A DOSE OF DRUGS, A TOUCH OF VIOLENCE, A CASE OF AIDS, PART 2: FURTHER CONCEPTUALIZING THE SAVA SYNDEMIC

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ABSTRACT

This paper builds on prior discussion of the concept of syndemics in the social science and public health literatures to further define and extend the utility of this construct in analyzing the relationships among substance abuse, violence and HIV/AIDS. The term syndemic refers to a set of closely entwined and mutual enhancing health problems that "working together" in a context of noxious social and physical conditions can significantly affect the overall disease burden and health status of a population. The paper focuses on the emergence of what is termed the SAVA (substance abuse, violence, AIDS) syndemic among several populations that are at high risk because they are subject to social discrimination, stigmatization, and subordination, namely abused children and battered women, men who have sex with men, illicit drug users, and commercial sex workers.

In the course of a multi-year, 1988-present, program on HIV risk prevention research among inner city drug users in Hartford, CT—a community-based program that has included a number of federally funded studies of drug use patterns among several different populations of drug users—it became apparent that studying HIV in isolation of other diseases and conditions also prevalent in these populations was a distortion. Indeed, it became clear that even the term epidemic does not sufficiently describe the contemporary US inner city health AIDS crisis. A crisis that may be characterized by the spread of AIDS that is closely associated with a set of other endemic and epidemic conditions (e.g., TB, STDs, hepatitis, cirrhosis, infant mortality, drug abuse, suicide, homicide, etc.). These conditions are intertwined and strongly influenced and sustained by a broader set of societal factors. Factors that include high rates of unemployment, poverty, homelessness, residential overcrowding, substandard nutrition, infrastructural deterioration and loss of quality housing stock, forced geographic mobility, family disruption, attenuation of social support networks, health care inequality, racism, and domestic as well as street violence (Bourgois 1995; Stall & Purcell 2000; Wallace 1990; Waterston 1993).

As a result, our Hispanic Health Council research team proposed the term "syndemic" (Singer 1994, 1995) which refers to the interrelated complex of health and social crises facing the urban poor. Like the terms epidemic and pandemic (i.e., spreading health problems of local or extra-local distribution), the suffix of syndemic is derived from the Greek word *demos* ("the people," but in a health context refers to a disease that is diffusing in a population), while the prefix is taken from the Greek term for "working together."

In short, a syndemic is a set of closely entwined and mutual enhancing health problems that "work together" in a context of noxious social and physical conditions, can significantly affect the overall disease burden and health status of a population. For example in January, 2004, the World Health Organization announced a decision to support expanded collaboration between tuberculosis and HIV/AIDS programs to curb the growing spread of TB/HIV co-infections. The new WHO policy guidelines define the public health activities that were needed to address what is now referred to as "the dual epidemic of TB and HIV." According to Lee Jong-Wook, Director-General of the WHO,

> TB/HIV is a deadly combination and needs to be tackled with an approach treating the whole person. (World Health Organization 2004 1)

But this syndemic is just one of several in which HIV is a primary disease component.

Recently, in our efforts to futher delineate the concept of syndemic, we have drawn attention to the fact that disease interaction occurs at both the population and individual levels (Singer & Clair 2003). At the population level, the term syndemic refers to two or more epidemics interacting synergistically and contributing as a result to an excess disease load in a population (Frumkin 2002; Homer & Milstein 2002; MacQueen 2002).

As Milstein observes,

> Syndemics occur when health-related problems cluster by person, place or time. The problems—along with the reasons for their clustering—define a syndemic and differentiate one from another (though they may have nested or overlapping relationships). (2001 2)

As this definition suggests, at the population level HIV maybe entwined with several different other diseases, each forming a somewhat different distributional cluster (e.g., hepatitis in one part of a geographically dispersed or socially segmented population and one or more sexually transmitted diseases in another part of a population). In time, of course, these independent syndemics may merge into what might be called a "superdemic." An occurence that syndemic theory predicts is most likely in populations that suffer multiple structural disadvantages and the result is in the interconnected breakdown of social structures, social relationships, and immune defenses.

At the individual level, the term syndemic refers to the health consequences of the biological interactions that occur when two or more diseases or health conditions are co-present in multiple individuals within a population (Alcabes, Schoenbaum & Klein 1993; Ensoli & Sirianni 2002; Farzio, Bueler, Chamberland, Whyte, Sivanajan Froelicher, Hopkins, Reed, Mokotoff, Cohn, Troxler, Phelps, & Berkelman 1992). For example, in a substudy of over 5,000 men that were enrolled in the Multicenter AIDS Cohort Study between 1994 and 2000, Thio and co-workers (2002) divided the sample into four groups: individuals with HIV only, those with hepatitis B, those with both infections, and those who were disease-free. They found that liver disease-related death was highest in the dual infected subgroup and was especially high among those with low CD4 cell counts, a sign of advanced HIV infection. Men infected with hepatitis B and HIV were 17 times more likely to die of liver disease than those infected with just hepatitis B. Similarly, Pugliese and colleagues (2002a), have shown that HIV+ women who are also infected with both the human papillomavirus (HPV), a cause of cervical cancer, and herpes simplex virus (type 2) have a higher level immunodepression than those who are not also co-infected with these other diseases. The added damage to the immune system produced by co-infection with HPV and herpes facilitates the rapid development of HIV infection and subsequent devastating consequences. Other studies by this research team on the effects of co-infection found that HIV+ women infected with human herpesvirus type 8 (HHV-8) exhibited accelerated deterioration of their immunologic and hematologic conditions when compared to HIV+ women coinfected with other sexually transmitted diseases (Pugliese, Torre, Saini, Pagliano, Gallo, Pistono, & Paggi 2002b). In other words, the important issue at the individual level is not just co-infection or co-presence of two or more diseases, but the enhanced infection and physical consequences due to disease interactions.

Social context, including both the physical conditions in which people live their lives, as well as the hierarchical structure of social relations and their consequences in everyday life, is a critical component of the syndemic concept. In contrast to traditional clinical approaches to conceptualizing disease, the types of social conditions that increase the likelihood that various diseases will be concentrated in a population and that certain populations will be particularly vulnerable to co-terminus diseases, are of central concern in syndemic research and public health/medical response. For example, researchers at Johns Hopkins University School of Public Health followed a cohort of over 450 primarily Black (95.8%) male (76.3%) injection drug users in Baltimore during the years between 1988 to 1999. At intake, participants were all HIV+, but were asymptomatic. Two years after enrollment in this study, 32 of the participants had progressed to an AIDS diagnosis, for a cumulative incidence rate of 7.1 percent. Questionnaires completed by participants showed that 43.8 percent of those who had developed full-blown AIDS reported a high level of psychological distress at intake compared to 22 percent of individuals who did not convert to AIDS. Multiple regression analyses found that reporting distress in one's life was associated with a significantly elevated risk (adjusted hazard ratio = 2.39) for the development of AIDS (Golub, Astemborski, Hoover, Anthony, Vlahov, & Strathdee 2003).

In our own studies, we have found that inner city injection drug users tend to experience many risks and stressors (e.g., home-

lessness, uncertain access to needed drugs, police harassment, threat of infection) but being at immediate and continual risk of violence (in various forms) is particularly distressing. Consequently, exposure to violence (directly, as a victim, or even indirectly, as a witness to the victimization of others, especially significant others) was identified early in our work on syndemics as a condition of particular importance. Indeed, in our studies of drug abuse, violence, and AIDS in Hartford over the last 17 years, it has become clear that these three grave threats to health and well-being are not really disconnected phenomena. As a result, we proposed the term SAVA (substance abuse, violence, and AIDS) to label these as a syndemic comprised of three closely linked and interdependent health conditions that co-exist in the bodies and the social worlds of many low-income individuals in urban environments (Singer 1996). Of course, the SAVA syndemic is not confined to Hartford. Rather, this widespread national and even global syndemic has taken a devastating toll on the lives of the urban poor in many countries. Barring significant health and social interventions, SAVA threatens to continue to wreck pain and havoc into the future.

Some dimensions of the enmeshed relationship among substance abuse, violence and AIDS have been studied. These include the social conditions that led to direct and indirect sharing of drug injection equipment and the consequent spread of AIDS; the role of crack-cocaine in particularly demeaning sex for drugs/money transactions that lead to AIDS transmission; the contribution of turf-wars and broken contractual agreements among drug sellers to drug-related violence; and the role of an AIDS diagnosis in enhancing levels of drug use in some individuals for some period of time. Other suspected connections are unclear, such as the frequency of violence against women who proposed condom use by condom-resistant men; the precise role of violence victimization in the initiation and continuation of drug use as a form of self-medication; the impact of various expressions of structural violence on AIDS risk behavior; differences in level of drug withdrawal agitation and intense drug craving in interpersonal violence; and the contribution of childhood sexual abuse on adult drug use and AIDS risk. Building on our earlier assessment of the SAVA syndemic (Singer 1996), the purpose of this paper is to contribute to the further conceptualization of syndemics generally and the SAVA syndemic specifically by examining expressions and dimensions of SAVA in several populations that are subjected to social discrimination, stigmatization, and subordination, namely abused children and battered women, men who have sex with men, illicit drug users, and commercial sex workers.

SAVA AND VICTIMS OF INTERPERSONAL VIOLENCE

Domestic violence has become a grave concern in the societies of North America and elsewhere. Research that speaks to the role of domestic violence in the SAVA syndemic includes both studies of childhood sexual and physical abuse, on the one hand, and intimate partner violence, on the other. The headlines of newspapers emphasize grim statistics: studies show that child abuse occurs in 30-60 percent of family violence cases that involve families with children (Carter, Weithorn, & Behrman 1999). Approximately four million teenagers in the U.S. have been victims of a serious physical assault, while nine million have been witnesses to severe violence during their lifetimes (Kilpatrick & Saunders 1997). Each year, 3-10 million children in the U.S. witness domestic violence.

In the literature on domestic violence, a common explanatory theme is that ìviolence begets violenceî (Widom 1989). Usually, this relationship is thought of in interpersonal terms. Thus, researchers have noted that low self-esteem, in conjunction with limited social support, is closely linked to violence victimization and the development of a life pattern of revictimization (Sobo 1995). Prior life history is a critical feature used in explanations of domestic violence. Those who commit child abuse often have histories of having been abused as children themselves. Consequently, interventions often have ìbreaking the cycle of violenceî as their objective.

While it is likely that the psychological injuries of abuse find expression in responsive acts of violence, a narrow focus on interpersonal violence ignores another important source of violence that many people, particularly the poor and working classes, people of color, and women and sexual minorities endure, namely structural violence perpetuated by the major institutions in society

against denigrated and subordinated populations. As Farmer explains, structural violence refers to

> a host of offenses against human dignity [including]: extreme and relative poverty, social inequalities ranging from racism to gender inequality, and the more spectacular forms of violence that are uncontested human rights abuses... (2003 1)

It is within this contexts of structural violence that the intersection of domestic violence, substance abuse, and AIDS risk is disproportionately common. Structural violence, in short, begats much interpersonal domestic violence and the accompanying faciliators and consequences of violence including drug use and AIDS risk behavior.

In recent years, there has been a proliferation of research on childhood sexual abuse, with considerable attention paid to the lifetime consequences for victims. Research findings show a relationship between child sexual abuse victimization and emotional disturbances like anxiety and depression, sexual problems ranging from risky practices to sexual dysfunction, and substance-related illnesses like food disorders, alcohol abuse, and drug abuse (Beitchman, Zucker, Hood, Dacosta, Akamn, & Cassavia 1992; Briere & Runtz 1987; Brown & Anderson 1991; Bushnell, Wells, & Oakley-Browne 1992). Community studies have shown that 7 to 33 percent of adults report childhood sexual abuse (Russell 1983; Stein, Golding, Siegel, Burnam, & Sorenson 1988; Wyatt 1985). Women who report that they were subjected to childhood sexual abuse have been found consistenly to be more likely than women in the general population to seek treatment for alcohol and drug-related problems (Kovach 1983; Miller, Downs, Gondoli, & Keil 1987; Rohsenow, Corbett, & Devine 1988; Sterne, Schaefer, & Evans 1983). For example, Miller and co-workers (1993) found that women in alcohol treatment reported significantly higher rates of childhood sexual abuse than either women in the general population or women without an alcohol-related problem receiving treatment for a mental health issue. These researchers found that the association between childhood sexual abuse and alcohol-related problems remained even after they controlled for sociodemographic and genetic factors (e.g., parental alcohol problems). A number of studies of adult female victims of child sexual abuse have found higher rates of both alcohol and other drug abuse than women who were not sexually abused or women in the general population (Briere & Runtz 1987; Brown & Anderson 1991; Goodwin, Cheeves, & Connell 1990; Pribor & Dinwiddie 1992). Further, in a general population study, the Los Angeles Epidemiologic Catchment Area (ECA) survey (1983-1984), found that 6.8 percent of women participants reported that they were victims of "forced sexual contact" before the age of 16. In this study there was a significant association identified between reporting such a history and the later development of alcohol and drug dependence (Burnam, Stein, Golding, Siegel, Sorenson, Forsythe, & Telles 1988; Scott 1992; Stein et al 1988). Similarly, a national telephone survey (Kilpatrick, O'Neill, Beak, Resnick, Stugis, Best, & Saunders 1990) found that childhood sexual assault was significantly associated with current substance abuse among women.

Intimate partner violence (IPV) is another critical component of the SAVA syndemic. Estimated rates of partner violence among women who use drugs are two or three times greater than in general population samples of women (Bennett & Larson 1994; Brewer, Fleming, Haggerty, & Catalano 1998). The relationship between partner violence, substance abuse and HIV risk is complex. On the one hand, it can involve substance abuse by either perpetrators, or victims, or both, and, on the other hand, can involve clear cut violence victimization or reciprocal violence among partners (Amaro, Fried, Cabral, Zuckerman 1990; El-Bassel, Gilbert, Schilling, & Wada 2000; Gilbert, El-Bassel, Rajah, Foleno, Fontdevila, Frye, & Richman 2000). Where violence victimization is a factor, a dynamic process can be activated, involving: a) a partner, battering that is triggered by the perpetrator's use of drugs; b) illicit drug use by the victim to self-medicate the damaging emotional effects of violence victimization; and c) engaging in risky sexual and drug-related behaviors. While women in heterosexual relationships are usually the victims of partner violence, this is not always the case.

To examine the relationship between substance abuse, violence and HIV risk more closely, El-Bassel and co-workers (2000) in-

terviewed 31 women in drug treatment who reported physical or sexual violence committed by an intimate partner. Of those women who recalled recent experiences of intimate partner violence, almost all (83.8%) reported drug use during the incident. In 40 percent of these cases, both partners were using drugs, while in 35 percent it was only the perpetrator who was using drugs. About a fifth of the women (19.3%) indicated that they used drugs immediately after the violence had ended as a way of dealing with their emotional upset and physical pain. Additionally, about a fifth of the women reported that they had been forced to have unprotected sex during the most recent incident of violence or just after it ended. These researchers note

> women in our sample attributed their experiences of abuse to their partnerís drug use and to a lesser extent to their own drug use ÖWomen in this study are at very high risk of contracting HIV and HCV, for multiple reasons. Only a minority of our sample have ever used condoms with their partners although a majority reported that they or their partners have had outside relationships. (Gilbert et al 2000 406)

In our own research on drug using women at the Hispanic Health Council[1], we found it important to differentiate the women into one of four relationship groups. About two-fifths of the women (41.9%) reported that there were no incidents of physical violence between themselves and their current or most recent sex partner. Ten percent of the women reported that they were the victims of partner violence. Another 8.5 percent of the women reported that they physically abused their current or most recent partner, but they were not themselves victims of partner violence. Finally, almost 40 percent reported mutual physical violence in their current or most recent relationship (Duke, Teng, Clair, Saleheen, Choice, & Singer 2006).

Women who were subject to violence victimization by partners were more likely to report suffering more severe forms of violence, including being beaten, stabbed, or shot than those women who were involved in mutual violence with their partners: 45.5 percent vs. 35.0 percent. In answering a question about whether they had sold drugs in order to raise money for their partner, only 11.6 percent of those in non-violent relationships reported this behavior compared to 28.6 percent of those women who were victims of intimate partner violence. Similarly, only 11.8 percent of women who reported that they ever sold sex for money or drugs in order to get drugs for their partner were in non-violent relationships, while 22.9 percent of those who were victims of partner violence did so ($p<.01$).

In short, we found that drug-involved women who were in abusive relationships were significantly more likely to engage in risky behaviors raising drug money for their partner than other women. This finding suggests that one of the ways the SAVA syndemic unfolds in this population is that some drug-involved men use particularly severe forms of violence with their female partners. And these women, in turn, are more likely to put themselves at risk for HIV or for street violence than are other women who use drugs. Severe intimate partner violence begets HIV risk and risk for additional violence.

SAVA AMONG MSM

The highest absolute number of both new HIV infections and AIDS cases occur among men who have sex with men (MSM). For the most part, studies of HIV risk among MSM have focused on sexual risk with comparatively little attention given to the dual risk category of MSM drug users, men who are placed in harmís way both through drug use and sexual behavior. However, the CDC (2002) reports that increasing proportions of HIV infections are occurring among men who report dual risks from both drug injection and risky sex with men, especially for men of color. In their comparison of sexual risk behaviors among MSM who also inject drugs with MSM who do not inject drugs, OíConnell and colleagues (2004) found that the former are younger and more likely to be HIV-seropositive than the latter.

In Stueve and co-workersí study (2002) of 3,075 MSM aged 15-25 years, study participants were asked about their last sexual contact with primary and secondary partners, including whether they were ìhigh on drugs or alcoholî at the time. Almost one fifth (18.6%) who reported having a primary partner that they used drugs during their last sexual encounter, and 25 percent said they had anal sex without a condom. Among men without primary partners, 29.3 percent reported drug use during their last sexual episode, and only 12.3 percent reported unprotected anal in-

tercouse. Using drugs was associated with unprotected receptive anal intercourse with nonprimary partners (odds ratio = 1.66, p = .02). Some drugs like crystal methamphetamine have played a particularly significant role in persistent high risk sex among MSM (Reback & Grella 1999; Shoptaw, Reback, & Freese 2002). Use of this drug, for example, is common among men diagnosed with HIV and other sexually transmitted infections (Bernstein, Tulloch, Montes, Golan, Dyer, Lawrence, Dodagoda, Rottblatt, Kerndt, Funn, DeAugustine, & Weismuller 2001).

Among AIDS cases in the U.S., currently eight percent fall into the dual risk category of being an IDU and MSM. Unfortunately, HIV/AIDS surveillance data do not provide information on noninjecting drug use and HIV infection among MSM. However, our research at the Hispanic Health Council with MSM in Hartford, Connecticut suggest that trading sex for drugs and/or money or engaging in high risk sexual practices as a result of drug use is disproportionately common in this population (Singer & Marxuach-Rodriquez 1996; Clair & Singer 2004).

Several factors have been found to increase HIV risk among men who have sex with men in the United States, including multiple drug use, partner violence, childhood sexual abuse and depression (Carballo-Dieguez & Dolezal 1995; Dilorio, Hartwell, & Hansen 2002; Jinich, Paul, Stall, Acree, Kegeles, Hoff, & Coates 1998; Relf, Huang, Campbell, & Catania 2004; Stall, Mills, Williamson, & Hart 2003). These factors are thought to interact producing an increase both in drug-related risk and high-risk sexual behaviors (Barthalow, Doll, Joy, Douglas, Bolan, Harrison, Moss, & McKirnan 1994; Cohen & Densen-Gerber 1982). Stall and coworkers found these associations in a household telephone survey of 2,881 MSM in New York City, Chicago, Los Angeles and San Francisco. Moreover, the percentage of MSM in the study reporting high-risk sex behavior increased steadily from 7.1 percent among those with none of the four health problems to 33.3 percent for those suffering from all four. For men who lacked any of the co-factors, 13 percent were HIV+ compared to 25 percent who reported all four co-factors. Consequently, these workers affirmed the existence of a SAVA syndemic among MSM that has its roots in childhood sexual abuse. Childhood sexual abuse contributes to depression in adulthood, entrance into abusive adult relationships, the use of multiple drugs, and experience with high levels of HIV risk and infection. This suggests that the factors interact, are mutually reinforcing, and are best addressed in tandum rather than as separate threats to health.

Similarly, Relf and co-workers (2004) measured the prevalence of battering victimizationówhich they defined as the experience of psychological/symbolic, physical, and sexual batteringóin the same sample of MSM analyzed by Stall. They found that rates of battering were quite high compared to heterosexual men and that HIV serostatus was associated with being the victim of physical and psychological/symbolic violence, but not sexual violence. Further they found that battering victimization is the key mediating variable between being subjected to childhood sexual abuse, having a gay identity, having various adverse early life experiences, and subsequent HIV risk behaviors. In short, these studies among MSM suggest the importance of a set of syndemic factors beginning with childhood exposure to abuse, later exposure to intimate partner violence, particular psychological reactions, drug use, and high-risk sexual behavior.

SAVA AND STREET DRUG USERS

Tony, a participant in Hispanic Health Council drug research (Singer 2006), explained his most recent bout with violence, a near-fatal revenge stabbing initiated by a drug dealer that Tony had ìbeatî [stolen drugs from] as follows:

> When I was walking down the street, waiting for her [his girlfriend] to come back from her trick [commercial sex], I was going up towards Washington Street.... Thereís like this little alleyway. I take that alleyway because itís a short cut, everybody knows that. Thatís where they got me. They started to attack me and one dude sliced me like that [indicating a jagged 12 inch slash across his chest on the left side].

A 38-year old man of mixed Italian background, Tony had been using drugs heavily for twenty-five years, had both been victim and a perpetrator of drug-related violence since childhood. The violence began with harsh beatings administered by his father; daily beatings intended to correct his alleged

transgressions. These continued during adolescence as he defended his ground in the bellicose world of street-corner drug dealing, a practice taught to him by his father. During his young adulthood, violence, in the form of brutal assaults of wayward members, was a regular part of his role as an "enforcer" in a drug-selling street gang. Indeed, violence, in one form or another, was an enduring component Tony's life until he contracted AIDS through his daily drug injection.[2]

This study explains differences in violence, drug/alcohol use, and HIV risk among study participants and in participant personal networks (Singer 1999b). Data collection was targeted at three levels: a) at the individual level, by implementing a prospective study design that allowed systematic quantitative and qualitative data collection every four months with a street outreach-recruited sample of drug users from targeted neighborhoods; b) at the social relationship level, by identifing and interviewing a set of index individuals and members of their personal drugs and sex network (Singer et al 1999b); and c) at the social context level, by assessing key context characteristics (e.g., unemployment, crime) and contextual threats experienced by sample participants in four target neighborhoods. The final sample included 224 participants with data collected at intake and 4, 8, and 12 months follow-up.

Heroin was found to be the most commonly used drug (64% of participants) during the 30 days period prior to the initial interview of study participants, followed closely by alcohol. In descending order of importance, other commonly used drugs in this sample were speedball, crack, powder cocaine, and tranquilizers. As compared with our prior studies of street drug users in Hartford over the last 10 years, in which we have consistently found comparatively high rates of heroin injection among Puerto Rican drug users, we found a significant number of non-injection heroin users - 29 percent of heroin-users in the sample - this suggests either a shift in the pattern of consumption or the tendency of network methods to tap a different strata of drug users than street outreach. For those who inject heroin, the median rate of injection was 70 times during the previous 30 days. Thirty percent of injecting participants injected 120 or more times during the last month (Singer 1999a). Non-injection heroin use was less common, with a median of 10 times per 30 days. Frequency of alcohol consumption had a U-shaped distribution, with participants at the bottom quartile reporting drinking on 1 or 2 days during the last month and those in the top quartile reporting drinking on 25 or more days.

Turning to the issue of violence, we identified a wide range of violence exposure and involvement types among study participants. Seventy-four percent of our participants reported witnessing fighting in the streets of their neighborhood during the last 4 months (Romero-Daza, Weeks & Singer 1998). Violence in the streets was said to be especially common by participants, with "once or twice a week" being the median frequency. The other most common type of recently witnessed violence was domestic violence, which, notably, was reported by 54 percent of study participants. Gang violence (45%), robbery and muggings (42%), and beatings or stabbing (31%) were the next most common types of violence participants reported they had witnessed. As these findings indicate, street drug users are experientially exposed to a considerable amount of violence on the streets and in their homes in which they are neither victim nor perpetrator. It became evident in our study that witnessing violence is an important element in assessing the interrelationship of violence, drug use and HIV risk.

Considering all forms of direct "involvement" in violence (including emotional abuse)–as either victim or perpetrator—, 39 percent of the sample reported being a victim over the past 4 months, while 30 percent reported being a perpetrator of some form of violence. Specific rates of violence victimization affirm that exposure to violence is not a distant phenomenon in the lives of street drug users. A third of participants reported being the victims of emotional abuse during the prior 4 months. Additionally, 14 percent reported being the targets of physical violence and 7 percent indicated they suffered serious physical violence during this period.

Indeed, violence is a component of everyday life among drug users as indicated by the following participant who explained his strategy for defense against the constant threat of violent attack:

> I was up against the corner, and I was sitting on that little bench, the little couch. A

> guy came up and said, 'Give me everything, your watch, everything.' He had a knife... He had me trapped in the corner. And the way he had me, you know. It was like, 'give it up, and this and that.' And see, if I had seen it coming, I would grab... you see, I always carry a bottle.... I'll crack that over someone's head. They'll think twice about robbing me with a knife or not.... I think he was using "ready" [cocaine]. He probably wanted to get a hit, because I had dope on me and he came in with a girl. And he was like, 'Give me the dope too!.'

Significantly, nine of the drug users in our sample responded that they had been the target of attempted murder. Participants also revealed their own role as perpetrators of violence against others during the last four months. Ten percent admitted committing acts of violence, while two respondents indicated that they had attempted murder during the 4 month period.

Of the incidents of violence victimization reported by participants, 71 percent of physical violence involved the use of drugs or alcohol. In the reported incidents of serious physical violence, the rate of substance use rose to 75 percent. In cases where the study participant was the perpetrator, the reported use of psychoactive substances was 75 percent when they committed emotional abuse, 80 percent for acts of physical violence against another person, and 100 percent in serious physical violence and attempted deadly acts of violence. Notably, 44 percent of our participants indicated that involvement in violence (as either victim or perpetrator) contributed to increases in their rate of drug consumption. Also of interest, 14 percent reported a decrease in the frequency of drug use as a result of involvement in violence, including two participants who gave up using drugs as a result (Duke, Teng, Simmons, & Singer 2003).

Among women participants (about 1/4 of the sample), 16 percent reported being victims of violence during the last 4 months. In cases of violence against women, the perpetrator was more likely to be a family member or someone known to the woman than was the case in victimization among men (100% vs. 75%). Notably, women were also more likely to increase drug use following violence victimization. Additionally, women were more likely to report that it was hard for them to escape exposure to violence (38% vs. 27%) (Dushay, Singer, Weeks, Rohena, & Gruber 2001).

In an ethnographic component of the study, we conducted qualitative interviews with a subsample of 30 participants, most of whom were men. These individuals provided graphic descriptions of the experience of violence in their lives (Romero-Daza et al 1998). For example, several participants described witnessing murders. One participant, who suffered the emotional consequences of witnessing violence, stated:

> This is haunting me still about when I seen they killed this man and everything.... They beat this man up and he was dead. I think all the blows and everything, and they took his head and hit him on the floor and that killed him.... And now one of my brothers is in jail cause he shot another man. Cause if he wouldn't have shot that man, he would have killed my brother for a bike the other man wanted.

Another stated,

> I used to sell drugs [and] this guy killed this woman in the alleyway behind my door and I seen it happen and, you know, I was scared.

Prison is an environment in which many of our participants witnessed a considerable amount of horrific violence, as one study participant indicated:

> Well, in jail sometimes the people would get together, you know, a lot of people, and they used to beat up a lot of people, they would hit them, they would rob them and they would do all kinds of barbaric things. Sometimes they would rape them also. I saw a lot of things, a lot of fights, I also saw, they would stab them also, I saw knives also.

Noting the reflective emotional effects of being a perpetrator of violence, another participant stated:

> So then I started shooting up and that's when I started going crazy...you know like getting sick, real sick, starting to do bad things, stealing robbing...like taking money away from people...and I used to have a

> gun. My cousin had a gun and he used to give it to me so I can go rob people, like drug dealers, take their drugs. A lot of crazy stuff like that I come to think about now and I be like, damn, man, I could have been dead.

Gang involvement, which is extensive among younger drug users in Hartford, was related to a considerable amount of violence perpetration by our participants. This is exemplified by one individual who participated in a number of gang ìbeatdownsî and stabbings. In one instance, he was called upon by gang leaders to beat another inmate. He recalled:

> There was one guy one day, he molested somebody - a little kid...and we put a blanket over his head, and we started beating down. We took some socks and put some locks inside the socks and started hitting the guy...

This individual also reported involvement in a drive-by shooting as a result of his gang affiliation, stating:

> They just send me to go and shoot somebody. I never did it, the other two guys did it. We went to the block and started shooting everybody in there.

Partner violence was also reported during qualitative interviews. One woman participant reported,

> I thought that if I would leave him, my kids, you know, theyíre going to suffer because they didnít have a father and stuff like that, so I stayed but, after three, four years, I left ...He broke my leg. He pushed me down the stairs and broke my leg. You know how you get black and blue and stuff like that? He used to hurt me like that. My body was all sore. So, I took the train and went to New York, to my cousin.

Nilda, a 26-year old woman who had been using heroin for 7 years at the time she was interviewed, reported:

> My husband was twice my age. He used to beat me up all the time. He was a very jealous man. He wouldnít even let me look out the window. He will tear my clothes off and he will keep me locked in the house. That made me feel I needed to escape. I wanted to be like a free bird and when I finally found myself free thatís when everything happened. I started with marijuana and then I moved to crack and then to heroin. Every time I had a chance to get out I would buy some rock [crack] and use it in secret. I felt trapped. I was with him for 20 years. I couldnít talk to anyone. If he saw me talking to anyone, he would say I had something with that person; man or woman. He wouldnít hit me in front of people but as soon as we got home he would hit me. Heíd throw dishes at me. He would hit me with his fists.

Community-based studies, including ethnographic examination of actual temporal, sequential, or other associations between drug use, HIV risk and violence, are needed to further clarify the actual nature of the relationships that exists between these intertwined epidemics that have had a notable effect on morbidity and mortality in low income and minority communities. However, it is evident that the SAVA syndemic is a significant aspect of the life experience of street drug using populations, including contexts away from the street like jails and prisons. Particularly severe forms of violence are found in this population punctuating the everyday violence associated with conflicts over drug deals, disagreements during the sharing of drugs, police harassment, lack of reliable shelter, and drug user on drug user use of force to extract items of any value, however minimal.

SAVA AND COMMERCIAL SEX

As Silliman and Bhattacharjee emphasize,

> women in prostitution are particularly at risk of gender-based violenceóincluding physical, psychological and economic violenceó from pimps, buyers, police and boyfriends. (2002 210)

This fact has often been hidden behind a public health focus on prostitution as a vector of disease. Notes Janice Raymond and colleagues,

> The minimal documentation of the harm and trauma of prostitution and trafficking may in large part be due to the fact that prostitution

> has not been recognized as a form of violence against women and the ambivalence, on the part of many researchers, NGOs and governments, to view prostitution as a violation of women's human rights. (Raymond, D'Cunha, Dzuhayatin, Hynes, Rodriguez, & Santos 2002 296)

None the less, violence is a common experience among commercial sex workers. For example, Parrirot (1994) who interviewed 68 women in Minneapolis/St. Paul who had been involved in commercial sex for at least six months in various setting, including the "street," massage parlors, and escort services, found that 62 percent had been raped, half had been physically assaulted; and one third were assaulted by customers at least several times each year. About one fourth of the women suffered broken bones and two were beaten into a coma (Parriott 1994). Similarly, a survey of 55 commericial sex workers in Portland, Oregon, found that the majority (78%) reported being raped by pimps and male customers on average 49 times a year. Additionally, 84 percent were the victims of aggravated assault, often sufficient to require emergency room treatment; 53 percent were sexually abused or tortured; and 27 percent were mutilated (Hunter 1993).

Based on a study of commercial sex in four countries, Raymond and her co-workers report the existence of a complex relationship between substance abuse and violence in this population:

> Some [commercial sex workers] encouraged buyers to use crack so buyers "would forget about sex altogether." Most of the women were habitual drug users (...77%), and...used alcohol and drugs to deaden their feelings. [As one participant explained],"It would end up that I would just drink to get drunk to cover up what I was feeling—which was dirty and ashamed." Although many U.S. women said that they used drugs and alcohol prior to entering prostitution..., it is simplistic to assume that they entered prostitution to support a drug habit. The cycle of substance abuse in which they are caught has its roots in the life history of abuse, neglect, and severe stress which all of the respondents... described when asked about prior sexual abuse before entering the sex industry. [Many had] experiences of rape, incest, being witnesses to domestic violence, losing their primary home, being runaways, having a difficult home life, and economic destitution...Much of their current substance abuse results from the accretion of abuse: sexual, physical, mental and economic prior to and within prostitution. Further, some report that prostitution worsens their drug habits, forcing them to escape longer and deeper from the consciousness of their entrapment. The worsening of drug problems ultimately traps them within prostitution, sapping them of the stamina and will to get out. (2002 197)

Women in their study (Raymond et al 2002 196-197) reported:

- "They just broke me down, shattered my will and hopes. I was humiliated."
- "They didn't push me to take drugs, they just made me an injection about 2 weeks after arriving."
- "The bosses...they used to say: 'Remember, there was a girl working for us. You should know, she is not here anymore because she did something she was not supposed to.'"

Commercial sex workers at special risk for substance abuse, violence, and AIDS are those who get caught up in the international cross-border commercial sex trade (Singer, Salaheen, & He 2004). Generally speaking, there is a strong link between migration and the geographical spread of HIV/AIDS and other infections. Studies have shown that extended or repeated overnight travel away from one's home community is associated heightened risk for HIV infection. However, in the case of commercial sex trafficking—i.e., the movement, usually of women and girls, across national boundries for use as commercial sex workers—the link is particularly strong, and its causes identifiable.

Whatever their country of origin or ultimate destination, women ensnared in the cross-border sex trade tend to come from impoverished families and the poorest regions of their home countries, have limited formal education, and to have their roots in rural areas and in subordinated ethnic minority groups within their countries of origin. These factors, demarcating the weak social resources women bring with them into the arena of commercial sex, are magnified

many times as a result of cross border commercial sex trafficking, which involves: isolation from any means of traditional social support, often having illegal status in a foreign country, often having limited linguistic or cultural skills in the new context, being trapped in some form of debt to the traffickers, having limited knowledge of HIV prevention, and possessing little ability to negotiate preventive behaviors with clients or access to medical care through their handlers or elsewhere.

In assessing the ability individuals have to protect themselves from HIV infection—measured in terms their HIV/AIDS knowledge and learned prevention skills, social position and ability to command the labor of others on their behalf, level of emotional and material social support, possession or control over material recourses including prevention materials, freedom of movement; protection from violence, and overall health status—women in the commercial sex trade are clearly at high risk. Their limited social options and resources makes them highly vulnerable to HIV infection and to disease progression. Consequently, when the AIDS epidemic in Thailand was at its peak, over 80 percent of HIV/AIDS cases in the country were attributed to commercial sex workers and clients (Viravaidya 1993). In India, infection rates among commercial sex workers in some locales such as Mumbai (Bombay) exceeds 50 percent (DevNews Media Center 2002).

Similarly high rates of STD infection have been found in migrant sex workers in Italy (Matteelli 2003). Notably in their comparative study of commercial sex trafficking in Indonesia, the Philippines, Thailand, Venezuela, and the United States, Janice Raymond and workers (2002) found that the highest rate of physical violence was against women trafficked to the United States. It is not quite clear why this is the case, but it may be a consequence of the opportunities for these women to escape from their pimps in a wealthy country with many service and feminist organizations. Under such conditions, pimps may use high doses of violence to dissuade women from seeking ouside contacts.

In our study of the relationships between violence, drug/alcohol use, and HIV risk among active drug users in the Puerto Rican community (Singer 1996; Singer et al 1999a), our research team at the Hispanic Health Council recruited 224 participants in Hartford using street outreach (to contact initial participants) and the personal networks of intial contacts to recruit subsequent participants and found that 15 percent of the individuals in our sample had ever been involved in commercial sex. Age of initiation into commercial sex ranged from 14 to 35 years of age, with a mean age of 24 years. Level of involvement in commericial varied, but about 40 percent reported they had traded sex for drugs or money many times. Almost all of these individuals (91%) reported that drug and alcohol use was part of their involvement in commercial sex. Violence in various forms (observed, attacks on friends, street fights, and personal victimization) was very common in the whole sample, with over 10 percent reported seeing street robberies almost every day while growing up while 38 percent stated that they observed fighting in the street almost every day as children. About 30 percent of participants reported that they had witnessed a murder. In this sample of Puerto Rican drug users, 16 percent had been diagnosed with HIV/AIDS, 19 percent had been diagnosed with another sexually transmitted infection, and 14 percent had been diagnosed for Hepatitis B. As these data suggest, commericial sex, violence, and various infectious disease are commonly intertwined with drug use, a finding replicated in all of our studies.

CONCLUSION

AIDS has been conceptualized in several different ways since it first gained medical and ultimately public recognition early in the 1980s. Initially, because its symptoms were so unexpected (e.g., a cancer associated with old age showing up in young men, a lung infection associated with recent surgery, especially organ transplant, and weakened immune capacity induced to avoid organ rejection being diagnosed in people who had not undergone surgery nor taken immune blocking drugs), that physicians and epidemiologists were uncertain how to conceptualize the new diease.

Before long because it appeared that all of the initial sufferers were gay men (in fact, they were not), AIDS—under the rubric of GRID (Gay Retroviral Immune Deficiency)—became the reigning conceptualization. However, the obvious spread of the diease beyond gay men soon led to a new conceptualization based on the existence of so-called

"risk groups," most notably, initially, the 4-H club (homosexuals, hemophiliacs, heroin injectors, and Haitians, although, by this point the disease had infact spread to many other groups as well).

Alternate conceptions also arose, including those with conservative religious bent (AIDS as God's punishment for sin) and those with a political foundation (AIDS as conspiracy against gays, or ethnic minorities, the primary sufferers). Eventually, as aspects of the new epidemic began to be clear, the term AIDS was introduced and the retrovirus that caused the new disease was identified. At this point, AIDS came to be conceptualized like other infectious diseases, a distinct entity with an identified pathogenic cause that could potentially be contracted by anyone engaged in a set of "risk behaviors" (ignoring the fact that many are infected by conventional behaviors like sexual intercourse with their spouse or being born to an infected mother).

From the perspective of biomedicine, each known disease is a discrete, objective, and clinically identifiable phenomenon. Normal practice in biomedicine is guided by the conceptualization of diseases as disjunctive entities that exist (in theory) separate from other diseases and from the social groups and social contexts in which they are found at any point in time. Introduction of the term syndemic, and SAVA as one example of a syndemic, was specifically intended to further refine our conceptualization, beyond conventional thinking about bounded, independent disease entities and to a realization of interlocking, mutually advancing threats to health in conducive social contexts.

With a syndemic understanding, AIDS is conceived not in isolation as a specific disease with particular properties but rather in terms of its relationship to other diseases and social conditions. In the case of SAVA, it is the relationship among HIV/AIDS, violence, and drug use that is of primary analytic concern. AIDS, drug use, and violence are conceived not as distinct "things in the world" but as phenomena in tandem, the essence of each being significantly shaped by the presence, nature and influence of the others. As argued in this paper, the actual expression of the SAVA syndemic is shaped as well by the social context, including both the population being affected and the social conditions faced by the population of concern.

As a result, it would not be inappropriate to talk about the existence of multiple SAVA epidemics, each driven by its own configuration of social conditions and relationships. This recognition points to the importance of public health responses that: 1) go beyond focusing just on HIV but instead respond to the roles of drugs and violence in undermining the effectiveness of narrowly pitched prevention initatives; and 2) being sensitive to the specific population of immediate concern and the particular expression(s) of SAVA in this population. What is called for, then, is a two directional approach involving both a broadening of focus to approach AIDS prevention/intervention in terms of a syndemic model of responding to multiple, interacting dieases as a single entity, and a narrowing of focus to match prevention/intervention to specific populations in social context. In other words, prevention efforts must be guided by a keen awareness of and response to the social, cultural, and health conditions of target populations. So too, AIDS care.

ENDNOTES

[1] We used street outreach to recruit a sample of 500 not-in-treatment heroin and/or cocaine using women over the age of 18 (average age = 37.8 years) in the greater Hartford area. The sample reflects the ethnic composition of Hartford, with 38.6% of the women being African American, 39.4% being Hispanic, and 17.4% being non-Hispanic white.

[2] Tony was a participant a NIDA-funded study by our research team at the Hispanic Health Council of relationships between substance abuse, violence, and HIV risk among not-in-treatment Puerto Rican street drug users in Hartford (NIDA #R01 DA10438) (Singer 1996; Singer, Simmons, Duke, & Broomhall 1999a; Singer, Duke, Soto, & Weeks 1999b).

REFERENCES

Alcabes P, E Schoenbaum & R Klein. 1993. Correlates of the rates of decline of CD4+ lymphocytes among injection drug users infected with human immunodeficiency virus. *Amer J Epidemiology* 137 989-1000.

Amaro H, L Fried, H Cabral, & B Zuckerman. 1990. Violence during pregnancy and substance use. *Amer J Public Health* 80 575-579.

Barthalow B, L Doll, D Joy, J Douglas, G Bolan, J Harrison, P Moss, & D McKirnan. 1994. Emotional behavior and HIV risks associated with sexual abuse among adult homosexual and bisexual men. *Child Abuse & Neglect* 18 747-761.

Beitchman J, K Zucker, J Hood, G Dacosta, D

Akamn, & E Cassavia. 1992. Review of the long-term effects of child sexual abuse. *Child Abuse & Neglect* 16 101-118.

Bennett L & M Larson. 1994. Barriers to cooperation between domestic violence and substance abuse programs. *Family in Society* 75 277-286.

Bernstein K, R Tulloch, J Montes, G Golan, I Dyer, M Lawrence, D Dodagoda, H Rotblatt, P Kerndt, R Gunn, N DeAugustine, & P Weismuller. 2001. Outbreak of syphylis among men who have sex with men—southern California. *Morbidity & Mortality Weekly Rev* 50 117-120.

Bourgois P. 1995. *In Search of Research: Selling Crack in El Barrio.* Cambridge: Cambridge U Press.

Breire J & M Runtz. 1987. Post-sexual abuse trauma: data and implications for clinical practice. *J Interpersonal Relations* 2 367-379.

Brewer D, C Fleming, K Haggerty, & R Calalano. 1998. Drug use predictors of partner violence in opiate dependent women. *Violence Victimization* 13 2 107-115.

Brown G & B Anderson. 1991. Psychiatric morbidity in adult inpatients with childhood histories of sexual and physical abuse. *Amer J Psychiatry* 148 55-61.

Burnam M, J Stein, I Golding, J Siegel, S Sorenson, A Forsythe, & C Telles. 1988. Sexual assault and mental disorders in a community population. *J Consulting Clinical Psychol* 56 843-850.

Bushnell J, J Wells, & M Oakley-Browne. 1992. Long-term effects of intrafamilial sexual abuse in childhood. *Acta Psychiatry Scandenavia* 85 136-142.

Carballo-Dieguez A & C Dolezal. 1995. Association between history of childhood sexual abuse and adult HIV-risk sexual behavior in Puerto-Rican men who have sex with men. *Child Abuse Neglect* 19 595-605.

Carter L, L Weithorn L, & R Behrman. 1999. Domestic violence and children: analysis and recommendations. *Future Children* 9 3 4-20.

Centers for Disease Control and Prevention. 2002. *HIV/AIDS Surveillance Report.* Atlanta, GA.

Clair S & M Singer. 2004. HIV status, risk, and prevention needs among Latino and non-Latino MSM in Connecticut. In. *AIDS, Culture, and Gay Men.* D Feldman, ed. Greenwood Press.

Cohen F & J Densen-Gerber. 1982. A study of the relationship between child abuse and drug addiction in patients: preliminary results. *Child Abuse Neglect* 6 383-387.

DevNews Media Center. 2002. *SAR Puts HIV/AIDS at Top of Agenda.* Washington, DC: The World Bank Group.

Dilorio C, T Hartwell, & N Hansen. 2002. Childhood sexual abuse and risk behaviors among men at high risk for HIV infection. *Amer J Medicine* 337 501-502.

Duke M, W Teng, J Simmons, & M Singer. 2003. Structural and interpersonal violence among Puerto Rican drug users. *Practicing Anthropology* 25 3 28-31.

Duke M, W Teng, S Clair, H Saleheen, P Choice, & M Singer. 2006. Patterns of intimate partner violence among drug using women. *Free Inq Creat Sociol* 34 1 pp-pp.

Dushay RA, M Singer, M Weeks, L Rohena, & R Gruber. 2001. Lowering HIV risk among ethnic minority drug users: comparing culturally targeted intervention to a standard intervention. *Amer J Drug Alcohol Abuse* 27 3 504-524.

El-Bassel N, L Gilbert, R Schilling, & T Wada. 2000. Drug abuse and partner violence among women in methodone treatment. *J Family Violence* 15 3 209-225.

Ensoli F & MC Sirianni. 2002. HIV/HCV co-infection: clinical and therapeutic challenges. *AIDS* 16 10 1419-1420.

Farmer P. 2003. Pathologies of power: health, human rights and the new war on the poor. *North Amer Dialogue* 6 1 1-4.

Farzio K, J Bueler, M Chamberland, B Whyte, E Sivanajan Froelicher, S Hopkins, C Reed, E Mokotoff, D Cohn, S Troxler, A Phelps, & R Berkelman. 1992. Spectrum of diseases in persons with human immunodeficiency virus infection in the United States. *J Amer Medical Assoc* 267 1798-1805.

Frumkin H. 2002. Urban sprawl and public health. *Public Health Rep* 117 23-35.

Gilbert L, N El-Bassel, V Rajah, A Foleno, J Fontdevila, V Frye, & B Richman. 2000. The converging epidemics of mood altering-drug use, HIV, HCV, and partner violence. *Mount Sinai J Medicine* 67 5&6 452-464.

Golub E, J Astemborski, D Hoover, JC Anthony, D Vlahov, & S Strathdee. 2003. Psychological distress and progression to AIDS in a cohort of injection drug users. *J Acquired Immune Deficiency Syndromes* 32 4 429-434.

Goodwin J, K Cheeves, & V Connell. 1990. Borderline and other severe symptoms in adult survivors of incestuous abuse. *Psychiatric Annals* 20 22-32.

Homer J & B Milstein. 2002. Communities with Multiple Afflictions: A System Dynamics Approach to the Study and Prevention of Syndemics. Presented at the International System Dynamics Conference, Palermo, Italy, 2002.

Hunter SK. 1993. Prostitution is cruelty and abuse to women and children. Portland: *Feminist Broadcast Quarterly.*

Jinich S, J Paul, R Stall, M Acree, S Kegeles, C Hoff, & T Coats. 1998. Childhood sexual abuse and HIV risk-taking behavior among gay and bisexual men. *AIDS Behavior* 2 41-51.

Kilpatrick D & B Saunders. 1997. *The Prevalence and Consequences of Child Victimization: Summary of a Research Study.* Washington DC: U.S. Dept. of Justice, Office of Justice Programs, National Institute of Justice.

Kilpatrick D, H O'Neill, S Beak, H Resnick, E Stugis, C Best, & B Saunders. 1990. Parental substance abuse, personal victimization, and women's risks for substance abuse: results from a national probability sample. Paper presented at the Association for Advancement of Behavior Therapy, San Francisco, Calif, November.

Kovach J. 1983. The relationship between treatment failures of alcoholic women and incestuous histories with possible implications for post traumatic stress disorder symptomatology. Doctoral dissertation, Wayne State University Graduate School.

MacQueen K. 2002. Anthropology and public health. In *Encyclopedia of Public Health.* L Breslow, L Green, W Keck, J Last, & M McGinnis, eds. NY: Macmillan.

Matteelli A. 2003. Chlamydia trachomatis genital infection in migrant female sex workers in Italy. *International J STD/AIDS* 14 9 591-5.

Miller B, W Downs, & M Testa. 1993. Interrelationships between victimization experiences and women's alcohol use. *J Studies Alcohol* Supp No. II 109-117.

Miller B, W Downs, D Gondoli, & A Keil. 1987. The role of childhood sexual abuse in the development of alcoholism in women. *Violence Victimization* 2 157-171.

Milstein B. 2001. *Introduction to the Syndemics Prevention Network.* Atlanta: Centers for Disease Control and Prevention.

O'Connell J, T Lampinen, A Weber, K Chan, M Miller, M Schechter, & R Hogg. 2004. Sexual risk profile of young men in Vancouver, British Columbia, who have sex with men and inject drugs. *AIDS Behavior* 8 1 17-23.

Parriott R. 1994. *Health Experiences of Twin Cities Women Used in Prostitution: Survey Findings and Recommendations.* St. Paul, MN: Breaking Free.

Pribor E & S Dinwiddie. 1992. Psychiatric correlates of incest in childhood. *Amer J Psychiatry* 149 52-56.

Pugliese A, L Andronico, L Gennero, G Pagliano, G Gallo, & D Torre. 2002a. Cervico-vaginal dysplasia-papillomavirus-induced and HIV-1 infection: role of correlated markers for prognostic evaluation. *Cell Biochemical Function* 3 233-236.

Pugliese A, D Torre, A Saini, G Pagliano, G Gallo, P Pistono, & C Paggi. 2002b. Cytokine detection in HIV-1/HHV-8 co-infected subjects. *Cell Biochemical Function* 20 3 191-4.

Raymond J, J D'Cunha, SR Dzuhayatin, HP Hynes, ZR Rodriguez, & A Santos. 2002. *Comparative Study of Women Trafficked in the Migration Process: Patterns, Profiles and Health Consequences of Sexual Exploitation in Five Countries (Indonesia, the Philippines, Thailand, Venezuela and the United States).* Coalition Against Trafficking in Women.

Reback C & C Grella. 1999. HIV risk behaviors of gay and bisexual male methamphetamine users contacted through street outreach. *J Drug Issues* 29 155-166.

Relf M, B Huang, J Campbell, & J Catania. 2004. Gay identity, interpersonal violence, and HIV risk behaviors: an empirical test of theoretical relationships among a probability-based sample of urban men who have sex with men. *J Assoc Nurses AIDS Care* 15 2 14-26.

Rohsenow D, R Corbett, & D Devine. 1988. Molested as children: a hidden contribution to substance abuse? *J Substance Abuse Treatment* 5 13-18.

Romero-Daza N, M Weeks, & M Singer. 1998. Much more than HIV! the reality of life on the streets for drug-using sex workers in inner city Hartford. *Internat Qtrly Community Health Edu* 18 1 107-119.

Russell D. 1983. The incidence and prevalence of intrafamilial and extrafamilial sexual abuse of female children. *Child Abuse Neglect* 7 133-146.

Scott K. 1992. Childhood sexual abuse: impact on a community's mental health status. *Child Abuse Neglect* 16 285-295.

Shoptaw S, C Reback, & T Freese. 2002. Patient chacteristics, HIV serostatus, and risk behaviors among gay and bisexual males seeking treatment for methamphetamine abuse and dependence in Los Angeles. *J Addictive Diseases* 21 91-105.

Silliman J & A Bhattacharjee. 2002. *Policing the National Body: Sex, Race, and Criminalization.* Cambridge, MA: South End Press

Singer M. 1994. AIDS and the health crisis of the US urban poor: the perspective of critical medical anthropology. *Soc Sci Medicine* 39 7 931-48.

_____. 1995. *Providing Substance Abuse Treatment to Puerto Rican Clients Living in the U.S. 1 In Providing Substance Abuse Treatment in the Era of AIDS.* Washington, DC: CSAT

_____. 1996. A dose of drugs, a touch of violence, a case of AIDS: conceptualizing the SAVA syndemic. *Free Inq Creat Sociol* 24 2 99-110.

_____. 2006. *The Face of Social Suffering: Life History of a Street Drug Addict.* Prospect Heights, IL: Waveland Press.

Singer M & S Clair. 2003. Syndemics and public health: reconceptualizing disease in bio-social context. *Medical Anthro Qtrly* 17 4 423-441.

Singer M, M Duke, M Soto, & M Weeks. 1999b. Violence in the lives and social networks of street drug users. *Bull Alcohol Drug Study Group* 34 3 8-11.

Singer M & L Marxuach-Rodriquez. 1996. Applying anthropology to the prevention of AIDS: the Latino gay men's health project. *Human Organization* 55 2 141-148.

Singer M, H Salaheen, & Z He. 2004. The Special

HIV and Related Health Vulnerabilities of Sex Workers Caught in the International Sex Trade Industry. Presented at the Society for Applied Anthropology. Dallas, Texas.

Singer M, J Simmons, M Duke, & L Broomhall. 1999a. The challenges of street research on drug use, violence, and AIDS risk. In *Qualitative Methods in Drug Research*.

Sobo E. 1995. Finance, romance, and social support and condom use among impoverished inner city women. *Human Organization* 63 115-128.

Stall R, T Mills, J Williamson, & T Hart. 2003. Association of co-ocurring psychosocial health problems and increased vulnerability to HIV/AIDS among urban men who have sex with men. *Amer J Public Health* 93 6 88-99.

Stall R & D Purcell. 2000. Intertwined epidemics: a review of research on substance use among men who mave sex with men and its connection to the AIDS epidemic. *AIDS Behavior* 4 181-192.

Stein J, J Golding, J Siegel, M Burnam, & S Sorenson. 1988. Long-term psychological sequelae of child sexual abuse: the Los Angeles epidemiologic catchment area study. Pp. 135-154 in *Lasting Effects of Child Sexual Abuse*. G Wyatt & G Powell, eds. Newbury Park, CA: Sage.

Sterne M, S Schaefer, & S Evans. 1983. Women's sexuality and alcoholism. Pp. 421-425 in *Alcoholism: Analysis of a World-Wide Problem*. P Golding, ed. Lancaster, England: MTP Press Limited.

Stueve A, L O'Donnell, R Duran, A San Doval, J Geier, & Community Intervention Trial for Youth Study Team. 2002. Being high and taking sexual risks: findings from a multisite survey of urban young men who have sex with men. *AIDS Edu Prevention* 14 6 482-95.

Thio C, E Seaberg, R Skolasky, J Phair, B Visscher, A Munoz, & Multicenter AIDS Cohort Study. 2002. HIV-1, hepatitis B virus, and risk of liver-related mortality in the Multicenter Cohort Study (MACS). *Lancet* 14 1921-1926.

Viravaidya M. 1993. The economic impact of AIDS on Thailand. In *Economic Implications of AIDS in Asia*. DE Bloom & JV Lyons, eds.

Wallace R. 1990. Urban desertification, public health and public order: planned shrinkage, violent death, substance abuse and AIDS in the Bronx. *Soc Sci Medicine* 31 801-813.

Waterston A. 1993. *Street Addicts in the Political Economy*. Philadelphia: Temple U Press.

Widom C. 1989. Does violence beget violence? a critical examination of the literature. *Psychological Bull* 106 1 3-28.

World Health Organization. 2004. *WHO Pushing to Rapidly Scale-up Measures to Fight TB and HIV*. Press release, January 21. Geneva.

Wyatt G. 1985. The sexual abuse of Afro-American and white-American women in childhood. *Child Abuse Neglect* 9 507-519.

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