 78 women could not be found for a follow-up.[4] The 210 CWHRS women who had experienced violence at the hand of their intimate partner in the past year, who provided a Chicago residential address at the initial interview, and who completed at least one follow-up interview constituted the sample for the Behind Closed Doors study.

Independence of Area Variables Across Women

The addresses of the 210 women in the Behind Closed Doors sample are somewhat concentrated around the locations of the clinics and hospital where the woman was interviewed, but otherwise dispersed throughout the city. At least one woman was living in 123 of the 278 Chicago Police Beats. There is one woman in each of 75 beats, two women in each of 30 beats, three women in eight, four women in five beats, seven women in one beat, and nine women in one beat. The 136 African/American/Black

[4]Because of the sensitive nature of the CWHRS, it is very possible that some women gave false addresses in the interview. It seems reasonable to assume, however, that many of these women were included in the women who could not be found for a follow-up interview, and therefore, not in the 210 women in the Behind Closed Doors sample.

women in the Behind Closed Doors sample were dispersed across 81 different beats, with 50 beats having one women, 20 having two, three having five, two having four, two having five, one having six, and one having seven. The 58 Latina/Hispanic sampled women were dispersed across 39 different beats, with 27 beats having one sampled woman, eight beats having two, two beats having three, one beat having four and one beat having five. The 16 other women were dispersed over 15 different Police Beats, with two women living in one of the beats and one woman living in each of the other 15 beats.

For those women who lived in the same Police Beat as each other at the initial interview, all of the beat-level data are the same. This could present a challenge to the independence of the beat-level Community Context data across the 210 women, but there are two mitigating factors. First, all of the outcome variables are individual-level. Because the possible lack of independence is only in the beat-level variables, any problem would exist only on one side of the equation, not on both sides. Second, the 210 women are not clustered in a few Police Beats, but scattered across 123 different beats. If there is a problem with independence, the problem could apply only to the 135 women who share a residential beat with at least one other woman, and the problem would be greatest for the seven women living in one of the beats and the nine women living in another beat.

To investigate the degree to which the beat-level Community Context and control variables were not independent for these seven and nine women, due to their shared environment, we examined the difference in the mean for all beat-level variables for the seven women in a single beat, the nine women in a single beat, and the other 194 women. The Police Beat where seven women lived was significantly lower in its assault

rate and drug offense rate, compared to the mean of the beats where the other 194 women lived, but there was no difference for the Police Beat where the nine women lived. The Police Beat with seven women was significantly higher on all beat indicators of neighborhood "stress" (higher public aid, fewer housing units owned, more units vacant, more land parcels vacant, higher poverty of women) compared to the beats where the other 194 women lived, while the Police Beat with nine women had significantly lower stress on all these indicators except Poverty of Women (which was significantly higher). The Police Beat with nine women was much higher on all four Community Context causal variables, and the beat with seven women was slightly but significantly higher on the Informal Social Control scale and lower on the Organizational Involvement scale.

This analysis indicates that there may be some problems with the independence of beat-level variables for these seven and nine women. As a precaution, therefore, we re-calculate all of the regressions in the Behind Closed Doors analysis with a reduced sample, eliminating these 16 women. In some cases, there are slight differences in the results for all 210 women and for the reduced sample.

Women Who Moved

In a population of physically abused women such as the CWHRS sample, it is not surprising that a woman's residential address might change, or that a woman would be living temporarily in a shelter, a group home, or with a friend or relative during some of the previous year or the follow-up period. It seems reasonable to expect that whether or not a woman moved (changed her residential address) after the initial interview may confound any analysis of the effect of the Community Context of her residential neighborhood on her follow-up abuse.

This could happen for several reasons. First, an abused woman may move because of the abuse. Second, the move may involve leaving or trying to end her relationship with the abuser, which may increase or decrease her probability of experiencing violence in the future (see Block, *et al.*, 2000). Third, women who move might be less connected to the residential neighborhood where they were living at the initial interview, than women who did not move. Therefore, we compared the two groups to determine if there were any systematic differences.

One of the questions in the CWHRS follow-up interviews was, "Are you still living in the same place you were at the last interview?" Women who said they were not living in the same place were asked, "Why did you move?" and "When did you move?" In addition, the follow-up interview asked each woman for her current address. Of the 210 women in the Behind Closed Doors sample, 78 (37%) had moved after the initial interview, most (59%) within six months of the interview date. The most common reasons women gave for moving were to escape from the abuser (18 women), being forced to leave (couldn't afford the old apartment, the landlord kicked her out, the place burned down, the building was sold) (16 women), wanting her own place (eight women), or wanting a better apartment (five women). Five women either moved to or back home from a treatment center or shelter. Only three of the 78 women specifically mentioned the neighborhood or area as being the reason she moved.

To determine whether there is any systematic difference between women who moved and women who did not, we conducted a number of comparisons between the two groups. African/American/Black women were somewhat more likely to move (43%), compared to Latina/Hispanic women (33%) or to white or other women (17%), but the difference was not statistically significant. The 196 women who said that they had lived

in Chicago for more than two years were less likely to move (36%) than the nine women who had been living in Chicago two years or less (78%). The 36 women aged 21 to 25 were more likely to move (58%) than either the 40 younger women (30%) or the 129 older women (35%). There was no difference between women who had children and those who did not, nor between women who were pregnant and women who were not.

The only significant association between moving and any of 26 other individual-situation variables (for definitions, see below) is with her drug use. Of the 60 women who said that they had "ever had a problem with drugs," 52% moved after the initial interview, compared to 32% of the 145 women who said they had never had a drug problem (Chi square p = .010; Gamma = .381, p = .012).There is no association with any other variable, including the woman's education, employment, income, mental health, physical health, or informal social support network; the abusing partner's drug or alcohol use, prior suicidal threat or attempt; the length of the relationship; or indicators of the abuser's controlling behavior, harassment, or stalking.

There are some significant relationships between moving and certain indicators of violence in the past year. While neither the number of abuse incidents in the past year nor the maximum severity of those incidents is correlated with moving, the recency (number of days) of the most recent incident before the initial interview is correlated with whether or not she moved ($r = .162$, $p < .05$). The 66 women who said that the violence "increased in severity" over the past year were more likely to move (55%) than the 138 other women (30%) (Chi square p = .001; Gamma = .466, p = .001). The 91 women who said her partner is "violent outside of the home" were more likely to move (47%) than the 108 other women (31%) (Chi square p = .016; Gamma = .341, p = .015).

Most importantly, there is no relationship between whether or not the woman moved after the initial interview and any of the Community Context causal or control variables (for definitions, see below). The highest correlation for any of these is essentially zero (r = .036). Neither is moving associated with any of the future-violence outcome variables, cessation of violence on follow-up, the number of violence-free days, or severity of follow-up violence. For example, 60% of the women who had moved experienced a violent incident on follow-up, almost the same (57%) as for women who had not moved.

There is also no relationship between moving and the woman's help-seeking activities in the past year. Women who had talked to someone, had seen a counselor, or had contacted the police, were equally likely to move as women who had not. For the 96 women who had experienced severe or life-threatening violence in the previous year, those who had sought medical care were just as likely to move (44%) as those who had not (46%). However, for the 114 women who had experienced less severe violence, the 15 who had sought medical care were more likely to move (67%) than the 99 women who had not (28%).

Of these numerous comparisons, only a few indicate that the situation of the CWHRS women who moved is systematically different in any way from the situation of the women who did not move. However, to be sure that we account for any possible confounding effect that "moving" might have on the results of the Behind Closed Doors analysis, we re-calculate all of the regression analyses using a sample restricted to the 127 women who had not moved.

Summary

The central question of the Behind Closed Doors study is whether the Community Context of the neighborhood where an abused woman lives makes a difference, over and above her individual situation, in whether she is able to escape the violence. The unit of analysis in the study is the 210 CWHRS women who had experienced physical violence at the hands of an intimate partner in the previous year, who provided their Chicago residential address at the initial CWHRS interview, and who had been interviewed at least once in the follow-up period.

Though residential neighborhood is not the unit of analysis, the characteristics of her neighborhood define the Community Context for each woman. The Behind Closed Doors study is not interested in comparing neighborhoods, but rather in looking at the possible effect of the neighborhood on the experiences of these sampled women. To place each sampled woman in her residential neighborhood, we located her address within one of the 278 Chicago Police Beats. We chose the Police Beat as the best definition of a woman's "community," because it is the smallest Chicago area for which reliable data are available. The characteristics of her Police Beat then became the Community Context for each woman. (For three variables and 29 women, Police Sector Community Context data were used instead of Police Beat.)

Of the 210 women in the Behind Closed Doors sample, 78 moved away from the address where she had been living at the initial interview, at some time during the follow-up period. To investigate the possibility that moving may confound the results of the Behind Closed Doors study, we compared the characteristics of women who had moved and women who had not, and found that the two groups were similar on almost every variable. However, in case there might be any systematic difference in the multi-

variate analyses, we still conducted separate regressions limited to the women who had not moved.

MEASURES OF COMMUNITY CONTEXT VARIABLES

The Behind Closed Doors study was designed to examine the effect of community capacity and collective efficacy in the neighborhood where an abused woman lives on her help-seeking activities and the likelihood that violent incidents stopped or declined in frequency or severity. The "community where an abused woman lives" was defined as the Police Beat in most cases (see above and Appendix III). Thus, the general characteristics of the Police Beat where the woman was living at the initial interview provide the Community Context data for the analysis.

Community Context data include the collective efficacy and community capacity indicators that are the focus of this study, plus indicators of other aspects of the community that may be associated with the woman's experience (community control variables). As Lederman, Loayza and Menendez (2000) point out in a cross-cultural study, there are many components of social capital, some of which are more closely associated with violent crime than others. The Behind Closed Doors study considers three components of collective efficacy and community capacity -- Informal Social Control, Organizational Involvement, and Downtown Connections. The first of these components corresponds roughly to what Rosenfeld, Messner and Baumer (2001) call "social trust," and the latter two correspond to what they call "civic engagement."

Informal Social Control focuses on the degree to which individuals are a neighborhood resource for solving problems; Organizational Involvement focuses on the degree to which neighborhood organizations, such as churches, school councils, block clubs, or

other neighborhood groups are a resource for solving problems; and Downtown Connections focuses on the degree to which the neighborhood can call on city-wide resources. There are two indicators of Downtown Connections, Voter Turnout and willingness to protest a station closing (Station Protest). Community Context control variables include rates of violent crime and drug-related offenses, household poverty, poverty of women, resident-owned housing, vacant housing, vacant lots, and population increase or decline.

The source of data for three Community Context variables (Informal Social Control, Organizational Involvement, and Station Protest) is a series of annual city-wide surveys conducted by CAPS Evaluation researchers (Skogan, *et al.*, 1999, 156-189; 2000). The source of data for Voter Turnout and all other Community Context variables is a dataset compiled at the Police Beat level from numerous sources by CAPS Evaluation analysts. This section outlines the definition and measurement of each of these community-level variables. (See Appendix III for more detail.)

Informal Social Control

Informal Social Control is an indicator of the degree to which individuals in the neighborhood are willing to "stick up for" each other and solve problems. In a cross-cultural study, Lederman, Loayza and Menendez (2000) found that "only the component of social capital measured by *trust on community members* has the effect of reducing the incidence of violent crimes." Analogous to "collective efficacy" (Sampson, Raudenbush & Earls, 1997; Sampson, 1997), the measure of informal social control in the Behind Closed Doors study is based on the answers of CAPS Survey respondents to three questions about whether they could count on their neighbors to watch out for trouble and to help out if necessary (see Appendix III): whether the CAPS Survey respondent thought it was likely that neighbors would intervene to stop teens from

harassing an elderly person, it was likely that neighbors would intervene to break up a fight outside of the respondent's home, or it was likely that neighbors would intervene to stop children from writing graffiti on a building.

A summary variable, "Strength of Informal Social Control," was calculated for each CAPS Survey respondent by averaging the respondent's answers to the three questions (see syntax, Appendix III). The "Informal Social Control" score of the residential neighborhood of each of the 210 women in the Behind Closed Doors sample was the average "Strength of Informal Social Control" score for all the CAPS Survey respondents, for the three years from 1997 to 1999, in that neighborhood. As discussed above, in the three Community Context variables based on CAPS Survey data, the neighborhood was the Police Beat, provided that there were at least ten survey respondents over the three years.

For 29 of the 210 women in Behind Closed Doors sample, those who lived in the 18 Police Beats with fewer than ten CAPS Survey respondents, we calculated the average of CAPS Survey respondents over a slightly larger area, the Police Sector. The Police Beats with more than ten CAPS Survey respondents (where 181 Behind Closed Doors women lived), had an average of 30 CAPS Survey respondents per beat, and a maximum of 94. In the Police Sectors used for the other 29 Behind Closed Doors women, there was an average of 73 survey respondents per sector, and the number ranged from 36 to 125.

The maximum possible Informal Social Control score for a neighborhood was 4.00. For the 210 women in the Behind Closed Doors study, the neighborhood Informal Social Control scores ranged from 1.92 to 3.69, with mean 3.03 and median 3.02. The distribution was fairly normal, although the Police Beat with a score of only 1.92 was a low–end outlier (only one woman lived in that beat). The next-lowest score was 2.43. Twenty-five percent of the women had scores of 2.82 or lower, and 25% had scores of 3.22 or higher. In the

beat where nine women lived, the Informal Social Control score was 3.51; in the beat where seven women lived the score was 3.33.

Organizational Involvement

Organizational Involvement is an indicator of the degree to which neighborhood organizations are a resource for solving problems (Skogan, *et al.*, 1999: 158-160). Like Informal Social Control, it is an indicator of neighborhood collective efficacy, but Organizational Involvement measures more formal relationships among neighbors. When neighbors join together in interlocking networks of neighborhood memberships, they can share information and pool their resources for solving problems. In addition, when neighborhood-based organizations have a large and active membership, they are more capable of obtaining scarce resources for the community. Thus, Organizational Involvement captures an aspect of collective efficacy that is similar to the concept of neighborhood "social capital" (Coleman,1988, 1990) as seen by Robert Sampson, a "social good embodied in the relations among persons and positions" (Sampson, 1999: 255).

The CAPS Evaluation asked survey respondents a series of questions (Appendix III) about their involvement in four different kinds of organizations located in their neighborhood — a "neighborhood watch group or citizen patrol," the "PTA or Local School Council," a "church or synagogue," and a "block club or community organization." The individual person's score was a count of "yes" responses to the four organization types. To be counted, the organization had to be located in the survey respondent's neighborhood. Survey respondents' scores could range from zero to four neighborhood organizational types.

As with Informal Social Control, the neighborhood's Organizational Involvement was the average of the scores for the CAPS Survey respondents surveyed in that Police Beat

(or Sector) over three years. Though the range of possible Organizational Involvement scores was from zero to four, actual scores tended to be low. For 155 of the 210 women (74%), the Organizational Involvement score for their neighborhood was one organization or fewer. This low pattern was consistent with the citywide findings of the CAPS Evaluation Survey (Skogan, *et al.*, 1999:158-161).

Organizational Involvement scores range from 0.00 (for two women living in the same beat) to 1.82 (for five women living in the same beat), with mean 0.836 and median 0.845. The distribution is fairly normal, but there are two peaks, one around 0.5 and the other around 1.0. Twenty-five percent of the women have scores of 0.55 or lower, and 25% have scores of 1.06 or higher. In the beat where nine women lived, the Organizational Involvement score is 1.19; in the beat where seven women lived, the score is 0.57.

For the 210 women In the Behind Closed Doors study, the Informal Social Control scale of the area where she lived at the initial interview is significantly correlated with the Organizational Involvement score of that area ($r = .296$, $p < .001$). The 54 women who lived in a neighborhood with an average Organizational Involvement score higher than 1.0 are more likely (43%) to have lived in a neighborhood with a high score on the Informal Social Control scale (3.25 and higher). In contrast, only 13% of the other 156 women, who lived in one of the 94 beats with an Organizational Involvement score of 1.0 or lower), lived in a beat with a high Informal Social Control scale score.

This differs for women of different racial/ethnic groups. The correlation between her neighborhood's Informal Social Control and her neighborhood's Organizational Involvement is significant only for the 136 African/American/Black women ($r = .295$, $p < .001$). Although there were only 13 white or other women, and, therefore, the correlation is not

statistically significant, it is in the same direction (r = .404). However, for the 57 Latina/ Hispanic women, the correlation (r = -.033) is not significant.

Downtown Connections

A third aspect of collective efficacy is the neighborhood's ability to access city-level resources. To solve problems, a neighborhood must rely not only on collective individual and neighborhood resources, but also on resources from outside the neighborhood (Bursik & Grasmick, 1993). Paternoster and Bachman (2001: 121) call this type of community capacity "public control," and define it as the

> capacity of the neighborhood to successfully secure goods and services from larger political entities (for example, city government) that will directly benefit them.

Neighborhoods with "clout" can mobilize outside resources to help their area. With their Downtown Connections, they can make sure that the city does not allow the streets to deteriorate, garbage to pile up, or abandoned buildings or cars to remain. Neighborhoods with lower levels of Downtown Connections may suffer higher levels of disorder (Skogan, 1990) and more opportunities for crime (Kelling & Coles, 1997; Bursik & Grasmick, 1993). Neighborhood residents may come to believe that they have been abandoned by city government (Alvi, *et al.*, 2001).

The CAPS Evaluation compiled three sources of information to assess the level of Downtown Connections enjoyed by a neighborhood: the voter turnout rate, responses to a survey item asking whether neighbors would organize to keep the local police station open if the city threatened to close it, and a field research rating. The CAPS Evaluation field research rating was not available for the Behind Closed Doors Study, because it was

conducted only in selected beats. The Behind Closed Doors study, therefore, used Voter Turnout and Station Protest.

The measure of Voter Turnout was the number of voters in the Police Beat in the 1995 general mayoral election, as a proportion of the population aged 18 or over. Because it is not based on the CAPS Survey, Voter Turnout data are at the Police Beat level for all 210 women.

For the 210 women in the Behind Closed Doors study, Voter Turnout ranges from 5.95% (one woman) to 74.28% (one woman), with mean 28.1% and median 25.4%. Both the two lowest and the two highest extremes are outliers. The second-lowest Voter Turnout is 7.85%, but the third-lowest is 10.85%. The second-highest Voter Turnout is 63.67%, but the third-highest is 51.52%.The distribution is skewed to the low side, even when these four extreme cases are eliminated. Twenty-five percent of the women lived in a Police Beat with a Voter Turnout of 20.17% or lower, and 25% lived in a Police Beat with a Voter Turnout of 34.96% or higher. In the beat where nine women lived, the Voter Turnout is 46.31%; in the beat where seven women lived, the Voter Turnout is 22.41%.

Station Protest was measured by CAPS Survey respondents' answers, on a four-point scale from "very likely" to "very unlikely," to the following question:

> Suppose that because of budget cuts the police station closest to your home was going to be closed down by the city. How likely is it that neighborhood residents would organize to try to keep the police station open? (Would you say it is . . .)

The range of possible Station Protest scores is 1.00 to 4.00. For the 210 women in the Behind Closed Doors study, the Station Protest scores in their neighborhood range from 1.80 (one woman) to 3.78 (two women living in two separate beats), with mean 3.24

and median 3.26. The low score is an outlier. The second-lowest score is 2.50 (two women living in the same beat). The third-lowest score is 2.71 (one woman). Aside from these outliers, the distribution is fairly normal but the range is limited. The lowest 25% of the women have scores of 3.09 or lower, and the highest 25% have scores of 3.40 or higher. In the beat where nine women lived, the Station Protest score is 3.57; in the beat where seven women lived, the score is 3.29.

Voter Turnout and Station Protest seem to be capturing different aspects of Downtown Connections. They are significantly, but not strongly, correlated with each other ($r = .331$, $p < .001$). This correlation was consistent for the 136 African/American/Black women ($r = .395$, $p < .001$), but did not reach statistical significance for the 57 Latina/Hispanic women ($r = .227$, $p = .09$), or for the 13 white or other women.

The correlations between her neighborhood's Informal Social Control and the two measures of Downtown Connections are consistently strong ($r = .527$, $p < .001$ for Voter Turnout, and $r = .579$, $p < .001$ for Station Protest), for all the 210 women and for women of each racial or ethnic group. For African/American/Black women, the correlations are .547 ($p < .001$) for Voter Turnout and .639 ($p < .001$) for Station Protest. For the 57 Latina/Hispanic women, the correlations are $r = .313$ ($p < .02$) and $r = .339$ ($p < .01$), respectively. For the 13 white or other women, neighborhood Informal Social Control is not correlated with voter turnout ($r = .093$), but is significantly correlated with Station Protest ($r = .721$, $p = .005$).

Organizational Involvement is correlated with Voter Turnout ($r = .479$, $p < .001$), but not with Station Protest. The pattern for the 136 African/American/Black women is similar ($r = .368$, $p < .001$ for Voter Turnout, but nonsignificant with Station Protest). For the 57 Latina/Hispanic women, neither correlation is statistically significant, but the correlation

with Station Protest approaches significance (r = .251; p = .06). There is no association for the 13 white or other women.

Community Context Control Variables

Community Control factors are all defined and measured for Chicago Police Beats. Data were provided by the CAPS Evaluation Project, and had been compiled from U.S. Census data, Chicago Police Department Data, land use data from the Sanford files, and Cook County Department of Public Aid data. Data pertaining to a specific address were aggregated within Police Beat boundaries. These Community Control variables include the following:

1. Assault Rate: Rate per 10,000 population of Index Assault offenses(known to the police), averaged across 1995 and 1996 for each Police Beat.

"Index Assault" is an act of physical violence, armed or unarmed, against another person, or the treat of armed violence.[5] There are many possible avenues by which the assault offense rate in a woman's neighborhood might be correlated with the outcome variables of the Behind Closed Doors study. For example, a high rate of violence in neighborhood streets and homes may deter neighbors from intervening or "looking out for" a woman experiencing abuse, because neighbors may fear retaliation (Paquin, 1992). The woman herself, living in a high-violence neighborhood, may seek protection from the street violence by isolating herself at home and not venturing out to seek help for intimate partner violence. In addition, abusers living in a high-violence neighborhood may be more likely than abusers living in a low-violence neighborhood to receive peer support for their violent acts against an intimate partner (DeKeseredy, 1990; Smith, 1991; DeKeseredy & Schwartz, 1993; Schwarz, *et al.*, 2001).

[5]Chicago Police Department I-UCR Offense Codes from 0410 through 0560.

For the 210 women in the Behind Closed Doors study, the rate per 10,000 population of Index Assaults Known to the Police in the Police Beat where they lived at the initial interview ranges from 132.0 (one woman) to 3098.9 (one woman), with mean 778.9 and median 641.8. The highest rate is an extreme outlier, and the second- and third-highest rates are also outliers. The second-highest rate is 2359.7 (two women living in the same beat), and the third-highest rate is 2182.4 (two women living in the same beat). Aside from these outliers, the distribution is skewed to the low side, with two peaks, one around 400 (20 women) and the other around 500 (23 women). The lowest 25% of the women have community assault rates of 421.8 or lower, and the highest 25% have rates of 1011.6 or higher. In the beat where nine women lived, the Assault Rate is 513.7; in the beat where seven women lived, the rate is 1762.2.

2. Drug Offense Rate: Rate per 10,000 population of drug offenses (known to the police), averaged across 1995 and 1996 for each Police Beat.

The Drug Offense Rate variable includes offenses in which the primary offense type is the possession, manufacture or delivery of cannabis or a long list of "hard drugs."[6] Since very few of the drug offenses known to the police occur without an arrest, drug offense data are essentially drug arrest data. The drug arrest rate in a neighborhood is one indicator of "public disorder," which may be associated with a neighborhood's collective efficacy (Skogan, 1990; Bursik, 1986).

The rate per 10,000 population of Drug Offenses Known to the Police in the Police Beat where they lived at the initial interview ranges from 7.6 (one woman) to 2926.1 (three women living in the same beat), with mean 374.9 and median 182.1. The six women living in Police Beats with drug offense rates above 1500 per 10,000 population are outliers, and

[6]Chicago Police Department I-UCR Offense codes 1811 through 2120.

the rest of the distribution is strongly skewed to the low side. Twenty-five percent of the women lived in a beat with a drug offense rate of 100.5 or lower per 10,000 population, and 25% lived in a beat with a drug offense rate of 438.7 or higher. In the beat where nine women lived, the Drug Offense Rate is 121.1; in the beat where seven women lived, the rate is 1076.1. Women living in a Police Beat with a relatively high Assault Rate were also likely to be living in a Police Beat with a relatively high Drug Offense Rate ($r = .583$; $p < .001$). This is true for both African/American/Black women ($r = .513$, $p < .001$) and for Latina/Hispanic women ($r = .721$, $p < .001$).

3. Household Poverty: Percent of Police Beat Households receiving Public Aid.

The source of this variable is 1990 US Census block-level data, aggregated to Police Beat by CAPS Evaluation researchers. Such measures of area disadvantage may be related to levels of neighborhood violence (Joe, 1999; Kennedy, *et al.*, 1996). For the 210 women in the Behind Closed Doors sample, the percent of households that were receiving public aid in the Police Beat where they lived ranges from 1.8% (one woman) to 57.8% (two women living in the same beat), with mean 25.1% and median 21.2%. The distribution has two peaks, one around 15% (28 women) and the other around 50% (21 women). Twenty-five percent of the women lived in a Police Beat where the percent of households receiving public aid is 14.8% or lower, and 25% lived in a Police Beat where the percent is 40.0% or higher. In the beat where nine women lived, 15.4% of the beat residents were receiving public aid in 1990; in the beat where seven women lived, 50.8% were receiving public aid.

4. Poverty of Women.

While the percent of Police Beat households receiving public aid may be an indicator of general disadvantage at the household level in the woman's neighborhood,

another Community Context control variable focuses specifically on the poverty of women. The CAPS Evaluation "poverty of women" scale combines three indicators of the level of financial stress or insecurity that women in the neighborhood are experiencing – women on public aid, female family heads, and women with low or "nontraditional" income. "Nontraditional income" is investment income or self-employment income (Nelson, 1999), as opposed to wage or salary employment. The three indicators are measured at the Police Beat level, then combined by first calculating the F score for each area on each indicator, and then combining the three standardized scores. Therefore, the Poverty of Women score of a Police Beat could be less than zero. Such a score would indicate "lower than average" poverty of women in a neighborhood.

Poverty of Women ranges from -1.4 (one woman) to 2.3 (one woman) in the Police Beats where the 210 women lived, with mean 0.37 and median 0.47. The distribution "piles up" at the high end, with 23 women (11%) living in neighborhoods where the Poverty of Women score is 1.5 or higher. Twenty-five percent of the women lived in a Police Beat where the Poverty of Women score is -.41 or lower, and 25% of the women lived in a Police Beat where the percent is .93 or higher. In the beat where nine women lived, the Poverty of Women score is .50; in the beat where seven women lived, the Poverty of Women score is 2.00.

Poverty of Women is highly correlated with Household Poverty ($r = .833$, $p < .001$). Although the correlation is stronger for African/American/Black women ($r = .836$, $p < .001$) and white or other women ($r = .879$, $p < .001$) than for Latina/Hispanic women ($r = .694$, $p < .001$), it is statistically significant for all three groups. The 136 African/American/Black women are much more likely than the 57 Latina/Hispanic woman or the 13 white or other women to live in beats in which the Poverty of Women scale is very high. The median

Poverty of Women score for African/American/Black women is .716, compared to -.642 for Latina/Hispanic women and -.313 for white or other women.

5. Resident-owned Housing: Percent of Police Beat housing units that were owned by a resident of the unit.

This is another measure of relative disadvantage. In addition, the percent of housing units that are owned is an indicator of the commitment of residents to the neighborhood, and of the stability over time. Residential commitment and stability could be associated with the capacity of a neighborhood to solve problems.

The percent of residential units that were resident-owned in the Police Beats where the 210 women lived ranges from 0.7% (four women living in the same beat) to 89.4% (three women living in the same beat), with mean 38.6% and median 34.1%. The distribution is rather flat, with 25% of the women living in a Police Beat where the percent of resident-owned units was 21.9% or lower in 1990, and 25% of the women living in a Police Beat where the percent was 52.3% or higher in 1990. In the beat where nine women lived, the percent of housing units resident-owned is 76.2%; in the beat where seven women lived, the percent resident-owned is 2.1%.

This indicator of disadvantage is correlated with the household poverty ($r = -.486$, $p < .001$), and less strongly correlated with Poverty of Women ($r = -216$, $p = .002$). These correlations are equally strong for the 136 African/American/Black women ($r = -.638$, $p < .001$ for household poverty and $r = -.432$, $p < .001$ for Poverty of Women), for the 57 Latina/Hispanic women ($r = -.400$, $p = .002$ for Household Poverty and $r = -.386$, $p < .003$ for Poverty of Women), and for the 13 white or other women ($r = -.689$, $p = .009$ for Household Poverty and $r = -.628$, $p = .021$ for Poverty of Women).

6. Vacant Housing: Percent of Police Beat Housing Units that were Vacant.

When a neighborhood's housing vacancy rate is high, the neighborhood may be less desirable for potential residents. In addition, a high vacancy rate may reflect abandoned buildings in the neighborhood, an indicator of neighborhood disorder.

The percent of housing units vacant in the Police Beats where the 210 women lived ranges from 2.7% (two women living in the same beat) to 37.9% (one woman), with mean 11.0% and median 9.6%. The highest percent is an outlier. The second-highest percent is 27.8% (two women living in the same beat).The distribution is fairly normal, but truncated on the low side. Twenty-five percent of the women lived in a Police Beat where the percent of housing units vacant in 1990 was 6.2% or lower, and 25% of the women living in a Police Beat where the percent was 13.7% or higher. In the beat where nine women lived, the percent of housing units vacant is 4.2%; in the beat where seven women lived, the percent vacant is 22.6%.

7. Vacant Lots: Percent of Police Beat land parcels that were vacant.

This is another indicator of the overall desirability of the neighborhood. In addition, abandoned lots can become neighborhood problems. The percent of land parcels that are vacant in the Police Beats where the 210 women lived ranges from 4.1% (one woman) to 56.2% (one woman), with mean 19.4% and median 14.5%. The distribution is truncated on the low side, and has two peaks, one between 10% and 15% and the other around 30%. Twenty-five percent of the women lived in a Police Beat where the percent of parcels that are vacant is 11.0% or lower, and 25% of the women lived in a Police Beat where the percent is 27.3% or higher. In the beat where nine women lived, the percent of land parcels vacant is 11.5%; in the beat where seven women lived, the percent vacant is 29.3%. The correlation between the vacancy rate for housing units and parcels is $r = .665$ ($p < .001$), and is equally high for all three racial/ethnic groups.

8. Population Increase or Decline: Population change between 1990 and 1998 in the Police Beat.

Research has found that population decline in a neighborhood can be related to levels of neighborhood disadvantage and stress, as well as to levels of violence (Skogan, 1986; Morenoff & Sampson, 1997; Block & Block, 1992). In the Behind Closed Doors study, population change in each Police Beat was measured by calculating the percentage change in beat population between 1990 and 1998. The beat population for 1998 was based on estimated1998 U.S. Census tract and block populations, obtained from Claritas Corporation.

The population change between 1990 and 1998 ranges from a decline of 23% (for two women) to an increase of 43% (for one woman) in the Police Beats where the 210 sampled women lived. The mean population change is a decline of 5.2%, and the median is a decline of 6.0%. The distribution is fairly normal, with a long "tail" toward the high side. Twenty-five percent of the women lived in a Police Beat where the population had declined 11% or more, and 25% of the women lived in a Police Beat where the population remained stable (within 2%) or increased. In the beat where nine women lived, the population declined 6% between 1990 and 1998 in the beat where seven women lived, the population declined 10%.

Correlations among Community Context Variable Types

The Assault Rate and the Drug Offense Rate in the Police Beat where a woman lived are highly correlated with each of the other Community Context control variables in that beat. The highest correlations for the Assault Rate are with Household Poverty ($r = .829$, $p < .001$), with Poverty of Women ($r = .778$, $p < .001$) and with Vacant Housing Units ($r = .699$, $p < .001$), but all of the correlations are high. The highest correlations for the

Drug Offense Rate are with Household Poverty ($r = .618$, $p < .001$) and with Poverty of Women ($r = .476$, $p < .001$). This pattern is true of each racial/ethnic group, with one exception. For the 57 Latina/Hispanic women, the percent of housing units owned in their neighborhood is not correlated with the assault or drug offense rates in their neighborhood. However, correlations with Household Poverty and with Poverty of Women are strong for the Latina/Hispanic women.

Population decline is associated with many indicators of neighborhood stress. Population Change is correlated with all of the other Community Context control variables, except Housing Units Owned. The highest correlations are with the Assault Rate ($r = -.573$, $p< .001$), with Poverty of Women ($r = -.506$, $p < .001$), and with Household Poverty ($r = -.463$, $p < .001$). However, the only Community Context causal variable correlated with Population is Organizational Involvement ($r = -.325$, $p < .001$).

The percent of Police Beat housing units that are resident-owned is an indicator of relative disadvantage, and is also an indicator of the commitments of residents to the neighborhood. Higher commitment may be associated with greater community capacity. Indeed, there is a correlation between Housing Units Owned in the neighborhoods where the 210 women lived, with three of the four Community Context causal variables in their neighborhood ($r = .293$, $p < .001$ for Informal Social Control, $r = .411$, $p < .001$ for Organizational Involvement, and $r = .549$, $p < .001$ for Voter Turnout). There is no correlation with Station Protest. For the 57 Latina/Hispanic women, however, the Housing Units Owned in their neighborhood is not correlated with any of the causal Community Context variables in their neighborhood, except for Voter Turnout ($r = .280$, $p = .035$).

Most of the other Community Context control variables (except for the percent of land parcels vacant) are significantly correlated with at least one of the four Community

Context causal indicators. However, the correlations are not strong. For example, the Poverty of Women scale is correlated with Voter Turnout ($r = .290$, $p < .001$) and with Organizational Involvement ($r = .378$, $p < .001$), but this is true only in the neighborhoods where Latina/Hispanic women were living. For the 57 Latina/Hispanic women, there was a significant correlation between the Poverty of Women scale of the Police Beat where they lived at the initial interview and the beat's Organizational Involvement ($r = .389$, $p = .003$).

MEASURES OF THE WOMAN'S SITUATION

Intimate violence situations are not simplistic. A multitude of factors in the individual woman's situation can increase the likelihood of escalation or decrease the likelihood of cessation. Because the Behind Closed Doors study is interested in knowing the effect that Community Context may have over and above all other aspects of the woman's situation, it must identify and account for as many of these "other aspects" as possible. Therefore, the analysis takes into account the following characteristics of the woman's situation: 1) intimate partner violence in the past year; 2) the abuser's controlling behavior, harassment, or stalking in the past year; 3) the woman's informal social support network; 4) her material resources; 5) her physical and mental health; 6) pregnancy and childbirth during the study period; 7) children; 8) her household situation; 9) her relationship with the abuser; 10) characteristics of the abuser; and 11) her personal characteristics.

Intimate Partner Violence in the Past year

A key aspect of the woman's situation, is, of course, the intimate partner violence she had experienced in the year before the initial interview. In the Behind Closed Doors study, we looked at four aspects of that previous violence – the maximum severity of any incident, the number of incidents, whether the incidents were increasing in

frequency, and the recency of the most recent incident before the initial interview. Analysis of the CWHRS finds these to be key risk factors for future violence (Block, 2002).

Of the 210 women, 96 (46%) had experienced very severe or life-threatening violence at the hands of an intimate partner in the past year. Specifically, 45 women (21%) had experienced severe beating, choking or strangulation, or had sustained severe injury (burns or broken bones); 32 women (15%) had experienced very severe injury (permanent, internal or head injury, loss of consciousness) or a threat with a weapon; and 19 women (9%) had experienced weapon use, wounds from a weapon, or attempted murder. The other 114 women (54%) had experienced less severe violence, including 55 (26%) who had been slapped or pushed with no injury or lasting pain; and 59 (28%) who had been punched or kicked with bruises, cuts or continuing pain. (CWHRS women who had been threatened with violence in the most severe incident in the previous year were not included in the Behind Closed Doors analysis.)

Of the 210 women, 61 (29%) had experienced one incident in the previous calendar year, 77 (37%) had experienced five or more incidents, and one had experienced 172 incidents. Seventy-three women (35%) answered "yes" to the question, "Has the violence been increasing in frequency in the past year?" The most recent incident that women told us about at the initial interview had happened that day for 12 women (6%), within the last six days for 51 women (24%), within the last 30 days for 88 women (42%), and as long ago as 364 days for one woman.

The four different "past violence" indicators are correlated with each other, but the correlations are not particularly high. The highest correlation for "maximum severity" is with "increasing frequency" ($r = .224$; $p = .001$). Having experienced five or more

incidents was correlated with the number of days between the most recent incident and the initial interview ($r = -.382$, $p < .001$) and with whether the incidents had been increasing in frequency ($r = .356$, $p < .001$). Thus, these four variables appear to be capturing different aspects of the woman's experience. For example, of the 61 women who had experienced only one incident in the past year, that incident was very severe or life-threatening for 19 of them, and for 13 women the incident had happened within the previous 30 days. Therefore, to try to capture the woman's experience as completely as possible, all four indicators are included in the Behind Closed Doors analysis.

Latina/Hispanic woman were less likely to have experienced at least one severe or life-threatening incident in the past year (30%), than either African/American/Black women (52%) or white or other women (54%). There was no statistically significant difference across the three groups in the number of incidents experienced in the past year. For example, the percent of women who had experienced five or more incidents was 35%, 44% and 38%, respectively. Latina/Hispanic women were somewhat more likely to say that the violence had been increasing in frequency (42%), compared to African/American/Black women (34%) or to white or other women (23%). African/American/Black women were more likely to have experienced an incident within 30 days before the initial interview (48%), compared to Latina/Hispanic women (32%) or white or other women (23%).

Finally, in addition to these four indicators of past violence, some of the regressions in the Behind Closed Doors analysis also include three other indicators – whether the partner had choked or tried to strangle her, whether she thinks that the partner is capable of killing her, and whether she ever thought her life was in danger in the past year. Analysis of the CWHRS has found that having been "choked or strangled" in a

past incident is an important risk factor for future violence (Block, 2001). Of the 210 women in the Behind Closed Doors study, 56% had been choked or strangled by her intimate partner.

When asked, "Do you believe that your partner is capable of killing you?" 51% of the 210 women said "yes," not significantly different from the other abused CWHRS women. Latina/ Hispanic women were significantly less likely to answer "yes" (33%) compared to other women (62%). When asked, "Thinking about the past year, did you ever feel that your life was in danger?" 46% of the 210 women said "yes" or "maybe," not significantly different from the other abused CWHRS women. Again, Latina/ Hispanic women were significantly less likely to answer "yes" (34%) compared to other women (51%). African/American/Black women were significantly more likely than other women to say that their partner had choked or strangled them (68% versus 34%; Chi square $p < .001$), had threatened to kill them (45% versus 26%; Chi square $p = .007$), the partner was capable of killing them (60% versus 41%; Chi square $p = .011$), or that her life was in danger (51% versus 35%; Chi square $p = .037$).

There is, of course, a correlation between these four indicators of seriousness, but the correlation is not perfect. Many women (28% of the 136 African/American/Black women, 13% of the 58 Latina/Hispanic women, and 47% of the 16 other women) say that their abuser does not threaten to kill them, but they still think that the abuser is capable of it. Of the 91 women who say that they thought their life was in danger in at least one abuse incident, 17 (19%) still say that the abuser is not capable of killing them. It is necessary to look at more than one indicator, therefore, to accurately reflect the complexity of these women's situations.

Controlling Behavior, Harassment and Stalking

Many studies find that the abuser's assertion of power and control is an important motive for violence (Dutton & Browning, 1987, 1988; Mason & Blankenship, 1987; Campbell, 1992; Wilson & Daly, 1995; Dobash & Dobash, 1995). Controlling behavior is strongly related to the severity of violence (Johnson, 1995), and may mediate the effect of interventions. The partner's controlling behavior may cause the woman to become isolated from sources of support and assistance (Johnson, 1998; Kelly, 1996: 79). Fagan (1992: 192; citing Dunford, *et al.*,1990 and Ford & Regoli, 1992), argues that formal interventions work best when they "correct power imbalances within intimate relationships."

In the CWHRS, Power and Control was measured separately from Harassment and Stalking. The five-item Power and Control scale from the Violence against Women study (Johnson, 1996) had a reliability coefficient of Alpha = .816. The 19-item HARASS scale of stalking and harassment (Sheridan, 1998) had a reliability coefficient of Alpha = .855. See Block, *et al.*, 2000 for details of these instruments.

Almost a third (31.4%) of the 210 women in the Behind Closed Doors sample have the highest possible score on the Power and Control scale ("five"), and only seven women (3.3%) have a zero score. Specifically, 86% said that their partner is jealous and doesn't want her to talk to other men or women, 60% said that her partner tries to limit her contact with family or friends, 83% said that her partner insists on knowing where she is and who she is with at all times, 73% said that her partner calls her names or puts her down to make her feel bad, and 45% said that her partner prevents her from knowing about or having access to family income.[7] Patterns for Latina/Hispanic women and African/ American/Black women are almost exactly the same, with 33% of each group scoring "five"

[7]Eight percent of the 210 women said that they had no family income.

on Power and Control. All of these percents are almost exactly the same as for the abused women in the total CWHRS sample.

Of the 210 women, HARASS scores range from zero (12 women) to 17 (two women), with mean 5.47. The mean HARASS score is significantly (t test $p = .019$) higher for African/American/Black women (5.93) than for Latina/Hispanic women (4.47). However, many of the HARASS items are appropriate mainly in situations in which the woman has tried to leave, and Latina/Hispanic women are less likely to try to leave. When we look at only those women who tried to leave or end the relationship in the past year, there is no significant difference in the HARASS scores of the 39 Latina/Hispanic women and the 107 African/American/Black women.

The most common type of harassment or stalking is that an intimate partner "showed up without warning," experienced in the previous year by 66% of the 210 women. Other responses to the 19 HARASS items are that 42% of the women said that her partner had followed her, 47% said that her partner had "destroyed something that belongs to you or that you like very much," and 34% said that her partner had threatened to kill her if she left or refused to return to the relationship. As for the Power and Control items, the responses to the HARASS items of the 210 women in the Behind Closed Doors sample are almost identical to the responses of the abused women in the total CWHRS sample.

The Power and Control scale is highly correlated with HARASS ($r = .557$, $p < .001$), and this is true for women in each racial/ethnic group. The correlation for Latina/Hispanic women ($r = .630$, $p < .001$) is somewhat higher than that for African/American/Black women ($r = .524$, $p < .001$) or for white or other women ($r = .513$, NS). The average HARASS score is only 1.57 for the seven women with a "zero" score on Power and

Control, 4.02 for the 41 women with a score of three, and 8.00 for the 66 women with a score of five.

There is also a relationship between individual Power and Control and HARASS items. For example, all of the 22 women who said that their partner had threatened to harm a pet also said that the partner was jealous, compared to 83% of the other 70 women who answered that question.[8] Of the 66 women who said that her partner had threatened to commit suicide if she left or did not return to the relationship, 91% also said that the partner insists on knowing where she is at all times, compared to 80% of the other 144 women. Of the 30 women who said that her partner had tried to get her fired from her job, 83% also said that the partner tries to limit her contact with family or friends, compared to 48% of the other 102 women who answered that question.[9]

Women's scores on both Power and Control and HARASS are strongly associated with their risk of continuing violence in the follow-up period in CWHRS analysis (Block, *et al.*, 2000: 79-84; 283). This is also true in the Behind Closed Doors study. For example, of the 66 women with the highest score on the Power and Control scale (a "five"), only 35% escaped violence in the follow-up period, compared to 71% of the seven women with a "zero" score, and 65% of the 20 women with a "one" score.

Informal Social Support Network

CWHRS collaborators critically assessed the existing measures of informal support networks as being too long and cumbersome to be used as one component of a long interview, or containing items that were not relevant to the CWHRS population, and developed the Social Support Network (SSN) scale as a solution to these limitations (Block, *et al.*, 2000). The SSN has a reliability coefficient Alpha = .8359, which is consis-

[8]Many women said that they do not have a pet.
[9]Many women said that they do not have a job.

tently high for women in all three racial/ethnic groups (.8087 for African/American/ Black women, .8474 for Latina/Hispanic women, and .8568 for white or other women).

The SSN includes 12 items capturing three components of informal social support, "Acceptance and Support," "Tangible Help in Emergencies," and "Access to and Knowledge of Resources." Though they are correlated with each other, each of the SSN components behaves independently of the others. The strongest correlation is between Acceptance and Support and Tangible Help in Emergencies ($r = .680$, $p < .001$). The Access to and Knowledge of Resources component is significantly but not strongly correlated with Acceptance and Support ($r = .258$, $p < .001$) and Emergency Help ($r = .323$, $p < .001$). Therefore, the Behind Closed Doors analysis includes each component by itself and in combination with each other component, as well as the total SSN scale.

Three of the 210 women (1%) have a total SSN score of zero, and 43 women (20%) have a score of 12, with a mean of 8.62 and a median of 10.0. The mean SSN score for Latina/Hispanic women is somewhat lower (6.65) than for African/American/ Black women (9.44) or for white or other women (8.23). The difference between Latina/ Hispanic women and African/American/Black women is statistically significant (t test $p < .001$). The social isolation of the 57 Latina/Hispanic women is evident in all three of the SSN component scales. For example, 21% of the Latina/Hispanic women have a "zero" score on Acceptance and Support, compared to 6% of the African/American/Black women and 15% of the white or other women; 19% of the Latina/Hispanic women have a "zero" score on Emergency Help, compared to 5% of the African/American/Black women and 8% of the white or other women; and 21% of the Latina/Hispanic women have a "zero" score on Access to and Knowledge of Resources, compared to none of the African/American/Black women and 8% of the white or other women.

In addition to the SSN, the Behind Closed Doors analysis takes into account several aspects of a woman's situation that may be related to her ability to obtain support. These include the length of time the woman had lived in Chicago at the time of the initial interview, whether the woman interviewed in Spanish or English, and whether the woman says that she has a "safe place."

Of the 210 women, 61% had lived in Chicago all her life, 30% for many years, 5% for three or four years, 2% for one or two years, and 2% had moved to Chicago in the past year. Other abused CWHRS women were somewhat less likely to have lived in Chicago all their lives (55%), but this difference was not statistically significant. Latina/Hispanic women are much more likely to have moved to Chicago within the past four years (29%) than other women (1%). The mean SSN score was higher for women who had lived in Chicago all their lives (9.42) than for women who had lived in Chicago for many years (7.90). The mean SSN scores for women in the other three groups are lower, but the same as each other (5.40, 5.80 and 5.50, respectively).

Women who are not comfortable speaking English may be limited in their access to support resources. Of the 210 women in the Behind Closed Doors sample, 21% interviewed in Spanish. Of the 57 Latina/Hispanic women, 78% interviewed in Spanish. This is not significantly different from the other abused CWHRS women. The mean SSN score for women who interviewed in Spanish is significantly lower (5.98) than for women who interviewed in English (9.34). Latina/Hispanic women who interviewed in Spanish are more isolated than those who interviewed in English. For example, fully 27% of those who interviewed in Spanish scored zero on Acceptance and Support, and 18% had the highest score (three). In contrast, none of the Latina/Hispanic women who interviewed in English

scored zero, and 54% scored three. This pattern persists for Emergency Help and for Access to and Knowledge of Resources.

When asked, "Is there somewhere you can go where you feel safe?" 80% of the 210 women said "yes," exactly the same percentage as for the other abused CWHRS women. Latina/Hispanic women were much more likely to say that they had no safe place (40%) than were other women (12%). The mean SSN score for women who did not have a safe place is significantly lower (5.78) than for women who said that they did (9.28). The differences are strong for each SSN component. For example, 29% of the women who do not have a safe place scored zero on Tangible Help in Emergencies, compared to 4% of the women who do have a safe place.

Material Resources

Like her social support network, the material resources available to a woman can widen her options when she is trying to escape violence. The Behind Closed Doors analysis includes three sorts of material resources: income, education, and occupation, all of which are taken from the CWHRS. For more detailed operational definitions, please see Block, *et al.* (2000).

The Behind Closed Doors study uses three indicators of income. "Any personal" income indicates whether or not, in the year before the initial interview, she had any personal income that she herself controls, from any source. Of the 210 women, 32 (15%) said she had no income that she controls. The second income indicator, the amount of her personal income from all sources, ranges from zero (15%) to $20,000 and over (7%). Most women (43%) said that her personal income was under $5,000, another 21% said that her personal income was between $5,000 and $9,999, and 14% had a personal income between $10,000 and $19,999. Only two of the 210 women did not answer this question.

Her household income, which is income available to the entire household, from all sources, ranges from less than $5,000 (24%) to $20,000 and over (25%), with 16% of the women saying that they do not know their household income.

There was no difference between the 210 women in the Behind Closed Doors sample and all CWHRS women in their personal or household income. There was also no difference across the three racial/ethnic groups in the woman's personal income. African/ American/Black women seemed to have significantly less household income than others (Chi square p = .008; Gamma = .341, p = .003). For example, 31% of African/American/ Black women said that her household income was less than $5,000, compared to 11% of Latina/Hispanic women and 23% of white or other women. However, 21 Latina/Hispanic women (37%) said that they did not know their household income, compared to 10% of African/American/ Black women and 8% of white or other women.

Occupation and education in the CWHRS were measured by sets of semi-open-ended questions designed to discover not only formal occupation and educational level, but also a woman's school or work contacts outside the home. Of the 210 women, 43% were unemployed at the time of the initial interview,11% were a student,11% kept house, and 35% had a full or part-time job. Latina/Hispanic women are significantly more likely to be a homemaker (40%) than other women (1%), and African/American/Black women are significantly more likely to be unemployed (56%) than other women (20%). These differences are true even when we consider married and unmarried women separately. There is no difference in occupation between the women in the Behind Closed Doors sample and all of the abused CWHRS women.

Education ranges from one woman with no schooling, to seven women with a four-year college education or higher. Almost half of the 210 women (49%) do not have a high

school education or GED degree. Latina/Hispanic women are significantly (Chi square p = .020; Gamma = .350, p = .019) less likely to have a high school education than other women (38% versus 56%).There is no difference in education between the women in the Behind Closed Doors sample and all of the abused CWHRS women.

Physical and Mental Health

Her physical health and mental health can be sources of strength or stress to a woman as she tries to deal with an abusive partner. The CWHRS measured the woman's physical health using Medical Outcome Study (MOS) items (Hays, *et al.*, 1995). The item, "Compared to other women your age, would you say your general health . . . ?" is a key risk factor in CWHRS results (Block, 2001). Of the 210 women in the Behind Closed Doors sample, 10% rate their general health as excellent, 15% as very good, 37% as good, 31% as fair, and 7% as poor. The general health ratings of African/American/Black women are significantly higher than other women. For example, 15% say their health is excellent, compared to 1% of other women. There is no difference in the general health of women in the Behind Closed Doors sample compared to all the abused CWHRS women.

Alcohol and drug use can be threats to health. Of the 210 women in the Behind Closed Doors study, 26% said that she has "ever had a problem with alcohol" and 29% said that she has "ever had a problem with drugs." Latina/Hispanic women are significantly (Chi square p < .001; Gamma = .722, p < .001) less likely to say that they had ever had a problem with alcohol (12% versus 32%) or drugs (9% versus 37%). There is no difference between the 210 women and the other abused CWHRS women.

Mental health indicators used in Behind Closed Doors analysis include depression, suicidal feelings, and post-traumatic stress disorder. Depression is measured using three indicators - a four-item scale from the MOS (Hays, *et al.*, 1995), an open-ended question

about whether she has any "emotional" problem and if so what problem, and a CWHRS item asking whether she had "ever" threatened or tried to commit suicide. Of the 210 women, 12% have the highest possible score on the four MOS depression items, 36% say that they have an emotional problem and that the problem is "depression," and (33%) say that she had either attempted or threatened to commit suicide.

Latina/Hispanic women have significantly higher scores on all three depression indicators. They are much more likely to have the highest possible score on the four MOS "depressed feelings" items (21% versus 9%); they are more likely to say that depression is an emotional problem for them (59% versus 27%); they are more likely to have threatened or attempted suicide (48% versus 28%). There is no difference in the depression of women in the Behind Closed Doors sample compared to all the abused CWHRS women.

Post-traumatic stress disorder (PTSD) is measured using the PSS-1 (Foa, *et al.*, 1993). The Behind Closed Doors analysis uses the standard PTSD diagnosis, combining the three components of PTSD – arousal, avoidance and re-experiencing. Almost two-thirds (63%) of the 210 women have scores that indicate a PTSD diagnosis, according to Foa's criteria. African/American/Black women are somewhat less likely to have a PTSD diagnosis than other women (59% versus 71%), but the difference is not statistically significant. The percent of women with a PTSD diagnosis was almost exactly the same for the 210 women in the Behind Closed Doors study and the abused women in the CWHRS sample.

Pregnancy and Childbirth

Because of its longitudinal design, the CWHRS is able to specify the timing of violence relative to pregnancy and childbirth (see Saltzman, 1991). Of the 210 women, 6% were pregnant at the initial interview. Another 22% had been pregnant in the prev-

ious year. Of the women who had been pregnant, 75% had given birth, 16% had a miscarriage and 9% had an abortion. Three of the women experienced a miscarriage as a result of a violent incident, one had a baby born early as a result of violence, and one blamed a miscarriage on a serious outburst that did not include physical violence. There is no difference in pregnancy across the three racial/ ethnic groups. Compared to the abused CWHRS women, the 210 women in the Behind Closed Doors sample are equally likely to be pregnant or to have been pregnant in the previous year. Of the women who had been pregnant, the 210 women are less likely to have had a miscarriage (16%) than are the abused CWHRS women (31%), but this difference is not statistically significant.

Children

Of the 210 women, 79% have at least one child; 72% have at least one child age 17 or younger. The largest number of children is nine, and the largest number of children age 17 or younger is eight. Latina/Hispanic women were significantly (Chi square p = .051; Gamma = .401, p = .028) more likely to have children (89%) than African/ American/Black women (78%) or white or other women (54%). Almost exactly the same percent of the 210 women in the Behind Closed Doors sample and the abused CWHRS women had a child.

Data worldwide indicate that the presence of children who were not sired by the woman's current partner can precipitate intimate partner violence and homicide against the woman (Brewer and Paulson, 1999; Daly, Wiseman & Wilson, 1997; Daly & Wilson, 1996; Daly, Singh & Wilson, 1993). Almost a third (31%) of the 210 women in the Behind Closed Doors study have at least one child living in her household who is a stepchild to the abusive intimate partner. This percent did not differ for women of different racial/ethnic groups. However, the women in the Behind Closed Doors sample are significantly (Chi

square p = .035; Gamma = .213, p = .037) less likely (23%) to have a child in her household who is a stepchild to the abuser.

Household Characteristics

At the initial interview, most of the women (89%) were living in a household with at least one other person, but 7% were living alone and 5% were living in a group home, treatment center, or other institution.

Women who have children do not necessarily live with them. Women without children often live in a household with children. Other women live in a household with both their own children and other children. One characteristic of the household where she was living at the initial interview is, therefore, whether or not there are any young children in the household. Of the 210 women, 61(29%) were living in a household without any children age 17 or younger. Of the 61, 24 women did have children age 17 or younger, but those children were living elsewhere. Eighteen women living in a household with young children had no children of their own, and 25 women were living in a household with her own children and other young children. Seven of the ten women living in a treatment center or group home had children.

The case control studies of Kellermann, *et al.* (1993) and Bailey, *et al.* (1997) found gun ownership was strongly related to violent death of women in the home. Mercy and Saltzman (1989) report that violence between intimate partners is 12 times as likely to be fatal if a firearm is involved (also see Saltzman, *et al.*, 1992). Fewer than 10% of the 210 Behind Closed Doors women who were living at home (not in a group home or center) had a firearm in her home. The percent is the same for the other abused CWHRS women. Specifically, 3.5% had a loaded handgun, 3.5% had a handgun that was not loaded, and 1.5% had another type of firearm. Though the percent with a

firearm in the home is low for all of the Behind Closed Doors women, it is higher for the African/American/Black women (13%), than Latina/Hispanic women (zero) or white or other women (8%).

The Woman's Relationship with the Abuser

Relationship indicators in the Behind Closed Doors study refer to the woman's relationship with the abusing intimate partner that she discussed at the initial interview. Of the 210 women, 56% were in a current relationship with this intimate partner. This is the same as for the other abused CWHRS women. Latina/Hispanic women are much more likely to be in a current relationship with the abuser (81%) than are other women (47%).

For African/American/Black women, the abuser is most likely to be her ex-boyfriend (49%), followed by her current boyfriend (39%). For Latina/Hispanic women, the abuser is most likely to be her current husband (46%), followed by her current commonlaw husband (18%). For white or other women, the abuser is most likely to be her ex-boyfriend (38%), followed by her current boyfriend (34%). The abuser is her current same-sex partner for two women, and her ex-same sex partner for three women.

Of the 210 women, 21% had been in the relationship with the abuser for 12 months or less, 20% from 13 months to two years, 12% from 25 months to three years, 18% from 37 months to five years, 20% from 61 months to 15 years, and 9% for more than 15 years. Latina/Hispanic women tended to have been in the relationship for a longer period (Chi square p = .047; Gamma = /317, p = .001). Only 7% of the Latina/Hispanic women had been in the relationship 12 months or less, and 12% had been in the relationship over 15 years.

Of the 210 women, 46% had a child with the abusing intimate partner. Latina/ Hispanic women were significantly more likely to have a child with the abuser than other women (64% versus 39%).

Analysis of the CWHRS finds that having never lived with the abusive partner is a protective factor against continuing violence (Block, *et al.*, 2000). Of the 210 women, 34% were living with the abusive intimate partner at the initial interview, but 26% had never lived with the partner. This is the same as for the other abused CWHRS women. Latina/ Hispanic women were much more likely to be living with the abusive partner than African/ American/Black women (68% versus 19%). African/American/ Black women (30%) and white or other women (46%) were more likely than Latina/ Hispanic women (7%) to have never lived with the abusive partner.

Leaving or trying to leave the relationship can be related to escaping future violence, but can also be a strong risk factor for increased violence in the future (Block, 2001). Of the 210 women, 76% had left or tried to leave in the year prior to the initial interview. Specifically, 48% had left, 13% had asked the partner to leave, and 16% had asked the partner to leave but the partner refused. There is no significant difference compared to the other abused CWHRS women. Latina/Hispanic women are less likely to have left (29% versus 55%) and more likely to have asked the partner to leave but the partner refused (28% versus 11%).

Characteristics of the Abusing Intimate Partner

Personal characteristics of the intimate partner who was abusing her in the previous year include the partner's age, education, occupation, and whether or not the partner had an alcohol problem (see Jasinski, *et al.*, 1997; Kantor & Straus, 1990), used drugs, had threatened or tried to commit suicide, or was violent outside the home.

The age of the abusing partner of the 210 women ranges from 16 to 70, with 44% under age 30, 36% age 30 to 39, 14% age 40 to 49 and 6% age 50 or over. For 58% of the women, the abusing partner's was within five years of her own age. Eight percent of the women were older than their partner by five to nine years, and 3% were older by 10 to 20 years. Nineteen percent of the women were younger than the abusing partner by five to nine years, 10% were younger by ten to 20 years, and 2% were younger by 21 to 42 years. There are no differences compared to the other abused CWHRS women. Nor were there any differences in age disparity across racial/ethnic groups.

Over half (62%) of the abusing partners had a full or part time job, and 36% were unemployed. Six were in jail or prison at the initial interview. Eleven women did not know the abusive partner's occupation. The abusing partners education ranged from no schooling (one partner) to graduate degree (one partner). Only 56% of the abusing partners had graduated from high school. Twenty-two women did not know the education of their abusing intimate partner. There was no significant difference in the partner's education for the other abused CWHRS women. The abusing partner of Latina/Hispanic women was much less likely to have graduated from high school (33%) than other women's partners (66%). Of the women in the Behind Closed Doors study, 17% had a high school education while their partner did not. This percent was almost the same for each of the three racial/ethnic groups.

Of the 210 women, 51% said that the abusing partner "has an alcohol problem," 36% said that the partner "uses drugs," 24% said that the partner had threatened or attempted to commit suicide, and 45% said that the partner was "violent outside the home." There is no significant difference between the 210 women and the other abused

CWHRS women, or across the women's racial/ethnic group, in any of these characteristics.

The Woman's Personal Characteristics

Finally, three of the woman's personal characteristics are included in the Behind Closed Doors analysis - her age, her racial/ethnic group, and her marital status. The women's age at the initial interview ranges from 18 to 62, with 50% of the women under age 30, 35% age 30 to 39, 13% age 40 to 49, and 2% age 50 or older. There are slightly more women aged 50 or older among the other abused CWHRS women (4%), and slightly fewer under age 30 (45%). There is no significant difference across the racial/ethnic groups in the woman's age.

As measured in the CWHRS, the woman's marital status is more a personal characteristic of the woman herself than a characteristic of her relationship with the abuser. Women who say that they are married are not necessarily married to the abusing intimate partner. Woman who say that they are divorced or separated are not necessarily separated from the abusing intimate partner. The woman's marital status indicates, essentially, how she presents herself to the world. Of the 210 women, 58% said they were single and 18% said they were married, the same as for the other abused CWHRS women. Latina/Hispanic women were much more likely to be married (45%) than other women (7%), and African/American/Black women were much more likely to be single (76%) than other women (27%).

The woman's racial/ethnic group is a control factor in the Behind Closed Doors study, because it is associated with both of the outcome indicators – help-seeking and violence cessation. Latina/Hispanic women were more likely to have sought "zero" types of help in the past year (28%) compared to African/American/Black women (12%), even

controlling for the severity of past violence, and Latina/Hispanic women were more likely to experience a follow-up incident (68%) than African/American/Black women (54%) or white or other women (46%). On the other hand, for the women who did experience follow-up violence, the maximum severity of the followup incidents was not as likely to be "very severe or life-threatening" for Latina/Hispanic women (21%) compared to African/ American/Black women (70%) or white or other women (33%). Therefore, to determine whether the findings of the Behind Closed Doors analysis apply equally to all women, we conduct separate analyses for African/American/Black women and for Latina/Hispanic women.

Correlations among Woman's Situation Variables

Many of these "woman's situation" indicators are closely related with each other. All of the indicators of past violence, except recency, are significantly correlated with the Power and Control scale and with HARASS. The highest correlation ($r = .409$, $p < .001$) is between HARASS and the maximum severity of incidents in the past year. However, only recency and whether the violence has increased in frequency are significantly correlated with SSN or its components. The highest correlation ($r = -.166$, $p = .016$) is between the SSN score and whether the violence is increasing. Correlations with past violence are also weak or non-significant for the other variables related to social support. The strongest correlation is between the recency of the past violence and whether the woman has a safe place ($r = .214$, $p = .002$). For example, 24% of the women who say that the most recent incident had happened 181 days ago or longer have a safe place, compared to only 8% of the other women.

Very few material resource or health indicators are associated with past violence. The only significant correlation with any income indicator is household income and the

number of past incidents (r = .156, p = .024). Whether the woman has a high school education is not significantly correlated with any past violence indicator. However, being unemployed is correlated with the maximum severity of any incident in the past year (r = .228, p = .001). The better the woman's general physical health, the more incidents in the past year (r = .202, p = .003), and having an alcohol or drug problem has small but significant correlations with past violence indicators. The highest correlation (r = .163, p = .018) is for a drug problem and maximum severity. Similarly, the highest correlation for any mental health indicator (r = .206, p = .003) is between the MOS depression scale and the number of incidents in the past year.

None of the past violence indicators is correlated with pregnancy, and correlations with all of the "children" indicators are either non-significant or very small. The highest (r = .157, p = .023) is between having a child who is the stepchild of the abuser and the recency of the most recent incident. None of the "household" indicators, including living alone, children in the household, or a firearm in the household, is significantly correlated with any of the past violence indicators.

While past violence indicators are not correlated with relationship indicators such as the length of the relationship, whether she and the abuser have any children, or whether the woman and the partner lived together in the past year, there are significant correlations between past violence and leaving. Having left or tried to end the relationship is correlated with the number of incidents (r = .174, p = .011) and with maximum severity (r = .244, p < .001). Being in a former relationship with the abuser is correlated with the recency of the last incident (r = .253, p < .001) and with an increase in frequency (r = .179, p = .009). For example, 88% of women who experienced at least one severe or life-threatening incident in the past year also left or tried to leave the relationship in the past year, compared to

67% of women who experienced less severe violence. For 50% of the women who said that the last incident happened within 30 days, the abuser was her former instead of current partner, compared to 35% of other women.

Similarly, having left or tried to end the relationship in the past year is correlated with the Power and Control score ($r = .268$, $p < .01$), the HARASS score ($r = .299$, $p < .01$), thinking her "life is in danger" ($r = .226$, $p < .01$), the partner threatening to kill her ($r = .213$, $p < .01$), having experienced a very severe ($r = .239$, $p < .01$) or five or more incidents in the past year ($r = .240$, $p < .01$), having been choked in the past year ($r = .323$, $p < .01$), and the violence having increased in severity ($r = .187$, $p < .01$) or frequency in the past year ($r = .216$, $p < .01$).

Neither the abusing partner's age nor the disparity between the woman's age and her partner's age is correlated with any past violence indicator. When the abusing partner is unemployed, the woman is more likely to have experienced at least five incidents (49% versus 31%), a severe or life-threatening incident (61% versus 42%), an incident in the previous 30 days (51% versus 41%), and increasing incidents (46% versus 33%).

The partner's alcohol problem and drug use have small but significant correlations with past violence. The largest correlation is between an alcohol problem and an increase in frequency ($r = .222$, $p = .001$). The maximum severity is more likely to be severe or life-threatening when the partner had tried or threatened suicide (61%) than for other women (40%) (Chi square $p = .001$; Gamma $= .394$, $p = .001$). The partner being violent outside the home is correlated with two of the past violence indicators, maximum severity ($r = .330$, $p < .001$) and increasing frequency ($r = .272$, $p < .001$). When the partner is violent is violent outside the home, the woman is more likely to have experienced a severe or life-

threatening incident (62% versus 34%), and the incidents are more likely to be increasing in frequency (49% versus 23%).

Correlations between the Woman's Situation and Community Context Variables

The four Community Context indicators are seldom correlated significantly with any individual-level variable (see Appendix IV). The few exceptions include the woman's age, which is significantly but very slightly correlated with both measures of Downtown Connections and with Organizational Involvement. A number of indicators are correlated with Voter Turnout, but again at a low level. The strongest correlation is for depression. Women who say they have an emotional condition that is depression are less likely to live in a neighborhood where the voter turnout is 40% or more (11% versus 23%). Neighborhood Voter Turnout is also correlated with SSN and its components, but again, the correlations are weak.

Three of the Community Context indicators are related to the woman's racial/ethnic group. In the neighborhoods where the 136 African/American/Black women live, mean Voter Turnout is higher (31% versus 22%), mean Organizational Involvement score is higher (.95 versus .62), and the mean Informal Social Control score is higher (3.06 versus 2.97). In the neighborhoods where the 57 Latina/Hispanic women live, mean Voter Turnout is lower (20% versus 31%), mean Organizational Involvement score is lower (.59 versus .93), and the mean Informal Social Control score is higher (2.92 versus 3.07). There is no difference in the neighborhood Station Protest score. Correlations of Community Context indicators with woman's situation variables for Latina/Hispanic women and for African/American/Black women were generally not significant, even when there was a significant correlation for CWHRS women as a whole.

MEASURES OF OUTCOME VARIABLES

The primary outcome focus of the Behind Closed Doors study is the woman's future. Would she escape the violence or not? If the violence did continue, would the future violence be life-threatening? However, the study does not limit itself to a sole focus on the cessation of violence. Domestic violence counselors know that, for most women, escaping violence is a process occurring over time, not a single event. Before the violence ends, a woman may call on many resources, including her informal social network as well as more formal sources of help. Therefore, the study measured two kinds of outcome, the woman's help-seeking in the previous year, as well as whether the violent incidents ceased or decreased in severity in the follow-up period.

The "help-seeking" indicators measure the woman's activities in the past year, while the "violence cessation" indicators measure the violence in the future. Informal and formal help-seeking is part of the process of escaping violence, but the relationship between help-seeking and violence cessation is not simplistic. For some women, the violence may stop without any informal or formal help-seeking. For others, the violence may escalate following or as a direct result of her seeking help. For still others, her help-seeking is followed, eventually, by cessation of the violence. Every woman's situation is unique. The Behind Closed Doors analysis does not try to examine the specific link between help-seeking and future violence for each of the 210 women. Instead, the analysis first looks at the factors affecting help-seeking, and then at the factors affecting violence cessation.

The woman's help-seeking is measured by five indicators – whether she had "talked to anyone about the violence" in the past year, had contacted an agency or counselor about the violence, had sought medical care about the violence, had contacted the police about the violence, and a count of the number of different types of help-seeking she had

tried in the year prior to the initial interview. For example, if she had talked with someone and called the police, the count of types of help-seeking would be two.

The cessation of violence is measured by three variables, whether or not she experienced any violent incident at the hands of an intimate partner during the follow-up period, the number of "violence free" days (days between the most recent incident she had experienced before the initial interview and either the earliest incident she experienced on follow-up or the end of the follow-up period), and the severity of future violence (the degree of severity of the most severe incident experienced in the follow-up period).

For the women who continued to experience intimate partner violence on follow-up, the abuser was not necessarily the same person who had been responsible for the violence in the year before the initial interview. Of the 120 women in the Behind Closed Doors sample who experienced abuse during the follow-up period, the original person was not the abuser for 13%. An additional 11% experienced abuse in the followup period from the original person and also from another intimate partner.

Help-seeking

In the initial interview, CWHRS interviewers asked women about four general types of help seeking in the past year: talking to someone, seeing an agency or counselor, getting medical help, or contacting the police. Although women told CWHRS interviewers additional detail about each type of help-seeking, and had considerable opportunity to elaborate in her own words, the Behind Closed Doors analysis is limited to a dichotomous summary variable for each of the four help-seeking types. The four variables indicate whether she had sought that kind of help after an incident "yes or sometimes" or "no, never." A fourth help-seeking variable is the overall count of how many different types of help the woman sought in the past year.

"Talking to someone" about an incident in the past year, or seeking help from an informal social network, was the most common type of help-seeking. Of the 210 women, 76% had talked with someone in the past year. As might be expected, when a woman said that she had talked with someone she was more likely to say, in the Social Support Network scale, that she had tangible help in emergencies and that someone she knew gave her acceptance and support. Only 42% of the 19 women who had a zero score on the four "help in emergencies" items said that they had talked with someone, versus 86% of the 102 women who had a score of four (Chi square $p < .001$; Gamma = .480, $p < .001$). Similarly, 36% of the 22 women who had a zero score on the five "acceptance and support" items said that they had talked with someone, versus 87% of the 85 women who had a score of five (Chi square $p < .001$; Gamma = .552, $p < .001$).

Many fewer of the 210 women had sought help from a formal agency or organization in the past year. Only 36 (17%) said that they had consulted an agency or counselor about the violence. Although 49 (23%) had sought medical help, only 33 of the 49 had told the medical staff about the violence. On the other hand, 81 (39%) had contacted (or someone else had contacted) the police after at least one incident. These formal help-seeking patterns are similar to those for the entire CWHRS sample of 497 women.

Each of the four types of help-seeking is significantly, but not strongly, correlated with the others, with the strongest association between contacting an agency or counselor and seeking medical care ($r = .317$, $p < .001$). These correlation patterns are consistent for all three racial/ethnic groups. In addition, it appears that women first seek help from medical staff, the police, or advice from friends, before contacting an agency or counselor (Block, 2001). Only 11 women had sought help from an agency or counselor without

seeking medical help or contacting the police, and ten of these 11 women had talked with someone.

Close to half of the 210 women (47%) had not sought help from any of the three formal sources in the past year (agencies, medical, or the police). Of these 99 women, 63 had talked with someone. The other 36 women (17% of the total sample) had not sought help from any formal or informal source. Eighty-one women (39%) had tried one type of help-seeking, most commonly talking with someone (68 women; 84% of the 81). Fifty-eight women (28%) had tried two types, most commonly talking with someone (56 women; 97% of the 58) or contacting the police (38 women; 66%). Twenty-three women (11%) had tried three types, most commonly talking with someone (100% of the 23), contacting the police (22 women; 95%), or seeking medical care (19 women; 83%). Twelve women (6%) had tried all four types of help-seeking.

The more severe the abuse in the past year, the more likely that the woman sought help, particularly medical or police assistance. Of the 96 women who had experienced at least one severe or life-threatening incident in the past year, 35% had sought medical care, compared to 13% of the other women, and 53% had contacted the police, compared to 26% of other women. Overall, 89% of women who had experienced severe violence sought at least one type of help, compared to 78% of other women (Chi square $p = .045$; Gamma = .369, $p = .038$).

The 57 Latina/Hispanic women were less likely to seek help (72%) than African/ American/Black women (88%) or white or other women (77%). This was true even for women who had experienced one or more severe incident in the past year. Of the 17 Latina/Hispanic women who had experienced a severe incident, only 71% sought at least one type of help, compared to 92% of the 71 African/American/Black women and 100% of

the seven white or other women with a severe incident. In particular, severely-abused Latina/Hispanic women were less likely to seek medical help (24% versus 38%) or to contact the police (41% versus 56%) than other severely-abused women.

Violence Cessation or Decrease

The Behind Closed Doors study has three measures of violence cessation or decrease. First, we define "complete cessation of violence" as no incident of intimate partner violence or treat of violence being reported in the follow-up period, regardless of the length of the follow-up period. The follow-up period for the 210 women in the Behind Closed Doors sample ranged from 124 to 692 days. For 39 women (19%), the follow-up period was less than a year (349 days or fewer), and for eight women (4%), it was less than six months (180 days or fewer). Despite this wide range, there is no relationship ($r = .017$) between experiencing abuse on follow-up and the length of the follow-up period. Overall, 90 of the 210 women (47%) did not experience any incident on follow-up. This ranged from 32% for the 57 Latina/Hispanic women, to 46% for the 136 African/American/Black women, and 54% for the 13 white or other women.

The date of the initial interview, however, is a fairly arbitrary starting point for defining cessation of violence. Some women had not experienced any intimate partner violence for almost a year prior to the initial interview, while others experienced an incident a few hours before the interview. In addition, some women experienced another violent incident almost immediately after the initial interview. Fourteen of the 210 experienced violence at the hands of her intimate partner within a week, and for nine of these women, the incident a week was very severe or life-threatening. To try to capture the diversity of women's experiences, we created a second measure of cessation, "Violence-Free Days."

Violence-Free Days is a count of the days from the last reported violent incident before the initial interview to the earliest incident the woman told us about on any follow-up. For the ten women for whom there was no incident at the first follow-up interview, but there was at least one incident at the second follow-up, we count the days from the most recent incident before the initial interview to the earliest incident at the second follow-up. For women who experienced no violent incident on follow-up, we count the days from the last violent incident before the initial interview to the date of the final interview. Violence-Free Days" is a ratio-level variable that can range from zero (for women who experienced an incident the day of the initial interview) to the maximum length of the follow-up period plus 365 days.

For the 210 women in the Behind Closed Doors sample, Violence-Free Days ranges from four to 857, with mean 356 and median 346. The mean Violence-Free Days is 357 for African/American/ Black women, 319 for Latina/Hispanic women, and 385 for white or other women The difference in the means is not statistically significant.

Finally, a third indicator of "future violence" applies only to the 120 women (57% of the 210 sampled women) who did experience at least one violent incident on follow-up. For these women, a "future violence" outcome is the severity of that violence. The most severe follow-up incident was a threat for seven (6%) of the women; slapping, pushing or throwing something with no injury for 25 (21%); punching, kicking, bruises, cuts or continuing pain for 25 (21%), severe beating or strangulation with broken bones, burns or severe bruises for 35 (29%); head injury, permanent injury, lost consciousness, internal injury, or weapon threat for 25 (21%); and weapon use, wounds from a weapon attempted murder for three women (2%).

For some analysis, we divide the 120 abused women into two groups, the 63 (52%) who suffered at least one follow-up incident defined as "severe or life threatening" (permanent injury, being completely "beaten up," being choked or burned, internal injury, head injury, broken bones, or a threat or attack with a weapon), and the 57 who experienced less severe violence (threat, slapping, pushing, punching, kicking, with minor injury). Of the women who experienced at least one follow-up incident, the 74 African/American/ Black women were more likely to experience a "severe or life-threatening" incident (70%), compared to the 39 Latina/Hispanic women (21%) or to the six white or other women (33%).

Thus, the Behind Closed Doors study has three measures of violence cessation: whether or not the woman experienced any violence or threat of violence at the hands of an intimate partner in the follow-up period (Complete Cessation), Violence-Free Days after the most recent incident that had occurred before the initial interview, and the maximum severity of any violence experienced in the follow-up period. The three measures are related to each other, but not perfectly related. Each captures a somewhat different aspect of future violence.

As might be expected, women with no follow-up incident tend to have more Violence-Free Days, but this is not always true. Although the mean Violence-Free Days for the 120 women with a follow-up incident is 211, the number ranges from four to 667days. For five of these women, their Violence-Free Days are higher than 540 days, which is the mean for women with no follow-up incident. Similarly, Violence-Free Days for the 90 women with no follow-up incident range from 144 to 857 days, and three of these women have a lower Violence-Free Days than the mean for women with a follow-up incident. Also, there is no relationship between Violence-Free Days and the maximum severity of follow-up incidents (r = -.073, NS) (for the 120 women with a follow-up incident).

Past Violence and Violence Cessation

The severity of violence in the previous year is not significantly related to the complete cessation of violence in the follow-up period. While 48% of the 96 women who had experienced at least one very severe or life-threatening incident in the past year experienced no incident on follow-up, compared to 39% of the 114 other women, both Chi square and Gamma are non-significant. Similarly, the maximum severity of the violence in the previous year is not related to Violence-Free Days. The mean Violence-free Days is 380 for women who experienced no incident more severe than slapping or pushing with no injury or lasting pain was, 346 for women who had been punched or kicked, 372 for women who had been beaten up or severely injured, 337 for women who had experienced a permanent, internal or head injury or weapon threat, and 275 for women who had experienced weapon use or wounds or attempted murder. None of these differences is statistically significant.

On the other hand, for the 120 women who did experience at least one follow-up incident, there was a relationship between the severity of past violence and the severity of future violence (Chi square $p = .005$; Gamma = .351, $p < .001$). For example, the percent of women who experienced a future incident as serious as "permanent or very serious injury, weapon threat or use, or attempted murder" was 43% for the 14 women who had experienced at least one "weapon use or attempted murder" incident in the past year, and 56% for the 16 women who had experienced at least one "permanent or very serious injury, or weapon threat" incident in the past year, but only 10% for the 31 women who had experienced no incident more serious than slapping or pushing with no injury or lasting pain. This underscores the necessity of measuring "future violence" in more than one way.

Correlations between Help-Seeking Variables and Violence Cessation Variables

Women who experience more severe violence are more likely to seek help, and are more likely to experience severe violence in the future (Block, *et al.*, 2000). This results in a positive correlation between past help-seeking and future violence. However, this correlation depends upon the severity of past violence. When the maximum severity of incidents in the previous year is less than very severe or life-threatening, there is no significant correlation between any of the help-seeking variables and any of the violence cessation variables. When the maximum severity of incidents in the previous year is very severe or life-threatening, however, there are some fairly strong correlations between help-seeking and violence cessation.

Specifically, for these 96 women, the Complete Cessation of violence is correlated with the number of types of formal help-seeking she had tried in the past year ($r = .357$, $p < .001$), with contacting an agency or counselor in the past year ($r = .319$, $p = .002$) and with contacting the police ($r = .269$, $p = .008$). For example, 84% of women who experienced severe violence and consulted a counselor in the past year experienced follow-up violence, compared to 44% of women who experienced severe violence and did not consult a counselor (Chi square $p = .002$; Gamma = .742, $p = .001$). For contacting the police, the difference was 65% versus 38% (Chi square $p = .008$; Gamma = .502, $p = .006$). On the other hand, again for these 96 women, there is no relationship between help-seeking in the previous year and Violence-free Days or between help-seeking and the severity of future violence (for those women who experienced at least one future incident).

Just by seeking help, a woman may be telling support people that she is in an especially risky situation. Women who experienced one or more severe incident and who sought help from a formal agency in the past year were at higher risk for continued

violence in the future. This exemplifies the reason for analyzing separately the two types of outcome, help-seeking and violence cessation.

The two types of outcome, help-seeking in the previous year and violence cessation in the future, seem to be capturing different aspects of the woman's experience. Violence cessation, violence-free days, and the maximum severity of any violent incident in the future are not related to past help-seeking in a straightforward or simplistic way. Seeking is part of the process of escaping violence, but it is no guarantee of violence cessation. Therefore, it is vital to consider the two types of outcome separately.

STATISTICAL ANALYSIS PROCEDURES

The analysis plan for the Behind Closed Doors study was the following:

First, for each of the outcome variables (five help-seeking variables and three future violence variables), we calculated the best-fitting multiple regression (ordinary least squares) with individual-level independent variables, entering sets of variables in the following order:

1. Intimate partner violence in the past year;
2. controlling behavior, harassment, and stalking;
3. informal social support network;
4. material resources;
5. physical and mental health;
6. pregnancy and childbirth;
7. children;
8. household characteristics;
9. her relationship with the abuser; and

10. characteristics of the abusing intimate partner.

Each regression model was repeatedly re-calculated using different choices within each set of variables, when they were highly correlated with each other. For example, since the Power and Control scale score is correlated with the HARASS score, we would enter Power and Control but not HARASS, and then HARASS but not Power and Control, and compare the results. There were very few variables that had missing data on any of these 210 cases. For these few, we substituted the mean.

Our criteria for choosing the "best-fitting" regression model were the overall variance explained (R^2), and whether each separate variable added significantly to the model. To be sure that the lack of independence of the Community Context variables did not affect the results, we ran all regressions first with all 210 women, and again without the seven and nine women who lived in the same beat as each other. In addition, to be sure that whether or not the woman had moved did not affect the results, we ran all regressions with only those women who had not moved.

Second, we saved the standardized residuals (Z scores) from the individual-level regression, and ran a new regression on the residuals, with the Community Context indicators as the independent variables. These were also added in stages, with the Community Context causal variables first and the Community Context control variables second. The results of this regression told us the degree to which the contextual effects of the neighborhood where a woman lived contributed to her chances of help-seeking and escaping the violence, above and beyond the effects of other aspects of her situation. As in the first analysis step, the regression was re-calculated using different choices of highly correlated variables within the same set.

The second set of regressions was based on the assumption that the 210 women were relatively unclustered across beats, so that we can treat them as independent cases. As a check, the analyses were repeated with the seven and nine women who lived in the same beat deleted, and the results were almost identical. In addition, the analyses were repeated with a reduced sample of only women who did not move.

Finally, because analysis of the larger CWHRS sample indicates that Latina/ Hispanic women and African/American/Black women often differ in the sets of risk factors that are most important for continuing violence, we conducted the entire analysis again for the Latina/Hispanic women and African/American/Black women separately.

RESULTS: DO COLLECTIVE EFFICACY AND COMMUNITY CAPACITY MAKE A DIFFERENCE BEHIND CLOSED DOORS?

For two types of outcome, help-seeking in the previous year and violence in the future, we first find the best-fitting multiple regression model for the individual-level situation variables. We then determine whether any of the Community Context variables had an additional effect, over and above the woman's individual situation.

HELP-SEEKING

The Behind Closed Doors study looks at four indicators of help-seeking in the past year -- seeking informal help (talking with someone), seeking help from an agency or counselor, seeking medical help, seeking criminal justice help, and a sum of types of help sought in the past year.

Informal Help-Seeking

Of the 210 women in the Behind Closed Doors sample, 51 (24%) said that they had not talked with anyone about the violence in the past year. The rest had talked with someone, such as a friend, a family member, or a clergyperson. The best-fitting model for this informal help-seeking is fairly strong (R = .467), explaining 22% of the variance. The strongest of the three significant variables, the woman's score on the Acceptance and Support scale (Beta = .440), describes the strength of her psychological support network. In addition, a woman who thinks her life was in danger (Beta = .142) and who is in relatively poor health (Beta = -.177) is more likely to have talked with someone about the violence. For example, 87% of women who say they are in "poor" health talked with someone, compared with 59% of women who say they are in "excellent" health. None of the Community Context variables is significant, once these other variables are taken into account.

These results are the same when re-calculated without the seven and nine women living in the same two beats (R = .447), explaining 20% of the variance. For the 127 women who did not move, the regression is stronger (R = .500) and there are only two significant variables: Acceptance and Support (Beta = .476) and whether she thought her life was in danger (Beta = .164). Again, however, once these two variables are accounted for, none of the Community Context variables is significant.

For African/American/Black women, the best regression model for informal help-seeking is fairly strong (R = .416), explaining 17% of the variance. Acceptance and Support is important (Beta = .357), as is thinking her life was in danger (Beta = .163), and being in poorer health (Beta = -.229). After taking these variables into account, none of the Community Context variables has a significant effect.

The best "informal help" regression model for Latina/Hispanic women contains a strong Acceptance and Support component (Beta = .732), but otherwise is very different than the model for other women. The model is very strong (R = .658), explaining 43% of the variance, but contains no indicator of "past violence severity." Instead, if a woman's partner is "violently and constantly jealous" (Beta = .324), and if her partner "uses drugs" (Beta = .326), she is more likely to talk with someone. For example 85% of Latina/ Hispanic women with a jealous and drug-using abusing partner talk with someone, but only 25% when her partner is jealous but not using drugs. After taking these factors into account, none of the Community Context variables has a significant effect.

Medical Help

Of the 210 women, 23% said that they had sought medical help after at least one incident in the past year. The best-fitting model for seeking medical help is fairly strong (R = .481), explaining 23% of the variance. There are five significant variables, three of which capture different aspects of past violence severity -- maximum severity (Beta = .169), whether the incidents have been increasing in severity (Beta = .175), and whether she thought her life was in danger (Beta = .153). These three are correlated, but not perfectly correlated (r = .333, r = .313 and r = .295). In addition, a woman is more likely to seek medical help when she has at least a high school education (Beta = .160), has a PTSD diagnosis (Beta = .151), and the abusing partner is unemployed (Beta = .138). Once these individual situation variables are taken into account, however, none of the Community Context variables is significant.

When re-analyzed without the seven and nine women living in the same two beats, this model is somewhat weaker (R = .457), and thinking her life is in danger is no longer significant. None of the Community Context variables is significant when the

remaining five situation variables are accounted for. For the 127 women who did not move after the initial interview, the model is stronger (R = .533), explaining 28% of the variance, and contains only three significant variables. Maximum severity of past violence is still very important (Beta = .485), but once that is accounted for, neither thinking her life was in danger nor increasing violence is significant. However, another "past violence" variable, whether the most recent incident had occurred within 30 days of the initial interview, becomes significant (Beta = .236). The only other significant variable is having a PTSD diagnosis (Beta = .186). None of the Community Context variables is significant after these three situational variables have been taken into account.

For the 136 African/American/Black women, the best model for seeking medical help is fairly strong (R = .477), explaining 23% of the variance. It has only three significant variables, two of which are measures of past violence, whether the incidents had been increasing in severity (Beta = .236), and whether she thought her life was in danger (Beta = .183). In addition, having a PTSD diagnosis (Beta = .253) is a significant factor. When these variables have been taken into account, none of the Community Context variables is significant.

Only 9% of the 57 Latina/Hispanic women had sought medical help after at least one incident in the past year. Because of the small number who sought medical help, a regression model is not particularly meaningful. However, Latina/Hispanic women were more likely to seek medical help when the violence had been increasing in severity (18% versus 3%), and when at least one incident had been severe or life threatening (24% versus 2%). Having a PTSD diagnosis or having a high school education made no

difference for Latina/Hispanic women, but they were more likely to seek medical help when the abusing partner was unemployed (20% versus 6%).

Contacting the Police

Contacting the police was the most common type of formal help-seeking. Of the 210 women, 39% had contacted the police (or someone else had contacted them) about an incident in the past year. The best-fitting model for contacting the police is fairly strong (R = .432), explaining 19% of the variance, with five significant variables. A women is more likely to contact the police when the maximum severity of incidents in the past year was greater (Beta = .240), she had left or tried to end the relationship in the past year (Beta = .152), she was unemployed at the initial interview (Beta = .145), her relationship with the abusive partner had lasted more years (Beta = .173), and she had lived in Chicago over four years (Beta = .143). Women were twice as likely to contact the police (44% versus 22%) when they had left or tried to leave. Over half (51%) of unemployed women (no job; not a homemaker or a student) contacted the police, compared to 29% of other women. None of the Community Context variables is significant, once these other variables are taken into account.

When re-analyzed without the seven and nine women living in the same two beats, this model is stronger (R = .444), explaining 20% of the variance, and all five variables are significant. When re-analyzed for only the 127 women who did not move, the model is still stronger (R = .483), explaining 23% of the variance, and there are only three significant variables. Neither the length of her relationship with the abusing partner nor the number of years she has lived in Chicago is significant. Once the remaining three variables have been taken into account, none of the Community Context variables is significant.

For African/American/Black women, the best model for contacting the police contains two "past violence severity" variables. It is not strong (R = .393), explaining 13% of the variance. There are two significant indicators of "past severity", maximum severity of any incident (Beta = .203), and the number of incidents in the past year (Beta = .262). In addition, her score on the Access to Resources scale (Beta = -.165) is significant. Women who have more Access to Resources are *less* likely to call the police. Leaving the relationship, being unemployed, or the length of the relationship make no difference. Since all of this group had lived in Chicago over four years, that variable is not relevant.

When these three individual variables had been accounted for, none of the causal Community Context variables was significant, but two of the control variables were significant, population change (Beta = .252) and Poverty of Women (Beta = .258), in a model explaining 8% of the variance (R = .284). African/American/Black women who contacted the police tended to live in neighborhoods where the population had declined less (a mean decline of 7.7% versus 10.3%), and the poverty of women was higher (a mean scale of .96 versus .68).

For Latina/Hispanic women, the best model for contacting the police is strong (R = .620), explaining 38% of the variance. Instead of maximum incident severity being the significant "past violence" factor, the important consideration for Latina/Hispanic women is whether or not the incidents had been increasing in severity (Beta = .547). The length of residence in Chicago was also important (Beta = .389). Women who had lived in Chicago over four years were much more likely to contact the police (32% versus 6%). Two additional variables are significant, whether she listed her occupation as homemaker (Beta = -.232) and whether she had ever tried or threatened suicide (Beta =

-.257). Women who say they are a homemaker are less likely to contact the police (13% versus 31%). A history of suicide is important only in combination with other variables. For example, when the severity of incidents has not been increasing, women with a history of suicide are less likely to contact the police (15% versus 6%). When these variables are accounted for, none of the Community Context variables is significant.

Consulting an Agency or Counselor

Only 17% of the 210 women had consulted an agency or counselor about an incident in the past year. Earlier analysis of the CWHRS (Block, *et al.*, 2000; Block, 2001) suggests that many women consult an agency or counselor only after they have already sought medical help or called the police. In the Behind Closed Doors sample, 39% of women who sought medical help also sought counseling, compared to 11% of other women, and 27% of women who called the police sought counseling, compared to 11% of other women. It seems that medical or law enforcement staff may serve as a liaison between the woman and a helping agency. They may give her information about her situation, her options, available resources, even sit with her while she calls.

Therefore, the regression models for consulting an agency or counselor include whether or not she sought medical help or called the police. Because seeking help from the police is correlated (r = .280) with seeking medical help, we created a "combination" variable for both types of help-seeking, with three categories: 0 indicates that she did not seek help from either, 1 indicates that she sought help from the police or medical staff, but not both, and 2 indicates that she sought help from both sources. Whereas 52% of women who had sought help from both medical staff and the police also contacted an agency or counselor, only 13% of women who had sought help from only

one source and 10% of women who had sought help from neither source contacted an agency or counselor.

The best-fitting model for whether a woman sought counseling does, indeed, include the combined medical/ police help-seeking variable (Beta = .254). The model is fairly strong (R = .400), explaining 16% of the variance. In addition to medical/police help, there are three significant variables: thinking her life is in danger (Beta = .143), having a loaded gun in the home (Beta = .150), and living alone (Beta = .159). There is an interaction between the latter two; none of the women living alone had a gun in the house.[10] Of women with a loaded gun in the house, those living with another person were much more likely to consult an agency or counselor (50% versus 14%). A woman living alone is more likely to consult an agency or counselor (36%) than a woman living with one or more other person, regardless of whether one of these people is the abusing partner (18%) or not (14%).

After these individual variables are taken into account, one of the Community Context causal variables, Organizational Involvement (Beta = .159) is significant in a weak model (R = .159) explaining 2.5% of the remaining variance. Abused women who live in a neighborhood of "joiners" are *less* likely to seek counseling, other things being equal. For example, 31% of women who live in a neighborhood where the average number of memberships in local organizations is 0.5 or less consult an agency or counselor, compared to 9% of women where the average membership is 1.01 or more.

These results are consistent when re-analyzed without the seven and nine women living in the same two beats. The initial model is equally strong (R = .396), and Organizational Involvement has a significant effect (Beta = .154) after the other

[10]This finding is consistent with analysis of the homicides in the larger CWHRS dataset. A woman homicide victim or offender had a firearm in the home only when she was living with a male partner.

variables have been accounted for. For the 127 women who did not move, the model is weaker (Beta = .313), and only two variables are significant, seeking medical or police help (Beta = .268) and living alone (Beta = .179). Once these are accounted for, Organizational Involvement has a significant effect (Beta = .222).

For African/American/Black women, the best-fitting regression for consulting an agency or counselor is much stronger (Beta = .532), and explains 28% of the variance. Having sought medical or police help is still an important factor (Beta = .314), as are having a loaded gun in the house (Beta = .256) and thinking her life is in danger (Beta = .251). Instead of living alone, *not* leaving or trying to end the relationship (Beta = .221) is significant. There is an interaction between "not leaving" and "loaded gun." All of the African/American/Black women with a loaded gun in the house left or tried to end the relationship in the past year, and 57% of them sought counseling. Looking only at women without a loaded gun at home, 23% of those who had not left or tried to leave sought counseling, compared to 10% of other women. Unlike the model for all 210 women, none of the Community Context variables is significant after taking the woman's situation variables into account.

For Latina/Hispanic women, the best-fitting regression for consulting an agency or counselor is strong (R = .578), explaining 33% of the variance. Seeking medical or police help has a strong effect (Beta = .331). In addition, there are two other significant variables -- whether she interviewed in English (Beta = .326), and whether the abusing partner is unemployed (Beta = .279). Though no "past violence" variable indicator is significant, having sought medical or police help suggests that the woman considered her situation as being serious. "Gun in the home" is not relevant to these women, because none of them has a gun in her home. "Living alone" is not relevant, because

fewer than 5% live alone. Latina/Hispanic women are more likely to consult an agency or counselor when they interview in English (46% versus 11%) and when the abusing partner is unemployed (50% versus 13%). None of the Community Context variables is statistically significant, after taking these three woman's situation variables into account.

Number of Types of Help-Seeking

Of the 210 women in the Behind Closed Doors sample, 17% did not seek any type of help in the past year, 39% sought one type (usually talking with someone), 28% sought two types, 11% sought three, and 6% sought help from all four. The best-fitting model for the number of different types of help is fairly strong (R = .546), accounting for 30% of the variance. There are five significant variables, the maximum severity of past incidents (Beta = .161), thinking her life is in danger (Beta = .251), the abuser's controlling behavior (Power and Control score) (Beta = .164), her psychological support network (Acceptance and Support scale) (Beta = .247), and having a loaded gun in the house (Beta = .241). After taking into account these aspects of the woman's situation, none of the Community Context indicators has any effect.

These results remain consistent when re-calculated without the two beats in which seven and nine women lived. The initial regression is somewhat stronger (R = .556) and the same variables are significant. Community Context has no additional effect. When the sample is restricted to the 127 women who did not move, the regression is stronger (R = .628), explaining 39% of the variance, and the same variables are significant. None of the Community Context indicators has any additional effect.

For the 136 African/American/Black women, the best-fitting model for the number of types of help-seeking is fairly strong (R = .561), accounting for 31% of the variance.

The model has the same variables as the model for the total sample, with one exception. Instead of maximum incident severity, the important severity variable is whether the abuser has ever choked or strangled her (Beta = .178). Thinking her life is in danger is still important (Beta = .274), as is the abuser's controlling behavior (Beta = .196), her Acceptance and Support score (Beta = .174), and having a loaded gun in the house (Beta = .299). After taking into account these aspects of the woman's situation, none of the Community Context causal indicators is significant, but one of the control factors, percent population change is significant (Beta = .206) in a model explaining 4% of the variance. The average population decline from 1990 to 1998 was -11% in neighborhoods where women who sought none of the types of help were living, compared to -8% in the neighborhoods where women who sought all four types of help were living.

For Latina/Hispanic women, the best-fitting model for the number of different types of help-seeking is strong (R = .599), explaining 36% of the variance, and contains three significant variables. She is likely to seek help from more sources when the violence is increasing in severity (Beta = .374), her Acceptance and Support score is higher (Beta = .387), and she does not give her occupation as homemaker (Beta = .269). Having a gun at home is irrelevant, because not of this group does have a gun in the home. Once these three variables are accounted for, none of the Community Context indicators is significant.

Summary: Help-Seeking Results

It is not surprising that the severity of violence is related to help-seeking in the past year. Women who have experienced more severe violence, or who believe that their life is in danger or their children are threatened, are more likely to have sought help. However, the particular types of "severity" that seem to trigger a woman's help-

seeking differ for different women. In addition, the kind of help sought differs according to the woman's situation. For example, many of the models suggest that women "balance" going to informal and formal sources for help. Women who live alone are more likely to consult an agency or counselor than women who live with family or friends. Women who score higher on the Access to Resources part of the SSN scale are less likely to contact the police. Women who live in a neighborhood of "joiners" are less likely to seek counseling.

"Past violence severity" is one of the strongest factors in help-seeking, whether it is measured by the maximum severity of any incident, aspects of the incident such as choking or strangling, whether she thought her life was in danger, whether the violence was increasing in severity or frequency over time, the number of incidents, the recency of the most recent incident, or a combination of these indicators. Though particularly important for seeking medical help, violence severity is also significant in models of informal help-seeking, contacting the police, and the number of types of help sought.

In addition to the woman's experience of violence, her informal helping network, lack of isolation, and access to formal support services increase the likelihood that she will seek help. In addition, and somewhat paradoxically, abused women facing health or material challenges sometimes are more likely to seek help, other things equal. Perhaps women in such situations are more likely to come in contact with helping agencies, or feel more "entitled" to ask for help or advice. Again, different factors are important for women in different situations and for different kinds of help-seeking. For example, women in poor health are more likely to seek informal help. African/American/Black women are more likely to seek medical help when they have a PTSD diagnosis. Women

who had left or tried to leave the relationship are more likely to have called the police, while women who had not left are more likely to have sought counseling.

Since relatively few of the Latina/Hispanic women in the CWHRS sample had experienced extremely severe or life-threatening violence, the key "past violence" variable related to help-seeking is whether the severity of the incidents has been increasing. The abusing partner's controlling behavior, jealousy and drug use are also important in help-seeking models. These indicators, when combined in a multiple regression, appear to be the best measure of "severity" for Latina/Hispanic women. In addition, a Latina/Hispanic woman is more likely to seek formal help when she has been living in Chicago for many years (five or more), when she does not give her occupation as "homemaker," when she interviews in English, and when the abuser is unemployed.

In contrast, collective efficacy and community capacity do not tend to have an effect, over and above her individual situation, on a woman's help-seeking .[11] There is one exception to this. Women living in a neighborhood in which residents are more involved in local organizations are less likely to consult an agency or counselor about the violence, other things being equal. However, since this effect disappears when controlled for the woman's racial/ethnic group, it is apparently an artifact of the racially segregated living patterns in Chicago. The mean Organizational Involvement in the neighborhoods where the African/American/Black women were living (0.95) was significantly higher (t test = 7.704, $p < .0001$) than the mean Organizational Involvement in neighborhoods where the Latina/Hispanic women were living (0.58).

[11]Community Context control variables occasionally have a significant effect. African/American/Black women are more likely to contact the police when they live in neighborhoods with higher poverty of women and a lesser population decline, and they tend to seek more types of help when the population of their neighborhood is declining less.

In the Behind Closed Doors sample, there is no evidence of the association found by Browning (2001):

> Residence in communities with high levels of collective efficacy significantly increased the likelihood that women would disclose conflict in their relationships to specific sources of support (family, friends, partner's relatives) and to a broader range of sources.

In contrast, none of the Community Context variables makes a difference in whether a woman has talked with someone about the violence, has sought medical care, has contacted the police, or in her "range of sources" (types of help-seeking). The reason for the difference probably lies in the different data sources for help-seeking. Browning's data are from the Chicago Health and social Life Survey (CHSLS), which asked only respondents who were "in relationships" about violence and help-seeking. Thus, women experiencing violence at the hands of an ex or former partner are not represented in CHSLS violence data.

CESSATION OR DECLINE OF VIOLENCE AGAINST THE WOMAN

Although it is important to consider whether collective efficacy and community capacity in a woman's neighborhood nurture her help-seeking activities, it is even more important to consider whether her neighborhood has an effect on the persistence of the violence against her. Escaping a violent situation is often a complex, lengthy process. When leaving or seeking help leads to more violence or to threats against the children, the woman must carefully negotiate her escape. Sometimes the violence stops only when the abuser is imprisoned or dies from a non-related cause. This section focuses

on the result of the process escaping violence. Did the violence end in the follow-up period?

The analysis looks at two indicators of violence cessation – the complete cessation of violence in the follow-up period, and the number of days free from violence. In addition, for women who continued to experience violence in the follow-up period, the analysis looks at the severity of that violence. For each of these three indicators, it examines the effect of collective efficacy and community capacity, once the woman's individual situation is taken into account.

Cessation of Violence

Of the 210 women in the Behind Closed Doors sample, 43% did not experience any incident of intimate partner violence or threat of violence in the follow-up period. The best multiple regression model of individual-level factors on violence cessation is of medium strength (R = .465), explaining 22% of the variance. It contains five significant variables. Violence Cessation is more likely when there is a longer time period between the initial interview and the most recent earlier incident (Beta = .140), the abusing partner is not "violently and constantly jealous" (Beta = -.207), her social support system gives her more tangible support in emergencies (Beta = .181), she has personal income that she herself controls (Beta = .138), and she left the relationship in the past year (Beta = .212). For example, the mean number of days from the most recent incident to the initial interview is 132 (standard deviation = 121) for women who were not abused on follow-up, compared to 77 (standard deviation = 94) for women who were (t test $p = .001$). The cessation rate was 33% for the 129 women with an extremely jealous partner and 59% for the other 80 women (Chi square $p < .001$; Gamma = -.480, $p < .001$). It was 54% for the 127 women who left the relationship and 27% for the 83 women who

did not try to leave or who asked the partner to leave but the partner refused (Chi square $p < .001$; Gamma = .523, $p < .001$).

In a regression on the residuals of these individual variables, none of the Community Context causal variables is significant, but one of the Community Context does have an effect (R = .138, explaining 1.9% of the remaining variance). Once the woman's individual situation has been taken into account, women living in a neighborhood where the percent of households on public aid is high are less likely to experience follow-up violence (Beta = -.138). However, the difference between the average percent of households receiving aid in their neighborhood is not statistically significant (t test p = .057) for women with no follow-up violence (27.2%) and women who did experience follow-up violence (23.5%).

When women living in the same two beats are excluded, the model is a little stronger (R = .470), explaining 22% of the remaining variance, the same five individual-level variables are significant, and the percent of households on public aid remains a significant Community Context control factor, explaining 2.2% of the remaining variance. The best model for the 127 women who did not move is stronger (R = .484), explaining 23% of the variance, and contains only four variables. Having a personal income is no longer significant, and help in emergencies is of borderline significance (p = .054). Also, instead of "leaving" being a significant variable, this model contains "living together all year" (Beta = -.202). The cessation rate is 21% for women who lived with the abusive partner the entire previous year, and 52% for women who did not (Chi square p = .001; Gamma = -.608, $p < .001$). After these individual variables are accounted for, none of the Community Context causal or control variables is significant.

Of the 136 African/American/Black women in the Behind Closed Doors sample, 74 (54%) did not experience any violent incident on follow-up. The best individual-situation model for Violence Cessation is somewhat weaker than for the sample as a whole (R = .409), explaining 17% of the variance and containing three variables. Having a personal income is not significant. The only significant "past violence" variable is whether the woman thought that the abuser was capable of killing her (Beta = -.236). In addition, Violence Cessation is more likely when the woman's social support network can provide more tangible emergency support, such as money or shelter (Beta = .237), and when she left the relationship in the past year (Beta = .201). ("Leaving" does not include women who asked the abuser to leave, but the abuser refused.) The three factors are important independently as well as in combination with each other. For example, the highest cessation rate (71%) was for the 35 women who left and did not think her partner was capable of killing her. The lowest cessation rate (21%) was for the 24 woman who thought her partner was capable of killing her and who did not leave. After the three situational variables are accounted for, none of the Community Context variables is significant.

Violence ceased in the follow-up period for only a third of the 58 Latina/Hispanic women. The best individual-level model for violence cessation is very strong (R = .753), explaining 57% of the variance and containing four significant variables. Although leaving is significant for Latina/Hispanic women (Beta = .303), whether she was living with the abuser at the time of the initial interview is stronger (Beta = .453).[12] Having income that she controls is not significant, though there is a strong relationship before other variables are accounted for. This happens because "personal income" is assoc-

[12]All but one of the 34 women who had not left were living with the abuser at the interview. Of the 24 women who did leave, 25% were living with the abuser at the interview.

iated (Chi square p = .035; Gamma = .768, p = .009) with "living with the abuser."[13] Violence Cessation is more likely the greater the number of days from the most recent incident to the initial interview (Beta = .341), when the abusing partner is not extremely jealous (Beta = -.377), and when the woman and the abuser do not have a child (Beta = -.227). Women are more likely to experience a follow-up incident when they are living with the abuser at the initial interview (82% versus 37%), and when the abuser is "violently and constantly jealous" (84% versus 38%). Having a child with the abuser is important only in combination with jealousy. When the abuser is not jealous, having a child with him makes no difference, but when the abuser is jealous, there is a strong difference (100% versus 75%).

After accounting for these individual variables, none of the Community Context causal variables has an effect, but one of the control variables has a strong effect (R = .426), explaining 18% of the remaining variance. Violence cessation is more likely for women living in a neighborhood where the percent of households on public aid is high (Beta = .426). The average percent receiving public aid in her neighborhood is 15% for women who experienced continued violence, compared to 21% for women who did not (t test p = .019). However, for the 38 Latina/Hispanic women who did not move, the individual-situation model is stronger (R = .768), explaining 59% of the variance, and the percent of public aid in the woman's neighborhood is no longer significant.[14]

Violence-Free Days

Violence-Free Days is the number of days from the most recent incident before the initial interview to the earliest incident at any follow-up interview (or the end of the

[13]This is true only for Latina/Hispanic women,. For other women, there is no association.
[14]Whether the woman and the abuser have a child is not significant in this model.

follow-up period). Violence-Free Days ranges from four to 857, and is 30 days or less for 17 women (7.8%). It is missing for one woman.

The best model for Violence-Free Days is strong (R = .549), explaining 30% of the variance, with five significant variables. Women tend to have a longer Violence-Free Days period when they experienced fewer incidents in the past year (measured in four categories) (Beta = -.328), when they experienced less stalking or harassment (a lower HARASS score) (Beta = -.152), when their social support network offers more help in emergencies (Beta = .132), when they left the abuser in the past year (Beta = .308), and when they have personal income that they control (Beta = .130).[15]

Women with only one past incident average 477 Violence-Free Days, women with two to four incidents average 360, and women with five or more average 246. The 50 women with a HARASS score of zero to two average 403 Violence-Free Days, compared to 258 for the 35 women with a HARASS score of 10 to 17. Emergency help is particularly important for the 176 women who have a personal income ($r = .283$, $p < .001$). For the 32 women who do not have a personal income, emergency help makes little difference, but the degree of "acceptance and support" provided by her social support network does make a difference ($r = .381$, $p = .03$).[16] While women who left the relationship in the past year average 404 Violence-Free Days, women who did not (or the abuser refused to leave) average 275 (t test $p < .001$). None of the Community Context variables is significant after the situational variables are accounted for.

When the seven and nine women living in the same two beats are excluded, the model is similar (R = .540), explaining 29% of the variance, but HARASS is no longer significant (p = .092). After the situational variables are accounted for, none of the

[15]Because the "recency" variables are defined similarly to Violence-Free Days, they were not included in the regression model.

Community Context variables is significant. When the sample is limited to the women who did not move, again HARASS is not significant, and the model (R = .285) explains 28% of the variance. Again, none of the Community Context variables is significant after accounting for the individual-situation variables.

The majority (52%) of African/American/Black women had a year or more of Violence-Free Days (366 to 857), but nine women (6.6%) were violence-free for 30 days or fewer. The best model is fairly strong (R = .502), explaining 25% of the variance, with four variables. Emergency Help is of borderline significance (Beta = .157, p = .051). Women tend to have more Violence-Free Days when the number of past-year incidents is fewer (Beta = -.310), the HARASS score is lower (Beta = -.181), and the woman left in the past year (Beta = .253). While the majority (61%) of women who left the relationship in the past had a Violence-Free Period of at least 366 days, only a third (33%) of women who did not leave (or the abuser refused to leave) had such a long period free of violence. Once these individual situation variables are taken into account, none of the Community Context variables is significant.

Most Latina/Hispanic women do not have a long period free from violence. The majority (60%) have less than a year, and 10.5% have only 30 days or less. The best model is strong (R = .706), explaining 50% of the variance. Neither Emergency Help nor HARASS is significant. The number of Violence-Free Days tends to be longer when the number of incidents in the past year was fewer (Beta = -.516), when the woman left in the past year (Beta = 409) and when her personal income is higher (Beta = .201). For example, the average Violence-Free Days for women who had only one past incident is 380 for women who did not leave and 683 for women who did leave. When the number

[16]Personal income information is missing for two women.

of incidents is over 10, the average Violence-Free Days is 92 for women who did not leave and 274 for women who did.

When these three individual situation variables are taken into account, none of the Community Context causal variables is significant, but one of the Community Context control variables is significant (R = .362), explaining 13% of the remaining variance. Women tend to have a longer period of Violence-Free Days when they are living in a neighborhood in which the percent of households receiving public aid is high (Beta = .362). When the sample is limited to the 37 Latina/Hispanic women who did not move, the individual-level regression model is stronger (R = 729), explaining 53% of the variance, and the percent receiving aid in the neighborhood is still significant (Beta = .380), explaining 14% of the remaining variance.

Severity of Violence on Follow-up

Models of the maximum severity of any incident experienced during the follow-up period are appropriate only for the 120 women who experienced follow-up violence. Of these women, 63 (52.5%) were beaten up or worse in a follow-up incident, and the rest experienced less severe violence or a violent threat. What are the best models for the severity of follow-up violence?

The best model for severe follow-up violence is weak (R = .418), explaining 12% of the variance, with only two significant variables. A woman is more likely to experience severe follow-up violence when the abusing partner had tried to choke or strangle her (Beta = .236), and she was not living with the abusing partner at the initial interview (Beta = -.215). Of the 53 women who were living with the abuser, 38% experienced a severe follow-up incident, compared to 64% of the other 67 women (Chi square p = .004; Gamma = -.494, p = .003). Of the 68 women whose partner had tried to choke or

strangle her, 65% experienced a severe follow-up incident, compared to 37% of the other women (Chi square p = .002; Gamma = .522, p = .001). The highest risk of severe follow-up violence was for the 44 women who had been choked or strangled and were not living with the abuser (73%).

After these individual situation variables are taken into account, none of the Community Context causal variables is significant, but one of the control variables is significant (R = .215), explaining 4.6% of the remaining variance. Women living in a neighborhood in which a higher percent of land parcels lies vacant are more likely to experience severe follow-up violence. The average parcels vacant in the neighborhood is 22% for women who experienced severe follow-up violence and 15% for women who experienced other follow-up violence (t test p = .001).

Of the 120 women, five were living in one beat, and four in another beat at the initial interview. When these nine women are excluded, the model is weaker (R = .331), explaining 11% of the variance, with the same two significant variables. The same Community Context control variable continues to be significant (R = .235), explaining 5.5% of the remaining variance. The best model for the 72 women who did not move is much stronger (R = .436), explaining 19% of the variance with two variables. Having been choked or strangled is of borderline significance (p = .057). Instead, a woman is more likely to experience a severe incident on follow-up when she thinks that her partner is capable of killing her (Beta = .288), and when she is not living with the abuser (Beta = .255). Once these are taken into account, the parcel vacancy rate in her neighborhood is significant (R = .206), explaining 4.2% of the remaining variance.

For the great majority (70%) of African/American/Black women who experienced violence on follow-up, at least one follow-up incident was severe. The best model for

these women is weak (R = .358), explaining 13% of the variance, and does not contain a "choking/strangulation" variable or a "living with the partner" variable. Instead, a woman is more likely to have a severe follow-up incident when the partner is violent outside the home (Beta = .284) and she says that she has never thought that her life was in danger (Beta = -.389). Contrary to the expectations of those who argue that the woman herself is always the best judge of the degree of danger, the highest risk of severe follow-up violence (87%) is for the 15 women who say at the initial interview that the partner is violent outside the home and that she has never thought that her life was in danger. Once these two individual situation variables have been accounted for, none of the Community Context variables is significant.

Only 21% of Latina/Hispanic woman experiencing continued violence had a severe follow-up incident. The best model for follow-up severity is weak (R = .357), explaining 13% of the variance, and has only one significant variable. A woman is likely to experience greater severity on follow-up when her partner has stalked and harassed her (Beta = .357). The average HARASS score for the eight women who experienced a severe follow-up incident is 7.25, and the average score for women who experienced other follow-up violence is 4.06 (t test p = .026). When the HARASS score is taken into account, none of the Community Context variables is significant.

Summary: Future Violence Results

It should not be surprising that future violence is related to past violence. However, only certain aspects of past violence are significant. With fewer incidents in the past year, women tend to have more Violence-Free Days. The longer the time period since the last incident, the more likely the violence will stop, but this is true only for

Latina/Hispanic women.[17] For African/American/Black women, whether she thinks her partner is capable of killing her is more important for Violence Cessation than is the recency of the last incident. In general, the maximum severity of past incidents is a significant factor in any future violence indicator only for African/American/Black women, though different indicators of severity are significant, having been choked or strangled as well as or thinking that her partner is capable of killing her.

Indicators of leaving or trying to leave the relationship interact with the severity of past violence. For example, Violence Cessation is high when she does not believe her partner is capable of killing her and she left in the past year, but low when she does believe her partner is capable of killing her and she did not leave. In addition, the effect of leaving differs for different indicators of future violence. Violence Cessation is more likely and there are likely to be more Violence-Free days when the woman leaves or is not living with the abuser. However, if the violence continues, it is likely to be more severe when she is not living with the abuser. This underscores the difficulties and dangers of trying to escape an abusive relationship. Leaving may increase the chance that a woman will escape further violence, but if the violence continues, leaving may increase the risk of severity (see Block, 2001).

The abuser's controlling behavior is more important in models of future violence than in models of formal help-seeking. Extreme and constant jealousy is a significant factor weighing against Violence Cessation. African/American/Black women tend to have more Violence-Free Days when there is less harassment and stalking from the abusive partner. HARASS is the only significant variable related to the severity of future violence for Latina/Hispanic women.

[17] "Recency" was not included in the regression models for Violence Free Days, because the two variables are defined similarly.

The availability of material help and support – the extent to which the woman's support network provides tangible help in emergencies, and whether she has personal income that she herself controls -- appear frequently in individual-situation models of future violence. When she has a personal income that she herself controls, Violence Cessation is more likely. When she not only has a personal income but enjoys more "help in emergencies" from her support system, she tends to have more Violence-Free Days. Although emergency help is the most important Social Support Network variable for most women, for women who do not have a personal income, the degree of psychological "acceptance and support" they receive is more important. None of these support indicators, however, is significant in the models of maximum violence severity in the future, given that the violence continues.

Individual-situation models are generally stronger for Latina/Hispanic women than for African/American/Black women. This is true for Violence Cessation and for Violence-Free Days. None of the models for Future Severity was particularly strong for anyone. This may be due to the small number of cases, since Future Severity applies only to women who experience a follow-up incident.

No Community Context causal variable has an additional effect on future violence once the woman's individual situation is taken into account. Though collective efficacy and community capacity do not have an effect, the community context control variables sometimes do. For Latina/Hispanic women, Violence Cessation tends to be more likely for women living in a neighborhood in which the percent of households receiving public aid is high. In addition, women living in a neighborhood where with a relatively high percent of vacant land parcels tend to experience more severe future violence. However, when controlled for the woman's racial/ethnic group, "vacant land

parcels" is no longer significant. For African/American/Black women, none of the Community Context variables, whether causal or control, is significant in any model of future violence.

IMPLICATIONS FOR RESEARCH AND PRACTICE

The central issue of the Behind Closed Doors study is the contextual effect of collective efficacy and community capacity in an abused woman's neighborhood on her help-seeking and on the likelihood that the violence will stop or decline, once other aspects of her situation have been taken into account. Does the cohesion and organization of the neighborhood where she lives make any difference in the probability that she will escape further intimate partner violence, other things being equal?

While past research has looked at neighborhood characteristics associated with higher population-based risk of violence against women, it is difficult to disentangle the risk of an initial violent incident from the risk of continued violence. In addition, measurement at a single point in time cannot hope to capture the complexity of the process of escaping a violent situation. In contrast to previous studies, therefore, the Behind Closed Doors study is designed to measure the effect of community context on whether an abused woman is more likely to be able to escape further violence. It looks at the degree to which collective efficacy and community capacity explain the variance remaining after the woman's individual situation has been taken into account, in three indicators of future violence – Violence Cessation, the number of Violence-Free Days, and the maximum severity of future incidents.

In addition, to examine the effect of community context on the process of escaping violence, the Behind Closed Doors study also looks at the woman's help-

seeking. Do collective efficacy and community capacity explain any of the variance remaining after the woman's individual situation has been taken into account, in five indicators of help-seeking in the past year – informal (talking with someone), medical, police, an agency or counselor, and a count of the number of different types of help-seeking?

The results show that collective efficacy and community capacity do not explain any of the variance in any indicator of future violence, once individual-level factors are accounted. This is true not only for the women as a group, but also for Latina/Hispanic women and African/American/Black women considered separately. For help-seeking, collective efficacy does not explain any of the variance in any help-seeking indicator, once individual-level factors are accounted for. One of the indicators of community capacity – Organizational Involvement – explains some of the remaining variance in one of the five help-seeking indicators – consulting an agency or counselor, but this relationship disappears when controlled for the woman's racial/ethnic group. In addition, most Community Context control variables are not associated with future violence, or with help-seeking.[18] Further, there is little or no zero-order correlation (see Appendix IV) between any individual-situation variable (including help-seeking) and any of the four indicators of collective efficacy (Informal Social Control, Organizational Involvement, Station Intervention, and Voter Turnout).

Therefore, if the key question posed by the Behind Closed Doors study was, "Does community capacity and collective efficacy in a woman's residential neighbor-

[18]The exceptions are the following: for African/American/Black women only, contacting the police is related to population change and poverty of women, and the number of types of help-seeking is related to population change; Violence Cessation is related to the percent of households on public aid (disappears when controlled for whether the woman moved); future severity is related to the parcel vacancy rate (disappears when controlled for the woman's racial/ethnic group); and for Latina/Hispanic women only, Violence-Free Days is related to the percent of households on public aid.

hood translate into the reduction of further intimate violence against her?, " then the answer must be "no." Abused women living in organized neighborhoods in which collective efficacy is high and abused women living in other neighborhoods are equally likely to escape further violence and to seek various kinds of help, other things being equal. This finding has clear implications for both research and practice. Most community-level research studies concentrate on street violence and ignore violence within the family. The findings of the Behind Closed Doors study indicate that researchers do this at their peril. But more importantly, the findings indicate that, while higher levels of collective efficacy and community capacity in a neighborhood may reduce levels of "street crime," they may not make a difference for one of the most prevalent kinds of violence, violence behind closed doors.

These findings carry several important caveats. First, indicators of collective efficacy and community capacity in the Behind Closed Doors study are purely contextual. We know about the aggregate characteristics of the neighborhood where a woman lives, but we do not know much about the actual connection of each woman to her neighborhood. Although we have information about each woman's use of agencies and services, the neighborhood where she was living may have offered services she did not use, or she may have sought services from outside of her immediate area. Similarly, although the CWHRS data contain information about the woman's informal social support network, we do not know the extent to which she was connected to the informal environment of her neighborhood.

Second, there may be aspects of Community Context, other than the commonly-measured aspects used here, that have more positive effects on a woman's help-seeking or on the cessation or decrease of violence. Perhaps the reason for the nega-

tive results is that the usual measures of collective efficacy and community capacity are not appropriate for violence against women. Alternatively, perhaps an abused woman calls on resources and a support network outside the boundaries of the small neighborhood in which she lives. Perhaps her ability to escape the violence is more related to networks and resources in the city as a whole. We need to design research that will discover whether this is true, and if so, to identify the supportive aspects of the wider community and determine how can they be nurtured.

While the Behind Closed Doors study found that the degree to which a woman's informal social support network provides acceptance, support, and practical help in emergencies is often a key factor in whether or not she escapes future violence, it also found that her neighborhood's level of collective efficacy (social cohesion and willingness to intervene on behalf of the common good) makes no difference, other things being equal. This may seem to be a contradiction, but it is not when we realize that women may use many sources of support. It is quite possible that an abused woman would seek out resources from outside of her immediate neighborhood.

In fact, one of the interesting results of the study is that abused women seem to choose among a "menu" of resources. If they receive help from one source, they are less likely to seek help from another. This has implications for both research and practice. Research that attempts to assess a woman's use of interventions must look at all of her options and all of her choices, as they change over time. This finding also underscores the importance of inter-agency coordination and referral from one agency to another (see Block, 2000: 294). For example, medical staff and the police may serve as "gatekeepers" for women contacting agencies or counselors (Block, 2001).

Though two recent studies (Browning, 2001; DeKeseredy, *et al.*, 2001) suggest that the collective efficacy in an abused woman's neighborhood is related to whether or not she seeks informal help from her family, friends or neighbors, results of the Behind Closed Doors study did not find that to be the case. Although Browning (2001) and our results agree that community structure variables (concentrated disadvantage, residential stability and immigrant concentration) are not associated with relationship violence "after controlling for individual, relational, and network predictors of partner violence," we disagree with Browning's finding that collective efficacy is "associated with partner violence above and beyond individual and relationship characteristics."

The difference in the findings is probably due to different study designs. Browning's study is based on a general population survey, in which only respondents who were "in a relationship" were asked about partner violence. This eliminates women in ex or former relationships and women who had left the relationship. In addition, the outcome variables of the two studies differ. The key outcome variables in the Behind Closed Doors study are indicators of future violence, measured prospectively.

Finally, the regressions of the woman's individual situation on the continuation of violence in the future document many important relationships. One finding with key practical implications is that, in general, models of the cessation or decline of violence are stronger for Latina/Hispanic women than for African/American/Black women, explaining 56% versus 14% of the variance of Violence Cessation, 49% versus 24% of the variance of Violence-Free Days, and 25% versus 16% of the variance of Follow-up Severity, respectively. Similarly, the model for informal help-seeking explains 43% of the variance for Latina/ Hispanic women but only 17% for African/American/Black

women; the model for contacting the police explains 38% of the variance for Latina/ Hispanic women but only 13% for African/American/Black women.

Thus, predicting cessation or decline of violence for abused African/American/ Black women was not very successful, even with a great deal of information about the woman's situation and her neighborhood. But it remains important to do so. Women who have successfully escaped violence have information that may be vital to women in similar situations and for those who seek to support them. If a regression analysis such as the Behind Closed Doors study does not tell us their stories, how else could their voices be heard? Perhaps the best approach to this problem would be to focus on the individual histories of women who escaped violence, especially women who had been experiencing severe violence. By allowing the complexity of each woman's story to be told, we might discover something about the "unexplained variance" in their lives.

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Appendix I
Overview of the Clinic/Hospital Sample: Chicago Women's Health Risk Study

Definition	497 women aged 18 or older who had been physically abused by a male or female intimate partner within a year before an initial interview, plus 208 comparison women.
Selection Process	In three medical sites located in areas of the city with high intimate partner homicide rates (Cook County Hospital, a Public Health clinic and a Family Health Center), over 2,600 women patients were randomly screened for abuse using a standard three-question Public Health screener. A detailed face-to-face interview was conducted with 705.
Interviews	Initial interviews, including a calendar history of every abuse incident in the past year (retrospective data) for 493 of the 497 abused women. At least one follow-up interview conducted over the following year, repeating the initial interview questions (prospective data) for 323 of the 493 women. The follow-up period ranged from 90 to 826 days after the initial interview, with 261 women followed for at least 350 days.

Appendix II
Community-Level Data from the CAPS Evaluation

Variable	Source	Geographic Unit
Demographics: Age, race, gender, income, education, employment.	Census	Census tract, Police beat
Population density	Census	Census tract, Police beat
Children in the community, households with children	Census	Census tract, Police beat
Crime rates by type: Each Index crime, gun crime, drug street crime, school crime, etc.	Chicago Police Department	Police beat
Firearm crime, guns	Chicago Police Department	Police beat
Domestic violence rates	Chicago Police Department	Police beat
Police officer attitudes	CAPS police survey	Police beat
Public housing, including scattered sites	Chicago Housing Authority	Police beat
Housing and other land use: type, vacancies, state of repair	Harris/Sanborn File	Police beat
Informal social control Resident attitudes, by gender	CAPS Survey	Police beat
Community capacity Resident attitudes, by gender	CAPS Survey	Police beat

Appendix III
Syntax for Creation of Community Context Variables

The source of three of the four Community Context Variables was the city-wide surveys conducted annually by the CAPS Evaluation researchers. The exact information available in the CAPS Survey data varies from year to year. Two indicators captured in all years were 1) community solidarity and trust and 2) small efforts to help out in the community (CCPEC, 1997: 106-108). Other neighborhood questions capture perceived quality of life, problems and concerns and perceptions of personal safety (CCPEC, 1997: 11-18). Survey items capturing the three Community Context variables used in the Behind Closed Doors study were consistent across the three years, 1997, 1998 and 1999.The 1997 survey added items capturing community cohesiveness and cooperation, including a scale of "local involvement" and a scale of "informal social control," which covers the willingness of the respondent to help a neighbor having problems.

For two of the Community Context variables, Informal Social Control and Organizational Involvement, CAPS Evaluation analysts calculated individual-level summary variables combining each survey respondent's answers to three items and four items, respectively. Step I, below, describes this process. The third Community Context variable derived from the CAPS Survey was based on a single item (Station Involvement), and did not need a summary at the individual survey respondent level.

So that there would be enough respondents at the Police Beat level to produce reliable Community Context measures, CAPS Evaluation analysts combined survey data for 1997, 1998 and 1999. Each annual survey was an independent city-wide random-digit dialing survey. In total, there were 8,145 respondents over the three years. CAPS Evaluation analysts aggregated the individual-level responses and scale scores across Police Beats, Police Sectors, or other areas, and calculated an average score for each area. These area-wide averages became the Community Context variables for the Behind Closed Doors study. Step II describes how the CAPS Evaluation analysts aggregated individual survey respondent data to the area level.

STEP I
Create Summary Variable for Each CAPS Survey Respondent

The first step was to develop summary variables measuring Strength of Informal Social Control in the neighborhood (collective efficacy), and Community Involvement, for each survey respondent.

Strength of Informal Social Control

The following method was used by the CAPS Evaluation (Skogan, et al., 1999) to calculate "Strength of Informal Social Control." This variable is comparable to "Collective Efficacy" as defined by Sampson, Raudenbush and Earls (1997). For each person responding to the CAPS neighborhood survey, CAPS researchers created a summary variable for Strength of Informal Social Control in the community (to be called CONTROL), based on the person's responses to three questions (q11a, q11b and

q11c). These questions were the following (the surveys also included Spanish versions of each question):

Q11a. If some children were spray-painting graffiti on a local building, how likely is it that your neighbors would do something about it? Would you say it is . . .

<1> Very likely
<2> Likely,
<3> Unlikely, or
<4> Very unlikely?
<5> NEIGHBORS WOULD CALL THE POLICE
<7> NO CODED RESPONSE APPLICABLE
<8> DON'T KNOW
<9> REFUSED

Q11b. If there was a fight in front of your house and someone was being beaten or threatened, how likely is it that your neighbors would break it up? Would you say it is . . .

<1> Very likely
<2> Likely,
<3> Unlikely, or
<4> Very unlikely?
<5> NEIGHBORS WOULD CALL THE POLICE
<7> NO CODED RESPONSE APPLICABLE
<8> DON'T KNOW
<9> REFUSED

Q11c. If a teenager were harassing an elderly person, how likely is it that your neighbors would tell them to stop it? Would you say it is . . .

<1> Very likely
<2> Likely,
<3> Unlikely, or
<4> Very unlikely?
<5> NEIGHBORS WOULD CALL THE POLICE
<7> NO CODED RESPONSE APPLICABLE
<8> DON'T KNOW
<9> REFUSED

Because the three measures were consistent (the average correlation was .40), the CAPS Evaluation researchers combined them to create a summary variable, "Strength of Informal Social Control" or CONTROL. The resulting scale had a good reliability index (Alpha = .66) for a three-item scale (Skogan, *et al.*, 1999:158). The following syntax was used to create CONTROL from the above three responses:

```
* CONTROL  STRENGTH OF INFORMAL SOCIAL CONTROL.
recode q11a to q11c (1=4)(2=3)(3=2)(4=1)(5=2.5).
```

```
* set 'nbrs would call police' to the middle.
compute control =(q11a+q11b+q11c)/3.
var labels control 'strength of informal social control'.
recode q11a to q11c (4=1)(3=2)(2=3)(1=4)(2.5=5).
formats control (f3.1).
value labels control 1 'lowest' 4 'highest'.
```

The result was a new variable (CONTROL) that ranged from 1 (low) to 4 (high), represented the mean of three survey questions, and indicated the respondent's perception of the strength of informal social control in the neighborhood.

Level of Community Organizational Involvement

Involvement in community organizations was captured in the CAPS evaluation surveys by the following four questions (these are the English questions):

Q29a The next questions are about organizations some people are involved with in their neighborhoods. Are you or anyone in your household involved in a neighborhood watch group or a citizen patrol in your area?

<1> Yes
<2> No
<7> NO CODED RESPONSE AVAILABLE
<8> DON'T KNOW
<9> REFUSED

Q29b (Are you or anyone in your household involved in) The PTA or a Local School Council?

<1> Yes
<2> No
<7> NO CODED RESPONSE AVAILABLE
<8> DON'T KNOW
<9> REFUSED

Q29c (Are you or anyone in your household involved in) A church or synagogue?

<1> Yes
<2> No *(go to Q29e)*
<7> NO CODED RESPONSE AVAILABLE *(go to Q29e)*
<8> DON'T KNOW *(go to Q29e)*
<9> REFUSED *(go to Q29e)*

Q29d Is it located in your neighborhood, or is it located somewhere else?

<1> In the neighborhood
<2> Somewhere else
<7> NO CODED RESPONSE AVAILABLE
<8> DON'T KNOW
<9> REFUSED

Q29e Are you or anyone in your household involved in a block club or community organization in your area?

<1> Yes
<2> No
<7> NO CODED RESPONSE AVAILABLE
<8> DON'T KNOW
<9> REFUSED

The following syntax was used by the CAPS Evaluation researchers to create the summary variable, "Organizational Involvement" from responses to the above four questions:

```
* INVOLVED  FOUR KINDS OF INVOLVEMENT.
count involved=q29a q29b q29d q29e (1).
var labels involved 'count of organ. involvements'.
value labels involved 0 'none' 4 'all four'.
count temp = q29a q29b q29d q29e (7,8,9).
if (temp gt 2) involved=9.
missing values involved (9).
```

The result, then was a variable ranging from zero to four, and representing a count of involvement in four different types of neighborhood organizations.

STEP II
Aggregate Individual Survey Responses to the Area Level

Because the specific address of each individual survey respondent is known, the survey data are extremely flexible. It is possible to aggregate respondent data to the areas represented by Chicago Police Department's beat, sector or division, to Census tract, or to Community Area. For the Behind Closed Doors study, CAPS evaluation researchers provided aggregated data at all of these levels. This was done by collecting all of the survey respondents who were living within the given area (beat, sector, and so forth), and then calculating the average (mean) response across respondents. For example, if there were ten people who responded to the survey in a beat, the beat-level data would be the mean responses for those ten people to each question.

In the larger areas, such as police district or Community Area, there were enough survey respondents in each year of the survey for such an average to be reliable and meaningful. However, there were too few respondents living within some of the city's 278 beats to calculate an overall average (in some cases, a given beat had no respondents in a given survey year). Therefore, for the Behind Closed Doors study, CAPS evaluation researchers combined survey data for three years, 1997, 1998 and 1999. Each annual CAPS evaluation survey was an independent city-wide random-digit-dial survey. In total, there were 8,145 respondents to the three surveys. All of the individual respondents for three years were combined in one dataset, and their responses were averaged to calculate the area-level response.

In this combined data set, only 46 of the 278 city beats had fewer than ten survey respondents. The mean number of respondents per beat was 29.4, the median was 24.0, and the standard deviation was 22.25. The beats ranged up to 128 respondents,

with five beats having 100 or more and 25% having over 41 respondents. Two beats had zero respondents, and these were two of the nine nonresidential beats in the city. The 210 CWHRS women being analyzed in the Behind Closed Doors study lived in 123 different beats (of the 278). These 123 beats had a mean 26.4, median 22.0 and standard deviation 18.03 survey respondents per beat in the combined 1997, 1998 and 1999 surveys. One of the 123 beats had 94 survey respondents, and ten beats had 50 or more. Eighteen beats (in which 29 of the 210 women lived) had fewer than ten survey respondents per beat. Following Census Bureau and National Crime Victim Survey standards, we set ten respondents as the minimum for reliability of an area summary. These 18 beats, therefore, do not qualify under that standard.

A Police Sector combines three to five contiguous beats, and a Police District combines sectors. While 45 of the 278 beats had fewer than ten survey respondents, combining the 1997, 1998 and 1999 surveys, only two sectors, both in the First District, had fewer than ten respondents (each sector had six respondents). None of the 210 CWHRS women being analyzed in the Behind Closed Doors study lived in either of these sectors. Therefore, Community Context data from the CAPS evaluation survey, combining 1997, 1998 and 1999 responses, exist at the Police Sector level for each CWHRS woman who had provided an initial interview address that was geocoded to Chicago.

The Behind Closed Doors study takes the point of view of a woman located at an address. In using beat-level data as community "context," the study is assuming that a woman standing at an address within a beat and looking around her could potentially perceive characteristics of her neighborhood as they were perceived by those respondents to the CAPS Evaluation surveys who lived in the same beat. However, in those beats in which the number of survey respondents was too small for their mean responses to be reliable, we substituted the next-best indicator of Community Context. For each woman living in such a beat, we used sector-level data instead of beat-level data for those variables that were based on CAPS evaluation survey responses. For example, two of the 210 women were living in Beat 1333, and there were only two CAPS Survey respondents in that beat. For these women, therefore, we used data for Sector 13.3, which had 21 respondents for the three contiguous beats in the sector. Of the 210 women, the source of CAPS Survey Community Context data was the beat for 181 (86%), and the sector for the remaining 29 women.

Appendix IV
Zero-Order Correlations of Community Context Indicators and Other Variables, by Racial/Ethnic Group

AAB = African/American/Black
L/H = Latina/Hispanic

Individual Variable	Community Characteristics (Police Beat											
	Voter Turnout			Intervene: Police Station Closing			Organizational Involvement			Informal Social Control		
	Total	AAB	L/H	Total	AAB	L/H	Total	AAB	L/H	Total	AAB	L/H
Demographics:												
Af/Am/Black	.390**			NS			.459**			.142*		
Latina/Hisp.	-.423**			NS			-.433**			-.250**		
Woman's age	-.153*	-.188*	NS	-218**	-.226**	-.264*	-.148*	-.170*	NS	NS	NS	NS
High School?	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Hshld income	.175*	.257**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pers. income	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Unemployed?	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-.292*
Homemaker?	-.240**	NS	NS	NS	NS	NS	-.216**	NS	NS	-.163*	NS	NS
Married?	-.210**	NS	NS	NS	NS	NS	-.228**	NS	NS	NS	NS	NS
Single?	.212**	NS	NS	NS	NS	NS	.280**	NS	NS	NS	NS	NS
Any children?	NS	NS	NS	-.150*	NS	NS	NS	NS	NS	NS	NS	NS
Children <17	-.176*	-.189*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Loaded gun	-.188**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pregnant?	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Her Health												
Gen. health	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Alcohol prob.?	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Drug prob.?	NS	.170*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Depression	-.358**	NS	NS	NS	NS	NS	-.165*	NS	NS	NS	NS	NS
Suicide try?	-.180**	NS	-.284*	-.185**	NS	NS	NS	NS	NS	-.198**	NS	-.301*
PTSD dx?	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Partner												
Alcohol prob.?	NS	.217*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Drug use?	NS	.227**	NS	NS	NS	NS	NS	.225*	NS	NS	NS	NS

Suicide try?	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	.320*
Violent out?	NS	NS	NS	NS	NS	NS	-.139*	NS	NS	NS	NS	NS
Stepchildren?	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ex- or former?	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Left in past yr	NS	NS	NS	NS	NS	NS	NS	NS	.340**	NS	NS	NS
Past Abuse												
Power, Control	NS	-.247**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HARASS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Life in danger?	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
# incidents	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Max. Severity	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Recent (30 d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Follow-up Viol.	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSN scale												
Access to res.	.265**	NS	NS	NS	NS	NS	.230**	NS	NS	NS	NS	NS
Emerg. help	.202**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acceptance	.208**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
No safe place?	.178*	NS	NS	NS	NS	NS	.146*	NS	NS	NS	NS	NS
Help Seeking												
Count of types	.157*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Informal?	.139*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Agency?	NS	NS	NS	NS	NS	NS	.142*	NS	NS	NS	NS	NS
Medical?	NS	NS	NS	NS	NS	-.282*	NS	NS	NS	NS	NS	NS
Police?	.136*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

* Pearson correlation $p < .01$

** Pearson correlation $p < .001$