

Repeated Police Contact, Profiling, and Incarceration as Catalysts for Worsening Health

By

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until the late 90s our family enjoyed the great benefits offered by my dad's new job and secured a place comfortably in the "middle class".

In the years after the North American Free Trade Agreement was signed, my dad's job security waned. Many of the manufacturing jobs like the one my dad occupied were shipped to Mexico where labor was much cheaper. Over the years my dad's pay steadily declined and, subsequently, the number of hours he worked increased. When my dad was 42 he suffered his first heart attack, but he soon returned to working 80+ hours a week. From 2008-2010, my father picked up a second job as a janitor in a local bank in my hometown. He cleaned the bank several times a week after he left his 12 hour shift at the glass plant. In July 2010, my dad took a rare few days off to go with my mom to Louisville, Kentucky. While there he suffered a silent heart attack and, after two days in the hospital, died at the age of 50. The last time I talked to him was on the telephone the day before he fell ill and this conversation like many others turned philosophical. He told me that all he wanted was for my siblings and I to do something special with our lives, to use our minds instead of our hands. He told me he knew he was killing himself by working so hard. A month after I lost my dad, I started working on my Ph.D. As hard as it was to begin a new chapter of my life at that time, the loss of my father fortified my commitment to my area of research, health inequities and has culminated in this dissertation. His presence in my life, his devotion to me and my family, and his love and empathetic heart influenced who I am today and my commitment to equity and social justice. And for that, and everything else, I am eternally grateful.

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CHAPTER I

REPEATED POLICE CONTACT, PROFILING, AND INCARCERATION AS CATALYSTS FOR WORSENING HEALTH

Introduction

Whereas the last several years have had a slight decline in the number of individuals incarcerated, the rate of incarceration in America continues to soar (Sabol, 2013). Today over 7 million people are involved in the criminal justice system including 2.1 million in jails or prisons and over 4 million on probation or parole—representing a 365% increase from 1980 (Sabol, 2013). Much study has been devoted to uncovering the possible impact of incarceration on individuals, families, and communities. As a result, we know that the criminal justice system can cause extended harm to the lives and health of those touched by the criminal justice system and due to this understanding of the negative impact of incarceration, policy is beginning to shift. Many policy changes on the horizon (e.g., the Affordable Care Act, moving away from one size fits all sentencing) have the potential to limit the number of individuals who are arrested and subsequently go to jail or prison. However, even though the landscape for change is fertile, low-income, minority individuals still disproportionately experience the criminal justice system and the associated harms caused by both frequent police interaction and the carceral experience.

Low-income African Americans have a much higher rate of contact with the criminal justice system, including the police. Police interaction among African Americans is routinely much higher than among their White counterparts (Sabol & Couture, 2008). Researchers at the

Morris Justice Project (2013) found that in one neighborhood in the Bronx, 89% of African American individuals reported being stopped by police in the previous year and 54% reported being stopped more than four times. In contrast, only 24% of White individuals surveyed in the East Village were stopped. However, the arrest rate for the White individuals was 76% while only 9% of the stops in the Bronx resulted in an actual arrest (Morris Justice Project, 2013).

African Americans also experience extremely disparate rates of incarceration. African American men specifically are incarcerated at a rate that is 650% greater than their White male counterparts (Sabol & Couture, 2008). African Americans and Whites have nearly the exact same rate of drug use (7.4% for African Americans and 7.2% for Whites). However, African Americans constitute almost 63% of drug arrests and more than 80% of drug possession arrests despite constituting only 13% of the total population (Fellner, 2008, 2009). The Bureau of Justice Statistics has projected that one in every three African American males is likely to go to jail or prison in his lifetime (Bonczar, 2003). Incarceration can negatively affect many areas of one's life including employment, education, and, most relevant herein, overall wellbeing and health (Alexander, 2010; Drucker, 2011).

This dissertation is largely informed by the Incarceration as a Catalyst for Worsening Health (ICWH) model (Brinkley-Rubinstein, 2013), which is a framework that illustrates how incarceration can be damaging to health. However, an unexpected finding of the dissertation project is that many individuals who are detrimentally affected by incarceration also have disproportionate contact with police, which also has a relationship with health. The current chapter acts as an introduction to the dissertation and includes (a) a literature review of the existing scholarship relevant to the criminal justice system and health; (b) an overview of the ICWH model and a reflection on the mechanisms of police profiling that might also affect

health; (c) a section devoted to the intersection of HIV and the criminal justice system as this dissertation specifically includes research relevant to incarceration and health of people living with HIV; and (d) a summary of each of the three empirical papers presented in this dissertation.

Literature Review: The Criminal Justice System and Health

The literature related to the intersection of health and the criminal justice system is summarized below. First, literature relevant to policing practices, repeated police contact and health is described. Next, scholarship about the relationship between health and incarceration and the provision of healthcare in correctional facilities is presented. Research that investigates the post-release transition and wellbeing is summarized. Finally, what is known about the relationship between HIV and incarceration is discussed.

Policing Practices and Profiling

There is an established association between profiling by police and mental health. Carter and Mazzula (2006) concluded that stress was the mechanism by which profiling negatively affected health (Carter & Mazzula, 2006). The Federal End Racial Profiling Act of 2001 states that those who are profiled by police experience fear, anxiety, humiliation, anger, resentment, and cynicism when they are unjustifiably treated as criminal suspects (107th Congress; Cooper, 2002). Additionally, Geller, Fagan, Tyler, and Link (2014) found that those who reported higher incidences of police contact also reported higher incidence of anxiety, vigilance, and depression. Feeling targeted by police can also result in feelings of victimization and powerlessness that extend beyond any individual encounter with the police and may result in disempowerment or resignation to profiling as a normalized part of life (Watson, 2010). Therefore, police profiling can have serious impacts on individual health that can have long-lasting effects.

Incarceration

There is an established connection between incarceration and health (Brinkley-Rubinstein, 2013). This is due, at least in part, to the potential for prisons and jails to amass individuals who are most at risk for accumulated disparities such as a high prevalence of experiencing violence, substance abuse, mental health issues and infectious and chronic diseases (Heron et al., 2009). Rates of HIV infection are four to six times higher, and one in three incarcerated individuals is estimated to have hepatitis C (Centers for Disease Control, 2012; Maruschak, 2006). About 4.2% of all tuberculosis cases occur in correctional facilities while less than 1% of the American population is incarcerated at any given time (Centers for Disease Control, 2010; Schmitt, Warner, & Gupta, 2010). Binswanger, Krueger, and Steiner (2009) found that those incarcerated in jails and/or prisons have a higher likelihood of experiencing hypertension, asthma, arthritis, and cervical cancer than their non-incarcerated counterparts. Prince (2006) analyzed hospital and prison administrative records and found that individuals who were diagnosed with schizophrenia who had a history of incarceration in New York City were more likely than their non-incarcerated peers to have a higher number of previous hospital stays, visits to the emergency room and re-hospitalization within three months of being initially discharged from the hospital.

It is important to note that incarceration may have a stabilizing effect on physical health. Spaulding et al. (2011) demonstrated that the mortality gap narrows for some populations in incarceration settings demonstrating the importance of routinized healthcare provision. For instance, African American inmates' rate of mortality is lower compared to the general African American population. In contrast, incarcerated Whites either have a higher or an unchanged mortality rate compared to their non-incarcerated White counterparts (Patterson, 2010; Rosen,

Wohl, & Schoenbach, 2011; Spaulding et al., 2011). Interestingly, though, several studies have shown that incarceration is associated with decreased mortality post-release (Binswanger, Blatchford, Lindsay, & Stern, 2011; Binswanger et al., 2007; Calcaterra, Blatchford, Friedmann, & Binswanger, 2012). Patterson (2013) found that each additional year in prison was associated with a 15.6% increase in the likelihood of death for parolees, translating to a 2-year decline in life expectancy for each year served in prison.

In addition to impacting physical health, incarceration can also have an impact on mental health. Previous findings indicate that imprisonment is independently associated with emotional reactions, such as anxiety, and that multiple incarcerations seem to elicit even stronger detrimental emotional reactions (Blanc, Lauwers, Telmon, & Roughe, 2001; Schnittker, Massoglia, & Uggen, 2012). Incarcerated populations also have disproportionately high levels of various mental health issues such as depression and antisocial personality disorders (Fazel & Danesh, 2002; Wilper et al., 2009), and post-release many inmates have a high rate of psychiatric disorders that may have gone undiagnosed (Mallik-Kane & Visher, 2008). Finally, based on in-depth life interviews with individuals who served an average 19 years in a correctional institution, Liem and Kunst (2013) theorize that those who experience long-term incarceration may suffer from post-incarceration syndrome, which they likened to post-traumatic stress disorder.

Compounding the health issues already faced by many inmates is the fact that healthcare infrastructure in correctional facilities can create barriers that limit access to medical care (Magee, Hult, Turalba, & McMillan, 2005). Hatton, Kleffel, and Fisher (2007) investigated the specific issues related to healthcare access in jails and found that errors caused by the facility itself, hygiene issues, mandatory requirement of co-payment, delay in obtaining needed

medications, side effects from medications, administration of wrong medications, medications stopped by mistake, and allergic reactions to medications were common and often influenced the health of inmates negatively.

The final category of incarceration and health includes research that focuses on the post-release experience of former inmates and explores the community reintegration process and health. Many former inmates report inability to find a job or job training, issues related to medication access (for those who are already ill), trouble finding housing and shelter, administrative or bureaucratic barriers to obtaining services, lack of emotional support from both peers and professionals, issues with medical care including obtaining insurance such as Medicaid, transportation, and lack of availability of medical services (Petersilia, 2008; Sowell et al., 2001). Additionally, Rotter, McQuiston, Broner, and Steinbacher (2005) posit that the experience of incarceration may force inmates to adapt to the prison environment by adopting a hyper masculine “inmate code.” This adaptation includes rules and values such as not reporting violations and not appearing weak within the prison walls. These attitudes, however, manifest and persist even after release and can cause confrontational behavior that may hinder successful reintegration and lead to re-incarceration.

Incarceration as a Catalyst for Worsening Health

As noted above, the link between incarceration and health has been established; however, little empirical work has investigated what the specific health-affecting mechanisms of incarceration might be. Figure 1 is a visual depiction of the crosscutting nature of incarceration on communities, families, and individuals and serves as the conceptual grounding for the heuristic model that is proposed via the ICWH Framework.

Figure 1: Conceptual model of incarceration’s multi-level impact

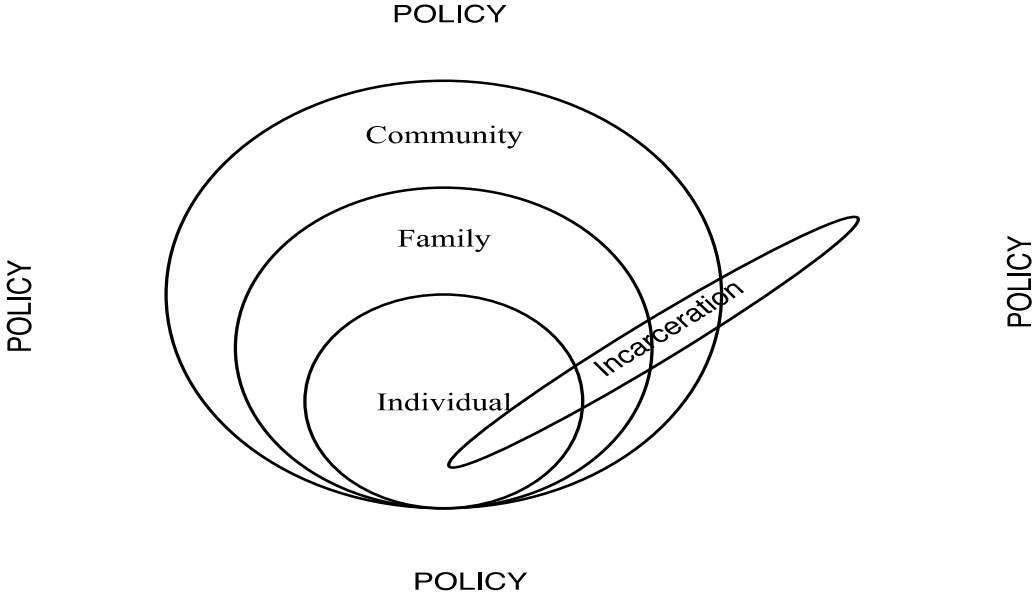


Figure 2, then, is a heuristic path model elucidating how incarceration acts as a catalyst for worsening health.

Figure 2: Conceptual model of incarceration’s multi-level impact

Figure 2: Incarceration as a Catalyst for Worsening Health

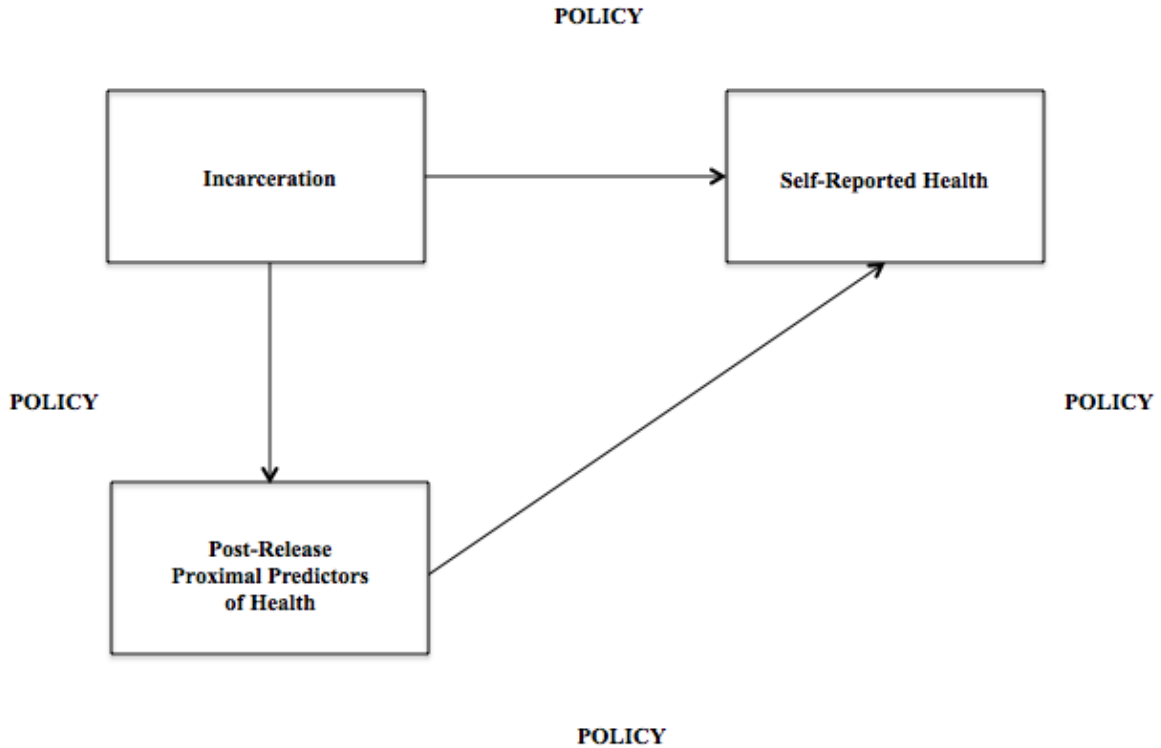


Figure 2 presents a hypothetical path (bounded by policy) via which incarceration deleteriously affects health. More specifically, it theorizes that incarceration directly affects health via the incarceration experience and indirectly via worsened proximal predictors of health (e.g., loss of social support, employment aspects).

Theoretical Underpinnings of the ICWH Framework

The creation of the ICWH was guided by a number of inter-related theories that illustrate the cumulative effects of stressful and negative life events imposed by incarceration. These theories include intersectionality theory (Andersen & Collins, 1998; Collins, 2000; McCall, 2005), which seeks to explain how social and cultural classifications (such as gender, race, class, ability, and other axes upon which individuals build their identity) interact simultaneously to contribute to inequality; life course theory (Berkman, 2009), relevant to exploring the longitudinal and continual impact of the incarceration experience; weathering (Geronimus and Thompson, 2006), a conceptualization of aging in which vulnerable and at-risk populations experience depreciated health because they have more severe and more recurrent experiences with societal and economic hardship than that experienced by other groups; and the social ecological model (Bronfrenbrenner, 1979; Rappaport, 1981), which has a focus extending beyond individuals, taking a crucial stance that shifts responsibility for reducing health inequalities away from individuals onto the environmental factors and systems in which they are situated. Critical to each of these frameworks is the need to focus on the societal, policy, community, family, and individual level rather than just micro-level behaviors. To date, the focus of many policies and research related to incarceration has been on the outcomes affiliated with behaviors, absent of considerations of the sociopolitical contexts that may impact individual decision-making. Thus, attention should be paid to the influence of macro-scale variables (e.g., drug law policies) and how societal conceptualizations of behavior affect an individual's construction of attitudes and behaviors over the life course. Furthermore, the interaction between individual and societal norms must be better understood in order to more comprehensively

address the means through which incarceration intensifies health disparities longitudinally.

A long-term approach that takes into account the multidimensional nature of disparity is also necessary to exploring the sustained and continual effect of the incarceration experience. A nuanced view of incarceration's impact extends the existing literature because it assumes that the effect of incarceration is not temporary and limited to the time of imprisonment. Instead, incarceration has the ability to cascade into each area of one's life and, as such, can affect individuals and communities on multiple levels (e.g., individual, family, community) and for extended durations. Additionally, those who are most likely to be incarcerated are also more likely to come from impoverished backgrounds; to have been victims of crime; to live in violent, low-resource neighborhoods; and to have lower levels of educational attainment (Travis & Crayton, 2009). Therefore, individuals who are most at risk of incarceration are already more likely to have lower levels of self-rated health, less access to medical care and health insurance, and lower quality of care (Veenstra, 2011). These issues related to access and standards of care can compound to further exacerbate health disparities. Incarceration's impact on health begins with the incarceration experience itself, is followed by post-release setbacks and has foundations in policy that restricts access to various rights, including employment and housing.

In addition, in recent years a growing number of carceral experts have been exploring the theoretical notion of "prison place." Moran (2013) posits that prison place is not bounded by the concrete boundaries of the correctional facility but rather that the influence of the prison can exert itself after release. The Incarceration as a Catalyst for Worsening Health framework also highlights that the carceral environment can have strong impacts both during incarceration and after release, especially on individual-and-community-level health.

Mechanisms of Incarceration That Impact Health

In this section, the ways in which incarceration negatively impacts health are explained in more detail by focusing on the specific mechanisms of incarceration that affect health via the incarceration environment, after release, and on the policy level. Although each of these mechanisms has a separate and distinct influence on health, it is essential to develop an understanding of the cumulative, continual, and intersectional impact of the stressors and inequalities that are first experienced inside the walls of a prison or jail.

Table 1: Health Effects of Incarceration

	Mechanism	Health Impacts
Prison Environment	Deprivation	Leads to physical, mental, and social harm that can disempower
	Prison Code	Leads to negative and violent confrontations after release; lack of ability to sustain case management
	Coercion	Disempowerment; powerlessness
	Prison Conditions	Increased likelihood of violent encounters; design of incarceration facilities exacerbate conditions such as tuberculosis due to poor ventilation and crowded prison cells; solitary confinement linked to depressive and suicidal tendencies
Post-Release	Loss of Social Support	Severs social relationships; affects children and their wellbeing negatively
	Stigma	Leads to disenfranchisement; can negatively affect help-seeking behavior
	Lack of Comprehensive Incarceration Programs and Discharge Planning	Only one fourth of incarcerated populations go through programs for mental health or substance abuse issues—meaning that existing substance abuse or mental health issues can be exacerbated in the incarceration setting
Macro-Policy Level	Lack of Access to Jobs	Financial insecurity; inability to obtain food stamps and other health benefits; leads to instable housing; disenfranchisement; disempowerment
	Decreased Availability to Health Benefits	
	Lack of Access to Housing	
	Lack of Access to Higher Education	
	Lack of the Right to Vote	Policies and issues such as stigma can lead to cyclical poverty, which is linked to worsened health outcomes; also makes individuals more likely to re-offend
	Cyclical Poverty	
	Re-Incarceration	Compounds all of the existing mechanisms

It is also particularly important to explain the mechanisms through which incarceration negatively affects health not only for individuals but also for families and, eventually, communities. Table 1 identifies the main variables of interest— each of which acts individually and in combination with other factors to deleteriously affect the health of incarcerated populations.

Incarceration Environment

In the correctional setting, individuals are faced with a number of circumstances that affect health. These include various forms of deprivation, exposure to the “prison code,” a coercive and controlling environment, poor prison conditions, and the mandatory provision of healthcare.

Deprivation. Deprivation refers to being divested of individual rights and possessions that are afforded to otherwise “free” individuals (Sykes, 1958). These deprivations might include liberty, goods and services, heterosexual relationships, security, and autonomy (de Viggiani, 2007). The earliest known conceptualization of deprivation is found in Sykes’s (1958) work, in which he posited that an individual’s own sense of self-worth is negatively affected by the incarceration experience. Subsequently, many scholars have studied the concept of deprivation in prison and jails, and have also found that the deprivation of rights and freedoms adversely affects the health status of incarcerated individuals (de Viggiani, 2007).

In addition, research has demonstrated that deprivation in the prison environment leads to physical, mental, and social harm that can disempower and affect incarcerated populations (de Viggiani, 2007; Rhodes, 2005; Shalev, 2009). For instance, Rhodes (2005) conducted an in-depth ethnographic study focusing on the effects of isolation in supermax prisons and found that

deprivation can have a detrimental effect on mental health (Rhodes, 2005). Kurki and Morris (2001) reported that inmates often described feeling rage, anxiety, dissociation, and psychosis accompanied by feelings of hopelessness while incarcerated.

However, prisons and jails have differing levels of deprivation. Research suggests that certain types of facilities such as maximum-security prisons, where deprivations are the most extreme, have greater negative health effects (Daniel & Fleming, 2006; Huey & McNulty, 2005; Way, Miraglia, Sawyer, Beer, & Eddy, 2005). Way, Miraglia, Sawyer, Beer, and Eddy (2005) reported that 83% of all suicides between 1993 and 2001 in the New York Department of Corrections took place in maximum-security prisons. Scholars theorize that this link between increased deprivation and suicide is due to psychological harm and stress incurred due to segregation and isolation (Johnson, 2005; King, 2005, 2006; Shalev, 2009).

Deprivation of social support often results due to the geographic location of many prisons. Correctional facilities are frequently located in rural areas that have little or no access to public transit, and often no active attempt is made to keep a prisoner close to his or her home community during incarceration (La Vigne, Davies, Palmer, & Halberstadt, 2008). Additionally, there are no financial or transportation incentives available to help keep families intact and maintain routine contact, and keeping in contact via telephone often includes exorbitant fees. Current rates per minute for long-distance telephone calls can be as high as \$0.89 and usually include, on average, a \$3.95 connection fee. This means that a total of one hour of phone calls per week can lead to nearly \$300 worth of phone charges each month, which creates an undue burden on families and a resulting dearth of communication (Media Justice Fund of the Funding Exchange, 2009). Because of barriers to keep in touch with family and friends while incarcerated, social networks and support are often diminished post-release and can negatively

affect wellbeing.

Prison code. In addition to deprivation, inmates are often exposed to the prison code, which rewards hyper-masculine behavior. Trammel (2012) elucidated specific tenets of the prison code: a tough persona; suppression and denial of fear, weakness, or suffering; an aversion to collaboration with prison guards and staff; refusal to report delinquent behavior of a fellow inmate; the inclination to hide affinities toward femininity; jostling for recognition; the willingness to fight to defend one's honor; and struggles for dominance. Furthermore, one's ability to follow the code can also elevate or diminish status while incarcerated (de Viggiani, 2007). Therefore, those who exhibit the most violent behavior occupy the uppermost social status in prison while a majority of offenders inhabit the middle stratum. Ostracized groups, such as sex offenders, occupy the lowest class (Archer, 2002; Marshall, Simpson, & Stevens, 2000; Miller, 2000). This social hierarchy can lead to conditioned behaviors, which may result in negative and violent confrontations after release, furthering the likelihood of re-arrest (Petersilia, 2008).

Additionally, as noted by Rotter et al. (2005), the behaviors rewarded by the prison code that are exhibited post-release can foster a hostile environment that interferes with community adjustment and personal recovery. These manifestations also may negatively affect the relationship between the released inmate and social service and medical providers, hindering a previously incarcerated individual's ability to access much needed medical care. Providers may also misinterpret the signs of a challenging re-adjustment as opposition to treatment, lack of motivation to change or reintegrate, proof of individual pathology, or an indication of serious mental illness (Rotter, McQuiston, Broner, & Steinbacher, 2005). There is increased need for the intentional development of opportunities to decompress and recover from having to

constantly portray a tough exterior in the incarceration environment that some scholars like to post-traumatic stress disorder (Liem & Kunst, in press). Relatedly, Jewkes (2002) summarizes the tension between the contrasting behavioral expectations of the prison or jail environment and the community that confront individuals upon release, saying the following: “[T]he tensions associated with sustaining the particular bodily, gestural and verbal codes demanded...are particularly marked, and the necessity for a deep backstage area where one can ‘be oneself,’ ‘let off steam’ and restore one’s ontological reserves is therefore arguably even greater than in other settings” (p. 211). Therefore, the prison environment, and by extension abiding by the prison code, may not only have deleterious effects on the mental health of incarcerated individuals, but can also have sustained effects after release by hindering relationships with post-incarceration case managers and social support networks (e.g., family members and friends).

Coercion. A second way that the prison environment affects health is via coercion, which leads to disempowerment. Sykes (1958) posited that inmates exhibited a self-interested mode of behavior as a result of observing roles that were required by the prison regime and ensured their survival in prison society. Recent research has reinforced Sykes’s results. For instance, de Viggiani (2007), who conducted ethnographic, in-depth interviews with 35 prisoners and 5 prison guards, also found that the prisoners developed disciplined and habitual behaviors and subscribed to an inflexible structure of standards that were mandated by an unbending environment. Relatedly, inmates may experience an alternative, incarceration-related version of what Ross (2011) refers to as “neighborhood disorder,” wherein a dangerous environment in which an individual has little control over his or her circumstances induces feelings of powerlessness, stress, anxiety, anger, and depression.

Prison conditions. A related circumstance that may lead to negative health outcomes for inmates is the nature of prison conditions. As Drucker (2011) notes, due to the increasing number of incarcerated individuals, prisons are experiencing unprecedented and unanticipated problems, such as overcrowding that is associated with prison mortality (Rabe, 2012). These negative prison conditions have direct effects on prison populations and their health. For instance, Drucker (2011) posits that worsening prison conditions and the increase of violent encounters lead to threats to inmates' health and safety. Additionally, some research attributes worsened health to the built environment and design of the prison. Awofeso (2011) makes the claim, after undertaking a historical analysis of the design of prisons, that the architectural design of incarceration facilities can exacerbate conditions such as tuberculosis due to poor ventilation and crowded and shared prison cells and common spaces. Further complicating the impact of the built environment of prisons and jails, contemporaneous policies such as solitary confinement have been linked to depressive and suicidal tendencies among prisoners (Haney, 2003).

In 2011, the Supreme Court ruled in *Brown v. Plata* that the state of California was to release 46,000 prisoners because overcrowding violated the 8th Amendment. The extreme overcrowding in California's state prisons was deemed cruel and unusual punishment because prisoners were not receiving proper healthcare while incarcerated (Applebaum, 2011; Newman & Scott, 2013). This decision has important implications for the incarceration environment by potentially limiting the overcrowding that can occur in prisons. Additionally, the importance the court placed on correctional healthcare provision makes clear the right prisoners have to routine health services.

Correctional healthcare provision. As previously discussed, healthcare provided in incarceration facilities may be the only healthcare incarcerated individuals can access, and has,

therefore, been deemed as better than receiving no care at all. Wacquant (2002) states that healthcare in prison or jail facilities cannot be described as “distortive and wholly negative” because it may act as a “stabilizing and restorative force” (p. 388), especially for those with many barriers to accessing healthcare in the community. Indeed, most correctional facilities do provide screening for infectious diseases such as HIV. However, a fair amount of research has highlighted the need for better access to and quality of care within incarceration facilities due to the increased likelihood of pre-existing chronic and infectious diseases within prison and jail populations (Magee et al., 2005; Massoglia, 2008). Receiving poor care within a prison or jail can still negatively affect individuals’ health and may lead to worsened health outcomes (Hatton, Kleffel, & Fisher, 2007). For instance, Brinkley-Rubinstein and Turner (2013) found that HIV-positive inmates often experienced a delay in medical treatment and low quality of care while incarcerated. Further, even though access to care is guaranteed in correctional institutions by the Supreme Court’s decision in *Brown vs. Plata*, Mallik-Kane and Visher (2008) found, in a nationally representative study of prisoners, that many with pre-existing medical conditions did not receive treatment while incarcerated. Although a large number of those who are incarcerated either have mental health and/or substance abuse issues, only one fourth of incarcerated populations received treatment for these conditions while incarcerated (Petersilia, 2008). Whereas recent research has highlighted some specifics about healthcare provision in correctional facilities, much is still not known about access to and quality of healthcare in jails and prisons. Research of this variety is increasingly relevant, in part because recent healthcare reform provides an opportunity to offer more consistent and expanded health coverage to individuals who are at most risk of experiencing incarceration.

Lack of educational and discharge programming. A final way that correctional settings

can affect health is via educational and discharge planning programs, which are often lacking. While prison education programs once were widely available, the elimination of prisoner eligibility for Federal Pell education grants in 1994 caused participation in postsecondary correctional education programs to decrease 44% (Crayton & Neusteter, 2008). Most prisons still have correctional education programs, but only one third of prisoners who are released will have participated in some type of work training or educational programming while incarcerated (Crayton & Neusteter, 2008; Petersilia, 2008). Additionally, the rate of participation in education programs offered in correctional facilities has not grown proportionate to the prison population as a whole (Western, Schiraldi, & Ziedenberg, 2003). Rather, participation rates have gradually decreased (Crayton & Neusteter, 2008; Glaze & Heberman, 2013; Harlow, 2003). This decline is relevant in that educational programming has been demonstrated to decrease the likelihood of recidivism significantly (Chappell, 2004; Flinchum, Jones, Hevener, Ketzenelson, & Moore-Gurrera, 2006). Chappell (2004) conducted a meta-analysis examining 10 years of existing studies related to correctional educational programming and recidivism. She found that there is a negative correlation (.31) between correctional education and recidivism. Further, incarcerated individuals have lower levels of education than the general population, but higher literacy scores than their counterparts in the general population. These differing levels of literacy point to the fact that for systematically disenfranchised populations, prisons may be a primary route to obtaining educational opportunities. Upon release, such educational experiences are important predictors of wellbeing, as socioeconomic status is one of the strongest social determinants of health. However, even though more than 93% of correctional leaders (e.g., wardens) support the offering of educational and vocational opportunities in prisons, the increasingly punitive carceral environment has led to the deterioration of educational opportunities for correctional populations

(Tyler, Walsh, & Dusenberry, 2006).

Relatedly, there is a dearth of discharge planning services, including a lack of aid in linkage to medical services, and assistance finding employment and stable housing for individuals nearing release (Petersilia, 2008). Such assistance is extremely important to successful reintegration as the first six months after release is when individuals are at the most risk of re-incarceration (Petersilia, 2008). Moreover, transition support has been positively associated with increased healthcare access after release from prison or jail (Wenzlow, Ireys, Mann, Irvin, & Teich, 2011).

Proximal Indicators of Health and Incarceration

The relationship between health incarceration may exist far after release. In fact, health may be made worse by the post-release experience, which often includes the continued effects of the involuntary loss of social support, and the enduring stigma attached to having a criminal record.

Continued Loss of Social Support. A large amount of literature has investigated the importance of social support and ties, especially within vulnerable populations (Karb, Elliot, Dowd, & Morenoff, 2013; Knowlton, 2003). Social support has been shown to mediate engagement in risky behavior and serve as a facilitator of individual and collective empowerment (Gabriel, 2007; Lauby et al., 2012). Additionally, research has demonstrated the link between social support and health, indicating that higher levels of social support lead to more positive health outcomes (Sarason, Sarason, Gurung, & Duck, 2010). In contrast, several policies regarding prisons actively sever social relationships. This loss of social support during incarceration can extend to the post-release period and can negatively affect health. For instance, Khan et al. (2011) found that engagement in primary partnerships might decrease sexual risk-

taking among men involved in the criminal justice system but that 55% reported that their relationships ended during incarceration. Further, a lack of social support can negatively influence reintegration after release. Binswanger et al. (2012) found that lack of social support resulting in feelings of isolation often led to an increased likelihood of a reluctant return to alcohol and drug use.

Enduring Stigma. Relatedly, individuals who have been incarcerated are also likely to experience stigma or discrimination. Stigma refers to unfavorable approaches, views, and, at the macro level, policies that are directed toward people who belong to a shunned or socially marginalized group (van Olphen, Eliason, Freudenberg, & Barnes, 2009). Goffman (1963) characterized stigma as an attribute that makes a person undesirable within specific social spheres. Formerly incarcerated individuals are deeply stigmatized and, as a result, are marginalized and excluded from myriad federal assistance programs and access to many types of employment (Petersilia, 2008). However, stigmatization not only leads to marginalization through various policies but also has the potential to weaken ties and social support received from law-abiding citizens (Petersilia, 2008). Thus, the labeling of an individual as “delinquent” results in further disenfranchisement and propensity to engage in criminal activity (Johnson, Simmons, & Conger, 2004).

Stigma can also have a major effect on health (Hatzenbuehler, Phelan, & Link, 2013). For instance, Earnshaw, Smith, Chaudoir, Amico, and Copenhaver (2013) found that stigma was a significant indicator of physical health for HIV-positive individuals. Additionally, stigma can act as a stressor that may be associated with negative psychological adjustment, help-seeking behaviors, and access to medical and social services (Brinkley-Rubinstein & Turner, 2013; Masuda, Anderson, & Edmonds, 2012; Vanable, Carey, Blair, & Littlewood, 2006). The

resulting effects on reintegration into the community and access to multiple systems of support can worsen individuals' health or exacerbate existing health concerns.

The Impact of Policy on Social Environment After Release

In addition to the health impact of the correctional environment and enduring post-release mechanisms, incarceration-related policy can also have a significant impact on wellbeing.

Research has shown that, as a result of the tougher political stance toward crime, a restriction of the rights of ex-prisoners has proliferated (Clear, 2007; Cnaan, Draine, Frazier, & Sinha, 2008; Wacquant, 2010). Travis (2002) referred to these restrictions as “invisible punishments,” as they indirectly and continually punish ex-inmates far after their initial release from incarceration. In regard to the policies, he commented as follows: “Over the same period of time that prisons and criminal justice supervision have increased significantly, the laws and regulations that serve to diminish the rights and privileges of those convicted of crimes have also expanded. Yet we cannot adequately measure the reach of these expressions of the social inclination to punish” (p. 16). These “invisible punishments” inhibit successful transition and affect wellbeing and macro-level policies mostly aimed at those convicted of a felony offense.

Lack of Access to Jobs. Those who are convicted of a felony are restricted from serving in the military, having a government position, or obtaining a number of permits and licenses (Iguchi, Bell, Ramchand, & Fain, 2005). In addition, employers are increasingly resistant to hiring ex-inmates and are more often requiring background checks during the hiring process (Petersilia, 2008). Restricted access to employment is important because the ability to find employment post-release is essential to successful reintegration. Geller, Garfinkel, and Western (2006) found that formerly incarcerated men experience a 14% to 26% decline in hourly wages compared to their earnings prior to incarceration. Relatedly, Pager (2008) found that those who

had a criminal record were less likely to obtain an interview after disclosing their criminal history. Lack of formal employment opportunities often pushes individuals into participation in the informal economy. Brinkley-Rubinstein and Turner (2013) found that informal jobs such as cleaning a neighbor's home, washing cars, or even sometimes dealing drugs were the only types of employment available to formerly incarcerated individuals. These types of employment opportunities may negatively affect health because they do not offer health insurance or other health-promoting benefits and they may be dangerous (e.g., dealing drugs).

Decreased Availability of Health Benefits. Formerly incarcerated individuals may also lose access to various federal benefits. When convicted of a felony, individuals are often unable to collect food stamps or Social Security insurance either temporarily or permanently, depending on the state in which they reside (Iguchi et al., 2005; Raphael & Stoll, 2009). Additionally, while low-level offenders may not lose eligibility for benefits, those incarcerated for more than one month may experience a termination or suspension of benefits while they are incarcerated, and the reenrollment process can be cumbersome. This lack of access to benefits that promote health may have a detrimental effect on an incarcerated individual's ability to reintegrate into his or her community after release and may delay individuals with serious illness from seeking medical care.

Lack of Access to Public Housing. Obtaining stable housing after release is also often difficult. In fact, parole officers have indicated that finding housing for formerly incarcerated individuals is one of the largest challenges to successful transition (Petersilia, 2008). Procuring housing is made more difficult by the "One Strike and You're Out" legislation passed by Congress in 1996, which gives federal housing authorities the discretion to decide whether to allow those with a drug- or alcohol-related offense and their families to access federally

subsidized housing (Iguchi et al., 2005). Also contributing to untenable living conditions following release are parole restrictions that often prohibit ex-inmates from living with other individuals who have been involved with the criminal justice system (Petersilia, 2008). Inability to live with those who have a criminal record may have the potential to impact family structure in that an incarcerated parent or partner may be unable to obtain housing in which an entire family may reside. A newly released incarcerated family member may be restricted from living with loved ones in subsidized housing or due to other family members' prior involvement with the criminal justice system.

Despite the importance of stable housing as a factor for successful community reintegration, there is little scholarship that examines the experiences of homelessness after release. However, Metraux and Culhane (2004) indicate that 11.4% of formerly incarcerated individuals in New York entered a shelter within 2 years of release. Further, research has found that 62% of formerly incarcerated individuals in New York City spent their first night post-release with relatives, and a year after initial release only 10% were paying rent on their own home or apartment (La Vigne, Visher, & Castro, 2004; Visher & Courtney, 2007). Lack of stable housing and homelessness is important to ex-prisoners' health as they have been associated with poor health outcomes, and they complicate the delivery of adequate healthcare (Wright, 2010).

Lack of Financial Support for Higher Education. Barriers that prohibit access to federal aid for higher education are also in place. The Higher Education Act (1998) states that those with drug possession convictions are ineligible for federally supplemented aid for 1 year after a first conviction, 2 years after a second conviction, and indefinitely after a third. This penalty is even harsher for an individual who is convicted of selling drugs who is ineligible for education assistance for 2 years after a first offense and completely ineligible after any

subsequent arrest. However, it must be noted that there are provisions in place that allow reinstatement of education benefits after evidence of drug rehabilitation and a certain number of clean drug tests. Nonetheless, restrictions regarding the ability to finance higher education act as a major hindrance to upward social mobility for this particularly vulnerable population. These barriers are even more important in light of research demonstrating the strong relationship between health and education (Miech, Pampel, Kim, & Rogers, 2011).

Lack of Right to Vote. Despite some reforms in the last 15 years to restore the right to vote, in 2008, nearly five million ex-offenders were unable to vote in the presidential election (King, 2008). Those who are ineligible to vote live in 35 states wherein individuals on parole or probation or who have served their sentence in its entirety are disenfranchised. Due to the disparate rate of incarceration of minority populations, Bowers and Preuhs (2009) estimate that more than 10% of all African Americans and 1 in 8 of all African American men are ineligible to vote. This lack of voter eligibility diminishes the political power of particularly vulnerable, minority, and at-risk communities, and limits their ability to organize around important community and societal health-related issues, such as HIV/AIDS, access to care, increased health insurance availability and coverage, and other related public health issues. Additionally, prisoners are often counted in the counties where they are imprisoned rather than their counties of origin, further diminishing the political power of minority communities (Mauer, 2009). Relatedly, research has shown that civic engagement can have a direct and positive effect on health outcomes (Murayama, Fujiwara, & Kawachi, 2012).

Compounding Impact of Cyclical Poverty. All of these incarceration-related mechanisms in combination perpetuate the cyclical feedback loop of poverty. In 2009, there were more than 43 million individuals living in poverty in the United States. This represents a

proportional increase of the total population: from 13.2% in 2008 to 14.3% in 2009 (United States Census Bureau, 2010). This percentage becomes even more alarming when the percent of poverty is stratified by race. In 2009, nearly 26% of African Americans fell under the poverty line, an increase from 24.7% in 2008 (United States Census Bureau, 2010). While poverty does not create crime, those with the least amount of economic resources are the most likely to end up in prison and jail (Lyons & Walsh, 2010). As Kurgan (2013) notes, the communities with the highest rate of incarceration almost perfectly overlap with the most impoverished neighborhoods in most major metropolitan cities. Additionally, while those who are most likely to be incarcerated are at increased risk of living in poverty, incarceration itself is a risk factor for impoverishment. As noted previously, formerly incarcerated individuals often cannot obtain employment after release and may find it hard to access jobs that offer training and pay schedules that have predictable pay increases. Those who are most economically deprived are also the most likely to be unhealthy. Those who are impoverished are more likely to have more prolonged illnesses and more recurrent and severe disease complications, thereby making greater demands on the healthcare system (Woolf, Johnson, & Geiger, 2006). This often inescapable feedback loop of incarceration and poverty not only diminishes health but also leads to less successful rates of reintegration after release.

Re-Incarceration. Forty-three percent (43%) to 45% of inmates return to jail or prison within 3 years of their initial release (Pew Center on the States, 2011). Additionally, the re-arrest rate is growing and is 5% higher than it was in 1983 (Petersilia, 2008). There is no evidence that the increased rates of incarceration and subsequent re-incarceration reduce crime. In fact, there remains no correlation between crime rates and incarceration rates (Alexander, 2010). However,

repeated imprisonment can negatively affect one's health status in that the individual is continuously exposed to the multiple stress-inducing mechanisms of incarceration.

In sum, the ICWH framework hypothesizes that incarceration can have a direct effect on health via multiple mechanisms inherent in the carceral environment and can also have an indirect affect via proximal indicators of health that are impacted by incarceration. The ICWH also takes into account the role that macro-policy plays in shaping the impact incarceration can have on health.

Policing, Profiling and Worsened Health

As noted previously, the ICWH only takes into account incarceration's impact on health and does not consider other aspects of the criminal justice system. During the duration of this dissertation project, it came to light that participants' health was affected not only by incarceration but also by high levels of police interaction and police profiling. Therefore, it is important to add an addendum to the ICWF as it was originally conceptualized. Below, the mechanisms via which police interaction negatively affects health are presented.

Policing and Health

Vigilance. Vigilance was defined by Clark (2006) as "the propensity to attend to environmental events that could be perceived as involving racism" (p. 53), and it involves the need to be constantly aware of the possibility of discrimination at all times. While the concept of vigilance has only recently been used to describe a heightened awareness of racism among minorities, it is also an appropriate concept to use to understand the awareness that many low-income, minority individuals feel about police contact and profiling.

Recently scholars have investigated the link between the concepts of vigilance and

health. In Sweden, expectation of racial discrimination was related to both mental and physical health. In the United States, substandard cardiovascular health was associated with vigilance (Clark et al., 2006; Sawyer et al., 2012). Other research has found a relationship between ability to sleep well and hypertension and vigilance related to racism (Hicken, Lee, Ailshire, Burgard, & Williams, 2013).

Disempowerment. Many individuals who experience repeated police contact and police profiling may feel disempowered—that they have little control over their lives and circumstances, and, thus, have little individual agency. A large body of scholarship explores the health impact of disempowerment. Lack of power of one's circumstances can lead to worsened health, and the inverse of powerlessness, empowerment, has also been shown to be a facilitator of good health (Wallerstein, 1992). Herein, it is suggested that disempowerment resulting from repeated police interaction is one of the vehicles for decreased health status among those who have increased rates of interfacing with police.

The Relationship Between HIV and the Criminal Justice System

The populations most at risk of becoming incarcerated, including African Americans, are similarly at increased risk of becoming HIV positive (Maruschak, 2009). The rate of HIV among those who are incarcerated is estimated to be 4 to 6 times higher than that of the general population of the United States (Maruschak, 2006). In 2010, 1.5% of inmates were HIV positive, and 20% also had AIDS, representing an AIDS rate over 2 times that found in the U.S. general population. Nearly 17% of all those who pass through the criminal justice system are HIV positive, compared with only 1% of the general population (Spaulding et al., 2009). Therefore, while the ICWH can be broadly applied to understand the health impact of incarceration

generally, the disproportionate impact of incarceration on HIV-positive individuals makes explicit a need to understand if and how incarceration can affect health of those living with the disease.

HIV Criminalization

HIV criminalization adds a unique layer of complexity to the possible health impact of the criminal justice system. In 27 states, the sexual transmission of HIV from one person to another is viewed as a criminal act if the HIV-positive person knows that he or she has HIV and does not tell the other person. Often such laws go further than just criminalizing sexual transmission of HIV, and extend to include additional incidents of person-to-person contact in an attempt to minimize risk of transmission via fighting, spitting, or other routes. From 2000–2010, 44% of all HIV exposure charges in the Nashville jurisdictional region were for non-sexual modes of transmission (Galletly & Lazzarini, 2013).

Moreover, in 13 states, prostitution charges are modified for those who are HIV positive. For example, in Tennessee, if a person is charged with prostitution and is known or later found to be HIV positive, his or her charge is upgraded from a misdemeanor to a felony offense. In Tennessee, HIV-positive individuals who are convicted of a prostitution charge are required, for the rest of their lives, to register as sex offenders. Galletly and Lazzarini (2013) surveyed data on HIV-specific charges in Nashville, Tennessee, from 2000–2010 and found 25 arrests for HIV exposure and 27 for aggravated prostitution, most of which did not involve allegations of transmission.

This dissertation focuses specifically on those who are HIV positive; and while the ICWH should also be used to understand the broad impact of incarceration on health, the health impact of incarceration of HIV-positive individuals is especially important given (a) the

increased prevalence of HIV among those who are incarcerated, and (b) the unique challenges presented via the criminal justice system for those who are HIV positive (e.g., HIV criminalization laws).

Overview of Empirical Chapters

The three empirical papers (chapters II–IV) included in this dissertation describe three related studies that investigate the health impact of various aspects of the criminal justice system on HIV-positive individuals. Chapter II employs in-depth qualitative methods to explore the relationship between health and incarceration for 12 HIV-positive African American men during their first year post-release. Forty-six (46) interviews were conducted in total. From this article (Chapter II) much insight can be gained about the reintegration process and the relationship between incarceration and health. Many of the themes that were illuminated via this study corroborated the hypothesized carceral impacts of the ICWH.

Chapter III explores the direct and indirect relationship of incarceration and health of HIV-positive individuals and seeks to explicitly test the ICWH framework. Data are derived from surveys of 153 HIV-positive individuals—half of which were recently incarcerated and half of which had never been to jail or prison. This study evaluates whether (a) incarceration has a direct relationship with health; (b) incarceration is associated with the proximal indicators of health that are affected by incarceration; and (c) the health effect of incarceration is mediated by the proximal indicators of health.

Finally, Chapter IV explores the health and repeated police contact, police profiling, and HIV criminalization laws among those living with HIV. This study utilizes focus group data that include 40 African American, HIV-positive individuals who had recently been incarcerated.

Information related to the experiences of participants with police, stories about police harassment and its relationship with health, and narratives about the consequences of HIV criminalization on health are presented.

A summary of each of the three empirical chapters appears in Table 2. Data limitations (primarily small sample size) prevent testing many different relationships in any one study. However, taken together, these empirical papers cover some of the key elements of the ICWH, and unexpected findings particularly about health and repeated police contact, profiling, and HIV criminalization have highlighted the limitations of the ICWH as previously conceived. Chapter IV's findings also have resulted in the necessary reimagining of the possible health effects of the criminal justice system more broadly conceived.

Table 2: Summary of Empirical Chapters

Chapter Title	Research Questions	Data Source	Data Analysis Approach
CHAPTER II			
Health Impact of Incarceration on HIV Positive African American Men: A Qualitative Approach	1) Does incarceration impact the health of HIV-positive African Americans after release and over time?; and 2) Do proximal indicators affected by the process of incarceration impact the health of HIV-positive African American males after release and over time?	46 Ethnographic Interviews	Qualitative Analysis
CHAPTER III			
Measuring the Direct and Indirect Health Impact of Incarceration on HIV-Positive Individuals	1) Is there a direct impact of incarceration on self-reported health of HIV-positive individuals?; 2) Is there a direct impact of incarceration on proximal predictors of health after release?; and, 3) Is there an indirect effect of incarceration that is mediated by proximal predictors of health after release?	Impact of Incarceration on HIV Health Survey	Quantitative Analysis: Structural Equation Modeling
CHAPTER IV			
“The police is constant”: Impact of Repeated Police Contact and HIV Criminalization Laws on the Wellbeing of People Living with HIV	Is there a health impact of repeated police contact on HIV-positive individuals?; and 2) What is the effect of HIV criminalization laws on wellbeing of HIV-positive individuals?	Series of Focus Groups	Qualitative Analysis

CHAPTER II

THE HEALTH IMPACT OF INCARCERATION ON HIV POSITIVE AFRICAN AMERICAN MEN: A QUALITATIVE APPROACH

Introduction

The incarceration rate has risen steeply in the United States, with the number of individuals in state and federal prisons increasing by 397% in the last thirty years (Bureau of Justice Statistics, 1986; Carson & Sabol, 2012). In 2011, there were over 2.1 million people incarcerated in a jail or prison (Drucker, 2011). Historically, African Americans have been incarcerated at a much higher rate than other ethnic groups; however, over the last 10 years there is evidence that arrest rates for Whites have increased as rates for African Americans have simultaneously decreased (Mauer, 2009). Despite this trend, in 2011, African American men and women were incarcerated at higher rates than Whites in every age group (Carson & Sabol, 2012). African American men have the most disparate incarceration rate at 3,023 per 100,000 people compared to an incarceration rate for White males of only 478 per 100,000 individuals (Carson & Sabol, 2012).

The populations most at risk of becoming incarcerated, including African Americans, are similarly at increased risk of becoming HIV positive. The rate of HIV among those who are incarcerated is estimated to be 4 to 6 times higher than that of the general population of the United States (Maruschak, 2006). In 2010, 1.5% of inmates were HIV positive, and 20% also

had AIDS, representing an AIDS rate over 2 times that found in the U.S. general population (Maruschak, 2012). Additionally, incarcerated individuals often experience concurrent disorders that negatively affect their health. Mental illness, substance use, and socially marginalizing conditions such as poverty are prevalent in incarcerated populations (Altice, Kamarulzaman, Soriano, Schechter, & Friedland, 2010; Blank Wilson, Draine, Barrenger, Hadley, & Evans, 2013; Rich et al., 2011; Wacquant, 2010). Therefore, those who are most likely to experience incarceration are also at increased risk of experiencing HIV and other co-occurring conditions that have been demonstrated to be proximal indicators of health.

Possibly exacerbating the effect of HIV on incarcerated individuals' health is the medical infrastructure within the prison or jail setting (Magee et al., 2005). Whereas some research has demonstrated that incarceration healthcare can be stabilizing or provide care that would have not otherwise been attained (Wacquant, 2002), there is still a need to investigate the ways in which the healthcare system within correctional facilities impacts HIV-positive individuals. Hatton et al. (2007) explored the specific issues related to healthcare access for incarcerated individuals and found that administrative errors, hygiene issues, mandatory requirement of co-payment, delay in obtaining needed medications, side effects from medicine, administration of wrong medications, and allergic reactions to medications were common and often negatively affected the health of inmates.

Incarceration can also affect individuals' post-release social conditions. During the community transition period, a history of incarceration can affect one's ability to find employment or job training, access to medications, ability to find housing and shelter, and secure the provision of social or medical services (Catz et al., 2012; Chen et al., 2011; Millik-Kane & Visher, 2008; Pager, 2009; Raphael, 2011; Western, 2006). Worsened social conditions is also

related to health and healthcare service utilization. Adherence and maintenance of routine engagement in medical services is often a struggle for HIV-positive individuals after release from incarceration, due in large part to the chaotic post-release environment (Fasoli, Glickman & Eisen, 2012; Klein, Vonneilich, Baumeister, Kohlman, & von dem Knesebeck, 2012; Milloy et al., 2011). For instance, among injection drug users, Milloy et al. (2011) found that HIV-positive individuals with a history of incarceration had nearly double the odds of anti-retroviral adherence lapse.

It is important to note that the relationship between incarceration and health during and after release may be differentially affected by the type and location of the facility in which a person is incarcerated (e.g., prison versus jail)—meaning it is impossible to draw conclusions about *all* incarcerated populations as a whole. A total of over 9 million people cycle in and out of jails each year (Dumont, Brockmann, Dickman, Alexander, & Rich, 2012). Jails typically hold individuals who are awaiting sentencing, trial, or transfer to prison or those who have a sentence of one year or less; and federal prisons house those sentenced to more than one year (Dumont et al., 2012). Making the effect even more complex to isolate is the fact that certain types of facilities (regardless of designation) may have entirely different social environments and behavioral norms, may have variability in access to resources, and are likely to house a variety of individuals incarcerated for differing types of offenses.

However, stigma, regardless of the type of facility in which an individual is housed, has been found to have a particularly salient impact on both HIV-positive individuals and those who are incarcerated (van Olphen et al., 2009). Derlega, Winstead, and Brockington (2008) found that both inmates and correctional staff rated people who had HIV more negatively than someone with other diseases such as diabetes, cancer, heart disease, and high blood pressure. HIV-

positive, formerly incarcerated individuals may also experience multiple forms of stigma that may act as a barrier to HIV medical care and social service linkage after release (Brinkley-Rubinstein & Turner, 2013). For example, HIV-positive, formerly incarcerated individuals may have trouble finding employment due to policies that restrict certain types of jobs for formerly incarcerated individuals, which can lead to several deleterious outcomes potentially affecting health (e.g., lack of health insurance).

Although a large body of literature explores the relationship between health and incarceration, little research has explored these relationships longitudinally, including both the immediate and lingering effects of incarceration on HIV-positive populations. Therefore, the primary aim of this paper is to investigate (a) how incarceration is related to the health of HIV-positive African Americans males after release and over time, and (b) how social conditions affected by the process of incarceration might affect the health of HIV-positive African American males after release and over time.

Theoretical Underpinnings

The present study is grounded in the Incarceration as a Catalyst for Worsening Health Framework (ICWH) framework (Brinkley-Rubinstein, 2013). The ICWH explicates how incarceration might negatively impact health via the specific mechanisms of the carceral experience including the incarceration experience itself and the post-release proximal indicators of health that are influenced by incarceration and related policy. The framework takes into account the social environmental risk factors that are both associated with increased risk of incarceration and are proximal predictors of health. In sum, the current study attempts to understand the relationship between incarceration and both social conditions and health

outcomes, which is an addition to the existing research related to the intersection of HIV and incarceration.

Methods

The current study took place in a midsize city in the Southeastern region of the United States. At the end of 2008, there were approximately 586,636 people living in the county in which the city is located, of which 28% were African American. However, African Americans represent nearly 51% of all HIV-positive individuals in the county. In total, at the end of 2008, an estimated 3,753 people had received an HIV and/or AIDS diagnosis in the county, accounting for one quarter of the HIV-positive population in the entire state. From 2004 to 2008, 638 HIV-positive individuals with residence in this county were incarcerated in a local jail, and 188 in a state prison (Brinkley-Rubinstein, 2010).

Research Design

In order to pursue the relevant research questions, the present study employs an ethnographic approach, including at least two interviews each with a total of 12 participants. The first interview was conducted less than three months after the participants' release from incarceration, and a subsequent interview took place at least six weeks later. The author conducted multiple interviews with each participant in order to better understand how incarceration might impact health immediately after release and over time, as an individual reintegrates back into the community. The research design of this study facilitates opportunities for uncovering important nuances in the participants' lives (Hesse-Biber, 2010).

Respondent Selection and Recruitment

A local AIDS Service Organization (ASO) helped to recruit participants, and enrollment took place following release from incarceration. More specifically, an early intervention specialist (EIS), who is trained and funded to work with people who are formerly incarcerated, evaluated, upon post-release assessment, whether an individual was interested in being involved and met the study criteria. This study utilized purposive sampling and, as such, an individual was eligible to participate if he or she was (a) African American; (b) male; (c) HIV positive; (d) had spent at least three months in jail or prison; and (e) were released within three months of enrollment in the study. If study criteria were met, the potential participant was given information about the research project and provided his or her contact information to the EIS. This information was then shared with the research team via the EIS and contact with the possible participant was made. If an individual was still interested in being a part of the study, an information session was scheduled. At this initial meeting, the author provided details about the study, consent documents were signed, and an initial interview was arranged.

The first 12 participants who were willing to take part in the study and met the eligibility requirements were enrolled. The small sample size was balanced with a longitudinal design and multiple in-depth interviews that enabled the author to learn about sensitive topics (e.g., HIV, incarceration) and to engage intensely with the participants over time. By generating comprehensive understanding and obtaining rich, thick descriptions of incarceration's impact on health, the author aimed to formulate propositions and provide a foundation for research in this important field. To enhance validity and reliability, the authors undertook the following procedures: (a) engaged in peer debriefing in which a colleague familiar with the data reviewed interview tools, transcripts, and analysis throughout the research process; (b) provided

transcribed interview summaries to the participants during their second interview. These member checks gave participants the ability to corroborate the interpretation of the interview and to elaborate on or clarify any specific topics; and (c) transcripts were coded by two different coders and 90% inter-related reliability was required (Lewis, 2009; Lincoln & Guba, 1985).

Interviews

Participation in this study included being interviewed by the author, at least two times for approximately one to two hours. A semi-structured interview guide was developed and included broad themes related to incarceration and health. The guide was very broad and included questions related to the participant's background, history of incarceration, and general health status. Interviews were conducted face to face at a location that was convenient and accessible to the participant. Due to the sensitive nature of the subject matter being discussed, the interviews did not take place in public; instead, they were conducted in a private space in a public venue. For example, interviews were often undertaken in a private room in a community center or the public library. The venue of the interview was also determined by the participant's location/neighborhood in an attempt to ease the burden that may have been caused by lack of access to transportation or family obligations.

Data Analysis

In qualitative research, data collection and data analysis can occur simultaneously. All interviews were recorded and subsequently transcribed. Analysis of interview data proceeded inductively through the identification of recurring themes and patterns in transcripts, field notes, and analytic memos (Corbin & Strauss, 2008; Glaser & Strauss, 1967). Meaningful analytical units were then developed by using a coding scheme that was informed by dominant themes in the data. These topics were then divided into several subtopics based on recurring themes within

the larger topics, allowing for more in-depth analysis and complex understanding and interpretation of each particular theme. Each theme and sub-theme was then assigned a code, and the codes were compiled in a codebook. The authors then clarified the codes' definitions and ensured that all codes fit into a structure with meaningful and salient interrelations and distinctions among them (O'Reilly, 2012). Open and axial coding were then used simultaneously as data were delineated into concepts. Subsequently, the relationship between concepts and categories was analyzed. Quality checks were undertaken to ensure high inter- and intra-coder reliability among coders. After initial coding of the data, the authors summarized and organized the resulting data in NVivo 9 (QSR International, Burlington, Massachusetts, USA). After attaining inter-rater reliability of 90%, defined as the number of agreements divided by the number of agreements plus disagreements (Gwet, 2012), authors coded all data. The resulting data were utilized to examine the specific research questions guiding the proposed study. Coding of the data coincided with data collection so that the follow-up interviews could build upon the themes that emerged from the first interview with participants.

Results

Participants ranged in age from 33 to 61. Most of the participants had finished high school ($n=8$), but only one spent some time at an institution of higher education. At the time of the first interview, none of the participants were employed and most were primarily residing at a homeless shelter ($n=10$). The time incarcerated ranged among participants from three months to three years across each type of correctional facility including local jails and state and federal prisons. During the interviews, participants discussed their experiences with incarceration and their perceptions of how incarceration influenced their health. Participants shared the ways in

which they thought incarceration affected their engagement with HIV medical and social service agencies post-release and their transition back into the community. Follow-up interviews conducted with each participant facilitated an investigation into whether barriers presented by incarceration eased over time.

Incarceration and the Health of HIV-Positive Individuals

Participants often discussed their perception of how incarceration might have affected their health. Several major themes emerged that included the a lack of trust of medical professionals while incarcerated, access to medications and other medical services, and stigma related to their HIV status.

Lack of Trust. During interviews, several participants discussed the quality of care they received in various settings. The participants spoke about the issues that prevented them from receiving adequate medical care, and frequently hypothesized how this lack of access to quality care might affect their health status. For instance, one participant said:

Yeah, cause you know, like one of the new medicines, it said, “Take two once a day.”

And they was giving me one. Being they were given to me at night, I said, “Well, is there any difference between day and night? They say, “Take two once a day.” They didn’t say take it at bedtime. But I guess as long as I take it during the day, you know.

This participant knew that he was receiving an incorrect dosage of his HIV medicines and knew that this might deleteriously affect his health, yet did not feel empowered enough to advocate for himself. Another participant stated that he was afraid he was going to die due to the lack of good medical care while incarcerated. He said:

I thought I was gonna die in jail ‘cause I wasn’t getting the medical treatment that I needed, and with me being HIV [positive] and sixty years old. And, like I said, I thought

that this was it. My worst fear was to die in jail. Two things: die in jail or die high. I don't want neither one of those.

Yet another participant described the initial medical intake period and how he felt as though the staff assumed he had low levels of understanding related to his HIV and treated him accordingly. This same participant indicated that even though the medical staff proclaimed professional expertise relative to the course of action for his treatment, he soon became sick due to the antiretroviral medication he was prescribed and questioned their professional judgment:

So then they, the nurse came in to interview after he did and I did the same thing with her. So she said, they gonna be calling you for a physical. I'm putting all this in your chart. She told me right there on the spot when she looked at what kind of medicines that I was taking, she told me that we gonna change, but I guess she thought I was stupid, that I don't know what I take, she was like, well we gonna change your medicine because we don't carry this brand and it's gonna be the same pill but two of them pills gonna be in this one pill and, come on man you change my medicine all the way around, when ya'll started giving me this stuff and I started getting sick.

These examples denote a (a) participants' lack of trust in the medical care they received while incarcerated, and (b) a perceived resistance of medical professionals to consider the participants to be active agents of their own health.

Access to Medical Service and Medication. In addition to reporting low quality of care within prison or jail, many participants stated that they had lack of access to healthcare and often also lacked access to their HIV-related medications. One participant stated, "I believe that's one of the reasons that my health was bad, I didn't have my medicine right then, but I think about a month later, they started getting my medicine in there." Another participant indicated that the

jail's medical staff refused to give him his HIV-related medication, and he was forced to secure access to the proper medication through his family. He stated, "I had told the nurse and they couldn't get the medicine so I had to call home to get my brother to drop it off, they had to bring it up there and drop it off." Another participant reported that he did not have access to medications while incarcerated, and that not taking his medications affected his health:

They don't have none. They didn't have none at all. I was like, wow! I would die here. 'Cause I mean, you know I was doin' so good when I was out, 'cause I take my medicine like I was supposed to. After I been in there, I kinda dropped a little bit cause I missed them days.

As evidenced by stress conveyed by participants when referencing medication lapses, lack of access to medications can be devastating to HIV-positive individuals. Antiretroviral adherence lapse can deleteriously affect an HIV-positive individual's health status by causing him or her to become resistant to certain types of medications. Once a regimen becomes ineffective, an individual's CD4 count can decrease and the viral load can increase, which can cause sickness (Centers for Disease Control and Prevention, 2014). Throughout the interviews conducted with the participants, most realized how important it was to consistently take their prescribed medications but discussed the difficulties with doing so while incarcerated.

HIV Stigma. In addition to discussing how lack of trust and lack of access might affect their health, participants also often talked about HIV stigma. One participant stated, "And they thought that I got, I had problem here [in jail], told the people, the guys in the jail that I had HIV, they didn't wanna be around me." This quote demonstrates the awareness of the participant of the possible impact of stigma on his relationship with others while incarcerated. Another

participant described the intake process and the steps he took to conceal his HIV status from correctional employees because he feared he would be stigmatized:

When you first go in they interview you. Individually they had us in some rooms and I kinda like, they was asking questions and I kinda like grabbed the ink pen and wrote it down on a piece of paper and slid it to ‘em because other people be trying to listen and see what’s, you know and he looked at it and he was like, okay.

In this example, the participant took proactive steps to hide his HIV status and only covertly reveal it to correctional personnel. Similarly, another participant described the intake process and described “being branded.” He stated, “When they asked me what it [the medications he reported being currently on] was for I said, I said HIV, I said it’s for me to live, I got stamped. I’m embarrassed, and he asked me what I want to do, I tell him I want to deal with it.” Another participant expressed that due to stigmatizing attitudes by the nursing staff after they found out he was HIV positive, he was refused medical services for a non-HIV related injury. He stated:

Like the counselor, you know like, like I said, I had to write ‘em up to get up, I had to write the medical staff up because of my broke finger. I always be crooked like that now cause I couldn’t get medical help. I think the counselor she was all right at first and then after you know she really found out that you know [I was HIV positive] and then she start trying to like treat me a little different.

This quotation suggests that stigma attached to HIV might lead to denial of services. Stigma can impact both the physical and mental wellbeing of individuals, while also potentially mediating individuals’ access to necessary resources.

Other participants stated that they had to obtain their medications via the “med-line.” The “med-line” occurred one to two times per day, and during “med-line,” individuals who needed

medications would line up and wait for their turn to talk with medical staff and be given their prescriptions. Standing in “med-line” often resulted in a lack of privacy because many other individuals in line could see the type and number of medications another individual would receive. One participant described his experience with “med-line,” saying:

But you know, I wouldn't have been able to stay in the cell if they knew I was HIV. That's how stupid people were, cause when I go up and take my medicine, they stand all up on your back. “How you taking all them medicines,” you know? I said, “Why you in my business?” and stuff. You know, a few of ‘em were saying, “What's the matter with you? You taking all this medicine.” Cause I would have a hand full of medicine I'd have to take and everything. So I think I told one guy. I said, “Well, it's like this. The life I live, I destroyed half my body. I got kidney trouble, liver trouble, hepatitis.” I didn't tell him I had HIV.

This quote suggests that the participant was concerned that because of his participation in “med-line” and the fact that he received so many medications other inmates would learn of his HIV status. However, because the participant knew how stigmatizing it would be to have other prisoners know of his HIV status, he made up other reasons to describe why he had to take so many medications. This may suggest that HIV-positive individuals are less likely to adhere to anti-retroviral medications by choosing to not participate in “med-line” if they think their health status confidentiality is at risk.

The Post-Release Transition and Health

Participants also reported that the post-release transition had a significant impact on their health—due, in combination, to the cumulative experience of many intersecting issues, including anti-retroviral medication adherence (specifically related to the most immediate post-release

period); enduring stigma related to both their HIV status and their history of incarceration; insecurity of a social support network, including friends and family; and, relatedly, the manifestation of macro-level-policies that acted as a barrier to obtain housing and employment.

Linkage to Care, Substance Use and Anti-Retroviral Medication Adherence. Most participants reported that they were released from jail or prison with a 30-day supply of anti-retroviral medication. However, most also stated that 30 days of medication was either not enough due to (a) an extended wait for a post-release medical appointment or (b) issues related to addiction that led to missing appointments before they came. For instance, one participant stated:

But when I got out of prison, I hooked up with [a social service agency] and then made an appointment for [a medical provider], and then you know, I got that job and then before the appointment came, I got that first paycheck and stopped taking my medicine, started smoking crack.

In this case, despite the participant's efforts to link to care following his release, his substance abuse issues led to missed appointments and a secession of his treatment regimen. Participants also often reported missing appointments because of competing social–structural barriers that plagued their post-release experience. For example, the a participant explained how lack of access to transportation made it difficult for him to keep medical appointments, especially when paired with competing commitments: “I had missed a couple of appointments and my transportation was kinda crazy and I had made an appointment and something had come up at this time and I missed it.” Participants seemed to understand the impact missing medications and not engaging in routine medical care had on their HIV disease. For instance, a participant who stated that he had a prolonged lapse in adherence to his HIV medications said:

So and then after my doctor's appointment, this was on the 10th, after my doctor's appointment, I mean, after the court date I went to my doctor's appointment and found out that I thought I was real sick, my T cells were still a little over 200 and my viral load, he said was like 55.

This quote suggests that the participant understood that not taking his medications had affected his health deleteriously.

HIV Stigma. Several participants also discussed the impact of HIV-related stigma on their ability to seek services in the community. Many mentioned not utilizing services at all or having to go to a doctor or social service agency across town to avoid being seen by people they might know. For instance, one participant stated:

I couldn't seek services anymore over there. I have two friends who live right next to the clinic. They're always peeking out their window trying to see who is walking in and getting services. So I travel across town to get services so nobody sees me.

Having to travel across town to seek services rather than obtaining medical care at the local community clinic may lead to undue stress and to lower levels of engagement in routine care.

Additionally, participants spoke about the painful nature of HIV-related stigma within the context of a neighborhood and how living on the street sometimes provided a more bearable existence. For instance, a participant stated:

I just smoke crack and not take the medicine. Cause on the streets you can live like you want to live. I mean, to be honest with you, don't nobody care what you got, they don't care what the disease you got, they don't care about nothing. It's all about the crack. So and in some kind of sick way it's, you can feel normal.

This quote seems to suggest that the power of stigma is stronger than the urge to engage in medical care and has implications for medical service provision for HIV-positive individuals. In lieu of seeking a stable home and supportive community, the threat of stigma tied to an individual's diagnosis led this participant to the streets where he could assume an anonymous role without fear of harassment or judgment from peers.

Loss of Social Connections. Further compounding the issues that HIV-positive individuals face after their release may be loss of social support. For instance, one participant stated, “[The prison was] too far away. Yeah, but you know, my granny died while I was in prison. You know, my granny died. They wouldn't take me to the funeral, you know, so I didn't get to see her no more.” Another participant expressed a similar sense of isolation while incarcerated: “And the whole time nobody come to see me. I barely got mail. If I got any mail it's from my momma. I think my mom wrote me a couple of times, but I didn't get no visits.” These quotes suggest that loss of social connections or a feeling of social isolation was a common “side effect” of incarceration for participants.

Resilience Through Faith

Although participants often discussed the negative effects that incarceration had on their post-release experience, many also shared that they found strength and resilience in their faith. Almost all of the participants relied consistently on their faith to bring them through challenging circumstances. For instance, a participant stated, “And I got locked up again and I prayed and I prayed and I prayed, I asked God to take the desire [to use drugs] away from me and he did and I've been clean since.” Participants voiced that their difficult circumstances had helped them to gain faithful perspective: “It allowed me to be where I'm at. And my disadvantages gave me the experience of my advantages today because I have to thank God that I'm alive and I'm healthy.”

This finding suggests that, when considering the design of a possible intervention, faith-based communities should be considered as collaborators.

Macro-Policy-Level Manifestations and Health. In the past decade, rehabilitation services and policies to help inmates reintegrate to their community have decreased, but the legal and practical barriers have increased (Petersilia, 2008). Many politicians have taken a tougher political stance toward crime and a restriction of the rights of ex-prisoners has proliferated (Petersilia, 2008). Participants in the current study often discussed how incarceration restricted their access to stable housing (and their experiences with homelessness) and gainful employment (which often pushed them into the informal economy).

Lack of access to affordable housing. Formerly incarcerated populations often have trouble securing housing after their release (Petersilia, 2008). Federal legislation gives local entities the choice to disqualify individuals who have drug charges from accessing subsidized housing. Several participants indicated that they were affected by this type of legislation and struggled to find housing long after their release. For instance, one participant stated, “They took that [his right to federally subsidized housing] and that’s still in effect right as we speak, will not be eligible to get back on section 8 till 2015.” Other participants stated that before they were incarcerated they were stably housed, but after release they often found themselves homeless: “So when they busted me then that made me lose my apartment, so my mom came and got my stuff. Didn’t have nowhere else to go [other than the homeless shelter].” Another participant who shared that he was living in the woods and under bridges and sleeping on park benches also stated that he was homeless after release: “So I’m just trying to get my apartment back. I got homeless again after I got locked up.”

Participants often discussed how homelessness might affect their health, especially related to caring for their HIV diagnosis. Specifically, many participants who were homeless mentioned that they often lacked a place to securely store their HIV medications, which led to pills getting lost, or being stolen and, subsequently, resulted in an adherence lapse. For instance, one participant stated:

Yeah, now, when I was homeless, I had, I kept my medicine in a plastic bag where I stick a pill bottle in here, a pill bottle in my pocket, a pill bottle in my sock, you know. I had to keep up my medicine. And then, one of the homeless guys stole my bag with my medicine. So, I've been out of my medicine. Then, I got nothing at least eight months. And then, I couldn't take it [the medicine] no more.

This theme was echoed by multiple participants who had or were currently experiencing homelessness. For example, one said:

I was getting my meds stolen. Everything I had, everybody keeps stealing it what you had in the [homeless shelter]. They are robbers, they steal food, and I can't get be toting around all that stuff. You know what I mean? And so I kept my meds with me.

In both of these examples, and many others throughout the interviews, participants linked adherence lapse to unstable housing and shelter, due to the lack of a secure location in which to keep their medications.

Employment. In addition to experiencing homelessness after release, several participants also reported an inability to find gainful employment. One participant stated:

I don't even know cause I've put in so many online [job applications], just that, I had me doing 10 a week. It [incarceration] affect any ex-felon, it affected and affects you real bad

cause a lot of ‘em said, it don’t matter, but a lot of ‘em still holding it up above your head and it is difficult for someone to come out of prison and get a job.

Another participant added:

I’ve put in quite a bit [of job applications] since I’ve been out and I’m still unemployed, so I had to go to the Homeless Paper thing that they got now, where they got you standing on the corner making you legal to sell papers, but that ain’t working there’s too many of us doing it.

These quotations illustrate participants’ motivation to find jobs and their active search for employment; however, participants emphasized the struggle to find employment opportunities given their criminal record, even following successful completion of a sentencing term. Many participants expressed similar sentiments and reported that their inability to find a job often led them to participate in the informal economy. Informal jobs, while providing participants with some money to take care of their needs, were often irregular and seasonal, did not offer employee benefits (such as health insurance) and were sometimes illegal (e.g., selling drugs), which could have health detriments and could increase the chance of re-incarceration. For example, one participant stated:

And I went back for selling the products that I used to smoke because I felt like it was easy money and just, like now I’ve been out 6–7 months and I still hadn’t found employment and I knew that selling crack was gonna make money cause I’ve been helping out every little chance I get ‘cause I can’t find a job. Somebody need to move? I try to help ‘em move, you know handy work type stuff, that’s about it.

This narrative suggests that inability to find a job forced this participant into the informal employment market and caused him to ponder whether he should begin selling drugs, as it

promised to provide a steady income stream. Other participants also reported cleaning, detailing, and repairing cars; landscaping; construction, cleaning their neighbors' houses; and panhandling as viable options to make money after being incarcerated.

Discussion

These findings corroborate results from other recent studies that attempt to understand the relationship between incarceration and health. Extensive scholarship has reviewed the how incarceration might affect access to services both pre-and post-release, risk behavior, and health outcomes (Catz, Kelly, Bogart, Benotsch, & McAuliffe, 2000; Lehavot, Huh, Walters, King, Andrasik, & Simoni, 2011; Lewandowski, Rosenberg, Parks, & Siegel, 2011; Olivares, Burton, & Cullen, 1996; Petersilia, 2008). Those who are HIV positive are disparately represented in the prison and jail population and experience issues related to obtaining medication and linkage to medical services after release (Catz et al., 2012; Maruschak, 2006). Relatedly, Individual vulnerabilities (e.g., substance abuse) can be exacerbated by structural issues such as lack of access and thus affect the reentry process of formerly incarcerated individuals (Lewandowski et al., 2011). The findings of the current study also demonstrate that structural impediments can affect individual behaviors, one's ability to successfully reintegrate after release, and health outcomes.

However, whereas previous research has demonstrated the ways in which incarceration can impact health and the re-entry process, little research has explored the prolonged impact of the incarceration experience on the health of HIV-positive populations. This paper illustrates how incarceration *and* the post-release experience interact to affect HIV-positive populations. The findings suggest that the effects of incarceration do not end after release. Due to stigma,

social conditions that are worsened by incarceration, and the macro-level policies that manifest as lingering “side effects,” the health of HIV-positive individuals can be negatively impacted. These findings support the ICWH presented within this paper by illustrating how incarceration might impact health via lack of access to HIV-related medical attention, lack of trust in healthcare professionals, continued stigma (both pre-and post-release), barriers to reintegration ,and worsened social conditions after release.

The results of the current study reveal the need for interventions to aid in post-release medical care linkage and to ease the transition back into the community. These interventions should (a) begin while incarcerated and continue far after release to ensure successful community reintegration and medical service linkage support; and (b) not be solely HIV related and, instead, address other social determinants of health that may compound the effect of incarceration on health. Possible interventions should include specifically providing help with housing, employment, stigma-related concerns, substance use, and reestablishing social support after release.

A successful intervention designed to simultaneously address the many issues faced by HIV-positive incarcerated and formerly incarcerated populations will also need to include cross-sector partnerships between criminal justice entities, public health personnel, and other social service agencies. Additionally, this study demonstrates that HIV-positive African Americans, and perhaps specifically those living in the Southern region of the United States, often rely on religious entities and their faith to sustain them through difficult circumstances. For this reason, interventions designed to target these populations should include faith-based community organizations as key stakeholders and collaborators.

Correctional policies also often deleteriously affect incarcerated populations. Modification of policies related to obtaining HIV-related medications is needed. For example, HIV-related medications should always be available to incarcerated individuals and should be accessible immediately upon booking into a correctional facility. In prisons and jails, medication dispersion policies, such as “med-line,” threaten confidentiality for HIV-positive inmates, thus making them vulnerable to stigma both on the part of facility staff and their incarcerated peers. Alternatives such as private dissemination of medications would mitigate this risk.

Finally, macro-level policy that prohibits access to certain employment opportunities and housing also disproportionately affects formerly incarcerated populations. While unstable housing situations and lack of employment have each been shown to increase the risk of re-incarceration, they might also affect the health of HIV-positive individuals. As noted by participants in the current study, these manifestations of these policies can lead to excessive stress and contribute to HIV antiretroviral adherence lapses.

Future Research and Limitations of the Current Study

The current study provides the foundation for future research to investigate the ways in which incarceration affects the health of HIV-positive African American men. Quantitative research that is more generalizable and examines the association between incarceration and proximal predictors of health is needed to shed light on which health-related variables are most affected by incarceration and which components of the incarceration experience are most detrimental to an individual’s health. Continued research should build on the ICWH framework, as individual outcomes must be considered in relation to the broader social context in order to have a more complete understanding of the intersection of HIV and incarceration. However,

some of the results may be informed by the setting in the American South. Further research is needed to understand if the issues are the same regardless of geographic location. For instance, a follow-up study should examine whether HIV-positive, incarcerated individuals in a rural area experience incarceration and post-release reintegration in the same way. Additionally, the current study only includes African American men, because incarceration most disproportionately affects this population. However, a similar study conducted with women and other racial groups is needed to highlight the distinct experiences that others who have experienced incarceration may face.

CHAPTER III

MEASURING THE DIRECT AND INDIRECT HEALTH IMPACT OF INCARCERATION ON HIV-POSITIVE INDIVIDUALS

Introduction

Nearly 17% of HIV-positive Americans spend some time in jail or prison during any given year compared with only 1% of the general population (Spaulding, et al., 2009). HIV-positive prisoners have reported low quality of medical care, restricted access to medications and stigma behind bars (Beckwith, et al., 2014; Brinkley-Rubinstein & Turner, 2013; Milloy, et al., 2011;). In New York City jails, of 125 newly identified HIV-positive individuals, only 17% were started on HIV therapy while incarcerated (Jaffer, Kimura, & Venters, 2012). In a qualitative study in Tennessee, HIV-positive participants who had recently been released from jail or prison also reported low quality of care and inattention to serious medical needs by correctional staff (Brinkley-Rubinstein & Turner, 2013). Upon release, this trend continues—HIV-positive individuals also experience limited access to medical care, which is strongly correlated with anti-retroviral medication adherence lapse (Brinkley-Rubinstein, 2013; Milloy, et al., 2011).

In addition, the post-release environment can be chaotic and may negatively affect health. Many individuals struggle to find employment and housing post-release and experience a loss of social support of family and friends—all of which are proximal indicators that are related to health (Brinkley-Rubinstein & Turner, 2013; Pager, 2008; Petersilia, 2008; Geller & Garfinkel, 2006; Wolff, 2005).

Literature Review

This chapter draws on existing literature about the health impact of carceral mechanisms both during incarceration and post-release to understand both the direct and indirect relationship between incarceration and the health of HIV-positive individuals.

The Incarceration Experience and Health

Those who are incarcerated are unhealthier than their non-incarcerated counterparts yet the exact reason for health disparities in this population is hard to isolate. HIV infection among prisoners is 4 to 6 times higher than the general U.S. population (Centers for Disease Control, 2012; Maruschak, 2006). Binswanger et al. (2009) found that those incarcerated in jails and/or prisons have a higher likelihood of experiencing hypertension, asthma, arthritis, and cervical cancer than their non-incarcerated counterparts. Health post-incarceration also seems to suffer. Prince (2006) found an association with previous incarceration and higher numbers of hospital stays, visits to the emergency room, and re-hospitalization within three months of being initially discharged from the hospital. Several studies have also shown that incarceration is associated with increased mortality among individuals post-release (Binswanger et al., 2007; Binswanger et al., 2011; Calcaterra et al., 2012). New findings from Patterson (2013) illustrate that each additional year in prison produced a 15.6% increase in the likelihood of death for parolees, translating to a 2-year decline in life expectancy for each year served in prison.

Although there is evidence that the provision of correctional healthcare can narrow the mortality gap between Whites and African Americans while incarcerated, this evidence is contested by alternate studies that indicate that the infrastructure in correctional facilities may create barriers that limit access to medical care (Magee et al., 2005). Hatton et al., (2007)

investigated the specific issues related to healthcare access in jails and found that errors caused by the facility itself, hygiene issues, mandatory requirement of co-payment, delay in obtaining needed medications, side effects from medications, administration of wrong medications, medications stopped by mistake, and allergic reactions to medications were common and often influenced the health of inmates negatively. Thus, the existing literature demonstrates that incarceration can have an impact on the health of prisoners, both during their stay in the correctional environment and following release.

Proximal Indicators of Health Post-Release

While incarceration can directly influence health, spending time in jail or prison can also continue to impact one's health post-release via proximal indicators of health. Lack of access to employment and housing opportunities, experiencing a loss of social support, and restrictions of voting rights post release are all proximal indicators of health that those who have been incarcerated often experience (Brinkley-Rubinstein, 2013; Geller, Garfinkel & Western, 2006; Petersilia, 2008; Mauer, 2009, Travis, 2010; Sowell, et al., 2001).

Lack of Employment Options. Those who are convicted of a felony are restricted from serving in the military, having a government position, or obtaining a number of permits and licenses (Iguchi, Bell, Ramchand, & Fain, 2005). In addition, employers are increasingly resistant to hiring ex-inmates and are more often requiring background checks during the hiring process (Petersilia, 2008). Restricted access to employment is important because the ability to find employment post release is essential to successful reintegration. Pager (2008) reported that those who had a criminal record were less likely to obtain an interview after disclosing their criminal history. Geller, Garfinkel, and Western (2006) also found that when formerly incarcerated men were able to find jobs, they experienced a 14% to 26% decline in hourly wages

compared to their earnings prior to incarceration.

Lack of Housing Availability. In addition, Metraux and Culhane (2004) indicate that 11.4% of formerly incarcerated individuals in New York entered a shelter within 2 years of release. Further, research has found that 62% of formerly incarcerated individuals in New York City spent their first night post release with relatives, and a year after initial release only 10% were paying rent on their own home or apartment (La Vigne, Visher, & Castro, 2004; Visher & Courtney, 2007). Lack of stable housing and homelessness is important to ex-prisoners' health as they have been associated with poor health outcomes, and they complicate the delivery of adequate healthcare (Wright, 2010).

Loss of Social Support. Deprivation of social support while incarcerated often results due to the remote geographic location of many prisons making it hard for families to keep in touch. Correctional facilities are frequently located in rural areas that have little or no access to public transit, and often no active attempt is made to keep a prisoner close to his or her home community during incarceration (La Vigne, Davies, Palmer, & Halberstadt, 2008). As a result, Khan et al. (2011) found that 55% of recently incarcerated participants had long-term relationships that ended during incarceration. Binswanger et al. (2012) also found that lack of social support among recently released individuals resulting in feelings of isolation often led to an increased likelihood of a return to alcohol and drug use.

HIV and Incarceration

HIV-positive individuals may face additional health issues because incarceration can create barriers to medical care re-linkage and anti-retroviral medical adherence (Brinkley-Rubinstein & Turner, 2013; Milloy et al., 2011). For example, 76% of 512 individuals leaving a California jail between 1996 and 2005 reported a lapse in antiretroviral medication after release

(Pai, Estes, Moodie, Reingold, & Tusky, 2009). HIV-positive individuals in Tennessee reported a delay in re-linkage of medical care due to the need to prioritize actions that facilitated stability (e.g. finding housing, employment) after release (Brinkley-Rubinstein & Turner, 2013). Those living with HIV also face the same barriers to reintegration as other ex-inmates (e.g., worsened proximal indicators of health) and, in combination, the incarceration experience and post-release factors negatively impacted by the carceral environment may negatively affect HIV disease. In Maryland, for example, HIV-positive drug users who had recently been briefly incarcerated were 7 times more likely to experience virological failure than HIV-positive individuals drug users who had not been incarcerated (Wilson, Kinlock, Gordon, O'Grady, & Schwartz, 2012). However, whereas many studies have demonstrated that HIV-positive individuals have worsened health post-release, few studies have explored the combined direct and indirect impact of incarceration on health of those living with HIV.

Current Study

The major aim of this paper is to investigate the association of incarceration with both self-rated health and proximal indicators of health of HIV-positive individuals. This study is guided by the three following hypotheses: (H1): There is a direct association of incarceration with self-reported health of HIV-positive individuals; (H2): There is a direct relationship between incarceration and proximal indicators of health after release; and (H3): There is an indirect relationship between incarceration and self-reported health that is mediated by proximal indicators of health after release.

Theoretical Framework

The hypotheses put forth in this paper are largely informed by the Incarceration as a

Catalyst for Worsening Health Framework (ICWH) (Brinkley-Rubinstein, 2013). The ICWH explicates how incarceration might negatively impact health via the specific mechanisms of the carceral experience including the incarceration experience itself and the post-release proximal indicators of health that are influenced by incarceration and related policy. Although it is important to understand the distinct impact of each of the mechanisms of incarceration,

uncovering the cumulative impact of the carceral experience (i.e., the

influence of detainment, policy and the post-release proximal indicators) is at the heart of the ICWH. Table 3 identifies the main variables of interest— each of which acts individually and in combination with other factors to deleteriously impact the health of incarcerated populations.

Table 3: Incarceration as a Catalyst for Worsening Health Variables of Interest

	Mechanism	How Measured in Current Study
Incarceration	Prison Norms and Conditions; Quality of and Access to Medical Care	Have you experienced a recent incarceration?
Post-Release Proximal Predictors	Loss of Social Support	The Multi-Dimensional Scale of Social Support
	Lack of Access to Jobs	Are you currently employed?
	Lack of Access to Housing	Where are you currently living?
	Disfranchisement measured via not voting	Did you vote in the last national election?

It is important to note that the current study focused on (a) the incarceration experience broadly (measured via the question: Have you experienced a recent incarceration?) and (b) the loss of social support and restriction of rights post-release (e.g., housing, employment).

Methods

Study Setting

The current study took place in a midsize Southeastern city with a population of nearly 600,000 individuals. At the end of 2010, there were 4,000 people who were HIV-positive living

in the city (Brinkley-Rubinstein, 2010). Of these nearly 4,000 HIV-positive people, 638 were incarcerated in the local jail and 155 were in a state prison.

Sample Selection

Approximately 153 HIV-positive individuals participated in the current study—75 of whom had recently (been released not more than 90 days before enrolling in the study) spent at least 30 days in jail or prison and 78 of whom had not spent any time in prison or jail. The demographic breakdown of both groups was similar to the demographic breakdown of incarcerated people with HIV in the study city, which was 75% African American and 75% male (Brinkley-Rubinstein, 2010).

Recruitment

Participants were recruited in three ways. First, early intervention specialists who specifically work with formerly incarcerated individuals approached clients soon after their release to inquire whether they were interested in participating in the study. If they were interested and met the study criteria, they were put in touch with the author. Second, the author set up a recruiting station in the waiting room of an AIDS Service Organization (ASO) and asked each client who came in for services if he was interested in participating. Third, respondent-driven sampling was used to gain access to hidden populations that may not be utilizing social services. For their participation, individuals received a \$24 Visa gift card. Before the current study commenced, approval was attained by the Vanderbilt Institutional Review Board.

Data Collection

Data were drawn from surveys that were administered by the author in a one-on-one setting. Participants completed the surveys at various locations including the public health department, local ASOs and the public library. The average survey length was about 30 minutes.

The consent process included a short introduction to the survey, acknowledgement that at any time during the survey, participants could make the decision to stop taking the survey with no repercussions, and the signing of the consent document.

Measures

This study examines the relationship among self-reported health, incarceration and proximal indicators of health. Table 4 describes, in detail, each of the variables used in analysis.

Incarceration History. Respondents were asked if they had been incarcerated for at least three months and released less than three months before participation in this study. Incarceration history was recorded dichotomously (1=yes; 0=no). The survey also contained a question regarding the type of crime participants committed and the approximate dates of the individual's arrest and release.

Self-Reported Health. The dependent variable "self-reported health" is a composite measure that includes four items, each of which is measured on a five-point scale (1=strongly agree, 5=strongly disagree; see Table 4 for a complete listing of all questions included in the scale). This self-reported scale is widely used and has been validated with diverse groups of individuals from various backgrounds (Chandola & Jenkinson, 2000; Idler & Benyamini, 1997).

Each question was intended to understand a different dimension of how one thinks about one's own health. For example, participants were asked to agree or disagree with the following statement: "I am somewhat ill?" (strongly agree =5; strongly disagree =1). In addition to these four questions, respondents were also asked, "In general would you say your health is" and asked to mark one of five responses ranging from excellent to poor.

Additional questions about health were also asked such as, "Do you have health insurance?" and "What is your CD4 count?". Participants were also asked to list how many

health conditions they had experienced in the last six months and how often they missed a dose of their anti-retroviral medication. It is important to note, though, that only the self-reported health composite measure (consisting of four items) was used in the path analysis. The Cronbach's alpha for the composite self-reported health measure is .823.

Proximal Indicators of Health. The proximal indicators of health are included as a composite measure made up of four distinct, observed sources: (a) employment, (b) housing status, (c) social support (see Table 4 for a list of sources and relevant questions). Each has been strongly linked in prior research both to wellbeing, and incarceration and are each included as a proximal indicators of health that is impacted by incarceration in the ICWH theoretical framework (Brinkley-Rubinstein, 2013).

Employment and housing. Employment was measured via the question: "Are you currently formally employed?" (1=yes; 2=no). More specific information was also gathered about participants' employment such as the occupational industry and whether they also engaged in informal work. Current housing situation was measured via the following question: "What is your current housing status?" (1=have my own apartment or house; 2=living with family; 3=living with friends; 4=homeless). This variable was recoded to form a dichotomous indicator: "have my own apartment or house" or "living with family" or "living with friends" (=1); "homeless" (=0).

Social support scale. The Multi-Dimensional Scale of Social Support (Zimet, Dahlem, Zimet & Farley, 1988) was used to measure social support of all participants. The scale includes eight questions measuring various sources of social support (e.g., familial, friends). See Table 4 for a description of each question. Participants were asked to rank the level of support they felt from various people in their lives on a 1 to 7 scale with 1 indicating very low levels of social

support and 7 suggesting extremely high levels of social support. This scale has also been previously validated and used in a large number of previous studies that have measured social support in diverse communities such as African Americans, international populations and Mexican Americans (Edwards, 2004; Stewart, 2014; Wongpakaran, Wongpakaran, & Ruktrakul, 2011; Zimet et al., 1988). This variable was recoded to form a dichotomous indicator. The Chronbach's alpha for Zimet et al.'s (1988) social support scale is .943. An average social support scale score of 3.5 or lower was recoded as 0 and an average score of 3.6 or higher was recoded as 1.

Table 4: Sources and Items measured via the Proximal Indicators of Health Composite Variable

Sources and Items	Answer Categories
SELF-REPORTED HEALTH STATUS	
In general you would say your health is?	Excellent, Very Good, Good, Fair, Poor
I am somewhat ill.	Strongly agree, agree, neutral, disagree, strongly disagree
I am as healthy as anyone I know.	Strongly agree, agree, neutral, disagree, strongly disagree
My health is excellent.	Strongly agree, agree, neutral, disagree, strongly disagree
I have been feeling bad lately.	Strongly agree, agree, neutral, disagree, strongly disagree
PROXIMAL INDICATORS OF HEALTH	
<i>Employment</i>	
Are you currently employed?	YES, NO
<i>Housing</i>	
Where do you currently live?	My own house or apartment, With friends, With family, Homeless, Other
<i>Social Support—Multidimensional Scale of Perceived Social Support</i>	
There is a special person who is around when I am in need	“1” if you Very Strongly Disagree Circle the “2” if you Strongly Disagree Circle the “3” if you Mildly Disagree Circle the “4” if you are Neutral Circle the “5” if you Mildly Agree Circle the “6” if you Strongly Agree Circle the “7” if you Very Strongly Agree
My family really tries to help me.	
I get the emotional help and support I need from my family	
I have a special person who is a real source of comfort to me	
My friends really try to help me	
I can count on my friends when things go wrong	
I can talk about my problems with my family	
I have friends with whom I can share my joys and sorrows	
There is a special person in my life who cares about my feelings	
My family is willing to help me make decisions	
I can talk about my problems with my friends	

Composite Measure. A composite variable that includes the binary social support scale measure, the employment measure and the binary housing measure was created. The Chronbach’s alpha for this composite measure was low at only .343. Table 5 below is a correlation matrix for each of the main variables of interest.

Table 5: Correlations among main variables of interest

		Incarceration	Self-Reported Health Status	Employment	Social Support	Housing
Incarceration	Pearson Correlation	1	-.354**	-.385**	-.064	.325**
	p-value		.000	.000	.439	.000
	N	154	147	149	146	150
Self-Reported Health Status	Pearson Correlation	-.354**	1	.338**	.232**	-.166*
	p-value	.000		.000	.006	.047
	N	147	147	143	142	144
Employment	Pearson Correlation	-.385**	.338**	1	.121	-.316**
	p-value	.000	.000		.150	.000
	N	149	143	149	143	149
Social Support	Pearson Correlation	-.064	.232**	.121	1	-.059
	p-value	.439	.006	.150		.484
	N	146	142	143	146	144
Housing	Pearson Correlation	.325**	-.166*	-.316**	-.059	1
	p-value	.000	.047	.000	.484	
	N	150	144	149	144	150

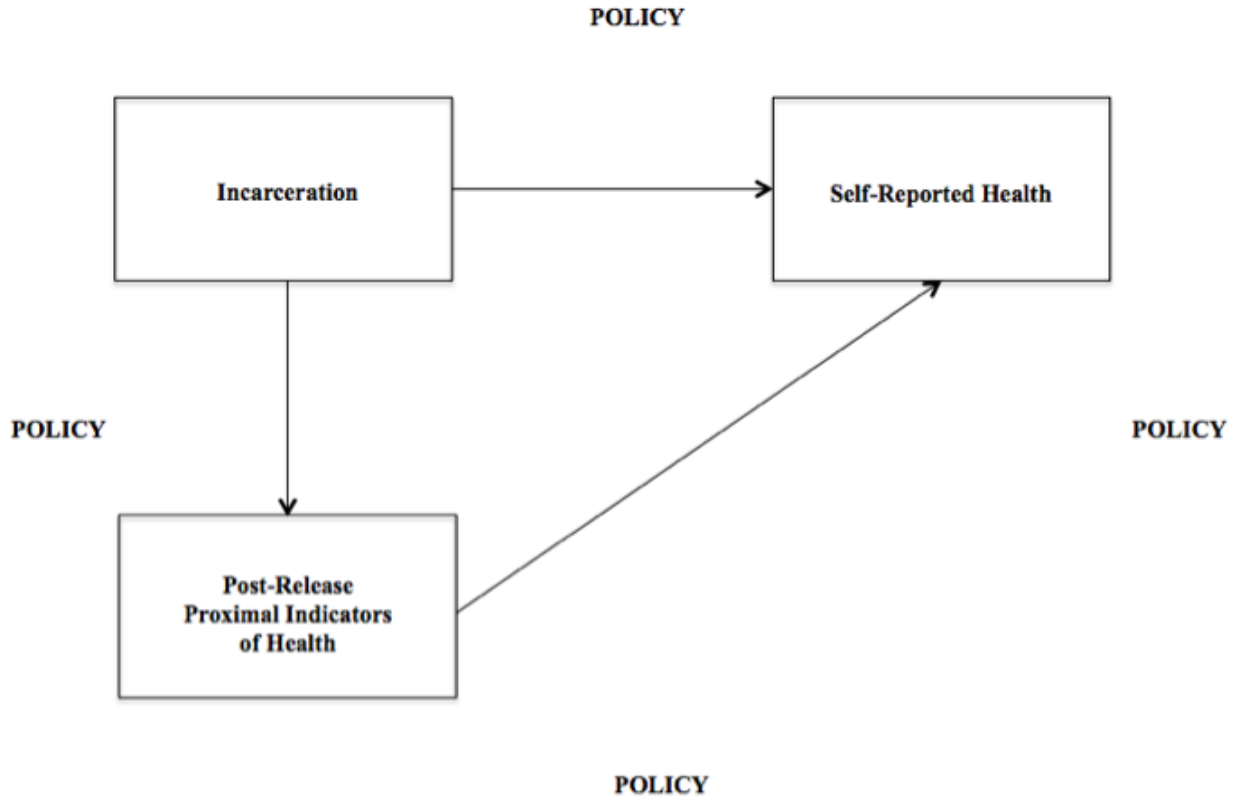
** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Analysis Plan

Descriptive statistics for each of the variables included in the study (e.g. range, mean and standard deviation where applicable) are summarized in Table 6. To examine the contribution of incarceration and proximal indicators of health associated with incarceration and self-reported health, this study utilizes a structural equation model (see Figure 3), or more accurately path analysis, as the model contains only observed, measurable variables.

Figure 3: SEM Model



Structural Equation Modeling is an appropriate analytical choice because (a) the current study is based on a hypothesized model of the relationships between various variables, and (b) it can test both the direct and indirect relationship incarceration has with the health of HIV-positive individuals. The hypothetical model presented in Figure 2 was analyzed using maximum likelihood (MLE) estimation method via Stata 13.0 software (StataCorp, LP, College Station, Texas). MLE deletes cases for which data are missing. MLE resulted in 20 cases being deleted and a final sample size (for the path analysis) of 133. Three separate linear regression models were run with age, race, and sex as control variables. Results of these regression models were very similar to results of the path analysis without control variables. As such, and due to the

small sample size, the basic model without added control variables is presented.

Results

Descriptive information for variables used in analysis is included in Table 6, which summarizes social characteristics, HIV risk factors and self-reported health status for incarcerated and non-incarcerated participants. The mean age of the participants was 47 ($SD=12$ years). A majority of the participants were male (83% for incarcerated participants; 73% for non-incarcerated participants) and African American (89% for incarcerated participants; 68% for non-incarcerated participants). Incarcerated individuals reported higher use of cocaine (21% for incarcerated participants and 6% for non-incarcerated participants) whereas non-incarcerated individuals reported higher use of alcohol (60% for non-incarcerated participants vs. 22% for incarcerated participants). HIV risk factors also differed by group, as incarcerated individuals reported heterosexual sex as the most common risk factor (41%) and non-incarcerated individuals reported male-to-male sex as the highest risk factor (62%). Individuals who had been incarcerated had a lower average self-reported health status ($M=2.51$) than those who had not been incarcerated ($M=3.04$). In addition, on average individuals in the incarcerated group reported having almost four health concerns whereas non-incarcerated individuals reported, on average, two and a half. For those who knew their CD4 count ($n=77$), the overall mean was 597 ($SD= 275$). However, while not significantly different, those who had been recently incarcerated reported, on average, lower CD4 counts than their non-incarcerated counterparts (590 vs. 620). Those who had been incarcerated reported higher levels of anti-retroviral medication non-adherence, reporting missing medication more often.

Table 4: Sociodemographic Characteristics

	Incarcerated (n=75)			Not Incarcerated (n=78)		
	Mean or %	SD	Range	Mean or %	SD	Range
<i>Social Characteristics</i>						
Male (%)	83%	--	--	73%	--	--
African American (%)	89%	--	--	68%		18-64
Age (years)	44	13	23-67	49	10	22-67
<i>HIV Risk Factors</i>						
HIV Risk Factor: Male-to-Male Sex	21%	--	--	62%	--	--
HIV Risk Factor: Heterosexual Sex	41%	--	--	15%	--	--
Cocaine Use (%)	18%	--	--	6%	--	--
Alcohol Use (%)	21%	--	--	60%	--	--
<i>Health Information</i>						
Self-Reported Health Scale	2.51	.73	1-5	3.04	.69	1-5
“How would you rate your health?”	3.12	1.13	1-5	3.87	.94	1-5
Uninsured	46%	--	--	33%	--	--
Number of Health Concerns	3.90	2.96	0-16	2.53	2.61	0-16
Medication Non-Adherence	1.92	1.29	1-4	1.50	1.09	1-4
Average CD4 count	569	260	42-1175	620	287	94-1000
<i>Proximal Predictors of Health</i>						
Unemployed	81%	--	--	43%	--	--
Social Capital Scale	4.56	1.75	1-8	4.79	1.87	1-8
Homeless	32%	--	--	6%	--	--

Figure 4 addresses research question 1: “Is there a direct relationship between incarceration and self-reported health?” As depicted in Figure 4, the relationship between incarceration and self-reported health was statistically significant ($\beta=.54$).

Figure 4: Direct Relationship

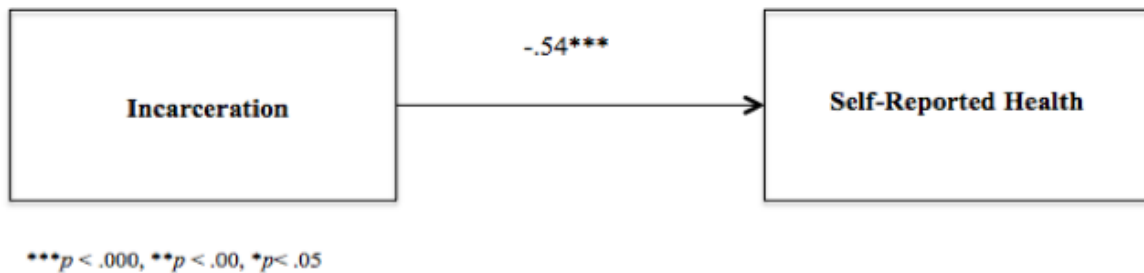
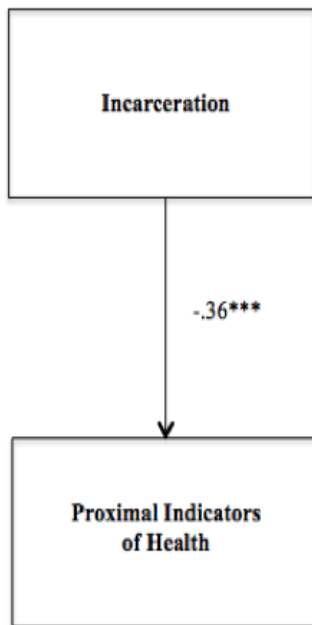


Figure 5 depicts the direct relationship between incarceration and the proximal predictors of health that are impacted by incarceration and, thus, corresponds with research question 2: “Is there a relationship between incarceration and proximal predictors of health?” As predicted, the relationship between incarceration and proximal predictors of health is also statistically significant ($\beta = -.36$).

Figure 5: Relationship between Proximal Predictors and Incarceration

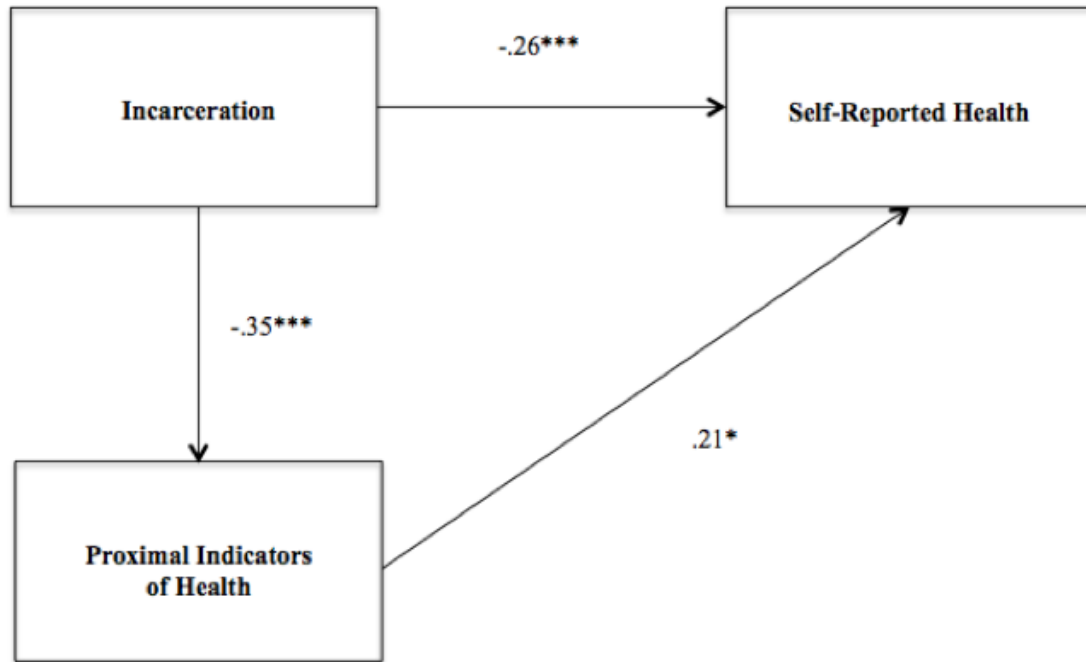


*** $p < .000$, ** $p < .00$, * $p < .05$

Figure 5 depicts the fully specified model testing both the direct and mediated paths of incarceration on self-reported health. Figure 4 also corresponds with research question 3: “Is there an indirect impact of incarceration that is mediated by proximal indicators of health after release?”

As figure 5 indicates, the standardized regression coefficient between incarceration and self-reported health is statistically significant ($\beta = -.26$, $p < .000$)

Figure 6: Fully Specified Model



$***p < .000$, $**p < .00$, $*p < .05$

The standardized regression coefficient between incarceration and proximal indicators of health was also statistically significant ($\beta = -.35$, $p < .000$) as was the standardized regression coefficient between proximal predictors and self-reported health ($\beta = .21$, $p < .05$). Thus, the relationship between incarceration and health was mediated by proximal indicators of health. The standardized indirect effect was $(-.35)(.21) = -.0735$.

The significance of the indirect effect was tested using bootstrapping procedures. Unstandardized indirect effects were computed for each of 10,000 bootstrapped samples, and the 95% confidence interval was computed. The bootstrapped unstandardized indirect effect was $-.111$. The 95% confidence interval ranged from $-.221$ to $-.002$ and was statistically significant

($p=.046$). This was confirmed by Sobel's test ($z=-2.07$, $p=.039$).

Discussion

The present study sought to examine if incarceration itself is negatively related to the health of HIV-positive individuals and whether proximal indicators of health mediate incarceration's influence on health. To the author's knowledge, no empirical studies have investigated the combined effect of incarceration and proximal predictors on the health of HIV-positive individuals. As hypothesized, results of this study demonstrate a direct relationship between incarceration and both self-reported health and various proximal predictors of health that are affected by incarceration. In addition, the relationship between health and incarceration is mediated by social support, housing status and employment post-release. These results confirm previous findings and the hypothesized relationships explicated in the ICWH theory (Brinkley-Rubinstein, 2013). The ICWH theorizes that the carceral environment can have strong impacts on health both during incarceration and after release, especially at the individual and community levels, a finding that is reinforced by the present study.

For HIV-positive populations, specifically, the risk of incarceration may be a daily reality, and, thus, the negative relationship between incarceration and health may be more impactful on a community level than for other populations. Policy interventions to stem the effect of incarceration on health are needed. Given the results of this study, restoration of rights post-release, changes to the carceral environment, and interventions post-release that target rebuilding of social support are important. Other policy interventions that could stem the impact of incarceration on health are related to the War on Drugs. Seventy-two-percent (72%) of participants in this study were most recently incarcerated due to drug charges and 87% of those

who reported a prior crime had incurred a drug law violation. Although recent reports demonstrate a slight decrease in incarceration over the last two years (Glaze & Heberman, 2013), drug offenses continue to be highly prevalent among those who are incarcerated, and the total number of those incarcerated for a drug charge is much higher in the United States than in any other industrialized nation in the world. Important pilot studies are currently being conducted that could help lower the incarceration rate, and, thus, lessen the health impact incarceration can have on HIV-positive populations. As of November 2014, twenty-two states and the District of Columbia had legalized either recreational or medical marijuana use and the federal government has signaled that it will respect local laws rather than broadly enforcing federal drug laws in those states. Additionally, a handful of states have also instituted inventive reforms that couple drug law reform with various changes in healthcare access as a result of the Affordable Care Act (ACA). For instance, the cities of Seattle and Buffalo recently instituted pre-booking diversion. Pre-booking diversion means that individuals who incur a drug law violation can, at the police officer's discretion, be taken to a drug rehabilitation program rather than be arrested (Cockburn, Heller, & Sayegh, 2014). While evaluation is needed to understand the health effect of such criminal justice reforms, the theoretical foundation upon which they are built assumes that via these programmatic changes less people will become involved in the criminal justice system and will, thus, not be exposed to the various mechanisms of incarceration that can worsen health. For HIV-positive individuals, who are at greater risk of going to jail or prison, pre-booking diversion could result in significantly eradicating the negative health impact of incarceration.

Strengths, Limitations and Future Research

Several strengths are associated with this study. To the author's knowledge, no research to date has modeled the direct and indirect relationship between incarceration and health of HIV-

positive individuals. However, limitations that may impact the generalizability of the findings must also be addressed. First, although the sample size met the needs of the analytic method, and is appropriate given the hard to reach nature of the target population, it is, overall, a small sample size. Therefore, future studies should endeavor to collect similar survey data from larger populations to ensure the validity of the findings. While the number of participants was appropriate for the population of the sample city, certain nuances in the data could not be properly explored because of the small number of participants. For example, adding additional paths to the analysis was not prudent because for each additional observed, measured variable added to the path analysis an extra ten cases was required. Therefore, because of the small sample size, the number of latent and observed variables that could be included in the model was limited. Also, as noted by Cole and Maxwell (2003), structural equation models should always include variables that are sequential in temporal order and when possible longitudinal measurement of variables over time should be conducted. In this study the variables are in temporal order in that a recent incarceration did occur before any questions about proximal indicators or self-reported health status were answered. However, this study does not take into account proximal indicators or health status before most recent incarceration, account for changes over time after release or present causal evidence as third variable causation is plausible (e.g. drug use). In the future, research should be conducted that longitudinally evaluates the health of those most at risk for incarceration to understand the complete impact of incarceration on health as well as other confounders that might contribute to worsened health over the life course. A study similar to the current one should also be conducted with non-HIV-positive participants in order to better understand if the health effect of incarceration is similar or different for diverse groups. Finally, the results of this study were influenced by contextual

factors relative to the geographic setting and the policies of the sample city. Individuals in cities that have more regressive or progressive laws related to restoration of rights after release from prison or jail may have different health outcomes than the ones in the current study.

Conclusion

Incarceration can impact the health of HIV-positive individuals negatively; however, previous research has not examined the direct and indirect relationship between incarceration and health of HIV-positive individuals. The current study is based on the ICWH, which theorizes that the incarceration experience has a direct effect on health that is also mediated by proximal indicators of health (housing, employment, civic engagement and social support). The findings herein provide support to the ICWF framework and provide evidence that (a) incarceration is negatively related to the health of HIV-positive individuals directly and (b) the health effect is mediated by the proximal indicators (social support, lack of access to housing and employment) that may be impacted by a history of incarceration. Therefore, policy makers should acknowledge the direct and indirect relationship between incarceration and health for especially vulnerable populations, such as those who are HIV-positive.

CHAPTER IV

“THE POLICE IS CONSTANT”: IMPACT OF REPEATED POLICE PRESENCE AND HIV CRIMINALIZATION LAWS ON THE WELLBEING OF PEOPLE LIVING WITH HIV

Introduction

People living with HIV are disproportionately represented in the criminal justice system. It is estimated that 17% of those living with HIV experience jail or prison each year compared with only 1% of non-HIV-positive populations (Spaulding et al., 2009). While the link among HIV, incarceration, and health has been demonstrated (Beckwith, et al., 2014; Brinkley-Rubinstein & Turner, 2013; Milloy et al., 2011), less is known about the relationship between policing policies and HIV criminalization laws and health for HIV-positive individuals—a gap in the literature this study seeks to explore. The present study uses a qualitative approach to examine two primary questions. First, How might health be affected by repeated police contact on HIV-positive individuals? Second, what is the relationship between HIV criminalization laws and wellbeing of HIV-positive individuals?

Literature Review

Below relevant literature specific to policing, health, and HIV criminalization is presented in order to lay a foundation for the import of the current study

The Roots of Modern-Day Policing Policies

Since the 1980s, the rate of incarceration has skyrocketed. Between 1981 and 2012, the incarceration rate increased by 340% (Glaze & Heberman, 2013). Concurrently, policies around policing also changed to reflect the values espoused by “broken windows theory” (Wilson & Kelling, 1982). According to the theory, disorder and serious crime have an indirect relationship that is mediated by fear of residents. Therefore, the police can promote order by increasing efforts to stem low-level crime (e.g., petty theft and vandalism) in “high-risk neighborhoods” (Kelling & Wilson, 1982). As a result, policing practices placed a sharp emphasis on curbing disorder (e.g., stemming the prevalence of very minor infractions such as broken windows), as they were hypothesized to be a facilitator of more serious crime. Additionally, historically, blatant use of racial profiling has been legitimated as a routine police practice. In 1996, the Supreme Court found that racial profiling was constitutional because there was no proof provided that “similarly situated” individuals were also disparately treated (*United States v. Armstrong*, 517 U.S. 456, 116 S.Ct. 1480, 1996). And, while there has been a great deal of criticism, racial profiling is still widely used.

In combination, policing based on broken windows theory and racial profiling has led to increased police contact for many at-risk populations, including low-income minorities in numerous American cities, who are subsequently often arrested, but rarely convicted at higher rates than their White counterparts (Morris Justice Project, 2013). In an evaluation of New York City’s “stop and frisk” policy, the Morris Justice Project (2013) found that 69% of 1,100 individuals surveyed in a low-income, predominantly minority neighborhood in the Bronx were stopped over a one-year period, and 52% were stopped four or more times. In contrast, the same study found that only 7% of 4,882 stops in a year’s time lead to an arrest. These findings suggest

that the profiling of minorities often proves unwarranted and, ultimately, ineffective at capturing criminals.

Police Profiling and Health

There is an established association between profiling by police and mental health. Carter and Mazzula (2006) concluded that stress was the mechanism by which profiling negatively affected health (Carter & Mazzula, 2006) and The Federal End Racial Profiling Act of 2001 states that racial profiling makes those who are profiled experience fear, anxiety, humiliation, anger, resentment, and cynicism when they are unjustifiably treated as criminal suspects (107th Congress; Cooper, 2002). Additionally, Geller et al. (2013) found that those who reported higher incidences of police contact also reported higher incidence of anxiety, vigilance, and depression. Feeling targeted by police can also result in feelings of victimization and powerlessness that extend beyond any individual encounter with the police and may result in disempowerment or resignation to profiling as a normalized part of life (Watson, 2010). Therefore, police profiling may have serious impacts on individual health that can have long-lasting effects.

HIV Criminalization Laws

HIV criminalization adds a unique layer of complexity to the problem of police profiling. In 27 states, the sexual transmission of HIV from one person to another is viewed as a criminal act if the HIV-positive person knows that he or she has HIV and does not tell the other person. For instance the statute in Tennessee reads:

A person commits the offense of criminal exposure of another to human immunodeficiency virus (HIV), to hepatitis B virus (HBV), or to hepatitis C virus (HCV) then knowingly the person is infected with HIV, with HBV or HCV, the person knowingly: (1) engages in intimate contact with another; (2) transfers, donates, or

provides blood, tissue, semen, organs, or other potentially infectious body fluids or parts for transfusion, transplantation, insemination, or other administration to another in any manner that presents a significant risk of HIV, HBV or HCV transmission; or (3) dispenses, delivers, exchanges, sells, or in any other way transfers to another any nonsterile intravenous or intramuscular drug paraphernalia. (Tenn. Code Ann. 39-13-109)

Often such laws go further than just criminalizing sexual transmission of HIV, and extend to also include additional incidents of person-to-person contact in an attempt to minimize risk of transmission via fighting, spitting, or other routes. From 2000–2010, 44% of all HIV exposure charges in the Nashville jurisdictional region were for non-sexual modes of transmission (Galletly & Lazzarini, 2013).

Moreover, in 13 states, prostitution charges are modified for those who are HIV positive. For example, in Tennessee, if a person is charged with prostitution and is known or later found out to be HIV positive, his or her charge is upgraded from a misdemeanor to a felony offense. Additionally, the language of the prostitution statute is very ambiguous: “Prostitution means engaging in, or offering to engage in, sexual activity as a business or being an inmate in a house of prostitution or loitering in a public place for the purpose of being hired to engage in sexual activity” (Tenn. Code Ann. 39-13-516). Additionally, in Tennessee, HIV-positive individuals who are convicted of a prostitution charge are required, for the rest of his or her life, to register as a sex offender. Galletly and Lazzarini (2013) surveyed data on HIV-specific charges in Nashville, Tennessee, from 2000–2010 and found 25 arrests for HIV exposure and 27 for aggravated prostitution, most of which did not involve allegations of transmission.

The stated intention of HIV criminalization laws is prevention—to deter individuals from engaging in risky behavior that may lead to transmission of HIV. However, it must be noted that

inherent in their nature is the notion of justified punishment. Cameron, Burris, and Clayton (2008) state, “In the abstract and from a distance from social reality, there seems a certain justice that criminal penalties should be applied against those who negligently, recklessly or deliberately pass on the virus — even against those whose actions create only the risk of doing so” (p. 4). Jurgens et al. (2009) go one step further and outline 10 reasons why HIV criminalization should be avoided, including the fact that most people transmit HIV to others unknowingly or do not disclose their status mainly due to fear of stigmatization; applying criminal law to HIV exposure does not actually lessen the risk of increased HIV transmission; and applying criminal law to HIV exposure actually undermines HIV prevention efficacy. Treating individual acts of HIV transmission as criminal and deserving of punishment violates the current medical outlook of HIV, assumes that HIV transmission is often deliberate, and assumes that punishment is an effective deterrent of risky behavior. Thus, HIV criminalization echoes the theoretical foundations of broken windows theory in that it assumes that punishing risky behavior will curb further transmission of HIV. Also, given the medical advancements in HIV medical care, HIV practitioners have advocated that, when managed properly, HIV should be conceptualized more as a chronic disease rather than a death sentence

Examining the Intersections of Policing, HIV Criminalization, and Health: The Current Study

While much theoretical or policy-related scholarship has been conducted related to HIV criminalization laws, little empirical study has investigated the how these laws might affect the lived experience of HIV-positive individuals. Similarly, no studies to date examine how police profiling of HIV-positive individuals is related to both short- and long-term outcomes, especially germane to health. Therefore, the aim of the present study is twofold: (a) to explore the

intersection of health and of routinized police contact of HIV-positive individuals, and (b) to investigate how HIV criminalization laws might affect wellbeing of HIV-positive individuals. In order to accomplish this, this study draw upon qualitative data from six focus groups with a total of 40 HIV-positive, recently incarcerated individuals.

Methods

Setting

The current study took place in a midsize city in the Southeastern region of the United States. At the end of 2008, there were approximately 586,636 people living in the county, of which 28% were African American. However, African Americans represent nearly 51% of all HIV-positive individuals in the county. In total, at the end of 2008, an estimated 3,753 people had received an HIV and/or AIDS diagnosis in the county accounting for one quarter of the HIV-positive population in the entire state. From 2004 to 2008, six hundred thirty-eight HIV-positive individuals were incarcerated in a local jail, and 188 in a state prison (Brinkley-Rubinstein, 2010).

Participants and Recruitment

Six focus groups, with a total of 40 participants, were conducted. The age range of participants was 24–77 years old ($M=51$). To be eligible to participate in a focus group, each participant had to self-report that he was HIV positive, over the age of 18, and recently spent at least 30 days in jail or prison. Thirteen percent (13%) of all participants were employed, and 95% reported having an income below the federal poverty line. The average income for all participants was \$7,000 per year. All participants were African American and most were male (75%). See Table 7 for a demographic breakdown for all participants.

Table 7: Demographic Information for All Participants (n=40)

	Mean or Percent
Male (%)	75%
African American (%)	100%
Age (mean years)	51
Employed (%)	13%
Average Income	\$7,000

Participants were recruited by snowball sampling via word of mouth, fliers, presentations at appropriate venues, social network connections of the researcher, other participants, and local AIDS Service Organizations. Individuals received a \$20 Visa gift card for their participation. Vanderbilt University's Institutional Review Board approved the study before it began.

Research Design

The present study draws from qualitative data captured during six focus groups. A total of six focus groups were conducted with 4–6 people participating in each session. The focus group protocol was semi-structured to allow for guided, open discussion and mutually beneficial interactions among the participants and between participants and the facilitator. Each focus group began with instructions about expectations regarding participation. Participants were also asked to complete a questionnaire to gather basic demographic data.

The focus group guide was designed using a phenomenological approach, which is appropriate when the goal is to explore the meanings and perspectives of research participants (Creswell, 1998). Phenomenological inquiry includes individuals who have experienced the phenomenon of interest and includes asking individuals to describe the topic of interest in the

context of their everyday lived experience (Creswell, 1998). The goal of a phenomenological approach is to develop a composite description of “what” and “how” people experience a particular phenomenon (Creswell, 1998). In this study exploring the interactions between participants and police, how normalized police contact might be among HIV-positive individuals, and whether HIV criminalization laws affected participants was of particular interest. Some sample questions and discussion prompts included the following: “Tell me about your incarceration experience”; “Tell me about your arrest”; “Tell me about your interaction(s) with police”; “Have you or anyone you know ever been affected by an HIV criminalization law?”. The focus groups were digitally recorded and transcribed verbatim for analysis. The discussions proceeded from general to more specific questions, and the facilitator probed extensively for greater detail and clarity.

Data Analysis

Analysis of data was guided by a general inductive approach, which allowed for the data to be formulated into concepts and categories. The author first read the transcribed data for participant responses that dealt with similar topics. Analysis of interview data then proceeded inductively through the identification of recurring themes and patterns in transcripts, field notes, and analytic memos. Meaningful analytical units were then developed, using a coding scheme. These topics were then divided into several subtopics based on recurring themes within the larger topics, allowing more in-depth analysis and complex understanding and interpretation of each particular theme (O’Reilly, 2012). Each theme and sub-theme was then assigned a code, and the codes were compiled in a codebook. The researcher then clarified the codes’ definitions and ensured that all codes fit into a structure with meaningful and salient interrelations and distinctions among them (Corbin & Strauss, 2008). Open coding and axial coding were then used

hand in hand as data were delineated into concepts. Subsequently, the relationships between concepts and categories were analyzed. More than one coder was used, and quality checks were undertaken to ensure high inter- and intra-coder reliability. After initial coding of the data, the authors summarized and organized the resulting data in NVivo 9. After attaining inter-rater reliability of 90%, defined as the number of agreements divided by the number of agreements plus disagreements (Gwet, 2012), the author coded all data. The resulting data were utilized to examine the specific research questions guiding the present study. Coding of the data coincided with data collection so that the ensuing focus groups could build upon the themes that emerged.

Results

Data analysis illuminated several important themes relative to both police contact and HIV criminalization laws. Specifically, highlighted below, are data relevant to (a) the high prevalence of police contact, (b) the perceived relationship between routinized police prevalence and health, (c) awareness and attitudes of HIV criminalization laws, and (d) the intersection of HIV criminalization laws' and individuals' lives and wellbeing.

High Prevalence of Police Contact

When asked about interactions with police, most participants stated that the police were constantly present in their neighborhoods. One participant stated:

Police is constantly. And the thing that really bothered me the most? Because I'd been there so long, they knew my face. But at 1:00, 2:00 in the morning, if I'm walking to the store? They pull me over, wanting to see my ID. Okay, we do this every night when you all see me. You all know I live here. Why would you all consistently, constantly do this to me? And I guess, during that time, yes, I was in my addiction. But still and yet, you all

are regular cops in this area, so you know. You are familiarized with everyone that lives in it. But why every time you see me, you want to see my ID, and then you run it? So to me, when you mention that, neighborhoods play a big part in the presence of officers being constantly around. Location, it's location.

Another participant shared his experience with police in his neighborhood:

I'd say it was being that I dress up sometimes as a girl, I feel like they would target me more because other girls do dress up and they go out to prostitute and stuff like that.

There have been times when I be walking down the street, and they be like "boop boop" [sound of police sirens] pull over! and I'll be sitting there like, look man, I ain't doing nothing, you didn't see me do nothing, you ain't got no proper cause. So I keep on walking ... and I walk off while he's still sitting there and I want him to stop me again and take me on down there cause I'll tell them I wasn't doing nothing.

Additionally, another participant stated that the police were always patrolling in her neighborhood: "...you know they sitting out there watching because they know it's not actually, I don't whether it's profiling, but nine times out of ten, they coming out there with drugs, because that's the only reason." These examples are only a few of those offered by participants. Cumulatively, they suggest that police presence is normalized in many of the neighborhoods in which the participants live. These quotes also emphasize the importance of place and seem to suggest that even though police are constantly in the neighborhoods that participants inhabit, it is also understood that such intense police presence is not the norm in *all* neighborhoods.

Many participants suspected that increased police prevalence in their neighborhood was largely due to the racial composition of their community. Below is a conversation that illustrates participants' understanding of how race affects police presence and practices:

LBR: So I think that's an interesting point that neighborhoods play a part in it. But the interesting thing is, if you have a neighborhood with a bunch of white college students, they are might be as likely to be using drugs as those in any other neighborhood. Do you think that is true?

Male Participant 1: Mm-hmm (affirmative).

LBR: Research suggests that the drug rate of Whites and Blacks is same rate.

Male Participant 1: Mm-hmm (affirmative).

Male Participant 2: But they're not targeted.

LBR: Why not?

Male Participant 2: Is it safe for me to say what I really want to say?

LBR: Yes, please do.

Male Participant 2: Girl, no offense to you, but the color of the skin. The color of the skin.

LBR: Yeah?

Male Participant 2: I'm serious.

Male Participant 1: They probably assume that the black people is the one bringing it to them. If I lived in a neighborhood where I'm around a bunch of white college students? They probably assume I'm the one giving it to them, or got it started.

LBR: Yeah?

Male Participant 3: But it is true, I will say, if you go in a. It's just as much drugs, but in a white neighborhood it wouldn't be as noticeable. Because the drug dealers in a white neighborhood, they're not on the blocks like in a black neighborhood. In a black neighborhood, you can just drive down the street, just about. It might be profiling, but you'd probably be right. To say, "Well he's standing over there selling drugs." And nine times out of ten, he probably is. Just like liquor stores. You go down to a white neighborhood, you're not going to see a liquor store on every corner. But in a black neighborhood you're going to see two or three on one block.

Beyond participants' accounts of the seeming omnipresence of police in their neighborhoods, many participants offered corresponding stories of harassment, profiling, or discrimination. Accounts of police coming to the wrong address and harassing the current tenant, arresting people because they shared the same common name as someone they were looking for, and police arresting an individual after an unwarranted search came to the fore. Howard's*, John's*, and Ruby's* stories are chronicled below.

Howard

Howard had lived in his home for only a few months when the police knocked on his door late one night. In the following text, Howard explains a recent encounter with the police, and Howard and another participant discuss how to interpret what happened during the interaction:

Howard: Well you see they came to my apartment looking for someone else. Because and explained to the officer I've been living here for a year. I just signed a new lease, whoever you looking for, time he showed me the picture of him ... he don't live here.

‘Well can we come in and look around?’ ‘No, absolutely not.’ I mean we went back and forth. ‘Well call the landlord, they’ll tell you’. And then they asked to see my ID and after you talk to the cops you really want to get away from them. You knocking on my door, and it’s 2 o’clock in the morning, and you knocking on my door in the first place. And gave you my ID and then I didn’t even miss my ID until Saturday.

Frank: Because they know if they take his ID they going to slow him down a whole lot because his ID he got to have his ID for everything. He’s got to have his ID.

Howard: So they walk off with it (the ID), when he flipped the script on it

John

John lives in a neighborhood that many participants confirmed was constantly patrolled by police. The police were searching for a man by the same name as John, and mistakenly, thought that they had found him at John’s address:

My experiences is for myself, I experienced it so. There is another guy named John so ... and they came to my house, and I kept telling them I ain’t that person. But they talking about, and the only difference was my age was different but my middle initial, but they took me to jail anyway even with me telling them that, they took me to jail anyway due to the fact that my daughter was a cop, she worked down there and she saw me down there and she went upstairs and she talked to them and everything. They released me, and then when they really checked, they found out that the guy they looking for was during that time I was like 33 and the dude was 23 on his birthday.

Ruby

Ruby stated that the police were constantly in her neighborhood and “bothering her”. One day Ruby came home to find a stranger at her house and she called the police for help. Ruby details her story about how the police eventually arrested her even though she called them for help:

I got harassed for somebody else’s business. They [the police] been watching the house. They know what time I leave every morning going to work. They shine a light in my face as I pull out of the driveway. They bust my house. Some dude was there, but he’s out on the porch; [police think] he had dope. They looked at, they tore up the kitchen, everything looking for dope. Finally they didn’t find none, so this one tall guy [a police officer] come in there. He said, “Look at what I found,” and pulled it out of his pocket. He didn’t find no dope.

Ruby stated that the police destroyed some of her property and later took her to jail for drugs that she insisted were planted by the police. Ruby’s experience highlights the lack of trust she had for the police that was confirmed in many ways by this interaction with police officers.

Ruby’s, Howard’s, and John’s narratives present just three scenarios in which police negatively affected participants. These types of stories were prevalent throughout each focus group and were accompanied by individuals’ conceptualizations of how being targeted and harassed by the police affected health.

Health Effects of Routinized Police Contact

Stress and the constant need for vigilance were frequently cited as consequences of police interaction. A variety of scholars have discussed the ill effects of vigilance, especially related to racism (Hicken et al., 2013; Lindstrom, 2008; Mohseni & Lindstrom, 2008; Williams & Mohammed, 2009). Participants in our study corroborated previous findings but also had unique

observations about how police profiling, harassment, and discrimination might affect health (Geller, Fagin, Tyler & Link, 2014). A participant discussed the uncertainty that comes with each police interaction: “Well, yeah I do always think about the police. If they pulled me over now I’d probably be ok, but it’s the thought that always, that always in the back of your mind. I mean, they’re just, maybe he’s [the police officer] is crazy and maybe he just wants to mess with someone and you could be the one.” Another participant discussed how he worried about coming into contact with the police each time he left his house:

I feel like that, I don’t know if they’re watching me or not and I still risk it. It have an effect on my life, because every time I go out the door one police will be sitting over there in the car, then next time I go there will be one, but that’s because I got arrested for drugs and then you know you going to have a conflict in thinking they watching you.

Relatedly, another participant described how it was an imperative to think about what to do each time she suspected she might interact with the police and how stressful that constant vigilance can be: “You got to say, what do I have to do? How do I have to change what I’m going to do to stay out of their way? That creates the same amount of stress as being picked on does. You know?”

One participant described a particular evening when he walked to the store and was followed by the police: “[Being profiled by the police] stressed me to the point, where I rushed to do what I was doing, and got back home to get high again to bring that edge off of me. Because I was nervous.” In this quote, the participant links being followed by the police and using drugs indicating that the stress of being targeted (unjustifiably) by the police was a trigger for his addiction. Another participant also stated that he had to use alcohol as a coping mechanism when

he is stressed out by the police: “When they around me I gotta have a drink. I gotta have something to cool me out. Take my mind of that kind off that stuff.”

Stress resulting from police profiling was something that participants talked about throughout each focus group. The example below is representative of the connections that many participants made between police, stress, health and HIV:

LBR: Does interacting with the police affect your health?

Female participant 1: It’s a lot of stress.

Female Participant 2: Yeah, it’s very stressful.

Female Participant 3: Stress is not good for nobody.

Female Participant 2: Yeah.

Female Participant 3: Because stress will make you sick.

Female Participant 2: Stress will negatively affect HIV, too.

The quotes presented here encapsulate how participants conceptualize the link between police presence and interaction and health. Often citing stress, many participants felt that profiling, harassment, and the paranoia that stemmed from high levels of police presence were negative for their health and took a toll on their wellness. Additionally, participants stated that they often felt they had no other choice but to turn to drugs and alcohol as a coping mechanism to deal with the stress caused by police interactions.

Impact of HIV Criminalization Laws

In addition to discussing police profiling, when talking about police interactions, several individuals brought up the implicit and explicit ways in which HIV criminalization laws affected their lives. Some participants felt conflicted and a few, most of whom had been infected with HIV via having a sexual interaction with a partner they did not know had the disease, expressed

that punishment for knowingly spreading HIV was appropriate. One participant summarized why he thought punishment for HIV transmission is appropriate: “To knowingly sleep with a person and then knowing that you’re HIV positive, because that’s how I got it. And not tell a person, something needs to be done with that.” However, this participant’s assessment of the connection between HIV transmission and its legal monitoring was not representative of the majority of participants. In contrast, many other participants suggested that HIV criminalization laws were (a) too harsh, (b) enacted inappropriately, and (c) used to profile people that were known to the police as HIV positive. One woman told the group how her friend was targeted because the police knew she was HIV positive:

I had one young lady that me and her were hanging on the street together. This is before I find out I was diagnosed. Just about everyone on the street knew she was positive. I know the police used to have arrest her all the time. I mean, if they see her, they will pull her over and say, “Are you out here doing such and such?” She could say no and they would take her to jail anyway. I don’t know what because they know this is what she do for is a prostitute. You know, and they felt that was what she was out there doing. That’s harassment. They have to see you get in a car with somebody, or jump out of a car. They knew that’s what she always got arrested for, so they felt like when they see her on the street even though she wasn’t doing it at that time, they would pull her over because they know of her status. They kept an eye on her. You know? When she got cleaned up and they still see her, the ones, the police that are still patrolling, she said she still get that that same response.”

Another participant stated that many police officers knew him and were also aware of his HIV status. He told the group: “The cops will probably mess with me if they see me with a female and

say, ‘What he doing with her’ and then if I’m in the wrong area where I shouldn’t be at you know they’ll come around.” During one of the focus groups, the following conversation occurred relevant to police store information about people and have access to it when they run a name through their system after a person is stopped:

Participant 1: I’m pretty sure when they found out I was positive they took it [the information] put that in their police computer so every time they call my name in all that pop up.

Participant 2: Oh yeah, cause see the first thing they do is pull up, man, your jacket, your *jacket*, jacket from healthcare, from health to whatever, they know, they know and all they got to do is pull it, it’s sitting there in their face. “Oh you one of *them*, huh?”

Discussions about HIV criminalization were complex, and while many thought that current punishments were too harsh, some participants thought that some method of deterrence was needed. In addition, participants said they suspected that police knew they were HIV positive and, because of that, profiled them. Being targeted by the police because they were known to be HIV positive added an extra layer of stress that participants deemed detrimental to their health and management of their HIV disease.

HIV and the Sex Offender Registry

During the focus groups, the topic of the requirement of HIV-positive individuals to register as a sex offender if charged with prostitution was discussed. A majority of participants expressed that being required to register as a sex offender was inappropriate and unduly harsh. One participant incredulously likened the requirement to discrimination:

It’s just not fair. It’s like you’re discriminating against me because I’m positive. How could you make me a sex offender just because I’m HIV positive? That’s discrimination.

You're saying I have to register as a sex offender because I'm HIV positive *not* because I'm a prostitute, but because I'm positive. That's not fair—because I could also tell the person [who I'm engaging in sexual acts with] that I am positive, that's what throws that out. What happens when I tell that person I'm positive? I'm still a sex offender? That's awful.

Another participant discussed how sex offender restrictions were inappropriately applied:

Someone should be judged on their own merit not just thrown into one big pile. Cause if someone lives next to a daycare and then a child is violated then that person shouldn't live next to a daycare but my charge wasn't related to going to a daycare or abducting a child, you know. So, everyone shouldn't be throwed in the same boat. I didn't go to a school take a child off and take them off somewhere, that wasn't my charge.

A few participants were willing to share their personal experiences with registering as a sex offender. Below are extended quotes from three participants (presented with contextual details) about the barriers presented by the sex offender registry faced by Bill*, Simone*, and Frank*.

Bill

When I first met Bill, he asked me if there was an electric outlet in the room where we were having the focus group. I did not, at first, know why he had asked me this question, but we both commenced a search to find one. When we found it, Bill pulled up a chair, plugged a charger into the wall, and then connected the charger to an ankle bracelet that I had neglected to previously see. Later during the focus group, Bill revealed that he had to wear the ankle bracelet because (a) he was a sex offender due to a previous prostitution charge and (b) he was homeless.

Frank also mentions the requirement of having to wear an ankle bracelet if a person is a sex offender and homeless. Soon after this focus group, I received a letter to my campus address.

It was from Bill letting me know that he had recently been arrested for prostitution. Soon after Bill was released, he attended the last of six focus groups conducted for this study. During this focus group, he discussed this most recent arrest. Bill was charged with aggravated prostitution because of his HIV status and was sentenced to several months in a medium-security prison. He stated:

I went to the liquor store me and two other dudes. We was drinking a fifth and I'm drinking it kind of fast cause we about to go to the homeless shelter cause I got a bed for the night. I went down on the street and a trick pulled up to me in a car and said let me give you \$20 dollars, he said hurry up, hurry up, hurry up you got to get in the car. So I get in—and then boom, the doors locked and I couldn't get out of the car. Turned out the person in the car was an undercover police and I couldn't get out of the car. I tried to tell them that I didn't even want the money.

Bill mentioned again in this focus group that he was currently wearing a GPS tracker because he was homeless and a registered sex offender. Bill said, "For me, I guess, see they don't have no address where they can keep up with me, you know what I mean? Ain't no telling where they got to come to catch me, you know? So, they'll see where I'm at. They can come holler at me at any time. They could come in here right now." Bill told the group that being on the sex offender registry made him feel disrespected and treated like less of a human: "That's treating you like you're a dead man. It's just like we're dead people. We ain't shit, you know what I'm saying? That's what piss me off. What gives them the right to do that right there? You gonna do your time. I've done those years."

Simone

Simone also talked extensively in a focus group about her experience with the sex offender registry. She too had been arrested on a prostitution charge and served 13 months for the aggravated prostitution:

When I was in my addiction, I was prostituting but at the same time I was stopped by a man that we had a verbal agreement well verbal exchange, supposed to been a verbal exchange about sex for money. I made the agreement and, at the same time, he was a vice. It was only a verbal conversation about sex for money. By me being HIV positive, I have had that charge before so that put me as aggravated prostitution and on the sex offender registry.

At the time of her participation in the focus group, Simone had recently been released, gotten clean and stopped using drugs. She had just moved in with her serious boyfriend. However, having to register as a sex offender caused several barriers to her wellbeing and successful reintegration back into her community. Simone shared:

I had lots of problems because of the sex offender registry. Even during my incarceration, there was lots of negative talk towards me because a lot of them had found out about my charge. But, after I got out it was very difficult for me, to find a job, to get my own place, and even on top of that with some of my family members, the contact was put off, there was no more contact after that [her aggravated prostitution charge]. That brought on a lot of stress, you know, more hurt, and put me back into my addiction again for a minute. It hurts, it hurts, it really does. None of my charges are child related and when you're named a sex offender. But I'm saying, sex offender registry, you know to me I've always heard that that's involving a child. And none of my charges are related in any of them.

That's the reason I'm having such a hard time, such a hard time. Yeah. Yeah my picture's right up there.

Frank

Frank explained in a focus group that he was also required to register as a sex offender because of an HIV-related charge. After his release he secured an apartment with help from an ASO that helped with the down payment. When he reported to his probation officer for the first time, he was excited to tell him that he had secured the apartment. However, after telling his probation officer the address of his new apartment, Frank was told that it was too close to a school, and that since he was now a registered sex offender he could not stay there. Frank told the group:

I'm still homeless due to the fact that the place I was approved, some of the places I was eligible for, I was either denied by the housing agencies or some of the places where I was approved probation denied due to the address, what's in the area like daycares, schools and parks and things like that and he said I can't live within a thousand feet of daycares, schools or parks. I had an apartment after the last time I got out of jail and they said I couldn't live there due to the location.

Frank asked his probation officer if he could just sleep at his apartment—go there after school hours:

I told him [my probation officer] can I at least go at night when all those places are closed? The places close at 6, 6:30, can I at least go at 9 and leave in the morning when they open and he said no it doesn't matter whether it's open or closed, it just matters what's in the area. I said well if I go there at night what is the threat? Am I a threat to an empty building? So, I don't understand.

Frank's probation officer told him no, that he could not stay in his apartment at any time.

Therefore, Frank, even though he had a safe apartment, continued, for a while, living at a local homeless shelter. Because he was still technically homeless, this meant that Frank was also still required to wear a tracking device around his ankle. Frank stated:

You're supposed to wear a GPS monitor if you are homeless. I told my PO [probation officer] you got this on to violate me, not to help me violate my behavior. I mean you got it on me to hinder me, to say 'you go in the park, I'm gonna know and I'll violate you.' Well I say I don't need this to stay out of the park, I don't need this GPS on me to stay out the park. I don't go to the park anyway cause the law says I can't go there anyway. So I staying out because *I'm* staying out the park. I'm not staying out the park because of the GPS.

Eventually, Frank became very frustrated knowing that he had an apartment but could not stay in it. One night he decided to go to his apartment during the night and sleep there, and he continued doing this for a while. However, soon after he made this decision, his probation officer found out that he had been staying at the apartment and told Frank he had violated his probation. While Frank was in jail, he lost his apartment, and, after release, was living at the homeless shelter. Frank expressed how he thought sex offender registration was inappropriately enforced:

Well I know there are some people who have HIV who's involved in prostitution and I'm quite sure some of those prostitution activities are not safe sex type situations. I think if a person is knowingly having sex without protection, I don't think the person should be put on the sex offender registry but I think that person should be addressed—whether that person should be removed from the street and educated and put into a treatment [program]. I think it should be done that way because whether you charge them, and put

them on the sex offender registry don't stop what they're doing. You know, that doesn't stop their behavior. All it does is, once you caught, give you a longer sentence, or whatever, it don't stop you from taking on another victim if you choose to what it does is just give them the authority to just really abuse or misuse, because just like on weekends when people are at parks and things like that, I can't go there, and there are things in the park, like watching ducks, walking, riding bikes that's not associated with another person that I should be able to do. There are people that play chess in the park; I'm in a fraternity and they have picnics in the park; my church has picnics in the park; there's certain activities that go on in the park. I ask my probation officer if I can go to those activities in the park and leave as soon as they are over and he still say no. By him saying I can't go at all I feel like that's an abuse of that law. So and that's abuse of that authority. You know, I don't think the law was intended in that form. I think it's intended for me not to offend in a sexual manner again. It's not supposed to hinder me from being productive, but that's what it does. You know?

Because of Frank's probation and sex offender registry status, he was in and out of jail every couple of weeks. He stated that being violated by his probation officer and coming and going in and out of jail so often negatively affected his health: "It just breaks down my body."

Bill's, Frank's, and Simone's stories are but three accounts of the lived experience after being deemed a sex offender. Being classified as a sex offender restricted their freedom, made it harder for them to successfully reintegrate into their community after release, and resulted in a sense of hopelessness that produced high levels of stress. Participants who had not personally been categorized as sex offenders also decried this punishment as inappropriate, ineffective, and

a source of discrimination that aided in preserving stigmatizing attitudes toward people with HIV.

Discussion

Several policy organizations and scholars have warned against the possible ill effects of HIV criminalization laws (Burris & Cameron, 2008; Jurgens et al., 2009). However, few empirical studies have investigated the lived experience of HIV-positive people who experience routinized police contact. The findings of this study suggest that high prevalence of police contact can have detrimental effects on the health of HIV-positive individuals and that HIV criminalization can have just as serious possible impacts via lengthier sentences and can hamper the reintegration process after release. However, many participants did express that some punishment for HIV was warranted, especially if they had personally been infected via a partner who did not tell them that she was HIV positive. Recent empirical work presented at the International AIDS Conference in Melbourne, Australia, and later published as an entire special series on sex work and HIV (see Das & Horton, 2014) demonstrated that decriminalization of sex work may have the largest impact on reduction of HIV infections when compared with other preventative measures such as education or attempting to stem violence toward sex workers. Therefore, the benefits of decriminalization and the desire for some type of deterrent measure by HIV-positive individuals must be reconciled. However, as noted by Burris (2011), law is often a vehicle via which social norms are created and spread. As such, the criminalization of HIV-related behavior may impact the degree to which HIV-positive individuals adopt the conclusion that risky behavior is wrong or illegal. Hence, one can argue that HIV criminalization contradicts the current medical conceptualization of HIV, and, as such, has the power to prolong the stigma

that is attached to those who are living with the disease. Additionally, sex offender registration as punishment for engaging in prostitution while HIV positive is also ineffective at deterring individuals from engaging in risky sexual behavior. As several participants noted, taking away individual freedoms leads to loss of hope and, thus, an *increase* in risky behavior. Extreme punishments, such as requiring sex offender registry, also likely play a role in preserving HIV stigma—and encourage associating HIV with dangerousness.

Findings related to policing and stress corroborate other recent research that explores the relationship between mental health and police profiling (Geller, et al., 2014). While no prior research has specifically explored the intersection of policing and stress on HIV-positive individuals, recent research has shown that increased police profiling and interaction can lead to continued ill effects long after the original encounter (Center for Constitutional Rights, 2012). The current study's findings also suggest that repeated police interaction may have a negative effect on the wellbeing of HIV-positive individuals who are disproportionately represented in the criminal justice system. More innovative techniques to deter crime that do not negatively affect wellbeing are warranted. Recent scholarship has suggested shorter sentences, collaboration between social service and police agencies, pre-booking diversion in which police officers have discretion to take those with a drug law violation to treatment rather than jail, and cultural competence police training would be more effective at preventing crime than profiling (Cockburn et al., 2014).

Limitations and Future Research

This study has several strengths but also some limitations. The current study was designed as a pilot study that was exploratory in nature. The findings are not meant to be generalizable but, instead, provide a snapshot of the lived experience of HIV-positive individuals

and their very specific conceptualizations about the health impact of interactions with police and HIV criminalization laws. Therefore, the results of this study should only be used as a foundation upon which to build more empirical studies. Additionally, participants in this study were, on average, older adults, so future research should evaluate how police presence and HIV criminalization affect younger people. It is also important to note that the impact of policing and specific laws is heavily related to (a) the geographic location in question and (b) how local laws and policies are operationalized in any given community. Future research should evaluate the various effects that more or less stringent policies and laws might have on health, and a longitudinal study that isolates the effect of newly implemented laws is warranted.

Conclusion

HIV-positive individuals are disproportionately represented in America's criminal justice system. Results of this study also suggest that they may experience high levels of repeated police contact and anxiety about the possible negative impact of any future police interaction. In addition, HIV criminalization laws and subsequent requirements to register as a sexual offender are viewed by HIV-positive participants in this study as inappropriately enacted, ineffective, overly punitive, and a reinforcement of inappropriate stigmatizing attitudes. Future research is needed to explore how local policies are implemented and how operationalization of these policies impact people in different ways. However, this study fills an empirical gap and provides a foundation upon which future scholarship can build evidence relative to the impact of increased police presence, police profiling, and HIV criminalization laws on the wellbeing of HIV-positive individuals.

CHAPTER V

SUMMARY AND CONCLUSIONS

Overall Summary

Often lost in discussions about prisons, the costs of mass incarceration, and criminal justice policy, is the health impact on people, families, and communities who are disproportionately targeted, arrested, and incarcerated. HIV-positive individuals experience incarceration at higher rates and have many unique needs (e.g., routine medical care) that make the intersection of HIV and incarceration worthy of investigating. This dissertation contributes to knowledge in several ways—the first being the creation of a framework for conceptualizing the impact of incarceration on health for all those who experience incarceration, and specifically herein, HIV-positive individuals. The framework sought to summarize what the possible mechanisms of incarceration might be in the current criminal justice paradigm. It must be noted, though, that as policies change, both at the macro and micro level, this model must be adapted to add or take away relevant mechanisms. In the future, this should also be expanded and used to investigate the health impact of the criminal justice system generally. A second contribution of this dissertation is the presentation of evidence relative to the exploration of health and repeated police contact, police profiling, and incarceration specifically for those living with HIV. Next the evidence presented in each empirical chapter (chapters II, III and IV) is summarized.

Evidence Generated from the Empirical Chapters

Following is a presentation of the major takeaways of the empirical chapters included in this dissertation. Highlighted specifically is how repeated police contact, HIV criminalization, and incarceration might negatively affect health.

Profiling Can Affect the Health of HIV-Positive Individuals

Chapter IV presents information provided from 40 HIV-positive individuals who had recently experienced incarceration. In focus groups, participants expressed the harm that constant police presence and profiling can have on mental and physical health and how stress can negatively affect HIV disease. Most participants shared that they had previously had a negative interaction with the police that was stress producing, and several reported that stress from these interactions was coped with via substance use. This study revealed that participants often felt a keen sense of vigilance—a constant urge to keep watch for the police, knowing that they were under relentless surveillance and could be approached at any moment.

HIV Criminalization Is an Impediment to Health and Wellbeing

In addition to the stress produced from repeated police interaction and profiling, participants also discussed the impact of HIV criminalization on their lives and health. In Chapter IV, focus group participants shared their conceptualizations of the possible health impact of HIV criminalization laws. Additionally, some people stated that they personally or their friends had experienced harassment because a police officer knew they were HIV positive and suspected they were engaging in criminal acts—producing stress.

Most participants were aware that knowingly transmitting HIV to another person without their awareness was considered a crime and that certain crimes, such as prostitution, had higher

sentences if a person was HIV positive. A few participants expressed that there should be some type of punishment for knowingly transmitting HIV. Most, though, expressed that criminalization of HIV transmission was ineffective and discriminatory. In addition, many participants articulated that HIV criminalization reinforced and further entrenched HIV stigma—contributing to the loathsome narrative that HIV was dangerous and contracting it was a “death sentence.”

Participants also strongly disagreed with sex registry registration requirements as a punishment for engaging in prostitution while HIV positive. Focus group participants overwhelmingly expressed that having to register as a sex offender was far too punitive, had cascading negative effects on the lives of those affected, and was not effective at stemming HIV risk behavior. In fact, many participants agreed that the opposite was true—that imposing such punitive sanctions on individuals would result in a loss of hope and an indifference toward HIV risk prevention. For those that had personally been required to register as a sex offender, they shared that there were resultant severe consequences that prohibited successful reintegration post-release, negatively affected wellbeing, and led to chronic stress.

Incarceration Has an Indirect and Direct Relationship with the Health of HIV-Positive Individuals

Chapters II and III generate evidence specifically on the relationship between incarceration and health and the reintegration of HIV-positive individuals after release. Chapter III relies on 154 surveys of individuals with HIV who had and had not been incarcerated. The aim of this study was to investigate the direct and indirect health effects of incarceration on HIV-positive individuals. The results demonstrate that incarceration itself can have a direct negative impact on health and that proximal indicators of health that are affected by incarceration are a

mediator for worse health in those who have experienced incarceration. Chapter II provides in-depth qualitative information that expands knowledge about the first year, post-release lived experience of HIV-positive, African American men. Participants reported that while inside the correctional facility they often experienced HIV stigma, and a loss of social support. After release, reintegration back into the community was often difficult. Incarceration-related barriers that affected health included lack of access to housing, a continued loss of social support, stigma, and inability to find employment.

Future Research, Intervention, and Policy Implications

As the rate of incarceration remains historically high, continuing macro-level policies and their manifestations have worked to further disenfranchise already vulnerable populations. Additionally, a majority of interventions and programs that are targeted at incarcerated populations are implemented solely at the individual level. For instance, routine and often implemented programs include linkage to medical care services or individually focused case management (Draine et al., 2011; Goldstein, Warner-Robbins, McClean, Macatula, & Conklin, 2009; Guydish et al. 2011). However, due to the multi-level impact of incarceration, the focus of interventions and programs must shift to foster an approach to reintegration that successfully improves the conditions of the offender, both during incarceration and following release.

A Recognition of What Works and The Need for Multi-Level Model Interventions to Mediate the Effect of Incarceration on Health

While more interventions and programs that address micro- and community-level issues relevant to incarceration are needed, there are examples of successful individual-level programs that aim to provide solutions to various problems caused by incarceration. These interventions

occur both inside and outside the prison or jail and seek to improve outcomes affected by both incarceration environments and the transition back into the community after release. For instance, many successful interventions have utilized motivational interviewing, peer-driven case management, and other behavioral change strategies (Farbring & Johnson, 2008; Goldstein et al., 2009). However, it should be noted that this type of intervention explicitly works only on the individual level and ignores the structural and institutional role in incarceration. Therefore, individual-level interventions such as motivational interviewing should be paired with a community-level or policy-level intervention to be most effective.

Holistic approaches that address multiple levels (e.g. individual, family, and community) and that are focused specifically on the ways in which incarceration affects health are needed. These interventions should focus on the structural determinants that impact individuals on each socio-ecological level and, thus, ideally must also be multidisciplinary and include partnerships across sectors and disciplines. There must be a focus on the ways in which macro-level policies manifest in individual behaviors and do not have to be primarily intended to directly affect health. Instead, interventions should also focus on the social conditions that have been demonstrated to indirectly affect the health of incarcerated individuals such as stigma or loss of social support.

Subsequently, interventions targeting incarcerated individuals must also acknowledge the intersectional nature of the inequality that is present within this population. Interventions that solely address substance abuse, mental health issues, housing issues, or any of the other barriers to successful reintegration cannot effectively ensure success upon release or improved health outcomes. The additive nature of these barriers requires cross-governmental and organizational

collaboration. For instance, for multilevel, holistic interventions to work, involvement of both public health entities and criminal justice agencies is required.

Additionally, discharge planning should begin well in advance of an individual's eventual release and should be comprehensively provided for at least six months since this time period is when formerly incarcerated individuals are the most likely to be re-incarcerated (Petersilia, 2008). Action-oriented and community-based participatory interventions and approaches may be effective avenues for the application of intersectional and socio-ecologically influenced strategies aimed at mediating the effect of incarceration on health. The inclusion of the community during the conception, design, and administration of intervention efforts lends voice to community members to determine which issues they think are the most important to address, and empowers individuals to create answers to their own concerns (Cornwall & Jewkes, 2010). Engaging the community via participatory approaches can lead to more effective program implementation and design as well as inform relevant policy decisions that may minimize the impact of incarceration on health (Choudhry et al., 2002; Ganann, 2013).

Suggestions for Policy Change

The drastic increase in the number of incarcerated individuals can be explained in large part due to various policies requiring harsher sentencing of drug-related offenses. Additionally, federal restrictions prohibiting procurement of federal aid by drug offenders have made post-release reintegration increasingly difficult. The loosening of these policies is required if society is to end the era of astoundingly high rates of imprisonment and move to a more effective model of rehabilitation. Over the last three years, there has been a gradual, slight decline in the number of inmates in state and federal prisons (Golinelli & Carson, 2013), and recent policy shifts may, currently or in the future, aid in shifts in the carceral landscape. The

PPACA ensures health insurance coverage for all individuals at or below 138% of the federal poverty line in the states that chose to expand Medicaid. Approximately 10 million individuals cycle out of the criminal justice system each year and make up a substantial proportion of the 16 million individuals who were eligible for Medicaid coverage via the PPACA beginning in January 2014 (Santoro, 2013). Additionally, the PPACA mandates coverage of behavioral healthcare and substance abuse services. This has the potential to substantially impact individuals most at risk of incarceration in that a large number of all inmates report having mental health issues or substance dependency (Petersilia, 2008). Finally, the PPACA is an important link to extend the stabilization that correctional healthcare may provide and maximize the investment that local and state governments make in correctional healthcare provision. However, as Phillips (2012) notes, the impact of the PPACA is highly reliant on whether states decide to expand beyond the federally mandated minimum requirements, the level of engagement in outreach efforts to make individuals and organizations aware of the benefits of the PPACA, state-level coordination efforts between criminal justice and other agencies, and whether states capitalize on expanded coverage for mental health and substance abuse treatment. Thus, while the full impact of the PPACA is yet to be determined, its potential for improving health is extraordinary. Some have posited that due to the increased coverage for behavioral health and substance abuse treatment that incarceration and re-incarceration rates will possibly decline (Phillips, 2012). Some cities (notably Seattle and Buffalo) have used PPACA funds to invest in pre-booking diversion programs. These programs allow for police officers to have the option of bringing an individual to treatment (rather than to jail) when interacting with someone who has committed a drug law violation. These programs are brand new and not yet evaluated but could be promising pathways to shift away from punishment via the criminal justice system

to a more public health oriented approach.

The PPACA will also provide the opportunity for states to find considerable savings in their correctional budgets as many more individuals who are most likely to become incarcerated will have access to insurance and, subsequently, increased access to federally subsidized care. Therefore, justice reinvestment programs, aimed at crime reduction and community reinvestment, may be a strategy worth considering. Justice reinvestment is an approach to decrease incarceration rates and related criminal justice spending, and reinvest funds in tactics that can decrease crime and strengthen communities. States and local entities engaging in justice reinvestment collect and analyze data on what motivates crime, pinpoint and execute new programs aimed at community change, and measure the efficacy of any new justice-reinvestment-oriented intervention (Lachman & Neusteter, 2012). Currently, there are ongoing justice reinvestment projects in Texas, Minnesota, and North Carolina. However, as Clear (2011) points out, justice reinvestment should not only focus on spending reduction and instead be concerned primarily with justice. As such, justice reinvestment efforts should be guided by a restorative justice theoretical framework (Clear, 2011; Maruna, 2011).

Bazemore and Maruna (2009) define restorative justice as “‘doing justice’ by repairing the harm caused by crime in a non-adversarial process that invites offenders to ‘take responsibility’ rather than simply take their punishment” (p. 376). While some of the justice reinvestment scholarship is situated within larger restorative concepts, a general recognition of the need for justice, and thus holistic and long-term reinvestment, in historically disadvantaged communities is missing (i.e., providing access to community-based programs that address various social determinants of health). State savings derived from federally supplemented healthcare for incarcerated populations present an opportunity to implement restorative guided

justice reinvestment programs for communities most affected by incarceration.

Relatedly, the Obama administration recently released the Blueprint for Drug Policy that places greater importance on incarceration alternatives such as drug courts and probation programs aimed to reduce incarceration rates. The Blueprint encourages the use of community-based programs designed to address substance use, crime, and incarceration by re-directing law enforcement attention to more serious offenses. This policy shift has the potential to divert over 100,000 would-be prisoners away from incarceration. The efficacy of alternative to incarceration programs such as drug and mental health courts is demonstrated in the literature. For instance, Mitton, Simpson, Gardner, Barnes, and Mcdougall (2007) found that a community-based alternative to incarceration for mentally ill offenders reduced justice system complaints, charges, and court appearances between 84% and 91%. Additionally, a metaanalysis of analyzing 92 evaluations of drug court programs found that the average drop in recidivism was from 50% to 38% for participants (Mitchell, Wilson, Eggers, & MacKenzie, 2012).

Suggestions for Future Research

In the future, continued research is needed to evaluate the impact of the various mechanisms of incarceration on health. Furthermore, there is an exceptional void in the amount of longitudinal research that examines the relationship between health and incarceration for HIV-positive individuals and, more generally, all those experience prison or jail. Longitudinal and in-depth research can elucidate the ways in which incarceration affects individual, familial, and community health in the long-term, leading to a better understanding of the interventions that are most needed. Whereas the three empirical papers herein tested many elements of the ICWH, more research is needed that tests *all* of the mechanisms hypothesized by the ICWH to better understand if and exactly how the each of the mechanisms combine to negatively impact the

health of individuals, families, and communities. Further investigation is also needed to determine if the type of correctional facility or if any of the mechanisms of incarceration affect health more or less than others. Finally, an added contribution to the health and incarceration literature would be research at the macro level that compares more liberal incarceration policies (in states such as Vermont and Maine where voting rights are never restricted) and more limiting policies in order to evaluate the differences in the general health of prison populations.

Conclusion

While rates of incarceration continue to be near historic highs and the literature exploring the relationship between health and incarceration proliferates, it has become important to understand the relationship between health and incarceration. HIV-positive individuals are disproportionately represented in the criminal justice system and encounter unique and complex barriers imposed by incarceration. This dissertation has contributed to understanding more clearly these the relationship between health and incarceration using both qualitative and quantitative methods. Chapter II presents ethnographic research conducted over a one-year period suggests that lack of access to meds, loss of social support, stigma and restriction of rights post-release act as barriers to wellness. Building on the ethnographic findings Chapter III includes a quantitative exploration of incarceration and health for HIV-positive individuals. Findings in this chapter indicate that incarceration can have a direct effect on self-reported health status and incarceration's impact on health is mediated by proximal indicators of health such as social support, right to vote, access to housing and employment. Chapter IV presents results from a series of focus groups in which participants reported repeated interactions with police, shared that they felt profiled and often discriminated against by police, and expressed opposition to HIV

criminalization laws. In sum, the findings from all three empirical studies included in this dissertation provide evidence for how incarceration acts as a catalyst for worsening health. However, given the fast paced changes in policy and the impact contextual and policy-level variation can have on the individual experience more research is needed to build on the findings presented herein.

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