1-6-2012

An Evaluation of the Pre-Release Planning Program of the Georgia Department of Corrections and a Qualitative Assessment of Reentry Experiences of Program Participants

Alison N. McCullough
Institute of Public Health

AN EVALUATION OF THE PRE-RELEASE PLANNING PROGRAM OF THE GEORGIA DEPARTMENT OF CORRECTIONS AND A QUALITATIVE ASSESSMENT OF REENTRY EXPERIENCES OF PROGRAM PARTICIPANTS

by

Alison N. McCullough
B.A. & B.S.
Presbyterian College, Clinton SC

A Thesis Submitted to the Graduate Faculty
of Georgia State University in Partial Fulfillment
of the Requirements for the Degree

MASTER OF PUBLIC HEALTH

ATLANTA, GEORGIA
2011

AN EVALUATION OF THE PRE-RELEASE PLANNING PROGRAM OF THE GEORGIA DEPARTMENT OF CORRECTIONS AND A QUALITATIVE ASSESSMENT OF REENTRY EXPERIENCES OF PROGRAM PARTICIPANTS

by

Alison N. McCullough

Approved:

_____
Committee Chair

_____
Committee Member

_____
Date

AUTHOR'S STATEMENT

In presenting this thesis as a partial fulfillment of the requirements for an advanced degree from Georgia State University, I agree that the Library of the University shall make it available for inspection and circulation in accordance with its regulations governing materials of this type. I agree that permission to quote from, to copy from, or to publish this thesis may be granted by the author or, in his/her absence, by the professor under whose direction it was written, or in his/her absence, by the Associate Dean, College of Health and Human Sciences. Such quoting, copying, or publishing must be solely for scholarly purposes and will not involve potential financial gain. It is understood that any copying from or publication of this dissertation which involves potential financial gain will not be allowed without written permission of the author.

_____

Signature of Author

All theses deposited in the Georgia State University Library must be used in accordance with the stipulations prescribed by the author in the preceding statement.

Author of this thesis:

Alison N. McCullough
amccullough7@student.gsu.edu
amcculloug@gmail.com
1500 Ireland Hills Drive
Walterboro, SC 29488

The Chair of the committee for this thesis is:

Dr. Francis McCarty
Georgia State University
P.O. Box 3995
Atlanta, GA 30302-3995

Users of this thesis who not regularly enrolled as students at Georgia State University are required to attest acceptance of the preceding stipulation by signing below. Libraries borrowing this thesis for the use of their patrons are required to see that each user records here the information requested.

NAME OF USER	ADDRESS	DATE	TYPE OF USE (EXAMINATION ONLY FOR COPYING)

A L I S O N N M C C U L L O U G H
1500 Ireland Hills Drive Walterboro SC 29488 amccullough7@student.gus.edu amculloug@gmail.com

EDUCATION

2009-2011 Georgia State University: Institute of Public Health Atlanta, GA
Masters in Public Health
2003-2007 Presbyterian College Clinton, SC
B.A. Psychology
2003-2008 Presbyterian College Clinton, SC
B.S. Biology

PROFESSIONAL PRESENTATIONS

October 31, 2011 American Public Health Association, Round Table Oral Presentation
Partnerships for Successful Reentry: staying healthy with HIV beyond prison walls

INTERNATIONAL STUDIES

August – December 2007 Cuba, University of Havana
- *History of Cuba* ▪ *Anthropology* ▪ *Botany* ▪ *Gender Studies* ▪ *Spanish Language*

May 2006 China, Academic Study Abroad, Presbyterian College
- *Chinese History and Literature*

May 2004 Australia, Academic Study Abroad, Presbyterian College
- *Marine Biology and Rain Forest Ecology*

WORK EXPERIENCE

2010-2011 Georgia State University Atlanta, GA
Graduate Research Assistant
- Geography Project: HIV and STI screening, quantitative interviewing
- Sojourner Study: qualitative interviewing
- Pre Release Planning Program Assessment:: qualitative analysis
- Community Connections: support and linkage to resources for persons living with HIV leaving the Georgia Prison System, program development, resource development, volunteer training, development of community partnerships
- Network Informed Screening: quantitative interviewing, rapid oral HIV testing, HIV education and pre and post-test counseling, phlebotomy

2008-2009 People Assisting The Homeless Los Angeles, CA
Outreach Case Management Intern
- Field case management in Hollywood, West Hollywood, Inglewood, Westchester, Beverly Hills, Developed community education presentations, completed monthly reporting, served as a leader in Greater Los Angeles Homeless Count, intensive case management through Common Ground initiative West Hollywood, Motivational Interviewing, CPR certified

2006 Presbyterian College Psychology Department Clinton, SC
Department Assistant

2005 Presbyterian College Biology Department Clinton, SC
Department Assistant

VOLUNTEER EXPERIENCE

- Public Health Institute Student Association Outreach Coordinator 2010
- Atlanta Streets Alive Evaluation 2010
- Embracing Hospice 2008
- Presbyterian College Campaign Against Domestic Violence 2006 & 2007 *Coordinator*
- Project Life National Bone Marrow Donor Registry Drive 2004 & 2006 *Coordinator*
- Good Shepherd Free Medical Clinic 2004 & 2005

An evaluation of the Pre-Release Planning Program of the Georgia Department of Corrections and a qualitative assessment of reentry experiences of program participants

Abstract

Background:

Higher rates of HIV are seen within correctional systems across the United States. Georgia has one of the largest correctional populations in the country and HIV rates among prisoners are elevated when compared to the state as a whole. In 2008. 2.1% of state prisoners in Georgia were living with HIV. A focal point for the public health system is the moment of release and reentry into the community. Prison systems are responsible for the healthcare of persons in their custody and the public health system typically has limited access to this population until release. Federal programs like Ryan White seek to address the needs of underserved populations with limited access to HIV care. The Ryan White system has facilitated access to Georgia prisoners prior to release by funding the Pre-Release Planning Program, which provides case management and linkage to medical care for persons living with HIV in Georgia state prisons. The purpose of this project was to evaluate the Pre-Release Planning Program of the Georgia Department of Corrections and to identify reentry needs unique to persons living with HIV. An assessment of the program was conducted to determine strengths, weaknesses and areas for improvement. This assessment was informed by the post-release experiences of program participants who described their own reentry journeys through semi-structured qualitative interviews.

Methods:

For the purpose of this study secondary analysis was conducted on qualitative interviews. A convenience sample consisting of 45 Pre-Release Planning Program participants was recruited to complete a semi-structured qualitative interview following their release in 2009-2010. All 45 persons recruited consented to be contacted for an interview three to 12 months after release. A research interviewer successfully located 25 members of the original sample and they all agreed to participate. They completed an informed consent and were compensated with a cash incentive for their time. The interviews covered a broad range of topics related to: general reentry challenges, HIV, health, risk behaviors, and feelings about the Pre-Release Planning Program. In addition a structure and process evaluation of the Pre-release Planning Program was conducted within the framework of a quality improvement perspective. A stakeholder analysis identified persons and organizations best equipped to promote quality improvement efforts for this program. Recommendations for improvement were developed from the program evaluation and qualitative analysis of participants' reentry experiences.

Results:

Areas for improvement were identified for the Pre-Release Planning Program in both structure and process. The program is understaffed and incapable of reaching every person living with HIV in the Georgia Department of Corrections, more concrete linkages to community resources are sorely needed, and data collection and management activities are deficient. For former program participants three central needs were identified: housing, health (HIV, chronic conditions, and mental) and income (employment or benefits). Stigma (HIV and felony status) and risk behaviors (sexual and substance misuse) negatively impacted stability of housing, health and income. Overall the Pre-Release Planning Program was incapable of addressing most post-release barriers to HIV care and successful reentry. Strengths of the program included linkage to a Ryan White Clinic, provision of prison medical records, referrals to general social service agencies and its acceptability among interviewed participants. Participants reported appreciating the services available pre-release and were able to reflect on specific examples of how they were helpful.

Conclusions:

Qualitative analysis indicated that participants appreciated the Pre-Release Planning Program and deeply desired to address their health needs post-release. However, their reentry narratives illustrated a need for far more comprehensive pre-release and post-release services to ensure continuity of HIV care and successful reintegration into their home community. The structural and individual challenges faced by persons living with HIV leaving the prison system demand comprehensive integrated services to assure access to HIV care and avoid recidivism. Minimally, housing, health and income must be addressed to ensure successful reentry. To holistically attend to the needs of this population multiple forms of stigma and risk factors in the community must be mediated by working with the individual and promoting systemic changes. Social determinants of health affecting reentry experiences in Georgia must be addressed through policy changes which have the capacity to reach farther than a single Pre-Release Planning program nestled in the Department of Corrections.

Table of Contents

Acknowledgements

I greatly appreciate the people who made this research possible: the 25 study participants, principal investigator Dr. Richard Rothenberg, project director and thesis co-chair Donna Smith, research interviewer Kelvin Parker, and thesis chair Dr. Francis McCarty.

List of Acronyms and Abbreviations

AIDS- Acquired Immunodeficiency Syndrome
ARV- Antiretroviral
GDOC- Georgia Department of Corrections
HAART- Highly Active Antiretroviral Therapy
HAV- Hepatitis A Virus
HCV- Hepatitis C Virus
HBV- Hepatitis B Virus
HIV- Human Immunodeficiency Virus
PRPP- Pre-Release Planning Program
RW- Ryan White

Figure

1 Introduction

1.1 Background

People who pass through correction facilities are more likely to be infected with the Human Immunodeficiency Virus (HIV) than people in the general population.[1] Many factors that contribute to risk of HIV infection, including use of illicit drugs and transactional sexual activity, are also major drivers of current incarceration trends.[2] Persons who identify as Black racially are at high risk for HIV infection and are incarcerated at higher rates than persons of other racial-ethnic groups.[3 4 5 6] For this reason correctional facilities have been identified as important institutions in the community for addressing racially disparate health outcomes around HIV.[7]

Federal law mandates that during incarceration people must have access to adequate medical care. This means that for many people with addiction disorders and untreated mental health conditions, coming from backgrounds of poverty and minority communities with disparate access to quality medical services correctional health care may be an individual's first encounter with primary care. For persons living with HIV, this may be the location where they first find out their positive HIV status and begin accessing antiretroviral (ARV) medication Several studies have demonstrated that health improvements in HIV status can be attained while incarcerated.[8 9] Unfortunately, other studies have demonstrated that these benefits are lost after return to the community.[10 11] Correctional systems themselves are far from therapeutic and health care services in these settings are limited, but sustained access to ARV medications in the correctional setting does have a positive effect on HIV outcomes.

Post-release access to and utilization of HIV health services are important for individual and community health outcomes. Acquired Immunodeficiency Syndrome (AIDS) diagnosis is more likely among people who identify as Black or African American than among other racial ethnic groups.[12] This is important because the majority of persons incarcerated in the United States and Georgia are African American.[5] High incarceration rates for African Americans living with HIV mean that correctional health care plays an important role in preventing the progression of HIV to AIDS for members of this population. However, it is ultimately the ability to sustain improvement in HIV health status following release into the community, which speaks to the effectiveness of the public health system in serving minority populations with the greatest burden of HIV and AIDS.

In response to such research demonstrating the critical need to link HIV positive former inmates to care, many state prison systems have instituted discharge-planning programs. With funding from the Ryan White Program and the Georgia Department of Community Health, the Pre-Release Planning Program (PRPP) was established within GDOC as a pilot discharge program in 2004. This program was developed to address the reentry needs of persons living with HIV through pre-release case management and referrals to HIV/AIDS services in the community to which an inmate returns. PRPP case management includes a minimum of three management sessions between the PRPP coordinator and client, with each session lasting at least 45 minutes. A comprehensive intake is completed by the coordinator covering: demographics, health, mental health, risk behaviors and reentry needs. The PRPP coordinator creates an individualized service plan for each inmate in order to address post-release needs and provide linkages to

services within one month of release. Post-release needs considered for enrolled inmates include medical care, mental health services, substance abuse treatment, social services, housing, employment/vocation, behavioral risk prevention and education, ADAP assistance, and application assistance with Social Security, Medicare, and Medicaid. From its inception until 2010, a single PRPP Coordinator served 14 of the 40 prisons in the state of Georgia. Because the GDOC-run prisons in Georgia are geographically dispersed and located in rural areas, the PRPP coordinator was unable to reach all GDOC-run prisons housing HIV/AIDS positive inmates. In 2008, approximately 2.1% of GDOC inmates were living with HIV and PRPP was only able to reach 25% of this population.[13]

1.2 Purpose of Study

The purpose of this study was to evaluate PRPP and better understand the post-release challenges faced by persons living with HIV discharged from GDOC. An evaluation of PRPP was provided to GDOC to inform program activities and future development. Observations and recommendations to improve the quality and nature of services available were informed by a qualitative analysis of reentry stories of former PRPP participants. Challenges faced by PRPP participants further illustrated the specific unmet needs of persons living with HIV in Georgia following release from the state prison system. The findings of this study point to specific services and policy changes essential for successful reentry and continuity of HIV care.

1.3 Scope of Study

The qualitative analysis in this study is limited to a sample of 25 reentrants in Georgia living with HIV who participated in PRPP from 2008-2010. The structure,

process and outcome evaluation of PRPP in the present study consisted of a desk audit and communication with program staff. The desk audit included an assessment of data collection and management in addition to an overall broad process evaluation. While a quantitative examination of PRPP's outcomes is warranted it is beyond the scope of the present study. Additionally, comprehensive quality improvement efforts according to the Ryan White standards for quality improvement are warranted, but unfortunately exceed the scope of this evaluation. The Ryan White program with the assistance of the Institute of Medicine has established standards and tools for quality improvement that are available to its network of service and clinical care providers.[14]

1.4 Research Question

The following research questions guided the program evaluation of PRPP and the qualitative analysis of interviews with program participants:

- What challenges do PRPP participants face during the reentry process?
- From a quality improvement framework, what are the strengths and weaknesses of PRPP?
- How can PRPP be improved despite the limited resources available?
- What larger implications for reentry and continuity of HIV care can be drawn from the findings of this study, for the state of Georgia and for other entities serving incarcerated and formerly incarcerated persons living with HIV?

2 Review of the Literature

2.1 Methods Used for Literature Review

PubMed was the primary database used to conduct the literature review. The following key words were used to query articles: prison, incarceration, corrections, HIV,

health status, quality, data collection, Medicaid, mental health, chronic health conditions, reentry and release. The titles of articles were scanned to determine if they contained information on prison populations living with HIV. Articles with abstracts related to the topic of the present study were retained, read in their entirety and summarized for the purpose of this literature review. In addition to articles available in the peer reviewed literature, government and organization reports on incarceration and HIV in Georgia and the United States were considered to provide details about the specific context of the present study.

2.2 Literature Review

In the late 1990s, the impact of HIV on correctional populations was well recognized across the United States at the local and national level. The Centers for Disease Control and Prevention (CDC) and the Human Resources and Services Administration (HRSA) which oversees Ryan White Care Act (RWCA) programs recognized the need to come together and develop best practices for the delivery of services in correctional settings where many of the most vulnerable persons living with HIV were concentrated. RWCA Title I and II funding was provided to a special Project of National Significance, Project Bridge, in Rhode Island in 1997. Project Bridge utilized a harm reduction and social stabilization model combining efforts of social work and medical staff to meet the needs of state prisoners releasing into the community.[15] [16] A few years later in 1999, areas with the highest burden of HIV were identified and permitted to compete for funding to develop Corrections Demonstration Project programs that linked together corrections, public health and community based organizations to address the needs of inmates and reentrants living with HIV.[17] Through these early

projects, it was deemed appropriate to use RWCA Funding to improve the access of underserved populations to HIV care, even if they were located in correctional systems.[16]

Despite these early concerted efforts, the development and universal adaptation of similar programs has been gradual. Many of the demonstration projects proved to be beneficial but were limited in their ability to address the vast needs of reentrants in the community. Furthermore, demonstration project personnel did not have the training or resources to acquire the technical expertise to gather and utilize public health data on the population they were serving, even though this was a goal of national level program funders such as CDC and HRSA. Carrying out surveillance, prevention and interventions in a correctional setting presented many additional challenges at the level of individual Corrections Demonstration Project grantees. Aggregate data collection was beyond the capability of service providers implementing programs, so collected data was full of errors and required extensive cleaning. Despite these setbacks, overall goals of increasing HIV care access for inmates following release and establishing standards for this particular type of service were achieved by specific Corrections Demonstration Project Programs.[17] In the years to follow, the academic research community provided further evidence of the vulnerability of incarcerated persons living with HIV and the need for transitional services.

Elevated rates of infectious disease have been observed among people in correctional systems and formerly incarcerated persons in the community. A 1997 national estimate for the number of people living with HIV who passed through some type of a correctional facility was between 22-31%, for Hepatitis C Virus (HCV) it was 29-43%, and for Tuberculosis it was estimated to be 40%. Even the most conservative

estimates for these three infectious diseases indicated that at least a quarter of the people living with HIV, HCV and Tuberculosis spent time in a correctional facility.[18] Overall HIV infection rates found for populations in correctional systems and those among formerly incarcerated persons across the country vary; however, trends are similar and always exceed rates seen in the general population. The following statistics offer a snapshot of the intersection of HIV and corrections from the late 1980s to the 2000s. These statistics cannot be directly compared because of differences in study design, time period and geographic context; however, they do offer some support for efforts to continue providing high quality services to incarcerated and formerly incarcerated persons.

- From 1989-1999, 32.9% of all HIV positive tests reported to the State Health Department of Rhode Island were conducted in correctional facilities. [7]
- The overall HIV infection rate for the Texas correctional system from November 1998- May 1999 was 2.6%.[19]
- In Rhode Island from 1998-2000 HIV infection was identified in 1.8% of male prison inmates.[20]
- From 1999-2001 HIV infection among inmates in Texas correctional facilities was found to be 15 times higher than that in the general population.[1]
- A 1999 study of homeless persons in San Francisco found that formerly incarcerated persons were more likely to be infected with HIV, 14.9%, compared to homeless persons never incarcerated of whom 10.1% were infected with HIV.[21]
- A study of infectious diseases among Maryland prison inmates from January-March of 2002 indicated an overall infection rate of 6.6% for HIV. [22]

- A 2004-2006 study of North Carolina indicated an overall HIV positivity rate of 3.4%.[23]
- A 2006 United States national estimate of the number of people with HIV passing through correctional systems was 16.9%; for Black men the estimate was higher 22.1%.[24]

Even though some more recent national estimates for HIV infection were lower than previous ones, they still indicate a disproportionate share of the HIV burden on correctional populations.[24] Beyond HIV, other sexually transmitted diseases and infectious disease were found to impact the health of persons who experienced incarceration.

- In Texas in 1999 the following infectious disease were indentified among inmates: active Tuberculosis, latent Tuberculosis, HCV, HBV, HIV, Syphilis, Gonorrhea, Herpes zoster, MRSA, Encephalitis and pneumonia.[1]
- A review of the literature found rates of HBV infection among correctional populations to be significantly higher than those in the community.[25]
- A study of infectious diseases among Maryland prison inmates from January-March of 2002 indicated overall infection rates of 29.7% for HCV and 25.2% for HBV. [22]
- In Rhode Island from 1998-2000 HCV infection was found in 23.1% of male inmates and HBV infection was present in 20.2% of male inmates.[20]
- In Texas from 1998-2009 HCV infection rates were found to be higher among incarcerated persons than among the general population.[26]

The presence of these diseases indicated the need for comprehensive infectious disease control and treatment programs. Control was especially important to guarantee the health of persons living with HIV, who may have compromised immune systems and suffer greater consequences from infection. Further examples in the literature highlighted the problem of co-infections for persons living with HIV:

- In Texas from 1998-2009 incarcerated persons infected with HIV were more likely to be infected with HCV when compared to inmates without HIV.[26]
- For Maryland prison inmates from January-March of 2002 co-infection with HCV and HIV was observed in 65% of persons tested.[22]
- A 2004-2006 study of North Carolina prisoners identified co-infection with HCV and HIV in 65% of inmates.[23]

Treatment for HCV is lengthy and quite complicated in some cases, precluding incarcerated persons with sentences less than two years from accessing treatment prior to release. Linkage to treatment in the community was identified by public health researchers working the Texas correctional system as very important especially for persons co-infected with HIV and HCV.[26] This finding illustrated the importance of addressing HCV and HIV among prison populations to reduce the chance negative health outcomes such as liver disease and cancer.[23]

In addition to infectious disease, chronic disease was a major health threat and concern for populations who experienced incarceration. Many chronic diseases were reported by a cohort of Kentucky prisoners with mental health conditions and substance abuse disorders. Reported conditions involved: muscle, bone, liver, cardiovascular health, stomach and intestinal tract, skin, ear-nose-throat, dental and traumatic injury.[27]

Mortality rates among formerly incarcerated persons in North Carolina from 1980-2005 were compared to the community to determine causes of excess deaths. For whites, cardiovascular disease, respiratory disease and diabetes were found to be contributing to excess deaths of formerly incarcerated persons.[28]

For correctional populations in general and especially members of these populations living with HIV, substance abuse is a major issue impacting reentry and post-release utilization of medical and social services. A history of injection drug use was reported by 80% of Project Bridge Participants. Personnel implementing Project Bridge reported that relapse to substance abuse impacted the reentry experience of program participants.[15] Similarly implementers of COMPASS, a Rhode Island demonstration project for people with HIV leaving jail, identified substance abuse as a major barrier to continuity of care.[10]

Even among persons experiencing homelessness, one of the most vulnerable populations any community, incarceration experience was associated with substance abuse. In a study of homeless persons living in San Francisco in 1999 formerly incarcerated persons were more likely to report a history of crack cocaine or heroine use. A history of any drug use was reported by 93.1% of persons who spent time incarcerated compared to 81.7% for the overall study population. Past incarceration was also associated with current drug use and drug sales.[21] A study of persons living on Skid Row in Los Angeles found that recent discharge from a correctional facility was associated with use of crack cocaine and methamphetamines.[29] These findings indicated that for many individuals who left correctional settings addressing substance abuse was a necessary part of the reentry process.

In a study of Kentucky prisoners, unmet healthcare needs were associated with longer periods of lifetime drug use and drug use in the past year. The physical impact of substance abuse and associated behaviors affected the overall health outcomes of this study population. This finding demonstrated the importance of engaging inmates with histories of drug use in primary health care before and after release.[30] Substance abuse was clearly identified as a factor at the individual level impacting the health and well being of formerly incarcerated persons. These findings demonstrate the absolute importance of addressing the recovery needs of persons living with HIV returning to the community from a correctional setting.

Much like substance abuse, mental health had an impact on the well being and reentry experiences of correctional populations. Mental health diagnoses were reported by 45% of Project Bridge Participants.[15] This indicated that almost half of project Bridge participants needed support accessing some form of mental health services during reentry. Depression was repeatedly identified in the literature as a major concern for incarcerated or formerly incarcerated persons living with HIV. A study of inmates in the Texas department of corrections from 1999-2001 indicated higher rates of mental illness among inmates with HIV compared to inmates without HIV. Some of the most striking differences were observed for depression and dysthymia. For inmates with HIV, 6.05% were diagnosed with depression compared to 2.21% for the general correctional population. For dysthymia, 3.24% of inmates with HIV had symptoms while only 0.72% of the general inmate population reported symptoms.[31] Even higher levels of depression were found among North Carolina inmates living with HIV. Researchers found that 44.5% of HIV positive inmates screened positive for depression. Screening positive for

depression was associated with low self-efficacy, unmet needs prior to incarceration and an expectation of unmet needs following release. The rate of depression among this study population was higher than that found among persons in the community with HIV who never experienced incarceration.[32] Even post-release depression was demonstrated to be a serious concern for reentrants without stable housing. High rates of depression were identified among homeless persons living on Skid Row in Los Angeles who had a history of incarceration.[29]

Depression was associated with poor health outcomes for persons living with HIV and many chronic diseases, yet one of the most troubling findings in the literature was that excess death of formerly incarcerated persons post-release was attributed to suicide and accidental overdose. A study of post-release mortality in North Carolina found that one major cause of excess death following release was suicide.[28] Accidental poisoning, primarily drug overdose, was identified to be a cause of excess death among Georgia prisoners following release.[33] The risk for depression, suicide and accidental overdose among formerly incarcerated persons clearly demonstrated the need for a mental health component in any discharge planning or reentry services.

A review summarizing the finding from research conducted in the late 1980s and 1990s highlighted the disproportionate impact of booming incarceration rates on resource poor, urban minority communities. The opportunity to address a variety of infectious diseases for all inmates and reproductive health concerns of female inmates was recognized as a critical point of intervention for reducing health disparities. However, utilization and integration of services for health, mental health and substance abuse was limited among many studies of correctional health systems. Incarcerated individuals

experienced trauma as both perpetrators and victims of violence at elevated rates and little energy was found to be focused on this issue. A disproportionate percentage of people in some communities lost their right to participate in the political process and to access public benefits. These factors left some inmates to return to their community in a more vulnerable state than before incarceration. Some correctional systems were seeking to address the health needs of inmates who would eventually return to communities; however, linkage to care post-release was still lacking in many regards.[2] A study of homeless persons in San Francisco found that as many as six years after last incarceration people were still suffering from housing insecurity and substance abuse indicating constant instability following release from a correctional facility.[21] These summarized findings point to the need for comprehensive medical care and linkage to services post-release. This need is especially salient for inmates living with life threatening infectious diseases like HIV that have the capacity to negatively impact individuals and public health outcomes for communities at risk for transmission.

Despite the incredible health challenges faced by incarcerated persons living with HIV several studies documented positive outcomes for inmates on ARV medications while incarcerated. Connecticut Department of Corrections inmates who began receiving antiretroviral treatments more than six months prior to release experienced clinically significant gains in CD4 counts and reductions in viral loads.[8] Inmates released from the Connecticut Department of Corrections who were reincarcerated within three months of release following six or more months of consecutive care while incarcerated experienced significant declines in CD4 counts and increases in viral loads. It should be noted that for

reincarcerated persons the post-release changes in CD4 count and viral load were greater than those positive outcomes obtained during a period of treatment while incarcerated.[8]

Declines in HIV health status after release to the community were observed in several other studies. A North Carolina study of male prison inmates from 1997-1999 demonstrated that continuously incarcerated persons experienced better HIV health outcomes when compared to released reincarcerated persons. Differences were observed between CD4 counts for the two groups. Observed differences were not statistically significant, but for many individuals changes may have been clinically significant. Differences in viral loads were statistically significant between the two comparison groups.[9] A 2004-2006 study of inmates released from Texas prisons found declines in HIV health status for persons who returned to prison after a period of time in the community.[34]

Many factors contribute to poor outcomes in the community following periods of improved HIV health status while incarcerated. Results of a study of South Florida reentrants demonstrated that low levels of education and homelessness were associated with lower levels of medical care adherence and HIV knowledge. Issues of stable housing were found to be more pressing for reentrants than utilization of medical services or adherence to medication regimens.[35] Conversely, other studies have identified factors associated with enrollment in care. A study of Texas inmates from 2004-2007 identified factors associated with post-release enrollment in outpatient care among reentrants from the state prison system. Overall, only 28% of reentrants enrolled in care within 90 days of leaving prison. Factors associated with enrollment in care were being over 30 years old, taking antiretroviral medication while incarcerated and receiving enhanced discharge

planning. Being a minority and having a serious mental illness were associated with poor linkage to care[36]

During the 1990s and early 2000s it became a priority for public health communities across the United States to mediate the loss of HIV health benefits gained during incarceration through discharge planning. Numerous models emerged across the country during this time period differing by geographic region and correctional facility type. Some notable characteristics and needs emerged across studies of inmates and reentrants that were universally applicable to the development of similar programs regardless of specific context. A collaborative working group in New York City identified that correctional systems have a unique culture and very clearly defined priorities related to control and safety. Community based organizations and public health programs often need guidance to integrate their services into correctional settings. It was determined to be critical for service providers to recognize and accommodate the priorities of a correctional system to effectively deliver care and discharge services to persons living with HIV.[37]

Inmates and reentrants with mental health conditions and substance abuse disorders were heavy users of "high-end" medical services such as hospitals and emergency rooms in the periods following release. This population had numerous chronic health conditions on top of mental health and substance abuse concerns which made enrollment in primary care essential.[27] For persons living with HIV, mental health conditions and substance abuse disorders, access to a primary health care provider was an essential component of comprehensive HIV care. Enrollment in primary care may prevent some of the health declines seen in reentrants living with HIV. These findings

indicate that there is a financial incentive for communities to ensure that vulnerable populations are accessing primary care to prevent unnecessary use of "high-end" services.

Some important factors were found to be associated with enrollment in primary care post release. A study in the South West United States from 2002-2003 indicated that among released inmates living with HIV primary care usage post-release was associated with: being on antiretroviral medications, not using alcohol since release and residing in the same place as before entry into a correctional facility. Overall housing stability was of primary importance for enrollment and continued engagement in primary care.[38] This study highlighted the point that factors beyond linkage to care were important for enrollment in primary care. Individual level barriers such as housing and substance use were critical for actual enrollment in care even when some level of pre-release services were provided.

Addressing the unique needs of minority populations was repeatedly highlighted in the literature. Nationally, minority populations experience higher rates of incarceration and HIV.[5 3 12] A study of New York City inmates indicated that a disproportionate share of the HIV burden was observed in African American communities. African Americans were also likely to have knowledge gaps related to transmission and high levels of skepticism of the government. This study illustrated the importance of culturally appropriate community or peer driven HIV education and interventions for incarcerated African Americans.[39] The Mental Health and Substance Abuse in Corrections Clinical Research Scholars Training Program was identified as an outstanding program designed to address disparities in mental health care, substance

abuse treatment and incarceration experienced by African Americans. The program was funded by the National Institutes on Mental Health and organized by the Morehouse School of Medicine and the University of North Carolina—School of Medicine at Chapel Hill. This collaborative effort between scholars and medical providers to focus on health and mental health needs of correctional populations was an effort to reduce health disparities faced by African American.[40]

Some of the most recent findings point to the benefits and limitations of discharge planning for inmates with HIV. A 2004-2006 study of persons released from Texas prisons found rates of return to prison to be lower for inmates with HIV than expected. Discharge planning and engagement in post-release medical services was thought to be responsible for these lower rates of return to prison. It is important to note that among persons with HIV being black, not taking antiretroviral medication and having a major psychiatric disorder was associated with return to prison.[34] Benefits were seen by some reentrants in this study; however, it appeared that perhaps the most vulnerable persons in the population did not see benefits. A North Carolina study comparing standard discharge planning to enhanced discharge planning with post-release services found no overall difference in the number of clinic visits between the two study groups. This finding was a surprise to the researchers who expected higher uptake of services in the enhanced discharge planning arm. They purport that even an enhanced intervention was limited in its ability to alter post-release outcome in access to care because the challenges and barriers faced by this population are so great.[41]

2.3 Summary of Literature

Existing literature addressing the intersection of HIV and incarceration demonstrates the vast array of challenges faced by individuals on a reentry journey. Previous findings point out that organizations and institutions seeking to provide support and assistance to this population must be attuned to structural and individual barriers to HIV care. Issues of mental health, substance abuse, chronic health conditions and poverty were demonstrated to be common challenges in the lives of many formerly incarcerated persons living with HIV. Demonstrated racial disparities in incarceration and HIV infection necessitate culturally appropriate approaches to reentry services. While programs have been developed to enhance access to care and adherence to HIV medication, no model has been adopted as a minimal standard of appropriate services by the correctional or public health community. Minimal levels of health care are constitutionally guaranteed to inmates, but this mandate does not extend to the reentry period. Clearly, room exists to develop a more comprehensive understanding of the needs of formerly incarcerated persons living with HIV to better deliver lifesaving medical care in the community post-release.

3 Methodology

3.1 Qualitative Analysis

Semi-structured qualitative interviews were conducted with HIV-positive formerly incarcerated persons in the state of Georgia from 2009 to 2010. The interviews were designed to assess the effectiveness of PRPP and to identify challenges of reentry unique to persons living with HIV.

A convenience sample of 45 PRPP participants returning to the Metro Atlanta area as well as to the satellite cities of Macon, Rome and Conyers, consented to be contacted by study staff from Georgia State University's Institute of Public Health. Inmates received no incentive for consenting to be contacted for an interview post-release. PRPP participants were released from various correctional facilities across the state. Study staff contacted potential participants three to twelve months after their release from prison. Twenty-five persons were located by the study staff and every person found agreed to participate in an interview.

The study was approved by the Georgia State University Institutional Review Board, and study participants completed an informed consent prior to their interview. Correctional populations are protected by federal law as potential scientific research participants and formerly incarcerated persons are at an increased risk for coercion into participation because of their recent or continuing involvement in the correctional systems as parolees of probationers. For this reason, extreme care was taken to ensure participants understood that involvement in the study was completely independent of their release, parole, or probation. At the completion of the post-release interview each participant was compensated for their time with a payment of $50.

Interviews were conducted by the project director or by a trained research interviewer who was very knowledgeable about the Georgia state prison system. Familiarity with the prison system helped both interviewers establish a strong rapport with study participants. Interviews took place in the residences of participants, if a confidential space was available, or in interview rooms at Georgia State University. Typical interviews lasted 45 minutes to an hour. A semi-structured interview guide was

used which covered topics including: basic demographics, post-release experiences, family, social networks, housing, employment/income, access to HIV care, ARV use, access to mental health care, parole or probation, substance abuse, substance abuse treatment and sexual risk behaviors. The interview instrument also asked for the reentrants' assessment of the utility of the discharge planning received through PRPP, any unmet needs regarding reentry, and their interest in a mentoring program post-release. The interview guide began with an open-ended question regarding the participants' overall experience since release, and in many interviews, participants' answers to this question implicitly answered the more specific questions which followed.

Interviews were recorded and transcribed for qualitative data analysis using the software program, NVivo 8, of QSI International, Inc. Data were coded through an iterative process that involved reading all transcripts, identifying major themes, and developing a coding tree to test developing hypotheses. A team of 4 conducted the analysis and coding, including the project manager, research interviewer, and two research assistants (who transcribed most of the interviews and performed data coding).

3.2 Evaluation of PRPP

Through a quality improvement framework a basic description of the structure, processes and outcomes of PRPP was completed. A quality improvement framework shaped the assessment by directing attention to the components of the program that can be modified to improve overall outcomes. This approach assumed that changes could be made to improve services available to PRPP participants. Modes of evaluation included a desk audit and communications with the program's staff and GDOC leadership. The desk audit involved an evaluation of data collection and management activities by

reviewing paper files and the electronic database used for data management. The overall process flow of information, daily activities and service provision was also considered to identify areas for improvement. Major stakeholders were identified by considering the population being served, collaborating organizations and funding sources. Identification of stakeholders was an important step toward disseminating relevant quality improvement findings. Consideration of the staff, training opportunities, technology and resources available to PRPP was central to the structural evaluation. Dedicated attention was paid to the processes around data collection, entry and management. Pre-release case management procedures were also critically evaluated for appropriateness and effectiveness. Overall outcomes related to the reach of PRPP within the prison system and data reporting capabilities were also considered.

4 Results

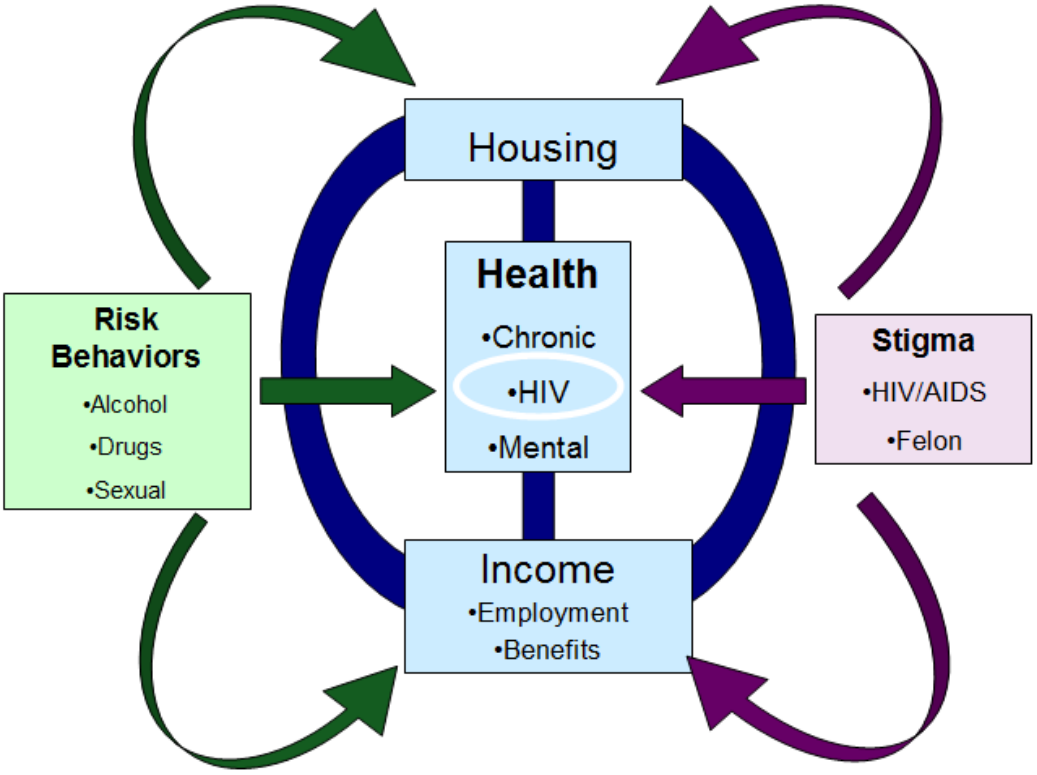
4.1 Qualitative Findings

Our 25 interviews provide insight into the psychosocial and structural dynamics that shape the experience of re-entry for many HIV positive reentrants. These interviews create textual snapshots that vividly illustrate the inter-relatedness of the core needs of reentrants and their effects on health outcomes. Of the 25 in-depth qualitative interviews conducted, 22 African American males were interviewed, one white female and two white males. No one in the qualitative study self-identified as Hispanic or Latino. Twenty one of the participants were over 40 years of age, and seven of the 24 males interviewed self- identified as gay, bisexual, or reported same-sex sexual activity. Nine participants did not complete high school or earn a GED, 10 participants graduated from high school, two earned their GED in prison, and four had some college. Four of the 25

reported military veteran status. At the time of their qualitative interview or by year-end follow up, eight of the 25 persons interviewed had spent one or more nights in jail since their release from prison. Previous incarceration experiences were reported by 20 of the persons interviewed. Twelve of the participants reported drug charges; however, 18 of those interviewed admitted that their criminal activity was drug related even though they had no felony drug charges.

Three core needs of reentrants were identified in the qualitative data: health, housing and income (see figure 1). Addressing these core needs consumed most of the time and energy of participants. Another major and related theme was the extent to which these unmet needs were complicated by stigma -- both the stigma they experience in regards to their HIV status and their status as convicted felons. Furthermore, substance abuse is a risk behavior that presented a threat to many PRPP participants with histories of substance abuse and substance-related criminal activity.

Figure 1. Reentry Challenges Model for PRPP Participants



Overwhelmingly, PRPP participants interviewed for the qualitative evaluation identified a source of income and stable housing as their primary unmet needs. The relationship between instability in these two domains increased the chance that they would eventually engage in risky behaviors. The following quote demonstrates how interconnected the different domains of reentry, housing, income and risk behavior, are in the period post-release.

> … I'd apply online for jobs and I never even got an interview. People didn't even hear my voice, see my face. I understand that there's a recession going on and what not, but there was just nothing out there for me. And I didn't know what I was supposed to do being that I'm staying at my mother's house. You got grown people staying at the house. I felt like a fish out of water. I felt stuffy at times, and I wanted my own space, but I didn't know how that was going to be. And the pressures were getting up on me, man. And then some of my old friends and stuff, they would try to communicate with me and try to get me back into my old ways and what not and sometimes, some of the old pressures will draw you back into that stuff.
>
> African American male, 48 years old

As this veteran reveals, lack of income and an inability to define one's living space can create a slippery slope into risky behaviors, particularly for persons with histories of addiction. We explore specific themes in the quotes throughout this paper; however, it is possible to see the way that core reentry needs and challenges were intertwined in every post-release experience of interviewed reentrants.

4.1.A Challenges of stable housing.

Participants in the qualitative assessment lived in several different types of housing following their release. The majority of participants, 17, moved into homes with family or friends, for many, returning to live with family members meant living in an environment that was far from stable. Many living arrangements were understood by both family or friends and the reentrant to be a short-term housing solution.

In response to our questions regarding the stability of their current housing situation, of twenty five participants, 7 considered their housing situation to be unstable, defined as fearing that they would lose their housing, and 6 participants revealed a deep ambivalence about the stability of their living situations. The ambivalence of the following respondent was typical; initially, he reported his living situation as stable, having returned to a home where his mother and sister were living. However, later in the interview he revealed that his sister was using crack cocaine:

> Well you know I got a place to be and I can stay there, but me and my younger sister ain't getting along, and that's a big problem right there…. She strung out. She just strung out on drugs. I can understand it… but I can't tell her nothing about what she going through.
>
> African American male, 53 years old

This was a significant source of stress for him, given that he was in recovery.

Many reentrants entered households that were already stressed economically and the reentrants were largely unable to contribute to the cost of rent and food. The few exceptions included people who were able to get food stamps and persons on disability. Families and friends who might have the capacity to provide social and emotional support to reentrants face economic burdens related to housing costs and the daily needs of reentrants they are assisting. While many people reported a great deal of assistance from friends and family, dependence on the part of the reentrant can compromise the nature of these relationships:

> Yes, I have a stable place, but as I said, it's not my home and eventually I will have to leave… I don't feel like I have to go, but there is going to come a time… I wouldn't say that they would put me out, but I think they would say, 'you know, I think that it's time for you to leave.' I feel like they would give me ample time, but because they know the situation with my disability. They know that it's just a matter of time that I would get that started. They're real patient with that.
>
> African American male, 46 years old

Some families offered support to reentrants with the implicit expectation that disability income would become available in the future. This income was anticipated to offer some financial relief in return for post-release hospitality provided by family and friends.

4.1.B Stigma & housing

Several PRPP participants revealed that they experienced stigma within their family regarding their HIV status. One young man (white, 28 years old) noted how hurt he was to learn that his stepmother, whom he previously thought was sympathetic to him,

"bleaches down everything" after he leaves the house. This respondent had been living with his father and stepmother, but left after this incident, and at the time of our interview was semi-homeless, 'couch surfing' with friends, and acknowledged that he had started using methamphetamines again.

Another participant described deep hurt and frustration when his mother refused to let him sit in 'her chair' because of her fear of contracting HIV:

> My mama, she's alright, but you know, she do little things like [saying] 'Oh, you can't sit in that chair because I sit in that chair, and I don't want to risk catching anything.' And it really just throws me off to a point where, look -- this is my mother! Why would she even treat me like that -- just like treat me a dog?
>
> African American male, 40 years old

Yet another participant in the qualitative assessment noted that he experienced difficulty finding housing because of his felony conviction:

> Since I've been out…really just been trying to focus…because if you've got a criminal background, it's a lot of places that won't rent to you… It ain't been no easy task on trying to… get yourself lined up into a home… There's a lot of people... that rent apartments… when they look at you they say, 'oh, we gotta do a background check.' And then, really, if you got a criminal history such as I, you know, it's kind of hard.
>
> African American male, 41 years old

The stigma associated with a felony conviction can make finding affordable, safe and stable housing situations extremely difficult for reentrants, even without the challenges of having limited resources.

4.1.C Income

One resource that had an impact on the post release experiences of participants was disability benefits. Twenty-one of the 25 persons interviewed were enrolled or planned to enroll in a disability benefit program. At the time of their interview disability benefits provided some level of income and access to Medicaid for eight of the 25

persons interviewed. Thirteen of the 25 reentrants were in the process of applying for disability at the time of their interview. Only four participants did not mention disability during their interview.

One participant was on SSI for 11 years prior to his most recent incarceration experience because of mental illness and other serious health conditions. He did not complete high school, had a history of incarceration and substance abuse with no previous treatment. Yet, he wanted to take care of himself and his family after his release from prison.

> Uh, [I'm] trying to…get my own spot where…me and my daughter can live together and hopefully I can get my social security started, you know. See I'm not so much hapless or hopeless. I am on mental health status and then I got some serious medical issues. You know, I'm not making my medical appointments.
>
> African American male, 51 years old

Despite his desire to provide for himself and his family, he was already falling behind on taking care of his own health. Furthermore, he felt unable to move forward without some form of income to meet his most basic daily needs.

Finding a job was a major concern for PRPP participants, except for those who were too ill to work or were in the process of filing for disability. While participants were referred to caseworkers for help with housing and job placement and training, most were disappointed with the limited opportunities available for job training or job placement and low-cost housing. None of the 25 participants whom we interviewed for the qualitative evaluation had permanent employment, despite consistent efforts to find work, and all discussed their frustration with employers' unwillingness to hire convicted felons. Numerous participants noted that they had been hired by companies and worked

for weeks to months, only to be fired when their criminal background check was completed:

> The biggest issue has been my criminal background, you know. A lot of times, I try to be honest about it. Then I try to lie about it, [and when] they find out about it, then they say they can't hire me because I lied... I went to Kroger [and] they hired me, and it's like a month later, they let me go because I had a long criminal background. They say they hire ex-offenders, but they went back like 20 years and they saw my record and I think it scared them, you know… The guy that I worked for, the supervisor, we got along real great. He liked me. He say the other manager out-voted him, so he had to let me go.
>
> African American male, 53 years old

The demoralizing experience of being hired and then fired, after a criminal background check came through, was shared by several participants. In our sample of 25 qualitative interviews, those participants who found work at all, worked irregularly as day laborers or helped people with odd jobs like painting, yard work or automotive cleaning. Compensation for these odd jobs was minimal and varied on a case by case basis.

4.1.D Employment, stigma & mental health

As the following reentrant notes, stigma in the work force against those with felony convictions can become internalized and heighten a tendency towards depression:

> I felt like, what was the use, they're not going to hire… Once they learn you have a record, you may just as well throw your hands up and quit. They say honesty is the best policy, but in some situations I beg to differ, because a lot of these people out there, they're not going to take that risk. For example, they figure that if you've got a drug charge, you're going to be stealing. It overwhelms you. You feel depressed, you feel useless. Then…for me, I just beat myself up over it because here I was, I had it good for myself and I screwed it all up by getting into trouble.
>
> White female 49, years old

Given the high percentage of mental health diagnoses, especially depression, documented in other correctional populations the impact of stigma raises concern. Negotiating stigma, whether related to one's felony status or one's HIV positive status, clearly has the

potential to have a detrimental effect on one's mental health.

A selection of quotes from the following participant's interview reveals how stigma increased his social isolation. Asked whether he had shared his HIV status with others in his social circle or family and friends, he responded:

> My family -- yes. My church and friends -- no. You know, I have a problem with rejection, and everybody that I have befriended to the point to where I could tell them and [I thought] it would be alright - I was wrong. I'd watch them distance themselves from me… It really killed me. It put me in a major state of depression, you know, because I'm out here by myself. So it also taught me that sometimes it's just better to keep it to yourself.
>
> African American male, 58 years old

This respondent continues on this theme, revealing how stigma shapes his fears regarding how potential employers would respond to his HIV positive status:

> That job thing is something that kind of worries me too… You know, I have a construction background and physically I'm not able to do the things that I used to do, and it's frustrating for me. I don't know how you can disclose, or how you can have your anonymity and then have a good relationship with your employer without telling him that you're HIV positive and again, you go through that stigma: 'Oh, we've got to get rid of him. I can't have him working around these people if he's HIV positive.' Because you got people that are not educated; they don't know.
>
> African American male, 58 years old

Some income challenges were related to HIV status as well as felon status. In addition, the complex variety of health needs a participant faced impacted the type of employment options that they could consider, even when they had a history of employment.

4.1.E Challenges Receiving Health Care Post-release

While all the PRPP participants whom we interviewed for the qualitative assessment were receiving care for their HIV at Ryan White Clinics or the VA hospital, many observed that they experienced significant challenges accessing healthcare for non-HIV related issues. Barriers to care for non-HIV health issues caused interviewees to experience a great deal of distress. The scope of the services offered by specific Ryan White clinics varied. In one area of Georgia outside Metro-Atlanta, the HIV services

offered by the Ryan White clinic were adequate but other medical services not directly related to HIV were not available.

> …let me just say for the record, even though it's a good program, [and] it takes care of the particulars, like your condition -- that's all they're going to treat. But I have a secondary condition which is Neuropathy and they don't treat you for that at all. I can't get any referrals to any specialists, because I don't [have] insurance and that's a big issue. People who are HIV cannot get health insurance and if you're not receiving any type of state or government assistance, then you're not insured. You can't just walk into a doctor's office and say 'Well, here I have this coverage that can allow me to see you; I have none of that, so anytime that I have to go to any specialist or anything, it is expected for me to pay it out my pocket, which I don't have income.
>
> African American male, 46 years old

For someone who is resource poor and living with HIV, the idea of acquiring private health insurance to cover non-HIV health issues was viewed as a virtual impossibility. In his view no one like him living with HIV could access health insurance. The only form of health insurance considered promising by the individual above was Medicaid or Medicare.

For others, lack of income was a clear barrier to accessing medical care. Another participant with hypertension and Hepatitis C went one month without HIV medication following his release. He expressed significant frustration about access to medications necessary for his health conditions.

> I had to be rushed to the hospital by ambulance and all my prescription bottles is upstairs and empty. I'm out of virus medicine for a month now. My T-Cells are probably going down. I'm worried that -- I don't want anybody to know but my immediate family and you about…[my Hepatitis C and HIV]….I wish that I could get my disability and go ahead and get Medicaid.
>
> African American male, 51 years old

The period without Medicaid coverage significantly impacted the experience of the previous participant. Persons leaving prison often reported lacking the necessary

documentation to begin the disability application process. Time spent on the application process was one more hurdle for participants who were exhausted by the experience of meeting their daily needs and accessing medical care. The health needs of some study participants were so extensive that they required the individual's full attention. A participant with cancer describes the amount of time and energy that he invested in maintaining his health.

> That's my 9 to 5, Monday through Friday. Sometimes I go to the doctor twice in one day…: It's rough. I have to go every Wednesday, then I go to chemotherapy like every 3 weeks, then I have to turn around the day after chemotherapy, [and] I have to get a epidural needle put in the middle of my spine to draw fluid off to make sure that the cancer don't travel to my brain."
>
> African American male, 42 years old

4.1.F Substance Abuse

The majority of participants had a history of substance abuse involving alcohol and drugs other than marijuana. Participants reported misusing substances prior to their most recent incarceration experience. However, in the period immediately following release some participants denied any problems with substance abuse. Involvement with probation and parole may have made some participants uncomfortable being completely honest about their post-release experiences with drugs and alcohol. Persons who did feel open sharing about their encounters with drugs following release revealed the magnitude of this challenge for reentry populations. For a portion of the persons interviewed the challenge of maintaining sobriety had already begun interfering with the reentry process. One person reported using at a rest stop during the bus ride home from prison. He had not even been out of prison for 24 hours at this point in his reentry experience:

> …this guy came up trying to sell [drugs]… Nobody know what it was. He said 'try this out, and see how it is.' So we tried it out…. I had let my guard down. [It] was free, you know, and ah, I tried it out…
>
> African American male, 53years old

Another person interviewed did not initially use drugs, but as his living situation became less stable and he faced rejection from his family because of his HIV status he started using again:

> At first, not at all, um, [I] stayed away from it, stayed away from those people and then, I guess as the ball kept rolling down the hill, like, probably, I'm using it daily.
>
> White male, 27 years old

He describes how his drug use behaviors pick up momentum as other parts if his life unraveled. Another participant reported using crack cocaine and marijuana, but only with his brother, who encouraged this behavior.

> You know it might be maybe once or twice if...if I run into my brother. My brother say man come on lets go smoke a blunt
>
> African American male, 41 years old

Experiences never occur in isolation. People might experience stigma related to housing which may trigger substance abuse, affecting their HIV medication adherence. It is impossible to tease apart all the pieces of the puzzle. The temptation to return to risky behaviors is dependent on stability in all areas of life. One person stated that it was the lack of stability and his inability to take care of his own needs which lead back to patterns of risky behaviors:

> My main thing right now is stability; trying to stabilize my living situation, my environment, you know what I'm saying, where I could…have some pride about [my]self… When you can't do for yourself, it's rough. You don't feel good. Like I said, all those demons come back into play.
>
> African American male, 48 years old

For formerly incarcerated persons the 'demons' that come into play during reentry are numerous and overwhelming. Threats of homelessness, returning to addiction, returning to crime, the shame of stigma, poor health, extreme financial hardship and struggles with mental health all bore down on the twenty five people we interviewed.

4.1.G Reflections on PRPP & Ideal Post-release Services

Interviewees generally considered PRPP services helpful, assisting with post-release HIV care by providing copies of prison medical records and linkage to a Ryan White Clinic in the community.

> …if I'm in prison and I'm taking all my HIV medicine I would like to have that same plan set up when I get out so I can go straight to the clinic and have my medicine. The most important thing is to when a person be released from prison to have a foundation…where he can automatically go see a doctor to continue on taking his medication like he took it when he was in the prison you know and that's what the pre-release did for me. You know I'm out and [the PRPP coordinator] recommended me Dekalb Board of Health and I went there…
>
> African American male, 44 years old

This sentiment was echoed by numerous participants who valued the ability to quickly reestablish linkage to medication and care for HIV. However, one participant observed that for all people this initial linkage was not enough in the face of challenges like deep stigma in the community.

> And you know, you got people out here that's still having a stigma with people that have HIV and you're going to have to learn to deal with that…because you have so many stages of HIV. You're angry, you're in denial, and then you go to the acceptance stage and a lot of people, like the young brother that came in, he's in his angry stage. I'd have somebody to…let [him] know that you [got to] remain healthy… to get the mindset straight that we're not going to die unless we go against what the doctor has recommended for us.
>
> African American male, 58 years old

The services recognized as necessary by participants post-release were incredibly

broad and beyond the scope of PRPP. One participant reflected on the components that would be available if he were designing a reentry program:

> It would offer, not only substance abuse, mental health issues, interpersonal skills, employment readiness, how to conduct a job interview, how to dress for a interview, general education [and] self-esteem classes[.] And it would offer access, [so] the person…has a direct connection with somebody in another agency that could offer some other service….It would be coordinated, if they need legal aid for any reason, they'd have a person that could come here…Plus, they would be required to do some type of community service, learning to give back, from what they're learning
>
> African American male, 42 years old

The section of the interview where reentrants were given the opportunity to make suggestion on ways to improve release services were filled with deep emotion because many of the persons interviewed had already faced deep struggles of their own. One person reflects on the major struggle that un-stable housing presented him post release:

> … When a person get out of prison, they should turn around and give them a job or let everybody go through a, halfway house…A lot of times with people, me and you might have a good relationship when I go in prison, but when I come out of prison, you done went through a lot of trouble yourself…just like my family told me…It took one month [for them] to turn around and say 'hey you not our responsibility.' Then where you got to go then? Nowhere… That's the biggest problem, that's why you have so many people revolving, [they] go back through the prison system because they get out with nothing…
>
> African American male, 50 years old

Another participant recognized the significant barriers related to literacy faced by most people leaving prison. PRPP was not able to address literacy and the prison system did a minimal amount to address literacy disparities while inmates were incarcerated:

> Well, you suppose to have a GED now, before, you can even parole out. That's a good thing, but see, a lot of them guys, they reading on like the second grade, third grade levels man. They didn't go to school. It's going take them a time, it's going take them some time. Now, as far as getting out…once you get out in society man, you need an opportunity, an outlet… If they can get that, I'm a

> guarantee you man, if they could offer somebody getting out of prison, something that, like I said, that would help a person, a man, feel good about themself. Knowing they ain't got to live in the street, live in a shelter, they can get some housing, man, they can get a job, you know what I'm saying, therefore, they could start to rebuild their life. It's hard to rebuild your life with $25, living in a shelter.
>
> African American male, 48 years old

A lack of integrated post release services left many participants feeling like they were spending all their time running around trying to locate and determine how to best utilize whatever was available in the community. For this population with low levels of literacy, lack of financial resources and numerous barriers, the task of integrating services that are disjointed was a major obstacle.

4.2 PRPP Evaluation Findings

4.2.A Structure

PRPP has central offices in Milledgeville GA; however, it is responsible for serving every state prison housing inmates with HIV released across the state. At the beginning of the study period there were approximately 40 state prisons, but over the study period several prisons closed. At the end to the study period there were 33 state prisons in Georgia.[42] [13] During the study, PRPP was staffed by a single coordinator responsible for every aspect of program operations and management. Funding for the program was provided by Ryan White and was allocated through the Georgia Department of Community Health. GDOC provided office space and a state vehicle for PRPP activities. The PRPP coordinator was a full-time employee of GDOC even though their position was possible because of Ryan White Funding. Specific structural challenges for PRPP included:

- A single staff member

- Geographically dispersed service sites
- Outdated computer technology
- Limited access to email while traveling
- Limited training opportunities in data collection and management
- A relational database that had not been updated since its creation in 2005
- Discrepancies between paper intake forms and the electronic database

Several stakeholders were identified with regard to PRPP:

- GDOC
- Georgia Department of Community Health
- Ryan White System of Care in Georgia
- Persons incarcerated in GDOC living with HIV
- Community Based Organizations serving reentry populations
- Community Based Organizations serving persons living with HIV
- Community Corrections: Parole and Probation

4.2.B Process

The grant funding PRPP outlined a very specific method of service delivery involving extensive data collection, contact during a specific timeframe prior to release, and multiple case management sessions. These expectations and restrictions limited the ability of the PRPP coordinator to provide services to some persons living with HIV in the GDOC. Aspects of the correctional system like frequent and unexpected transfer of inmates and early or unexpected release on parole affected the accessibility of inmates prior to release. Furthermore if a prison was on lock down or if the PRPP coordinator arrived at the wrong time during the day it was not possible to see clients even after

traveling more than 100 miles. Much time was spent traveling to and from greatly dispersed correctional facilities and largely this time was lost as unproductive.

With regards to the management of data there were not standard intervals for data entry. There were long periods of time between data collection and data entry, because the program was not staffed to support these activities in a timely manner. This was problematic because if missing or incorrect responses in the paper intake form were identified during data entry there was no guarantee for follow-up with the program participant to obtain accurate information. In addition, there were not any quality assurance measures built into the data entry process. It was possible to accidentally omit entire sections of information on a program participant while entering the data into the program's electronic database. For some participants all information on a particular topic was missing, and PRPP staff was unaware of these problems because they were not actively utilizing the information in the database for daily activities or population surveillance. This was largely because the design of the database made it extremely difficult to use, especially with a low level of experience or training. For most fields in the database there were no parameters restricting erroneous entries or dropdown list with a standardized set of automated responses. The practice of entering dates in different formats depending on the section of the database created a problem, it was necessary to reformat the dates to determine the length of time between some events. For example in different sections of the database infection with Hepatitis C was denoted in all of the following ways:

HCV, HepC, Hepatitis C, HCV infected, Hep C +, Hep C pos

These problems and inconsistencies rendered the program's relational database of little use for surveillance purposes without extensive data cleaning. Furthermore because PRPP staff did not have the adequate training in using and managing relational databases it was also not even used for routine program reporting. Parallel data storage was being done using Microsoft Excel because the staff felt more comfortable and better equipped to use this software contrasted with Microsoft Access, on which they little or no formal training.

4.2.C Outcomes

Outcomes of the PRPP can be assessed through participant satisfaction with the services as done through the qualitative interviews. However, it is also important to consider the reach of the program. The program model of PRPP considered during this evaluation was only able to serve 25% of persons living with HIV in Georgia prisons. Three quarters of people with HIV leave prison without any specialized case management or referrals to medical care. General prison case managers may not even know if an inmate is living with HIV if the inmate does not disclose their status.

PRPP was not generating any detailed reports on the population they were serving using the extensive relational database which they were required to maintain as a requirement of their funding. Upon examining the database, numerous inconsistencies and errors were observed. It was also not possible for PRPP to easily share important client level information in a timely matter with community partners delivering post-release services.

5 Conclusions & Recommendations

5.1 Summary of Qualitative & Evaluation Findings

This study includes some inherent limitations. With regard to the qualitative data, it is important to note that 20 of the people who agreed to be contacted for qualitative interviews could not be located. Many of these people did not have an address to which they could be released, and they undoubtedly represent some of the most vulnerable persons with HIV leaving Georgia's prisons. It is noteworthy that of the 20 PRPP participants whom we were *unable* to locate and interview, seven were back in State prison or were in jail by the end of our year-long evaluation period, and three had failed to report to their parole or probation officers. We were unable to locate an additional ten persons at all, four of whom had incorrect addresses on file. Six others served their entire sentence and were released, commonly referred to as 'maxing out' of prison. These six reentrants had no permanent addresses on file and were released with homeless shelters as locating addresses.

We found that it was ultimately housing, income, stigma, risk behaviors, health and mental health conditions that most strongly affected post-release outcomes in the months after leaving prison. Initial linkage to care and access to one's medical records was important, but became less significant in overall outcomes as the realities of the overwhelming reentry challenges strained reentrants. PRPP successfully addressed the HIV/AIDS needs of study participants by setting up appointments for medical care with their local Ryan White clinic. Participants found linkage to HIV care helpful; however, they felt that the program was not successful in linking them to housing or income. In

addition, PRPP had very limited capacity to have an impact on post-release experiences of stigma and temptations to return to risk behaviors.

The evaluation of PRPP indicates that there are several areas for improvement in structure and process that may improve outcomes. Primary changes are needed in the structure of the program to make process changes a possibility. It is impossible for a single staff person to fulfill all the duties of PRPP and be simultaneously engaged in quality improvement of processes, even if resources are available from Ryan White.[14] Furthermore, until data collection is improved and follow-up is possible, it will be impossible to determine with any degree of certainty the effectiveness of the program through measurable quantitative outcomes. Data collection is an essential component of any quality improvement effort.[43] [44]

5.2 Policy Recommendations & Strategy for Quality Improvement

In light of the results of the present study, the following policy changes and recommendations for quality improvement are essential to ensure that persons living with HIV in the GDOC receive discharge services that will make access to care following release a genuine reality:

- PRPP should receive more funding to expand the existing program to include two pre-release Coordinators and a full time data manager.
- Technological upgrades should be made to PRPP computers.
- The PRPP database should be restructured to better meet the needs of the current program.
- Every PRPP staff member should have training in use of an Access Database.
- A continuous quality improvement perspective should be instilled in PRPP staff.

- Use of available grant dollars to address post-release challenges including housing, substance abuse treatment and mental health treatment should be seriously considered.

5.3 Conclusions

Our findings demonstrate the importance of social determinants of health in affecting HIV adherence outcomes for special populations like formerly incarcerated persons. The Centers for Disease Control and Prevention recognizes that formerly incarcerated persons bear a disproportionate burden of chronic health conditions, mental health conditions and substance abuse disorders. All of these complications interfere with utilization of necessary health services at the structural level. Efforts to ensure continuity of care fall short when all the needs of an individual are not addressed through reentry programming. Very few options exist which address the whole array of needs an individual faces upon release into the community. Larger structural issues which cannot be easily addressed through individual interventions must be considered in order to address the needs of this special population.[45]

References

1. Baillargeon J, Black SA, Leach CT, et al. The infectious disease profile of Texas prison inmates. *Prev Med*. 2004;38(5):607-612.

2. Freudenberg N. Jails, prisons, and the health of urban populations: a review of the impact of the correctional system on community health. *J Urban Health*. 2001;78(2):214-235.

3. Anon. CDC - NCHHSTP State Profiles. Available at: http://www.cdc.gov/nchhstp/stateprofiles/usmap.htm. Accessed November 8, 2011.

4. Anon. HIV/AIDS - Georgia - Kaiser State Health Facts. Available at: http://www.statehealthfacts.org/profileind.jsp?cat=11&sub=129&rgn=12. Accessed November 13, 2011.

5. Anon. *Pew Center on the States, One in 31: The Long Reach of American Corrections*. Washington, D.C.: The Pew Charitable Trusts; 2009.

6. Anon. *Inmate Statistical Profile, Inmates Admitted During FY2010*. Georgia Department of Corrections; 2010:94. Available at: http://www.dcor.state.ga.us/Research/Annual/Profile_inmate_admissions_FY2010.pdf.

7. Desai AA, Latta ET, Spaulding A, Rich JD, Flanigan TP. The importance of routine HIV testing in the incarcerated population: the Rhode Island experience. *AIDS Educ Prev*. 2002;14(5 Suppl B):45-52.

8. Springer SA, Pesanti E, Hodges J, et al. Effectiveness of antiretroviral therapy among HIV-infected prisoners: reincarceration and the lack of sustained benefit after release to the community. *Clin. Infect. Dis.* 2004;38(12):1754-1760.

9. Stephenson BL, Wohl DA, Golin CE, et al. Effect of release from prison and re-incarceration on the viral loads of HIV-infected individuals. *Public Health Rep*. 2005;120(1):84-88.

10. Nunn A, Cornwall A, Fu J, et al. Linking HIV-positive jail inmates to treatment, care, and social services after release: results from a qualitative assessment of the COMPASS Program. *J Urban Health*. 2010;87(6):954-968.

11. Palepu A, Tyndall MW, Chan K, et al. Initiating highly active antiretroviral therapy and continuity of HIV care: the impact of incarceration and prison release on adherence and HIV treatment outcomes. *Antivir. Ther. (Lond.)*. 2004;9(5):713-719.

12. Anon. AIDS Diagnosis Rate by R/E - Kaiser State Health Facts. Available at: http://www.statehealthfacts.org/comparetable.jsp?ind=847&cat=11. Accessed October 21, 2011.

13. Resni C. Pre-Release Planning Program of the Georgia Department of Corrections. 2010.

14. Anon. *Measuring What Matters:Allocation, Planning and Quality Assessment for the Ryan Whtie Care Act*. Washington, D.C.: Institute of Medicine; 2004. Available at: http://www.nap.edu/catalog/10855.html.

15. Rich JD, Holmes L, Salas C, et al. Successful linkage of medical care and community services for HIV-positive offenders being released from prison. *J Urban Health*. 2001;78(2):279-289.

16. Rapposelli KK, Kennedy MG, Miles JR, et al. HIV/AIDS in correctional settings: a salient priority for the CDC and HRSA. *AIDS Educ Prev*. 2002;14(5 Suppl B):103-113.

17. Arriola KRJ, Kennedy SS, Coltharp JC, et al. Development and implementation of the cross-site evaluation of the CDC/HRSA corrections demonstration project. *AIDS Educ Prev*. 2002;14(3 Suppl A):107-118.

18. Hammett TM, Harmon MP, Rhodes W. The burden of infectious disease among inmates of and releasees from US correctional facilities, 1997. *Am J Public Health*. 2002;92(11):1789-1794.

19. Wu ZH, Baillargeon J, Grady JJ, Black SA, Dunn K. HIV Seroprevalence among newly incarcerated inmates in the Texas correctional system. *Ann Epidemiol*. 2001;11(5):342-346.

20. Macalino GE, Vlahov D, Sanford-Colby S, et al. Prevalence and incidence of HIV, hepatitis B virus, and hepatitis C virus infections among males in Rhode Island prisons. *Am J Public Health*. 2004;94(7):1218-1223.

21. Kushel MB, Hahn JA, Evans JL, Bangsberg DR, Moss AR. Revolving doors: imprisonment among the homeless and marginally housed population. *Am J Public Health*. 2005;95(10):1747-1752.

22. Solomon L, Flynn C, Muck K, Vertefeuille J. Prevalence of HIV, syphilis, hepatitis B, and hepatitis C among entrants to Maryland correctional facilities. *J Urban Health*. 2004;81(1):25-37.

23. Rosen DL, Schoenbach VJ, Wohl DA, et al. Characteristics and behaviors associated with HIV infection among inmates in the North Carolina prison system. *Am J Public Health*. 2009;99(6):1123-1130.

24. Spaulding AC, Seals RM, Page MJ, et al. HIV/AIDS among inmates of and releasees from US correctional facilities, 2006: declining share of epidemic but persistent public health opportunity. *PLoS ONE*. 2009;4(11):e7558.

25. Gupta S, Altice FL. Hepatitis B virus infection in US correctional facilities: a review of diagnosis, management, and public health implications. *J Urban Health*. 2009;86(2):263-279.

26. Baillargeon J, Wu H, Kelley MJ, et al. Hepatitis C seroprevalence among newly incarcerated inmates in the Texas correctional system. *Public Health*. 2003;117(1):43-48.

27. Hiller ML, Webster JM, Garrity TF, et al. Prisoners with substance abuse and mental health problems: use of health and health services. *Am J Drug Alcohol Abuse*. 2005;31(1):1-20.

28. Rosen DL, Schoenbach VJ, Wohl DA. All-cause and cause-specific mortality among men released from state prison, 1980-2005. *Am J Public Health*. 2008;98(12):2278-2284.

29. Hudson AL, Nyamathi A, Bhattacharya D, et al. Impact of prison status on HIV-related risk behaviors. *AIDS Behav*. 2011;15(2):340-346.

30. Narevic E, Garrity TF, Schoenberg NE, et al. Factors predicting unmet health services needs among incarcerated substance users. *Subst Use Misuse*. 2006;41(8):1077-1094.

31. Baillargeon J, Ducate S, Pulvino J, et al. The association of psychiatric disorders and HIV infection in the correctional setting. *Ann Epidemiol*. 2003;13(9):606-612.

32. Scheyett A, Parker S, Golin C, et al. HIV-Infected Prison Inmates: Depression and Implications for Release Back to Communities. *AIDS Behav*. 2010;14(2):300-307.

33. Spaulding AC, Seals RM, McCallum VA, et al. Prisoner survival inside and outside of the institution: implications for health-care planning. *Am. J. Epidemiol.* 2011;173(5):479-487.

34. Baillargeon J, Giordano TP, Harzke AJ, et al. Predictors of reincarceration and disease progression among released HIV-infected inmates. *AIDS Patient Care STDS*. 2010;24(6):389-394.

35. Fontana L, Beckerman A. Recently released with HIV/AIDS: primary care treatment needs and experiences. *J Health Care Poor Underserved*. 2007;18(3):699-714.

36. Baillargeon JG, Giordano TP, Harzke AJ, et al. Enrollment in outpatient care among newly released prison inmates with HIV infection. *Public Health Rep*. 2010;125 Suppl 1:64-71.

37. Schady FF, Miller MA, Klein SJ. Developing practical "tips" for HIV/AIDS service delivery in local jails. *J Public Health Manag Pract*. 2005;11(6):554-558.

38. Harzke AJ, Ross MW, Scott DP. Predictors of post-release primary care utilization among HIV-positive prison inmates: a pilot study. *AIDS Care*. 2006;18(4):290-301.

39. Belenko SR, Shedlin M, Chaple M. HIV risk behaviors, knowledge, and prevention service experiences among African American and other offenders. *J Health Care Poor Underserved*. 2005;16(4 Suppl B):108-129.

40. Hatcher SS, Toldson IA, Godette DC, Richardson JB Jr. Mental health, substance abuse, and HIV disparities in correctional settings: practice and policy implications for African Americans. *J Health Care Poor Underserved*. 2009;20(2 Suppl):6-16.

41. Wohl DA, Scheyett A, Golin CE, et al. Intensive case management before and after prison release is no more effective than comprehensive pre-release discharge planning in linking HIV-infected prisoners to care: a randomized trial. *AIDS Behav*. 2011;15(2):356-364.

42. Anon. GDC Annual Report Fiscal Year 2009. Available at: http://www.dcor.state.ga.us/Research/Annual/GDC_annual_report_FY2009.pdf. Accessed November 8, 2011.

43. Indyk L, Indyk D. Collecting data along the continuum of prevention and care: a Continuous Quality Improvement approach. *Soc Work Health Care*. 2006;42(3-4):47-60.

44. Anaraki S, Plugge E, Hill A. Delivering primary care in prison: the need to improve health information. *Inform Prim Care*. 2003;11(4):191-194.

45. Anon. CDC - Social Determinants of Health. Available at: http://www.cdc.gov/socialdeterminants/. Accessed November 12, 2011.