Evaluating the Impact of Criminal Laws on HIV Risk Behavior

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Criminal law is one of the regulatory tools being used in the United States to influence risk behavior by people who have HIV/AIDS.[1] Several different types of laws have been or could be used in this way. These include:

- HIV-specific exposure and transmission laws — i.e., laws that explicitly mention and exclusively apply to conduct by people with HIV;
- public health statutes prohibiting conduct that would expose others to communicable diseases and/or sexually transmitted diseases (STDs); and
- general criminal laws governing attempted murder and assault.

HIV is spread primarily by sexual contact and the sharing of syringes contaminated with blood. It is believed that as many as one-third of the people with HIV in the United States have not been tested and do not know they are infected.[2] Most of those who are aware of their condition continue to engage in at least some behavior that entails a more or less remote risk of transmitting HIV, even with partners who are aware of the risks.[3] Theoretically, HIV may also be spread by biting or other assaultive contact involving exposure to infectious bodily fluids; the risks of transmission by these modes are quite remote, but not zero. Criminal laws may be understood as "structural interventions" to reduce the level of unsafe behavior in the population.[4]

General criminological theory offers at least three main mechanisms through which criminal law is thought to have its effects: It may *deter* unsafe behavior by the threat of punishment; it may help convince people with HIV that risky behavior is wrong, by supporting a *social norm* against the behavior; or it may *incapacitate* through imprisonment those who have a propensity toward unsafe behavior. Despite their ubiquity, however, the actual impact of these types of laws on intimate behavior has never been established, nor have they been studied using empirical measures. Indeed, comprehensive data on the actual use of these laws have not even been collected in the United States. Low utilization of potential coercive power has also been noted in the context of public health detention of people with HIV.[5]

This paper, produced as part of a larger project to assess the public health impact of criminalization as a structural intervention to prevent HIV, provides the most complete picture to date of the existence and application of criminal laws related to HIV risk behavior in the United States. Part I is a general introduction to principles of criminal law and the various types of criminal provisions found in the United States and its territories. In Part II, the paper reports the results of research documenting the laws adopted by states and territories, and the number of prosecutions that have been reported in legal decisions and the press. Part III discusses the implications of these findings within the framework of the leading theoretical accounts of the operation of criminal law. The second phase of this project, expected to be completed in 2003, will correlate these legal findings with survey and other data on risk behavior and knowledge of laws.

Criminal Theory and Types of Relevant Criminal Laws

In the U.S. legal system, criminal culpability is based on the existence of a criminal intention and the commission of an act or an omission to act in furtherance of that intention.[6] The interplay of act and intention determines whether a crime has been committed and how serious it is. Killing another human being is a crime, but not if it is the result of an unforeseeable accident. It is most serious when the killer intended and desired to kill, but it is also blameworthy when the killer was simply reckless (driving while drunk) or negli-

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gent (driving faster than road conditions warranted). The importance of intent means that the actual risk posed by the act is not always a decisive factor; rather, the severity of the offense often flows from the intention of the person to do harm he or she believes can be accomplished by the act. Thus in law, a person who carelessly infects another with HIV through the failure to take reasonable precautions during sexual contact commits a less serious crime than a person who spits at another with the belief he can thereby transmit HIV. A crime may occur even if the harm the actor intended to cause did not come about or was impossible, so long as some step the actor believed could cause harm was taken in the attempt to do so.

The objective risk posed by an act is nevertheless a factor in many situations. It is particularly important in cases in which the actor did not subjectively want to cause harm. Recklessness, as used in catch-all offenses like "reckless endangerment," is a state of mind that entails simply disregarding a serious risk to another. As described by the Model Penal Code, "[t]he risk must be of such a nature and degree that, considering the nature and purpose of the actor's conduct and the circumstances known to him, its disregard involves a gross deviation from the standard of conduct that a law-abiding person would observe in the actor's situation."[7] Risk is also relevant to grading the severity of an offense: An assault with a deadly weapon, for example, is a more serious offense than simple assault with bare hands.

Most crimes in the United States are now set out in statutes. These statutes specify what acts are prohibited when committed with the requisite intent. They often limit the crime to cases in which the actor intended to do harm. Typically, the severity of the offense varies with the degree to which harm was an intended outcome of the act. All states have statutes defining "generic" offenses that can be applied to a broad range of potentially harmful and undesirable conduct. Those relevant to HIV include murder, attempted murder, manslaughter, reckless endangerment, assault with a deadly weapon, and simple assault.

Although most harmful conduct can be placed within the basic framework of general criminal law, states often pass more specific prohibitions. As the case of HIV illustrates, they may accomplish a number of ends by doing so. In response to early prosecutions brought under general criminal law (that sometimes produced harsh penalties for behavior that posed little risk[8]), commentators suggested that HIV-specific statutes would more clearly define prohibited acts and give the public notice. They would also allow the legislature to impose penalties tailored to fit the seriousness of HIV risk behavior, penalties which would be neither as harsh as the general criminal law nor as lenient as those imposed by older disease transmission laws.[9] Additionally, if law helps create and spread social norms, then creating a statute criminalizing specific behavior might influence the extent to which people with HIV internalize the belief that risky behavior is wrongful.

The laws reviewed in this paper are of several general types. In addition to the generic criminal statutes already described, we examine three types of law: (1) general communicable disease exposure laws; (2) HIV-specific exposure laws; and (3) HIV-specific statutes enhancing penalties for behavior in specific circumstances, such as during a sex crime,[10] or creating new crimes that apply only to specific groups, such as prostitutes,[11] or certain actions, such as assaults on law enforcement officers.[12] Sentence enhancement statutes do not change the elements of the offense, but specify more stringent penalties or a higher grade of offense (essentially the same thing) when certain criteria are met. For example, Ohio's law makes prostitution (without HIV) a misdemeanor, but prostitution while knowing one is infected is a felony punishable by five years imprisonment.[13] It imposes parallel penalties for soliciting a prostitute and soliciting a prostitute by someone who knows he is infected with HIV.[14]

When a state passes a specific law to deal with a particular behavior, the general rule is that the specific law, rather than any more general laws that would perhaps have covered the offense, will apply, particularly if the more general law has higher penalties. Sometimes a person charged with breaking a specific law may also be charged with less serious general crimes. This makes possible a plea bargain or a conviction on a less serious charge. In the case of HIV exposure, for example, the existence of an HIV-specific statute making exposure a minor felony would generally preclude a prosecutor from charging an actor with a more serious felony such as attempted murder. At the same time, the prosecutor might also be able to charge the actor with the lesser offenses of simple assault or violation of a misdemeanor STD exposure statute.

There is a real difference between criminal law on the books and criminal law in practice. Some laws are heavily enforced, others rarely. The prohibitions can be broadly or narrowly interpreted. In the first instance, the people who make criminal law a reality are police and prosecutors. If they decline to arrest people who seem to be breaking the law, or decline to prosecute them once they have been arrested, the law on the books remains just that. This "prosecutorial discretion" extends not just to the question of whether to arrest and charge a person, but also with which crime(s) to charge, and whether to accept a plea bargain. Thus, for example, a prosecutor makes the decision whether a particular person accused of having unsafe sex with another is charged with attempted murder, one of the many more or less serious forms of assault, or a more minor crime like reckless endangerment or even disorderly conduct. Police decide how intensively to look for violations of the law or to investigate those brought to their attention. Exercise of prosecutorial and law enforcement discretion raises particular concerns where it is exercised arbitrarily or prejudicially.

The Use of Criminal Law to Regulate the Behavior of People with HIV

Methods

Using standard legal research methods, we searched electronic databases (Westlaw and Lexis) to identify and collect state laws criminalizing STD or other communicable disease exposure or transmission; HIV exposure or transmission; and other HIV-specific offenses or sentence enhancements. Results were cross-checked against earlier statutory surveys and the indices of state codes.

Case decisions and news reports of prosecutions from 1986 to 2001 were collected from the combined case and news databases of Westlaw and Lexis. An iterative search strategy was employed. The term "HIV or AIDS" was combined in successive searches with descriptions of offenses including "assault," "reckless," "homicide," "criminal exposure," "knowing exposure," "endangerment," as well as possible modes of exposure, such as "bit," "spit! or spat," and "inject."[15] New cases and news reports of prosecutions were entered in a Microsoft Access database for analysis and retrieval. Searching continued until no new cases were identified. In a final step, we searched by name for defendants identified in cases but not mentioned in the news articles retrieved in term searches.

These data are subject to important limitations. The news databases we searched did not include all news sources in the United States. Similarly, not all criminal cases result in a written or published opinion. Thus, our cases and media reports of cases probably underestimate the true number of prosecutions from 1986 to 2001, although the novelty and public interest in HIV cases likely means that there were a greater proportion of cases being covered in the newspapers we searched or with a judicial opinion published in Westlaw or Lexis.

Results: Types of laws

Every state and territory has generic criminal statutes that could apply to conduct that exposes others to HIV.[16] This section presents the results of our research to document the existence of more specific statutes.

Public health statutes criminalizing exposure or transmission of communicable diseases or STDs

Twenty-five states and territories have general provisions in their public health codes, most passed before 1930, that make it a misdemeanor to expose any other person to a communicable or a sexually transmitted disease (see Table 1, 3.0–3.4.3). Nineteen of these refer explicitly to STDs (or venereal diseases). Alabama's, for example, states: "Any person afflicted with a sexually transmitted disease who shall knowingly transmit, or assume the risk of transmitting, or do any act which will probably or likely transmit such disease to another person shall be guilty of a Class C misdemeanor."[17] Nine cover communicable diseases more generally, including three that also reference STDs. Some of these, like Maryland's, clearly show their origin in a past era of serious epidemics of communicable diseases like cholera, smallpox, and yellow fever:

> (a) Prohibited act. — An individual who has an infectious disease that endangers public health may not willfully:
> (1) Be in a public place without taking proper precautions against exposing other individuals to the disease; or
> (2) Transfer to another individual any article that has been exposed to the disease without thoroughly disinfecting the article.[18]

Twenty of the twenty-five statutes define the crime as a misdemeanor.

Although HIV is sexually transmitted, whether it would be covered by these statutes depends upon how the relevant terms are defined in state law.[19] We identified nine states whose statutes appear to cover HIV by statutory definition, regulation, or case law.[20] In Alabama, for example, the STD exposure law would presumably apply to HIV because HIV is defined in health department regulations as an STD,[21] whereas Maine has no such provision. The applicability of these statutes to HIV remains a matter of legal prediction, however, because we have found no cases in which they were applied to an instance of HIV exposure.

HIV-specific exposure or transmission laws

Twenty-four states have adopted statutes that criminalize exposure or transmission of HIV by at least some forms of behavior (see Table 1, 1.0–1.7.3). These include sexual contact, sharing injection equipment, and donating blood or organs. Five of these states' laws criminalize exposure without further specifying prohibited behaviors, while thirteen criminalize sexual contact or intercourse specifically, six punish exposure to "bodily fluids," and ten criminalize use of needles, syringes, or injection equipment that could transmit HIV. Four of the laws related to sex require intent to infect as an element of the crime, as do three general statutes and one of those related to needles. Eleven laws make consent of the other person an affirmative defense, while eight addressing sex and four related to needles specify that any exposure without disclosure of HIV infection is a criminal act. Five states' laws criminalize such low risk activities as spitting, biting, or throwing or smearing blood, feces, or other bodily fluids. Only two laws distinguish between protected sex (when a condom is used during intercourse) and unprotected sex. The other statutes are silent on the role of disclosure, consent, and safer sex practices.

TABLE 1. CHARACTERISTICS OF STATE LAWS.

Laws/characteristics	AL	AK	AZ	AR	CA	CO	CT	DE	DC	FL	GA	HI	ID	IL	IN	IA	KS	KY	LA	ME	MD	MA	MI	MN
1.0 HIV-specific exposure/transmission				X	X					X	X		X	X	X	X		X	X		X		X	
1.1 Generally prohibits exposure/transmission													X						X		X			
1.1.1 Only with intent													X						X					
1.1.2 Without disclosure																			X					
1.2 Specifically prohibits acts or defines prohibited exposures				X	X					X	X		X	X	X	X		X	X				X	
1.2.1 Sexual contact or intercourse				X	X					X	X		X						X				X	
1.2.1.1 Only with intent					X														X					
1.2.1.2 Without disclosure				X	X					X	X								X				X	
1.2.2 Exposure to bodily fluids													X	X		X								
1.2.2.1 Only with intent																								
1.2.2.2 Without disclosure																								
1.2.3 Sharing contaminated injection equipment				X							X		X	X		X								
1.2.3.1 Only with intent																								
1.2.3.2 Without disclosure				X							X													
1.2.4 Spitting, biting, throwing, etc.											X								X					
1.2.4.1 Only with intent																			X					
1.2.4.2 Without disclosure																			X					
1.2.5 Blood, tissue, organ donation					X					X	X		X	X	X	X		X						
1.2.5.1 Only with intent																								
1.2.5.2 Without disclosure											X													
1.2.6 Non-disclosure to health-care worker				X																				
1.2.6.1 Only with intent																								
1.3 Transmission/Infection with HIV required																								
1.4 Affirmative defense of consent										X			X	X		X								
1.5 Distinguishes between protected and unprotected sex					X																			
1.6 Excludes perinatal exposure/ transmission																								
1.7 Penalties																								
1.7.1 Felony				X	X					X	X		X	X	X	X		X	X				X	
1.7.2 Misdemeanor				X																	X			
1.7.3 Multiple penalties										X					X									
2.0 HIV-specific enhancements or other crimes					X	X				X	X				X			X	X					
2.1 Prostitution/solicitation					X	X				X	X							X						
2.1.1 Prostitution					X	X				X	X							X						
2.1.2 Solicitation					X		X			X	X													
2.2 Sex crimes					X	X				X														
2.3 Assaulting a police/corrections/ emergency response officer															X				X					
2.4 Penalties																								
2.4.1 Felony					X	X				X	X				X			X	X					
2.4.2 Misdemeanor																								
2.4.3 Multiple penalties						X				X					X									
3.0 Other disease exposure/transmission statutes	X				X	X				X			X				X	X	X		X			
3.1 Non-specific (or communicable disease)					X												X				X			
3.2 Sexually transmitted diseases	X				X	X				X			X					X	X					
3.3 HIV (by definition, regulation, or case law)					X					X														
3.4 Penalties																								
3.4.1 Felony																	X							
3.4.2 Misdemeanor	X				X	X				X			X					X	X		X			
3.4.3 Multiple penalties																								
4.0 Reporting laws																								
4.1 Named	X	X	X	X		X	X			X			X		X	X	X		X				X	X

MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	PR	RI	SC	SD	TN	TX	UT	VT	VA	VI	WA	WV	WI	WY	Total
	X			X		X				X	X	X		X			X	X	X				X		X				24
				X																					X				5
																									X				3
																													1
	X					X				X	X	X		X			X	X	X				X						21
	X					X				X							X	X					X						13
																		X					X						4
	X																X												8
										X		X							X										6
												X																	1
																													0
	X									X							X	X	X										10
																		X											1
	X																X												4
											X			X				X											5
																		X											2
																													1
	X										X												X						14
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	X			X		X				X		X						X	X										11
										X																			2
												X																	1
	X			X		X				X	X	X		X			X	X	X				X		X				23
																													2
	X																												3
				X							X	X		X			X		X		X						X		15
				X							X	X		X			X		X		X								12
				X							X	X		X			X		X		X								12
											X			X							X								7
																			X								X		5
														X															3
				X							X	X		X			X		X		X						X		15
																													0
																													3
		X		X		X		X		X		X	X			X	X	X	X		X	X		X	X			X	25
				X								X	X								X			X				X	9
		X				X		X		X		X				X	X	X	X			X		X	X				19
		X		X				X									X		X		X				X				9
						X						X	X									X							5
		X		X				X		X						X	X	X	X		X			X	X			X	20
																													0
X	X		X	X		X	X		X	X	X	X	X				X	X	X	X	X		X	X		X	X	X	35

As these data indicate, statutes that create a specific new offense vary in breadth, specificity, and severity. California, for example, has a narrowly applicable statute that addresses only the intentional exposure or infection of another person during unprotected sex with the "specific intent to infect the other person with HIV."[22] Specific intent, the statute provides, cannot be proven merely by evidence that the person knew he or she was HIV-positive. It must be shown by the prosecution that the individual was deliberately trying to infect the other person with HIV. Similarly, sexual activity covered by the statute is narrowly defined to include only behavior that poses a significant risk of transmission: It includes only "insertive vaginal or anal intercourse on the part of an infected male, receptive consensual vaginal intercourse on the part of an infected woman with a male partner, or receptive consensual anal intercourse on the part of an infected man or woman with a male partner."

In contrast, Illinois's law defines exposure behavior in very broad terms and requires only that the defendant know that he or she is infected:

> A person commits criminal transmission of HIV when he or she, *knowing* that he or she is infected with HIV;
> (1) engages in intimate contact with another; … or
> (3) dispenses, delivers, exchanges, sells or in any other way transfers to another any nonsterile intravenous or intramuscular drug paraphernalia.[23]

"Intimate contact with another" is defined as "the exposure of the body of one person to a bodily fluid of another person in a manner that could result in the transmission of HIV." Note that there is no specification of a threshold level of significant risk: The statute could be interpreted as making no distinction between receptive or insertive behavior, or between such varyingly dangerous practices as masturbation, oral sex, and anal intercourse. Infection of the other is not an element of the offense, and consent to the exposure by the exposed person is an affirmative defense, meaning that the accused has the burden of demonstrating "that the person exposed knew that the infected person was infected with HIV, knew that the action could result in infection with HIV, and consented to the action with that knowledge."[24]

As a group, the laws impose markedly strict penalties. Twenty-two states' laws make violations exclusively a felony; Arizona has both felony and misdemeanor offenses; only Maryland classifies HIV exposure exclusively as a misdemeanor. One state (Indiana) prescribes a more severe penalty if exposure results in actual infection.[25]

Other HIV-specific crimes or sentence enhancements

Fifteen states have passed statutes that deal specifically with acts that are already crimes, including prostitution, rape, or assaulting a police, corrections, or emergency response officer, but are punished separately or more severely when the perpetrator knows he or she has HIV (see Table 1, 2.0-2.4.3). In three of these states, this is the only HIV-specific exposure or transmission statute (Colorado, Utah, Wisconsin). Twelve states impose special penalties on prostitutes or persons soliciting prostitutes who know they have HIV. Three states have passed laws that apply to assaults directed at law enforcement or prison personnel. Five states enhance penalties for various sex crimes when knowing HIV exposure is involved. In all fifteen states, violation of these provisions is a separate felony, or violation imposes an enhancement of any existing sentences of greater than one year.

Results: Prosecutions

Official data on arrests and prosecutions of HIV-related offenses are not compiled. By examining case decisions and newspaper articles, however, we identified 316 unique prosecutions of persons for exposure or transmission of HIV for 1986–2001. Table 2 shows the distribution of cases by the risk behavior involved. Sexual exposure was the most common basis. The category of consensual sex includes cases in which the defendant did not inform a partner of his or her HIV infection, or in which the partner's knowledge and consent to the exposure was either disputed or not a valid defense. Only a few cases involved selling blood, and no charges arose out of needle-sharing. "Other mode of exposure" included throwing a blood-soaked towel, throwing feces, putting blood in someone's coffee, splashing blood, and licking. No prosecutions identified in case law were brought under general communicable disease or STD exposure statutes. Although news reports did not reliably indicate the specific law a defendant had been prosecuted under, none that we could identify was a general disease transmission statute. More than 70 percent of the cases arose out of behavior that was already illegal without regard to HIV risk (such as prostitution, unconsensual sex, or one or another form of assault), and nearly a quarter of the cases involved spitting, biting, or scratching, which pose a very remote risk of transmission. We were unable in most instances to determine the race of the defendant.

We were able to determine the outcomes of 228 cases. (Although we had identified 316 prosecutions, 88 of these had no determinate conclusion in the case. See Table 2). Case outcomes are presented in Table 3. One hundred sixty-four people were convicted on HIV-related charges, although information was not always available on whether the charges were based on HIV-specific statutes or general criminal law. In twenty other cases, HIV was the basis for a penalty enhancement in sentencing; in one additional case, a defendant was convicted under an HIV-specific exposure statute and received an HIV-based sentence enhancement.

Table 2 shows that more than 80 percent of the cases whose outcome could be determined resulted in a convic-

Table 2. Prosecutions and Outcomes by Mode of Exposure.

	Total Prosecutions		Total with Some HIV Penalty		
	Number	**As percentage of all prosecutions**	**Number**	**Conviction rate within exposure category**	**Convictions as percentage of all prosecutions of known outcome (n = 228)**
Sexual exposure	211	67.0	138	64.8	60.5
Prostitution	*40*	*12.7*	*22*	*55.0*	*9.6*
Solicitation of prostitutes	*1*	*0.3*	*1*	*100.0*	*0.4*
Consensual sex	*84*	*26.6*	*64*	*76.2*	*28.1*
Unconsensual sex, unclear consent	*95*	*30.1*	*58*	*61.1*	*25.4*
Spitting, biting, or scratching	75	23.4	32	42.7	14.0
Spitting	*24*	*7.6*	*8*	*33.3*	*3.5*
Biting	*49*	*15.5*	*24*	*49.0*	*10.5*
Scratching	*1*	*0.3*	*0*	*0.0*	*0.0*
Selling blood	5	1.6	4	80.0	1.8
Syringe injection or threat	12	3.8	5	41.7	2.2
Needle-sharing	0	0.0	0	0.0	0.0
Mode of exposure unknown	2	0.6	0	0.0	0.0
Other mode of exposure	10	3.5	3	30.0	1.3
No alleged exposure	2	0.6	2	100.0	0.8
Total	**316***	**100**	**184**	**N/A**	**80.6**

**Total number of prosecutions adds up to 317, but one individual was prosecuted for both blood sale and prostitution in a single case.*

tion on the HIV-related charge or in the imposition of a penalty because of the defendant's HIV status. Selling blood and having otherwise consensual sex without disclosure of HIV were the two behaviors most likely to result in conviction. The "no alleged exposure" category consisted of two cases in which individuals convicted on completely unrelated charges (car theft, forgery) were offered probation only on the condition that they would inform their sexual partners of their HIV-positive status, even though no particular incident of exposure was alleged. These are not convictions in the legal sense, but for our purposes, they are treated as equivalent since they involve the imposition of a legal penalty and potential further criminal sanctions due to HIV status.

Newspaper articles did not provide complete data on the length of sentences for those convicted. We were able to identify 142 people who were convicted on an HIV-related charge and were sentenced to a term of imprisonment or probation. These included seven sentences of life imprisonment (most for sexual assault or assault on a minor, but one for spitting) and two sentences of twenty years to life. Among the 135 cases with minimum sentences less than life, the average minimum sentence was 14.3 years, the median was 6 years, and the range was 0.15 to 125 years. Thirteen individuals received probation.

Figures 1 and 2 illustrate the chronological and jurisdictional distribution of prosecutions in the United States. Prosecutions were clustered in 1993 and 1998–99, with twenty or fewer prosecutions nationwide in most other years. Twelve states and Puerto Rico had no reported prosecutions. Only six states (California, Florida, Illinois, Missouri, Ohio, Pennsylvania) and the military had fifteen or more prosecutions each. In a preliminary statistical analysis, prosecutions were not clearly related to the presence or absence of an HIV-specific statute or the prevalence of HIV in the jurisdiction after controlling for state population. The high numbers and rates of prosecution in the military may be explained by the practice of mandatory HIV testing of active duty service personnel, the issuance of orders prohibiting HIV-positive personnel from engaging in specific sexual activity without disclosing their status and/or using condoms, and the willingness of military authorities to prosecute personnel determined to have disobeyed orders regarding their sexual activity while infected.[26]

Table 3. Case Outcomes.

Outcome	Number	As Percentage of All Prosecutions
Defendant died before trial or sentencing, or was too ill to be tried	8	2.5
Unable to determine if conviction was for HIV charges or non-HIV charges	8	2.5
Outcome unknown	72	22.8
Total with no determinate conclusion to the case	**88**	**27.8**
Convicted on HIV charges	164	51.9
Convicted under HIV-specific criminal statute	*55*	*17.4*
Convicted of other, non-HIV charges as well	*33*	*10.4*
HIV led to penalty enhancement in sentencing	21	6.6
Total with some HIV-related penalty	**184***	**58.5**
Acquitted of HIV charges, or HIV charges dropped/dismissed	30	9.5
Convicted only of non-HIV charges without HIV penalty enhancement	14	4.4
Total with no HIV-related penalty	**44**	**13.9**
Total number of cases	**316**	**100**

**Total number of HIV penalties adds up to 185, but one individual received both an HIV-specific penalty and an HIV penalty enhancement (for rape) in a single case.*

There has been concern that HIV exposure or transmission laws could be used to prosecute women who transmit HIV to their children during pregnancy, birth, or breastfeeding.[27] Theoretically, those laws that criminalize any knowing exposure to "bodily fluids" or any exposure capable of transmitting the virus could be used against women whose children are infected *in utero*, during birth, or through breastfeeding. Only one state's law, Oklahoma, specifically exempts *in utero* transmission,[28] but it is silent on peripartum or postpartum infections. (Texas's now-repealed exposure law also exempted *in utero* exposure or transmission.[29]) In 1995, as part of another project, we queried the state health departments and programs responsible for prevention of maternal-to-child transmission about the actual or possible use of their statutes against pregnant women. All of the states that responded reported no actual or intended use of their statutes for this purpose. One state, Washington, reported that its attorney general had interpreted its transmission statute to apply only if the mother "intended to harm the fetus/child."[30] For this project, we have uncovered no known cases of prosecution for a transmission offense, but as we discuss further below, hundreds of women have been prosecuted for the analogous offense of "delivering" drugs to their unborn children by their own drug use.[31]

Results: Media reporting

Overall, the project identified 4,334 news articles about HIV-related crimes. Of these, 4,138 covered a single defendant, while 196 discussed multiple defendants (within a range of 2–14). The average number of articles per unique prosecution was 14.6. Coverage ranged between no articles and more than 700, although only six cases generated more than 100 articles each. The median number of articles focusing on a single defendant was four.

The cases receiving the most attention had little in common. The most covered case (727 articles) involved NuShawn Williams, a man from an urban area reported to have had sexual contact with more than forty women and girls from a single small town. At least thirteen of these women were infected, as was the infant born to one of them.[32] The next most frequently discussed case (335 articles) concerned a man who intentionally injected his son with HIV, reportedly to avoid paying child support.[33] Of the next seven cases, one (Edward Savitz) involved solicitation of sexual favors from teenage boys (entailing copraphilia but very little actual sexual contact), three involved consensual sex (two with multiple partners), another involved the intentional injection of a former girlfriend, the sixth involved consensual and unconsensual sex, and the last involved child molestation.[34]

Discussion

Our principle findings may be briefly recapitulated: Twenty-five states have public health disease transmission statutes, at least some of which could be used to address HIV exposure. Half the states have HIV-specific statutes prohibiting behavior that could expose others to HIV, from conventional sexual encounters in which parties do not discuss disease-risk issues to attempts to use HIV as a weapon for murder. Most are broadly written to cover a wide range of behaviors (much of which poses little risk of transmission), and most do not

require that the defendant intend to cause harm. Fifteen states impose harsher penalties or reclassify some existing crimes when the defendant knows he or she is infected with HIV. All states have generic criminal laws that can be used to prosecute people who expose others to HIV, even in ways that pose little or no real risk.

Despite the ubiquity of these laws, and persistent research reports that most people with HIV continue, at least occasionally, to engage in behavior the law prohibits,[35] the actual number of people being charged with HIV-related exposure crimes is quite low. We found no prosecutions under general disease exposure statutes. A quarter of the states had no prosecutions of any kind. Thirty-six states and territories had five or fewer prosecutions under generic criminal statutes or HIV-specific provisions. Only thirteen jurisdictions had ten or more prosecutions. Prosecutions for rape, prostitution, and other sexual offenses were 1,000 to 3,000 times greater in a single year than for the whole 15 years of prosecutions for HIV exposures or transmissions.[36]

We found no evidence of systematic enforcement of HIV exposure laws. What seems to determine who gets prosecuted is the accident of being caught and brought to the attention of a willing prosecutor. The most prominent shared characteristic of those charged with HIV-related crimes is that their alleged behavior was already criminal without regard to their HIV status. More than 70 percent had committed their HIV-related illegal act in the course of a sex crime, an assault, or an act of prostitution. We were unable to determine the race of defendants or collect other information that might shed more light on why these particular people were targeted. Those who were charged were usually convicted. Those convicted of violating HIV-specific statutes or general criminal statutes (assault, aggravated assault, or attempted murder) typically received felony sentences ranging from one year to life, with a median sentence of six years. Until the recent introduction of combination therapy for HIV, most defendants could not have been expected to survive even the average sentence imposed. The news media did provide coverage of these cases, although only a few attracted extensive coverage.

Seen broadly, our data do not support the view that the adoption of HIV-specific statutes establish clear rules for behavior that direct the force of law to people engaging in clearly wrongful and dangerous behavior. The clearest rules are aimed at conduct that is already plainly illegal, such as prostitution or intentional infection of another. The rules aimed at voluntary sexual behavior — the prime mode of infection in the United States — are generally written so broadly that the only clear line they draw is between sex and no sex, or at best sex with disclosure and sex without disclosure. These are clear lines in principle, but in the context of real-world sexual behavior they fail to account for the complex ways in which individuals weigh risks and signal the risks they themselves pose or are willing to accept. Research on sexual behavior suggests that individuals and couples often rely on signaling, or assumed consent, such that someone who suggests condom use may believe he has signaled his infection and that the other party's willingness to engage in unprotected sex means consent to exposure.[37] Certainly, many of the statutes we examined make potential criminal defendants out of hundreds of thousands of people living with HIV who would not consider themselves (or be considered by their peers) to be doing anything criminal. Indeed, people can be accused of breaking the law even if they are behaving in ways encouraged by public health prevention programs, such as using a condom or substituting safer modes of sex for more dangerous ones.

Of course, criminal law would not need to work perfectly to make a positive contribution to HIV prevention by reducing risk-creating behavior. A full analysis of the effectiveness of criminal law in changing HIV risk behavior is beyond the scope of this paper. However, our data about the distribution of criminal provisions, prosecutions, and news

Figure 1. Prosecutions per Year, With Outcome.

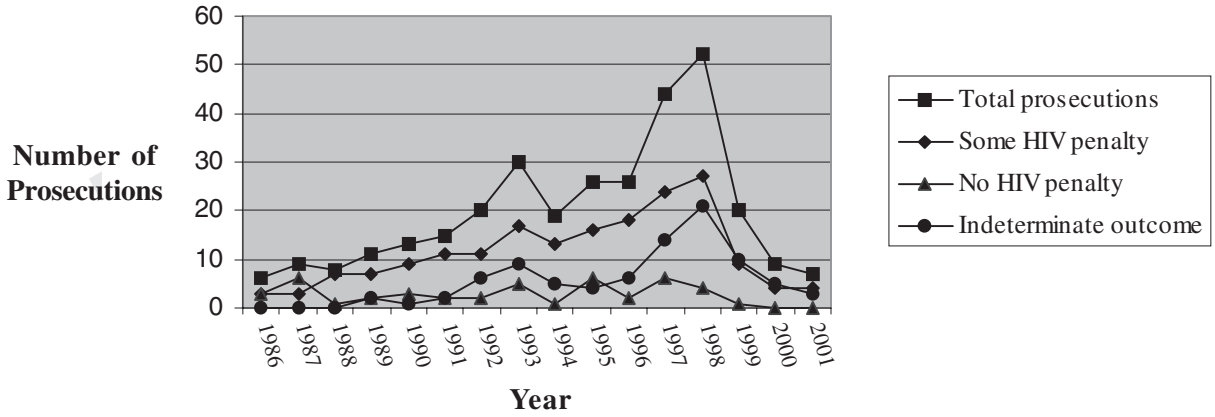
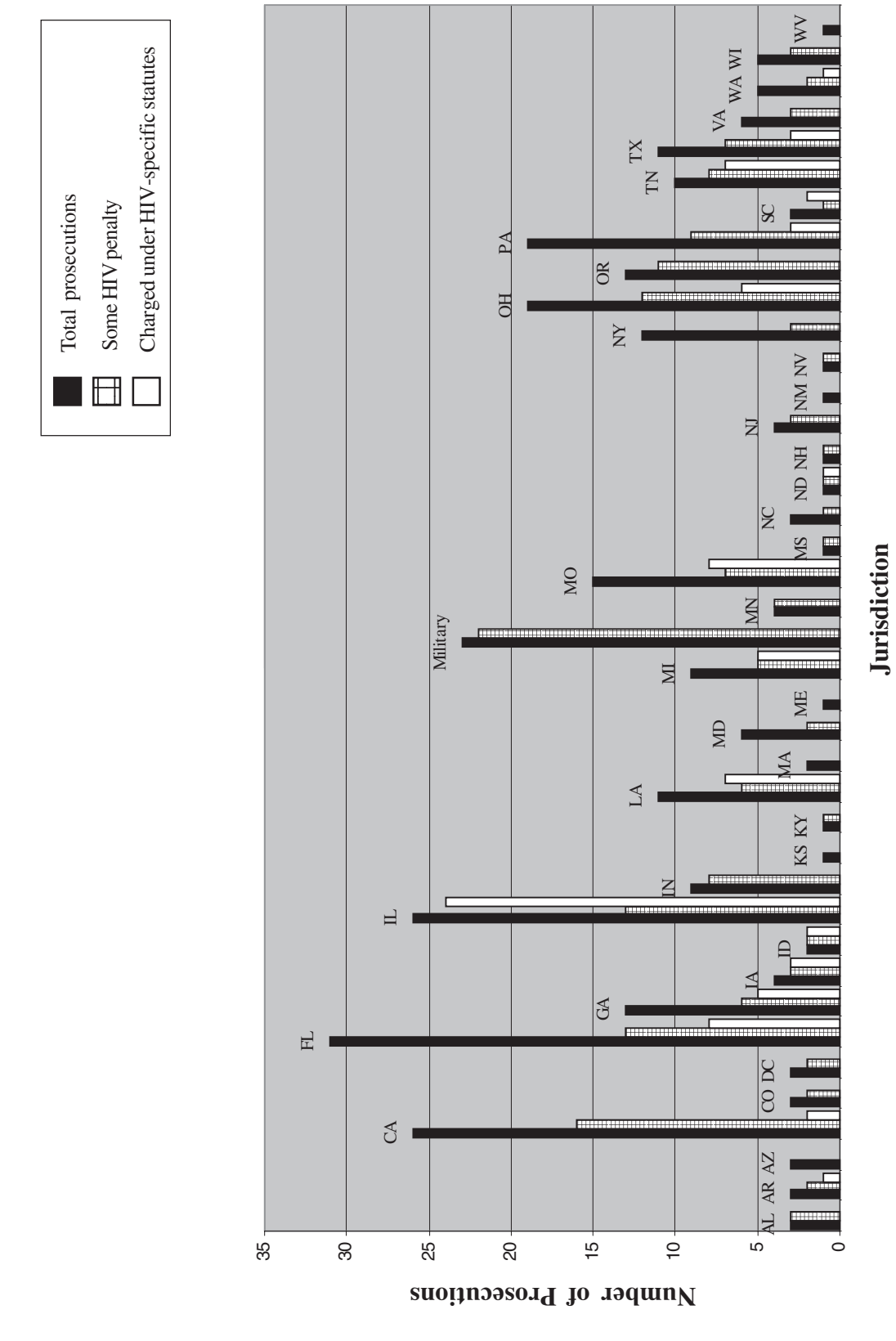


Figure 2. Cases by State: Total Number of Prosecutions, Outcome, and HIV Charge.



coverage can be discussed in light of the general theory on how criminal law works and in light of earlier commentary on the use of criminal law to reduce HIV transmission. Based on this preliminary analysis, we draw some conditional and tentative conclusions.

Incapacitation

Incapacitation works by the simple mechanism of removing people who expose others to HIV from the population. Its value to HIV prevention depends on the extent that the law can identify people who will infect others. The more people whose infection is prevented, the greater the benefit from any single prosecution. Our research identified 184 people who were subject to significant periods of incarceration upon conviction of a crime related to HIV exposure. About fifteen percent of these had committed assaults that were not likely to transmit HIV. Sexual behavior, which accounted for 60 percent of convictions, is a powerful driver of the HIV epidemic, but the category of sexual exposure includes prostitution, which can be, but is not always, a major source of infection in the United States.[38] The cases of unconsensual sex or sex without disclosure that we identified did include instances of multiple exposure, notably the NuShawn Williams case, but most involved only one or two victims. Presumably, models could be developed to estimate rigorously the effect of these prosecutions on HIV transmission. In the absence of such work, our data urge caution in assuming that criminal law as currently administered is significantly influencing the HIV epidemic by incapacitation.

From a policy perspective, moreover, any incapacitation benefit to prevention would have to be offset by the extent to which risk is redirected into prisons. HIV is transmitted by rape, consensual sex, and injection drug use in prison, where condoms and sterile needles are almost uniformly unavailable.[39] The cases we identified include fifteen prosecutions of prisoners, two for consensual sex. Incapacitation should also logically be considered in light of alternatives, such as providing better care or necessary services that reduce risk behavior,[40] or the use of civil commitment to temporarily detain and provide care for people whose behavior is driven by mental illness or other treatable factors.

Legitimacy-based or "normative" views

Normative theories of compliance with law hold that people obey the law because they believe it is right to do so. This sense of rightness may arise because the behavior required by the law is consistent with the individual's own sense of right and wrong, or from a sense that the law is the product of a "legitimate" or fair authority that is entitled to obedience.[41] The quality of people's experiences with the representatives of government (such as police and judges) are thought to be particularly important. Evaluating our findings under these accounts of compliance again suggests a cautious view of criminal law as an influence on HIV-related behavior.

There are some ways in which prevailing HIV criminal law probably does conform with prevailing values. It is safe to assume that most people regard the most extreme forms of behavior subject to prosecution to be wrongful: deliberately infecting others, committing rape, or knowingly donating infected blood. Indeed, few people would think of doing any of these things even without a law prohibiting them. The "hard case" for normative theories of obedience is the regulation of disclosure and risk-taking in the day-to-day sexual encounters that drive the epidemic. For example, only a few laws explicitly distinguish between failing to disclose an HIV infection to a partner but always using a condom and failing to disclose an HIV infection while engaging in unsafe sex. Yet there is certainly an important distinction. The first greatly reduces the risk of infection (to nearly zero in a single encounter) while protecting the privacy of the person with HIV; the second preserves privacy at the expense of the partner.

There does not appear to be a widely observed norm of explicit disclosure of HIV status among casual sex partners. On the contrary, the "Code of the Condom" described by David Chambers holds that "[t]he person who assiduously uses condoms has no obligation … [to] inform his prospective sexual partners of his HIV status, even when he knows himself to be infected."[42] Perhaps there *ought* to be a social norm of disclosure,[43] and possibly the passage of laws requiring disclosure or even abstinence could over time help promote social norms to the same effect. But even if we assume that law can do this at all, there are problems with criminal law under the legitimacy strain of normative compliance theory.

Compliance based on legitimacy flows from people's belief that the rules should be followed because they are the rules, or a belief that the system treats people like themselves fairly.[44] HIV criminal law presents at least two difficulties under this theory. The first, and perhaps less significant, is simply whether people are aware of the laws and of exactly what norms of behavior they set forth. People generally are not terribly well-informed of the laws that regulate them, and the laws governing HIV exposure are often sufficiently opaque that even lawyers would argue about exactly what they require or prohibit. Our news findings suggest that prosecutions are covered by the media, but the average number of articles is rather low and our reading of them found that they rarely provide clear information about the laws being applied.

If we nevertheless assume that people are aware that the law prohibits consensual sex without explicit disclosure of HIV infection, we face a second problem. People may obey the law in many instances out of respect for legitimate authority, but what if the authority is not considered legitimate in a particular realm of regulation or in any realm at all? What if people have experienced the system as unfair? HIV is most prevalent among gay men and injection drug users; it

disproportionately strikes African-Americans. Possibly even more than the average American, gay men are dubious about government regulation of sexual behavior. Mistrust of "the system" may be widespread in all these populations. They simply may not believe that government rules about how to behave in matters of sex and drug use are due any obedience. Legitimacy quite evidently does not move gay men to obey sodomy laws or drug users to obey drug control laws. A sense of selective prosecution could also undermine legitimacy, as could personal experiences of unfairness. Although we could not determine the race of the defendant in a sufficient number of cases to conduct an analysis by race, the most widely covered case involved an African-American defendant and his exposure of white women to HIV,[45] and numerous commentators have perceived a focus on poor and socially marginalized actors.[46] Such cases evoke a plethora of racial stereotypes and memories of notoriously brutal prosecutions and vigilante activity against black men suspected of assaulting white women.

Deterrence-based or "instrumental" views

Instrumentalist theories hold that criminal law works primarily by deterrence, increasing the costs of illegal behavior sufficiently to prevent most people from transgressing.[47] Instrumentalists believe that both the likelihood of detection and the severity of punishment modify individual behavior, though they dispute the relative importance of these influences. These theories posit a rational actor, equipped with knowledge of the law and the consequences entailed in its violation. In recent years, a "norms movement" in law and economics has led to a greater interest in social factors; for our purposes, it is enough to note that many law-and-economists now include the violation of norms as additional costs in the rational actor's deterrence calculation.[48]

Assaultive behavior and deliberate attempts to use HIV as a means of murder present a straightforward claim for deterrence. People undoubtedly know the behavior is wrong, even if they are not specifically aware of the law. There have been several well-covered prosecutions, and punishments have been substantial. To the extent that deterrence has any effect on crime, one might expect its effect to be generally similar in these sorts of cases.

Once again, day-to-day sexual behavior poses the more difficult problem. Deterrence requires an actor who knows his contemplated conduct is illegal. We have already discussed the problem of whether current laws, or news reports of prosecutions, give notice to people of what behavior is prohibited. It is not immediately clear that many or most people with HIV realize that consensual sex without disclosure is a crime, at least under circumstances where safer sex is practiced or the other party willingly assumes the risk. Assuming knowledge of the law, it would be reasonable for a rational actor bent on continuing his or her sexual behavior unchanged to rate the chances of detection and punishment as very low. There are millions and millions of such encounters, yet only a few hundred prosecutions of any kind. These cases, moreover, have generally come to light accidentally, or at any rate not because of systematic efforts by law enforcement to uncover them.

Deterrence also requires the actor to be sufficiently concerned about the likelihood of punishment to modify his behavior. Some have argued that when a diagnosis of HIV infection signaled a terminal illness, persons with HIV might not be deterred by the threat of punishment.[49] This critique of the potential deterrent effect carries less weight today, when combination therapy has greatly reduced AIDS deaths and extended the life expectancies of people with HIV, than it did a decade ago. Of course, the individual's assessment of the prospective cost of violating the law may be colored more by averseness to public humiliation and incarceration than the chances of those things occurring. When incarceration is extraordinarily rare, however, the potential harm may be discountable. Thus, as with incapacitation and normative accounts of criminal law's possible effects, our findings, while hardly determinative, suggest caution in relying on criminal law as a structural intervention to prevent HIV. Caution is also justified by a consideration of criminal law's potential costs to public health, to which we turn next.

Costs of using criminal law: Privacy issues

Criminalization of HIV-related behavior has significant implications for public health privacy. The investigation of an HIV-related crime can raise difficult issues for public health officials.[50] In virtually all HIV-related prosecutions, one of the key elements that a prosecutor will have to prove is that the defendant knew of his or her HIV infection. One likely source of evidence for this knowledge is HIV-testing records, and one likely place to look for these records is in health department testing or disease report records. As Table 1 indicates, HIV is now reportable by name in thirty-five states. Some HIV-specific statutes explicitly allow prosecutors access to public health department testing and counseling records when investigating certain HIV-related crimes.[51] In other cases, prosecutors could seek such information through a subpoena or court order.[52]

If these exceptions were widely utilized, they clearly would threaten the ability of health departments to guarantee confidentiality of disease information reported to them. In fact, while public health authorities may need to alert law enforcement about a person willfully exposing others, they should do so only as allowed by state law and under very compelling circumstances. Some experts have recommended that in these situations, public health authorities "should not provide any additional assistance or become inter-meshed or associated with the criminal investigation…. Public health authorities must avoid at all costs an image in the commu-

nity as actively assisting in the criminal investigation of persons."[53] Disclosure of public health data to law enforcement also implicates the statutes that require health departments to keep the information secret. Our research did not uncover a reported decision raising this issue in an HIV case. In at least one case, though, a state court ruled that the public health privacy law trumped the prosecutor's interest in enforcing criminal law.[54]

Concerns about mixing health and criminal goals were highlighted by a case decided last year by the U.S. Supreme Court. *Ferguson v. City of Charleston*[55] was a challenge to a program in which obstetrical staff at a hospital performed drug tests on maternity patients, and cooperated with local police to use the tests to prosecute pregnant women who tested positive.[56] Although not strictly speaking a case about public health records, the case did deal with the sort of situation that some fear could arise with reporting or other interventions among pregnant women with HIV. For instance, could a woman's knowledge that she was HIV-infected, demonstrated by public health records of a positive test, be used in a prosecution for exposing her fetus to or infecting it with HIV?

We uncovered no such case in our research, but only one state exposure law explicitly excluded such a prosecution. The reasoning of the *Ferguson* case, in which the Court held that the program violated the Fourth Amendment, supports the view that information gathered for health purposes should not be used for law enforcement. The Court recognized that health-care providers' primary mission is to provide care to their patients, and that ancillary social obligations do not license them to depart from the standards (or patient expectations) associated with their primary role. "While state hospital employees, like other citizens, may have a duty to provide the police with evidence of criminal conduct that they inadvertently acquire in the course of routine treatment, when they undertake to obtain such evidence from their patients for the specific purpose of incriminating those patients, they have a special obligation to make sure that the patients are fully informed about their constitutional rights, as standards of knowing waiver require."[57]

It is highly unlikely that any woman who complies with the advice of her physicians during pregnancy and takes recommended anti-retrovirals to reduce the risk of infection will be prosecuted, even if transmission occurs. Given the laws we have identified, however, there remains the possibility that overzealous health-care providers, child welfare agencies, or prosecutors might use the law or the threat of the law against pregnant women with HIV who refuse antiretrovirals or fail to adhere to therapy. Those so inclined could argue that the women's conduct was "reckless" or even involved the "willful exposure" of their fetuses, and officials could bring charges using HIV-specific laws.

On a distinct, but related issue, an Oregon family court judge has granted the state legal custody of a child born to an HIV-infected mother who refused to give the infant AZT and wanted to breastfeed her child.[58] Both the fear surrounding the possibility that women could be prosecuted for transmission and the demonstrated willingness of at least some courts to grant broad latitude to health authorities to control mothers' behavior illustrate the ways that laws that are not actually used in a threatening way could influence health behavior.[59]

Conclusions

Criminal law may serve many social purposes. It may express a collective social view that a particular behavior is wrong,[60] or be a means through which a social group obtains social validation of its views.[61] We have been interested here with whether criminal law is an effective tool of HIV prevention. The data we have collected are a first step toward adequately answering this very difficult question.

The public health case for criminalization has generally been seen as weak.[62] Criminal law can be an effective tool of HIV prevention only if it incapacitates or deters the people whose behavior is responsible for a significant proportion of new HIV cases, but criminalization stumbles almost immediately on a paradox. The behavior most widely accepted as wrong — deliberately using HIV as a tool to harm or terrorize another — is too rare to influence the epidemic, whereas the behavior most responsible for spreading the virus — voluntary sex and needle-sharing — is difficult and controversial to prohibit. Both the impetus for and opposition to criminalization are rooted in the profound social differences over the acceptability of homosexuality and drug use, and the clash of values those differences entail.[63]

Our data tend not to disprove this view. On each of the leading theories of the operation of criminal law, our findings raise as many questions as they answer. Though widespread, laws criminalizing HIV may be hard to interpret even if they are publicized. Prosecutions are rare, and while their sentences are significant, so is the sense these cases may create of selective prosecution, bias, or danger to privacy. Nonetheless, many questions remain unanswered, such as: Do individuals with HIV or those at risk of infection in selected states know about the laws governing their sexual behavior? Do they believe they could/will be punished for violating these laws? Do the laws reflect the norms of behavior among people at risk? What are their attitudes toward police, law, and the courts? How, and to what extent, do all these factors influence individuals' perceived and actual control as related to their intention to change their behavior to fit these laws' limitations? How are these laws enforced? What are the attitudes of prosecutors and police toward invoking them?

This substantial uncertainty — the sheer number of basic questions to be answered — suggests that the notion of criminal law as a structural intervention to prevent HIV ascribes motives to lawmakers that were never there in the

first place. Had criminal law been intended to prevent HIV, one might detect more interest in finding out whether it has done so. Most likely, these laws were passed for symbolic rather than HIV-prevention reasons. Now that they are in place, however, it behooves a rationally inclined system of governance and disease prevention to determine whether the policy in practice achieves the goals of the policy on paper. With criminal law as a means of preventing HIV, we can say that the trial is not over, but the case looks weak.

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49. Gostin, *supra* note 1, at 1017, 1055, 1058.

50. Hodge and Gostin, *supra* note 1, at 45, 62, and n.187.

51. Colo. Rev. Stat. Ann. § 18-3-415.5(3)(a) (2001) allows prosecutors to contact the state or any local health department to determine whether an accused sex offender who has tested positive for HIV as part of a current prosecution had ever been tested and notified of his or her status before the date of the current offense. Discovery of prior notice could result in charges under Colorado's HIV-specific statute, Colo. Rev. Stat. Ann. § 16-13-804(d) (2001), which carries a mandatory indeterminate sentence of at least three times the upper limit of the sentence for the current crime, up to a maximum of the sex offender's natural life.

52. Such procedures are not infrequently authorized under HIV confidentiality statutes. See, for example, Pa. Stat. tit. 35, § 7608 (2001).

53. Hodge and Gostin, *supra* note 1, at 45, 62, and n.187.

54. *Commonwealth v. Moore*, 584 A.2d 936 (1991).

55. *Ferguson v. City of Charleston*, 532 U.S. 67(2001).

56. G.J. Annas, "Testing Poor Pregnant Patients for Cocaine — Physicians as Police Investigators," *N. Engl. J. Med.*, 344 (2001): 1729–32.

57. *Ferguson*, 532 U.S. at 84–85. See also Annas, *supra* note 56.

58. "Tyson Family Loses in Oregon Court; Eugene Judge Denies HIV-Positive Mom Right to Breastfeed, Assigns Custody of Infant to State," *Rethinking AIDS*, 7, no. 6 (June 1999), *available at* <http://www.rethinkingaids.com/Archive/1999/RA9906TysonsLose.html>.

59. S. Burris, "Surveillance, Social Risk and Symbolism: Framing the Analysis for Research and Policy," *Journal of Acquired Immune Deficiency Syndromes*, 25, suppl. 2 (2000): S120–27.

60. M.D. Adler, "Expressive Theories of Law: A Skeptical Overview," *University of Pennsylvania Law Review*, 148 (2000): 1353–1501.

61. J.R. Gusfield, *Symbolic Crusade: Status Politics and the American Temperance Movement* (Urbana: University of Illinois Press, 1963).

62. For example, Gostin, *supra* note 1, and Dalton, *supra* note 16.

63. S. Burris, "Human Immunodeficiency Virus," in Joshua Dressler, ed., *Encyclopedia of Crime and Justice*, 2d ed. (Farmington Hills, Michigan: Macmillan Library/Gale Group, 2002).