

NOTE

AS THE TIDE TURNS: THE CHANGING HIV/AIDS EPIDEMIC AND THE CRIMINALIZATION OF HIV EXPOSURE

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INTRODUCTION

The HIV/AIDS¹ epidemic is changing, but the criminal law is failing to keep pace.

The story of its change is familiar to anyone who is aware of the effect antiretroviral drugs have had on treatment of the disease.² That

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¹ HIV, the Human Immunodeficiency Virus, is the virus that causes AIDS, the Acquired Immune Deficiency Syndrome. Hiroaki Mitsuya & Samuel Broder, *Strategies for Antiviral Therapy in AIDS*, 325 *NATURE* 773, 773 (1987). Together, they are known as “HIV/AIDS.”

² See, e.g., William Jefferson Clinton, Op-Ed., *AIDS Is Not a Death Sentence*, *N.Y. TIMES*, Dec. 1, 2002, § 4, at 9 (“[M]edicine can turn AIDS from a death sentence into a chronic illness”). For the story of Larry Kramer’s battle to get the medical profession to recognize that HIV/AIDS is a chronic illness, and that he should receive a liver transplant,

story began in 1981, when an unknown disease first appeared, killing “previously healthy” “homosexual men.”³ Researchers soon found the disease in other populations⁴ and discovered that it is “invariably fatal.”⁵ By 2001, 438,000 Americans had succumbed to AIDS.⁶ But by that date the tide had already begun to turn in the fight against the disease: AIDS had dropped out of the top fifteen causes of death in America.⁷ Just a few years before, researchers discovered they could treat HIV infections with a cocktail of antiretroviral drugs.⁸ These new drug cocktails “significantly prolong[ed]” the lives of individuals infected with HIV,⁹ although those who took the drugs suffered from undesirable side effects such as lipodystrophy, where the body’s fat accumulates at the back of the neck and over the belly.¹⁰ Today, the government has approved more than twenty antiretroviral drugs in six classes to treat infection with HIV.¹¹

There is an important subplot to this story. In some HIV-infected individuals, the virus has become resistant to one or several of the new drugs.¹² A strain of the virus resistant to one drug may become resistant to all the drugs in the same class—drugs that attack the disease in the same way—and even drugs in other classes.¹³ Individuals infected

see Jeff Stryker, *H.I.V. Patients Get Fresh Hopes for Donor Organs*, N.Y. TIMES, Dec. 11, 2001, at F6.

³ Jack Begg, *Word for Word/Nameless Dread: 20 Years Ago, the First Clues to the Birth of a Plague*, N.Y. TIMES, June 3, 2001, § 4, at 7.

⁴ See Sheryl Gay Stolberg, *In AIDS War, New Weapons and New Victims*, N.Y. TIMES, Jun. 3, 2001, § 1, at 1 (explaining that though HIV/AIDS was previously found most frequently among gay white men, today the disease is also found among heterosexual men, women, intravenous drug users, blacks, whites, and Hispanics).

⁵ Lawrence K. Altman, *Promise and Peril of New Drugs for AIDS*, N.Y. TIMES, Feb. 8, 2000, at F1; accord *People v. Russell*, 630 N.E.2d 794, 795 (Ill. 1994) (taking judicial notice “that the HIV virus is a precursor to AIDS, a progressive and inevitably fatal disease syndrome”).

⁶ Stolberg, *supra* note 4.

⁷ *Id.*

⁸ Lawrence K. Altman & Andrew Pollack, *2 New Drugs Offer Options to Fight H.I.V. in Novel Ways*, N.Y. TIMES, Feb. 28, 2007, at A1; see also Abigail Zuger, *AIDS Doctor Looks Back on a Long, Slow Climb*, N.Y. TIMES, June 5, 2001, at F1 (“The year is 1997. A wonderful, disorienting new era has dawned; drugs called protease inhibitors literally lift people with AIDS out of the grave, depositing them back into their lives with a thump. Everything reels backward. Cheekbones vanish back into cheeks, lost pounds redeposit themselves, lost immune cells return, life plans rewind back to the beginning.”).

⁹ Altman & Pollack, *supra* note 8; see also Kate Stone Lombardi, *AIDS Continues Move Among Heterosexuals*, N.Y. TIMES, Oct. 4, 1998, § 14 (Westchester), at 8 (“The advent of powerful AIDS drug cocktails can mean that an H.I.V. diagnosis is no longer a death sentence . . .”).

¹⁰ See Stolberg, *supra* note 4 (listing other side effects, including “diarrhea, kidney stones, high blood sugar, and high cholesterol as well as disturbed dreams”).

¹¹ See Altman & Pollack, *supra* note 8; Kate Traynor, *Integrase Inhibitor Gains FDA Approval*, 64 AM. J. HEALTH-SYS. PHARMACY 2310, 2310 (2007).

¹² See Altman & Pollack, *supra* note 8.

¹³ *Id.*

with drug-resistant HIV continue to die even as other people infected with non-drug-resistant HIV become healthier and healthier.¹⁴ In 2005, fears that drug-resistant strains of the virus may spread within the population culminated in alarm when researchers in New York reported discovering a drug-resistant “super strain” of the virus.¹⁵

Even though this change in the HIV/AIDS epidemic took place more than a decade ago, its effect on laws passed at the beginning of the epidemic has yet to be analyzed. Twenty-one states currently have statutes criminalizing behavior that risks the transmission of HIV or AIDS, either sexually or through tissues such as blood or semen, all passed before 2000.¹⁶ These statutes are problematic not only because they impose penalties from an era when HIV infection was regarded as “invariably fatal,”¹⁷ but also because they do not take into account the changing nature of the HIV/AIDS epidemic. An example of the problematic nature of these statutes comes from California:

Any person who exposes another to the human immunodeficiency virus (HIV) by engaging in unprotected sexual activity when the infected person knows at the time of the unprotected sex that he or she is infected with HIV, has not disclosed his or her HIV-positive status, and acts with the specific intent to infect the other person with HIV, is guilty of a felony punishable by imprisonment in the state prison for three, five, or eight years.¹⁸

Individuals who consent to sex with an HIV-infected person who they believe is infected with a non-resistant strain of HIV will have no recourse to this statute if they become infected with a highly resistant

¹⁴ See Zuger, *supra* note 8 (“The year is 2000. Some patients have been through every drug in the book. Some get sick. Some stay well. . . . The year is 2001—last week, actually. One of my patients, bones thinned to brittle shells by his medications, has broken both hips, one after another. He is learning how to walk now for the third time over. Another is on the ward upstairs trying to remember his name—none of the drugs have worked for him.”).

¹⁵ Donald G. McNeil Jr. & Lawrence K. Altman, *Scientists Urge More Study on a Rare Strain of H.I.V.*, N.Y. TIMES, Feb. 13, 2005, § 1, at 39.

¹⁶ ARK. CODE ANN. § 5-14-123 (2006); CAL. HEALTH & SAFETY CODE §§ 1621.5 (West 2007), 120291 (West 2006); FLA. STAT. ANN. §§ 381.0041(11)(b), 384.24(2) (West 2007); GA. CODE ANN. § 16-5-60(c), (d) (2007); IDAHO CODE ANN. § 39-608 (2002); 720 ILL. COMP. STAT. ANN. 5/12-16.2 (West 2002); IOWA CODE ANN. § 709C.1 (West 2003); KAN. STAT. ANN. § 21-3435 (2007); LA. REV. STAT. ANN. § 14:43.5 (2007); MD. CODE ANN., HEALTH-GEN. § 18-601.1 (LexisNexis 2005); MICH. COMP. LAWS ANN. § 333.5210 (West 2001); MO. ANN. STAT. § 191.677 (West 2004); NEV. REV. STAT. ANN. § 201.205 (LexisNexis 2006); N.J. STAT. ANN. § 2C:34-5 (West 2005); N.D. CENT. CODE § 12.1-20-17 (1997); OHIO REV. CODE ANN. §§ 2903.11, 2921.38, 2927.13 (LexisNexis 2006); OKLA. STAT. ANN. tit. 21, § 1192.1 (West 2002), tit. 63, § 1-519 (West 2004); S.C. CODE ANN. § 44-29-145 (2002); TENN. CODE ANN. §§ 39-13-109, 68-32-104 (2006); VA. CODE ANN. §§ 18.2-67.4:1, 32.1-289.2 (2004); WASH. REV. CODE ANN. §§ 9A.36.011 (West 2000), 9A.36.021 (West 2000 & Supp. 2008). Although many states treat the HIV status of the perpetrator as an aggravating condition in cases of rape or prostitution, this Note does not consider those statutes.

¹⁷ Altman, *supra* note 5.

¹⁸ CAL. HEALTH & SAFETY CODE § 120291(a) (West 2006).

strain of HIV, despite the widely divergent prognoses between infection with the two strains.¹⁹ An individual infected with a non-resistant strain of HIV who may be prosecutable under this statute would be subject to the same punishment as the individual infected with highly resistant HIV. Although the judge's limited discretion in sentencing will likely minimize this effect, it becomes more problematic as new treatments for HIV infection become available,²⁰ further improving the prognoses of those infected with non-resistant HIV.

Problematic as California's statute is, the unfairness it imposes pales in comparison to the case of Adam Donald Musser.²¹ In 2006, the Iowa Supreme Court upheld Musser's conviction under Iowa's HIV-criminal-transmission statute.²² In 2002, Musser had engaged in sexual intercourse three times with his "victim," "R.D.," without informing her that he was HIV-positive.²³ The prosecution did not need to prove that Musser intended to transmit the virus,²⁴ merely that Musser knew he was HIV-positive²⁵ and "that the defendant intentionally expose[d] another person to the defendant's infected bodily fluid in such a way that the virus could be transmitted"²⁶—in other words, that he intended to engage in unprotected sex. At the time of the sexual intercourse, Musser was receiving medical treatment for his condition.²⁷ Scientists have shown that successful treatment for HIV/AIDS lowers the risk of transmitting the disease.²⁸ Nonetheless, Mus-

¹⁹ See Zuger, *supra* note 8.

²⁰ See, e.g., Altman & Pollock, *supra* note 8.

²¹ State v. Musser, 721 N.W.2d 734 (Iowa 2006).

²² *Id.* at 741. Section 709C.1 of the Iowa Code reads, in part:

1. A person commits criminal transmission of the human immunodeficiency virus if the person, knowing that the person's human immunodeficiency virus status is positive, does any of the following:

a. Engages in intimate contact with another person. . . .

2. For the purposes of this section: . . .

b. "Intimate contact" means the intentional exposure of the body of one person to a bodily fluid of another person in a manner that could result in the transmission of the human immunodeficiency virus. . . .

. . . .

4. This section shall not be construed to require that an infection with the human immunodeficiency virus has occurred for a person to have committed criminal transmission of the human immunodeficiency virus.

²³ Musser, 721 N.W.2d at 741.

²⁴ *Id.* at 749–50. The court found that Mr. Musser possessed intent to harm merely because he engaged in sex, regardless of his belief that he would or would not cause harm. *Id.*

²⁵ IOWA CODE ANN. § 709C.1(1) (West 2003).

²⁶ Musser, 721 N.W.2d at 749.

²⁷ *Id.* at 741.

²⁸ Julio S.G. Montaner et al., *The Case for Expanding Access to Highly Active Antiretroviral Therapy to Curb the Growth of the HIV Epidemic*, 368 LANCET 531, 531 (2006).

ser was sentenced to twenty-five years of imprisonment²⁹ despite *not* infecting “R.D.” with HIV.³⁰

The resistance that HIV/AIDS has developed to the drugs used to treat it is just one example among many of a growing public health problem.³¹ Viruses and bacteria are developing resistances to many commonly used drugs.³² As microbes evolve to overcome frequently used treatments, defining diseases statutorily will become steadily more difficult—not only will there be unimaginable variety within diseases, but new, resistant versions of diseases may develop more quickly than statutes can be rewritten. This Note examines one small portion of the law’s encounter with this problem. I argue that statutes criminalizing exposure to HIV/AIDS should be repealed as ineffective and incapable of adapting to the changing HIV/AIDS epidemic. This does not mean that individuals who deliberately infect or criminally risk infecting others should not be prosecuted. Instead, preexisting criminal statutes can effectively target those infected individuals who risk infecting others, while also adapting to the changing nature of the HIV/AIDS epidemic.

Part I of this Note will describe contemporary HIV/AIDS criminal transmission statutes. It will examine the history of their implementation, the varying nature of the statutes themselves, and academic criticisms of their effectiveness. Today, the world of HIV/AIDS is far more complicated than the drafters of these statutes could have imagined. Part II of this Note will explore the changing HIV/AIDS epidemic with an eye to explaining both the policy issues it presents today and the issues that it may present in the future. Part III of this Note will describe how treatments for HIV/AIDS are undermining the shaky rationale for the criminalization of HIV exposure. Part IV will argue that the solution to this problem is not a revision of these statutes, but their repeal. Preexisting criminal statutes are bet-

²⁹ *Musser*, 721 N.W.2d at 740.

³⁰ *Id.* at 749.

³¹ See, e.g., Michael J. Selgelid, *Ethics and Drug Resistance*, 21 *BIOETHICS* 218, 218 (2007) (“Though not a new phenomenon, the problem of drug resistance is increasingly being recognized as a serious, growing threat to global public health.”); Elizabeth Olson, *Antibiotic Misuse Turns Treatable to Incurable*, *N.Y. TIMES*, June 13, 2000, at F2 (discussing a report issued by the World Health Organization that “describes how the major infectious diseases are gradually becoming impervious to existing drugs, reducing the curative power of ‘once life-saving medicines to that of a sugar pill’”).

³² See, e.g., Selgelid, *supra* note 31, at 218; Olson, *supra* note 31; Kevin Sack, *Lethal Bacterial Infections Are Found More Common*, *N.Y. TIMES*, Oct. 17, 2007, at A14. In the spring of 2007, Andrew Speaker, a lawyer from Boulder, Colorado, provided a vivid example of the risks of drug-resistant diseases. Mr. Speaker flew to Europe even though he believed he was infected with drug-resistant tuberculosis. Dan Frosch, *Traveler with TB Is Released After Treatment in Denver*, *N.Y. TIMES*, July 27, 2007, at A14. The strain of tuberculosis that infected Mr. Speaker turned out not to be “extensively drug-resistant,” and responded well to antibiotics. *Id.*

ter prepared to deal with the challenges the changing epidemic will present.

I

THE CRIMINAL HIV-EXPOSURE STATUTES

A. Origins: Patient Zero and the Presidential Commission

The policy concerns that drove many states to pass HIV/AIDS statutes derived from an understanding of the disease as it appeared in the late 1980s. By this time, experts began to feel that they understood HIV, the syndrome it caused, and how an epidemic had occurred in one of the richest countries on Earth. HIV, they had discovered, was a retrovirus that infected the human immune system.³³ Eventually, the virus caused such a “profound destruction” of the cells of the immune system that the patient progressed to AIDS.³⁴ Patients with AIDS were killed not by the virus, but by the “opportunistic infections” that their immune system could no longer fight off.³⁵ The virus, the researchers had known since 1983, was spread through the sharing of “bodily fluids”—blood and semen.³⁶ The disease had spread through sexual intercourse,³⁷ shared needles,³⁸ and blood transfusions.³⁹

Of particular concern to policy makers in 1987 were two sources of perceived wrongdoing that many believed had helped the disease spread further than it should have. The first was the blood industry’s failure early in the crisis to screen blood donors for AIDS risk factors, which led to the infection of thousands of recipients of the products of that blood.⁴⁰ When HIV-testing began in countries like West Germany, researchers discovered that two-thirds of hemophiliacs, who relied on blood-derived plasma (called “Factor VII”) to help their blood clot, were HIV-positive.⁴¹ The second was the story Randy Shilts told in his bestselling book on the AIDS epidemic, *And the Band Played On*,

³³ Mitsuya & Broder, *supra* note 1, at 773.

³⁴ *Id.*

³⁵ RANDY SHILTS, *AND THE BAND PLAYED ON: POLITICS, PEOPLE, AND THE AIDS EPIDEMIC* 73–74 (1987).

³⁶ *Id.* at 301.

³⁷ *Id.* at 87 (recounting researchers’ initial deduction that HIV is sexually transmitted in 1981).

³⁸ *Id.* at 206–07 (recounting a 1982 press conference in which researchers suggested that intravenous drug use spreads the disease).

³⁹ *Id.* at 547 (describing the frequency of “transfusion AIDS cases” at a San Francisco blood bank, and nationally, in 1985).

⁴⁰ *Id.* at 546–47 (“‘They knew you could get AIDS from blood in 1982!’ she said to anyone who would listen. ‘Why didn’t they do anything?’”).

⁴¹ *Id.* at 500–01 (describing the growth of AIDS hysteria in European countries in 1984).

about a French-Canadian flight attendant named Gaetan Dugas.⁴² According to Shilts, Dugas was “Patient Zero,”⁴³ the source of HIV infection in many of the early AIDS cases in North America.⁴⁴ Shilts claimed that Dugas began to infect his partners deliberately⁴⁵ after he was diagnosed with AIDS.⁴⁶ Shilts’s description of Dugas is chilling:

It was around this time that rumors began on Castro Street about a strange guy at the Eighth and Howard bathhouse, a blond with a French accent. He would have sex with you, turn up the lights in the cubicle, and point out his Kaposi’s sarcoma lesions.

“I’ve got gay cancer,” he’d say, “I’m going to die and so are you.”⁴⁷

Shilts suggested the legal system was powerless to stop Dugas.⁴⁸

In 1987, President Ronald Reagan formed the Presidential Commission on the Human Immunodeficiency Virus Epidemic.⁴⁹ The Commission’s Report, published the following year, “encourage[d] continued state efforts to explore the use of the criminal law in the face of this epidemic.”⁵⁰ The Commission also criticized the currently available criminal options:

Because of the problems in applying traditional criminal law to HIV transmission, however, states should review their criminal codes to determine the possible need to adopt a criminal statute specific to HIV infection. Use of traditional crimes such as murder or attempted murder to prosecute an individual for HIV transmission presents such difficulties as proving that the intent of the HIV-infected individual was to transmit the virus and to cause the vic-

⁴² *Id.* at 11, 21–24. The story of “Patient Zero” was the narrative heart of Shilts’s book. See Susan Bolotin, *Slash, Burn and Poison*, N.Y. TIMES, Apr. 13, 1997, § 7, at 8 (book review) (“Because of Patient Zero, the AIDS story had a beginning, a locus for our curiosity, even our animus.”); see also Christopher Lehmann-Haupt, Book Review, N.Y. TIMES, Oct. 26, 1987, at C20 (reviewing SHILTS, *supra* note 35).

⁴³ SHILTS, *supra* note 35, at 23 (describing how researchers referred to Dugas as “Patient Zero” as they tried to retrace his travels to better understand his role in the “coming [AIDS] epidemic”).

⁴⁴ See *id.* at 147 (“40 of the first 248 gay men to get [HIV/AIDS] might . . . all have had sex either with [Dugas] or with men sexually linked to him.”).

⁴⁵ See *id.* at 136, 165. (“‘You may be passing it around or you might have gotten it from someone else.’ The last part of Darrow’s comment, it turned out, would probably have been best left unsaid given Gaetan’s subsequent activities.”).

⁴⁶ See *id.* at 84.

⁴⁷ *Id.* at 165.

⁴⁸ *Id.* at 262 (“Legally, they decided there was nothing they could do about Gaetan Dugas.”).

⁴⁹ Exec. Order No. 12,061, 52 Fed. Reg. 24,129 (June 24, 1987). For trenchant criticism of the composition of the Commission, see *Bad Advice on AIDS*, 328 NATURE 366, 366 (1987) (“His advisory panel consists of people whose ideological qualifications are clear, but whose expertise on AIDS is not just suspect but non-existent.”).

⁵⁰ PRESIDENTIAL COMM’N ON THE HUMAN IMMUNODEFICIENCY VIRUS EPIDEMIC, REPORT OF THE PRESIDENTIAL COMMISSION ON THE HUMAN IMMUNODEFICIENCY VIRUS EPIDEMIC 130 (1988) [hereinafter PRESIDENTIAL COMMISSION REPORT].

tim's death, and proving that the act of transmission was the actual cause of death. Although the assault model provides a more useful tool for criminal prosecution of HIV transmission, the penalties for assault would prove too lenient in those cases where the transmission was intentional. An HIV-specific statute, on the other hand, would provide clear notice of socially unacceptable standards of behavior specific to the HIV epidemic and tailor punishment to the specific crime of HIV transmission.⁵¹

This passage from the Commission's Report describes the four main contemporary justifications for HIV-specific criminal statutes. The first was that infection with a disease was difficult to address under homicide laws. Not only must the prosecution wait until the infectee died before bringing charges against the infector, but it must also prove that the HIV infection derived from the defendant, which is especially difficult if the infectee is sexually active.⁵² The second justification derived from prosecutorial decisions to bring charges of attempted murder rather than murder against defendants because of the likelihood that the HIV-infected defendant would predecease the infectee.⁵³ Attempted murder requires an intent to kill,⁵⁴ and some commentators deemed this *mens rea* requirement too high a bar for HIV prosecutions.⁵⁵ The third justification was that penalties for assault were insufficient for a disease many believed progressed inevitably to death.⁵⁶ The fourth was that an HIV-specific criminal statute would provide notice that society found particular types of behavior unacceptably dangerous⁵⁷ and would deter HIV-infected individuals from spreading the disease.⁵⁸

⁵¹ *Id.*

⁵² Michael L. Closen et al., Discussion, *Criminalization of an Epidemic: HIV-AIDS and Criminal Exposure Laws*, 46 ARK. L. REV. 921, 928 (1994).

⁵³ *See id.*

⁵⁴ *Id.* at 929-30.

⁵⁵ *See* PRESIDENTIAL COMMISSION REPORT, *supra* note 50, at 130. But commentators also praised the intent requirement of traditional criminal law. *See* Closen et al., *supra* note 52, at 933.

⁵⁶ *See* PRESIDENTIAL COMMISSION REPORT, *supra* note 50, at 130.

⁵⁷ *See* LARRY GOSTIN, *The Politics of AIDS: Compulsory State Powers, Public Health, and Civil Liberties*, 49 OHIO ST. L.J. 1017, 1038 (1989) ("It is not unreasonable for society to establish clear parameters as to the behaviors it will not tolerate. By drawing a bright line around the behaviors that pose serious public health risks, the law gives clear notice of the conduct which will be subject to criminal penalty."). A further argument is that previous prosecutions for attempted murder had cast too wide a net, and caught HIV-infected individuals (usually prisoners) who had engaged in behavior that had little chance of spreading the disease, such as biting. *See* Closen et al., *supra* note 52, at 936-37.

⁵⁸ *See* DONALD H.J. HERMANN, *Criminalizing Conduct Related to HIV Transmission*, 9 ST. LOUIS U. PUB. L. REV. 351, 352-53 (1990). Some commentators who supported the notice requirement believed that public health law, rather than criminal law, was the proper tool for preventing HIV transmission. *See* Closen et al., *supra* note 52, at 935.

In addition to presenting the case for HIV-specific criminal statutes, the Commission recommended their form.⁵⁹ It recommended that statutes target individuals who know they are infected with HIV.⁶⁰ They should criminalize behaviors that HIV-infected individuals should know, “according to scientific research,” are “likely to result in transmission of HIV.”⁶¹ The statutes should clearly define dangerous behaviors.⁶² Statutes should also impose a duty upon HIV-infected individuals to disclose their status to sexual partners, and obtain their partners’ consent.⁶³ To allay public health professionals’ fears that HIV-specific criminal statutes would interfere with protecting the public health, the Commission’s Report suggested that public health laws be used preferentially to criminal statutes.⁶⁴ The Commission encouraged states to “refrain from criminally prosecuting HIV-infected individuals for HIV transmission when the alleged criminal conduct did not involve a scientifically established mode of transmission.”⁶⁵

In the years following the Commission’s Report, the momentum for HIV-specific criminal statutes built. At the time of the Commission’s Report, several states had already passed statutes criminalizing exposure to HIV or AIDS.⁶⁶ Two years later, Congress added its voice to the call for criminalization when it passed the Ryan White Comprehensive AIDS Resources Emergency Act of 1990 (the CARE Act), which mandated that states prove the adequacy of their laws for criminal prosecution of intentional transmission of HIV before they could receive federal funding for HIV/AIDS prevention.⁶⁷ By 1993, almost half the states had HIV-specific criminal legislation.⁶⁸

B. The Statutes

Statutes that criminalize intentionally exposing someone to HIV or AIDS,⁶⁹ written at a time of widely varying concerns and policy

⁵⁹ See PRESIDENTIAL COMMISSION REPORT, *supra* note 50, at 131.

⁶⁰ See *id.*

⁶¹ *Id.*

⁶² See *id.* (setting forth specific behaviors subject to criminal sanctions.).

⁶³ *Id.*

⁶⁴ See *id.*

⁶⁵ *Id.*

⁶⁶ *Id.* at 130.

⁶⁷ Ryan White Comprehensive AIDS Resources Emergency Act of 1990, Pub. L. No. 101-381 § 2647, 104 Stat. 576, 603 (codified at 42 U.S.C. § 300ff-47) (repealed 2000).

⁶⁸ Cloisen et al., *supra* note 52, at 940.

⁶⁹ This Note addresses the following statutes: ARK. CODE ANN. § 5-14-123 (West 2005) (criminalizing “the offense of exposing another person to [HIV] if the person knows he or she has tested positive for [HIV] and exposes another person to [HIV] infection through the parenteral transfer of blood or a blood product or engages in sexual penetration with another person without first having informed the other person of the presence of [HIV]”); CAL. HEALTH & SAFETY CODE §§ 1621.5 (West 2007), 120291 (West 2006) (criminalizing both the donation of blood or other tissue “by [any] person knowing he or she has AIDS”

goals,⁷⁰ address the risk of HIV transmission in a variety of ways.

and any “unprotected sexual activity when the [HIV] infected person . . . acts with the specific intent to infect the other person with HIV”); FLA. STAT. ANN. §§ 381.0041(11)(b), 384.24(2) (West 2007) (criminalizing the donation of blood or other tissue by anyone who knows he or she is infected with HIV and “has been informed that he or she may communicate this disease by donating blood” and criminalizing sexual intercourse by anyone who knows he or she is infected with HIV and who knows “that he or she may communicate this disease through sexual intercourse . . . unless such other person has been informed”); GA. CODE ANN. §§ 16-5-60(c), (d) (2007) (criminalizing, for any person who knows he or she is infected with HIV, any sexual act when the other person is not informed, sharing used hypodermic needles, donating blood or other bodily fluids when infection is not disclosed, and use of bodily fluids against a peace or correctional officer); IDAHO CODE ANN. § 39-608 (2002) (criminalizing any action by a person who knows he or she is infected with HIV or AIDS that exposes another to their bodily fluids); 720 ILL. COMP. STAT. ANN. 5/12-16.2 (West 2007) (criminalizing engaging in intimate contact with another, transferring or donating of blood or other tissue, and dispensing non-sterile drug paraphernalia by a person who knows he or she is infected with HIV); IOWA CODE ANN. § 709C.1 (West 2003) (criminalizing engaging in intimate contact with another, transferring or donating blood or other tissue, and dispensing non-sterile drug paraphernalia by a person who knows he or she is infected with HIV); KAN. STAT. ANN. § 21-3435 (2007) (criminalizing engaging in sexual intercourse with another, transferring or donating blood or other tissue, and sharing non-sterile syringes by a person who knows he or she is infected with a “life threatening communicable disease” with the intent to expose another to the disease); LA. REV. STAT. ANN. § 14:43.5 (2007) (criminalizing the intentional exposure of another “to any AIDS virus through any means or contact without the knowing and lawful consent of the victim”); MD. CODE ANN., HEALTH-GEN. § 18-601.1 (LexisNexis 2005) (“Any individual who has the [HIV] virus may not knowingly transfer or attempt to transfer the [HIV] virus to another individual.”); MICH. COMP. LAWS ANN. § 333.5210 (West 2001) (criminalizing “sexual penetration with another person” by a person who knows he or she is infected with AIDS or HIV without informing the other person of the condition); MO. ANN. STAT. § 191.677 (West 2004) (criminalizing engaging in sexual intercourse with another, donating blood or other tissue, sharing needles, and biting another by a person who knows he or she is infected with HIV); NEV. REV. STAT. ANN. § 201.205 (LexisNexis 2006) (stating that a person who has “actual notice” of HIV infection and “intentionally, knowingly or willfully engages in conduct in a manner that is intended or likely to transmit the disease to another person is guilty of a category B felony”); N.J. STAT. ANN. § 2C:34-5 (West 2005) (criminalizing “sexual penetration without the informed consent of the other person” by a person infected with HIV or AIDS); N.D. CENT. CODE § 12.1-20-17 (1997) (criminalizing the willful “transfer of bodily fluid that may contain the human immunodeficiency virus”); OHIO REV. CODE ANN. §§ 2903.11, 2921.38, 2927.13 (LexisNexis 2006) (criminalizing donating blood or tissue and engaging in sexual activity by a person who knows he or she is infected with HIV and any attempt to cause other to come into contact with bodily fluids by infected inmates); OKLA. STAT. ANN. tit. 21, § 1192.1 (West 2002), tit. 63, § 1-519 (West 2004) (criminalizing any intentional “conduct reasonably likely to result in the transfer of [bodily fluids] into the bloodstream of another” by a person who knows he or she is infected with HIV); S.C. CODE ANN. § 44-29-145 (2002) (criminalizing donating blood or tissue, engaging in sexual activity, and sharing needles by a person who knows he or she is infected with HIV); TENN. CODE ANN. §§ 39-13-109, 68-32-104 (2006) (criminalizing donating blood or tissue, engaging in intimate contact, and sharing needles by a person who knows he or she is infected with HIV); VA. CODE ANN. §§ 18.2-67.4:1, 32.1-289.2 (2004) (criminalizing donating blood or tissue and engaging in sexual acts by a person who knows he or she is infected with HIV); WASH. REV. CODE §§ 9A.36.011, 9A.36.021 (West 2000) (criminalizing exposing another person to HIV by a person who knows he or she is infected with HIV).

⁷⁰ See Closen et al., *supra* note 52, at 930–35 (noting that such statutes were intended to reduce transmission, address moral culpability, and encourage testing); Gostin, *supra*

These approaches differ in the *mens rea* they require, the conduct they prohibit, whether they recognize the consent or knowledge of the HIV-status of the accused by the exposee as a defense to the crime, and the punishments they authorize for guilty individuals.

All of these statutes criminalize sexual intercourse only if accused individuals knew, at the time of exposure, that they were infected with AIDS, HIV, or AIDS' "causative element."⁷¹ This clearly reflects a policy decision that HIV-infected individuals should not be culpable if they are unaware they are infected with the disease. As noted above, this was also the recommendation of the Presidential Commission on the Human Immunodeficiency Virus.⁷² This apparent agreement, however, hides a deeper policy dispute: some statutes require that individuals know they have received a positive test for HIV,⁷³ while others require only that they know they are "afflicted with [AIDS]."⁷⁴

This apparent consistency continues to dissipate when one examines the scienter requirements. At least three approaches are identifiable. The first is the California approach, which, in order to impose criminal liability, explicitly requires that the HIV-infected individual intended to transmit the virus to another individual.⁷⁵ This approach implicitly rejects at least one justification for HIV-specific criminal legislation: that requiring an intent to kill is unnecessarily burdensome on the prosecution. A second approach follows the recommendation of the Presidential Commission that the prosecution also be required to prove that HIV-infected individuals understood that their conduct might expose the disease to another person at the time the crime was committed.⁷⁶ Florida's statute is an example of this approach.⁷⁷ Iowa is an example of the third and most extreme approach to the scienter

note 57, at 1017 ("Some politicians have demanded isolation and criminal confinement of 'recalcitrant' AIDS carriers.").

⁷¹ See, e.g., 720 ILL. COMP. STAT. ANN. 5/12-16.2 (West 2002). ("A person commits criminal transmission of HIV when he or she, knowing that he or she is infected with HIV . . ."). Some states, by requiring intentional transmission, implicitly require such knowledge. See, e.g., LA. REV. STAT. ANN. § 14:43.5 (2007) ("No person shall intentionally expose another to any acquired immunodeficiency syndrome . . ."). The possibility that "knowledge" of infection may extend to those who have not received a positive HIV test but should have known they were infected troubles some commentators. See, e.g., Amy L. McGuire, Comment, *AIDS as a Weapon: Criminal Prosecution of HIV Exposure*, 36 HOUS. L. REV. 1787, 1807-08 (1999). References to causative agents, e.g., TENN. CODE ANN. § 39-13-109(b)(1) (2006) ("HIV" means the human immunodeficiency virus or any other identified causative agent of acquired immunodeficiency syndrome."), reflect arguments made at the time of their passage that HIV was not the cause of AIDS. See *New-Style Abuse of Press Freedom*, 366 NATURE 493, 493 (1993).

⁷² PRESIDENTIAL COMMISSION REPORT, *supra* note 50, at 131.

⁷³ CAL. HEALTH & SAFETY CODE § 120291(a) (West 2006).

⁷⁴ IDAHO CODE ANN. § 39-608(1) (2002).

⁷⁵ CAL. HEALTH & SAFETY CODE § 120291(a) (West 2006).

⁷⁶ PRESIDENTIAL COMMISSION REPORT, *supra* note 50, at 131.

⁷⁷ FLA. STAT. ANN. § 384.24(2) (West 2007).

requirement. Under this approach, there is no specific intent required—the statute merely requires that individuals know they have engaged in the prohibited conduct.⁷⁸ In effect, this approach imposes criminal liability whenever an infected individual engages in sexual activity. When combined with the requirement that HIV-infected individuals know they are infected with the virus, this approach is analogous to a *de facto* recklessness standard.⁷⁹ Thus, HIV-infected individuals, if aware of their HIV status, are effectively deemed to “consciously disregard” a “substantial and unjustifiable risk” when they engage in statutorily proscribed conduct.⁸⁰ Whether they understand that the prohibited conduct can expose another to the disease, or whether the conduct actually would expose another to the disease, is irrelevant. When the prohibited conduct is defined, as it is in Iowa’s statute, as “engag[ing] in intimate contact with another person,”⁸¹ a vast category of conduct is off-limits. This approach appears to focus on the perceived difficulties in using traditional criminal statutes to prosecute those who expose others to HIV.

Although California’s and Iowa’s approaches to the scienter requirement differ, their approaches to whether HIV-infected individuals must transfer the disease, or merely expose⁸² another individual to the disease before they may be prosecuted, are similar. Both states allow prosecution of those who merely expose others to the disease.⁸³

As with the scienter requirement, divergences in the way the statutes define prohibited conduct make the variation in policy ap-

⁷⁸ IOWA CODE ANN. § 709C.1 (West 2003) (requiring only an act and knowledge “that the person’s [HIV] status is positive”).

⁷⁹ The Model Penal Code defines recklessness as follows:

A person acts recklessly with respect to a material element of an offense when he consciously disregards a substantial and unjustifiable risk that the material element exists or will result from his conduct. The 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.

MODEL PENAL CODE § 2.02(2)(c) (1985).

⁸⁰ The focus on risky behavior is reflected in judicial justifications of these statutes. *See, e.g.*, *People v. Jensen*, 586 N.W.2d 748, 755 (Mich. App. 1998) (“Knowingly engaging in sexual conduct capable of transmitting HIV without informing a partner of being HIV infected is the culpable state of mind that can cause the partner’s resulting infection and eventual death.”); *see also State v. Musser*, 721 N.W.2d 734, 749 (Iowa 2006).

⁸¹ IOWA CODE ANN. § 709C.1(a) (West 2003).

⁸² “Exposure” does not require actual infection with HIV; instead, it occurs when the HIV-infected individual provides the disease with an opportunity to spread between individuals. *See State v. Roberts*, 844 So. 2d 263, 272 (La. App. 2003).

⁸³ CAL. HEALTH & SAFETY CODE § 120291(a) (West 2006); IOWA CODE ANN. § 709C.1 (West 2003). Although Iowa’s statute defines its offense as “criminal transmission of the human immunodeficiency virus,” transmission is not required to commit the crime. *See Musser*, 721 N.W.2d at 749 (comparing criminal transmission of HIV to first-degree robbery, which “does not require that any actual injury result from the defendant’s action”).

proaches more pronounced. The statutes generally prohibit sexual intercourse and the transmission of bodily fluids (such as between intravenous drug users), but they criminalize varying amounts of other conduct. California, which prohibits exposure “by engaging in unprotected sexual activity,”⁸⁴ encourages the use of condoms.⁸⁵ Its definition of “sexual activity” limits such activity to sexual intercourse.⁸⁶ Iowa defines sexual conduct broadly, prohibiting HIV-positive individuals from “[e]ngag[ing] in intimate contact with another person.”⁸⁷ Iowa also attempts to prohibit other activities: it prohibits the transmission of “blood, tissue, semen, . . . or other potentially infectious bodily fluids . . . to another person”⁸⁸ and the use of “nonsterile . . . drug paraphernalia.”⁸⁹ Michigan’s statute is just as broad—it prohibits “sexual penetration,” which it defines as “sexual intercourse, cunnilingus, fellatio, anal intercourse, or any other intrusion, however slight, of any part of a person’s body or of any object into the genital or anal openings of another person’s body, but emission of semen is not required.”⁹⁰ Missouri even prohibits “biting” by the HIV-infected.⁹¹ Missouri’s statute explicitly provides that “use of condoms is not a defense to a violation” of the statute.⁹² Washington is an example of a state that does not enumerate prohibited conduct, but instead prohibits all conduct that “exposes” another to the virus.⁹³ Although definitions of prohibited conduct vary widely, they are all consistent in one way: they do little to link the actual risk of infection with violation of the law.

In all but two of the states that criminalize HIV exposure, either disclosure of the HIV-infected individual’s HIV status is an affirmative defense to prosecution,⁹⁴ or the prosecution must prove that the HIV-

⁸⁴ CAL. HEALTH & SAFETY CODE § 120291(a) (West 2006).

⁸⁵ *Id.* § 120291(b)(2) (“‘Unprotected sexual activity’ means sexual activity without the use of a condom.”).

⁸⁶ *Id.* § 120291(b)(1) (“‘Sexual activity’ means 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.”).

⁸⁷ IOWA CODE ANN. § 709C.1(1)(a) (West 2003). The definition of “intimate contact” is almost as vague: “‘Intimate contact’ means the intentional exposure of the body of one person to a bodily fluid of another person in a manner that could result in the transmission of the human immunodeficiency virus.” *Id.* § 709C.1(2)(b).

⁸⁸ *Id.* § 709C.1(1)(b).

⁸⁹ *Id.* § 709C.1(1)(c).

⁹⁰ MICH. COMP. LAWS ANN. § 333.5210(2) (West 2001).

⁹¹ MO. ANN. STAT. § 191.677(2)(c) (West 2004).

⁹² *Id.* § 191.677(4).

⁹³ WASH. REV. CODE ANN. § 9A.36.011(1)(b) (West 2000) (“A person is guilty of assault . . . if he or she, with intent to inflict great bodily harm . . . [a]dministers, exposes, or transmits to . . . another . . . [HIV]. . . .”).

⁹⁴ See, e.g., IDAHO CODE ANN. § 39-608(3)(a) (2002).

infected individual failed to make the disclosure.⁹⁵ The exceptions to this are Kansas and Washington.⁹⁶ The framers of these statutes may have felt that provisions for disclosure were unnecessary, given that only those who intend to infect others are prosecutable under the statutes.⁹⁷ Disclosure requirements further divide into two types. Some, such as California's, make disclosure alone a defense to prosecution,⁹⁸ but others, such as Tennessee's, require more:

It is an affirmative defense to prosecution under this section, which must be proven by a preponderance of the evidence, that the person exposed to HIV knew that the infected person was infected with HIV, knew that the action could result in infection with HIV, and gave advance consent to the action with that knowledge.⁹⁹

Ohio allows disclosure as a defense if sexual relations were with a capable adult,¹⁰⁰ but the state does not allow it as a defense if the sexual relations were with a minor¹⁰¹ or if the "offender knows or has reasonable cause to believe [his or her sexual partner] lacks the mental capacity to appreciate the significance of the knowledge that the offender has tested positive as a carrier of the virus."¹⁰² Only Idaho provides for any other defense: "It is an affirmative defense that the transfer of body fluid, body tissue, or organs occurred after advice from a licensed physician that the accused was noninfectious."¹⁰³

Punishments for violations of criminal HIV-exposure statutes can be as variable as the conduct they prohibit. California, as I noted in the Introduction, gives courts discretion to impose three, five, or eight years of imprisonment as punishment for violation of its statute.¹⁰⁴ As I also noted in the Introduction, Adam Donald Musser was sentenced to twenty-five years imprisonment for violating Iowa's statute.¹⁰⁵ Some statutes allow for much smaller penalties. Violation of Maryland's statute is a misdemeanor punishable by "a fine not exceeding \$2,500 or

⁹⁵ California actually places the burden on the prosecution, who must prove the defendant "has not disclosed his or her HIV status." See CAL. HEALTH & SAFETY CODE § 120291(a) (West 2006).

⁹⁶ KAN. STAT. ANN. § 21-3435 (2007); WASH. REV. CODE ANN. § 9A.36.011(b) (West 2000).

⁹⁷ KAN. STAT. ANN. § 21-3435 (2007); WASH. REV. CODE ANN. § 9A.36.011(b) (West 2000).

⁹⁸ CAL. HEALTH & SAFETY CODE § 120291(a) (West 2006).

⁹⁹ TENN. CODE ANN. § 39-13-109(c) (2006).

¹⁰⁰ OHIO REV. CODE ANN. § 2903.11(B)(1) (LexisNexis 2006) (making nondisclosure an element of the crime when the victim is an adult).

¹⁰¹ *Id.* § 2903.11(B)(3).

¹⁰² *Id.* § 2903.11(B)(2).

¹⁰³ IDAHO CODE ANN. § 39-608(3)(b) (2002).

¹⁰⁴ CAL. HEALTH & SAFETY CODE § 120291(a) (West 2006); see *supra* text accompanying notes 17-20.

¹⁰⁵ *State v. Musser*, 721 N.W.2d 734, 741 (Iowa 2006); see *supra* text accompanying notes 21-30.

imprisonment not exceeding three years or both.”¹⁰⁶ Missouri, which has a conduct-focused statute, increases the penalty for violations of its statutes from a “class B felony” to a “class A felony” if the conduct results in an infection.¹⁰⁷ This increases the sentencing range from five to fifteen years of imprisonment to ten to thirty years of imprisonment.¹⁰⁸

Of course, judges exercising discretion during sentencing are likely to consider whether infection occurred as well.¹⁰⁹ In one case, an Ohio court stated that the victim had been “sentenced to death.”¹¹⁰ In assessing the maximum penalty, the trial judge said:

Mr. Gonzalez, sir, as far as I’m concerned, what you did was an extremely vicious crime. . . . In fact, in my opinion, sir, you showed absolutely [sic] indifference to the welfare of the victim. Was a cold and callous disregard for life, not only of her, not only of Ms. Alvarado’s, but in light of the circumstances of this case and the disease we’re talking about, it’s complete disregard for the well-being of the entire community.¹¹¹

A few of the statutes exhibit other idiosyncrasies of one kind or another. Many of them criminalize the donation of tissues, such as blood, organs, or semen, by an HIV-positive donor.¹¹² A few include protection for police officers or prison guards.¹¹³ One state, Washington, incorporated its criminal transmission statute into its criminal-assault statute.¹¹⁴

¹⁰⁶ MD. CODE ANN., HEALTH-GEN. § 18-601.1(b) (LexisNexis 2005). This is a surprisingly small punishment relative to other statutes, especially considering the prosecution must prove *knowing transmission* of the disease before it can even obtain a conviction. *Id.* § 18-601.1(a).

¹⁰⁷ MO. ANN. STAT. § 191.677(2) (West 2004).

¹⁰⁸ *Id.* § 558.011(1).

¹⁰⁹ *See, e.g., State v. Gonzalez*, 796 N.E.2d 12, 36 (Ohio Ct. App. 2003) (“On the court’s worksheet, the court noted that Gonzalez ‘sentenced victim to death.’ The court stated at the hearing that Gonzalez had committed one of the worst forms of felonious assault. Based on this finding, the trial court gave Gonzalez the maximum eight-year term for each count.”).

¹¹⁰ *Id.*

¹¹¹ *Id.* at 36–37. The Ohio Court of Appeals’ affirmation of the sentencing on the grounds of infection, *see id.* at 37 (“We hold that the court’s reasons supporting its finding that Gonzalez committed the worst form of the offense were quite clearly stated in the record.”), is dubious in light of the court’s holding in the same case that the trial court should not have admitted evidence of the infection because the crime was *exposure* not *transmittal* of the virus, *id.* at 35, but that the error was harmless, *id.* at 35.

¹¹² *E.g., GA. CODE ANN.* § 16-5-60(c)(5) (2007). Some states place these provisions in other sections of their code. *E.g., CAL. HEALTH & SAFETY CODE* § 1621.5 (West 2007).

¹¹³ *GA. CODE ANN.* § 16-5-60(d) (2007) (making it a felony punishable by between five and twenty years incarceration for an HIV-infected person to use his or her “bodily fluids, . . . saliva, urine, or feces” to transmit HIV to an officer).

¹¹⁴ *WASH. REV. CODE ANN.* §§ 9A.36.011 (West 2000), 9A.36.021 (West 2000 & Supp. 2008) (forbidding the administration, transmission, or exposure to another of “poison, the human immunodeficiency virus . . . or any other destructive or noxious substance”).

C. Criticisms of Criminal HIV-Exposure Statutes

Many critics of criminal HIV-exposure statutes view them as a political concession to public fears of HIV/AIDS that lacks sufficient policy justifications.¹¹⁵ A drafter of Missouri's statute claimed it "was drafted under the coercion of having something worse if it was not drafted."¹¹⁶ One commentator squarely questioned whether legislatures had "consider[ed] thoroughly the consequences of their actions."¹¹⁷ Policy-based criticisms have raised both practical and philosophical concerns. Commentators have criticized the statutes' overbreadth, their effects on the public health, and their failure to achieve the retributive and utilitarian goals of the criminal law.

Commentators have criticized HIV-specific criminal statutes for undermining public health initiatives to deal with the HIV/AIDS epidemic.¹¹⁸ They argue that if individuals who test positive for HIV infection are exposed to criminal prosecution, those at risk of infection will be less likely to be tested and seek treatment for the disease.¹¹⁹ The associative stigma of criminalization will reinforce this effect.¹²⁰ These commentators also argue that those who believe they are HIV-negative will be less likely to use protection during sexual intercourse if they rely upon the criminal law to protect them from infection.¹²¹ A recent empirical study, however, has suggested that this "moral hazard" effect may not exist.¹²² Although this study did not directly test whether criminal HIV-exposure statutes deterred individuals from undergoing HIV testing, it did not turn up any evidence in support of this argument.¹²³

A stronger public health concern regarding criminal HIV-exposure statutes is that they spread misinformation about how HIV is

¹¹⁵ See, e.g., Zita Lazzarini et al., *Evaluating the Impact of Criminal Laws on HIV Risk Behavior*, 30 J.L. MED. & ETHICS 239, 252 (2002) ("Most likely, these statutes were passed for symbolic rather than HIV-prevention reasons.").

¹¹⁶ Closen et al., *supra* note 52, at 932.

¹¹⁷ *Id.* at 946.

¹¹⁸ Joint U.N. Programme on HIV/AIDS [UNAIDS], *Criminal Law, Public Health and HIV Transmission: A Policy Options Paper*, at 23, UNAIDS Doc. UNAIDS/02.12.E (June 2002) (prepared by Richard Elliott), available at http://data.unaids.org/Publications/IRC-pub02/JC733-CriminalLaw_en.pdf [hereinafter *UNAIDS Paper*] ("If . . . criminalization serves to undermine our overall public health response to the HIV epidemic, then we must seriously question whether the gains from criminalization are worth it." (internal quotation omitted)).

¹¹⁹ *Id.* at 24–25.

¹²⁰ *Id.* at 23–24.

¹²¹ *Id.* at 25.

¹²² Scott Burris et al., *Do Criminal Laws Influence HIV Risk Behavior? An Empirical Trial*, 39 ARIZ. ST. L.J. 467, 511–12 (2007) ("[N]othing in our findings suggest that the uninfected in our sample were relying on the belief that infected people would be disclosing or using condoms in obedience to statute.").

¹²³ *Id.* at 512.

transmitted.¹²⁴ For example, Missouri criminalizes biting by the HIV infected,¹²⁵ suggesting that saliva can spread the disease.¹²⁶ However, the risk of spreading the disease through saliva is “negligible.”¹²⁷ Additionally, the statutes do not provide that the use of a condom is a defense, sometimes even explicitly stating that it is not,¹²⁸ suggesting that using condoms is useless against the spread of HIV. However, the use of condoms decreases the chance that intercourse will spread HIV by about 90 percent.¹²⁹ Arkansas includes within its definition of prohibited conduct “any . . . intrusion, however slight, . . . of any object into a genital or anal opening of another person’s body,”¹³⁰ suggesting that sex toys can spread HIV/AIDS. Needless to say, sex toys do not spread HIV.¹³¹

The most trenchant criticisms of criminal HIV-exposure statutes focus on their failure to meet the retributive goals of criminal law because they prohibit conduct that is not “morally blameworthy.”¹³² Almost all of the activities prohibited by criminal HIV-exposure laws carry a surprisingly low risk of spreading the disease.

Unprotected anal intercourse is the riskiest sexual activity. The probability of HIV being transmitted from an HIV-infected man to his uninfected partner through a single act of unprotected anal intercourse is approximately 1 in 50 if the infected man is the insertive partner and 1 in 2000 if he is the receptive partner. The risks associated with unprotected vaginal intercourse are relatively small as well: approximately 1 in 1000 for male-to-female transmission and 1 in 2000 for female-to-male transmission. Less is known about the probability of HIV transmission through oral sex. Although there have been a small number of cases in which HIV reportedly was transmitted through cunnilingus, anilingus, or being the insertive partner in fellatio, the risk associated with these activities is generally (though not universally) considered to be negligible. In contrast, while the risk to the receptive (“giving”) partner in fellatio is less than the risk associated with anal or vaginal intercourse, it is

¹²⁴ See Cloisen et al., *supra* note 52, at 934.

¹²⁵ MO. ANN. STAT. § 191.677(2)(c) (West 2004).

¹²⁶ See Cloisen et al., *supra* note 52, at 933–34 (noting that criminalizing a particular behavior “may create an impression that the . . . behavior actually poses some risk of HIV transmission”).

¹²⁷ Burris et al., *supra* note 122, at 476.

¹²⁸ *E.g.*, MO. ANN. STAT. § 191.677(4) (West 2004) (“The use of condoms is not a defense to a violation of . . . this section.”).

¹²⁹ See Burris et al., *supra* note 122, at 476 (noting that condom use decreases the risk of infection from vaginal intercourse from 1 in 1000 or 1 in 2000 to 1 in 10000 or 1 in 20000 respectively).

¹³⁰ ARK. CODE ANN. § 5-14-123(c)(1) (2006).

¹³¹ Carol L. Galletly & Steven D. Pinkerton, *Toward Rational Criminal HIV Exposure Laws*, 32 J.L. MED. & ETHICS 327, 335 (2004).

¹³² *UNAIDS Paper*, *supra* note 118, at 20–21.

not negligible. One study estimated the per-act risk to the partner performing fellatio to be 1 in 2500.¹³³

Critics argue that criminalizing these relatively low-risk activities is part of a larger pattern with criminal HIV-exposure statutes, which “fail[] to link culpability and punishment to risk.”¹³⁴

These critics argue that the statutes are overbroad in three ways. First, behaviors that some HIV-exposure statutes purport to prohibit, such as biting or the use of sex toys, carry negligible risks of transmitting HIV and are inappropriate for criminalization.¹³⁵ Second, behaviors that do bear a risk of transmitting the virus, but for which the risk is small, often carry the same punishment as activities that bear a much greater risk of spreading the disease.¹³⁶ Third, those who engage in risky behavior, but do not intend to spread the disease, are often punished at the same level as those who intend to spread the disease.¹³⁷ Some commentators have suggested that the decision to criminalize only risky *sexual* behavior reflects a “hierarchy of valuable conduct” that accepts risk in sports but rejects it when individuals engage in sex.¹³⁸

Although one answer to the overbreadth criticism is to pass laws, such as Washington’s, which do not define prohibited conduct, but simply prohibit exposure to HIV,¹³⁹ commentators have argued such an answer would fail to provide notice to individuals as to what actions are prohibited.¹⁴⁰ Such laws also undermine one of the justifications for the criminalization of HIV exposure: providing notice of conduct that is likely to transmit HIV.

Commentators have also criticized the utilitarian argument that HIV-specific criminal legislation would deter individuals from participating in risky behavior. For those who intend to transmit HIV, laws are unlikely to discourage such behavior.¹⁴¹ For those who may engage in risky behavior, there is little evidence that HIV-specific laws change behavior. An empirical study designed to test the hypothesis that criminal HIV-exposure laws influenced behavior found there was little to no evidence that these laws influence individuals’ sexual behavior.¹⁴² A study of prosecutions for criminal exposure to HIV did

¹³³ Galletly & Pinkerton, *supra* note 131, at 328.

¹³⁴ Burris et al., *supra* note 122, at 486.

¹³⁵ See Galletly & Pinkerton, *supra* note 131, at 329–30.

¹³⁶ *Id.* at 331.

¹³⁷ Gostin, *supra* note 57, at 1056.

¹³⁸ Closten et al., *supra* note 52, at 947–48.

¹³⁹ WASH. REV. CODE ANN. § 9A.36.011(b) (West 2000).

¹⁴⁰ Galletly & Pinkerton, *supra* note 131, at 330 (“The end result [of the more general approach] is that there is little advance notice as to what constitutes proscribed behavior.”).

¹⁴¹ *UNAIDS Paper*, *supra* note 118, at 21.

¹⁴² Burris et al., *supra* note 122, at 507–08.

“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.”¹⁴³

Critics have also argued that criminal HIV-exposure statutes have limited efficacy in incapacitating individuals who might expose others to HIV infection. Researchers in one study concluded that, as over 70 percent of individuals prosecuted for HIV exposure had already engaged in criminal behavior, there was “no evidence of systematic enforcement of HIV exposure laws.”¹⁴⁴ Such uneven prosecution would have little “serious impact on transmission.”¹⁴⁵ As HIV-infected individuals can spread the disease in jail as well as outside it, incarceration will have little effect on the spread of HIV.¹⁴⁶

II

THE CHANGING HIV/AIDS EPIDEMIC

In the context of the changing HIV/AIDS epidemic, the preceding discussion raises several questions. Is the disease no longer “invariably fatal”?¹⁴⁷ Even if the disease is not fatal, does the onerousness of its treatment provide some justification for the criminal penalties the law provides? What is the relevance of the risks individuals are choosing to undertake? Is any information related to these risks lost when disclosure is limited to HIV status? Similarly, when we look to punishment, is there any variation in the risks the HIV-infected individual is taking with others’ lives and if so, how should this affect punishment? As this is statutory law, which will remain on the books until repealed, is HIV/AIDS likely to become curable? Does the future of the disease present dangers that these statutes do not address? With these questions in mind, this Part contains a brief analysis of the HIV/AIDS epidemic as it exists today and prospects for its treatment in the future.

The key issue to understanding the HIV/AIDS epidemic is HIV’s mutability—HIV is unusually prone to modifications of its genetic code.¹⁴⁸ “The error-prone mechanism of virus replication, its short generation time, and distinct selection mechanisms are resulting in HIV evolution rates being orders of magnitude higher than evolution

¹⁴³ Lazzarini et al., *supra* note 115, at 247.

¹⁴⁴ Burris et al., *supra* note 122, at 488 (quoting Lazzarini et al., *supra* note 115, at 247).

¹⁴⁵ *Id.* at 489.

¹⁴⁶ *Id.*

¹⁴⁷ Altman, *supra* note 5.

¹⁴⁸ See Sebastian Bonhoeffer et al., Letter to the Editor, *Causes of HIV Diversity*, 376 NATURE 125, 125 (1995) (“The human immunodeficiency virus (HIV) is characterized by enormous genetic flexibility, which gives rise to drug resistance, escape from immune responses and failure of vaccination attempts.”).

rates of many other viruses and cellular organisms.”¹⁴⁹ This mutability supports HIV’s infection of its host, allowing it to stay one step ahead of its host’s immune system.¹⁵⁰ It also allows the virus to adapt when it is exposed to new drugs, quickly developing resistance to any single drug it is exposed to.¹⁵¹

In 1993, researchers at Harvard Medical School tested *in vitro* their hypothesis that using a combination of antiretroviral drugs would prevent HIV from mutating to resist any one of the drugs.¹⁵² It was a success.¹⁵³ When used *in vivo*, clinicians reported “success rates of up to 90%” with the new therapy.¹⁵⁴ Some have called this treatment a “medical miracle.”¹⁵⁵ It came to be known as “highly active antiretroviral therapy” (HAART).¹⁵⁶ A 2005 study found that, in patients whose virus had not been exposed to any other antiretroviral drugs, “HAART reduced the rate of progression to AIDS or death by 86%, and that its effectiveness compared with no treatment increased with time since initiation [of treatment].”¹⁵⁷

Initially, some researchers believed that HAART was the long-sought cure for HIV.¹⁵⁸ However, when HAART eliminated HIV in the bloodstream, researchers discovered that the virus could hide from the therapy in other parts of the body.¹⁵⁹ Researchers have found these “reservoirs” in “resting” CD4 T-cells,¹⁶⁰ the genital

¹⁴⁹ Vladimir V. Lukashov & Jaap Goudsmit, *The Pros and Cons of Studying HIV Evolution in Real Time*, 101 CELL 129, 129 (2000) (book review).

¹⁵⁰ See Franziska Michor & Martin A. Nowak, *Immunology Tomorrow*, 420 NATURE 741, 742 (2002) (book review) (“There is a highly dynamic balance of power between HIV and the immune system, which is slowly shifted as a consequence of virus evolution to allow the virus to escape from immune recognition and to reproduce more efficiently in a broader range of different cells.”); see also Sebastian Bonhoeffer & Paul Sniegowski, *The Importance of Being Erroneous*, 420 NATURE 367, 367 (2002).

¹⁵¹ See Hannah Hoag, *Testing New Ground*, 429 NATURE 682, 682 (2004) (“The programmers [of] . . . HIV-1-resistance software must update their algorithms regularly because the virus mutates—and acquires drug resistance—so quickly.”).

¹⁵² Yung-Kang Chow et al., *Use of Evolutionary Limitations of HIV-1 Multidrug Resistance to Optimize Therapy*, 361 NATURE 650, 650 (1993).

¹⁵³ *Id.*

¹⁵⁴ Julio Montaner & John Mellors, *Better Salvage Therapy for HIV-1 Infection Still Needed*, 353 LANCET 1857, 1857 (1999). Researchers defined success as “viral suppression to fewer than 400 HIV-1 RNA copies/mL plasma.” *Id.* Success rates were lower for those individuals who had already developed resistance to one of the classes of drugs. *Id.*

¹⁵⁵ Brian Gazzard, *Antiretroviral Therapy for HIV: Medical Miracles Do Happen*, 366 LANCET 346, 346 (2005).

¹⁵⁶ K. Porter et al., CASCADE Collaboration, *Determinants of Survival Following HIV-1 Seroconversion After the Introduction of HAART*, 362 LANCET 1267, 1267 (2003).

¹⁵⁷ Jonathan A.C. Sterne et al., *Long-Term Effectiveness of Potent Antiretroviral Therapy in Preventing AIDS and Death: A Prospective Cohort Study*, 366 LANCET 378, 381 (2005).

¹⁵⁸ Paul Smaglik, *Reservoirs Dog AIDS Therapy*, 405 NATURE 270, 270 (2000).

¹⁵⁹ *Id.*

¹⁶⁰ *Id.* For an explanation of the virus’s mechanism for doing so, see Roger J. Pomerantz, *Cross-Talk and Viral Reservoirs*, 424 NATURE 136, 136–37 (2003).

tract,¹⁶¹ and the brain.¹⁶² When individuals who are taking HAART stop the therapy, the virus returns “with a vengeance.”¹⁶³ Unless researchers find a way to eliminate HIV from these reservoirs, those infected with HIV may face a “life-long problem.”¹⁶⁴

In a non-resistant patient, HAART derives its effectiveness from using at least three antiretroviral drugs to attack HIV at the same time.¹⁶⁵ Several different classes of these antiretroviral drugs exist; the class they belong to depends upon how they attack the virus.¹⁶⁶ The existence of several different classes of antiretrovirals is important because an individual whose virus becomes resistant to one drug in a class may develop resistance to other drugs in the same class, eliminating that class as a viable treatment option.¹⁶⁷ The FDA has recently approved two new classes of antiretrovirals—portal inhibitors and integrase inhibitors—to join the four classes that the agency had already approved for treatment of HIV.¹⁶⁸

Resistance to any of the classes of antiretroviral drugs severely limits the chances of successful treatment with HAART.¹⁶⁹ Initial success rates using HAART on patients with drug-resistant HIV only ranged from 20 to 40 percent.¹⁷⁰ Although researchers have attempted to use “salvage therapy” to treat individuals with drug-resistant HIV, this therapy often fails.¹⁷¹ Whereas those infected with non-resistant HIV may take three antiretroviral drugs, those with drug-resistant HIV are asked to “manage more complicated salvage regi-

¹⁶¹ Pietro L. Vernazza, *Genital Shedding of HIV-1 Despite Successful Antiretroviral Therapy*, 358 LANCET 1564, 1564 (2001).

¹⁶² Marcus Kaul et al., *Pathways to Neuronal Injury and Apoptosis in HIV-Associated Dementia*, 410 NATURE 988, 988 (2001).

¹⁶³ Smaglik, *supra* note 158, at 270.

¹⁶⁴ *Id.* at 272; see also Steven G. Deeks, *Treatment of Antiretroviral-Drug-Resistant HIV-1 Infection*, 362 LANCET 2002, 2003 (2003) (“These cells harbour infectious HIV-1 for decades, so eradication is unlikely.”).

¹⁶⁵ Sterne et al., *supra* note 157, at 378.

¹⁶⁶ Altman & Pollack, *supra* note 8.

¹⁶⁷ *Id.*

¹⁶⁸ See *id.* (discussing possible approval of the two classes). The FDA approved the drugs later in 2007. *New AIDS Drug Approved*, N.Y. TIMES, Aug. 7, 2007, at A11 (announcing approval of maraviroc, the portal inhibitor); Press Release, Merck, FDA Approves ISENTRESS (raltegravir) Tablets, First-in-Class Oral HIV-1 Integrase Inhibitor (Oct. 12, 2007), available at http://www.natap.org/2007/HIV/101507_05.htm (announcing approval of raltegravir, an integrase inhibitor).

¹⁶⁹ See Deeks, *supra* note 164, at 2002 (“Continuing viral replication during therapy leads to the accumulation of drug-resistance mutations, resulting in increased viral load and a greater risk of disease progression.”).

¹⁷⁰ Montaner & Mellors, *supra* note 154, at 1857.

¹⁷¹ See Deeks, *supra* note 164, at 2003. Salvage therapy is a general term for therapies used to treat individuals for whom antiretroviral therapy is not working. See *id.* at 2002.

mens,” which may include “as many drugs as possible.”¹⁷² As each new drug added to a regimen brings additional side effects and additional burdens,¹⁷³ these patients undergo far more suffering than those infected with non-resistant HIV for treatments that are often unsuccessful.¹⁷⁴

A vast number of HIV-infected individuals are infected with a strain of the virus resistant to one drug or another. As early as 2002, only five years after HAART became a mainstream treatment, 80 percent of people with an HIV infection tested positive for a drug resistant strain of the virus.¹⁷⁵ Resistance may develop from any number of sources. Initially, most individuals with drug-resistant HIV developed their resistance while undergoing monotherapy—treatment with a single drug—before the advent of HAART.¹⁷⁶ Others developed resistance while undergoing HAART.¹⁷⁷ Now, a growing number of HIV-infected individuals have acquired their strain of drug-resistant HIV from another person.¹⁷⁸

Although HIV-infected individuals face significant medical costs, one of those costs is becoming more manageable. Recently, prices for antiretrovirals have dropped significantly, at least partly in response to criticism of profiteering by drug manufacturers, especially in the context of the HIV/AIDS pandemic in Africa.¹⁷⁹ Before this price drop, drug costs were substantial; a three-drug therapy at the advent of

¹⁷² *Id.* at 2003, 2007. These regimens become more effective as the number of antiretroviral drugs used is increased or when a drug from a class to which the patient’s HIV has not been exposed before is used. *Id.* at 2005.

¹⁷³ *Id.* at 2007 (“Each additional drug is associated with . . . a higher risk of treatment-related adverse events (eg, drug-associated toxicity, drug interactions, and inconvenience for the patient).”). Cost is unfortunately also an issue. *Id.*

¹⁷⁴ See Michael M. Lederman et al., *A New Approach for “Deep Salvage” Trials in Advanced HIV Infection*, 21 AIDS 1503 (2007).

¹⁷⁵ Edward Susman, *Many HIV Patients Carry Mutated Drug-Resistant Strains*, 359 LANCET 49, 49 (2002); see also, Natasha Loder, *Drug-Resistant HIV Shows a Worrying Increase in the UK*, 407 NATURE 120, 120 (2000); Justin McCurdy, *Drug-Resistant Strains of HIV Increase Sharply in Japan*, 362 LANCET 1052, 1052 (2003).

¹⁷⁶ Lederman et al., *supra* note 174, at 1503.

¹⁷⁷ See Deeks, *supra* note 164, at 2004 (“Most drug resistance is due to incomplete suppression with HAART . . .”). Many commentators believe that those who have failed drug therapy have done so because they have failed to adhere properly to their regimen. See *id.* at 2003 (“Patients who could not adhere to a simple initial regimen are unlikely to manage more complicated salvage regimens.”); see also Colin Macilwain, “*Better Adherence Vital in AIDS Therapies*”, 390 NATURE 326, 326 (1997).

¹⁷⁸ See Oren J. Cohen & Anthony S. Fauci, *Transmission of Drug-Resistant Strains of HIV-1: Unfortunate, but Inevitable*, 354 LANCET 697, 697 (1999); see also Deeks, *supra* note 164, at 2003 (“The proportion of patients newly infected with drug-resistant HIV-1 has increased significantly over the past few years.”).

¹⁷⁹ See Lawrence K. Altman, *Bright Spots, Lost Chances on AIDS*, N.Y. TIMES, Sept. 12, 2006, at F5; see also N. Kumarasamy, *Generic Antiretroviral Drugs—Will They Be the Answer to HIV in the Developing World?*, 364 LANCET 3, 3 (2004) (“The cost of combination HIV-antiretroviral treatment has plummeted in the past 12 months . . .”).

HAART could cost \$18,000 a year.¹⁸⁰ Prices remain high for many newer drugs used to treat drug-resistant HIV.¹⁸¹ One non-financial cost of HIV infection that should also be considered is keeping up to date with the medical literature on the disease—a necessity for those who wish to ensure that their HIV is effectively treated.¹⁸²

The side effects of HAART can be severe—a problem the medical literature calls “toxicity.”¹⁸³ Almost all retrovirals will cause “nausea, vomiting, or diarrhoea early in therapy, but these are often transient.”¹⁸⁴ One unusual side effect of at least two classes of antiretroviral drugs is “lipodystrophy,” where the HIV-infected individual’s body fat becomes unevenly distributed.¹⁸⁵ Fat wastes away from some areas of the body while depositing around the belly (“central adiposity”) and at the nape of the neck (unkindly called “buffalo hump”).¹⁸⁶ Enfuvirtide, a “well tolerated” antiretroviral, causes welts at the injection site in almost all patients.¹⁸⁷

Infection with HIV itself often implicates other quality of life issues.¹⁸⁸ HIV infects the brain and can cause a “syndrome of cognitive

¹⁸⁰ See *AIDS Myths That Need Eradicating*, 382 NATURE 283, 283 (1996).

¹⁸¹ See Lawrence K. Altman, *AIDS Drugs Reach More People, U.N. Report Says, but Not Enough*, N.Y. TIMES, Apr. 18, 2007, at A7 (“Although prices for the standard antiretroviral drugs have fallen, health officials are concerned about the high costs of second-line, or backup, drugs that are needed when the first-line drugs fail.”); see also Celia W. Dugger, *Clinton Foundation Announces a Bargain on Generic AIDS Drugs*, N.Y. TIMES, May 9, 2007, at A9 (“Second-line drugs have typically cost about 10 times as much as first-line therapies.”).

¹⁸² See Kelly Morris, *Treating HIV/AIDS Information Overload*, 352 LANCET 1866 (1998) (discussing the plethora of online resources available concerning HIV and AIDS such as wire services, information databases, and publications that can be ordered over the internet).

¹⁸³ Douglas D. Richman, *HIV Chemotherapy*, 410 NATURE 995, 997 (2001) (“No drug is without toxicity. When antiretroviral drugs were first introduced, risks and toxicities were tolerated in the face of imminently life-threatening disease. With prolonged chronic therapy and the disappearance of the common symptoms of underlying HIV disease, adverse complications of antiretroviral drugs are being identified and characterized. As patients assume asymptomatic lives with hopes of prolonged survival, several toxicities represent increasing concerns regarding antiretroviral drug use.”). At least one study has suggested a link between antiretrovirals and leprosy. Donald G. McNeil Jr., *Worrisome New Link: AIDS Drugs and Leprosy*, N.Y. TIMES, Oct. 24, 2006, at F1.

¹⁸⁴ Andrew Carr & David A. Cooper, *Adverse Effects of Antiretroviral Therapy*, 356 LANCET 1423, 1428 (2000).

¹⁸⁵ See A. Carr et al., *An Objective Case Definition of Lipodystrophy in HIV-Infected Adults: A Case-Control Study*, 361 LANCET 726, 726 (2003) (“Lipodystrophy is disfiguring and potentially stigmatising, and thus can hinder adherence to, and reduce effectiveness of, antiretroviral treatment.”).

¹⁸⁶ Andrew Carr et al., *Diagnosis, Prediction, and Natural Course of HIV-1 Protease-Inhibitor-Associated Lipodystrophy, Hyperlipidaemia, and Diabetes Mellitus: A Cohort Study*, 353 LANCET 2093, 2093 (1999).

¹⁸⁷ Courtney V. Fletcher, *Enfuvirtide, a New Drug for HIV Infection*, 361 LANCET 1577, 1577 (2003).

¹⁸⁸ This problem may be improving; HAART may reduce the incidence of problems like HIV-associated dementia. See Kaul et al., *supra* note 162, at 988.

and motor dysfunction” called “HIV-associated dementia.”¹⁸⁹ Those who suffer from HIV/AIDS must deal with the stigma associated with having the disease.¹⁹⁰ However, although infection with HIV does tend to limit reproductive choices, both men and women can still have healthy children.¹⁹¹ Whether it is ethical to risk infecting the child is another question.¹⁹²

One advantage of HAART is that successful treatment lowers the frequency of HIV infection.¹⁹³ “HAART leads to a marked reduction in HIV-1 RNA concentrations in both the female genital tract and in semen.”¹⁹⁴ These reductions are associated with drops in mother-infant transmission of HIV during childbirth and in transmission of HIV during intercourse.¹⁹⁵ “Viral load [the concentration of HIV in the blood] is the main predictor of the risk of heterosexual transmission of HIV-1, and that transmission is rare in those with plasma HIV-1-RNA concentrations of less than 1500 copies per mL.”¹⁹⁶ This means that *even unsuccessful* antiretroviral therapy manages to decrease the likelihood of transmission, because transmission becomes significantly less likely below a certain viral load.¹⁹⁷

The future of HIV/AIDS is likely to be a story of both hope and tragedy. For individuals with non-resistant HIV, HAART has transformed their prognosis from death to chronic illness.¹⁹⁸ For individuals with drug-resistant HIV, researchers are regularly discovering new parts of HIV’s life cycle on which to base new classes of antiretroviral drugs.¹⁹⁹ Researchers have also begun to tackle the problem of HIV reservoirs, holding out hope that eventually there may be a cure for

189 *Id.*

190 Shaila Dewan, *Waiting List for AIDS Drugs Causes Dismay in South Carolina*, N.Y. TIMES, Dec. 29, 2006, at A16 (noting that, in some places, HIV/AIDS “still carries a stigma so heavy that patients often do not tell their own family that they are infected”).

191 See, e.g., Catherine M. Wilfert et al., *Science, Ethics, and the Future of Research into Maternal Infant Transmission of HIV-1*, 353 LANCET 832, 832 (1999) (citing rates of mother-infant transmission of 5–8 percent); Augusto E. Semprini et al., Letter to the Editor, *Reproductive Counselling for HIV-Discordant Couples*, 349 LANCET 1401, 1402 (1997) (“[A]fter more than 1000 insemination attempts in 350 couples and nearly 200 pregnancies there was not a single case of female seroconversion or paediatric infection.”).

192 See Landon Myer et al., *Reproductive Decisions in HIV-Infected Individuals*, 366 LANCET 698, 699 (2005).

193 See Montaner et al., *supra* note 28, at 531.

194 *Id.*

195 *Id.* at 531–32; Travis C. Porco et al., *Decline in HIV Infectivity Following the Introduction of Highly Active Antiretroviral Therapy*, 18 AIDS 81, 85 (2004).

196 Montaner et al., *supra* note 28, at 531.

197 *Id.* (acknowledging that “current treatment strategies cannot eradicate HIV infection” but arguing that HAART is an effective means to limit transmission).

198 See Clinton, *supra* note 2. Predicting these patients’ “long-term prognosis,” however, is still difficult. See Gazzard, *supra* note 155, at 347.

199 See Robert Blumenthal & Dimiter S. Dimitrov, *Targeting the Sticky Fingers of HIV-1*, 129 CELL 243, 243–44 (2007).

HIV/AIDS.²⁰⁰ Researchers, burned before, are hesitant to appear too optimistic about curing the disease.²⁰¹ But there are also fears that, as drug-resistant HIV spreads through the population, many newly infected individuals will confront a disease that HAART will be unable to treat.²⁰² And recently, researchers have been forced to confront a new fear. Scientists had believed that all HIV became less virulent as it adapted to antiretrovirals, because the virus was then less adapted to invading cells.²⁰³ This belief was shattered when researchers in New York presented a case study of a man they described as infected with an extremely virulent, multi-drug-resistant strain of HIV.²⁰⁴ Although other researchers have been highly critical of the report,²⁰⁵ it does suggest that the future of HIV/AIDS may contain darker moments.

III

CHANGING DISEASE, STATIC LAWS

The HIV/AIDS epidemic has changed tremendously in the twenty years since states first began to pass HIV exposure laws.²⁰⁶ These laws have failed to keep pace with the changing nature of the disease. Effective treatments for HIV/AIDS erode each of the four justifications initially raised for HIV-specific criminal legislation, while they also raise new concerns about the form that HIV-specific legislation has taken. One method of salvaging criminal HIV-exposure laws in their current form, prosecutorial discretion, carries risks of its own.

A. Eroding Justifications

The first justification for HIV-specific criminal legislation was the difficulty of bringing successful homicide charges against an individ-

²⁰⁰ Jon Cohen, *Report of Novel Treatment Aimed at Latent HIV Raises the "C Word"*, 309 SCIENCE 999, 999 (2005) (evaluating discussions resulting from a report of "an unusual treatment of four HIV-infected people, [which] the authors suggest . . . may point the way to a 'cure of HIV in the future'").

²⁰¹ See *id.* ("'It's an alternative approach that's worth pursuing,' says Anthony Fauci 'But you have to be very careful about the hope you have for eradication with this. We went through the same thing a few years ago.'").

²⁰² See Loder, *supra* note 175, at 120.

²⁰³ Deeks, *supra* note 164, at 2002 ("Mutations conferring resistance to antiretroviral drugs commonly lower the enzymatic efficiency of the target enzyme, resulting in a virus that replicates inefficiently").

²⁰⁴ Martin Markowitz et al., *Infection With Multidrug Resistant, Dual-Tropic HIV-1 and Rapid Progression to AIDS: A Case Report*, 365 LANCET 1031 (2005).

²⁰⁵ See Richard Jefferys, Letter to the Editor, *Multidrug-Resistant, Dual-Tropic HIV-1 and Rapid Progression*, 365 LANCET 1923, 1923 (2005) (describing the discovery of such a case as statistically inevitable). At least a few critics suggested an alternative explanation as troubling as that contained in the report: the patient suffered from co-infection with two drug-resistant strains of HIV. Geoffrey S. Gottlieb & David C. Nickle, Letter to the Editor, 365 LANCET 1923, 1923-24 (2005).

²⁰⁶ By 1988, Florida, Idaho, Louisiana, and Nevada already had HIV-specific criminal legislation. See PRESIDENTIAL COMMISSION REPORT, *supra* note 50, at 130.

ual who infected another with HIV.²⁰⁷ Effective treatments for HIV/AIDS erode the premise of this justification. If HIV/AIDS no longer leads inevitably to death,²⁰⁸ but instead leads to a chronic illness, there is no need to bring homicide charges against individuals who infect others with the virus. This is true whether HIV-infected individuals engage in behavior that only carries a risk of spreading the disease, or whether they deliberately act to spread it. Although the long-term side effects of treatments for HIV infection are far from desirable,²⁰⁹ it is no longer clear that HIV infections are inevitably fatal. As treatments for HIV infection become more effective, this justification for HIV-specific legislation will continue to erode.

Of course, not all forms of HIV/AIDS may be amenable to treatment.²¹⁰ Individuals who purposely spread multi-drug resistant HIV might, in some cases, send those they infect to an early death. It is far from clear, however, that death will inevitably result from infection with multi-drug resistant HIV. The FDA has approved two new classes of antiretroviral drugs for treating HIV in the last year,²¹¹ providing new treatments for those individuals infected with a virus that is resistant to already-approved antiretrovirals. Individuals infected with untreatable HIV today may well have a treatable form of the virus tomorrow. Although possibly virulent forms of HIV grab headlines,²¹² they do not reflect the reality of HIV/AIDS for the vast majority of HIV-infected individuals today. These forms are also unlikely to gain a foothold among a population already aware of the risk factors for infection with HIV, as opposed to the uneducated population that granted the initial epidemic such free rein.²¹³

A second justification for HIV-specific legislation was an objection to the requirement that the prosecution prove that an HIV-infected individual intended to kill the infectee to convict the infector of attempted murder. Many commentators deemed this *mens rea* requirement too high a bar for HIV prosecutions.²¹⁴ Now that HIV is amenable to treatment, perhaps it is appropriate to require the state

²⁰⁷ See Closen et al., *supra* note 52, at 928 (“A practical problem in homicide prosecution based on HIV transmission exists in that the person prosecuted for transmitting HIV to another person is likely to die before the victim. A homicide prosecution is not possible because the victim will not have died.”).

²⁰⁸ See Clinton, *supra* note 2.

²⁰⁹ See *supra* text accompanying notes 183–92.

²¹⁰ See *supra* text accompanying notes 169–74.

²¹¹ See *supra* note 168.

²¹² See *supra* notes 202–05 and accompanying text. Reports of the New York case made the front page of the New York Times. Marc Santora & Lawrence K. Altman, *Rare and Aggressive H.I.V. Reported in New York*, N.Y. TIMES, Feb. 12, 2005, at A1.

²¹³ But see Marc Lacy & Lawrence K. Altman, *Advocates Share Ideas in Teaching About AIDS*, N.Y. TIMES, Aug. 10, 2008, § 1, at 16 (discussing attempts to educate an unreceptive public about the risks of HIV infection).

²¹⁴ PRESIDENTIAL COMMISSION REPORT, *supra* note 50, at 130.

to prove that defendants intended to kill before they may receive the punishments provided under attempted murder statutes.

A third justification for HIV-specific legislation was that punishments for assault were insufficient for exposing another to a fatal disease.²¹⁵ Successful treatments for HIV/AIDS significantly erode the rationale for increasing punishments for those who seek to expose others to the disease. Without minimizing the emotional and social side effects of both HIV infection itself and antiretroviral therapy treatments,²¹⁶ it can safely be assumed that for most infected individuals HIV/AIDS has become a chronic, but survivable, disease. Individuals who pass along a treatable form of the virus do less harm than they did when states initially enacted HIV-specific legislation, and these statutes punish HIV-positive individuals for merely exposing others to, rather than transmitting, the virus. The retributive justification for HIV-specific legislation will become less tenable as treatments for the disease become more effective.

The fourth justification for HIV-specific legislation was that such legislation would provide notice of dangerous behaviors and deter individuals from spreading the disease.²¹⁷ As I noted in Part I, the overbreadth of many of the HIV-specific statutes has already significantly weakened this justification for criminal HIV-exposure laws.²¹⁸ The changing HIV/AIDS epidemic weakens this rationale still further.

The difficulty is that legislation can no longer capture the epidemic's extremely variable nature. The same behavior that poses a serious risk of infection with multi-drug resistant HIV may pose a negligible risk of infection with nonresistant HIV, depending on the strain of the virus and the treatment history of the infected individual. Each new strain of HIV that will develop in response to new therapies will present a new challenge to such laws.

Leaving aside the fact that many statutes capture behavior that has no risk of transmitting the disease and assuming that they describe some ideal of standard risk-avoiding behavior, they arguably prescribe a "social norm"²¹⁹ that indicates what behavior is the least likely to transmit HIV, despite the fact that they capture behavior that should not be punished. However, this assumes that prosecutions under these statutes will not occur, which, as we have seen,²²⁰ is unlikely.

²¹⁵ *Id.*

²¹⁶ See *supra* notes 183–92 and accompanying text.

²¹⁷ Hermann, *supra* note 58, at 352–53.

²¹⁸ See *supra* notes 124–43 and accompanying text.

²¹⁹ See Burris et al., *supra* note 122, at 481–82.

²²⁰ See *State v. Musser*, 721 N.W.2d 734 (Iowa 2006).

B. Definitions of Criminal Exposure to HIV

The changing HIV/AIDS epidemic also raises serious questions about how criminal HIV-exposure laws define the crime of exposure to HIV. The changing epidemic holds implications for the *mens rea* that statutes impose, the behaviors they prohibit, and the meaning of disclosure of HIV-status when HIV infection no longer has a single meaning.

The first area of concern criminal HIV-exposure statutes raise is their universal requirement that prosecutors prove that HIV-infected individuals know they are infected with HIV/AIDS.²²¹ A policy based upon HIV status alone made sense when various HIV strains were barely differentiable, but this has become problematic now that various strains of the disease have appeared, with varying prognoses. To ensure the HIV-specific criminal exposure statutes meet the retributive goals of the criminal law,²²² those who spread dangerous strains of drug-resistant HIV should receive greater punishments than those who spread treatable strains of the disease. Additionally, the law should only punish those HIV-infected individuals who were aware that their disease had become resistant or that they were infected with a resistant strain of the virus at the time they spread the disease. Requiring otherwise would mean that these statutes “fail[] to link culpability and punishment to risk.”²²³

As I noted in Part I, three additional approaches to the *mens rea* requirement are identifiable.²²⁴ California’s approach, which punishes HIV-infected individuals only if they intend to pass their infection on to others,²²⁵ is unobjectionable. Florida’s approach requires no intent to pass on the disease, requiring instead that HIV-infected individuals engage in sexual intercourse knowing they are infected and informed that they may transmit HIV.²²⁶ Although this is a higher bar for conviction than that set by some other states, it raises troubling questions in the context of a fluid, HIV/AIDS epidemic, as the knowledge it requires for conviction fails to link culpability to risk-taking. Knowing one *may* transmit HIV is an outdated standard when an individual may be undergoing treatment that effectively lowers,

²²¹ See *supra* notes 71–72 and accompanying text.

²²² See, e.g., JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION 165–74 (J.H. Burns & H.L.A. Hart eds., Athlone Press 1970) (1789).

²²³ Burris et al., *supra* note 122, at 486.

²²⁴ See *supra* notes 75–81 and accompanying text.

²²⁵ CAL. HEALTH & SAFETY CODE § 120291(a) (West 2006).

²²⁶ See FLA. STAT. ANN. § 384.24(2) (West 2007) (criminalizing sexual intercourse “when such person knows he or she is infected with [HIV] and when such person has been informed that he or she may communicate this disease to another person through sexual intercourse”).

even minimizes, the risk of transmitting HIV.²²⁷ To meet the retributive goals of the criminal law, individuals who knowingly take greater risks spreading HIV should receive harsher treatment than those who take only minimal risks.

The example of the third approach to the *mens rea* requirement is Iowa's HIV-exposure statute.²²⁸ This type of HIV-exposure statute imposes a de facto recklessness standard on HIV-infected individuals by proscribing certain activities as criminal once an individual knows he or she is HIV-positive.²²⁹ This type of statute fails to link the risks that an HIV-positive individual undertakes and the culpability that the retributive goals of the criminal law require.²³⁰ By defining explicitly what activities constitute unnecessary risks, such a statute requires courts to ignore whether the proscribed behavior actually constitutes a risk sufficient to merit criminalization. Iowa's definition of the proscribed activity of "intimate contact"²³¹—"the intentional exposure of the body of one person to a bodily fluid of another person in a manner that could result in the transmission of the human immunodeficiency virus"²³²—captures a wide variety of activities that, in the context of a changing epidemic, constitute very different risks. This definition does not account for variations in the infectivity of the individual or the prognosis of individuals suffering from that particular strain.

Both California's and Florida's statutes fail to link proscribed conduct to culpability. Although an individual who satisfies the California statute's requirement that he or she intend to infect others is culpable, the statute does not differentiate among strains of HIV. Florida's statute, which merely proscribes "sexual intercourse with any other person," also does not make this differentiation. These problems are only likely to grow worse as treatments for HIV become more effective.

A final problem for HIV-exposure statutes is their near-universal failure to punish HIV-infected individuals who disclose their HIV-status prior to engaging in sexual activity.²³³ Unlike the problems already discussed, this is not a problem of statutory overbreadth, but of underbreadth. Disclosure of HIV-status will not provide all the information necessary for a sexual partner to determine the risk of engag-

227 See *supra* notes 193–97 and accompanying text.

228 See *supra* notes 78–81 and accompanying text.

229 See *supra* notes 78–81 and accompanying text.

230 See, e.g., BENTHAM, *supra* note 222, at 165–74.

231 IOWA CODE ANN. § 709C.1(1)(a) (West 2003).

232 *Id.* § 709C.1(2)(b).

233 See *supra* notes 94–102 and accompanying text. Clearly, where the burden lies in proving disclosure will make a great difference in how effective disclosure is in protecting the HIV-positive individual from conviction.

ing in sexual activity with the infected individual. HIV-positive individuals may falsely claim to be undergoing effective treatment for their HIV-infection. They may also claim to have a treatable strain of the virus while harboring a virulent multi-drug resistant version of the disease. Unlike the retributive problems analyzed above, this problem does not involve the criminalization of conduct that is insufficiently culpable, but instead involves the failure to criminalize behavior that is highly culpable. With the exception of Kansas's statute,²³⁴ all HIV-criminalization statutes protect individuals who are infected with a drug-resistant strain of the disease but who fail to disclose the drug-resistant nature of their infection to their partners.

C. The Limits of Prosecutorial Discretion

One possible solution to the problems that the changing HIV/AIDS epidemic presents for criminal HIV-exposure statutes is to rely on prosecutorial discretion to correct any harms the statutes may impose in the changing environment of HIV/AIDS. After all, there is clear empirical evidence that prosecutors are already selective about the HIV-exposure cases they will pursue.²³⁵ However, relying on prosecutorial discretion runs the risk that prosecutors will disproportionately pursue actions against disfavored groups such as racial and sexual minorities.²³⁶ Decisions by individuals in these groups to engage in behavior that is outside the norms of the social groups prosecutors belong to would likely increase this tendency.²³⁷

Even if prosecutorial discretion does not disproportionately affect particular groups, it still cannot make up for the significant policy holes the changing HIV/AIDS epidemic has left in the disclosure requirements of criminal HIV-exposure statutes. For example, prosecutorial discretion will not allow prosecutors to pursue individuals who deliberately infect others with multi-drug resistant HIV after disclosing their HIV-status but claiming their viral load is undetectable. The capacity to limit prosecutions to individuals who engage in the riskiest behaviors and spread the most dangerous strains of the disease if they do not disclose their status will not make up for this failure.

²³⁴ See *supra* notes 94–102 and accompanying text.

²³⁵ See Lazzarini et al., *supra* note 115, at 246–49.

²³⁶ See Closten et al., *supra* note 52, at 939 n.69.

²³⁷ See Burris et al., *supra* note 122, at 510.

IV
TRADITIONAL CRIMINAL LAW AND HIV/AIDS

Individuals like Gaetan Dugas,²³⁸ who wish to harm others with the disease they are infected with, will continue to exist even in the context of a changing HIV/AIDS epidemic. As long as such individuals exist, the criminal law needs means to prosecute them. However, HIV-specific legislation is not the answer to this problem. Instead, existing rules prohibiting traditional crimes like assault and attempted murder provide a better solution to the problem that the changing HIV/AIDS epidemic represents.

A. Revision Is Not an Answer

Replacement HIV-specific legislation is not an answer to the problems that the changing HIV/AIDS epidemic causes for criminal HIV-exposure laws. As I discussed in Part III, the changing HIV/AIDS epidemic has eroded many of the justifications for HIV-specific legislation. Moreover, both of the plausible reforms of HIV-specific legislation have inadequacies that make them inappropriate solutions to these problems.

The first reform would modify criminal HIV-exposure laws so that they defined behavior that carried a risk of transmitting the virus in the context of the changing HIV/AIDS epidemic. A “specifying reform” would attempt to clearly link culpability to conviction by specifying behavior that constitutes unnecessary risk-taking on the parts of individuals and providing graduated punishments for such risk-taking. Such a reform could have the benefit of establishing normative standards that might modify the behavior of individuals at risk of spreading HIV.²³⁹

However, empirical studies have shown that HIV-specific legislation has little to no influence on behavior.²⁴⁰ In addition, defining behavior in the context of a changing epidemic carries the significant risk of over- or underbreadth should new events change the epidemic even further. Significantly, state legislatures have not revisited HIV-specific legislation despite criticisms that the statutes are overbroad. Policy makers have known of the insignificant risks of HIV transmission through saliva for over twenty years.²⁴¹ However, Missouri still criminalizes biting under its HIV-exposure statute.²⁴² Legislation that specifically proscribes conduct is likely to stay on the books for many

²³⁸ The individual known as Patient Zero. See *supra* notes 42–48 and accompanying text.

²³⁹ See Burris et al., *supra* note 122, at 480.

²⁴⁰ See *id.* at 507–08.

²⁴¹ Gostin, *supra* note 57, at 1023–25.

²⁴² MO. ANN. STAT. § 191.677(1)(2)(c) (West 2004)

years, despite its overbreadth. This becomes a serious issue if a certain strain of HIV is virulent and untreatable today, but becomes treatable tomorrow.

The other possible reform is a “generalizing statute,” written in general terms in order to avoid obsolescence as the HIV/AIDS epidemic changes. Such a statute would be analogous to Nevada’s current statute, which criminalizes “conduct in a manner that is intended or likely to transmit the disease to another person,”²⁴³ but it would be modified to deal with the problems that the changing HIV/AIDS epidemic presents. Generalizing statutes have three problems that make them inappropriate for dealing with the changing HIV/AIDS epidemic. First, they must be carefully drafted because statutes with weak or non-existent standards fail to link culpability to punishment.²⁴⁴ In fact, it may be impossible to write a statute that is both sufficiently general and sufficiently specific. Second, they fail to fulfill the only justification for HIV-specific legislation that is still valid in the context of the changing HIV/AIDS epidemic: providing norms by which individuals may conduct their behavior.²⁴⁵ Third, they would fail to provide notice of behavior that is illegal.²⁴⁶

B. Recklessness Should Not Be the Standard for HIV Exposure

Another justification for HIV-specific statutes is that many states do not have “reckless endangerment” laws,²⁴⁷ which criminalize behavior that unintentionally risks serious harm to other individuals.²⁴⁸ As we have seen, many criminal HIV-exposure statutes criminalize behavior done without the intent to infect others with the virus, but that does risk exposing them to the virus.²⁴⁹ Individuals who engage in such behavior are insufficiently culpable to justify criminalization.

²⁴³ NEV. REV. STAT. ANN. § 201.205(1) (LexisNexis 2006).

²⁴⁴ See Burris et al., *supra* note 122, at 486 (noting that existing statutes use “wildly overbroad and risk-insensitive definitions of culpable behavior” and fail to link culpability and punishment to risk).

²⁴⁵ See *supra* notes 219–20 and accompanying text.

²⁴⁶ See Galletly & Pinkerton, *supra* note 131, at 330 (noting that general terms such as “likely to transmit” in Nevada statute or “could” in Illinois and Iowa statutes are susceptible to multiple interpretations, providing little advance notice on proscribed behaviors).

²⁴⁷ See Susan B. Gellman & Frederick M. Lawrence, *Agreeing to Agree: A Proponent and Opponent of Hate Crime Laws Reach For Common Ground*, 41 HARV. J. ON LEGIS. 421, 444–48 (2004).

²⁴⁸ The Model Penal Code defines “recklessly endangering another person” as:

A person commits a misdemeanor if he recklessly engages in conduct which places or may place another person in danger of death or serious bodily injury. Recklessness and danger shall be presumed where a person knowingly points a firearm at or in the direction of another, whether or not the actor believed the firearm to be loaded.

MODEL PENAL CODE § 211.2 (1985).

²⁴⁹ See *supra* notes 76–81 and accompanying text.

One argument against risk—rather than intent—as a basis for criminalization of HIV exposure is that much of the behavior that the statute would criminalize involves sex. Sexual behavior is notoriously complicated, involving self-esteem, embarrassment, possible assumptions of risk, and nonverbal signaling. Courts will have an impossible time determining who understood what, and at what time they understood it, causing many cases to devolve into a “he said, she said” situation.²⁵⁰ Presented with this problem, many courts are likely to resort to hard-and-fast rules that have little relationship to culpability. A recklessness standard will include many activities that do not involve the requisite culpability, “punish[ing] individuals who have no evil or antisocial intentions.”²⁵¹

Another argument against a recklessness standard is the limited risk associated with many sexual activities.²⁵² Even the riskiest sexual activity involves only a one-in-fifty chance of transmitting the disease.²⁵³ Criminalizing exposure, rather than transmission, for such low-risk activities criminalizes behavior with an extremely low level of culpability. The changing nature of the HIV/AIDS epidemic reinforces such arguments, as the risks of transmission decrease for those undergoing treatment²⁵⁴ and the increasing treatability of the disease diminishes the justification that it is inevitably fatal.²⁵⁵ Most HIV-positive individuals recognize they have an ethical responsibility not to transmit the disease;²⁵⁶ governments should reinforce that recognition through education rather than criminalization.²⁵⁷

One of the justifications for HIV-specific legislation was the difficulty in proving intent.²⁵⁸ Some well-publicized cases suggest that a recklessness standard is necessary to prosecute individuals for the transmission of HIV. In 1999, New York successfully used its reckless-endangerment statute to prosecute Nushawn Williams, an HIV-positive man who gained national notoriety after public health officials took “the extraordinary step of identifying Williams publicly, in the name of public safety.”²⁵⁹ Local officials would later state that Wil-

²⁵⁰ Burris et al., *supra* note 122, at 479–81 (“Is suggesting condom use an admission of infection or a question about the partner’s status? Does seeking sex in a bath house equal consent to HIV exposure? If one’s HIV medications are in plain sight in the bedroom, is verbal disclosure required? If you don’t ask, does that mean I don’t have to tell?”).

²⁵¹ Gostin, *supra* note 57, at 1052.

²⁵² Galletly & Pinkerton, *supra* note 131, at 328.

²⁵³ *Id.*

²⁵⁴ See *supra* notes 193–97 and accompanying text.

²⁵⁵ See Gazzard, *supra* note 155, at 347.

²⁵⁶ Burris et al., *supra* note 122, at 496, 517.

²⁵⁷ See *id.* at 477.

²⁵⁸ See PRESIDENTIAL COMMISSION REPORT, *supra* note 50, at 130.

²⁵⁹ *Man Pleads Guilty in Rape Cases and Exposing Woman to H.I.V.*, N.Y. TIMES, Feb. 27, 1999, at B6.

liams had unprotected sex with “48 women and girls, 13 of whom were later confirmed to be H.I.V. positive.”²⁶⁰ But a successful prosecution under a statute with a recklessness standard does not mean that a prosecution under an intentional standard would not have succeeded. For one, Williams’ behavior—engaging in unprotected sex with forty-eight women after discovering he was HIV-positive—provides powerful circumstantial evidence that he intended to infect them with the virus. If the virus no longer leads inevitably to death, then requiring proof of intent to kill, as attempted murder does, is unnecessary. Assault would be a sufficient charge for such a crime. Even if a recklessness standard is the only *mens rea* standard that would permit a conviction of individuals such as Williams, it is still inappropriate to enact a law requiring such a low level of intent for a criminal conviction. For each NuShawn Williams there are thousands of HIV-infected individuals whose only culpable state of mind is shame or embarrassment, who would be “guilty” under a recklessness standard.

C. A Solution: The Traditional Criminal Law

The traditional criminal law provides the best basis for criminalizing behaviors that lead to transmission of HIV. This will become even more true as HIV becomes more treatable. The history of HIV is rife with fear and sensationalism, leading to stigmatization of those who carry the disease.²⁶¹ That stigma should not disguise the fact that an individual who suffers from the disease is debilitated in a manner similar to those who, for example, have lost a limb or become blind.²⁶² Society has determined the penalties that individuals should suffer if they permanently debilitate or blind another human being, and society should criminalize the transmission of HIV likewise.

Assault is the best system for criminalizing HIV exposure.²⁶³ Those who intend to infect other individuals can be prosecuted for

²⁶⁰ John W. Fountain, *After Arrest, Campus Queues for H.I.V. Tests*, N.Y. TIMES, May 1, 2002, at A16.

²⁶¹ See Galletly & Pinkerton, *supra* note 131, at 335.

²⁶² See *supra* notes 179–92 and accompanying text.

²⁶³ The Model Penal Code divides assault into “simple assault,” which includes “attempt[ing] to cause or purposely, knowingly or recklessly caus[ing] bodily injury to another,” and “aggravated assault,” defined as “attempt[ing] to cause serious bodily injury to another, or caus[ing] such injury purposely, knowingly or recklessly under circumstances manifesting extreme indifference to the value of human life.” MODEL PENAL CODE § 211.1 (1985).

California employs three categories to reach a similar result. “An assault is an unlawful attempt, coupled with a present ability, to commit a violent injury on the person of another.” CAL. PENAL CODE § 240 (West 2008). “A battery is any willful and unlawful use of force or violence upon the person of another.” *Id.* § 242. Prosecutors need not prove intent to prove that behavior is willful, although recklessness and negligence alone should not result in a conviction. See *People v. Colantuono*, 865 P.2d 704, 713–14 (Cal. 1994). “Assault with deadly weapon or force likely to produce great bodily injury” is “an assault

exposing others to the virus.²⁶⁴ Prosecutors can choose between the crimes of “aggravated assault” or “assault” depending upon the risk of exposure and the treatability of the defendant’s particular strain of HIV.²⁶⁵ Likewise, prosecutors can use existing attempted-murder laws to punish individuals infected with a virulent, multi-drug resistant strain of the virus who intend to kill their victims. In most jurisdictions, individuals who lack any intent to transmit HIV, but succeed in transmitting it (rather than merely exposing others to it) will also be criminally prosecutable.

CONCLUSION

For better or worse, HIV/AIDS has often been an agent of change. Researchers and medical professionals have been forced to adapt to the problems that this virus has presented.²⁶⁶ It has also forced the medical profession to confront some of its own mistaken beliefs—such as the belief that it had conquered infectious disease.²⁶⁷ Similarly, HIV/AIDS shows that adaptability of the law is also a virtue. Whether the future of HIV/AIDS brings hope, disaster, or, as is more likely, some combination of the two,²⁶⁸ judges, prosecutors, and citizens should not have to adapt to outdated laws. HIV/AIDS, a highly adaptable disease,²⁶⁹ is probably our first encounter with a new dynamic—where human interaction with the evolution of diseases causes unpredictable and possibly dangerous results.²⁷⁰ We, and our laws, should be as adaptable.

upon the person of another with a deadly weapon or instrument other than a firearm or by any means of force likely to produce great bodily injury.” PENAL CODE § 245.

²⁶⁴ See MODEL PENAL CODE § 211.1 (1985) (assault).

²⁶⁵ *Id.*

²⁶⁶ See generally Peter Piot et al., *The Global Impact of HIV/AIDS*, 410 NATURE 968 (2001) (calling for responses to HIV/AIDS on a scale commensurate with the epidemic).

²⁶⁷ See John Maddox, *A Disappointing Decade of AIDS*, 362 NATURE, 13, 13 (1993).

²⁶⁸ See *supra* Part II.

²⁶⁹ See *supra* notes 148–51 and accompanying text.

²⁷⁰ See *supra* notes 31–32 and accompanying text.

