Nurses' Knowledge, Attitudes and Documentation Practices in a Context of HIV Criminalization: A Secondary Subgroup Analysis of Data From California, Florida, New York, and Texas Nurses

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Preamble

I have been working with Dr. J. Craig Phillips since the winter of 2012. I approached Dr. Phillips through the University of Ottawa Undergraduate Research Opportunity Program (UROP). During the course of the program, I conducted a literature review and designed a survey to evaluate health care providers' knowledge of HIV criminal laws in North America (Canada and United States). The survey was sent through the Association of Nurses in AIDS Care (ANAC) and the Canadian Association of Nurses in AIDS Care (CANAC) email distribution lists. With the data from the survey in hand, Dr. Phillips and I submitted a research proposal to the Elton John AIDS Foundation (EJAF) in collaboration with ANAC. EJAF granted the funds to conduct a focused study of the southern states in regard to nurses' knowledge of HIV criminal laws. The initial survey that was piloted in Canada and the United States through ANAC and CANAC was modified and distributed through ANAC, the American Nurses Association (ANA) and the International Association of Forensic Nurses (IAFN). Data were collected for the whole country, not just the southern states, paying specific attention to California, Florida, New York, and Texas. Coming from a Canadian university, it would have been interesting to concentrate on Canada. However, the opportunity of working with a large data set in collaboration with several nurses' associations was one that I could not pass by. Further supporting this decision, HIV criminalization models existing in certain U.S. states resemble the Canadian HIV criminalization model, which allows for collaboration between scholars and members of HIV advocacy organizations in finding solutions to help nurses navigate the medico-legal borderland of HIV criminalization.

Acknowledgments

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Abstract

Under international legal norms, HIV criminalization is considered to be an overly broad use of criminal law. In the United States, at least 33 states have HIV-specific criminal laws. Data from California, Florida, New York, and Texas nurses provided exemplars from different HIV-related criminal law approaches and the impact of those laws on nurses' practices. Nurses who cared for patients who expressed fears or concerns about HIV criminalization or patients who had been arrested for HIV-related crimes were more likely to correctly identify the presence or absence of HIV-specific laws in the states where they practised, when compared to nurses who did not care for such patients. Lack of knowledge about HIV-related criminal laws may erode the nurse-patient relationship. Jurisdiction specific education should be created and offered to nurses in order to address this knowledge gap and protect the dignity of people living with HIV.

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Chapter 1

The Problem

The United Nations and AIDS (UNAIDS; 2013) considers criminalization[1] of the human immunodeficiency virus (HIV) an overly broad use of criminal law. Numerous studies have shown that attempting to manage HIV through enforcing criminal laws is ineffective in reducing the risk of HIV transmission (e.g., Burris, Beletsky, Burleson, Case, & Lazzarini, 2007; Earnshaw & Chaudoir, 2009; Goo, 2015; Mykhalovskiy, 2011). HIV criminal laws do not increase testing rates, and neither do they decrease transmission rates (Burris & Cameron, 2008; Cameron, Burris, & Clayton, 2008; O'Byrne, Bryan, & Roy, 2013; Phillips, Webel, et al., 2013). The current literature on HIV-related criminal laws highlights challenges for people living with HIV (PLWH) and for nurses who work in clinics, communities, and public health settings (Cameron et al., 2008; Gagnon, 2012).

The implications of criminalization on nursing practice must be explored to ensure the most effective response to the HIV epidemic (Mykhalovskiy, 2011; O'Byrne et al., 2013). Using HIV-related criminal laws increases the complexity of nursing practice when caring for PLWH. For example, health records—including nursing documentation—can be subpoenaed and used against PLWH during prosecutions for HIV-related crimes (Center for HIV Law and Policy, 2014). Viewing their role differently, nurses may therefore modify their documentation practices to protect PLWH against criminal prosecutions (Mykhalovskiy, 2011; O'Byrne, 2011; Sanders, 2014). Unfortunately, only scarce information is available about nurses' knowledge of HIV-

[1] In this thesis, the terms *HIV-related criminal law(s)*, *HIV criminalization*, and *HIV-related crimes* include any law or prosecution (actual or potential) that takes into consideration HIV status during prosecutorial proceedings. Only laws that specifically criminalize the exposure and/or transmission of HIV are referred to as HIV-specific laws.

related criminal laws and the impact of HIV criminalization on their practices (O'Byrne & Gagnon, 2012; O'Byrne et al, 2013). Additionally, only limited educational resources have been developed for nurses to increase their knowledge of the law and to help them navigate their work within a context of HIV criminalization. Reducing these knowledge gaps may be started by exploring what factors are associated with nurses' practice. Specific recommendations may thereby be identified, to inform the development of education initiatives tailored to the legal context. In this thesis, the legal context comprises the United States in general and the states of California, Florida, New York, and Texas in particular.

HIV Epidemiology

Worldwide, in 2014 an estimated 37 million people were living with HIV, and in that same year, 1.2 million people died of HIV-related illnesses worldwide (World Health Organization, 2016). In 2013, in the United States, the highest rates of HIV were recorded among African Americans aged 20 to 24 (135.3/100,000 inhabitants) and 25 to 29 (131.4/100,000 inhabitants). According to the Centers for Disease Control and Prevention (CDC; 2013), male-to-male sexual contact was the transmission method responsible for the highest incidence levels of HIV amongst Black male adolescents or adults (12,069 new infections in 2013). Male-to-male sexual contact, regardless of race or ethnicity, was responsible for the highest incidence of HIV in the United States; new HIV infections numbered 30,689 in 2013 (CDC, 2013).

HIV Criminalization Internationally

In a joint report, the Global Network of People Living with HIV (GNP+) and the HIV Justice Network (2013) identified a list of 30 global "hot spot" jurisdictions, in North America, Australia, and Scandinavia. In these jurisdictions, people have been arrested based on their HIV

status. Jurisdictions within the United States compose nearly half of all global hot spots, with 12 states in the hot spot list, including Florida. At the time of the report, prosecutors in the state of Florida had prosecuted 239 PLWH for HIV-related crimes, representing approximately 0.2% of the total number of PLWH in Florida (GNP+ & HIV Justice Network, 2013). In addition to the 30 global hot spots, PLWH have been prosecuted elsewhere in the world as well (GNP+ & HIV Justice Network, 2013, 2016). This is a particularly big concern in Africa, where this judiciary danger is posed to the high number of PLWH on the continent (Burris & Cameron, 2008; Cameron, 2009).

HIV criminalization in the United States. The U.S. federal government adopted a legal approach to manage the HIV/acquired immunodeficiency syndrome (AIDS) epidemic in the late 1980s and early 1990s. They were guided by the *Report of the Presidential Commission on the Human Immunodeficiency Virus Epidemic* (1988) and the Ryan White Comprehensive AIDS Resources Emergency (CARE) Act of 1990 (Newman, 2013). The *Report of the Presidential Commission on the HIV Epidemic* recommended that HIV-specific laws criminalizing the intentional transmission of HIV should be used only as a last resort, and that only behaviours that had been scientifically proven to transmit HIV should be criminalized (Newman, 2013). The Presidential Commission's hope was that specific statutes would deter high-risk behaviours and help prevent the spread of HIV (Newman, 2013). Since then, PLWH have been prosecuted in the United States under HIV-specific criminal laws and under existing criminal laws such as sexual assault and reckless endangerment (Center for HIV Law and Policy, 2014).

Currently, at least 33 U.S. states have HIV-specific criminal laws (Lehman et al., 2014). The content of HIV-specific criminal laws varies across states, and at the time of the survey launch, there were no standards for when the statutes should be applied (Center for HIV Law and

Policy, 2014). This has led to different interpretations of what constitutes HIV-related criminal behaviours between and within states. However, on July 15, 2014, as a first step in the modernization of HIV-related criminal laws, the U.S. Department of Justice (Civil Rights Division, 2014) released a guide titled *Best Practices Guide to Reform HIV-Specific Criminal Laws to Align with Scientifically-Supported Factors*, in an attempt to link HIV-specific criminal laws with the scientific knowledge about HIV transmission.

Variability in HIV-related prosecutorial approaches is evident in U.S. prosecutions that have taken place. Some have used HIV-specific laws, while others have used a combination of HIV-specific laws and existing criminal laws, or solely existing criminal laws (Center for HIV Law and Policy, 2014). Charges levied against PLWH prosecuted under existing criminal laws have included reckless endangerment, assault, aggravated assault, aggravated assault with a deadly weapon, sexual assault, sexual assault with a deadly weapon, terroristic threats, attempted homicide, and homicide, among others (Center for HIV Law and Policy, 2014). In 1986, the states of Florida, Tennessee, and Washington were the first states to use the criminal law to manage HIV epidemics (Lehman et al., 2014). Between 2008 and 2015, prosecutions for HIV-related crimes in the United States numbered 218 (Center for HIV Law and Policy, 2015).

Impact of HIV Criminalization on PLWH

HIV criminalization has a direct impact on PLWH. It increases stigma towards this population, who are now also portrayed as criminals in addition to persons living with a medical diagnosis. It makes them fear prosecution and incarceration and creates a feeling of ambivalence about HIV disclosure. In addition, it negatively impacts health outcomes for this population (Earnshaw & Chaudoir, 2009). PLWH report a fear of being prosecuted and charged with serious crimes that may have disproportionate sentences compared to other crimes (Center for HIV Law

and Policy, 2013; Lichtenstein, Whetten, & Rubenstein, 2013; O'Byrne et al., 2013). For example, in Tennessee, when PLWH are prosecuted for an HIV-specific crime, they may be sentenced to anywhere from 3 to 15 years' imprisonment (Center for HIV Law and Policy, 2013). However, actual sentences in that state have reached 26.5 years' imprisonment, and some of those prosecuted have also been registered on the Sex Offender Registry (Center for HIV Law and Policy, 2013). In comparison, Tennessee's sentences for vehicular homicide range from 3 to 5 years' imprisonment (Center for HIV Law and Policy, 2014). Despite the loss of life in vehicular homicide situations, the only requirement to criminalize an HIV behaviour is exposure to the virus (Center for HIV Law and Policy, 2013). The disproportionate difference in sentencing practices for both crimes within the same legal jurisdiction reflects the long-held stigma associated with HIV (Earnshaw & Chaudoir, 2009). Not only are PLWH required to manage their HIV symptoms and the psychosocial challenges inherent to an HIV diagnosis, they face ambivalence regarding their duty to disclose, they deal with HIV-related stigma, and they are portrayed as potential criminals (Cameron et al., 2008; Center for HIV Law and Policy, 2013, 2014; Dej & Kilty 2012; Lazzarini, Bray, & Burris, 2002; Miller, 2005; Mykhalovskiy, 2011).

Impact of HIV Criminalization on Nursing Practice

The nursing role in HIV care spans the whole spectrum of primary health care, ranging from prevention through treatment and caring for the dying. Nurses are negatively affected by HIV criminalization because they are at the forefront of HIV testing, prevention, treatment, and care (O'Byrne, 2011; Gagnon, 2012). The use of criminal law to manage HIV may impede nurses' ability to provide adequate levels of care, because PLWH and those at risk of acquiring HIV are less forthcoming with their sexual and disclosure practices, out of fear of prosecution (Lichtenstein et al., 2013; Mykhalovskiy, 2011). HIV criminalization erodes existing therapeutic

relationships between nurses and PLWH and interferes with the creation, development, and maintenance of healthy, therapeutic nurse-patient relationships. These are essential for the delivery of individual nurse-patient interventions (Mykhalovskiy, 2011), which are effective in managing treatment and reducing transmission rates (Galletly & Pinkerton, 2006; Scambler, 2009).

In their professional role, nurses are not supposed to harm patients, but HIV criminalization has pushed some, despite their best intentions, to harm patients by playing a role in the incarceration of PLWH for having exposed or transmitted HIV to another person (Center for HIV Law and Policy, 2014; Sanders, 2014). Nurses' documentation of information given by patients in private sessions can be used as testimony against the patients in criminal prosecutions, or as evidence during prosecution or at trial (Center for HIV Law and Policy, 2014; O'Byrne, 2011; O'Byrne & Gagnon, 2012; Phillips, Domingue, & Morrisseau-Beck, 2013; Sanders, 2014, 2015). In this instance, patients may perceive the nurse's role as changing from caring to policing (Lichtenstein et al., 2013). If PLWH view nurses as police, they may feel censored and share less information with nurses out of fear of prosecution (Lichtenstein et al., 2013; Mykhalovskiy, 2011).

Being at the forefront of HIV prevention initiatives such as testing and treatment adherence, nurses must learn to navigate the sociopolitical context of HIV criminalization and help PLWH and those at risk of acquiring HIV to navigate this complex territory (O'Byrne, 2011; Gagnon, 2012). Without knowledge of the laws that regulate HIV in their areas of practice, nurses can have difficulty addressing patients' questions about the legal context of HIV.

Research Objectives

The research project was carried out to achieve the following three research objectives:

1. Explore the factors associated with nurses' knowledge of HIV-related criminal laws in the jurisdiction where they practise.
2. Explore the factors associated with nurses' attitudes with regard to expertise in a context of HIV criminalization.
3. Explore the factors associated with the alteration of nursing documentation in a context of HIV criminalization.

Design

This study is a secondary subgroup data analysis from a larger cross-sectional survey. The larger cross-sectional survey was designed as a needs assessment of nurses' knowledge of HIV-related criminal laws and the impact of those laws on nursing practices in the United States. The study was led by Dr. J. Craig Phillips in collaboration with the Association of Nurses in AIDS Care (ANAC) and with the support of the American Nurses Association (ANA). Financial support was provided in part by a grant from the Elton John AIDS Foundation (EJAF).

Survey data were obtained from nurses in all 50 states and the District of Columbia. This analysis focused on the information provided by California, Florida, New York, and Texas nurses. They were considered exemplars for comparing and contrasting nurses' knowledge of HIV criminal laws and the impact of different HIV-related criminal law approaches. These states are among the most populous in the United States, each with a substantial population of persons living with or at risk of acquiring HIV. These states also use different legal models of criminalizing HIV. The states of California and Florida have HIV-specific criminal laws, while the states of New York and Texas do not. The states of California, Florida, and New York were also epicentres of the initial HIV epidemic in the early 1980s. Finally, as mentioned previously, the state of Florida was identified as a global hotspot for HIV criminalization.

Epistemological Reflection and Theoretical Framework: Ecosocial Theory

Through understanding factors associated with nurses' knowledge of HIV-related criminal laws and the impact of HIV-related criminal laws on their practice in the four selected jurisdictions, specific and targeted recommendations could be developed and have the possibility of being generalized to other jurisdictions. The study's goal was therefore to analyze quantitative data and provide recommendations, based on the results, which could be generalized to other states. The objectivity and generalization characteristics evident in the study's purpose are typically present in the realist ontological approach, an approach adopted in the postpositivistic paradigm (Guba & Lincoln, 1994). In a postpositivistic paradigm, a study's objectives lead to quantitative descriptions and an analysis of factors.

Nancy Krieger's (2008) ecosocial theory guided the larger cross-sectional study, guided the present study, and guided the creation of the survey used in the primary study. Ecosocial theory was created to include the often forgotten social aspects of health without completely rejecting the biomedical perspective (Krieger, 1994, 2008). The theory enables the user to consider class, gender, and ethnic/racial characteristics of a population over their life course, without forgetting the power dynamics that influence the distribution of health care in a society (Kreiger, 2001, 2008). The U.S. HIV epidemics have certain characteristics that justify the use of ecosocial theory: HIV has evolved among sexual and ethnic minorities in the United States; HIV is a virus that has been regulated and managed using societal power demonstration mechanisms, such as legislation; and these factors have influenced the distribution of health services to PLWH (Newman, 2013).

Additionally, ecosocial theory enables the researcher to structure the causation dynamics involved in health distribution problematics (Krieger, 1994). Using this theoretical framework,

health distribution issues in modern political settings can be analyzed (Krieger, 2012; Phillips, Webel, et al., 2013). The framework refrains from simplifying complex health issues into "distal" and "proximal" areas of a problem, suggesting rather a much more complete and dynamic model of health distribution (Krieger, 2008). A more in-depth explanation of the theoretical framework can be found in Chapter 3.

Chapter 2

Background and Significance

This chapter is organized in two sections. First, I explore the HIV legal context in the United States with a particular focus on the states of California, Florida, New York, and Texas. Second, I discuss the implications of HIV criminalization on PLWH, on nurses, on the nurse-patient relationship, and on public health initiatives.

HIV Criminalization in the United States

To control the spread of HIV in the mid-1980s, some states resorted to the use of criminal laws to manage the disease (Lehman et al., 2014). The first states to use criminal laws to manage HIV were Florida, Tennessee, and Washington, in 1986 (Lehman et al., 2014). Two years later, the *Report of the Presidential Commission on the HIV Epidemic* (1988) suggested that states consider the use of specific criminal laws to manage the HIV epidemics if public health initiatives were unsuccessful, and mentioned that criminalization should only be used as a last resort (Newman, 2013). In 1990, the Ryan White Comprehensive AIDS Resources Emergency Act (Ryan White CARE Act) was adopted by Congress (Newman, 2013). In order to receive federal funding to support people who were living with HIV and dying from AIDS, states were obligated by the Ryan White CARE Act to have a clearly defined law that criminalized HIV exposure (Newman, 2013; Ryan White CARE Act, 1990). In 2000, due to the negative impact on public health initiatives, the federal requirement for states to enact HIV-specific criminal laws as a condition for funding was eliminated (Newman, 2013).

Despite this change, there are still 33 states that specifically criminalize HIV (Lehman et al., 2014). The period 2008 to 2015 saw 226 prosecutions for HIV-related crimes in the United States (Center for HIV Law and Policy, 2015). Some states criminalize nondisclosure of HIV,

while other states criminalize exposure to HIV. Some states take into consideration the intent to transmit the virus and yet others do not. The use of barrier protection during sexual activity (e.g., condoms) is relevant in some states, while it is irrelevant in others. Some states criminalize sexual behaviours that have negligible or no risk of transmitting HIV, such as mutual masturbation or the use of sex toys; other states only specifically criminalize penile-vaginal or penile-anal penetration.

To complicate matters, in addition to the 33 states that specifically criminalize HIV, other states prosecute PLWH for HIV-related crimes under existing criminal laws and/or allow for enhancement of sentences for certain crimes (e.g., rape, sodomy or engaging in or soliciting prostitution) based solely on HIV status. Criminal charges used to prosecute persons for HIV-related crimes include reckless endangerment, assault, aggravated assault, aggravated assault with a deadly weapon, sexual assault, sexual assault with a deadly weapon, terroristic threats, attempted homicide, and homicide (Center for HIV Law and Policy, 2014). In Canada, common law is used to prosecute PLWH for HIV-related crimes.

These examples of the variability in ways PLWH can be prosecuted for HIV-related crimes and the potential for different interpretations of what constitutes HIV-related criminal behaviour are also observed in the laws of the states of California, Florida, New York, and Texas—the exemplar states explored in this study. These laws represent the broad spectrum of the laws that are used in the United States to prosecute PLWH; however, they do not constitute an exhaustive list of the HIV-related criminal laws that exist across the multiple legal jurisdictions in the United States (Table 2.01).

Table 2.01
Characteristics of Laws That Criminalize Potential HIV Exposure in California, Florida, New York, and Texas[a]

Key statutory characteristics	California	Florida	New York*	Texas*
Disclosure requirements				
To sex partners	X	X		
To needle-sharing partners				
Sentence enhancement	X	X		
Maximum sentence length				
Up to 10 years	X	X		
11-20 years				
Greater than 20 years				
Not explicitly quantified				
Potential transmission behaviours criminalized				
Donation of blood, tissues, and fluids	X	X		
Prostitution/solicitation	X	X		
Biting/spitting/throwing				
Mutual masturbation				
Sharing sex objects				
Oral sex[c]		X		
Vaginal sex	X	X		
Anal sex	X	X		
Defences				
Disclosure (with burden of proof of lack of disclosure on prosecution)	X	X		
Disclosure (as an affirmative defense)				
Condom use	X			

Note. Adapted from J. S. Lehman, M. H. Carr, A. J. Nichol, A. Ruisanchez, D. W. Knight, A. E. Langford, S. C. Gray, and J. H. Merman. (2014). Prevalence and Public Health Implications of State Laws that Criminalize Potential HIV Exposure in the United States. AIDS and Behaviour, 18(6), 997-1006 (p. 1001). aData presented in this table represent the cumulative characteristics of all HIV-specific criminal laws in the states of California, Florida, New York, and Texas. *New York and Texas do not have HIV-specific criminal laws.

HIV Criminalization in California

HIV is criminalized in many ways in California, under both the Health and Safety Code and the Penal Code (Center for HIV Law and Policy, 2014). Nondisclosure of HIV status when

engaging in an activity that can lead to HIV transmission (e.g., sex, drug use, and blood or organ donation) is illegal under these codes. It is important to note that the California Health and Safety Code defines "sexual activity" as penile-vaginal or penile-anal penetration regardless of the sex of the individuals participating in the activity. The definition excludes oral sex. Under the Penal Code of California, it is a crime for a PLWH, who is aware of his or her HIV diagnosis, to donate bodily fluids such as blood, breast milk, or semen. In addition, in California, the use of a condom or other form of protection during the sexual activity is considered an affirmative defence.

None of the HIV-related statutes in California require the actual transmission of HIV for prosecution. California's HIV-related laws differ from the laws in New York and Texas in that California has HIV-specific criminal laws. For prosecution to take place, section 120291 of the California Health and Safety Code mandates evidence of intent to transmit HIV. Prosecution is possible even if there is no transmission of the virus. That is, it is the intent to transmit, not the actual transmission of HIV, that is punishable under this law.

PLWH can also be prosecuted for HIV-related crimes in the form of sentence enhancement or under existing criminal laws in California. Sentences can be enhanced if a PLWH is found guilty of crimes such as rape, sodomy, or engaging in or soliciting prostitution (Center for HIV Law and Policy, 2014). Again, transmission is not required for a person to be prosecuted for these crimes. Examples of existing criminal laws under which a PLWH can be prosecuted for exposing another person to HIV include aggravated assault and exposing another person to a communicable disease (Center for HIV Law and Policy, 2014). In these cases, neither intent nor transmission has to occur for the PLWH to be prosecuted. The following are case examples from California that showcase the prosecution of PLWH under HIV-specific statutes,

sentence enhancements due to HIV status, and prosecution under California's existing criminal laws (Table 2.02).

Table 2.02
Exemplars of Prosecutions for HIV-Related Crimes in California

HIV-specific statute	Sentence enhancement	Existing criminal laws
There has only been one person charged under California's HIV-specific statute (Center for HIV Law and Policy, 2014). A 41-year-old man living with HIV was charged in 2010 after having unprotected sexual encounters with the intent to transmit HIV (Center for HIV Law and Policy, 2014).	Sentence enhancement cases are rare but have occurred in the past. In 1998, a PLWH had consensual unprotected sexual intercourse without disclosing his HIV-positive status; his sentence was enhanced by 9 years because he was HIV infected (Center for HIV Law and Policy; 2014)	While being arrested for other, unrelated crimes, a PLWH spat in a police officer's face while saying comments conveying the message that the police officer would die from HIV (Center for HIV Law and Policy, 2014). PLWH was charged with "making criminal threats" (Center for HIV Law and Policy, 2014).

In summary, California specifically criminalizes HIV. If a PLWH engages in unprotected sexual activities with another person without disclosing his or her HIV diagnosis and with the intent of transmitting HIV, that person can be charged under the Health and Safety Code. It is also illegal for a PLWH to donate bodily fluids and organs if they are aware of their HIV diagnosis. California law endorses sentence enhancements for existing sexual assault crimes if the accused person is living with HIV. Finally, the state of California has also prosecuted PLWH under less-serious existing criminal code charges.

HIV Criminalization in Florida

Florida, similar to California, specifically criminalizes HIV. It is illegal in Florida not to disclose one's HIV status before engaging in an act that can lead to transmission (e.g., sex, drug use, blood or organ donation, engaging in or soliciting prostitution; Center for HIV Law and Policy, 2014). If the failure to disclose happens on numerous occasions, penalties can reach up to 30 years' imprisonment. It is also illegal in Florida to expose another person to HIV. Using protection (i.e., a condom) during sexual activities is not a defence under Florida law. The intent

to transmit the virus is not taken into account in HIV-related criminal cases in Florida. It is noteworthy that under the present Florida statute, "sexual conduct" corresponds to penile–vaginal penetration only. It is a felony in Florida to donate blood, tissues, or organs if you are aware of your HIV-positive status; it is also a felony to participate in any prostitution activity (Center for HIV Law and Policy, 2014). The statute that outlines the law regarding HIV and prostitution activities includes a definition of "sexual activity" that encompasses sexual acts including mutual masturbation—an act that is recognized as presenting a negligible risk for the transmission of HIV (Center for HIV Law and Policy, 2014; CDC, 2015).

Florida also allows sentence enhancements for PLWH who are prosecuted for other crimes, and for the prosecution of PLWH through the use of existing criminal laws (Center for HIV Law and Policy, 2014). Sentences linked to crimes such as sexual battery, incest and child abuse are enhanced if the person convicted of the crime tests positive for HIV regardless of whether transmission occurred. PLWH can be prosecuted for attempted murder, aggravated assault, and aggravated battery for not disclosing their HIV status before a possible transmission activity, or for having exposed someone to HIV (Center for HIV Law and Policy, 2014). Transmission does not have to occur for a person to be convicted of these crimes in Florida. Examples of cases from Florida showcase a prosecution of a person under the HIV-specific statute, a prosecution taking into consideration HIV status in a prostitution case, and a prosecution under Florida's general criminal laws (Table 2.03).

Table 2.03
Exemplars of Prosecutions for HIV-Related Crimes in Florida

HIV-specific statute	HIV in a prostitution case	Existing criminal laws
In August 2013, a 29-year-old man living with HIV was charged with infecting another person with HIV without disclosing his HIV status prior to the sexual encounter ("Fort Myers Man Arrested," 2013). The victim stated that the man living with HIV never disclosed his HIV status ("Fort Myers Man Arrested," 2013).	In June 2013, a 19-year-old woman working as a prostitute was charged with criminal transmission of HIV and soliciting prostitution ("Police: Nebraska Avenue," 2013).	A 35-year-old man living with HIV was charged with trespassing in January 2008 (Bernard, 2009). During transportation, the man got out of his handcuffs and got into a physical altercation with a police officer where he threatened to kill the police officer with HIV before biting his shin (Bernard, 2009). The man living with HIV was initially charged with attempted murder, found guilty of aggravated battery on a law enforcement officer and sentenced to 15 years in prison (Bernard, 2009).

In summary, Florida specifically criminalizes HIV. If a PLWH engages in sexual activities with another person without disclosing their HIV diagnosis, they can be criminally charged. It is also illegal for a PLWH to donate bodily fluids and organs if they are aware of their HIV diagnosis. In addition, Florida law allows sentence enhancements if the accused is living with HIV. Finally, the state of Florida has also prosecuted PLWH under existing criminal code charges.

HIV Criminalization in New York

New York has no laws that specifically criminalize HIV (Center for HIV Law and Policy, 2014). Nevertheless, section 2307 of the New York Public Health Law enables the prosecution of a person for having exposed another person to a venereal disease. HIV is not included in the state's list of venereal diseases described by the Public Health Law, but nothing is preventing its inclusion. No PLWH has been prosecuted under this statute (Center for HIV Law and Policy, 2014). New York has prosecuted PLWH under existing criminal laws such as reckless endangerment or aggravated assault. Actual transmission of the virus is not required for a person

to be prosecuted under New York law. In the state of New York, prosecutions of PLWH have occurred under existing criminal laws for violations such as rape, reckless endangerment, and aggravated assault. The following example showcases a prosecution in the state of New York under existing criminal code charges (Table 2.04).

Table 2.04
Exemplar of a Prosecution for HIV-Related Crimes in New York

Existing Criminal Laws
In 2006, a man living with HIV from the state of New York was charged and convicted of aggravated assault after biting a police officer during an altercation implicating numerous other officers (Center for HIV Law and Policy, 2014).
The courts justified the "aggravated" aspect of his charge, as they deemed his saliva to be a dangerous instrument (Center for HIV Law and Policy, 2014).
The man was sentenced to 10 years in prison despite the negligible level of risk associated with the transmission of HIV through saliva (CDC, 2015; Center for HIV Law and Policy, 2014; *People v. Plunkett*, 2012).
On June 7, 2012, the New York Court of Appeals vacated the 2006 decision, stating that bodily fluids such as saliva should never be considered a "dangerous instrument" (*People v. Plunkett*, 2012).

In summary, the state of New York does not have a law that specifically criminalizes HIV, but rather one that criminalizes the transmission of venereal diseases, although HIV is not on the list of venereal diseases. Furthermore, PLWH have never been prosecuted under that law. The state of New York uses general criminal laws to prosecute PLWH for exposing another person to HIV (Center for HIV Law and Policy, 2014).

HIV Criminalization in Texas

HIV-specific criminal laws are nonexistent in the state of Texas, but prosecutions of PLWH have occurred under existing criminal laws such as aggravated assault with a deadly weapon and attempted murder. In Texas, sperm and saliva from a PLWH have been considered deadly weapons in criminal trials (Center for HIV Law and Policy, 2014). Texas also uses HIV status to enhance sentences for other crimes in which HIV status can be relevant even if there is

no exposure to the virus. Below is an example that showcases a sentence enhancement due to HIV status in Texas, followed by an example of an HIV-related criminal prosecution under existing criminal law in Texas (Table 2.05).

Table 2.05
Exemplars of Prosecutions for HIV-Related Crimes in Texas

Sentence enhancement	Existing criminal laws
Even though contact between the two had not occurred and there was no possibility for HIV transmission to occur, the court ruled that the man's HIV status was relevant to his sentencing (Center for HIV Law and Policy, 2014).	In May 2009, a man living with HIV was charged and convicted of aggravated assault with a deadly weapon for having exposed women to HIV during sexual encounters (Druckerman & Welsh, 2009). Texas courts deemed his semen to be a deadly weapon (Druckerman & Welsh, 2009). At least three of these women tested positive for HIV (Druckerman & Welsh, 2009). After three confirmed HIV transmissions, the man was sentenced to serve 45 years in prison (Druckerman & Welsh, 2009).

This state-by-state (California, Florida, New York, and Texas) description demonstrates some of the different HIV-related criminal laws and scenarios present in the United States. HIV can be specifically criminalized, as it is in the states of California and Florida. PLWH can also be prosecuted for HIV-related crimes under existing criminal code violations such as assault, aggravated assault, reckless endangerment, and attempted murder. Sentence enhancement is another way a person's HIV status can be taken into consideration in court proceedings. Criminalizing HIV is considered an overly broad use of criminal law (UNAIDS, 2013) that is ineffective (Burris & Cameron, 2008) and counterproductive (Cameron, 2009) to public health interventions, and increases stigma towards PLWH (Galletly & Pinkerton, 2006).

Impact of HIV Criminalization

The criminalization of HIV has numerous ramifications. HIV-related criminal laws impact PLWH, nurses, the nurse-patient relationship and public health initiatives. These impacts are described in the following paragraphs.

Impact of HIV criminalization on PLWH. In 1963, Erving Goffman published his seminal work on stigma. Stigma in its most basic form is a *mark* a person has that is considered negative by society (Goffman, 1963). The mark is a product of the social construction of negative outcome thought to be derived from that mark (Earnshaw & Chaudoir, 2009). It corresponds to an undesired characteristic one person has that links him/her to a discredited group (Parker & Aggleton, 2003; Scambler, 2009). The group itself is negatively perceived by society. A person that wears the mark of the group will be negatively perceived because he/she is now a part of that group. In the context of HIV, stigma leads to discrimination against members of the marked group—the mark being HIV—and negatively affects the response to control the disease at a societal level (Dej & Kilty, 2012; UNAIDS, 2013).

The concept of stigmatization cannot be dissociated from the concept of power (Scambler, 2009) and power struggles (Link & Phalen, 2006). Stigmatization of a group is closely linked to discrimination towards that group. Scambler (2009) described how discrimination can resonate in social or health policy. Discrimination and stigmatization can take place at individual, institutional, and political/structural levels. HIV criminalization is an example of political/structural discrimination against PLWH and perpetuates stigmatization towards PLWH (Cameron et al., 2008; Galletly & Pinkerton, 2006).

Increased stigma towards PLWH can be observed through numerous channels and levels of power. On an individual level, laws that criminalize HIV make disclosure more difficult because of the possibility of being discriminated against and convicted of an HIV-related crime (Gagnon, 2012). A study conducted in the United Kingdom and Wales demonstrated that gay men had increased their anonymity because of HIV criminalization, becoming less open with their sexual partners about their HIV status (Dodds, Bourne, & Weait, 2009). The same men

reported that they no longer disclosed their status to their friends and they changed their HIV status on dating websites such as Gaydar (Dodds et al., 2009).

At an institutional level, the justice systems that utilize HIV-related criminal laws do not take into consideration the personal and social implications of disclosing HIV status (Burris & Cameron, 2008; Cameron, 2009; Galletly & Pinkerton, 2006; O'Byrne, 2011; O'Byrne & Gagnon, 2012). For some people, disclosure of HIV status may result in physical harm. This is especially true for many women. Women living with HIV involved in violent relationships may withhold disclosure because they know that it may put them in a situation of physical, emotional, psychological, and financial danger (Cameron et al., 2008).

In addition, HIV-related criminal laws in some jurisdictions across the United States are incongruent with the scientific knowledge about HIV transmission (UNAIDS, 2013). The risk of transmitting HIV often varies from case to case and is rarely taken into consideration during the prosecutorial process. Many factors may increase the probability of transmitting HIV (e.g., the presence of other sexually transmitted infections, lesions, sores) or decrease it (e.g., highly active antiretroviral therapy, engaging in less-risky sexual practices, use of barrier protection; Burris & Cameron, 2008). In Texas, a man was charged for harassing a public servant with a deadly weapon after he spit on a police officer. The deadly weapon in this case was the man's saliva, although, according to the CDC (2014), saliva had a negligible risk of transmitting HIV and had not been documented as a vehicle of transmission (Cameron, 2009; CDC, 2015).

HIV-related criminal cases are often sensationalized in the media, changing social perceptions about HIV and about PLWH, and increasing the stigmatization of PLWH (Dodds et al., 2009). In addition to them being perceived as HIV-positive by the general population, media reports portray PLWH as potential criminals who should be outcast from society (Center for HIV

Law and Policy, 2013, 2014; Dej & Kilty, 2012; Miller, 2005). Media sensationalism increases health care professionals' fear of possible negative repercussions for their patients (Mykhalovskiy, 2011).

Criminalization and stigmatization are not dissociable in a context of HIV and, by that fact, also affect public health initiatives designed to manage HIV (Galletly & Pinkerton, 2006). On a societal level, HIV criminalization increases the negative social consequences inherent in an HIV diagnosis (Dodds et al., 2009). Sexual behaviours and the risks associated with them are subject to being interpreted by societal values and perceptions that may bias decisions in court proceedings (Burris & Cameron, 2008). For example, HIV-related criminal laws assume that PLWH have bad intentions (Cameron et al., 2008). This assumption can also be observed on an institutional level. It takes two people to transmit HIV, so the responsibility of HIV should also be shared (Gagnon, 2012). However, HIV-related criminal laws put the blame for HIV exposure on one person (the PLWH) instead of sharing the responsibility between two consenting adults that participated in the behaviour that led to the HIV exposure (Cameron et al., 2008).

Impact of HIV criminalization on nurses. Explaining the impact of HIV criminalization on nurses is complicated. To help simplify and organize a discussion of the issues, this section is divided in two subsections. The first subsection describes the impact of HIV criminalization on the perceived scope of nursing practice. The second subsection describes the impact of HIV criminalization on nursing documentation.

Impact of HIV criminalization on the perceived scope of nursing practice. HIV-related criminal laws have the potential to change the scope of nursing practice. HIV criminalization is not only changing the way nurses document their interventions; it brings into question the essence of their interventions (Sanders, 2014). When a PLWH approaches a nurse and asks for

advice about safer sex practices and HIV-status disclosure, nurses who are concerned about the patient's best interests have no choice but to discuss the legal duties attached to disclosure, depending on the jurisdiction where they practise. Dodds et al. (2009) and Mykhalovskiy (2011) have mentioned that the inconsistency, ambiguity, and vagueness in HIV-related criminal laws serve to reduce the consistency of advice health care professionals give to PLWH.

The inconsistency of HIV-related criminal laws means that health care professionals may not know what to tell their patients (Gagnon, 2012). They have recognized that they are not the best professionals with whom PLWH should consult for legal advice (O'Byrne & Gagnon, 2012). Nurses are supposed to defend their patients' best interests (Gagnon, 2012), and should not cause their patients harm (Phillips, Domingue, et al., 2013). But in trying to give patients the best information possible, nurses might harm their patients who ask about HIV criminalization by unintentionally giving false information. In a context of HIV criminalization, they are stuck in a grey medico-legal borderland in which they are at risk of practising outside their scope of practice, thereby harming their patients (Timmermans & Gabe, 2002). This medico-legal borderland is populated by numerous professionals, such as nurses, who navigate between the law and medicine (Timmermans & Gabe, 2002).

Impact of HIV criminalization on nursing documentation. Nursing documentation is an essential element of nursing practice. It provides a record of the care given to the patient. In its basic form, documentation is supposed to help nurses be accountable for their actions, and to communicate a patient's care plan and progression through the health care encounter to other health care team members. The way nurses document their interventions in a context of HIV criminalization may change, because confidentiality between nurses and PLWH cannot legally be maintained (Mykhalovskiy, 2011; Sanders, 2015).

Information about their HIV status and their sexual practices shared by patients with their nurses can be used against them in a court of law when nursing documentation is subpoenaed (Lichtenstein et al., 2013; O'Byrne, 2011; O'Byrne & Gagnon, 2012; Phillips, Domingue, et al., 2013; Sanders, 2014, 2015). When nursing documentation is admissible in court to help with the prosecution of patients (Lichtenstein et al., 2013; Sanders, 2015), nurses are left unable to defend their patients' best interests.

For example, nurses' documentation of posttest counselling can be instrumental in the prosecution of PLWH for HIV-related crimes. For this reason, in a context of HIV criminalization, nurses' documentation of posttest counselling sessions is very precise (Sanders, 2015). Sanders (2014) found that nurses approached the legal context with their clients differently; some were very forthcoming with their clients about the potential for health records to be subpoenaed, while others remained vague, in an effort to maintain an open and therapeutic relationship.

Despite the approach chosen by a nurse, the end goal is to give the best counselling possible and to reduce the possibility of transmission. To minimize the negative impact of HIV criminalization on PLWH through the admissibility of nursing documentation in court, nurses may need to modify their documentation practices (Mykhalovskiy, 2011; O'Byrne, 2011).

Impact of HIV criminalization on the patient-nurse relationship. There is a dearth of scientific literature about the direct effect of HIV criminalization on health care professionals (O'Byrne & Gagnon, 2012). However, some research suggests that HIV criminalization affects the therapeutic relationship between health care providers (including nurses) and PLWH. Nurses are often the ones who offer public health services such as testing and counselling, and public health initiatives are an integral part of nursing practices. PLWH may not discuss their HIV

status with their nurse or doctor because they fear negative legal consequences (O'Byrne et al., 2013). In a context of HIV criminalization, PLWH may therefore isolate themselves and reduce their contact with the health care system (O'Byrne et al., 2013).

The possibility of being accused of a crime linked to HIV may make PLWH afraid to talk to health care providers (O'Byrne et al., 2013), which hinders access to care, including education, prevention measures, and treatment. Yet, meetings between PLWH and health care professionals enable individualized teaching adapted to the person's specific needs (e.g., safer sex practices, medication adherence, and prevention of HIV transmission). Galletly and Pinkerton (2006) stated that this type of intervention—one-on-one meetings between a health care professional and a PLWH—helped reduce HIV transmission rates in gay communities at the end of the 1980s.

Dodds et al. (2009) and Mykhalovskiy (2011) added that the inconsistency, ambiguity, and vagueness in the laws related to HIV have reduced the consistency of the advice given by health care professionals to PLWH during one-on-one meetings. The inconsistency and vagueness of HIV-related criminal laws is harmful for health care professionals because they no longer know what information to provide to their patients (Gagnon, 2012). HIV criminalization threatens the trust nurses have with this population (O'Byrne & Gagnon, 2012; Phillips, Domingue, et al., 2013).

Nurses can be summoned to testify at their patients' trials to help the prosecutor (Center for HIV Law and Policy, 2013; Sanders, 2014). In addition, nurses' and other health care providers' documentation can be subpoenaed and brought before courts to help prove that the PLWH was aware of the risks associated with their HIV infection (Lichtenstein et al., 2013;

O'Byrne, 2011; O'Byrne & Gagnon, 2012; Phillips, Domingue, et al., 2013; Sanders, 2014, 2015).

HIV criminalization always disadvantages PLWH (Gagnon, 2012). A main disadvantage is that confidentiality between nurses and PLWH cannot legally be maintained, thereby breaking the trust that is essential for a healthy therapeutic relationship (Mykhalovskiy, 2011). This trust relationship is further damaged or destroyed when nurses are used by the courts during prosecutorial proceedings against PLWH who are accused of HIV-related crimes (Center for HIV Law and Policy, 2013). For nurses to (re)gain the trust of PLWH, they need to be involved in political debates that promote nursing interests, so that societal decisions do not adversely affect the health of any members of society (Gagnon, Phillips, & O'Byrne, 2014).

Impact of HIV criminalization on public health initiatives. HIV-related criminal laws do not respect human rights and are inconsistent with public health initiatives (Burris & Cameron, 2008). The criminalization of HIV does not contribute to the goals set by public health initiatives that aim to decrease HIV transmission rates and increase HIV testing rates (Burris & Cameron, 2008; Cameron et al., 2008; O'Byrne et al., 2013; Phillips, Webel, et al., 2013). There is no evidence that HIV criminalization protects individuals or society (Burris & Cameron, 2008). In fact, there is no reported difference in the sexual behaviour of PLWH in areas where HIV exposure is explicitly criminalized when compared to PLWH's sexual behaviour in areas where HIV is not explicitly criminalized (Mykhalovskiy, 2011). Using the criminal law to manage HIV is ineffective and counterproductive (Cameron, 2009), yet it is often supported by the general public out of fear about HIV transmission and societal demands for PLWH to bear the responsibility for disclosure (Dodds et al., 2009). Considering that behaviours enabling HIV exposure and transmission require at least two people, the responsibility of protection during

those behaviours (e.g., sex, drug use) should be shared equally among all parties who engage in the risky behaviour (Burris & Cameron, 2008; Gagnon, 2012).

It is commonly thought that the fear of being punished and incarcerated would reduce risky behaviours and reduce HIV transmission rates (Burris & Cameron, 2008; Gagnon, 2012; Galletly & Pinkerton, 2006; O'Byrne, 2011; Presidential Commission on the HIV Epidemic, 1988). However, as explained by Burris et al. (2007), the premise that criminalizing behaviours associated with pleasure—such as alcohol, drugs, sex, and gambling—will cause a fear of being incarcerated, thereby reducing certain behaviours, is empirically unfounded. HIV criminalization does not promote condom use during vaginal or anal intercourse, nor does it cause PLWH to refrain high-risk sexual behaviours (Burris et al., 2007; Burris & Cameron, 2008).

In addition to the hope of reducing HIV transmission rates, Lazzarini et al. (2002) suggested that some might think that the fear of incarceration would increase HIV disclosure rates. Unfortunately, in a context of HIV criminalization, PLWH isolate themselves and reduce their contact with the health care system (O'Byrne et al., 2013) and their communities. A study that qualitatively compared counselling procedures in the states of North Carolina and Alabama found that, in both states, providers did not think that counselling about mandatory disclosure made PLWH disclose their status to their sexual partners (Lichtenstein et al., 2013). In another study, gay men threatened by the presence of HIV-related criminal laws no longer disclosed their HIV status to their friends, and changed their HIV status on dating websites such as Gaydar (Dodds et al., 2009). To increase anonymity and to avoid risk of criminal prosecution, some gay men preferred to engage in risky sexual behaviours in places where anonymity was almost guaranteed, such as bathhouses and saunas (Dodds et al., 2009; Galletly & Pinkerton, 2006).

On the other hand, in a recent study, Phillips, Webel, et al. (2013) observed a significant association between the legal obligation to disclose HIV status and adherence to antiretroviral therapy. The authors found that this observed association was just one of numerous factors that affected treatment adherence. The co-occurrence of increased treatment adherence in geographic locations where HIV-status disclosure was a legal obligation is more likely to be the result of PLWH being more engaged in health care to manage their HIV and therapeutic relationship, whereby PLWH take on the responsibility of adhering to treatment regimens to protect themselves and their communities, rather than a deterrent effect from HIV-related criminal laws (Phillips, Webel, et al., 2013).

HIV criminalization also impedes public health initiatives because it creates a barrier to attempts at disclosure from PLWH. PLWH simply do not know how to disclose their HIV status in a context where HIV is criminalized (Mykhalovskiy, 2011). When they do, disclosure is not always done in a clear and explicit way. As an example of this ambiguity, Lazzarini et al. (2002) found that some people thought that the fact that a man insists on wearing a condom should count as disclosure.

For the numerous reasons expressed above, HIV criminalization is disadvantageous to PLWH and the overly broad application of HIV-related criminal laws impedes public health initiatives.

Chapter 3

Methods

Research Paradigm

The nature of the problem and the research goals suggested that a secondary subgroup data analysis from the larger nationwide study had to be done within the postpositivistic paradigm. This study elaborates on specific knowledge gaps and proposes targeted recommendations for continuing education tailored to the HIV legislative model in each state. Developing such educational materials requires an objective identification and evaluation of the knowledge gaps. Objectivity and generalization characteristics are typically used in the realistic ontological approach, an approach that is used in the postpositivistic paradigm (Guba & Lincoln, 1994). If the knowledge gaps were filled as a result of educational material that follows the recommendations of this study, benefits would reach a large number of people. The idea that this study would be able to lead to a greater societal good is a typical characteristic of the postpositivistic paradigm (Guba & Lincoln, 1994).

Even though this document suggests exploring the problem from a postpositivistic perspective, paradigmatic plurality is essential for the study of such complex problems. In addition, if data suggest that change in social, political, or governmental policy needs to be made, having empirical data to support the arguments is important because policy makers respond better to numbers (Playle, 1995).

For these reasons, a postpositivistic approach was used for this study. In particular, Nancy Krieger's ecosocial theory helped guide the secondary subgroup data analysis. Figure 3.01 provides a visual representation of Krieger's (2008) ecosocial theory adapted for this study's context.

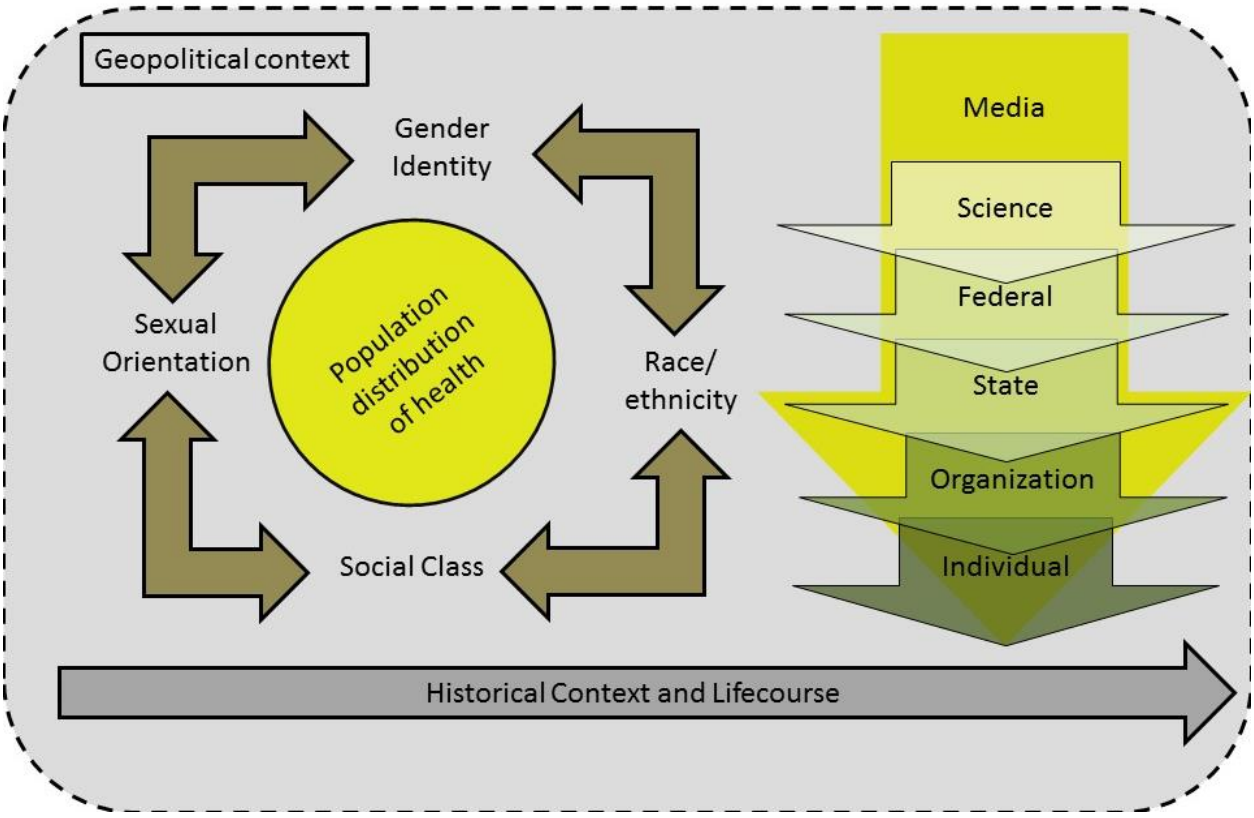

Figure 3.01. Adapted ecosocial theory model for nurses' knowledge of HIV criminal law and its effect on nursing practice (Krieger, 2008).

Theoretical Framework

Understanding nurses' knowledge of HIV-related criminal laws and their effect on nursing practices in California, Florida, New York, and Texas is a complex task. HIV is an infection that was, and still is, thriving within racial/ethnic and sexual minority communities (CDC, 2013). For example, epidemiological data suggest that in 2013, HIV transmissions were most predominant in the African American/Black ethnic minority in the United States (CDC, 2013). To study the social and political aspects of HIV—an infection that is embedded within visible and sexual minority communities, and implicates power structures—the researcher needs to be aware of the intricate relationships between social rankings, social conceptions and

misconceptions, biomedical knowledge about HIV, state-specific HIV legal contexts and power dynamics between numerous actors involved in the societal management of HIV (personal, institutional and political; Krieger, 2008; Phillips, Webel, et al., 2013). For these reasons, researchers who conducted the initial, larger study opted for Nancy Krieger's ecosocial theory to help guide the research. The secondary analysis of data for the states of California, Florida, New York, and Texas was completed using this theory to guide analysis and interpretation of study findings.

Ecosocial theory was used to conceptualize the problem, and to guide data analysis and interpretation. It was used to discover nurses' knowledge of HIV-related criminal laws and their effect on nursing practices, by making the researcher consider the numerous social and contextual aspects that influence health and knowledge disparities in regard to HIV and HIV-related criminal laws (Krieger, 2008). In addition, it helped guide the researcher to study the influence of power structures over the course of the HIV epidemics (Krieger, 2008).

Ecosocial theory takes into consideration the complex dynamics of health disparities across all levels and does not reduce them to the sum of individual health problems (Krieger, 1994). By using this theory, the numerous social and political aspects of HIV were taken into consideration without rejecting the biomedical perspective (Krieger, 1994, 2008). An adapted visual representation of the ecosocial theory specific to the HIV legal context was created to simplify the original model and make it more useable for the specific context of this study (Figure 3.01).

Ecosocial theory was created to adapt to the progressively changing etiologic origins of diseases (from mainly acute to chronic), by including not only risk factors associated with diseases but also modern social determinants of health, and health inequities inherent to

discussions of the distribution of health care for specific diseases within populations (Krieger, 1994, 2012). It was elaborated from a multiple-causation perspective, advanced in response to the technological developments seen in the mid-1900s (Krieger, 1994, 2012). It questioned the (over)use of the concepts of *proximal* and *distal* developed during the 1950s, a period when public health policies were being conceptualized, organized, and implemented (Krieger, 2008). Ecosocial theory enables the user—academic, policy maker or other—to speculate about the structure of causation dynamics involved in the health distribution problematic while taking into consideration the different levels of complexity included in health disparities among different populations (Krieger, 1994). (Krieger, 1994). The theory also enables the user to study health distribution issues in modern political settings (Krieger, 2012).

Worldwide, HIV has evolved primarily among marginalized and stigmatized groups. Ecosocial theory explicitly identifies marginalization and stigmatization associated with the social and political aspects of diseases through racial/ethnic, gender, and class inequities, and presents them in a circular fashion (Krieger, 2001, 2008). This circular/feedback effect of the social determinants of health gives the theory a global feel, which is important when discussing complex intertwining concepts. It allows academics to study HIV-related issues among specific ethnic, sexual, and gender minorities without forgetting that other social determinants might be at play. Likewise, it enables health distribution issues in multistigmatized populations (e.g., African American gay men living with HIV) to be analyzed and understood (Krieger, 2001; Mykhalovskiy & Betteridge, 2012). This can be observed in the attention researchers are paying to the alarming increases in HIV transmission in specific demographically secluded groups, such as African Americans/Blacks and gay men (CDC, 2013; Mykhalovskiy, 2011; Mykhalovskiy & Betteridge, 2012). At the same time, the theory gives researchers and policy makers a chance to

evaluate each inequity on its own, before incorporating it into the more global idea of health distribution.

In addition to racial/ethnic, class, and gender inequities, sexual orientation inequities have been taken into consideration in this study, because societal ranking in regard to sexual orientation exists, for example in the heteronormativity that is prevalent in large segments of American society (Ward & Schneider, 2009; Yep, 2003). In heteronormativity, "heterosexuality constitutes *the* standard for legitimate, authentic, prescriptive, and ruling social, cultural, and sexual arrangements" (Yep, 2003, p. 13; emphasis in original). Heteronormativity values heterosexual sexuality and the social normality associated with heterosexuality (Yep, 2003). It is enforced through the structural power relations inherent in the institutions of marriage/family, education, and justice (Ward & Schneider, 2009). The process of normalization is intimately linked to the marginalization of "nonnormal" groups (Yep, 2003). It positions people living heterosexual sexualities in opposition to people living lesbian, gay, bisexual, transgender and other sexualities (Ward & Schneider, 2009; Yep, 2003). Thus, heterosexuality may only be discussed when opposed to sexualities that are outside the "norm" (Ward & Schneider, 2009). Normalization in the context of heterosexuality constitutes a form of violence for people who do not conform to heterosexuality. Such people must live a life of sexual conformism and silence their suffering (Yep, 2003).

Heteronormativity generates heterosexism: the discrimination of sexual minorities on the basis of sexual orientation (Krieger, 2001). The concept is similar to ethnocentrism. In heterosexism, one group of individuals perceives themselves as superior to another group because of one or more attributes that differentiate them from the other group; for example, sexual attraction to the opposite sex versus sexual attraction to members of the same sex

(Krieger, 2001, 2012). This process results in the oppression of specific groups on individual, institutional, political, and structural levels, causing the stigmatization and marginalization of these groups to be increased and resulting in discrimination against group members (Krieger, 2001). The process of marginalization can last for a lifetime and remains embedded in the societal memory scheme (Krieger, 2005). In the United States, the fact that HIV transmissions are linked to sexual minorities only increases the discrimination and exclusion based on sexual orientation (CDC, 2013).

The social construction of HIV criminalization is influenced by the historical context. The social construction of people living with HIV as "dangerous," "infected," and "people to avoid at all costs" is an important component of the sociopolitical context of HIV criminalization. For example, in a recent trial in Missouri, a 23-year-old gay university student who had numerous sexual encounters was portrayed in media headlines and news articles as a dangerous person who was careless in his sexual practices (Louis, 2015; Molinet, 2015). As well as influencing the individuals being portrayed themselves, the media also influence decisions at all power levels in regard to health accessibility, distribution, or the likelihood of criminal charges in jurisdictions where HIV-related criminal laws exist (Mykhalovskiy & Betteridge, 2012; and see Figure 3.01). The influence of media on policy making and health care dispensation is very important, especially in the context of HIV criminalization. Media have the power to manipulate blameworthiness of sexual so-called crimes, such as HIV-related crimes, which depend on a person and/or the public's perception of acceptable sexual behaviours and disclosure practices (Burris & Cameron, 2008).

Description of the Parent Study

The parent study of this secondary study was designed as part of a needs assessment for nurses across the United States about their knowledge of HIV criminal laws in states where they practised. The survey was pilot tested in the United States and Canada (Phillips et al., 2016). An ecosocial model was used to create the survey and analyze the data from the pilot study, and was also used to analyze data from the parent study. Phillips et al. (2016) considered that HIV criminalization created a context that forces nurses—despite their best intentions—to control the behaviors of PLWH. The model used is a global and dynamic model that allows for the study of overarching power dynamics on the delivery of care without forgetting the importance of the patient-provider encounter (Phillips et al., 2016). The survey was sent using the email delivery lists of three nursing associations: the Association of Nurses in AIDS Care (ANAC), the International Association of Forensic Nurses (IAFN), and the American Nurses Association (ANA). In addition, the hyperlink to the survey and a brief description of the survey's purpose was posted on the ANA's (2016) webpage during the recruitment phase. Data from the parent study were retrieved from nurses with a variety of professional designations from all states in the United States. The purpose was to provide a more complete understanding of the factors that influence nurses' knowledge of HIV-related criminal laws and factors that influence nurses' clinical practices in a context of HIV criminalization.

Study Design

This study is a cross-sectional, secondary-subgroup analysis of data retrieved from the parent study described above. The study focuses on responses of nurses practising in the states of California, Florida, New York, and Texas to provide exemplars to explore nurses' knowledge of HIV criminal laws and the impact of HIV-related criminal law on nursing practice. By

regrouping the data from the states of California and Florida and the data from the states of New York and Texas, I was able to explore nurses' knowledge of HIV criminal laws and the impact of different HIV-related criminal law approaches on nursing practice, using exemplars of states that have HIV-specific criminal laws (California and Florida) and states that do not have these laws (New York and Texas).

Sampling and Eligibility Criteria

The study employed convenience sampling methods. Participants were included in the study if they had completed the survey and identified their location of practice as being in California, Florida, New York, or Texas. Any participant who selected "I prefer not to answer" to any one of the six dependent variables or to any one of the 13 independent variables was excluded. Participants that selected this choice may have had knowledge about HIV and the law, attitudes about HIV and the law or opinions about documentation in a context of HIV criminalization, but they chose not to answer this question.

Instruments

An instrument, Impact of HIV Criminalization on Providing Quality HIV Care, was developed for the parent study by Dr. J. Craig Phillips. A panel of seven content experts from Canada and the United States reviewed the questions. The panel comprised lawyers, health care providers who work or have worked in HIV care, academics, and PLWH. Pilot testing was completed by sending the instrument to nurses working in HIV care in Canada and the United States (Phillips et al., 2016).

The survey was composed of 39 questions. One question was categorized as a general HIV nursing practice question; four questions were categorized as professional development questions; 11 were categorized as demographic questions; and 22 were categorized as HIV-

related law knowledge questions. Twenty-five questions were multiple choice from which the participant was asked to select one response. Thirteen questions included "Other" as a response option and when this was the case, free text boxes were included for participants to specify their response. Three questions asked participants to select all applicable choices. Six questions in the "HIV-related law knowledge" category were presented in a Likert scale format.

For this study, I used 23 of the 39 possible questions available from the original survey (numbers 1, 2, 3, 6, 7, 8, 13, 14, 15, 16, 17, 18, 22, 23, 29, 30, 31, 33, 34, 35, 36, 37, and 38). The questions were chosen because they asked about information necessary to address the study objectives. Dr. J. Craig Phillips was consulted prior to this decision and agreed that this was a viable option because the questions would be used as independent indicators.

The set of indicators taken from the original survey enabled me to have a snapshot of the factors associated with nurses' knowledge of HIV-related criminal laws in the jurisdiction where they practised, the factors associated with nurses' attitudes in regard to expertise in a context of HIV criminalization, and the factors associated with the alteration of nursing documentation in a context of HIV criminalization. I received permission from the survey developer (i.e., the principal investigator of the initial nationwide study) to consider the five questions in regard to nurses' attitudes towards the alteration of documentation in a context of HIV criminalization as a subscale. Psychometric testing for this subscale's performance in the nationwide sample is forthcoming. Table 3.01 lists the five questions and the manipulation that was done to analyze them.

Table 3.01
Variables

Dependent variables						
Objective 1: Nurses' knowledge of HIV-related criminal laws						
Variable	Survey question	Variable ID	Variable type	Response options	Explanation	Analysis
DV1	Please select which scenarios have applicable laws in the community where you practice.	LAWKNWLG	Dichotomous	Right/Wrong*	Responses to the survey question were compared to the actual HIV legal situation in each of the four respective states and it was determined if the nurse was RIGHT or WRONG when identifying if there is a law regulating sexually exposing someone to HIV without disclosure**	Binary Logistic Regression
DV2	In the community where you work, are there any laws regarding nonsexual exposure or transmission of HIV (for example injectable drug use, bodily fluids other than blood or semen, sports, violence)?	LAWOSXKG	Dichotomous	Right/Wrong*	Responses to the survey question were compared to the actual HIV legal situation in each of the four respective states and it was determined if the nurse was RIGHT or WRONG when responding to the question**	Binary Logistic Regression

(*table continues*)

Table 3.01 (continued)

Objective 2: Nurses' attitudes regarding expertise in HIV-legal context						
Variable	Survey question	Variable ID	Variable type	Response options	Explanation	Analysis
DV3	Do you think you currently have the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences?	YOUEXP	Categorical	Yes/No/I do not know	N/A	Multinomial Logistic Regression
DV4	Do you think it is within your scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations and potential for criminal prosecution related to HIV exposure and transmission?	SCOPE	Categorical	Yes/No/I do not know	N/A	Multinomial Logistic Regression
DV5	Do you think nurses should acquire the expertise to inform their patients living with HIV about HIV-related legal regulations?	NRSEXP	Categorical	Yes/No/I do not know	N/A	Multinomial Logistic Regression

(*table continues*)

Table 3.01 (continued)

Objective 3: Alteration of nursing documentation in a context of HIV criminalization						
Variable	Survey question	Variable ID	Variable type	Response options	Explanation	Analysis
DV6	To protect a patient from potential criminal prosecution, I would omit or alter my documentation related to their HIV status. To protect a patient from potential criminal prosecution, I would omit or under report in my documentation related to their sexual practices. To protect a patient from potential criminal prosecution, I would omit or under report in my documentation related to their potential for exposing another person to HIV. To protect a patient from potential criminal prosecution, I would omit or under report in my documentation related to their potential for transmitting HIV to another person. There are clinical situations when it is appropriate for nurses to omit or under report in their documentation to protect a patient from potential criminal prosecution.	DOCUMENT	Categorical	Disagree/Neutral/ Agree	Each one of the five items included in the sixth dependent variable was rated by each participant using a Likert scale. 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree. The scores were added up for the five items. If the total score ranges from 5 to 11 (inclusive), they were classified as "Disagree," scores ranging from 12 to 18 were classified as "Neutral" and scores from 19 – 25 were classified as "Agree."	Multinomial Logistic Regression

*"I do not know" answers were coded as "Wrong." If a participant did not know the laws where they practised, they are at risk of giving the wrong information to a patient.

**The documents that were used to validate the legal situation in regard to the presence or absence of HIV-criminal laws were Lehman and al. (2014) and Center for HIV Law and Policy (2014).

(*table continues*)

Table 3.01 (continued)

Independent variables					
Clinical practice and attitudes independent variables					
Variable	Survey question	Variable ID	Variable type	Response options	Explanation
IV1	In your professional nursing role, do you currently provide care to PLWH?	CAREHIV	Categorical	Yes/No/I do not know/I do not work in a clinical setting	N/A
IV2	If an HIV positive patient accidently transmits HIV to another person, they should be prosecuted.	HIVPTPRO	Categorical	Strongly Disagree/ Disagree / Neutral/ Agree/ Strongly Agree	N/A
IV3	Have any of your patients expressed fears or concerns about HIV-related criminal laws?	PTEXFEAR	Dichotomous	Yes/No	N/A
IV4	Have any of your patients been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission?	PTARREST	Categorical	Yes/No/I do not know	N/A

Demographic independent variables					
Variable	Survey question	Variable ID	Variable type	Response options	Explanation
IV5	What is your professional nursing designation?	NURDES	Categorical	LPN or LVN/RN/CNS or NP/ OTHER	Original response choices were LPN or LVN/RN/CNS/NP/CAN/ CNM/OTHER. To ensure the cells are populated adequately for logistic regression analysis, CNS and NP were grouped together, and CAN, CNM were included in the "OTHER" category.

(*table continues*)

Table 3.01 (continued)

Demographic independent variables					
Variable	Survey question	Variable ID	Variable type	Response options	Explanation
IV6	What is the highest level of nursing education you have completed?	HIGHEDU	Categorical	Currently in nursing school/2 years of college or AA degree or technical school training or diploma program/baccalaureate degree/Master's degree or Doctorate	Original response choices were Currently in nursing school/2 years of college or AA degree or technical school training/diploma program/baccalaureate degree/Master's degree/Doctorate. To ensure the cells are populated adequately for logistic regression analysis, the "diploma program" was added to the "2 years of college or AA degree or technical school training" category and the "Doctorate" and "Master's degree" were combined.
IV7	What is your highest level of education in another discipline?	OTHEDU	Categorical	I do not have education in another discipline/Baccalaureate degree/Master's degree/Professional degree/Doctoral degree	This question regroups two questions. The first question identifies if the participant has education in another discipline. If their answer is "no," they were coded as "I do not have education in another discipline." If their answer is yes, they were directed to another question. This question identifies what level of education participants have in another discipline.
IV8	In what year were you first employed as a nurse?	YEARNRSG	Dichotomous	Before 1981/1981 and after	Nurses indicated the year they first started working as a nurse. This data were re-coded and two groups were created (Before 1981 and 1981 and after).
IV9	Which of the following best describes your work setting?	WKSETT	Categorical	Outpatient setting/Inpatient setting/Emergency department/Academic or educational setting/Health department/Military setting/Other (text box)	Responses in the "Other" text box were recoded and assigned to the adequate category. Additional categories were created if responses do not correspond to existing category choices.

(*table continues*)

Table 3.01 (continued)

Demographic independent variables					
Variable	Survey question	Variable ID	Variable type	Response options	Explanation
IV10	With which of the following categories do you most closely identify?	RACEETH	Categorical	Hispanic or Latina(o)/NonHispanic or Latina(o)/American Indian or Alaska Native/Asian/Black or African American/Native Hawaiian or Other Pacific Islander/White/Other (text box)	Responses in the "Other" text box were recoded and assigned to the adequate category. Additional categories were created if responses do not correspond to existing category choices.
IV11	What sex were you assigned at birth?	SEX	Categorical	Male/Female/Other (text box)	Responses in the "Other" text box were recoded and assigned to the adequate category. Additional categories were created if responses do not correspond to existing category choices.
IV12	What gender do you most closely identify with?	GENDER	Categorical	Male/Female/Transgender/Other (text box)	Responses in the "Other" text box were recoded and assigned to the adequate category. Additional categories were created if responses do not correspond to existing category choices.
IV13	What is your sexual orientation?	SEXORIEN	Categorical	Bisexual/Gay/Lesbian/Straight/Other	Responses in the "Other" text box were recoded and assigned to the adequate category. Additional categories were created if responses do not correspond to existing category choices.

Data Collection

The original survey was administered using FluidSurveys, online survey delivery and management software, and was available between May 13, 2014 and October 6, 2014. The data were coded and stored in SPSS v. 23.0, data management/statistical software, which was used to analyze the data. As mentioned above, I used 23 of the 39 possible questions available from the original survey—numbers 1, 2, 3, 6, 7, 8, 13, 14, 15, 16, 17, 18, 22, 23, 29, 30, 31, 33, 34, 35, 36, 37, and 38—as data to meet the three study objectives. Five questions (numbers 13, 14, 15, 16, and 18) were used as a subscale. In addition to the data from questions used as a subscale, I used data from five additional questions (numbers 2, 3, 6, 7, and 8) as dependent variables, for a total of six dependent variables. The remaining questions provided data used as independent variables (numbers 1, 17, 22, 23, 29, 30, 31, 33, 34, 35, 36, 37 and 38). The set of questions was translated into variables. The variables analyzed to achieve the research objectives are presented in Table 3.01. Six dependent variables are presented separated by research objectives and 13 independent variables are presented separated in two groups, independent variables linked to demographics and independent variables linked to clinical practice.

Analysis

A three-phase analysis was conducted. First, the data for the four identified states were aggregated and analyzed as a whole. Second, the data were stratified depending on the presence or absence of HIV-related criminal laws. This second set of analysis was carried out with data from the states of California and Florida combined, and the data for the states of New York and Texas combined. Third, the data for each state—California, Florida, New York, and Texas—were analyzed separately.

For each data analysis phase, I carried out the following steps:

1. Univariate analysis was conducted for description purposes (frequency and percentage) in addition to categorization purposes (i.e., responses designated as "Other" that should have been included in existent categories).
2. Pearson's correlations were calculated to identify relationships between each variable.
3. Bivariate analysis was conducted between each dependent variable and each independent variable using multinomial logistic regressions to identify associations between variables that could help meet the study's objectives.
4. Multivariate analysis was conducted using multivariate multinomial logistic regressions analysis for each dependent variable using the independent variables that yielded a significance of 0.10 or lower ($p \leq 0.10$) in bivariate analysis for corresponding dependent variables.

Ethical Considerations

Authorization was obtained from the principal investigator to use data collected in the primary study. A signed letter of authorization is in Appendix A. Documents for ethics approval were submitted to the University of Ottawa's Health Sciences and Sciences Research Ethics Board. However, I was informed that the Ethics Board approval for the present study was not required because no identifying data were collected from the primary study (Appendix B).

Chapter 4

Results

The study's results are presented in this chapter, organized by the study's objectives. The demographic characteristics of the sample are presented first. I present only results with statistical significance in this chapter.

Participants' Characteristics

The sample consisted of 417 nurses from California, Florida, New York, and, Texas. Following data exploration and initial univariate analysis, data from 31 (7.4%) nurses were excluded because of missing responses and/or the nurse responded "I prefer not to answer" to one or more of the variables. The final sample analyzed for this study included 386 nurses from California (n = 93), Florida (n = 77), New York (n = 112), and Texas (n = 104).

Most of the nurses reported being heterosexual (n = 340, 88.1%), White (n = 243, 63%), and women (n = 332, 86%). Participants reported their professional designation as registered nurse (n = 306, 79.3%), clinical nurse specialist or nurse practitioner (n = 47, 12.2%), licensed practical or licensed vocational nurse (n = 21, 5.4%), and 11 (2.8%) reported another designation, including certified nursing midwife and certified nursing assistant. The majority of respondents (n = 251, 65%) had at least a baccalaureate degree. Most of the nurses (n = 282, 73.1%) were employed on or after 1981. The nurses worked in outpatient settings (n = 83, 21.5%), inpatient settings (n = 153, 39.6%), emergency departments (n = 32, 8.3%), academic/education settings (n = 40, 10.4%), health departments (n = 11, 2.8%), the military (n = 4, 1%), or in other settings not listed (n = 61, 15.8%). Demographic characteristics of the sample are summarized in Table 4.01.

Table 4.01. *Demographic Characteristics*

Variable	Response	Aggregated	Stratified		State by state			
			CA + FL	NY + TX	CA	FL	NY	TX
		(*N* = 386)	(*n* = 170)	(*n* = 216)	(*n* = 93)	(*n* = 77)	(*n* = 112)	(*n* = 104)
		n (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)
Do you provide care to PLWH?	Yes	237 (61.4)	112 (65.9)	125 (57.9)	57 (61.3)	55 (71.4)	64 (57.1)	61 (58.7)
	No	88 (22.8)	34 (20.0)	54 (25.0)	20 (21.5)	14 (18.2)	28 (25.0)	26 (25.0)
	I do not work in a clinical setting	32 (8.3)	10 (5.9)	18 (8.3)	10 (10.8)	4 (5.2)	10 (8.9)	8 (7.7)
	I don't know	28 (7.3)	14 (8.2)	18 (8.3)	6 (6.5)	4 (5.2)	9 (8.0)	9 (8.7)
If an HIV positive patient accidentally transmits HIV to another person they should be prosecuted?	Strongly Disagree	112 (29.0)	57 (33.5)	55 (25.5)	32 (34.4)	25 (32.5)	29 (25.9)	26 (25.0)
	Disagree	146 (37.8)	54 (31.8)	92 (42.6)	28 (30.1)	26 (33.8)	49 (43.8)	43 (41.3)
	Neither agree nor disagree	106 (27.5)	52 (30.6)	54 (25.0)	30 (32.3)	22 (28.6)	26 (23.2)	28 (26.9)
	Agree	11 (2.8)	3 (1.8)	8 (3.7)	2 (2.2)	1 (1.3)	6 (5.4)	2 (1.9)
	Strongly Agree	3 (0.8)	1 (0.6)	2 (0.9)	0 (0)	1 (1.3)	0 (0)	2 (1.9)
Have any of your patients expressed fears or concerns about HIV-related criminal laws?	Yes	34 (8.8)	24 (14.1)	10 (4.6)	10 (10.8)	14 (18.2)	8 (7.1)	2 (1.9)
	No	346 (89.6)	142 (83.5)	204 (94.4)	80 (86.0)	62 (80.5)	103 (92.0)	101 (97.1)
Have any of your patients been arrested for or charged with a crime related to	Yes	11 (2.8)	8 (4.7)	3 (1.4)	3 (3.2)	5 (6.5)	3 (2.7)	0 (0)
	No	187 (48.4)	76 (44.7)	111 (51.4)	46 (49.5)	30 (39.0)	62 (55.4)	49 (47.1)
	I don't know	188 (48.7)	86 (50.6)	102 (47.2)	44 (47.3)	42 (54.5)	47 (42.0)	55 (52.9)

HIV disclosure, exposure, or transmission?								
Nursing designation	LPN or LVN	21 (5.4)	9 (5.3)	12 (5.6)	6 (6.5)	3 (3.9)	4 (3.6)	8 (7.7)
	RN	306 (79.3)	127 (74.7)	179 (82.9)	66 (71.0)	61 (79.2)	92 (82.1)	87 (83.7)
	CNS or NP	47 (12.2)	29 (17.1)	18 (8.3)	16 (17.2)	13 (16.9)	13 (11.6)	5 (4.8)
	Other	11 (2.8)	5 (2.9)	6 (2.8)	5 (5.4)	0 (0)	2 (1.8)	4 (3.8)
Highest level of nursing education	Nursing Student	10 (2.6)	6 (3.5)	4 (1.9)	4 (4.3)	2 (2.6)	4 (3.6)	0 (0)
	2 years of college, AA degree, technical school or diploma	122 (31.6)	51 (30.0)	71 (32.9)	26 (28.0)	25 (32.5)	38 (33.9)	33 (31.7)
	Baccalaureate	141 (36.5)	56 (32.9)	85 (39.4)	32 (34.4)	24 (31.2)	48 (42.9)	37 (35.6)
	Master's or Doctorate	110 (28.5)	55 (32.4)	55 (25.5)	30 (32.3)	25 (32.5)	22 (19.6)	33 (31.7)
Highest level of education in another discipline	I do not have education in another discipline	272 (70.5)	113 (66.5)	159 (73.6)	66 (71.0)	47 (61.0)	76 (67.9)	83 (79.8)
	Baccalaureate	59 (15.3)	29 (17.1)	30 (13.9)	15 (16.1)	14 (18.2)	17 (15.2)	13 (12.5)
	Master's	31 (8.0)	18 (10.6)	13 (6.0)	10 (10.8)	8 (10.4)	9 (8.0)	4 (3.8)
	Professional degree	3 (0.8)	1 (0.6)	2 (0.9)	0 (0)	1 (1.3)	2 (1.8)	0 (0)
	Doctorate	2 (0.5)	2 (1.2)	0 (0)	0 (0)	2 (2.6)	0 (0)	0 (0)
Year employed as a nurse	Before 1981	94 (24.4)	43 (25.3)	51 (23.6)	22 (23.7)	21 (27.3)	33 (29.5)	18 (17.3)
	1981 & after	282 (73.1)	121 (71.2)	161 (74.5)	68 (73.1)	53 (68.8)	76 (67.9)	85 (81.7)
Which of the following best describes your current work setting?	Outpatient setting	83 (21.5)	41 (24.1)	42 (19.4)	23 (24.7)	18 (23.4)	27 (24.1)	15 (14.4)
	In-patient setting	153 (39.6)	61 (35.9)	92 (42.6)	33 (35.5)	28 (36.4)	41 (36.6)	51 (49.0)
	Emergency department	32 (8.3)	9 (5.3)	23 (10.6)	6 (6.5)	3 (3.9)	13 (11.6)	10 (9.6)
	Academic/Educational Setting	40 (10.4)	17 (10.0)	23 (10.6)	9 (9.7)	8 (10.4)	12 (10.7)	11 (10.6)
	Health Department	11 (2.8)	9 (3.5)	5 (2.3)	1 (1.1)	5 (6.5)	3 (2.7)	2 (1.9)
	Military Setting	4 (1.0)	3 (1.8)	1 (0.5)	2 (2.2)	1 (1.3)	0 (0)	1 (1.0)

	Other	61 (15.8)	32 (18.8)	29 (13.4)	19 (20.4)	13 (16.9)	15 (13.4)	14 (13.5)
Race/Ethinicity	Hispanic or Latina(o)	23 (6.0)	12 (7.1)	11 (5.1)	7 (7.5)	5 (6.5)	4 (3.6)	7 (6.7)
	NonHispanic or Latina (o)	13 (3.4)	8 (4.7)	5 (2.3)	2 (2.2)	6 (7.8)	2 (1.8)	3 (2.9)
	Asian	13 (3.4)	8 (4.7)	5 (2.3)	7 (7.5)	1 (1.3)	3 (2.7)	2 (1.9)
	Black or African American	40 (10.4)	14 (8.2)	26 (12.0)	7 (7.5)	7 (9.1)	15 (13.4)	11 (10.6)
	Native Hawaiian or other Pacific Islander	1 (0.3)	1 (0.6)	0 (0)	1 (1.1)	0 (0)	0 (0)	0 (0)
	White	243 (63.0)	106 (62.4)	137 (63.4)	59 (63.4)	47 (61.0)	71 (63.4)	66 (63.5)
	Other	4 (1.0)	1 (0.6)	3 (1.4)	1 (1.1)	0 (0)	1 (0.9)	2 (1.9)
	Persons selected 2 or more categories	42 (10.9)	15 (8.8)	27 (12.5)	6 (6.5)	9 (11.7)	15 (13.4)	12 (11.5)
Sex assigned at birth	Male	49 (12.7)	28 (16.5)	21 (9.7)	16 (17.2)	12 (15.6)	9 (8.0)	12 (11.5)
	Female	331 (85.8)	139 (81.8)	192 (88.9)	77 (82.8)	62 (80.5)	103 (92.0)	89 (85.6)
Gender	Male	50 (13.0)	27 (15.9)	23 (10.6)	17 (18.3)	10 (13.0)	11 (9.8)	12 (11.5)
	Female	332 (86.0)	141 (82.9)	191 (88.4)	76 (81.7)	65 (84.4)	100 (89.3)	91 (87.5)
Sexual Orientation	Bisexual	7 (1.8)	5 (2.9)	2 (0.9)	2 (2.2)	3 (3.9)	1 (0.9)	1 (1.0)
	Gay	25 (6.5)	15 (8.8)	10 (4.6)	9 (9.7)	6 (7.8)	4 (3.6)	6 (5.8)
	Lesbian	6 (1.6)	2 (1.2)	4 (1.9)	0 (0)	2 (2.6)	3 (2.7)	1 (1.0)
	Straight	340 (88.1)	143 (84.1)	197 (91.2)	82 (88.2)	61 (79.2)	101 (90.2)	96 (92.3)
	Other	2 (0.5)	1 (0.6)	1 (0.5)	0 (0)	1 (1.3)	1 (0.9)	0 (0)

Clinical practice and attitudes. Two hundred thirty-seven nurses (61.4%) provided care for PLWH. Thirty-four (8.8%) nurses reported having provided care to patients who expressed fears or concerns about HIV-related criminal laws; 24 of these nurses (70.6%) were from California and Florida. Eleven (2.8%) nurses reported that one of their patients had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission. Two hundred and fifty-eight nurses (66.8%) disagreed or strongly disagreed that a PLWH should be prosecuted if they unintentionally transmitted HIV to another person.

Eighty-four nurses (21.4%) thought it was within their scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations and the potential for criminal prosecution related to HIV exposure and transmission. Three hundred and thirty-seven nurses (87.3%) did not believe they had the expertise to inform a PLWH about HIV-related laws and potential legal consequences. Two hundred and ninety-five nurses (76.4%) believed they should acquire the expertise to inform their patients living with HIV about HIV-related laws. Regarding clinical documentation, 316 nurses (81.9%) disagreed with statements about the alteration or omission of nursing documentation to protect patients from potential criminal prosecution in a context of HIV criminalization.

The remaining part of the chapter is first divided by objective. The objective divisions are then divided by subsample: Aggregate; California and Florida; New York and Texas; California; Florida; New York; and Texas. Finally, within each subsample, results for the individual dependent variables pertaining to the objective are presented.

Description of Nurses' Knowledge of HIV-Related Criminal Laws

Nurses were asked a series of questions about HIV-related laws in the state where they practised; 112 nurses (29%) from all four jurisdictions were able to correctly identify the presence of specific laws regulating sexually exposing someone to HIV without disclosure of HIV status. Sixty-three nurses (16.3%) correctly identified the presence or absence of laws that regulated the nonsexual exposure or transmission of HIV (e.g., injectable drug use, bodily fluids other than blood or semen, sports, violence) in the state where they practised. The frequency with which nurses were able to correctly identify the presence of these laws differed based on the presence of those laws in each state. Forty-six (27%) nurses in California and Florida correctly identified the presence of these laws, and 17 (7.9%) nurses from New York and Texas who correctly identified the absence of laws in their jurisdiction.

Nurses' knowledge of HIV-related criminal laws: Aggregate sample analysis.

Dependent variable 1: Nurses' identification of the presence or absence of criminal laws regulating the sexual exposure of HIV without disclosure. Two independent variables—cared for a patient that had concerns or fears about HIV criminalization ($r = -.13$, $p < 0.05$) (IV3), and highest education in another discipline ($r = -.105$, $p < 0.05$) (IV7)—were significantly inversely correlated with the dependent variable evaluating the nurses' identification of the presence or absence of criminal laws regulating the sexual exposure of HIV without disclosure laws (DV1). (See Table 4.02.) In bivariate analysis, two of the 13 independent variables were statistically significant ($p \leq 0.05$)—provided care to PLWH (IV1), and cared for patients that had concerns or fears about HIV criminalization (IV3).

Table 4.02

Pearson's Correlations of Variables for the Aggregate Sample (n = 386)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	LAWKNWLG (DV1)	1.00	.105*	-.061	-.109*	-.107*	-.014	.032	-.089	-.13*	-.066	-.011	.063	-.105*	-.071	.023	-.048	.07	.062	.07
2	LAWOSXKG (DV2)	-	1.00	-.157**	-.117*	-.093	.008	-.018	-.016	-.17**	-.099	-.066	.051	.072	.104*	-.012	-.04	.025	.025	.026
3	YOUEXP (DV3)	-	-	1.00	.275**	.112*	-.052	-.038	.034	.183**	.121*	.098	-.03	-.143**	-.062	.067	.13*	.097	.049	.002
4	SCOPE (DV4)	-	-	-	1.00	.171**	-.01	-.001	.158**	.185**	-.163**	-.092	-.061	-.161**	.061	.037	.098	.096	.085	.125*
5	NRSEXP (DV5)	-	-	-	-	1.00	.041	-.063	.102*	.115*	.181**	-.008	-.043	-.094	.038	-.064	.133**	.073	.058	-.017
6	DOCUMENT (DV6)	-	-	-	-	-	1.00	-.085	-.112*	-.157**	-.135**	.076	.078	.059	.052	-.004	-.025	-.157**	-.187**	-.212**
7	CAREHIV (IV1)	-	-	-	-	-	-	1.00	.033	.059	-.029	.032	.038	-.022	.06	.282**	.016	.09	.092	.082
8	HIVPTPRO (IV2)	-	-	-	-	-	-	-	1.00	.078	.064	-.093	-.007	-.106*	.004	-.035	-.007	.096	.066	.097
9	PTEXFEAR (IV3)	-	-	-	-	-	-	-	-	1.00	.209**	.059	.025	-.161**	.06	-.045	.121*	.081	.074	.161**
10	PTARREST (IV4)	-	-	-	-	-	-	-	-	-	1.00	-.026	-.003	-.155**	.039	-.018	.111*	.083	.083	.059
11	NURDES (IV5)	-	-	-	-	-	-	-	-	-	-	1.00	.328**	-.031	-.102*	-.027	.055	.027	.032	-.095

(*table continues*)

12	HIGHEDU (IV6)	-	-	-	-	-	-	-	-	-	-	-	1.00	.057	-.117*	.087	-.131*	-.062	-.047	-.034
13	OTHEDU (IV7)	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.009	.031	-.055	-.179**	-.145**	-.177**
14	YEARNRSG (IV8)	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.085	-.078	-.087	-.073	-.048
15	WKSETT (IV9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.045	.045	.063	.058
16	RACEETH (IV10)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.113*	.082	.079
17	SEX (IV11)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.953**	.457**
18	GENDER (IV12)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.445**
19	Sexual Orientation (IV13)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00

Note: *$p < 0.05$ (2-tailed), **$p < 0.01$ (2-tailed), LAWKNWLG = Knowledge of HIV-specific laws for sexual exposure, LAWOSKG = Knowledge of HIV-specific laws for nonsexual exposure, YOUEXP = Nurses thing they have the expertise to inform PLWH about HIV-related laws, SCOPE = Nurses think it is within their scope of practice to inform PLWH about HIV-related criminal laws, NRSEXP = Nurses think they should acquire expertise to inform PLWH about HIV-related criminal laws, DOCUMENT = Level of agreement with alteration of documentation to protect PLWH from HIV-related prosecutions, CAREHIV = Do nurses provide care to PLWH, HIVPTPRO = Nurses' level of agreement with thinking PLWH should be prosecuted if they accidently transmit HIV to another person, PTEXFEAR = Cared for patients that expressed fears or concerns about HIV-related criminal laws, PTARREST = Cared for patients arrested for or charged with HIV-related criminal laws, NURDES = Professional nursing designation, HIGHEDU = Highest level of education in nursing, OTHEDU = Highest level of education in a discipline other than nursing, YEARNRSG = Year first employed as a nurse, WKSETT = Work setting, RACEETH = Race and/or ethnicity, SEX = Sex assigned at birth, GENDER = Gender, SEXORIE*N* = Sexual orientation. Refer to Table 3.01 for variable explanation.

First, nurses who identified not knowing if they provided care to PLWH were 2.9 times more likely to correctly identify the presence or absence of laws regulating sexually exposing someone to HIV without disclosure of HIV status in the jurisdiction where they practised, compared to nurses who did not work in a clinical setting (*OR* = 2.949, *p* = 0.048). Second, nurses who identified having taken care of patients who expressed fears or concerns in regard to HIV-related criminal laws were 2.5 times more likely to correctly identify the presence or absence of laws regulating sexually exposing someone to HIV without disclosure of HIV status in the jurisdiction where the nurse practised compared to nurses who had not taken care of patients who expressed fears or concerns about HIV-related criminal laws (*OR* = 2.454, *p* = 0.014). Table 4.03 summarizes the results of the bivariate analysis of DV1 for the aggregate sample.

Table 4.03
DV1 Bivariate Logistic Regressions Summaries for Aggregate Sample (n = 386)

Independent variables	Knowledge about laws regarding the sexual exposure or transmission of HIV (DV1)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do the nurses currently provide care to PLWH (IV1)[a, b]		10.588*			
Yes	.069 (.418)	.027	.472	1.071	2.431
No	-.42 (.474)	.785	.26	.657	1.663
I don't know	1.081 (.546)	3.922*	1.011	2.949	8.599
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)[c]	.898 (.365)	6.066*	1.201	2.454	5.014

Note: [a] Model $X^2 = 10.755$, $df = 3$, $p = .013$, Nagelkerke $R^2 = .039$; [b] reference category is for "do the nurses currently provide care to PLWH" is "I do not work in a clinical setting" ($n = 32$); [c] Model $X^2 = 5.856$, $df = 1$, $p = .01$, Nagelkerke $R^2 = .022$; * $p < 0.05$

IV1 (provided care to PLWH) and IV3 (cared for patients that had concerns or fears about HIV criminalization) were evaluated for their combined effect on the identification of laws

regulating sexually exposing someone to HIV without disclosure of HIV status in the jurisdiction in which the nurses practised in multivariate logistic regression analysis. The model was statistically significant (X^2= 16.685 [4] $p < 0.01$) and accounted for 6.2% (Nagelkerke R^2 = 0.062) of the observed variability in the aggregate sample's data. Nurses who did not know whether they took care of PLWH were 3.3 times more likely to correctly identify the presence or absence of laws regulating sexually exposing someone to HIV without disclosure of HIV status in the jurisdiction in which they practised compared to nurses who did not work in a clinical setting (*OR* = 3.331, $p = 0.034$). In addition, nurses who took care of patients that feared or had concerns about HIV-related criminal laws were 2.4 times more likely to correctly identify the presence or absence of laws regulating sexually exposing someone to HIV without disclosure of HIV status in the jurisdiction where they practised compared to nurses who did not take care of patients that expressed those fears (*OR* = 2.365, $p = 0.021$). Table 4.04 summarizes the results of multivariate analysis of DV1 for the aggregate sample.

Table 4.04
DV1 Multivariate Logistic Regression Summary for Aggregate Sample (n = 386)

Independent variables	Knowledge about laws regarding the sexual exposure or transmission of HIV (DV1)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do the nurses currently provide care to PLWH (IV1)[a]		10.832*			
Yes	.106 (.441)	.058	.469	1.112	2.64
No	-.329 (.498)	.436	.271	.72	1.91
I don't know	1.197 (.565)	4.491*	1.094	3.311	10.018
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	.861 (.372)	5.355*	1.141	2.365	4.901

Note: Model $X^2 = 16.685$, $df = 4$, $p < .01$, Nagelkerke $R^2 = .062$; [a] reference category is for "do the nurses currently provide care to PLWH" is "I do not work in a clinical setting" ($n = 30$); * $p < 0.05$

Dependent variable 2: Nurses' identification of the presence or absence of criminal laws regulating the nonsexual exposure of HIV. Two independent variables—patient fears HIV criminalization ($r = -.17$, $p < 0.01$) (IV3), and year first employed as a nurse ($r = -.104$, $p < 0.05$) (IV8)—were significantly correlated (Table 4.02) with the dependent variable evaluating the nurses' identification of the presence or absence of criminal laws regulating the nonsexual exposure of HIV (DV2). In bivariate analysis, only the independent variable evaluating whether nurses cared for patients having expressed fears or concerns about HIV-related criminal laws correctly identify laws regulating the nonsexual exposure or transmission of HIV in the state where they practised compared to nurses who had not cared for patients that expressed fears or concerns about HIV-related criminal laws ($OR = 3.44$, $p < 0.01$). Table 4.05 summarizes the bivariate relationship between DV2 and IV3.

The multivariate logistic regression analysis for this dependent variable was conducted using three independent variables: year of first employment as a nurse (IV8), nurse designation (IV5), and whether nurses cared for patients who expressed fears or concerns about HIV-related criminal laws (IV3). The statistical model created by the combination of these three independent variables in association with the identification of laws regulating the nonsexual exposure or transmission of HIV was significant (DV2, $X^2 = 17.04$, $p < 0.01$), with an effect size of 7.6% (Nagelkerke $R^2 = 0.076$). Nurses who took care of patients that expressed fears or concerns about HIV-related criminal laws were three times more likely to correctly identify the presence or absence of laws regulating the nonsexual exposure or transmission of HIV when compared to nurses who did not take care of patients that expressed those fears ($OR = 3.036$, $p < 0.01$). Table

4.06 summarizes the multivariate analysis of DV2 in association with the combination of IV3, IV5, and IV8 for the aggregate sample.

Table 4.05
DV2 Bivariate Logistic Regression Summary for Aggregate (n = 386)

Independent variable	Knowledge about laws regarding the nonsexual exposure or transmission of HIV (DV2)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	1.236 (.393)	9.865*	1.591	3.44	7.438

Note: Model $X^2 = 8.848$, $df = 1$, $p < .01$, Nagelkerke $R^2 = .039$; * $p < 0.05$

Table 4.06
DV2 Multivariate Logistic Regression Summary for Aggregate Sample (n = 386)

Independent variables	Knowledge about laws regarding the nonsexual exposure or transmission of HIV (DV2)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	1.11 (.408)	7.412*	1.365	3.036	6.752
Nursing Designation (IV5)a		5.860			
LPN or LVN	1.582 (1.182)	1.792	.48	4.866	49.35
RN	.315 (1.087)	.084	.163	1.370	11.525
CNS or NP		.146	.163	1.552	14.809
Employed as a nurse before 1981 (IV8)	.606 (.317)	3.665	.986	1.834	3.411

Note: Model $X^2 = 17.04$, $df = 5$, $p < .01$, Nagelkerke $R^2 = .076$; [a] reference category is for nursing designation is other ($n = 9$); * $p < 0.05$

Nurses' knowledge of HIV-related criminal laws: Sample stratified by HIV-criminalization approach.

States with HIV-specific criminal laws: California and Florida. The analysis for the following section was computed using data from nurses that identified practising in California or

Florida, both of which states have HIV-specific criminal laws. Data from these two states were stratified because of this legal approach to managing HIV exposure. Results from bivariate and multivariate analyses are explored.

Dependent variable 1: Nurses' identification of the presence of criminal laws regulating the sexual exposure of HIV without disclosure. Only two independent variables—should PLWH be prosecuted for HIV-related crimes (r = -.152, $p < 0.05$) (IV2), and cared for patients that had concerns or fears about HIV criminalization (r = -.205, $p < 0.01$) (IV3)—were significantly correlated (Table 4.07) with the dependent variable evaluating the nurses' identification of the presence of criminal laws regulating the sexual exposure of HIV without disclosure laws (DV1) for the subsample of states with HIV-specific criminal laws. In bivariate analysis, one independent variable was statistically significant when analyzed for the identification of laws regulating sexually exposing someone to HIV without disclosure in the nurses' jurisdiction (DV1): the independent variable evaluating whether nurses cared for patients having expressed fears or concerns about HIV-related criminal laws (X^2= 6.354, p = 0.012) (IV3) with an effect size of 5.4% (Nagelkerke R^2 = 0.054). Nurses having cared for patients that expressed fears or concerns about HIV-related criminal laws were 3.2 times more likely to correctly identify the presence of laws in the nurses' jurisdiction regulating sexually exposing someone to HIV without disclosure when compared to nurses not having cared for patients that expressed fears or concerns about HIV-related criminal laws (OR = 3.18, p = 0.011).

Table 4.07 *Pearson's Correlations of Variables for the CA+FL Sample (n = 170)*

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	LAWKNWLG (DV1)	1.00	.095	-.028	-.187*	-.133	.009	-.086	-.152*	-.205**	-.068	-.035	.064	-.017	-.091	-.003	.000	.067	.062	.031
2	LAWOSXKG (DV2)	-	1.00	-.193*	-.103	-.148	.016	.027	.064	-.107	-.135	-.147	.048	.108	-.058	-.057	-.077	.063	.083	.081
3	YOUEXP (DV3)	-	-	1.00	-.323**	.13	.24**	.026	.079	.235**	.133	.041	-.145	-152	-.081	.115	.254**	.037	-.006	-.002
4	SCOPE (DV4)	-	-	-	1.00	.256**	-.022	-.001	.164*	.218**	.189*	-.051	-.116	-.19*	.106	-.004	.106	.142	.12	.08
5	NRSEXP (DV5)	-	-	-	-	1.00	-.013	-.071	.203**	.154*	.221**	-.009	-.12	-.17*	.079	-.094	.051	.082	.073	-.043
6	DOCUMENT (DV6)	-	-	-	-	-	1.00	-.148	-.124	.177*	-.19*	-.042	.085	.132	.128	-.083	-.089	-.151	-.192*	-.132
7	CAREHIV (IV1)	-	-	-	-	-	-	1.00	-.112	.019	-.066	.16*	.011	-.01	.082	.298**	.092	.071	.06	.03
8	HIVPTPRO (IV2)	-	-	-	-	-	-	-	1.00	.051	.129	-.106	-.038	-.09	.139	-.089	.038	.111	.052	.113
9	PTEXFEAR (IV3)	-	-	-	-	-	-	-	-	1.00	.229**	.166*	.038	-.26**	.034	-.087	.185*	.112	.112	.164*
10	PTARREST (IV4)	-	-	-	-	-	-	-	-	-	1.00	.004	-.062	-.239**	.004	-.053	.224*	.03	-.017	.024

11	NURDES (IV5)	-	-	-	-	-	-	-	-	-	-	1.00	.309**	-.013	-.166*	-.078	.059	.049	.078	-.108
12	HIGHEDU (IV6)	-	-	-	-	-	-	-	-	-	-	-	1.00	.104	-.134	.003	-.205**	-.068	-.027	-.007
13	OTHEDU (IV7)	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.031	-.009	-.168*	-.285**	-.241**	-.31**
14	YEARNRSG (IV8)	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.081	-.08	-.113	-.142	-.067
15	WKSETT (IV9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.015	.055	.067	.043
16	RACEETH (IV10)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.167*	.12	.007
17	SEX (IV11)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.956**	.438**
18	GENDER (IV12)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.411**
19	SEXORIEN (IV13)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00

Note: *$p < 0.05$ (2-tailed), **$p < 0.01$ (2-tailed), LAWKNWLG = Knowledge of HIV-specific laws for sexual exposure, LAWOSKG = Knowledge of HIV-specific laws for nonsexual exposure, YOUEXP = Nurses thing they have the expertise to inform PLWH about HIV-related laws, SCOPE = Nurses think it is within their scope of practice to inform PLWH about HIV-related criminal laws, NRSEXP = Nurses think they should acquire expertise to inform PLWH about HIV-related criminal laws, DOCUMENT = Level of agreement with alteration of documentation to protect PLWH from HIV-related prosecutions, CAREHIV = Do nurses provide care to PLWH, HIVPTPRO = Nurses' level of agreement with thinking PLWH should be prosecuted if they accidently transmit HIV to another person, PTEXFEAR = Cared for patients that expressed fears or concerns about HIV-related criminal laws, PTARREST = Cared for patients arrested for or charged with HIV-related criminal laws, NURDES = Professional nursing designation, HIGHEDU = Highest level of education in nursing, OTHEDU = Highest level of education in a discipline other than nursing, YEARNRSG = Year first employed as a nurse, WKSETT = Work setting, RACEETH = Race and/or ethnicity, SEX = Sex assigned at birth, GENDER = Gender, SEXORIE*N* = Sexual orientation. Refer to Table 3.01 for variable explanation.

The multivariate logistic regression analysis for this dependent variable was conducted using the independent variable evaluating whether the nurse provided care to PLWH (IV1) and work setting (IV9), in addition to the independent variable evaluating whether nurses cared for patients who expressed fears or concerns about HIV-related criminal laws (IV3). The statistical model created by the combination of these three independent variables, in association with the identification of laws regulating sexually exposing someone to HIV without disclosure of HIV status in the jurisdiction in which the nurses practised, was significant (DV1; $X^2 = 23.671$, $p < 0.01$), with an effect size of 19.3% (Nagelkerke $R^2 = 0.193$).

Table 4.08 summarizes the bivariate relationships between DV1 and IV3 for the states that have HIV-specific criminal laws: California and Florida.

Table 4.08
DV1 Bivariate Logistic Regression Summary for CA+FL (n = 170)

Independent variable	Knowledge about laws regarding the sexual exposure or transmission of HIV (DV1)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)[a]	1.156 (.453)	6.505*	1.307	3.176	7.721

Note: [a] Model $X^2 = 6.354$, $df = 1$, $p = .012$, Nagelkerke $R^2 = .054$; * $p < 0.05$

Nurses that took care of patients who expressed fears or concerns about HIV-related criminal laws were 3.1 times more likely to correctly identify the laws regulating sexually exposing someone to HIV without disclosure of HIV status in the jurisdiction where they practised compared to nurses that did not take care of patients who expressed fears or concerns about HIV-related criminal laws ($OR = 3.127$, $p = 0.027$). In addition, nurses that worked in an educational setting were six times more likely to correctly identify laws regulating sexually exposing someone to HIV without disclosure of HIV status in the jurisdiction where they

practised when compared to nurses that selected the "other settings" category (*OR* = 6.025, *p* = 0.039). Table 4.09 summarizes the bivariate relationships between DV1 and the combination of IV1, IV3, and IV9 for the states with HIV-specific criminal laws: California and Florida.

Table 4.09
DV1 Multivariate Logistic Regression Summary for CA+FL Sample (n = 170)

Independent variables	Knowledge about laws regarding the sexual exposure or transmission of HIV (DV1)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do the nurses currently provide care to PLWH? (IV1)[a]		5.851			
Yes	1.006 (.872)	1.331	.495	2.735	15.102
No	-.101 (1.004)	.01	.126	.904	6.469
I don't know	1.72 (1.102)	2.437	.644	5.585	48.402
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws (IV3)	1.14 (.514)	4.919*	1.142	3.127	8.563
Work setting (IV9)[b]		8.347			
Outpatient	-.033 (.583)	.003	.309	.967	3.031
Inpatient	-377 (.586)	.414	.218	.686	2.163
Emergency Department	1.796 (.869)	4.267*	1.096	6.025	33.113
Academic or Educational	.504 (.708)	.506	.413	1.655	6.635
Health Department	-.247 (1.038)	.057	.102	.781	5.973
Military	-20.036 (21981.504)	-	-	-	-

Note: Model $X^2 = 23.671$, $df = 10$, $p < .01$, Nagelkerke $R^2 = .193$; [a] reference category is for "do the nurses currently provide care to PLWH" is "I do not work in a clinical setting" ($n = 30$); [b] reference category for work setting is other ($n = 31$); * $p < 0.05$

Dependent variable 2: Nurses' identification of the presence of criminal laws regulating the nonsexual exposure of HIV. Among nurses in California and Florida, none of the independent variables were significantly correlated (Table 4.07) with the dependent variable evaluating the nurses' identification of the presence of criminal laws regulating the nonsexual exposure of HIV (DV2). Additionally, when computing bivariate analysis between each independent variable with

the variable evaluating the nurses' identification of the presence of criminal laws regulating the nonsexual exposure of HIV (DV2), no statistically significant independent variables were identified. Only one variable was identified as having a significance of ≤ 0.10 (IV5; nursing designation). For this reason, no multivariate logistic regression analysis was completed.

States without HIV-specific criminal laws: New York and Texas. Neither New York nor Texas has HIV-specific criminal laws. However, these states prosecute PLWH for HIV-related crimes under existing criminal laws. Nurses' responses from the states of New York and Texas were stratified for analysis. Correlations, bivariate logistic regression, and multivariate logistic regression analyses were explored.

Dependent variable 1: Nurses' identification of the absence of criminal laws regulating the sexual exposure of HIV without disclosure. One independent variable, highest level of education in a discipline other than nursing (r = -.188, $p < 0.01$) (IV7), was significantly correlated (Table 4.10) with the dependent variable evaluating the nurses' identification of the absence of criminal laws regulating the sexual exposure of HIV without disclosure laws (DV1) for the subsample of states without HIV-specific criminal laws, New York and Texas. When computing bivariate analysis between each independent variable with the variable evaluating the nurses' identification of the absence of criminal laws regulating the sexual exposure of HIV without disclosure (DV1), there were no statistically significant associations that that provided model stability. There were also no stable models or associations with a significance of ≤ 0.10. Therefore, no multivariate logistic regression analysis was completed.

Table 4.10 *Pearson's Correlations of Variables For the NY+TX Sample (n = 216)*

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	LAWKNWLG (DV1)	1.00	.148*	-.088	-.047	-.088	-.03	.12	-.039	-.054	-.064	.013	.065	-.188**	-.057	.049	-.09	.073	.062	.11
2	LAWOSXKG (DV2)	-	1.00	-.124	-.125	-.033	-.101	-.044	-.095	-.189**	-.059	-.015	.039	-.062	-.162*	.011	.064	.04	-.009	.011
3	YOUEXP (DV3)	-	-	1.00	.232**	.097	.16*	-.092	-.005	.114	.109	.155*	.072	-.127	-.048	.025	.009	.159*	.1	.001
4	SCOPE (DV4)	-	-	-	1.00	.103	.018	-.007	.149*	.137*	.139*	-.123	-.009	-.122	.021	.083	.082	.04	.044	.173*
5	NRSEXP (DV5)	-	-	-	-	1.00	.103	-.059	.026	.077	.149*	-.006	.021	-.021	.008	-.038	.198**	.063	.045	.008
6	DOCUMENT (DV6)	-	-	-	-	-	1.00	-.007	-.09	-.072	-.072	.188**	.062	-.07	-.022	.073	.071	-.136	-.161*	-.301**
7	CAREHIV (IV1)	-	-	-	-	-	-	1.00	.145*	.087	.003	-.071	.064	-.022	.04	.277**	-.058	.101	.116	.129
8	HIVPTPRO (IV2)	-	-	-	-	-	-	-	1.00	.104	.004	-.075	.022	-.113	-.11	.019	-.053	.076	.074	.074
9	PTEXFEAR (IV3)	-	-	-	-	-	-	-	-	1.00	.195**	-.053	.024	.058	.085	.048	.003	.000	-.006	.111
10	PTARREST (IV4)	-	-	-	-	-	-	-	-	-	1.00	-.057	.054	-.058	.07	.019	.001	.142*	.188**	.104

11	NURDES (IV5)	-	-	-	-	-	-	-	-	-	-	1.00	.342**	-.07	-.044	.014	.064	.022	-.002	-.064
12	HIGHEDU (IV6)	-	-	-	-	-	-	-	-	-	-	-	1.00	-.001	-.102	.167*	-.059	-.048	-.064	-.06
13	OTHEDU (IV7)	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.049	.065	.091	-.024	-.014	.034
14	YEARNRSG (IV8)	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.087	-.08	-.068	-.012	-.034
15	WKSETT (IV9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.12	.047	.07	.098
16	RACEETH (IV10)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.042	.033	.147*
17	SEX (IV11)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.948**	.472**
18	GENDER (IV12)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.484**
19	SEXORIEN (IV13)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00

Note: *$p < 0.05$ (2-tailed), **$p < 0.01$ (2-tailed), LAWKNWLG = Knowledge of HIV-specific laws for sexual exposure, LAWOSKG = Knowledge of HIV-specific laws for nonsexual exposure, YOUEXP = Nurses thing they have the expertise to inform PLWH about HIV-related laws, SCOPE = Nurses think it is within their scope of practice to inform PLWH about HIV-related criminal laws, NRSEXP = Nurses think they should acquire expertise to inform PLWH about HIV-related criminal laws, DOCUMENT = Level of agreement with alteration of documentation to protect PLWH from HIV-related prosecutions, CAREHIV = Do nurses provide care to PLWH, HIVPTPRO = Nurses' level of agreement with thinking PLWH should be prosecuted if they accidently transmit HIV to another person, PTEXFEAR = Cared for patients that expressed fears or concerns about HIV-related criminal laws, PTARREST = Cared for patients arrested for or charged with HIV-related criminal laws, NURDES = Professional nursing designation, HIGHEDU = Highest level of education in nursing, OTHEDU = Highest level of education in a discipline other than nursing, YEARNRSG = Year first employed as a nurse, WKSETT = Work setting, RACEETH = Race and/or ethnicity, SEX = Sex assigned at birth, GENDER = Gender, SEXORIE*N* = Sexual orientation. Refer to Table 3.01 for variable explanation.

Dependent variable 2: Nurses' identification of the absence of criminal laws regulating the nonsexual exposure of HIV. Two independent variables—nurse cared for patient that had concerns or fears about HIV criminalization (r = -.189, $p < 0.01$) (IV3), and first year employed as a nurse (r = -.162, $p < 0.05$) (IV8)—were significantly correlated (Table 4.10) with the variable evaluating nurses' knowledge of the absence of HIV-specific criminal laws pertaining to nonsexual exposure of HIV (DV2). In bivariate analysis, the same two independent variables, nurse that cared for patient who had concerns or fears about HIV criminalization (IV3; X^2= 4.76, p = 0.029) and year first employed as a nurse (X^2= 4.803, p = 0.028) (IV8), were statistically significant when computed for the identification of laws regulating the nonsexual exposure or transmission of HIV, for example injectable drug use, bodily fluids other than blood or semen (Table 4.11).

Table 4.11
DV2 Bivariate Logistic Regressions Summaries for NY+TX Sample (n = 216)

Independent variables	Knowledge about laws regarding the nonsexual exposure or transmission of HIV (DV2)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)[a]	1.829 (.747)	5.994*	1.44	6.231	26.95
Employed as a nurse before 1981 (IV8)[b]	1.162 (.516)	5.064*	1.162	3.196	8.791

Note: [a] Model X^2 = 4.76, df = 1, p = .029, Nagelkerke R^2 = .054; [b] Model X^2 = 4.803, df = 1, p = .028, Nagelkerke R^2 = .053; * $p < 0.05$

The multivariate logistic analysis regression for the dependent variable evaluating the identification of laws regulating the nonsexual exposure or transmission of HIV, for example injectable drug use, bodily fluids other than blood or semen, sports, and violence (DV2), was conducted using only the two previously discussed independent variables: (a) the variable evaluating whether nurses cared for patients who had expressed fears or concerns about HIV-

related criminal laws (IV3), and (b) year first employed as a nurse (IV8). The statistical model created by the combination of these two independent variables in association with the identification of laws regulating the nonsexual exposure or transmission of HIV was significant (DV2; $X^2 = 7.424$, $p = 0.024$), with an effect size of 8.4% (Nagelkerke $R^2 = 0.084$). The model created by the multivariate statistical analysis only identified one statistically significant relationship between variables: when compared to nurses that have not cared for patients who expressed fears or concerns about HIV-related criminal laws, nurses having cared for patients who expressed fears or concerns about HIV-related criminal laws were 5.4 times more likely to correctly identify the absence of laws regulating the nonsexual exposure or transmission of HIV in the jurisdiction where they practised ($OR = 5.367$, $p = 0.028$). Table 4.12 summarizes the multivariate relationship between DV2 and the combination of IV3 and IV8 for nurses from New York and Texas.

Table 4.12
DV2 Multivariate Logistic Regression Summary for NY+TX Sample (n = 216)

Independent variables	Knowledge about laws regarding the nonsexual exposure or transmission of HIV (DV2)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	1.68 (.765)	4.83*	1.199	5.367	24.018
Employed as a nurse before 1981 (IV8)	.933 (.546)	2.92	.872	2.541	7.407

Note: Model $X^2 = 7.424$, $df = 2$, $p = .024$, Nagelkerke $R^2 = .084$; * $p < 0.05$

Nurses' knowledge of HIV-related criminal laws: Sample split by state.

State by state sample: California. California uses a narrow HIV-specific law that criminalizes the exposure of HIV with the intent to transmit the virus in its approach to HIV criminalization. PLWH have been prosecuted in California under this specific law. California

nurses' responses were analyzed to determine differences within this jurisdiction and legal approach. Correlations, bivariate logistic regression analysis, and multivariate logistic regression analysis were conducted and are reported in this section.

Dependent variable 1: Nurses' identification of the presence of criminal laws regulating the sexual exposure of HIV without disclosure. Two independent variables, nurses care for patients who had fears or concerns about HIV criminalization (r = -.25, $p < 0.05$) (IV3), and highest level of education in nursing (r = .207, $p < 0.05$) (IV6), were significantly correlated (Table 4.13) with the dependent variable evaluating the nurses' identification of the presence of criminal laws regulating the sexual exposure of HIV without disclosure laws (DV1) for the nurses working in California. In bivariate logistic regression analysis, only the independentvariable evaluating whether nurses cared for patients who expressed fears or concerns about HIV-related criminal laws (IV3) had a significant and stable association with the correct identification of laws regulating sexually exposing someone to HIV without disclosure of HIV status in the jurisdiction in which the nurses practised (X^2= 4.717, p = 0.03) (DV1). The effect size of this association was 7.9% (Nagelkerke R^2 = 0.079). This finding signifies that when compared to nurses that did not take care of patients who feared or expressed concerns in regard to HIV-related criminal laws, nurses who identified having cared for these patients were 4.7 times more likely to correctly identify the presence in California of laws regulating sexually exposing someone to HIV without disclosure of HIV status (OR = 4.714, p = 0.026). No multivariate logistic regression was conducted because only one variable had a stable significance of 0.10 or lower.

Table 4.13 *Pearson's Correlations of Variables for the CA Sample (n = 93)*

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	LAWKNWLG (DV1)	1.00	.171	-.164	-.225*	-.169	-.062	-.087	-.104	-.25*	.056	-.053	.207*	.051	-.131	-.071	-.018	.031	.044	.042
2	LAWOSXKG (DV2)	-	1.00	-.238*	-.131	-.134	.033	-.045	.105	-.132	-.17	-.246*	-.053	.303**	.01	-.186	-.093	-.042	-.024	.153
3	YOUEXP (DV3)	-	-	1.00	.329**	-.25*	-.299**	.149	-.254*	.556**	.046	.252*	-.057	-.207	-.043	.133	.271*	.095	.184	-.082
4	SCOPE (DV4)	-	-	-	1.00	.141	-.11	.029	.067	.224*	.141	.016	-.113	-.192	.062	-.006	.118	.157	.194	.052
5	NRSEXP (DV5)	-	-	-	-	1.00	-.053	-.045	.176	.056	.088	.073	-.107	-.232*	.016	-.034	.076	.076	.088	-.224*
6	DOCUMENT (DV6)	-	-	-	-	-	1.00	-.287**	-.1	-.245*	-.161	-.092	.187	.265*	.154	-.075	-.112	-.338**	-.377**	-.25*
7	CAREHIV (IV1)	-	-	-	-	-	-	1.00	-.154	.056	-.122	.164	-.102	-.056	.039	.45**	.093	.048	.065	.15
8	HIVPTPRO (IV2)	-	-	-	-	-	-	-	1.00	-.116	.092	-.047	.044	-.031	.158	-.138	-.178	.176	.14	.182
9	PTEXFEAR (IV3)	-	-	-	-	-	-	-	-	1.00	.084	.186	-.054	-.270*	-.124	-.011	.245*	.126	.205	-.13
10	PTARREST (IV4)	-	-	-	-	-	-	-	-	-	1.00	.066	-.204	-.36**	-.045	.042	.195	.156	.124	-.038

11	NURDES (IV5)	-	-	-	-	-	-	-	-	-	-	1.00	.171	-.11	-.18	-.069	.154	.154	.16	-.161
12	HIGHEDU (IV6)	-	-	-	-	-	-	-	-	-	-	-	1.00	.085	-.216*	-.063	-.216*	-.055	-.023	-.052
13	OTHEDU (IV7)	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.199	-.138	-.178	-.378**	-.353**	-.152
14	YEARNRSG (IV8)	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.011	-.062	-.129	-.142	-.137
15	WKSETT (IV9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.081	.146	.157	.207*
16	RACEETH (IV10)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.157	.156	-.031
17	SEX (IV11)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.964**	.551**
18	GENDER (IV12)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.528**
19	SEXORIEN (IV13)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00

Note: *$p < 0.05$ (2-tailed), **$p < 0.01$ (2-tailed), LAWKNWLG = Knowledge of HIV-specific laws for sexual exposure, LAWOSKG = Knowledge of HIV-specific laws for nonsexual exposure, YOUEXP = Nurses thing they have the expertise to inform PLWH about HIV-related laws, SCOPE = Nurses think it is within their scope of practice to inform PLWH about HIV-related criminal laws, NRSEXP = Nurses think they should acquire expertise to inform PLWH about HIV-related criminal laws, DOCUMENT = Level of agreement with alteration of documentation to protect PLWH from HIV-related prosecutions, CAREHIV = Do nurses provide care to PLWH, HIVPTPRO = Nurses' level of agreement with thinking PLWH should be prosecuted if they accidently transmit HIV to another person, PTEXFEAR = Cared for patients that expressed fears or concerns about HIV-related criminal laws, PTARREST = Cared for patients arrested for or charged with HIV-related criminal laws, NURDES = Professional nursing designation, HIGHEDU = Highest level of education in nursing, OTHEDU = Highest level of education in a discipline other than nursing, YEARNRSG = Year first employed as a nurse, WKSETT = Work setting, RACEETH = Race and/or ethnicity, SEX = Sex assigned at birth, GENDER = Gender, SEXORIE*N* = Sexual orientation. Refer to Table 3.01 for variable explanation.

Table 4.14 summarizes the bivariate relationship between DV1 and IV3 for California nurses' subsample.

Table 4.14 *DV1 Bivariate Logistic Regression Summary for CA (n = 93)*

Independent variable	Knowledge about laws regarding the sexual exposure or transmission of HIV (DV1)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)[a]	1.551 (.698)	4.641*	1.201	4.714	18.5

Note: [a] Model $X^2 = 4.717$, $df = 1$, $p = .03$, Nagelkerke $R^2 = .079$; * $p < 0.05$

Dependent variable 2: Nurses' identification of the presence of criminal laws regulating the nonsexual exposure of HIV. Two independent variables, nursing designation ($r = -.246$, $p < 0.05$) (IV5) and highest level of education in a discipline other than nursing ($r = .303$, $p < 0.01$) (IV7), were significantly correlated (Table 4.13) with the dependent variable evaluating the nurses' identification of the presence of criminal laws regulating the nonsexual exposure of HIV (DV2) in California. In bivariate analysis, when computing the 13 independent variables with the variable evaluating the nurses' identification of laws regulating the nonsexual exposure or transmission of HIV, for example injectable drug use, bodily fluids other than blood or semen, sports, or violence (DV2), only one independent variable had a stable and statistically significant association: highest level of education in a discipline other than nursing (IV7; $X^2 = 7.649$, $p = 0.022$), with an observed effect size of 11.8% (Nagelkerke $R^2 = 0.118$). When compared to nurses that had a master's degree in a discipline other than nursing, nurses who did not have a degree in another discipline were less likely to correctly identify laws regulating the nonsexual exposure or transmission of HIV in their area of practice ($OR = 0.167$, $p = 0.012$) (DV2). No multivariate logistic regression was conducted because only one variable had a stable

significance of ≤ 0.10. Table 4.15 summarizes the bivariate relationship between DV2 and IV7 for the California nurses' subsample.

Table 4.15 DV2 Bivariate Logistic Regression Summary for CA (n = 93)

Independent variable	Knowledge about laws regarding the nonsexual exposure or transmission of HIV (DV2)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Highest level of education in a discipline other than nursing (IV7)[a]		7.429*			
None	-1.792 (.716)	6.26*	.041	.167	.678
Baccalaureate degree	-.811 (.833)	.947	.087	.444	2.276

Note: Model $X^2 = 7.649$, $df = 2$, $p = .022$, Nagelkerke $R^2 = .118$; [a] reference category for highest level of education in a discipline other than nursing is master's degree ($n = 10$); * $p < 0.05$

State by state sample: Florida. Florida has multiple HIV-specific criminal statutes. PLWH are currently being prosecuted for HIV-related crimes under these laws. Florida nurses' responses were analyzed to determine differences within this jurisdiction and legal approach. Correlations, bivariate logistic regression, and multivariate logistic regression analyses were conducted.

Dependent variable 1: Nurses' identification of the presence of criminal laws regulating the sexual exposure of HIV without disclosure. There was no independent variable that was significantly correlated (Table 4.16) with the dependent variable evaluating the nurses' identification of the presence of criminal laws regulating the sexual exposure of HIV without disclosure laws (DV1) for the subsample of nurses from Florida. Additionally, there were no stable and significant associations in bivariate logistic regression analysis between the 13

Table 4.16 *Pearson's Correlations of Variables for the FL Sample (n = 77)*

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	LAWKNWLG (DV1)	1.00	.022	.047	-.148	-.102	.102	-.045	-.208	-.144	-.195	.022	-.081	-.1	-.039	.073	.013	.105	.059	.03
2	LAWOSXKG (DV2)	-	1.00	-.168	-.071	-.165	-.008	.134	.016	-.086	-.099	.018	.173	-.064	-.136	.104	-.061	.196	.237*	.001
3	YOUEXP (DV3)	-	-	1.00	.33**	.033	-.201	-.079	.35**	.036	.198	-.191	-.226	-.13	-.109	.105	.247*	-.014	-.201	.067
4	SCOPE (DV4)	-	-	-	1.00	.398**	.098	-.05	.278*	.217	.242*	-.175	-.12	-.195	.155	-.002	.094	.123	.021	.111
5	NRSEXP (DV5)	-	-	-	-	1.00	.043	-.112	.234*	.258*	.374**	-.16	-.137	-.113	.16	-.179	.021	.091	.052	.169
6	DOCUMENT (DV6)	-	-	-	-	-	1.00	.082	-.159	-.115	-.229	.059	-.061	.003	.094	-.094	.064	.133	.11	.02
7	CAREHIV (IV1)	-	-	-	-	-	-	1.00	-.053	-.057	.017	.131	.181	.065	.133	.068	.097	.112	.073	-.153
8	HIVPTPRO (IV2)	-	-	-	-	-	-	-	1.00	.201	.17	.216	-.137	-.147	.12	-.03	.271*	.028	-.07	.037
9	PTEXFEAR (IV3)	-	-	-	-	-	-	-	-	1.00	.365**	.131	.127	-.242*	.179	-.168	.134	.104	.031	.422**
10	PTARREST (IV4)	-	-	-	-	-	-	-	-	-	1.00	-.087	.095	-.151	.059	-.163	.253*	-.123	-.203	.089
11	NURDES (IV5)	-	-	-	-	-	-	-	-	-	-	1.00	.567**	.128	-.157	-.101	-.084	-.148	-.073	-.037

12	HIGHEDU (IV6)	-	-	-	-	-	-	-	-	-	-	-	1.00	.12	-.039	.088	-.193	-.084	-.031	.043
13	OTHEDU (IV7)	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.101	.119	-.17	-.211	-.15	-.453**
14	YEARNRSG (IV8)	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.189	-.1	-.091	-.137	.012
15	WKSETT (IV9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.125	-.066	-.065	-.153
16	RACEETH (IV10)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.179	.072	.05
17	SEX (IV11)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.946**	.284*
18	GENDER (IV12)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.27*
19	SEXORIEN (IV13)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00

Note: *$p < 0.05$ (2-tailed), **$p < 0.01$ (2-tailed), LAWKNWLG = Knowledge of HIV-specific laws for sexual exposure, LAWOSKG = Knowledge of HIV-specific laws for nonsexual exposure, YOUEXP = Nurses thing they have the expertise to inform PLWH about HIV-related laws, SCOPE = Nurses think it is within their scope of practice to inform PLWH about HIV-related criminal laws, NRSEXP = Nurses think they should acquire expertise to inform PLWH about HIV-related criminal laws, DOCUMENT = Level of agreement with alteration of documentation to protect PLWH from HIV-related prosecutions, CAREHIV = Do nurses provide care to PLWH, HIVPTPRO = Nurses' level of agreement with thinking PLWH should be prosecuted if they accidently transmit HIV to another person, PTEXFEAR = Cared for patients that expressed fears or concerns about HIV-related criminal laws, PTARREST = Cared for patients arrested for or charged with HIV-related criminal laws, NURDES = Professional nursing designation, HIGHEDU = Highest level of education in nursing, OTHEDU = Highest level of education in a discipline other than nursing, YEARNRSG = Year first employed as a nurse, WKSETT = Work setting, RACEETH = Race and/or ethnicity, SEX = Sex assigned at birth, GENDER = Gender, SEXORIE*N* = Sexual orientation. Refer to Table 3.01 for variable explanation.

independent variables and the dependent variable evaluating the nurses' identification of the presence of criminal laws in Florida regulating the sexual exposure of HIV without disclosure (DV1). Furthermore, none of the bivariate analysis models were stable or achieved significance ≤ 0.10. Therefore, no multivariate logistic regression was completed.

Dependent variable 2: Nurses' identification of the presence of criminal laws regulating the nonsexual exposure of HIV. One independent variable, gender identity ($r = .237$, $p < 0.05$) (IV12), was significantly correlated with the variable evaluating nurses' correct identification of the presence of HIV-specific criminal laws in Florida regulating nonsexual exposure to HIV (Table 4.16). However, there were no significant associations or stable bivariate logistic regression models between the 13 independent variables and the dependent variable evaluating the nurses' identification of the presence of criminal laws regulating nonsexual exposure to HIV (DV2). None of the bivariate analysis results were stable or significant at ≤ 0.10. Therefore, no multivariate logistic regression was completed.

State by state sample: New York. New York does not have HIV-specific criminal statutes. However, PLWH in New York are currently prosecuted for HIV-related crimes under existing criminal laws. New York nurses' responses were analyzed to determine differences within this jurisdiction and legal approach. Correlations, bivariate logistic regression, and multivariate logistic regression analyses were conducted.

Dependent variable 1: Nurses' identification of the absence of criminal laws regulating the sexual exposure of HIV without disclosure. One independent variable, highest level of education in a discipline other than nursing ($r = -.265$, $p < 0.01$) (IV7), was significantly correlated (Table 4.17) with the dependent variable evaluating the nurses' identification of the absence of criminal laws in New York regulating the sexual exposure of HIV without disclosure

Table 4.17 *Pearson's Correlations of Variables for the NY Sample (n = 112)*

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	LAWKNWLG (DV1)	1.00	.165	.06	.009	-.086	.03	.019	-.161	-.099	-.067	.064	.003	-.265**	-.132	.048	.037	.004	-.015	.057
2	LAWOSXKG (DV2)	-	1.00	-.061	-.05	-.079	-.105	-.055	-.277**	-.357**	-.073	.003	.117	-.061	-.202*	.01	.1	-.044	-.139	.068
3	YOUEXP (DV3)	-	-	1.00	.207*	.133	.148	.032	.281*	.168	-.033	.103	.025	-.166	-.096	.004	-.118	.256**	.224*	.016
4	SCOPE (DV4)	-	-	-	1.00	.107	.03	.008	.307**	.111	.029	-.116	-.074	-.22*	-.135	.095	-.039	.194*	.136	.185
5	NRSEXP (DV5)	-	-	-	-	1.00	.017	-.055	.067	.077	.263**	.048	.013	-.143	.049	-.078	.196*	.088	.06	-.081
6	DOCUMENT (DV6)	-	-	-	-	-	1.00	-.021	-.102	-.114	-.064	.211*	.096	-.076	.109	.049	.033	-.096	-.065	-.363**
7	CAREHIV (IV1)	-	-	-	-	-	-	1.00	.089	.089	-.06	-.102	-.062	-.04	.007	.226*	.099	.04	.044	.06
8	HIVPTPRO (IV2)	-	-	-	-	-	-	-	1.00	.073	.049	-.022	-.096	-.149	-.189	-.025	-.085	.147	.138	.07
9	PTEXFEAR (IV3)	-	-	-	-	-	-	-	-	1.00	.204*	-.087	.009	.079	.126	.033	-.062	-.083	-.093	-.67
10	PTARREST (IV4)	-	-	-	-	-	-	-	-	-	1.00	-.001	-.012	-.105	.111	-.054	-.027	.033	.076	-.001

11	NURDES (IV5)	-	-	-	-	-	-	-	-	-	-	1.00	.469**	-.089	.025	.018	.057	.004	.02	-.097
12	HIGHEDU (IV6)	-	-	-	-	-	-	-	-	-	-	-	1.00	-.051	-.171	.15	.022	-.038	-.011	-.068
13	OTHEDU (IV7)	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.031	.014	.064	.026	.044	.082
14	YEARNRSG (IV8)	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.226*	-.064	-.109	.-073	-.103
15	WKSETT (IV9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.175	.011	.039	.095
16	RACEETH (IV10)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.027	-.039	.172
17	SEX (IV11)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.896**	.394**
18	GENDER (IV12)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.345**
19	SEXORIEN (IV13)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00

Note: *$p < 0.05$ (2-tailed), **$p < 0.01$ (2-tailed), LAWKNWLG = Knowledge of HIV-specific laws for sexual exposure, LAWOSKG = Knowledge of HIV-specific laws for nonsexual exposure, YOUEXP = Nurses thing they have the expertise to inform PLWH about HIV-related laws, SCOPE = Nurses think it is within their scope of practice to inform PLWH about HIV-related criminal laws, NRSEXP = Nurses think they should acquire expertise to inform PLWH about HIV-related criminal laws, DOCUMENT = Level of agreement with alteration of documentation to protect PLWH from HIV-related prosecutions, CAREHIV = Do nurses provide care to PLWH, HIVPTPRO = Nurses' level of agreement with thinking PLWH should be prosecuted if they accidently transmit HIV to another person, PTEXFEAR = Cared for patients that expressed fears or concerns about HIV-related criminal laws, PTARREST = Cared for patients arrested for or charged with HIV-related criminal laws, NURDES = Professional nursing designation, HIGHEDU = Highest level of education in nursing, OTHEDU = Highest level of education in a discipline other than nursing, YEARNRSG = Year first employed as a nurse, WKSETT = Work setting, RACEETH = Race and/or ethnicity, SEX = Sex assigned at birth, GENDER = Gender, SEXORIE*N* = Sexual orientation. Refer to Table 3.01 for variable explanation.

laws (DV1), among a subsample of nurses from New York. However, when computing bivariate analysis between the independent variables with the variable evaluating the nurses' identification of the absence of criminal laws regulating the sexual exposure of HIV without disclosure (DV1), no statistically significant independent variables or stable statistical models were identified. There were also no stable associations with a significance ≤ 0.10; therefore, no multivariate logistic regression analyses were completed.

Dependent variable 2: Nurses' identification of the absence of criminal laws regulating the nonsexual exposure of HIV. Three independent variables—do nurses think PLWH should be prosecuted for exposing someone to HIV (r = -.277, $p < 0.01$) (IV2); nurses caring for clients who fear or have expressed concerns about HIV criminalization (r = -.357, $p < 0.01$) (IV3); and year first employed as a nurse (r = -.202, $p < 0.05$) (IV8)—were significantly correlated (Table 4.17) with the dependent variable evaluating the nurses' identification of the absence of criminal laws in New York regulating the nonsexual exposure of HIV (DV2). In bivariate analysis, the independent variable evaluating whether nurses identified that they cared for a patient who had expressed fears or concerns about HIV-related criminal laws was stable and statistically significant (IV3; X^2= 7.722, $p < 0.01$) when computed for the identification of laws regulating the nonsexual exposure or transmission of HIV, for example injectable drug use, bodily fluids other than blood or semen, sports, or violence (DV2). The effect size of this association was 18% (Nagelkerke R^2 = 0.18). Nurses who reported that they had cared for a patient who had expressed fears or concerns about HIV-related criminal laws were 14.6 times more likely to correctly identify the absence of laws regulating the nonsexual exposure or transmission of HIV when compared to nurses who did not take care of patients who had feared or expressed concerns in

regard to HIV-related criminal laws (*OR* = 14.55, $p < 0.01$). Table 4.18 summarizes the bivariate relationships between DV2 and IV3 for the subsample of New York nurses.

Table 4.18
DV2 Bivariate Logistic Regression Summary for NY (n = 112)

Independent variable	Knowledge about laws regarding the nonsexual exposure or transmission of HIV (DV2)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)[a]	2.678 (.891)	9.034*	2.538	14.55	83.401

Note: Model $X^2 = 7.722$, $df = 1$, $p < .01$, Nagelkerke $R^2 = .18$; * $p < 0.05$

The multivariate logistic regression analysis for the second dependent variable was conducted using independent variable IV3, nurses cared for patients who expressed fears or concerns about HIV-related criminal laws, in addition to IV2—level of agreement with the following statement: if an HIV-positive patient unintentionally transmits HIV to another person, they should be prosecuted—and IV8, year first started as a nurse. The statistical model created by the combination of these three independent variables, associated with the identification of laws regulating the nonsexual exposure or transmission of HIV, was significant ($X^2 = 20.544$, $p < 0.01$) (DV2), with an effect size of 46 % (Nagelkerke $R^2 = 0..46$). When compared to nurses that did not take care of patients who had feared or expressed concerns in regard to HIV-related criminal laws, nurses who identified having cared for these patients were 22.5 times more likely to correctly identify the absence of laws regulating the nonsexual exposure or transmission of HIV (*OR* = 22.472, $p = 0.015$). Table 4.19 summarizes the bivariate relationship between DV2 and IV2, IV3, and IV8 in the subsample of New York nurses.

Table 4.19
DV2 Multivariate Logistic Regression Summary for NY Sample (n = 112)

Independent variables	Knowledge about laws regarding the nonsexual exposure or transmission of HIV (DV2)				
	B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Should a PLWH who unintentionally transmits HIV to another person be prosecuted? (IV2)[a]		4.246			
Strongly disagree	21.608 (1.222)	-	220884331.4	2422848919	2.658E+10
Disagree	19.09 (0)	-	195314614.8	195314614.8	195314614.8
Neither agree nor disagree	-.429 (0)	-	.651	.651	.651
Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	3.112 (1.284)	5.874*	1.814	22.472	278.449
Employed as a nurse before 1981 (IV8)	1.756 (.973)	3.261	.861	5.791	38.965

Note: Model $X^2 = 20.544$, $df = 5$, $p < .01$, Nagelkerke $R^2 = .46$; [a] reference category for "should a PLWH who unintentionally transmits HIV to another person be prosecuted?" is agree ($n = 6$); * $p < 0.05$

State by state sample: Texas. Texas does not have HIV-specific criminal statutes. However, PLWH are currently being prosecuted for HIV-related crimes under existing criminal laws. Texas nurses' responses were analyzed to determine differences within this jurisdiction and legal approach. Correlations, bivariate logistic regression, and multivariate logistic regression analysis were conducted.

Table 4.20 *Pearson's Correlations of Variables for the TX Sample (n = 104)*

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	LAWKNWLG (DV1)	1.00	.138	-.236*	-.08	-.084	-.106	.239*	.105	.08	-.033	-.053	.168	-.113	.082	.056	-.236*	.133	.141	.161
2	LAWOSXKG (DV2)	-	1.00	-.185	-.211*	.008	-.096	-.033	.076	.044	-.052	-.028	-.043	-.063	-.129	.011	.037	.115	.112	-.038
3	YOUEXP (DV3)	-	-	1.00	.246*	.06	.176	-.215*	-.278**	.000	.247*	.209*	.102	-.058	-.013	.043	.129	.082	-.01	-.008
4	SCOPE (DV4)	-	-	-	1.00	.088	.016	-.015	-.016	.153	.23*	-.113	.018	.099	.162	.065	.218*	-.085	-.042	.177
5	NRSEXP (DV5)	-	-	-	-	1.00	.19	-.063	-.015	.076	.018	-.049	.02	.17	-.053	.002	.205*	.047	.043	.091
6	DOCUMENT (DV6)	-	-	-	-	-	1.00	.007	-.076	.031	-.076	.163	.034	-.074	-.182	.101	.104	-.182	-.258*	-.244*
7	CAREHIV (IV1)	-	-	-	-	-	-	1.00	.204*	.1	.084	-.045	.209*	-.002	.095	.336**	-.213*	.16	.189	.197*
8	HIVPTPRO (IV2)	-	-	-	-	-	-	-	1.00	.186	-.052	-.121	.138	-.06	-.024	.063	-.022	.016	.015	.078
9	PTEXFEAR (IV3)	-	-	-	-	-	-	-	-	1.00	.151	.016	.002	.061	-.065	.071	.136	.167	.168	.469**
10	PTARREST (IV4)	-	-	-	-	-	-	-	-	-	1.00	-.097	.097	.067	-.029	.1	.044	.279**	.321**	.226*

11	NURDES (IV5)	-	-	-	-	-	-	-	-	-	-	1.00	.252*	-.067	-.103	.013	.064	.028	-.024	-.041
12	HIGHEDU (IV6)	-	-	-	-	-	-	-	-	-	-	-	1.00	.132	-.064	.181	-.122	-.043	-.11	-.044
13	OTHEDU (IV7)	-	-	-	-	-	-	-	-	-	-	-	-	1.00	-.126	.158	.116	-.113	-.108	-.04
14	YEARNRSG (IV8)	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.085	-.086	-.003	.07	.056
15	WKSETT (IV9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.071	.086	.102	.102
16	RACEETH (IV10)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.092	.093	.122
17	SEX (IV11)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	1**	.542**
18	GENDER (IV12)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.609**
19	SEXORIEN (IV13)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00

Note: **p < 0.05* (2-tailed), ***p* < 0.01 (2-tailed), LAWKNWLG = Knowledge of HIV-specific laws for sexual exposure, LAWOSKG = Knowledge of HIV-specific laws for nonsexual exposure, YOUEXP = Nurses thing they have the expertise to inform PLWH about HIV-related laws, SCOPE = Nurses think it is within their scope of practice to inform PLWH about HIV-related criminal laws, NRSEXP = Nurses think they should acquire expertise to inform PLWH about HIV-related criminal laws, DOCUMENT = Level of agreement with alteration of documentation to protect PLWH from HIV-related prosecutions, CAREHIV = Do nurses provide care to PLWH, HIVPTPRO = Nurses' level of agreement with thinking PLWH should be prosecuted if they accidently transmit HIV to another person, PTEXFEAR = Cared for patients that expressed fears or concerns about HIV-related criminal laws, PTARREST = Cared for patients arrested for or charged with HIV-related criminal laws, NURDES = Professional nursing designation, HIGHEDU = Highest level of education in nursing, OTHEDU = Highest level of education in a discipline other than nursing, YEARNRSG = Year first employed as a nurse, WKSETT = Work setting, RACEETH = Race and/or ethnicity, SEX = Sex assigned at birth, GENDER = Gender, SEXORIE*N* = Sexual orientation. Refer to Table 3.01 for variable explanation.

Dependent variable 1: Nurses' identification of the absence of criminal laws regulating the sexual exposure of HIV without disclosure. Two independent variables—nurse provides care to PLWH (r = .239, $p < 0.05$) (IV1), and ethnicity (r = -.236, $p < 0.05$) (IV10)—were significantly correlated (Table 4.20) with the dependent variable evaluating the nurses' identification of the absence of criminal laws in Texas regulating the sexual exposure of HIV without disclosure laws (DV1). However, there were no significant associations or stable models in bivariate logistic regression analysis between the 13 independent variables and the dependent variable evaluating the nurses' identification of the absence of criminal laws in Texas regulating sexual exposure of HIV without disclosure (DV1). None of the bivariate analysis results were stable or had a significance ≤ 0.10. Therefore, a multivariate logistic regression was not completed.

Dependent variable 2: Nurses' identification of the absence of criminal laws regulating the nonsexual exposure of HIV. None of the independent variables was significantly correlated to the variable evaluating nurses' correct identification of the absence of HIV-specific criminal laws in Texas regulating nonsexual exposure to HIV. Additionally, there were no significant associations in bivariate logistic regression between the 13 independent variables and the dependent variable evaluating the nurses' identification of the absence of criminal laws in Texas regulating the nonsexual exposure of HIV (DV2). None of the bivariate analysis results had a significance ≤ 0.10. Therefore, no multivariate logistic regression was completed.

Nurses' Attitudes Regarding Expertise in a Context of HIV Criminalization

Nurses' attitudes regarding expertise in a context of HIV criminalization: Aggregate sample analyses. The statistical models created by bivariate associations between the 13 independent variables and the variable evaluating if nurses thought they should acquire expertise

about HIV criminalization to inform their patients about HIV-related legal regulations (DV5) were significant but not stable. In addition, the multivariate statistical model created by regrouping variables that had significance ≤ 0.10 in bivariate analysis was not significant because it was unstable. For this reason, no bivariate or multivariate results are presented in this section. However, there were some significant correlations identified between the 13 independent variables and the variable evaluating whether nurses thought they should acquire the expertise to inform their patients about HIV-related legal regulations (DV5). A summary of these correlation analyses is found in Table 4.02.

Dependent variable 3: Do nurses think they have the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences. Four independent variables—nurses cared for patients who expressed fears or concerns about HIV criminalization ($r = .183$, $p < 0.01$) (IV3); nurses cared for patients that have been arrested or charged with an HIV-related crime ($r = .121$, $p < 0.05$) (IV4); highest level of education in a discipline other than nursing ($r = -.143$, $p < 0.01$) (IV7); and ethnicity ($r = .13$, $p < 0.05$) (IV10)—were significantly correlated with the dependent variable evaluating whether nurses thought they had the expertise to inform PLWH about HIV-related regulations and potential legal consequences (DV3) for the aggregate sample (Table 4.02). In bivariate analysis, two independent variables were statistically significant when computed for the variable evaluating whether nurses thought they had the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV3): (a) the variable evaluating if nurses identified that they cared for a patient who expressed fears or concerns about HIV-related criminal laws (IV3), and (b) the variable evaluating if nurses identified that they cared for a patient who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4).

First, the association between the variable evaluating if nurses cared for patients who expressed fears or concerns about HIV-related criminal laws (IV3) and whether nurses thought they had the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV3) was significant (X^2= 31.922, $p < 0.01$), with an effect size of 13.8% (Nagelkerke $R^2 = 0.138$). Nurses who identified having taken care of patients who expressed fears or concerns about HIV-related criminal laws did not think that they currently had the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences, when compared to nurses who identified not having taken care of patients who expressed fears or concerns about HIV-related criminal laws (*OR* = 0.148, $p < 0.01$). This indicates that nurses who had experience working with patients who expressed fears or concerns about HIV-related criminal laws perceived that they had expertise about those laws. Table 4.21 summarizes the bivariate relationship between DV3 and IV3 for the aggregate sample.

Table 4.21
DV3 Bivariate Logistic Regression Summary for Aggregate Sample (n = 386)

Dependent variable		Independent variables					
			B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences? (DV3)[a b]	Yes	Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	.606 (.693)	.766	.472	1.833	7.126
	No	Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	-1911 (.635)	9.063*	.043	.148	.513

Note: [a] reference category for "Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences?" is "I do not know" (n = 15); [b] Model X^2 = 31.922, df = 2, $p < .01$, Nagelkerke R^2 = .138; * $p < 0.05$

Second, the association between the variable evaluating if nurses cared for patients who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4) and the variable evaluating if the nurses thought they had the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV3) was significant (X^2= 19.186, $p < 0.01$), with an effect size of 8.2% (Nagelkerke R^2 = 0.082). Nurses' identification of having taken care of patients who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission was negatively associated with thinking that they currently did not have the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences, when compared to nurses who did not know if they had taken care of patients who have been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (*OR* = 0.101, p = 0.013). This indicates that nurses who had experience working with patients who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission perceived that they had expertise about those laws.

Table 4.22 summarizes the bivariate relationship between DV3 and IV4 for the aggregate sample. Multivariate logistic regression was conducted and included 10 independent variables (IV1, IV2, IV3, IV4, IV5, IV7, IV8, IV10, IV11, IV12) that had a significance of ≤ 0.10 in bivariate logistic regressions; but the results were nonsignificant, partly due to model instability.

Table 4.22
DV3 Bivariate Logistic Regression Summary for Aggregate Sample (n = 386)

Dependent variable		Independent variables						
				B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal con-sequences? (DV3)[a b]	Yes	Nurses cared for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4)[c]	Yes	.693 (1.018)	.464	.272	2	14.699
			No	1.050 (.692)	2.303	.736	2.857	11.086
	No	Nurses cared for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4)[c]	Yes	-2.297 (.921)	6.217*	.017	.101	.612
			No	-.096 (.546)	.031	.312	.908	2.646

Note: [a] reference category for "Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences?" is "I do not know" (n = 16); [b] Model X^2 = 19.186, df = 4, $p < .01$, Nagelkerke R^2 = .082; [c] reference category for "Have nurses care for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission?" is "I do not know" (n = 188); * $p < 0.05$

Dependent variable 4: Do nurses think it is within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences. Five independent variables—do nurses think PLWH should be prosecuted for exposing HIV (r = .158, $p < 0.01$) (IV2); nurses cared for patient having fears or concerns about HIV criminalization (r = .185, $p < 0.01$) (IV3); nurses cared for patient having been arrested or charged with an HIV-related law (r = -.163, $p < 0.01$) (IV4); education in a discipline other than nursing (r = -.161, $p < 0.01$) (IV7); and sexual orientation (r = .125, $p < 0.05$) (IV13)—were significantly correlated with the dependent variable evaluating whether nurses thought it was within their scope of practice, professional duty, or responsibility to inform a

PLWH about HIV-related legal regulations and potential legal consequences (DV4; see Table 4.02).

In bivariate analysis, two independent variables were significant when computed for the variable evaluating if the nurses thought it was within their scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations related to HIV exposure and transmission: (a) the variable evaluating if nurses identified that they cared for a patient that had expressed fears or concerns about HIV-related criminal laws (IV3); and (b) the variable evaluating if nurses identified that they cared for a patient that has been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4).

First, the association between the independent variable evaluating if nurses identified that they cared for a patient who had expressed fears or concerns about HIV-related criminal laws (IV3) and the dependent variable evaluating whether nurses thought it was within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV4) was significant (X^2= 13.008, $p < 0.01$), with an effect size of 3.9% (Nagelkerke $R^2 = 0.039$). Nurses who identified having taken care of patients who expressed fears or concerns about HIV-related criminal laws were 6.4 times more likely to think it was within their scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations related to HIV exposure and transmission when compared to nurses who identified not having taken care of patients who expressed fears or concerns about HIV-related criminal laws (OR = 6.437, $p < 0.01$). Table 4.23 summarizes the bivariate relationship between DV4 and IV3 for the aggregate sample.

Table 4.23
DV4 Bivariate Logistic Regression Summary for Aggregate Sample (n = 386)

Dependent variable		Independent variable					
			B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do you think it is within your scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations and the potential for criminal prosecution related to HIV exposure and transmission? (DV4)[a b]	Yes	Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	1.862 (.583)	10.189*	2.052	6.437	20.193
	No	Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	.910 (.58)	2.463	.797	2.485	7.742

Note: [a] reference category for "Do you think it is within your scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations and the potential for criminal prosecution related to HIV exposure and transmission?" is "I do not know" (n = 119); [b] Model X^2 = 13.008, df = 2, p < .01, Nagelkerke R^2 = .039; * p < 0.05

Second, the association between the independent variable evaluating if nurses identified that they cared for a patient who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4) and the dependent variable evaluating whether nurses thought it was within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV4) was significant (X^2= 17.503, $p < 0.01$), with an effect size of 5.1% (Nagelkerke R^2 = 0.051). Nurses that had not taken care of patients who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission were 2.7 times more likely to think it was within their scope of practice, professional duty, or professional responsibility to inform a PLWH about legal

regulations related to HIV exposure and transmission when compared to nurses who did not know if they took care of patients that had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission ($OR = 2.732$, $p < 0.01$).

Table 4.24 summarizes the bivariate relationship between DV4 and IV4 for the aggregate sample. Multivariate logistic regression was conducted and included the eight independent variables (IV2, IV3, IV4, IV5, IV7, IV9, IV10 and IV11) with significance ≤ 0.10 in bivariate logistic regressions, but the results were not significant partly due to model instability and are therefore not reported.

Table 4.24
DV4 Bivariate Logistic Regression Summary for Aggregate Sample (n = 386)

Dependent variable		Independent variables						
				B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do you think it is within your scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations and the potential for criminal prosecution related to HIV exposure and transmission? (DV4)[a, b]	Yes	Nurses cared for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4)[c]	Yes	1.17 (.709)	2.718	.802	3.221	12.94
			No	1.005 (.304)	10.945 *	1.506	2.732	4.954
	No	Nurses cared for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4)[c]	Yes	-1.032 (.881)	1.373	.063	.356	2.002
			No	.156 (.24)	.422	.73	1.169	1.872

Note: [a] reference category for "Do you think it is within your scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations and the potential for criminal prosecution related to HIV exposure and transmission?" ($n = 121$); [b] Model $X^2 = 17.503$, $df = 4$, $p < .01$, Nagelkerke $R^2 = .051$; [c] reference category for "Have nurses care for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission?" is "I do not know" ($n = 187$); * $p < 0.05$

Nurses' attitudes in regard to expertise in a context of HIV criminalization: Sample stratified by HIV-criminalization approach. The significant statistical models created by bivariate associations between the 13 independent variables and the variable evaluating whether nurses think they should acquire expertise to inform their patients about HIV-related legal regulations (DV5) were unstable for both stratified subsamples (CA+FL and NY+TX). In addition, the multivariate statistical model created by regrouping variables that had significance ≤ 0.10 in bivariate analyses was not significant due to its instability for both stratified subsamples (CA+FL and NY+TX). For this reason, no bivariate or multivariate results are presented in this section regarding the dependent variable evaluating whether nurses think they should acquire expertise to inform their patients about HIV-related legal regulations (DV5).

States with HIV-specific criminal laws: California and Florida. California and Florida both have HIV-specific criminal laws and data from these two states were stratified based on the presence of this legal approach to managing HIV exposure. The analyses for the following section was computed using data from nurses who identified practising in California or Florida. Results from bivariate analysis and multivariate analysis were explored.

Dependent variable 3: Do nurses think they have the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences. Two independent variables—nurses cared for patients who expressed fears or concerns about HIV criminalization ($r = .235$, $p < 0.01$) (IV3) and ethnicity ($r = .254$, $p < 0.01$) (IV10)—were significantly correlated with the dependent variable evaluating whether nurses thought they had the expertise to inform PLWH about HIV-related regulations and potential legal consequences (DV3) for the stratified subsample of California and Florida nurses (Table 4.07).

In bivariate logistic regression analysis, three independent variables were statistically significant when computed for the variable evaluating whether nurses thought they had the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV3): (a) the variable evaluating if nurses identified that they cared for a patient that had expressed fears or concerns about HIV-related criminal laws (IV3); (b) the variable evaluating if nurses identified that they cared for a patient that has been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4); and (c) year first employed as a nurse (IV8).

First, the association between the variable evaluating if nurses cared for patients who expressed fears or concerns about HIV-related criminal laws (IV3) and the variable evaluating whether nurses thought they had the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV3) was significant (X^2= 39.037, $p < 0.01$), with an effect size of 35.3% (Nagelkerke $R^2 = 0.353$). Nurses who identified having taken care of patients who expressed fears or concerns about HIV-related criminal laws were negatively associated with thinking they did not currently have the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences when compared to nurses who identified not having taken care of patients who expressed fears or concerns about HIV-related criminal laws ($OR = 0.034$, $p < 0.01$). Table 4.25 summarizes the bivariate relationship between DV3 and IV3 for states that have HIV-specific criminal laws: California and Florida.

Table 4.25
DV3 Bivariate Logistic Regression Summary for CA+FL Sample (n = 170)

Dependent variable		Independent variables					
			B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences? (DV3)[a b]	Yes	Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	0.0 (1.025)	-	.134	1.00	7.451
	No	Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	-3.394 (.932)	13.26*	.005	.034	.209

Note: [a] reference category for "Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences?" is "I do not know" (n = 6); [b] Model X^2 = 39.037, df = 2, $p < .01$, Nagelkerke R^2 = .353; * $p < 0.05$

Second, the association between independent variable evaluating if nurses identified that they cared for a patient who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4) and the dependent variable evaluating whether nurses thought they had the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV3) was significant (X^2= 18.91, $p < 0.01$), with an effect size of 17.5% (Nagelkerke R^2 = 0.175). Nurses' identification of having taken care of patients who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission was negatively associated with thinking they did not currently have the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences when compared to nurses who identified not knowing if they had taken care of patients that had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (OR = 0.038, $p <$

0.01). Table 4.26 summarizes the bivariate relationship between DV3 and IV4 for states with HIV-specific criminal laws: California and Florida.

Table 4.26
DV3 Bivariate Logistic Regression Summary for CA+FL Sample (n = 170)

Dependent variable		Independent variables		B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal con-sequences? (DV3)[a b]	Yes	Nurses cared for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4)[c]	Yes	.405 (1.155)	.123	.156	1.5	14.42
			No	.965 (1.107)	.76	.3	2.625	22.998
	No	Nurses cared for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4)[c]	Yes	-3.271 (1.16)	7.948*	.004	.038	.369
			No	.21 (.928)	.051	.2	1.234	7.61

Note: [a] reference category for "Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences?" is "I do not know" (n = 7); [b] Model X^2 = 18.91, df = 4, p < .01, Nagelkerke R^2 = .175; [c] reference category for "Have nurses care for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission?" is "I do not know" (n = 86); * p < 0.05

Third, the association between nurses' first year employed as a nurse (IV8) and the variable evaluating whether nurses thought they had the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV3) was significant (X^2= 7.11, p = 0.029), with an effect size of 6.9% (Nagelkerke R^2 = 0.069). Nurses' identification of being employed as a nurse prior 1981 was negatively associated with their thinking they did not have the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences when compared to nurses employed in 1981 or later (OR = 0.123, p = 0.015). This indicates that nurses who were employed as nurses prior to 1981 are more likely to perceive that they have expertise to inform a PLWH about HIV-related legal regulations and potential legal

consequences. Table 4.27 summarizes the bivariate relationship between DV3 and IV8 for the states that have HIV-specific criminal laws: California and Florida. Multivariate logistic regression was conducted and included six independent variables (IV1, IV3, IV4, IV5, IV7 and IV9) with a significance of ≤ 0.10 in bivariate logistic regressions, but the results were nonsignificant partly due to model instability, and are not reported.

Table 4.27
DV3 Bivariate Logistic Regression Summary for CA+FL Sample (n = 170)

Dependent variable		Independent variables					
			B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences? (DV3)[a b]	Yes	Nurses employed before 1981 (IV8)	-1.609 (1)	2.59	.028	0.2	1.42
	No	Nurses employed before 1981 (IV8)	-2.093 (.86)	5.92*	.023	.123	.666

Note: [a] reference category for "Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences?" is "I do not know" (n = 6); [b] Model X^2 = 7.11, df = 2, p = .029, Nagelkerke R^2 = .069; * $p < 0.05$

Dependent variable 4: Do nurses think it is within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences. Four independent variables—do nurses think PLWH should be prosecuted for exposing HIV (r = .164, $p < 0.05$) (IV2); nurses cared for patient having fears or concerns about HIV criminalization (r = .218, $p < 0.01$) (IV3); nurses cared for patient having been arrested or charged with a crime related to HIV (r = .189, $p < 0.05$) (IV4); and highest level of education in a discipline other than nursing (r = -.19, $p < 0.05$) (IV7)—were significantly correlated with the dependent variable evaluating if nurses thought it was within their scope of practice, professional

duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV4; Table 4.07).

In bivariate statistical analysis, one independent variable was statistically significant or created model stability when computed for the dependent variable evaluating if the nurses thought it was within their scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations related to HIV exposure and transmission (DV4): the variable evaluating if nurses identified that they cared for a patient who had expressed fears or concerns about HIV-related criminal laws (IV3). The association between the variable evaluating if nurses cared for patients who expressed fears or concerns about HIV-related criminal laws (IV3) and the variable evaluating whether nurses think it is within their scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations related to HIV exposure and transmission (DV4) was significant (X^2= 9.233, p = 0.01), with an effect size of 6.1% (Nagelkerke R^2 = 0.061).

Nurses who identified having taken care of patients who expressed fears or concerns about HIV-related criminal laws were 4.8 times more likely to think it was within their scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations related to HIV exposure and transmission when compared to nurses who identified not having taken care of patients who expressed fears or concerns about HIV-related criminal laws (*OR* = 4.821, p = 0.012). Table 4.28 summarizes the bivariate relationship between DV4 and IV3 for the states that have HIV-specific criminal laws: California and Florida. Multivariate logistic regression was conducted and included six independent variables (IV2, IV3, IV4, IV5, IV7 and IV9) with significance ≤ 0.10 in bivariate logistic regression. The results were not

significant partly because of model instability. There were no significant results for the New York and Texas stratified subsample.

Table 4.28
DV4 Bivariate Logistic Regression Summary for CA+FL Sample (n = 170)

Dependent variable		Independent variable					
			B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do you think it is within your scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations and the potential for criminal prosecution related to HIV exposure and transmission? (DV4)[a b]	Yes	Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	1.573 (.626)	6.324*	1.415	4.821	16.429
	No	Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	.266 (.642)	.171	.371	1.304	4.587

Note: [a] reference category for "Do you think it is within your scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations and the potential for criminal prosecution related to HIV exposure and transmission?" is "I do not know" (n = 49); [b] Model X^2 = 9.233, df = 2, p = .01, Nagelkerke R^2 = .061; * $p < 0.05$

Nurses' attitudes regarding expertise in a context of HIV criminalization: State by state analyses. Some statistically significant correlations were observed between the 13 independent variables and the variable evaluating whether nurses think they should acquire the expertise about HIV criminalization to inform their patients of HIV-related legal regulations (DV5). (See Tables 4.02, 4.07, 4.10, 4.13, 4.16, 4.17, and 4.20.) However, the significant statistical models created by bivariate associations between the 13 independent variables and the variable evaluating if nurses think they should acquire the expertise about HIV criminalization to

inform their patients of HIV-related legal regulations (DV5) were unstable. In addition, the multivariate statistical model created by regrouping variables with significance ≤ 0.10 in bivariate analysis was not significant due to its instability. For this reason, no bivariate or multivariate results are presented in this section regarding DV5 (nurses think they should acquire the expertise about HIV criminalization to inform their patients of HIV-related legal regulations).

State by state sample: California. California uses a narrow HIV-specific law that criminalizes the exposure of HIV with the intent to transmit the virus in its approach to HIV criminalization. PLWH have been prosecuted in California under this specific law. California nurses' responses were analyzed to determine differences within this jurisdiction and legal approach. Correlations, bivariate logistic regression analysis, and multivariate logistic regression analysis were conducted and are reported in this section.

Dependent variable 3: Do nurses think they have the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences. Four independent variables—do nurses think PLWH should be prosecuted for exposing HIV (r = -.254, $p < 0.05$) (IV2); nurses care for patient having expressed fears or concerns about HIV criminalization (r = .56, $p < 0.01$) (IV3); nursing designation (r = .252, $p < 0.05$) (IV5); and ethnicity (r = .271, $p < 0.05$) (IV10)—were significantly correlated with the variable evaluating if nurses thought they currently had the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences (DV3) for the subsample of California nurses (Table 4.13). However, in bivariate logistic regression analysis computed for the variable evaluating if nurses thought they currently have the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences (DV3), there were no significant associations and the logistic regression models produced were

unstable. Furthermore, there were no stable associations with significance ≤ 0.10 in bivariate logistical regression analysis. For this reason, no multivariate logistic regression was computed.

Dependent variable 4: Do nurses think it is within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences. One independent variable, nurses care for patient having expressed fears or concerns about HIV criminalization ($r = .224$, $p < 0.05$) (IV3), was significantly correlated with the variable evaluating if nurses thought it was within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV4) for the subsample of California nurses (Table 4.13). However, when using bivariate logistic regression analysis by computing the 13 independent variables with the variable evaluating if nurses thought it was within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV4), there were no significant associations and the logistic regression models produced were unstable. Furthermore, there were no stable associations with significance ≤ 0.10 in bivariate logistical regression analysis. For this reason, no multivariate logistic regression was computed.

State by state sample: Florida. Florida has multiple HIV-specific criminal statutes. PLWH are currently being prosecuted for HIV-related crimes under these laws. Florida nurses' responses were analyzed to determine differences within this jurisdiction and legal approach. Correlations, bivariate logistic regression, and multivariate logistic regression analyses were conducted.

Dependent variable 3: Do nurses think they have the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences. Two independent variables—do

nurses think PLWH should be prosecuted for exposing HIV ($r = .35$, $p < 0.01$) (IV2), and ethnicity ($r = .247$, $p < 0.05$) (IV10)—were significantly associated with the variable evaluating if nurses thought they currently have the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences (DV3) for the subsample of Florida nurses (Table 4.16). In bivariate logistic regression, the variable evaluating if nurses cared for patients who expressed fears or concerns about HIV-related criminal laws (IV3) was statistically significantly associated with the variable evaluating whether nurses thought they had the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV3) ($X^2 = 21.852$, $p < 0.01$), with an effect size of 36.9% (Nagelkerke $R^2 = 0.369$). (See Table 4.29.)

Table 4.29
DV3 Bivariate Logistic Regression Summary for FL Sample (n = 77)

Dependent variable		Independent variables					
			B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences? (DV3)[a b]	Yes	Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	-.875 (1.335)	.43	.03	.417	5.708
	No	Nurses cared for patients that expressed fears or concerns about HIV-related criminal laws? (IV3)	-3.82 (1.211)	9.943*	.002	.022	.236

Note: [a] reference category for "Do you think you currently have expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences?" is "I do not know" ($n = 5$); [b] Model $X^2 = 21.852$, $df = 2$, $p < .01$, Nagelkerke $R^2 = .369$; * $p < 0.05$

Nurses' identification of caring for patients who had expressed fears or concerns about HIV-related criminal laws was negatively associated with thinking they currently did not have the expertise to inform a PLWH about HIV-related legal regulations and potential legal

consequences when compared to nurses that did not care for patients who expressed fears or concerns about HIV-related criminal laws (*OR* = 0.022, $p < 0.01$). Multivariate logistic regression was conducted and included five independent variables (IV2, IV3, IV4, IV5, and IV10) with significance ≤ 0.10 in bivariate logistic regressions, but the results were not significant partly due to model instability.

Dependent variable 4: Do nurses think it is within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences. Two independent variables—do nurses think PLWH should be prosecuted for exposing someone to HIV ($r = .278$, $p < 0.05$) (IV2), and nurses that cared for patients arrested for or charged with an HIV-related crime ($r = .242$, $p < 0.05$) (IV4)—were significantly correlated with the variable evaluating if nurses thought it was within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV4) among nurses from the Florida subsample (Table 4.16). However, in bivariate logistic regressions there were no significant associations that were ≤ 0.10 between the 13 independent variables and the variable evaluating whether nurses thought it was within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV4). Therefore, no multivariate logistic regression was computed.

State by state sample: New York. New York does not have HIV-specific criminal statutes. However, PLWH in New York are currently prosecuted for HIV-related crimes under existing criminal laws. New York nurses' responses were analyzed to determine differences within this jurisdiction and legal approach. Correlations, bivariate logistic regression, and multivariate logistic regression analyses were conducted.

Dependent variable 3: Do nurses think they have the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences. Three independent variables—do nurses think PLWH should be prosecuted for exposing someone to HIV ($r = .281$, $p < 0.05$) (IV2); sex assigned at birth ($r = .256$, $p < 0.01$) (IV11); and, gender identity ($r = .224$, $p < 0.05$) (IV12)—were significantly correlated with the variable evaluating if nurses thought they had the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences (DV3) for the subsample of New York nurses (Table 4.17). However, in bivariate logistic regressions there were no significant associations that were ≤ 0.10 between the 13 independent variables and the variable evaluating whether nurses thought they had the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences (DV3). Therefore, no multivariate logistic regression was computed.

Dependent variable 4: Do nurses think it is within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences. Three independent variables—do nurses think PLWH should be prosecuted for exposing someone to HIV ($r = .307$, $p < 0.01$) (IV2); education in a discipline other than nursing ($r = -.22$, $p < 0.05$) (IV7); and sex assigned at birth ($r = .194$, $p < 0.05$) (IV11)—were significantly correlated with the variable evaluating if nurses thought it was within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV4) among the New York nurses' subsample (Table 4.17). However, in bivariate logistic regression there were no significant associations that were ≤ 0.10 between the 13 independent variables and the variable evaluating whether nurses thought it was within their scope of practice, professional duty, or responsibility to inform a

PLWH about HIV-related legal regulations and potential legal consequences (DV4). Therefore, no multivariate logistic regression was computed.

State by state sample: Texas. Texas does not have HIV-specific criminal statutes. However, PLWH are currently being prosecuted for HIV-related crimes under existing criminal laws. Texas nurses' responses were analyzed to determine differences within this jurisdiction and legal approach. Correlations, bivariate logistic regression, and multivariate logistic regression analysis were conducted.

Dependent variable 3: Do nurses think they have the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences. Four independent variables—nurses provided care to PLWH (r = -.215, $p < 0.05$) (IV1); nurses think PLWH should be prosecuted for exposing someone to HIV (r = -.278, $p < 0.01$) (IV2); nurses cared for patients who had been arrested for or charged with an HIV-related crime (r = .247, $p < 0.05$) (IV4); and nursing designation (r = .209, $p < 0.05$) (IV5)—were significantly correlated with the variable evaluating if nurses thought they had the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences (DV3) among the Texas nurses' subsample (Table 4.20). However, in bivariate logistic regression there were no significant associations that were ≤ 0.10 between the 13 independent variables and the variable evaluating whether nurses thought they had the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences (DV3). Therefore, no multivariate logistic regression was computed.

Dependent variable 4: Do nurses think it is within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences. Two independent variables—nurses cared for patients who had been arrested for or charged with an HIV-related crime (r = .23, $p < 0.05$) (IV4); and ethnicity (r = .218, $p < 0.05$)

(IV10)—were significantly correlated with the variable evaluating if nurses thought it was within their scope of practice, professional duty, or responsibility to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV4) for the Texas nurses' subsample (Table 4.20).

In bivariate analysis, the variable evaluating if nurses cared for patients who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4) was statistically significantly associated with the variable evaluating whether nurses thought it was within their scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations related to HIV exposure and transmission (DV4) (X^2= 6.122, p = 0.047), with an effect size of 6.6% (Nagelkerke R^2 = 0.066).

Nurses that cared for patients who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission were five times more likely to think it was within their scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations related to HIV exposure and transmission when compared to nurses who did not know if they cared for patients who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (OR = 4.767, p = 0.019). Multivariate logistic regression was conducted with four independent variables (IV4, IV5, IV8, and IV10) that had significance ≤ 0.10 in bivariate logistic regressions, but the results were nonsignificant due to model instability. Table 4.30 summarizes the bivariate relationship between DV4 and IV4 for the state of Texas.

Table 4.30
DV4 Bivariate Logistic Regression Summary for TX Sample (n = 104)

Dependent variable		Independent variables					
			B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Do you think it is within your scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations and the potential for criminal prosecution related to HIV exposure and transmission? (DV4)[a, b]	Yes	Nurses not having cared for patients that have been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4)[c]	1.562 (.668)	5.468*	1.287	4.767	17.648
	No	Nurses not having cared for patients that have been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4)[c]	.467 (.434)	1.155	.681	1.595	3.735

Note: [a] reference category for "Do you think it is within your scope of practice, professional duty, or professional responsibility to inform a PLWH about legal regulations and the potential for criminal prosecution related to HIV exposure and transmission?" (n = 41); [b] Model X^2 = 6.122, df = 2, p = .047, Nagelkerke R^2 = .066; [c] reference category for "Have nurses care for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission?" is "I do not know" (n = 55); * $p < 0.05$

Nurses' Attitudes in Regard to Altering Nursing Documentation in a Context of HIV Criminalization

All but one statistical model for the variable evaluating nurses' attitudes in regard to the alteration of nursing documentation in a context of HIV criminalization created by the numerous bivariate and multivariate analysis were unstable or not significant. Therefore, only the results from the subsample of Florida nurses are presented. The correlation summary tables for all the subsamples can be consulted in Tables 4.02, 4.07, 4.10, 4.13, 4.16, 4.17, and 4.20.

State by state: Florida. None of the independent variables were significantly correlated with the variable evaluating the nurses' attitudes in regard to the alteration of nursing documentation in a context of HIV criminalization (DV6) in the subsample of Florida nurses (Table 4.16). In bivariate analysis, the variable evaluating if nurses cared for patients who had been arrested or charged with a crime related to HIV disclosure, exposure, or transmission (IV4) was statistically significant when computed for the level of agreement with the alteration or omission of nursing documentation to protect a patient against criminal prosecution in a context of HIV criminalization (DV6). The association between the level of agreement with the alteration or omission of nursing documentation to protect a patient against criminal prosecution in a context of HIV-criminalization (DV6) and the variable determining if nurses cared for patients who have been arrested or charged with a crime related to HIV disclosure, exposure, or transmission (IV4) was significant (X^2= 9.086, p = 0.011), with an effect size of 18.3% (Nagelkerke R^2 = 0.183). When compared to nurses who did not know if they cared for patients who had been arrested or charged with a crime related to HIV disclosure, exposure, or transmission, nurses' identification of providing care to these patients was negatively associated with disagreeing with the alteration of nursing documentation (OR = 0.053, p = 0.014). There were no multivariate logistic regression models computed because there was only one independent variable with significance ≤ 0.10 in bivariate logistic regressions in Florida (Table 4.31).

Table 4.31 *DV6 Bivariate Logistic Regression Summary for FL Sample (n = 77)*

Dependent variable		Independent variable						
				B (SE)	Wald	Lower (95% CI)	Odds ratio	Upper (95% CI)
Level of agreement with the alteration of documentation to protect a patient from criminal prosecution (DV6)[a b]	Disagree	Nurses cared for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4)[c]	Yes	-2.937 (1.193)	6.061*	.005	.053	.55
			No	.241 (.682)	.125	.335	1.273	4.842

Note: [a] reference category for "Level of agreement with the alteration of documentation to protect a patient from criminal prosecution" is "Neutral" (n = 15); [b] Model X^2 = 9.086, df = 2, p = .011, Nagelkerke R^2 = .183; [c] reference category for "Have nurses care for patients having been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission?" is "I do not know" (n = 40); * $p < 0.05$

In summary, within and across all subsamples studied, certain independent variables were predominant in being significantly associated with the dependant variables studied. These variables included but were not limited to the following: the variable evaluating if nurse cared for patients who expressed fears or concerns about HIV-related criminal laws (IV3); the variable evaluating whether the nurse cared for patients who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4); and the variable evaluating whether the nurse was first employed as a nurse prior to 1981 (IV8).

Chapter 5

Discussion

This chapter follows the same sequence as the methods and results chapters. First, demographic characteristics of the sample are discussed in relation to the demographic characteristics of the population. Second, the findings from each objective are examined through an application of ecosocial theory. The importance of the findings in regard to the literature are also discussed. Third, limitations of the study and the research process are described. Fourth, groundwork completed by a Canadian nursing association is explored for its possible application in the United States context. Finally, concluding remarks and recommendations for nursing practice are expressed.

Demographic Characteristics

The demographic characteristics of the sample and subsamples gathered and presented in Table 4.01 were compared to the demographic characteristics of the corresponding nursing populations. Tables 5.01, 5.02, 5.03, 5.04, and 5.05 summarize the comparisons of the overall sample, the California sample, the Florida sample, the New York sample and the Texas sample respectively. When reviewing the differences and similarities of the demographic characteristics of each sample with their corresponding population, it is evident that the sample's demographic characteristics are slightly different from their population's demographic characteristics.

In regard to gender, the overall study sample comprised a higher ratio of men to women than the population. This may be explained by the fact that there has been a steady increase in the number of men in nursing in the United States (HRSA, 2010). Racial and ethnic discrepancies identified in the comparative tables may be partially explained by the fact that the states of California, Florida, New York, and Texas are more ethnically diverse than other

American United States (U.S. Department of Health and Human Services, Health Resources and Service Administration, 2010).

Nurses in the study sample were more educated than the average nurse in the United States. This may be explained by the fact that the nurses were primarily sampled through nursing associations. When compared to nurses from across the United States, the nurses sampled in this study worked more in outpatient settings and less in hospital settings. This difference may be explained by the sampling method and also by the nature of HIV care. Generally, HIV care is primarily provided through outpatient clinics, community walk-in clinics, public health offices, and outreach programs.

As explained in the methods chapter, nurses were sampled in numerous ways, including through the email distribution lists from ANA, ANAC, and IAFN. Nurses from ANAC work in HIV/AIDS care and nurses from IAFN work with sexual assault issues. This may have caused an overrepresentation of nurses working in HIV/AIDS care or sexual health, hence the high proportion of nurses working in outpatient settings when compared to the U.S. Department of Health and Human Services, Health Resources and Service Administration's (HRSA; 2010) data for nurses working in ambulatory settings.

Some demographic characteristics that are typically used to describe samples such as age and marital status are missing from the initial nationwide study. The nationwide study was designed as a needs assessment and these missing demographic characteristics were not viewed as necessary by the partner organizations (ANAC, ANA, and IAFN). The differences in demographic characteristics between the sample and the general population of nurses are important to identify because recommendations derived from this study may need to be tailored to fit the different populations of nurses.

Table 5.01
Comparison of Demographic Characteristics: Aggregate Sample (N = 386)

		Sample characteristics (*n* (%))	Population characteristics* (*N* = 3 063 162) (*n* (%))
Sexual Identity	Male	50 (13)	294 064 (9.6)
	Female	332 (86)	2 738 440 (89.4)
Ethnicity / Race	White	243 (63)	2 520 957 (82.3)
	NonWhite	136 (25)	5 421 74 (17.7)
Education	Baccalaureate, Master's or Doctorate	151 (65)	1 069 033 (34.9)
Employment Setting	Hospital	185 (47.9)	1 905 268 (62.2)
	Ambulatory	83 (21.5)	321 628 (10.5)

Note: *HRSA, 2010.

Table 5.02
Comparison of Demographic Characteristics: California (n = 93)

		Sample characteristics (*n* (%))	Population characteristics* (*N* = approx. 300 000) (*n* (%))
Sexual Identity	Male	17 (18.3)	42 000 (14)
	Female	76 (81.7)	258 000 (86)
Ethnicity / Race	White	59 (63.4)	177 000 (59)
	NonWhite	34 (36.6)	123 000 (41)
Employment Setting	Hospital	39 (42)	192 000 (64)
	Ambulatory	23 (24.7)	27 000 (9)
	Health department	1 (1.1)	9 000 (3)

Note: *California Health Care Foundation, 2010.

Table 5.03
Comparison of Demographic Characteristics: Florida (n = 77)

		Sample characteristics (*n* (%))	Population characteristics* (*N* = 269 760) (*n* (%))
Sexual Identity	Male	23 (10)	28 595 (10.6)
	Female	65 (84.4)	241 165 (89.4)
Ethnicity / Race	Asian	1 (1.3)	19 692 (7.3)
	Black	7 (9.1)	35 339 (13.1)
	Hispanic	5 (6.5)	27 516 (10.2)
	White	47 (61)	178 042 (66)
Education	Associate's degree or diploma	25 (32.5)	137 038 (50.8)
	Baccalaureate	24 (31.2)	94 686 (35.1)
	Master's or higher	25 (32.5)	38 036 (14.1)
Employment Setting	Hospital	31 (40.3)	172 376 (63.9)
	Ambulatory	18 (23.4)	12 679 (4.7)
	Health department	5 (6.5)	5 395 (2)
	Academia	8 (10.4)	4 586 (1.7)

Note: *Florida Center for Nursing, 2014.

Table 5.04
Comparison of Demographic Characteristics: New York (n = 112)

		Sample characteristics (*n* (%))	Population characteristics* (*N* = 94 230) (*n* (%))
Ethnicity / Race	Asian	3 (2.7)	(10 742) 11.4
	Black	15 (13.4)	(17 715)18.8
	Hispanic	4 (3.6)	(5 183) 5.5
	White	71 (63.4)	58 705 (62.3)
	Multiple	15 (13.4)	1 885 (2)
Education	Associate's degree	38 (33.9)	31 096 (33)
	Baccalaureate	48 (42.9)	42 309 (44.9)
	Master's or doctorate	22 (19.6	15 736 (16.7)
Employment Setting	Hospital	54 (48.2)	58 893 (62.5)
	Ambulatory	27 (24.1)	11 684 (12.4)
	Academia	12 (10.7)	565 (0.6)

Note: *Bruce et al., 2015.

Table 5.05
Comparison of Demographic Characteristics: Texas (n = 104)

		Sample characteristics (*n* (%))	Population characteristics* (*N* = 196 571) (n (%))
Sexual Identity	Male	12 (11.5)	22 999 (11.7)
	Female	91 (87.5)	173 572 (88.3)
Ethnicity / Race	Black	11 (10.6)	22 606 (11.5)
	Hispanic	7 (6.7)	26 537 (13.5)
	White	66 (63.5)	123 839 (63)
Education	Associate's degree or diploma	33 (31.7)	93 961 (47.8)
	Baccalaureate	37 (35.6)	82 559 (42)
	Master's or doctorate	33 (31.7)	20 050 (10.2)
Employment Setting	Hospital	61 (58.6)	114 994 (58.5)
	Ambulatory	15 (14.4)	13 759 (7)
	Community and public health	2 (1.9)	3 734 (1.9)

Note: *Texas Center for Nursing Workforce Studies, 2013.

Nurses' Knowledge of HIV-related Criminal Laws

The first objective was to explore what factors are associated with nurses' knowledge of HIV-related criminal laws in the jurisdiction where they practise. Numerous factors were associated with the successful identification of the presence or absence of those laws in the states of California, Florida, New York, and Texas. These included nurses not knowing if they provided care to PLWH, nurses caring for patients who expressed fears or concerns about HIV-related criminal laws, nurses working in emergency departments, and nurses employed as nurses prior to 1981. However, one factor stood out and had a significant association with the successful identification of the presence or absence of HIV-related criminal laws in the jurisdiction where they practise, across all subsamples: the variable evaluating whether nurses identified having

taken care of patients who expressed fears or concerns in regard to HIV-related criminal laws (IV3). This factor is discussed and framed in the literature using ecosocial theory. Parallels are also drawn between the findings and the literature.

Krieger's (2005, 2008) ecosocial theory identifies historical context and life course as important components to understand the multifaceted and complex health care distribution problematic. This dimension of the theory enables understanding of the historical components that may influence the delivery of health care services (Krieger, 2005, 2008). In this study, the start of the AIDS epidemic in the United States in 1981 is an important historical event that needs consideration. Nurses from jurisdictions where there are no HIV-specific criminal laws (New York and Texas) who were first employed as nurses prior to 1981 were three times more likely to correctly identify the absence of HIV-related laws regulating nonsexual HIV exposure. This is an interesting finding, since one would expect nurses to be more informed if working in a jurisdiction where an HIV-specific law had been implemented and enforced. We can only speculate on the reasons for this finding. It is possible that nurses who were employed prior to 1981 in Texas, a more conservative and litigious state, would have more knowledge of their legal system. On the other hand, nurses from New York employed prior to 1981 lived in the epicentre state of the initial HIV epidemic. Their knowledge of measures to control the spread of the virus, including criminal legal measures or lack of them, may be greater because of their lived experiences of managing the spread of HIV.

Interestingly, this hypothesis does not hold true for Florida and California, which have similar social histories with HIV. In addition, because Florida was one of the first states to criminalize HIV, in 1986 (Lehman et al., 2014), it was expected that the nurses employed prior to 1981 would be more likely to successfully identify HIV-related criminal laws because they

would have practised in a legal environment of HIV-criminalization for the longest period of time. However, this was not the case.

Krieger's (2001, 2008) ecosocial theory also identifies *class* as a social ranking that has an impact on the distribution of health. In this study, class was framed through the following independent variables: nursing designation (IV5), highest level of nursing education completed (IV6), and highest level of education in another discipline (IV7). Class only influenced the nurses' correct identification of the presence of laws regulating HIV exposure (DV1 and DV2) in the state of California. More precisely, California nurses who did not hold a graduate diploma in a discipline other than nursing were less likely to correctly identify the presence of laws regulating nonsexual exposure of HIV when compared to nurses who held a graduate diploma in a discipline other than nursing (Table 4.15). This result is concerning, given inconsistencies in nurses' counselling about HIV-specific criminal laws, because the majority of nurses surveyed from California that provide care to PLWH do not hold a graduate diploma in a discipline other than nursing (n = 81, 87.1%). Further investigations are needed to clarify the relevance of specific disciplinary (e.g., law, public health) contributions to nurses' understanding of HIV-related criminal laws.

Nurses are taught about the care they are required to give, and they are taught about empathy and the ethical dilemmas that might arise in their practice. However, one might question how much attention is given to the sociopolitical context in which care is provided. Globally, nursing care and services are given within a broad social and legal context, which must be taken into consideration. Nursing education should include strategies to make nurses aware of the social and legal context in which they provide care. In the case of HIV, they should be taught that the concept of stigma cannot be separated from the contexts of sociopolitical and

institutional power through which it evolved (Link & Phalen, 2006; Scambler, 2009). This finding also raises questions regarding the minimum knowledge level in certain domains for entry into nursing practice, including the sociopolitical and legal contexts of the jurisdiction in which nurses practise. This is of the utmost importance, as HIV-related stigma can negatively affect the societal response to control the disease (Dej & Kilty, 2012; UNAIDS, 2013).

Additionally, I found that nurses who identified working in clinical settings (IV9) were associated with correctly identifying the presence or absence of laws regulating the sexual exposure to HIV (DV1) when compared to nurses who did not work in a clinical setting. This association shows that working in a clinical setting made nurses more likely to correctly identify the presence or absence of the laws, in part because these laws may have an impact on their everyday practice.

The association can also be analyzed from another angle. Nurses who work in clinical settings have direct, one-on-one contact with patients, some of whom have HIV, which exposes them to frontline problematics such as criminalization. Being exposed to the reality of the impact of criminalization on PLWH, nurses who work in clinical settings may have endeavoured to increase their knowledge of HIV-related laws in their area of practice. Another possible explanation is that the employers of nurses working in clinical settings impose standard operating procedures that take into consideration HIV-related criminal laws. Nevertheless, this result is comforting, because nurses working in clinical settings have direct access to the population of PLWH for whom HIV-related laws are the most problematic. In the late 1980s, one-on-one nurse-patient interactions in clinical settings were essential in containing the HIV epidemic and reducing the transmission of the virus (Galletly & Pinkerton, 2006). Standardizing the content of the information given to patients by nurses working in clinical settings would help

make the information given to PLWH more appropriate and complete, and can help health care professionals, including nurses, guide their discussions about HIV-related criminal laws with PLWH (Dodds et al., 2009; Gagnon, 2012; Mykhalovskiy, 2011).

Another extension of the class aspect of Krieger's (2008) ecosocial theory is power. The power dynamic in this problem manifests itself in at least two scenarios: (a) when the power dynamic between the nurse and a PLWH results in patients not seeking health care because they perceive the nurse as an extension of the police (Lichtenstein et al., 2013; Mykhalovskiy, 2011; O'Byrne et al., 2013); and (b) when nurses have different levels of knowledge among themselves, and answer questions PLWH have about HIV criminalization (Gagnon, 2012; O'Byrne & Gagnon, 2012). In the next few paragraphs I elaborate on the power differentials that are intimately linked to the finding that nurses who have cared for patients who expressed fears or concerns regarding HIV-related criminal laws are more likely to correctly identify the presence or absence of HIV-specific criminal laws in the jurisdiction where they practise than nurses who have not cared for such patients. It is important to note that this finding does not identify whether the nurses' knowledge was present prior to their involvement with patients who expressed fears or concerns regarding HIV-related criminal laws or was a result of an involvement with those patients.

First, in the context of HIV criminalization, the power differential between nurses and clients can be qualified as a power struggle (Lichtenstein et al., 2013; Mykhalovskiy, 2011). In the context of HIV criminalization, PLWH may perceive the nursing role as both caring and oppressing; the power differential between patient and care provider is related to the perceived extension of the nurses' role to include a policing role (Lichtenstein et al., 2013; Mykhalovskiy, 2011). This power differential may impede open discussions and counselling between nurses and

people living with or at risk of acquiring HIV. Considering the fact that nurse-patient interactions helped reduce HIV transmission rates in the late 1980s, impeding such interactions may have a negative outcome in reducing HIV transmission rates (Galletly & Pinkerton, 2006).

Patients' unwillingness to engage in therapeutic conversations with their nurses may be a result of nurses' hypervigilance and/or guarded behaviour, stemming from situations where nurses and their documentation have been subpoenaed for prosecution purposes. This hypervigilance, in turn, may be behind the perceived policing role of the nurse and the power differential mentioned above. It may also help to explain the reasons for why there is an association between nurses who have cared for patients who expressed fears or concerns regarding HIV-related criminal laws and the likelihood of their correctly identifying the presence or absence of HIV-specific criminal laws. Nurses may have realized or acknowledged their perceived double role through different routes, including encounters with PLWH, nursing association communiqués or position statements (Association of Nurses in AIDS Care, 2014), and sensationalized media reports about HIV-related criminal trials (Miller, 2005; Mykhalovskiy, 2011). Some media representations of HIV-related criminal trials portray racial and ethnic minority men who have been prosecuted and demonized as sexual aggressors (Miller, 2005; Mykhalovskiy, 2011).

Where nurses become aware of their potential role in the prosecution of PLWH, they may be more inclined to self-educate to gain a more thorough knowledge base about HIV-related criminal laws in the jurisdiction where they practise, prior to engaging with persons living with or at risk of acquiring HIV. As professionals with the professional responsibility of providing competent care this could partially explain the association between nurses who have cared for patients who expressed fears or concerns regarding HIV-related criminal laws and the likelihood

of their correctly identifying the presence or absence of HIV-specific criminal laws. In order for nurses to provide competent care to PLWH, they need to access accurate and valid sources of HIV-related criminal law information. However, some nurses, unaware of their perceived policing role, may have given care to PLWH who expressed fears or concerns about HIV and the law. Such encounters may push nurses to self-educate and learn about the laws in the jurisdiction where they practise, because of a self-identified knowledge gap.

If PLWH withhold information because they see the nurses in a policing role, nurses' knowledge of the presence or absence of HIV-specific criminal laws may be irrelevant, since they will not be able to adequately evaluate the learning needs of the PLWH (Lichtenstein et al., 2013; Mykhalovskiy, 2011; O'Byrne et al., 2013). In order to overcome this barrier, education about the legal context in which nurses work is required for all practising nurses, and more qualitative research is needed with PLWH, nurses, nursing associations, legal organizations, and other key stakeholders regarding the perceived oppressive role of nurses and other health care providers.

Furthermore, when nurses have different levels or insufficient knowledge of HIV-related criminal laws in their jurisdiction and intervene with PLWH based on that knowledge, the information they give to PLWH or persons at risk of acquiring HIV may be inconsistent and/or erroneous, and may lead to PLWH practising behaviours that can be legally risky (Dodds et al., 2009; Gagnon, 2012; Mykhalovskiy, 2011). In this study, nurses who cared for patients who expressed fears or concerns regarding HIV-related criminal laws were more likely to correctly identify the presence or absence of HIV-specific laws in their jurisdiction. If nurses only seek information and gain knowledge about HIV and the law after they have an experience with a patient who expresses fears or concerns about criminalization, it is likely that the level of

knowledge of nurses from different backgrounds and working in different settings will be unequal. Such a situation may also lead nurses with less knowledge to give erroneous or inconsistent information about the legal context of HIV to PLWH (Dodds et al., 2009; Gagnon, 2012; Mykhalovskiy, 2011).

A combination of educational resources is imperative to providing competent care for PLWH. It would elaborate the specific legal implications of HIV diagnosis in different jurisdictions and include education resources that explain the limits to nurses' scope of practice regarding counselling about HIV disclosure. Although this would not reduce the vague, ambiguous, and inconsistent nature of the laws, it may reduce the misinformation given to PLWH.

To date, the legal responsibility of nurses giving erroneous information about HIV disclosure and HIV-related risks has not been studied. Nurses have the responsibility, as professionals, to be competent in the care they give. If nurses lack knowledge about HIV-related criminal laws in their area of practice, they risk practising above their competency level, and by doing so, put themselves in a legally precarious situation. In managing HIV at the societal level, where there is an intimate link between health care and the law, clear guidelines and resources need to be defined and provided to nurses in counselling PLWH. Nurses need to be informed about the limits of their scope of practice and when they need to refer to a legal professional.

In the American epidemics, HIV largely emerged and evolved amongst the population of gay men. The specificity of the gender and sexual orientation of this population led to the choice of ecosocial theory as a theoretical framework for this study and for the study to inquire whether lesbian and gay male nurses were more likely to have knowledge about HIV. If this were the case, a disproportion in care given to PLWH might be caused, depending on the gender and/or

sexual orientation of the nurse the patient consulted. However, in a result of value, there were no significant associations between any of the dependent variables and the independent variables related to gender or sexual orientation. The independent variables identifying the nurses' gender (IV12), sex assigned at birth (IV11), and sexual orientation (IV13) had no significant associations with their correct identification of the presence or absence of laws regulating HIV exposure in the jurisdictions in which they practised (DV1 and DV2). More research needs to be done to assess the effect of sexual orientation and gender on nurses' knowledge of HIV criminalization specifically in relation to nurses that identify as a sexual minority.

Nurses' Attitudes about Expertise in a Context of HIV Criminalization

The second objective was to explore factors associated with nurses' attitudes about expertise in a context of HIV criminalization. Two factors were significantly associated with dependent variables in this context: whether nurses had taken care of patients who had expressed fears or concerns regarding HIV-related criminal laws (IV3), and whether nurses took care of patients who had been arrested for or charged with a crime related to HIV disclosure, exposure, or transmission (IV4). The following sections discuss these factors in regard to nurses' attitudes about expertise in a context of HIV criminalization, using ecosocial theory and the existing literature to explain the findings.

First, ecosocial theory represents the influence of higher power levels on lower power levels in regard to the transmission and influence of attitudes about expertise in HIV criminalization. Additionally, ecosocial theory enables discussion of the results across the experiences of the subgroups of nurses through its historical context and life course representations. As demonstrated in the Chapter 4, nurses that took care of patients who expressed fears or concerns about HIV-related criminal laws (IV3) and nurses that took care of

patients who had been charged with or prosecuted for an HIV-related crime (IV4) reported that they had the expertise to inform PLWH about HIV-related legal regulations and potential legal consequences. They also reported that it was within their scope of practice, professional duty, or professional responsibility to inform PLWH about legal regulations and the potential for criminal prosecution related to HIV exposure and transmission. Other factors outside of their professional judgement or decision making processes could also influence nurses' reports about their expertise to inform a PLWH about these things. These factors include protocols and directions given through power structures influencing nurses—their employers, institutions, organizations, municipalities, and licensing bodies, among others.

As mentioned above, independent variables evaluating whether nurses took care of patients who expressed fears or concerns about HIV-related criminal laws (IV3) and whether they took care of patients who had been charged with or prosecuted for an HIV-related crime (IV4) were also associated with nurses correctly identifying the presence or absence of laws HIV in the jurisdictions where they practised regulating the sexual (DV1) or nonsexual (DV2) exposure to HIV. It is possible that nurses who cared for patients who expressed fears or concerns regarding HIV-related criminal laws had informed themselves about HIV-related criminal laws to gain expertise. Now, they might think it was within their scope of nursing practice. Sequencing these associations in another way, it is possible and plausible to think that nurses who thought informing PLWH about HIV-related criminal laws was in their scope of practice would seek information and gain knowledge about HIV-related criminal laws in their jurisdiction, which could lead them to think they had the expertise to inform PLWH about HIV-related criminal laws.

Second, the 1981 start of the HIV epidemics in the United States marks an important historical context. Nurses from Florida and California employed as nurses prior to 1981 would have witnessed the evolution of the HIV/AIDS epidemic and its social, political, health and legal contexts and consequences. They could therefore conclude that they had the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences (DV3). This is in line with other results of the study, which demonstrated that nurses caring for PLWH who had fears or concerns about HIV-related criminal laws, and nurses caring for PLWH who had been arrested for or charged with an HIV-related criminal laws, would perhaps think they had the expertise to inform a PLWH about HIV-related criminal laws. However, relying on personal lived experiences to ensure nurses have the expertise to inform a PLWH about HIV-related legal regulations and potential legal consequences might put nurses and PLWH at risk, since there is no way to guarantee that every nurse has a minimum level of expertise in this field. This may contribute to the ambiguity and inconsistencies in regard to information nurses give to PLWH about HIV-related laws (Dodds et al., 2009; Gagnon, 2012; Mykhalovskiy, 2011).

As described in the Chapter 2, HIV emerged and evolved more quickly among gay men, so it was important to inquire whether gay male nurses had attitudes about expertise in a context of HIV criminalization that differed from other genders and/or sexual orientations. My assumption was that gay men who worked during the onset of the HIV epidemic might be more aware of HIV-related criminal laws. However, nurses who identified as gay men were not associated with attitudes about expertise of HIV criminalization, indicating no observable differences between them and other genders and/or sexual orientations. My initial assumption—that a group that was at the forefront of the HIV epidemic early would have a better understanding of how HIV-related criminal laws affected nursing practices in a context of HIV

criminalization—was unfounded. However, more research needs to be done to examine the effect of gender and sexual orientation on nurses' attitudes about expertise in a context of HIV criminalization specifically in relation to HIV-related stigma. It is also plausible to think that other factors linked to the historical context or life course—for example, if nurses themselves live with HIV, or if they have a family member living with HIV—might generate significant results in other similar studies with larger sample sizes or with different subsamples.

Nursing Documentation in a Context of HIV Criminalization

The third objective was to explore factors associated with the alteration of nursing documentation in a context of HIV criminalization. The only statistically significant association observed was in the Florida subsample. There, nurses who provided care to patients who had been arrested or charged with a crime related to HIV disclosure, exposure, or transmission, were found to agree with altering documentation to protect patients from criminal prosecution when compared to nurses who did not know if they provided care to patients who had been arrested or charged with a crime related to HIV disclosure, exposure, or transmission. This association may be a result of nurses' acknowledging and understanding the impact of a criminal prosecution or an arrest for an HIV-related crime on a PLWH's life, which may make nurses more cautious and selective when documenting patient encounters in a context of HIV criminalization. Nurses may not want to create evidence that would make them accomplices by association in a PLWH's prosecution and conviction for an HIV-related crime. This finding is congruent with literature by O'Byrne (2011) and Mykhalovskiy (2011), who suggested that health care providers, including nurses, sometimes alter their documentation practices so as to not have a negative impact on the patient if the nurses' documentation were subpoenaed for criminal proceedings.

In summary, the findings of this study are congruent with the existing literature. From a Canadian perspective, similarities are seen with Gagnon's (2012) and O'Byrne & Gagnon's (2012) work with nurses, which found that nurses are currently not adequately prepared to inform people living with or at risk of acquiring HIV about HIV-related laws and their implications. Moving forward, the focus of knowledge development related to this problematic should be done in three successive steps. First, nurses, through their professional licensing bodies and professional nursing organizations, should come to a consensus regarding their roles, obligations, and implications when informing people living with or at risk of acquiring HIV about HIV-related laws. Second, research is needed to assess the baseline knowledge entry-to-practice nurses should have in regard to HIV-related criminal laws. Third, ongoing research needs to update the body of knowledge about HIV-related criminal laws in different jurisdictions and the implications of those laws, for the patients that nurses care for.

Learning from Canadian Nurses

The HIV criminalization approaches in the states of New York and Texas closely resemble that of the Canadian approach. Canada does not have HIV-specific legislation regulating exposure or transmission; rather, the police and Crown prosecutors rely on existing *Criminal Code* charges in their efforts to criminalize nondisclosure. Nurses in New York and Texas are thus faced with the same challenges as Canadian nurses regarding counselling and documenting about PLWH in a context of HIV criminalization.

Canadian organizations have helped nurses in this precarious context. CANAC, in partnership with the Canadian AIDS Treatment and Information Exchange (CATIE), worked in collaboration to create a guide, *Legal and Clinical Implications of HIV Nondisclosure: A Practical Guide for HIV Nurses in Canada*, to help Canadian nurses navigate the medico-legal

borderland of HIV care (CANAC & CATIE, 2013). The guide reviews the implications of the Supreme Court of Canada rulings in the Mabior and D.C. cases (*R. v. Mabior*, 2012; *R. v. D.C.*, 2012), with a focus on the concept of "realistic possibility of HIV transmission" (CANAC & CATIE, 2013). In these cases, the Supreme Court declared that disclosure of an HIV-positive status need only take place if there is a "realistic possibility of HIV transmission." The Court further stated that there is no "realistic possibility of HIV transmission" during a penile-vaginal intercourse if the PLWH has a low HIV viral count (1500 virus copies/ml or less) and if a condom is used during intercourse (*R. v. Mabior*, 2012; *R. v. D.C.*, 2012). The CANAC and CATIE (2013) guide answers frequently asked questions about such things as documentation practices and testifying in court. It also draws attention to nursing practice issues and details scenarios that can help nurses facing challenging situations. If the guide was tailored to the different U.S. legal jurisdictions, it would need to be specific to the context of each jurisdiction. In addition, updating and sustaining the information in the guides would be important as the legal landscape of HIV in the United States is being modified constantly. However, as it stands, the guide could serve as a model for the different jurisdictions in the United States, including New York and Texas.

Canadian nurses can also learn from this research study. First, the HIV criminalization model used in the states of New York and Texas is the model that most closely represents the Canadian HIV criminalization model. Canadian nurses may look at the results identified in the New York and Texas sub-sample and adapt the recommendations associated with these results to the Canadian HIV-care context. Second, the results presented in this thesis help identify and demystify the grey medico-legal borderland nurses working in HIV-care face daily. Canadian nurses aren't alone in this situation; HIV-criminalization is a worldwide problem.

Recommendations

As suggested in Chapter 1, recommendations flowing from this study should facilitate the delivery of quality care to PLWH by nurses and other health care providers. In this study, we observed an educational gap about nurses' knowledge of HIV-related criminal law. The recommendations that follow are based on results from this study. They are separated into four sections: practice and administration, education, further research required, and policy and advocacy.

Practice and administration.

1. Nurses must keep an open dialogue with PLWH, legal experts, and advocacy groups to increase awareness about the HIV criminalization approach in the jurisdictions where they practise, and the impact this approach has on the patient population and community they serve.
2. Administrators must provide support and opportunities for nurses and other health care providers to acquire knowledge about HIV, the law, and the criminalization approach in the jurisdiction where they practise.
3. Nursing regulatory bodies must provide clarity about what is essential information for nursing documentation in the context of HIV criminalization, especially when this documentation can serve as evidence for overly broad applications of HIV-related criminal laws.

Education.

1. Educators and academics must collaborate with legal advocates, PLWH, and nurses who work in HIV care to facilitate development of interactive educational activities that are jurisdiction specific for nurses and other health care providers.

2. Best-practice guidelines must be created and maintained to facilitate nurses' navigation of the legal frontier between HIV care and HIV-related criminal laws.

Further research required.

1. The impact of nurses' current knowledge of HIV on the care they provide to PLWH needs to be explored, through phenomenological qualitative methods.
2. The relevance of specific disciplinary contributions—in law and public health, for example—to nurses' understanding of HIV-related criminal laws needs to be clarified.
3. Through their testimonies or documentation, the extent of nurses' involvement needs to be identified in court proceedings that lead to a PLWH being convicted of an HIV-related crime.
4. Educational approaches and delivery techniques need to be determined that can best spread jurisdiction-specific knowledge about HIV criminal laws to nurses and other health care providers.

Policy and advocacy.

1. Policy makers, professional nursing and health organizations, academics, nurses working in HIV care, and legal advocates must collaborate and actively participate in the development of new policies or in the amendment of old policies in order to respect the dignity of persons living with and at risk of acquiring HIV, and to ensure that nurses and health care providers are not placed in the difficult position between their duty to do no harm and the criminal laws.

2. Communication strategies, such as social media campaigns, need to be implemented to increase awareness about the impact of HIV criminal laws on PLWH, on nurses, and on the nurse-patient relationship.

Strengths and Limitations

Numerous strengths of this study were identified. The research project was a pioneering contribution to the empiric understanding of the effect of HIV-criminalization on nurses' practices and the nurse-patient relationship. The study results set solid foundations for further qualitative exploratory research to understand the reason behind the associations between variables highlighted in Chapter 4. The study adequately described the data identified and met the stated research objectives.

The relationships between variables do not show a predictive or causal effect; psychometric testing was not done, since the purpose of the initial study was not to draw conclusions or predictions. Instead, the relationships observed between the variables described in Chapter 4 can only be interpreted as associations for descriptive purposes. However, given the paucity of information in this area, it was appropriate to begin building foundational knowledge with a descriptive study.

The data from the survey were adequate to meet this aim. The secondary subgroup data analysis was conducted using results from an initial, nationwide study's survey tool, which was developed as part of a needs assessment. The results must be generalized with caution because of specific limitations, which follow.

First, the subscale of five questions pertaining to nurses' documentation practices in a context of HIV criminalization that comprised a sixth dependent variable has not been psychometrically tested. However, as explained in Chapter 3, the principal investigator of the

initial study gave permission to use the five questions as a subscale while waiting for psychometric testing to be completed. Table 3.01 identifies the changes made to the results of the five questions leading them to be interpreted as a subscale. Additionally, the piloting of the survey took place in both Canada and the United States. Had the piloting only been done in the United States (Phillips et al., 2016), the recommendations in regards to the optimization of the quality of the survey may have been different.

Second, the sampling method used may have contributed to some bias. More highly educated nurses and more nurses working in community settings responded to the survey. As explained in the Chapter 3, nurses were recruited in numerous ways, including emailed information letters sent to members of three different nursing associations: ANA, ANAC and IAFN. The demographic characteristics indicate that the study sample was not substantially different from the general U.S. nursing workforce. The one demographic characteristic where the sample was substantially different from the U.S. nursing workforce was the work setting and the nurses' highest level of education. This slight difference in the demographic characteristics could be explained by the fact that the nurses were sampled from three specific nursing associations and might not fully represent the nursing demographics of the overall U.S. nursing workforce.

Third, the survey contained many empty cells, thus limiting the number of variables available for logistic regression analysis. In addition, the nurses that selected "I prefer not to answer" to any of the questions were excluded, thus eliminating some data that could have been valuable.

Fourth, the study's theoretical framework, ecosocial theory, required retention of the categories and variables as proposed because ecosocial theory values the particularities of each concept of its theory in the population distribution of health. Therefore, reclassification of

variables was not possible as it was not in line with the philosophy of the framework (even though it would have decreased the number of empty cells).

Finally, because this was a quantitative study, numerous presuppositions and tentative explanations were needed to define associations between variables. To enhance further understanding, it would be important to explore these results through qualitative research based on nurses' own explanations and experiences with HIV-related criminal laws. In studies like this one, which include numerous social and political aspects of care, paradigmatic plurality is particularly important to the intricate complexities of a problem.

Conclusion

In conclusion, this secondary subgroup analysis of data from California, Florida, New York, and Texas used data from a larger study that was designed as a needs assessment to evaluate nurses' knowledge of HIV-related criminal laws and to identify educational needs specific to the southern U.S. states. Despite the fact that this study cannot identify causality or predictive links between variables, it identified associations and produced recommendations to help nurses navigate the medico-legal borderland in which nurses have to practise in a context of HIV-criminalization (Timmermans & Gabe, 2002). The different U.S. states should follow the leadership of Canadian Associations such as CATIE and CANAC (2013), and produce guidelines and documentation to support nurses and other health care providers in their everyday work with PLWH while protecting dignity and right to health care for all without discrimination or fear of prosecution.

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Appendices

Appendix A: Letter of Authorization from Principal Investigator

u Ottawa

Université d'Ottawa
Faculté des sciences de la santé

École des sciences infirmières

University of Ottawa
Faculty of Health Sciences

School of Nursing

Tuesday, October 13, 2015

To whom this may concern,

I, J. Craig Phillips, authorize Jean-Laurent Domingue to use data from a nationwide study I conducted with my research team about nurses' knowledge of HIV criminal law. He is authorized to use the needed data for the research he is conducting as a part of his masters of science in nursing program at the University of Ottawa. Jean-Laurent Domingue is authorized to have access to the data collected from nurses that practice in the states of California, Florida, New York and Texas.

Respectfully yours,

J. Craig Phillips, PhD, LLM, RN, ARNP, PMHCNS-BC, ACRN
Associate Professor of Nursing
University of Ottawa

613 562-5473
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Appendix B: Email Communication with Research Ethics Board

uOttawa

Jean-Laurent Domingue <.

RE: Ethics file H10-15-32 - Exemption

4 messages

Catherine Paquet ·. Tue, Oct 27, 2015 at 1:08 PM

Dear Professor Phillips and Mr. Domingue,

Following upon your correspondence with Riana regarding your project titled "Nurses' Knowledge of HIV Criminal Law and its Impact on Nursing Practice in California, Florida, New York and Texas", this email is to confirm that your study is exempt from REB review, as per the following Article of the TCPS 2:

Article 2.4 REB review is not required for research that relies exclusively on secondary use of anonymous information, or anonymous human biological materials, so long as the process of data linkage or recording or dissemination of results does not generate identifiable information.

Your ethics file will therefore be closed.

Please do not hesitate to contact me if you have any questions.

Best regards,

Catherine Paquet

Directrice, Bureau d'éthique et d'intégrité de la recherche | Director, Office of Research Ethics and Integrity

Université d'Ottawa | University of Ottawa

550 Cumberland (155) Ottawa ON K1N 6N5 Canada

Tél : (613) 562-5800 poste/ext. 1787

Fax : (613) 562-5338

http://www.recherche.uottawa.ca/deontologie/index.html

From: Riana Marcotte
Sent: October 27, 2015 10:58 AM
To: Catherine Paquet
Subject: FW: Ethics file H10-15-32 - Clarification

From: J. Craig Phillips
Sent: October-26-15 5:37 PM
To: Riana Marcotte
Cc: .
Subject: Re: Ethics file H10-15-32 - Clarification

Hi Riana,

The data were collected anonymously via an Internet survey and we do not have a way to identify any specific participant.

Please let us know if you need further details.

All the best,

Craig on behalf of Jean-Laurent.

Sent from my iPhone.

On Oct 26, 2015, at 5:32 PM, Riana Marcotte <f. e:

Hello Jean-Laurent,

In reviewing your application for secondary use of data (file H10-15-32), I noticed that the data that you will be using may have been collected anonymously. Could you please confirm?

I ask because your project might be exempt from REB review, according to the following TCPS2 Article:

Article 2.4 REB review is not required for research that relies exclusively on secondary use of anonymous information, or anonymous human biological materials, so long as the process of data linkage or recording or dissemination of results does not generate identifiable information.

Application Secondary use refers to the use in research of information or human biological materials originally collected for a purpose other than the current research purpose. Anonymous information and human biological materials are distinct from those that have been coded, and also from those that have been anonymized (see Section A of Chapters 5 and 12).

If you or Professor Phillips could therefore clarify whether the data was originally collected in a completely anonymous manner, then we could establish whether REB review is necessary.

If you have any questions or comments, please do not hesitate to contact me via email or at extension 1783.

Best regards,

Riana

Riana Marcotte

Protocol Officer for Ethics in Research

Office of Research Ethics and Integrity

University of Ottawa

613-562-5800 ext. 1783

http://www.research.uottawa.ca/ethics/

J. Craig Phillips <. Tue, Oct 27, 2015 at 1:15 PM
To: Catherine Paquet <
Cc: Riana Marcotte <F·

Hi Catherine,

Thank you for your time and for reviewing the documents.

All the best,

Craig

From: Catherine Paquet
Sent: Tuesday, October 27, 2015 1:09 PM
To: ; J. Craig Phillips <
Cc: .
Subject: RE: Ethics file H10-15-32 - Exemption

[Quoted text hidden]

J. Craig Phillips <. Tue, Oct 27, 2015 at 1:15 PM
To:

Hi Jean-Laurent,

You now have the official go ahead to start your data analysis.

All the best,

Craig

From: Catherine Paquet

Sent: Tuesday, October 27, 2015 1:09 PM
To:
Cc:
Subject: RE: Ethics file H10-15-32 - Exemption

Dear Professor Phillips and Mr. Domingue,

[Quoted text hidden]

J. Craig Phillips Tue, Oct 27, 2015 at 1:18 PM
To:

Please be sure to keep a copy of this email in the event there are questions that arise during the thesis process.

All the best,

Craig

From: Catherine Paquet
Sent: Tuesday, October 27, 2015 1:09 PM
To:
Cc:
Subject: RE: Ethics file H10-15-32 - Exemption

Dear Professor Phillips and Mr. Domingue,

[Quoted text hidden]