

ADJUDICATING RISK: AIDS, CRIME, AND CULPABILITY

AZIZA AHMED*

Introduction	627
I. Criminalizing AIDS: A Brief History of Governing AIDS	
Through Crime	629
II. The Changing Science of Risk and HIV	635
III. Adjudicating Risk: Two Cases	639
A. Canada	640
B. Iowa	645
IV. Risk and Governance	649
A. Adjudicating Conflicting Ideas of Risk.....	649
B. Risk and Race	651
Conclusion.....	653

INTRODUCTION

The AIDS epidemic continues to pose significant public health challenges, especially given that the spread of the virus outpaces the AIDS response.¹ Importantly, HIV continues to disproportionately impact socially and economically marginalized communities. In countries with concentrated epidemics,² it is racial minorities, sex workers, men who have sex with men, and drug users who face the

* Aziza Ahmed is Associate Professor of Law at Northeastern University School of Law. Many thanks to Libby Adler, Daniel Medwed, Brook Baker, and Jason Jackson for reviewing drafts and providing helpful feedback. I benefitted from feedback I received during my participation in the Empirical Critical Race Theory symposium organized by Osagie Obasogie and Tonya Brito and the Program on Science, Technology, and Society (STS) lecture series at the Harvard Kennedy School of Government organized by Sheila Jasanoff. Thanks also to Cameron Marston and the other editors at the *Wisconsin Law Review* for their diligence and hard work in editing this paper.

1. UNAIDS, FAST-TRACK: ENDING THE AIDS EPIDEMIC BY 2030 (2014), http://www.unaids.org/sites/default/files/media_asset/JC2686_WAD2014report_en.pdf.

2. A concentrated epidemic is one in which there is a prevalence in the general population of less than 1% but greater than 5% in at least one high-risk population. The United States is classified as a concentrated epidemic. See Paul Denning & Elizabeth DiNenno, *Communities in Crisis: Is There a Generalized HIV Epidemic in Impoverished Urban Areas of the United States?*, CDC, <http://www.cdc.gov/hiv/group/poverty.html> (last updated June 23, 2015).

brunt of the epidemic.³ In the United States, the data is startling⁴: 44% of new infections were among African-Americans, and among African-Americans contracting HIV, 57% were among gay and bisexual men.⁵ In 2016, the CDC found that one in two Black men who have sex with men (MSM), one in four Hispanic MSM, and one in eleven White MSM will contract HIV.⁶

One of the many tools mobilized to curb the spread of HIV is the criminal law. In particular, the criminalization of HIV transmission and exposure sets out to penalize individuals who expose or transmit HIV to another person. New advancements in the science of HIV transmission suggest, however, that individuals on anti-retroviral therapy (ART) that have a low viral load are significantly less infectious.⁷ This new data, in turn, impacts the potential culpability of the individual living with HIV accused of exposing another to HIV.

In a novel contribution to the existing literature on the criminalization of HIV,⁸ this paper examines two cases, *R v. Mabior*⁹ and *Rhoades v. State*,¹⁰ in which courts adjudicate the question of risk

3. Globally, the picture is similar. In a meta-analysis of sex workers in the context of HIV, for example, the global prevalence of HIV amongst sex workers was deemed to be 11.8% and in some countries with a higher prevalence of HIV, 30.7% of sex workers were HIV positive. *See, e.g.*, Stephan Baral et al., *Burden of HIV Among Female Sex Workers in Low-Income and Middle-Income Countries: A Systematic Review and Meta-Analysis*, 12 LANCET INFECTIOUS DISEASES 538, 538 (2012).

4. *See generally* Victoria A. Cargill & Valerie E. Stone, *HIV/AIDS: A Minority Health Issue*, 89 MED. CLINICS N. AM. 895 (2005).

5. *HIV Among African Americans*, CTRS. FOR DISEASE CONTROL & PREVENTION, <http://www.cdc.gov/hiv/group/raciaethnic/africanamericans/> (last updated Feb. 4, 2016).

6. Press Release, Ctrs. for Disease Control & Prevention, *Half of Black Gay Men and a Quarter of Latino Gay Men Projected To Be Diagnosed Within Their Lifetime* (Feb. 23, 2016), <http://www.cdc.gov/nchhstp/newsroom/2016/croi-press-release-risk.html>.

7. NIH Newsroom, *HIV Control Through Treatment Durably Prevents Heterosexual Transmission of Virus*, AIDS.GOV (July 20, 2015), <https://blog.aids.gov/2015/07/hiv-control-through-treatment-durably-prevents-heterosexual-transmission-of-virus.html>; *see also* Myron S. Cohen et al., *Prevention of HIV-1 Infection with Early Antiretroviral Therapy*, 365 NEW ENG. J. MED. 493 (2011).

8. There is a large literature in public health and law on the criminalization of HIV transmission and exposure. *See, e.g.*, Scott Burris et al., *Do Criminal Laws Influence HIV Risk Behavior? An Empirical Trial*, 39 ARIZ. ST. L.J. 467 (2007); Zita Lazzarini et al., *Criminalization of HIV Transmission and Exposure: Research and Policy Agenda*, 103 AM. J. PUB. HEALTH 1350 (2013); Russell K. Robinson, *Racing the Closet*, 61 STAN. L. REV. 1463 (2009); Matthew Wait & Yusef Azad, *The Criminalization of HIV Transmission in England and Wales: Questions of Law and Policy*, HIV/AIDS POL'Y & L. REV., Aug. 2005, at 1.

9. [2012] 2 S.C.R. 584 (Can.).

10. 848 N.W.2d 22 (Iowa 2014).

of transmission. This paper argues that while the court's consideration of treatment and low viral load to mitigate culpability is a positive move forward, it is important to note that the pre-existing maldistribution of access to HIV treatment means that only some of the accused will benefit legally from these scientific advancements. This could have a disparate effect on racial minorities who have less access to ART and, in turn, will not have the capacity to mitigate potential culpability by arguing that they are less likely to transmit HIV.

This paper proceeds as follows. Part I draws on emerging scholarship on the carceral state to place the criminalization of HIV transmission and exposure in its broader historical and social context. Part II provides an overview of scientific advances on the risk of transmission. Part III considers two prosecutions of individuals living with HIV for exposing another to the virus and examines the role of scientific advances on risk in the courts' deliberations on culpability. Part IV examines the distributional consequences of these decisions for those without access to ART.

I. CRIMINALIZING AIDS: A BRIEF HISTORY OF GOVERNING AIDS THROUGH CRIME¹¹

In recent years, several scholars have turned their attention to the issue of "governing through crime." In his book by that name, Jonathan Simon argues,

When we govern through crime, we make crime and the forms of knowledge historically associated with it—criminal law, popular crime narrative, and criminology—available outside their limited original subject domains as powerful tools with which to interpret and frame all forms of social action as a problem for governance.¹²

Legal and sociological theorists connect the rise of governing through crime within the same logic that supported the rise of neoliberalism and

11. The title of this section is borrowed from Jonathan Simon's book *Governing Through Crime*. JONATHAN SIMON, GOVERNING THROUGH CRIME: HOW THE WAR ON CRIME TRANSFORMED AMERICAN DEMOCRACY AND CREATED A CULTURE OF FEAR (2007); see also Jonathan Simon, *Megan's Law: Crime and Democracy in Late Modern America*, 25 LAW & SOC. INQUIRY 1111 (2000).

12. SIMON, *supra* note 11, at 17. Simon draws our attention to a broader notion of government emerging from the writings of Foucault.

the diminishment of social welfare in the United States.¹³ In the context of public health, this meant the contraction of public spending on public sector health services as a carceral approach to addressing public health challenges gained wider acceptance. While it was not new for criminal law to be deployed for the project of bettering public health,¹⁴ the intersection of criminal law and medical care became more pronounced.¹⁵ As has been well-documented by critical race feminists, this was exemplified by the harsh response to the now discredited “crack baby” epidemic, which resulted in the prosecution of pregnant mothers, many of whom were African-American.¹⁶ It was in this

13. See BERNARD E. HARCOURT, *THE ILLUSION OF FREE MARKETS: PUNISHMENT AND THE MYTH OF NATURAL ORDER* (2012). Bernard Harcourt, amongst others, developed the idea of neoliberal penalty. For Harcourt, neoliberal penalty is the nexus between the rise of the free market and the growth of the penal state in which

[t]he idea of natural order, born in the eighteenth century, is precisely what gave birth to *neoliberal penalty*, a discourse on economy and society in which the government is pushed out of the economic sphere, relegated to the boundary, and given free rein there—and *there alone*—to expand, intervene, and punish, often severely. The concept of market efficiency also *naturalizes* and thereby hides the choices, policies, norms, regulations, and laws that we use to administer markets, and as a consequence, makes us not analyze neutrally and open-mindedly the mechanisms that regulate the market.

Bernard E. Harcourt, *Neoliberal Penalty: The Birth of Natural Order, the Illusion of Free Markets 2* (U. of Chi. L. & Econ., Working Paper No. 238, 2008), available at <http://ssrn.com/abstract=1278067>. For an analysis of how neoliberalism has shaped the American health care system, see Adam Gaffney, *The Neoliberal Turn in American Health Care*, 45 INT’L J. HEALTH SERVICES 33 (2015); see also SIMON, *supra* note 11, at 26. See generally SALMAAN KESHAVJEE, *BLIND SPOT: HOW NEOLIBERALISM INFILTRATED GLOBAL HEALTH* (2014); Shaun Ossei-Owusu, *Shattered Dreams: Race, Health, and Politics in the Neoliberal City* (unpublished manuscript).

14. See CRIMINAL LAW, PHILOSOPHY AND PUBLIC HEALTH PRACTICE (A. M. Viens et al. eds., 2013).

15. The intersection of the rise of a criminal law approach with public health is exemplified by the war on drugs. As an “abolitionist” perspective took hold, buoyed by an individual responsibility narrative, rather than receiving treatment individuals who used drugs were prosecuted and incarcerated. Harm-reduction programs suffered despite their demonstrable impact in addressing drug use and associated harms: syringe exchange programs were criminalized and police actively undermined harm-reduction efforts. See Aziza Ahmed, *Trafficked? AIDS, Criminal Law and the Politics of Measurement*, 70 U. MIAMI L. REV. 96 (2015); G. Alan Marlatt, *Harm Reduction: Come as You Are*, 21 ADDICTIVE BEHAVS. 779, 785–87 (1996); Diane Riley & Pat O’Hare, *Harm Reduction: History, Definition, and Practice*, in HARM REDUCTION: NATIONAL AND INTERNATIONAL PERSPECTIVES 1, 1–3 (James A. Inciardi ed., 2000) (arguing that harm-reduction emerged from the Netherlands, the United Kingdom, and North America).

16. In her seminal work, *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty*, Dorothy Roberts highlights the close relationship between policing

moment, when criminal law was becoming more central to state responses to perceived social problems and social spending was on the decline,¹⁷ that HIV emerged as a significant public health threat.

In keeping with the broader carceral shift, criminal law was mobilized in the effort to curb AIDS. The political and social environment was ripe for a criminal law response to a health epidemic: politicians blamed “irresponsible” individuals for contracting and spreading HIV.¹⁸ Much of this hostility targeted gay men.¹⁹ Blaming individuals for the spread of the virus detracted attention away from larger structural responses to HIV, including funding and service delivery. This narrative also fit within the larger move away from public services and towards carceral approaches facilitated by the neoliberal moment in which AIDS emerged.

By 1986, three states passed laws criminalizing transmitting or exposing another to HIV (Florida, Tennessee, and Washington).²⁰ In 1989, the American Legislative Exchange Council (ALEC), an organization of conservative state legislators,²¹ recommended model statute language for an HIV Assault Law.²² The next year, twenty-two states had enacted their first law criminalizing HIV transmission or

in the health care setting and race. DOROTHY ROBERTS, *KILLING THE BLACK BODY: RACE, REPRODUCTION, AND THE MEANING OF LIBERTY* (1998); see *Whitner v. State*, 492 S.E.2d 777 (S.C. 1997) (holding that a mother who ingested crack cocaine during the third trimester of pregnancy could be charged under the child abuse and endangerment statute); see also Michele Goodwin, *Fetal Protection Laws: Moral Panic and the New Constitutional Battlefield*, 102 CALIF. L. REV. 781 (2014); Hallam Hurt et al., *Cocaine-Exposed Children: Follow-Up Through 30 Months*, 16 J. DEVELOPMENTAL & BEHAV. PEDIATRICS 29 (1995); Katie McDonough, *Long-Term Study Debunks the Myth of the “Crack Baby,”* SALON (Jul. 23, 2013, 12:16 PM), http://www.salon.com/2013/07/23/longterm_study_debunks_myth_of_the_crack_baby/.

17. Gaffney, *supra* note 13.

18. Senator Jesse Helms was notorious for his constant homophobic rhetoric with regard to AIDS. See, e.g., Edward I. Koch, *Senator Helms’s Callousness Toward AIDS Victims*, N.Y. TIMES (Nov. 7, 1987), <http://www.nytimes.com/1987/11/07/opinion/senator-helms-s-callousness-toward-aids-victims.html>.

19. *Id.*

20. J. Stan Lehman et al., *Prevalence and Public Health Implications of State Laws that Criminalize Potential HIV Exposure in the United States*, 18 AIDS & BEHAV. 997, 999 (2014).

21. Nancy Scola, *Exposing ALEC: How Conservative-Backed State Laws Are All Connected*, ATLANTIC (Apr. 14, 2012), <http://www.theatlantic.com/politics/archive/2012/04/exposing-alec-how-conservative-backed-state-laws-are-all-connected/255869/>.

22. MICHAEL TANNER, ALEC NAT’L WORKING GRP. ON STATE AIDS POLICY, *THE POLITICS OF HEALTH: A STATE RESPONSE TO THE AIDS CRISIS* 93–94 (1989); Sergio Hernandez, *Iowa Court Tosses Sentence in HIV Exposure Case*, PROPUBLICA (June 16, 2014), <https://www.propublica.org/article/iowa-court-tosses-sentence-in-hiv-exposure-case>.

exposure. Nearly eight years after AIDS was first detected, the federal government passed its first piece of legislation on AIDS, the Ryan White CARE Act,²³ named after a young boy who died after contracting HIV through a blood transfusion.²⁴ The Act dedicated approximately \$220 million to AIDS care and treatment.²⁵ The legislation required that states have criminal laws that were

adequate to prosecute any HIV infected individual, subject to the condition described in subsection (b), who—

(1) makes a donation of blood, semen, or breast milk, if the individual knows that he or she is infected with HIV and intends, through such donation, to expose another [sic] HIV in the event that the donation is utilized;

(2) engages in sexual activity if the individual knows that he or she is infected with HIV and intends, through such sexual activity, to expose another to HIV; and

(3) injects himself or herself with a hypodermic needle and subsequently provides the needle to another person for purposes of hypodermic injection, if the individual knows that he or she is infected and intends, through the provision of the needle, to expose another to such etiologic agent in the event that the needle is utilized.²⁶

Although couched in a broader effort to build the system-wide response to HIV, the law made a clear link between individual behavior, criminal culpability, and the spread of HIV.

Today, approximately thirty-four states specifically criminalize HIV transmission and exposure. The language varies between states. In Arkansas, for example, the language reads,

A person commits the offense of exposing another person to human immunodeficiency virus if the person knows he or she has tested positive for human immunodeficiency virus and exposes another person to human immunodeficiency virus infection through the parenteral transfer of blood or a blood

23. Ryan White Comprehensive AIDS Resources Emergency Act of 1990, Pub. L. No. 101-381, 104 Stat. 576 (1990).

24. *CARE Act Passes Both Houses by Wide Margins*, HRSA, <http://hab.hrsa.gov/livinghistory/timeline/1990.htm> (last visited Mar. 29, 2016).

25. *Funding Levels: Then and Now*, HRSA, <http://hab.hrsa.gov/livinghistory/legislation/funding.htm> (last visited Mar. 29, 2016).

26. Ryan White Comprehensive AIDS Resources Emergency Act of 1990 § 2647(a).

product or engages in sexual penetration with another person without first having informed the other person of the presence of human immunodeficiency virus.²⁷

The statute clarifies that semen does not have to be emitted.²⁸ In Georgia,

[a] person who is an HIV infected person who, after obtaining knowledge of being infected with HIV . . . (1) Knowingly engages in sexual intercourse or performs or submits to any sexual act involving the sex organs of one person and the mouth or anus of another person and the HIV infected person does not disclose to the other person the fact of that infected person's being an HIV infected person prior to that intercourse or sexual act²⁹

is guilty of a felony.³⁰ States also prosecute individuals under general assault statutes.³¹

27. ARK. CODE ANN. § 5-14-123(b) (2013).

28. *Id.* § 5-14-123(c)(1). For a full list of laws in the United States, see POSITIVE JUSTICE PROJECT, CTR. FOR HIV LAW & POLICY, 1 ENDING & DEFENDING AGAINST HIV CRIMINALIZATION: A MANUAL FOR ADVOCATES (2d ed. 2015), [http://www.hivlawandpolicy.org/sites/www.hivlawandpolicy.org/files/HIV_Crim_Manual_\(updated_5.4.15\).pdf](http://www.hivlawandpolicy.org/sites/www.hivlawandpolicy.org/files/HIV_Crim_Manual_(updated_5.4.15).pdf).

29. GA. CODE ANN. § 16-5-60(c) (2011).

30. The entire statute is longer and covers more than sexual intercourse.

(c) A person who is an HIV infected person who, after obtaining knowledge of being infected with HIV:

(1) Knowingly engages in sexual intercourse or performs or submits to any sexual act involving the sex organs of one person and the mouth or anus of another person and the HIV infected person does not disclose to the other person the fact of that infected person's being an HIV infected person prior to that intercourse or sexual act;

(2) Knowingly allows another person to use a hypodermic needle, syringe, or both for the introduction of drugs or any other substance into or for the withdrawal of body fluids from the other person's body and the needle or syringe so used had been previously used by the HIV infected person for the introduction of drugs or any other substance into or for the withdrawal of body fluids from the HIV infected person's body and where that infected person does not disclose to the other person the fact of that infected person's being an HIV infected person prior to such use;

(3) Offers or consents to perform with another person an act of sexual intercourse for money without disclosing to that other person the fact of that infected person's being an HIV infected person prior to offering or consenting to perform that act of sexual intercourse;

Countries outside the United States also passed laws criminalizing exposure or transmission. According to a global mapping of laws by the Global Commission on HIV, laws criminalizing HIV transmission and exposure also exist in Europe, Central Asia, and Africa.³² The United States has had influence in the passage of some of these laws. For example, in 2004, in N'Djamena, Chad, Action for West Africa Region (AWARE), a project of USAID, in partnership with local and regional organizations, presented a model law to attendees of a conference. The model law suggested that countries criminalize the willful transmission of HIV.³³ In response to the conference, several West African countries passed laws that reflected the language of the model law. Importantly, prosecutors in various countries also mobilize non-HIV-specific criminal laws, e.g., assault, in HIV transmission and exposure cases.

HIV activists and advocates mobilized globally and nationally to combat the spread and use of these laws. They argued that laws criminalizing HIV nondisclosure would increase stigma, marginalize vulnerable populations, and disincentivize HIV testing.³⁴ Public health researchers also began to hone in on the impact of the law on decision-making and the stigma associated with HIV disclosure.³⁵ Key

(4) Solicits another person to perform or submit to an act of sodomy for money without disclosing to that other person the fact of that infected person's being an HIV infected person prior to soliciting that act of sodomy; or

(5) Donates blood, blood products, other body fluids, or any body organ or body part without previously disclosing the fact of that infected person's being an HIV infected person to the person drawing the blood or blood products or the person or entity collecting or storing the other body fluids, body organ, or body part,

is guilty of a felony and, upon conviction thereof, shall be punished by imprisonment for not more than ten years.

Id.

31. See, e.g., N.Y. PENAL LAW § 120.10 (McKinney 2009).

32. GLOBAL COMM'N ON HIV & THE LAW, RISKS, RIGHTS & HEALTH (2012), <http://www.hivlawcommission.org/resources/report/FinalReport-Risks,Rights&Health-EN.pdf>.

33. *The 'Legislation Contagion' of the N'Djamena Model Law*, NAM AIDSMAP, <http://www.aidsmap.com/The-legislation-contagion-of-the-NDjamena-model-law/page/1442068/> (last visited Apr. 21, 2016).

34. See generally INT'L PLANNED PARENTHOOD FED'N ET AL., VERDICT ON A VIRUS: PUBLIC HEALTH, HUMAN RIGHTS AND CRIMINAL LAW (2008); *Criminalization of HIV Transmission*, AIDS-FREE WORLD, <http://www.aidsfreeworld.org/planetAIDS/Transmission.aspx> (last visited May 8, 2016); *ICW Concerned Over Trend to Criminalise HIV Transmission*, INT'L COMMUNITY WOMEN LIVING WITH HIV/AIDS (July 1, 2009), <http://www.icw.org/node/354>.

35. See generally Carol L. Galletly & Steven D. Pinkerton, *Conflicting Messages: How Criminal HIV Disclosure Laws Undermine Public Health Efforts to*

leaders, in addressing the AIDS epidemic, spoke out about laws criminalizing HIV transmission and exposure.³⁶

The advocacy paid off in some jurisdictions. In the United Kingdom, for example, the Crown Prosecution Services issued guidance to help narrow the range of acts that would result in prosecution for HIV transmission or exposure.³⁷ In the United States, the Obama Administration issued guidelines on HIV/AIDS that spoke to the need to reduce the role of the criminal law in addressing the AIDS response.³⁸ The High Court of Kenya also found provisions of the HIV and AIDS Prevention and Control Act, which criminalized HIV transmission and exposure, unconstitutional.³⁹ Key international institutions, including the Joint United Nations Programme on HIV/AIDS (UNAIDS) and the Global Commission on HIV and the Law, have called for the end to prosecutions of HIV nondisclosure, transmission, and exposure.⁴⁰

II. THE CHANGING SCIENCE OF RISK AND HIV

As advocacy moves forward, so does the science of HIV transmission. Knowledge of HIV transmission has deepened since the beginning of the epidemic. Two key developments altered scientific understanding of the transmission of HIV: first, increasing certainty about how HIV is spread, and, in turn, the populations vulnerable to contracting HIV and, second, the development of antiretrovirals, which

Control the Spread of HIV, 10 AIDS & BEHAV. 451 (2006); Carol L. Galletly et al., *New Jersey's HIV Exposure Law and the HIV-Related Attitudes, Beliefs, and Sexual and Seropositive Status Disclosure Behaviors of Persons Living with HIV*, 102 AM. J. PUB. HEALTH 2135 (2012).

36. See, e.g., Michael Kirby & Edwin Cameron, *HIV & the Criminal Law: Preface*, NAM AIDSMAP, <http://www.aidsmap.com/resources/law/Preface/page/1445043/> (last visited May 8, 2016) (critiquing laws based in “fear” and “stigma”).

37. See *Intentional or Reckless Sexual Transmission of Infection*, CROWN PROSECUTION SERVICE, http://www.cps.gov.uk/legal/h_to_k/intentional_or_reckless_sexual_transmission_of_infection_guidance/ (last visited May 8, 2016); see also NAT'L AIDS TRUST, PROSECUTIONS FOR HIV TRANSMISSION: A GUIDE FOR PEOPLE LIVING WITH HIV IN ENGLAND AND WALES (2010), http://www.nat.org.uk/media/Files/Publications/May_2010_Prosecutions_for_HIV_Transmission.pdf.

38. WHITE HOUSE OFFICE OF NAT'L AIDS POLICY, NATIONAL HIV/AIDS STRATEGY FOR THE UNITED STATES 2 (2015), <https://www.aids.gov/federal-resources/national-hiv-aids-strategy/nhas-update.pdf>.

39. See Press Release, Ctr. for Reprod. Rights, Kenya High Court Finds Criminalizing HIV and AIDS Transmission Unconstitutional (Mar. 30, 2015), <http://www.reproductiverights.org/press-room/kenya-high-court-finds-criminalizing-hiv-aids-transmission-unconstitutional>.

40. GLOBAL COMM'N ON HIV & THE LAW, *supra* note 32, at 9–10.

alter both how infectious an individual is as well as how likely an individual might be to contract HIV. Changing understandings of risk in HIV transmission and exposure becomes increasingly relevant as determinations of culpability are tied to the possibility of transmission.

First, as knowledge about HIV was transforming, what was once thought to be a disease impacting only gay men (homosexuals), users of heroin and other injected drugs, Haitians, and hemophiliacs (pejoratively known as “the 4 Hs”)⁴¹ was eventually understood to also impact heterosexual women and men.⁴² While the heterosexual epidemic was initially debated by experts, there were, in fact, growing numbers of women living with HIV.⁴³ Feminist activists and lawyers demanded that science and regulation on HIV and AIDS—particularly as it benefited people living with HIV through social security programs—include women.⁴⁴ As the risk groups for HIV expanded, scientific theories shifted about the behaviors that made individuals vulnerable to contracting HIV.⁴⁵ Eventually, it became clear that heterosexual women and men were at risk for contracting HIV through heterosexual sex—an explanation that would be relied upon to explain the fast spread of HIV in sub-Saharan Africa.⁴⁶

Second, as treatment options grew, so did the realization that placing individuals living with HIV on treatment made them less likely to transmit HIV. The legal importance of this is clear—where HIV transmission and exposure is criminalized, a person should not be held liable if it is unlikely that they will transmit or expose an individual to HIV due to their low viral load. Advances in treatment also impacted individuals who are having sex that could result in an HIV infection.

41. See Alex Goddard, *The History of AIDS: A Timeline*, AIDS IN NEW YORK, <http://aids.nyhistory.org/timeline/> (last visited Feb. 26, 2016) (“March 4, 1983: The Morbidity and Mortality Weekly Report . . . issues a report listing the 4 Hs—homosexual men, hemophiliacs, Haitians, and heroin users . . . —as the four groups in which most AIDS cases are found.”).

42. See generally Aziza Ahmed, “Rugged Vaginas” and “Vulnerable Rectums”: *The Sexual Identity, Epidemiology, and Law of the Global HIV Epidemic*, 26 COLUM. J. GENDER & L. 1 (2013).

43. See *id.* at 25 & n.74, 26–27 (discussing the perceptions that drug use was one of the primary risk factors for HIV and that women were less susceptible than men to sexual transmission of HIV).

44. Theresa M. McGovern, S.P. v. Sullivan: *The Effort to Broaden the Social Security Administration’s Definition of AIDS*, 21 FORDHAM URB. L.J. 1083, 1091–93 (1994).

45. Allan M. Brandt, *AIDS in Historical Perspective: Four Lessons from the History of Sexually Transmitted Diseases*, 78 AM. J. PUB. HEALTH 367, 367–68 (1988).

46. Givans K. Ateka, *Factors in HIV/AIDS Transmission in Sub-Saharan Africa*, 79 BULL. WORLD HEALTH ORG. 1168, 1168 (2001).

The emergence of Pre-Exposure Prophylaxis (PrEP), a medicine taken as a preventative by individuals without HIV, meant that individuals could significantly lower their risk of contracting HIV.

A key moment in debates on the infectiousness of individuals with HIV occurred in 2008 when the Swiss Federal Commission for HIV issued a statement (the Swiss Statement) stating that people living with HIV who are receiving antiretroviral therapy, have an undetectable viral load, and no genital infections cannot transmit HIV.⁴⁷ The statement relied on several studies of heterosexual adults in which there was a correlation between low viral load and low probability of transmitting HIV.⁴⁸ The Swiss Statement, however, generated a series of reactions from epidemiologists and public health agencies that tempered the claim that people with the characteristics described in the Swiss Statement should assume that they are not infectious.⁴⁹ Studies appear responsive to the concern that the Swiss Statement could lead to a false perception that there was zero risk of contracting HIV from a partner who fit the profile or that it would disincentivize condom use.⁵⁰ In 2008, for example, a study utilizing mathematical modeling emphasized that while the Swiss Statement was based on reliable evidence, modeling demonstrated that the risk was small but not absent: “[O]n the basis of the data presented here, we believe that the Swiss statement is not a sensible public-health message, because its logical

47. EDWARD J. BERNARD, NAT'L AIDS TRUST, TOWARDS A UK CONSENSUS ON ART AND HIV TRANSMISSION RISK 4 (2010), <http://www.nat.org.uk/media/Files/Publications/Sep-2010-Towards-a-UK-Consensus-on-ART-and-HIV-Transmission-Risk.pdf>; Cécile Kazatchkine et al., *Ending Overly Broad HIV Criminalization: Canadian Scientists and Clinicians Stand for Justice*, 18 J. INT'L AIDS SOC'Y 1, 2 (2015) (discussing the impact of the Swiss Statement on criminalization of HIV transmission and exposure).

48. See Edwin J. Bernard, *Swiss Experts Say Individuals with Undetectable Viral Load and No STI Cannot Transmit HIV During Sex*, NAM AIDSMAP (Jan. 30, 2008), <http://www.aidsmap.com/Swiss-experts-say-individuals-with-undetectable-viral-load-and-no-STI-cannot-transmit-HIV-during-sex/page/1429357/>. For an example of a study completed in reaction to the Swiss Statement, see David P. Wilson et al., *Relation Between HIV Viral Load and Infectiousness: A Model-Based Analysis*, 372 LANCET 314, 314 (2008) (“Our analyses suggest that the risk of HIV transmission in heterosexual partnerships in the presence of effective treatment is low but non-zero and that the transmission risk in male homosexual partnerships is high over repeated exposures. If the claim of non-infectiousness in effectively treated patients was widely accepted, and condom use subsequently declined, then there is the potential for substantial increases in HIV incidence.”); see also *Expert Statements and Guidance for Individuals*, NAM AIDSMAP, <http://www.aidsmap.com/Expert-statements-and-guidance-for-individuals/page/1322904/> (last visited Mar. 8, 2016).

49. BERNARD, *supra* note 47, at 5.

50. Wilson et al., *supra* note 48, at 314.

outcome would be the abandonment of condoms by people with effectively treated HIV infection.”⁵¹

In further response to the Swiss Statement, many national governments⁵² implemented their own task forces to examine the changing science of HIV transmission and, in some cases, relevant criminal law.⁵³ The U.S. Centers for Disease Control and Prevention (CDC), for example, issued a statement in 2009 acknowledging the lesser likelihood of HIV transmission by individuals with a low viral load due to antiretroviral therapy.⁵⁴ The CDC emphasized that the risk of transmission is not zero.⁵⁵ Most recently, however, in 2015, the U.S. Department of Health and Human Services (HHS) announced on AIDS.gov that a new study from the National Institutes of Health (NIH) demonstrates that there is “robust evidence” supporting the idea “that antiretroviral therapy started at any time in the course of infection can prevent heterosexual HIV transmission if viral suppression is achieved and maintained.”⁵⁶

In 2012, an FDA-approved drug protocol hit the market that also has consequences for the determination of risk of HIV transmission. Truvada, a combination of two HIV medications (tenofovir and emtricitabine), decreases the likelihood of transmission to an individual engaged in sexual activity or injected-drug use. Because the drugs are taken in advance of exposure the protocol is also known as pre-exposure prophylaxis (PrEP). The CDC suggests that taking Truvada can reduce the risk of contracting HIV from sexual activity by 90% and from injected-drug use by 70%.⁵⁷ The CDC recommends

51. *Id.* at 318.

52. *Other Statements in Response*, NAM AIDSMAP, <http://www.aidsmap.com/Other-statements-in-response/page/1746482/> (last visited Mar. 8, 2016).

53. *See also Expert Statements and Guidance for Individuals*, *supra* note 48.

54. CTRS. FOR DISEASE CONTROL & PREVENTION, EFFECT OF ANTIRETROVIRAL THERAPY ON RISK OF SEXUAL TRANSMISSION OF HIV INFECTION AND SUPERINFECTION 1 (2009), http://www.cdc.gov/hiv/pdf/prevention_art_factsheet.pdf.

55. *Id.*

56. NIH Newsroom, *supra* note 7; *see also* Beatriz Grinsztejn et al., *Effects of Early Versus Delayed Initiation of Antiretroviral Treatment on Clinical Outcomes of HIV-1 Infection: Results from the Phase 3 HPTN 052 Randomised Controlled Trial*, 14 LANCET INFECTIOUS DISEASES 281 (2014); Steven A. Safren et al., *Adherence to Early Antiretroviral Therapy: Results from HPTN 052, a Phase III, Multinational Randomized Trial of ART to Prevent HIV-1 Sexual Transmission in Serodiscordant Couples*, 69 J. ACQUIRED IMMUNE DEFICIENCY SYNDROMES 234 (2015).

57. *PrEP*, CTRS. FOR DISEASE CONTROL & PREVENTION, <http://www.cdc.gov/hiv/basics/prep.html> (last visited Mar. 8, 2016) (“PrEP is also recommended for people who have injected drugs in the past 6 months and have shared needles or works or been in drug treatment in the past 6 months.”); *see also* WORLD HEALTH ORG., GUIDELINE ON WHEN TO START ANTIRETROVIRAL THERAPY AND ON PRE-EXPOSURE PROPHYLAXIS

Truvada for (1) anyone who is in a serodiscordant relationship (where one partner is HIV-positive and the other is not) and (2) anyone who is not “in a mutually monogamous relationship with a partner who recently tested HIV-negative” and is either a “gay or bisexual man who has had anal sex without using a condom or been diagnosed with an STD in the past 6 months” or a “heterosexual man or woman who does not regularly use condoms during sex with partners of unknown HIV status who are at substantial risk of HIV infection.”⁵⁸

Further complicating understandings of the likelihood of HIV exposure resulting in transmission, the risk of HIV transmission varies among different sex acts and whether an individual is on pre-exposure prophylaxis. For example, a sample of the data provided by the CDC based on a 2014 meta-analysis found that out of 10,000 exposures to a particular sex act, receptive anal sex resulted in the greatest number of infections at 138.⁵⁹ Insertive anal intercourse followed at 11 infections with receptive penile-vaginal intercourse and insertive penile-vaginal intercourse at 8 and 4 transmissions, respectively.⁶⁰ Oral sex is understood to have a plausible but unknown risk of transmission.⁶¹

Each of these dimensions—access to and compliance with antiretroviral therapy, use of condoms, PrEP, presence of genital infections, and the sex act(s)—complicates assessments of risk of exposure to HIV. In determining culpability, courts wade into this complicated area of epidemiology, becoming arbiters of competing ideas of risk. With specific regard to treatment’s role in mitigating risk, however, courts often pay little attention to the structural factors that may act as a barrier to accessing medication and impact determination of guilt or innocence.

III. ADJUDICATING RISK: TWO CASES

With hundreds of prosecutions globally,⁶² courts have dealt with the issue of risk of transmission, and thus culpability, in a variety of ways. While most HIV transmission and exposure trials are not

FOR HIV (2015), http://apps.who.int/iris/bitstream/10665/186275/1/9789241509565_eng.pdf.

58. *PrEP*, *supra* note 57.

59. Pragna Patel et al., *Estimating Per-Act HIV Transmission Risk: A Systematic Review*, 28 AIDS 1509, 1509, 1512 (2014).

60. *Id.*

61. *Id.*

62. SALLY CAMERON & LUCY REYNOLDS, GLOBAL NETWORK OF PEOPLE LIVING WITH HIV (GNP+), THE GLOBAL CRIMINALISATION SCAN REPORT 2010, at 11–12 (2010), <http://www.hivpolicy.org/Library/HPP001825.pdf>.

recorded, making it difficult to understand the factors at play in the finding of guilt or innocence, two recent cases appealed to higher courts made determinations of risk central to their assessment of culpability: *R v. Mabior*, decided in the Supreme Court of Canada, and *Rhoades v. State*, decided in the Supreme Court of Iowa. Comparing these two cases demonstrates how courts differ in their assessments of risk as well as their evaluation of which prevention efforts adequately prevent risk of exposure. Several lessons can be drawn from examining the way risk is adjudicated in these cases. First, a comparative analysis denaturalizes the idea that risk of transmission is a stable category in law and policy even in the face of similar scientific and medical evidence. Instead, the analysis shows how the courts become central to knowledge production about HIV, frequently establishing facts about transmission contrary to accepted knowledge about the science of HIV transmission or making bright-line determinations where there is uncertainty amongst epidemiologists. Second, and importantly, for people living with HIV, a comparative analysis also demonstrates that rules vary from jurisdiction to jurisdiction on what constitutes exposure and prevention, and, in turn, culpability for the same sexual activity can vary across state and national borders.⁶³ Third, as it becomes clear that access to ART may have bearing on one's culpability in HIV criminal transmission and exposure cases, it becomes necessary to examine the disparities in who has access to the medicines that can decrease one's viral load and, in turn, render them innocent.

A. Canada

Globally, the Supreme Court of Canada has been the highest court to consider the constitutionality of criminal laws on HIV transmission and exposure. The two cases heard before the Supreme Court clearly tell a story of how risk provides a means to distribute culpability and accountability in the context of HIV nondisclosure.⁶⁴ Both cases, *R v. Cuerrier*,⁶⁵ decided in 1998, and *R v. Mabior*, decided in 2012, deal with HIV exposure in the context of sexual violence. A key

63. Some courts implicitly find a risk of transmission no matter the act. This includes spitting and biting, which do not transmit HIV. James Hamblin, *Spreading HIV is Still a Felony, Which May Abet Its Spread*, ATLANTIC (Dec. 9, 2013), <http://www.theatlantic.com/health/archive/2013/12/spreading-hiv-is-still-a-felony-which-may-abet-its-spread/282153/>.

64. For a helpful critique of the statistics in *Mabior*, see Patrick Hartford, *Case Comment: A Critique of the Supreme Court of Canada's Use of Statistical Reasoning in R v. Mabior*, 13 LAW, PROBABILITY & RISK 169, 170–71 (2014).

65. [1998] 2 S.C.R. 371 (Can.).

question in both cases was whether fraud vitiates consent to sexual relations.⁶⁶ *Mabior* altered the legal standard on HIV nondisclosure previously outlined in *Cuerrier*.⁶⁷ Assessment of risk of transmission was a determinative factor in determining culpability as well as assigning penalties to the defendants.⁶⁸ Where risk is deemed to be higher, the likelihood of culpability is greater, as is the likelihood of increased penalties.⁶⁹

Cuerrier was HIV-positive and had unprotected sex with two individuals without disclosing his HIV status.⁷⁰ He had known his HIV status since 1992.⁷¹ Although the plaintiffs consented to unprotected sex at the time, both argued that if they had known that he was HIV-positive they would not have consented.⁷² Cuerrier was charged with two counts of aggravated assault under section 268 of the Canadian Criminal Code, which states, “Every one commits an aggravated assault who wounds, maims, disfigures or endangers the life of the complainant.”⁷³ Aggravated assault can be found if the defendant engaged in sex while HIV-positive, thus endangering the life of the complainant, while the lack of disclosure constitutes fraud thereby vitiating consent and becoming a sexual assault.⁷⁴ For Cuerrier to be found guilty, the prosecutor had to prove, first, that Cuerrier endangered the life of the victim and, second, that he intentionally applied force without the consent of the complainant.⁷⁵ It was

66. *R v. Mabior*, [2012] 2 S.C.R. 584, 585 (Can.); *Cuerrier*, [1998] 2 S.C.R. at 372.

67. *Mabior*, [2012] 2 S.C.R. at 585–86.

68. *Id.*

69. *Id.* at 586.

70. *Cuerrier*, [1998] 2 S.C.R. at 371.

71. *Id.* at 415.

72. *Id.* at 371.

73. *Id.*

74. *Id.* at 373. The decision explains,

With respect to the second requirement, it is no longer necessary, when examining whether consent in assault or sexual assault cases was vitiated by fraud under s. 265(3)(c), to consider whether the fraud is related to “the nature and quality of the act”. The repeal in 1983 of statutory language imposing this requirement and its replacement by a reference simply to “fraud” indicates that Parliament’s intention was to provide a more flexible concept of fraud in assault and sexual assault cases. To that end, principles which have historically been applied in relation to fraud in criminal law can be used with appropriate modifications.

Id. at 372.

75. *Id.*

unnecessary to establish whether the plaintiffs actually contracted HIV.⁷⁶

The first test was met by determining whether there was a “significant risk” to the lives of the women with whom he had sex.⁷⁷ The court found that unprotected sex with an individual living with HIV created a significant risk of serious bodily harm.⁷⁸ With regard to the second test, the court established that for fraud to vitiate consent there must be a dishonest act—in this case the failure to disclose one’s positive HIV status—and a deprivation, where “sexual contact poses a significant risk of or causes actual serious bodily harm.”⁷⁹ The court found that without the disclosure of HIV status there cannot be “true consent.”⁸⁰ The consent must be *to having sex with someone who is HIV-positive*.⁸¹ Thus, there is a positive duty to disclose. Importantly, the court stated that the “extent of the duty to disclose will increase with the risks attendant upon the act of intercourse.”⁸² In turn, the greater the likelihood of HIV transmission, the greater the duty to disclose one’s HIV status to the sexual partner. Relevant for later cases, the court did not state whether utilizing a condom would be understood by courts to mitigate risk.⁸³

The decision carved out a specific role for the criminal law, distinct from but tied to public health law, as important in regulating the lives of “irresponsible individuals”:

Where public health endeavours fail to provide adequate protection to individuals like the complainants, the criminal law can be effective. The criminal law has a role to play both in deterring those infected with HIV from putting the lives of others at risk and in protecting the public from irresponsible individuals who refuse to comply with public health orders to abstain from high-risk activities.⁸⁴

76. *Id.* at 371.

77. *Id.* at 372.

78. *Id.* at 373.

79. *Id.*; Darrel Tan, *The Cuerrier Decision: Public Health and the Criminalization of HIV Serostatus Non-Disclosure*, 76 U. TORONTO MED. J. 170, 171 (1999), <http://utmj.org/archive/76-3/NV-Cuerrier.pdf>.

80. *Cuerrier*, [1998] 2 S.C.R. at 372.

81. *Id.*

82. *Id.*

83. The dissent did say that protected sex should not be held as risky sex in the context of HIV. *Id.* at 413 (McLachlin, J., dissenting).

84. *Id.* at 373.

By placing responsibility on the individuals—or rather on “irresponsible individuals”—the court dismisses other factors that result in non-disclosure, including fear of stigma and discrimination.

Fourteen years later, the issue of nondisclosure of HIV status was again before the Canadian Supreme Court. As noted earlier, between 1998 and 2012 the science of HIV and AIDS dramatically improved with important new findings about antiretroviral therapy decreasing viral loads and, in turn, decreasing the likelihood of an individual being at risk of exposing another to HIV or transmitting it.⁸⁵ Scientists, however, were reticent to draw a conclusive line as to the viral load cutoff that would result in no risk of transmission of HIV.⁸⁶

In *Mabior*, the defendant was charged with nine counts of aggravated sexual assault because of his failure to disclose that he was HIV-positive.⁸⁷ Mabior did not transmit HIV to any of his sexual partners.⁸⁸ Once again, the issue was whether the nondisclosure of his HIV status constituted fraud and, in turn, whether that nondisclosure, given its serious risk of bodily harm, amounted to aggravated sexual assault.⁸⁹ Updating the *Cuerrier* test, the court in *Mabior* stated that the *Cuerrier* requirement of “significant risk of serious bodily harm” should be read as a “realistic possibility of HIV transmission.”⁹⁰

In making this shift, the court acknowledged the difficulty of ascertaining what constitutes “serious bodily harm” and “significant risk.”⁹¹

About “significant risk”, some people say that virtually any risk of serious bodily harm is significant. Others argue that to be significant, the risk must rise to a higher level. These debates centre on statistical percentages. Is a 1% risk “significant”? Or should it be 10% or 51% or, indeed, .01%? How is a prosecutor to know or a judge decide? And if prosecutors, defence counsel and judges debate the point, how — one may ask — is the ordinary Canadian citizen to know? This uncertainty is compounded by the fact that a host of variables may affect the actual risk of infection.⁹²

85. See *supra* Part II.

86. See *supra* notes 47–56 and accompanying text.

87. *R v. Mabior*, [2012] 2 S.C.R. 584, 585 (Can.).

88. *Id.*

89. *Id.* at 584.

90. *Id.* at 586.

91. *Id.*

92. *Id.*

The court answered this question with little clarity⁹³:

These considerations lead me to conclude that the *Cuerrier* requirement of “significant risk of serious bodily harm” should be read as requiring disclosure of HIV status if there is a realistic possibility of transmission of HIV. If there is no realistic possibility of transmission of HIV, failure to disclose that one has HIV will not constitute fraud vitiating consent to sexual relations under s. 265(3)(c).⁹⁴

The court found that the realistic possibility of HIV transmission is negated if the viral load of the accused at the time of the sexual relationship was low *and* condoms were used.⁹⁵ The court of appeals, however, had acquitted Mabior on four counts of aggravated sexual assault because they held the standard to be a low viral load *or* use of a condom.⁹⁶ The Supreme Court of Canada reversed three of the four acquittals because no condom was used. In other words, Mabior’s culpability—and that of future defendants—rested on how the court understood risk of transmission and condom use as mitigating factors (see Table 1).

93. Eric Mykhalovskiy, *The Problem of “Significant Risk”: Exploring the Public Health Impact of Criminalizing HIV Non-Disclosure*, 73 SOC. SCI. & MED. 668, 669, 674 (2011).

94. *Mabior*, [2012] 2 S.C.R. at 618 n.91.

95. *Id.* at 586.

96. *Id.* at 585.

TABLE 1: RISK OF TRANSMISSION AND CULPABILITY

Initial Case	Trial Court	Appeals Court	Supreme Court
Mitigating factors for “significant bodily risk”	Low viral loads & condom use	Low viral loads <i>or</i> condom use	Low viral loads & condom use [realistic risk of bodily harm]
Outcomes (no actual HIV transmission)	Six convictions (appealed) Three acquittals (low viral load & condoms) (not appealed)	Vacated four of the six convictions Upheld two convictions (not appealed)	Reversed three of the four acquittals resulting in convictions

Wittingly or not, the court took a side in epidemiological and scientific debates about HIV transmission, legally enshrining the view that a low viral load alone does not mitigate HIV transmission and a condom is required to ensure that there is no realistic possibility of HIV transmission (i.e., serious bodily harm).⁹⁷

B. Iowa

In the United States, courts have inconsistently applied ideas of risk and HIV transmission to absolve or hold an individual liable for HIV transmission or exposure. With few recorded cases, HIV/AIDS advocates frequently collect data on prosecutions through media

97. The *Mabior* decision added further confusion to the widely accepted idea that condoms mitigate transmission of HIV.

Before a judge can take judicial notice of a fact, the fact must be shown to be so “notorious” or in modern parlance, “accepted”, that no reasonable person would dispute it Yet the record here is replete with debate about whether use of a condom alone negates significant risk of serious bodily harm, and the controversy is exacerbated by the rapidly changing state of the science and by the fact-specific nature of risk. Judicial notice is not available here and cannot form the basis for formulating general propositions relating to the factual issue of risk, in the absence of indisputable consensus.

Id. at 612.

reports. As a general matter, the cases demonstrate the courts' disturbing lack of basic knowledge about HIV and modes of transmission. There are several documented cases of courts sentencing individuals to prison due to exposure to saliva or construing HIV as a biological weapon.⁹⁸ In these cases, assessments of risk are primarily the result of judicial ignorance or bias. In several cases, however, courts have grappled with the idea of risk and the current state of science on HIV transmission. This was true in the case of Nick Rhoades.

Rhoades was diagnosed with HIV in 1998 and began receiving medical care in 2005.⁹⁹ In 2008, Rhoades' physician informed him that his viral load was undetectable.¹⁰⁰ In that same year, Rhoades met the plaintiff, A.P., on a dating website on which Rhoades stated he was HIV-negative.¹⁰¹ Rhoades and A.P. had consensual oral and anal sex.¹⁰² A condom was used during anal sex.¹⁰³ Several days later, when A.P. discovered that Rhoades was living with HIV, A.P. called the police.¹⁰⁴ A.P. never contracted HIV.¹⁰⁵ Rhoades was charged with violating Iowa Code section 709C.1, which states that a "person commits criminal transmission of the human immunodeficiency virus if the person, knowing that the person's human immunodeficiency virus status is positive . . . [e]ngages in intimate contact with another person."¹⁰⁶ Thus, as laid out by the court, the four elements that the state must prove are

- (1) "the defendant engaged in intimate contact with [the victim]",
- (2) at the time of intimate contact the defendant's HIV status was positive,
- (3) the defendant knew his HIV status was positive, and
- (4) "[a]t the time of the intimate

98. CTR. FOR HIV L. & POL'Y, WHEN SEX IS A CRIME AND SPIT IS A DANGEROUS WEAPON (2013), [http://hivlawandpolicy.org/sites/www.hivlawandpolicy.org/files/Snapshot of HIV Criminalization Updated March 2016.pdf](http://hivlawandpolicy.org/sites/www.hivlawandpolicy.org/files/Snapshot%20of%20HIV%20Criminalization%20Updated%20March%202016.pdf).

99. *Rhoades v. State*, 848 N.W.2d 22, 25 (Iowa 2014).

100. *Id.*

101. *Id.*

102. *Id.* at 25–26.

103. *Id.*

104. *Id.* at 26.

105. *Id.* at 31.

106. IOWA CODE § 709C.1(1)(a) (2013); *Rhoades*, 848 N.W.2d at 26.

contact, [the victim] did not know that the defendant had a positive HIV status.”¹⁰⁷

The statute does not require that the individual become infected with HIV for a criminal act to have occurred.¹⁰⁸ Rhoades pled guilty to criminal transmission of HIV, and the district court sentenced him to twenty-five years (with life parole) and placed Rhoades on the sex offender registry.¹⁰⁹ After he filed a motion to reconsider the sentence, the court placed Rhoades on probation for five years, and ultimately,¹¹⁰ the Iowa Supreme Court set aside Rhoades’s sentence.¹¹¹

In reassessing the lower courts’ holdings, the Supreme Court of Iowa drew on a 2006 Supreme Court of Iowa case, *State v. Stevens*,¹¹² to clarify that “intimate contact” requires that there was “an intentional exposure of the body of one person to the bodily fluid of another person . . . [and that] this occurred in a manner that could result in the transmission of . . . HIV.”¹¹³ In a 2001 case, the Iowa Supreme Court found that “could” meant that the transmission of HIV was “possible.”¹¹⁴ “Possible,” in turn, meant “any likelihood of occurrence, no matter how remote.”¹¹⁵ Further, in *Rhoades*, the court looked to *Webster’s Third New International Dictionary*, which defines “possible” as “having an indicated potential by nature or circumstances.”¹¹⁶ Thus, the Iowa Supreme Court concluded that the possibility of transmission must be linked to circumstance: “the

107. *Rhoades*, 848 N.W.2d at 27 (quoting *State v. Stevens*, 719 N.W.2d 547, 549 (Iowa 2006)).

108. The statute says,

It is an affirmative defense that the person exposed to the human immunodeficiency virus knew that the infected person had a positive human immunodeficiency virus status at the time of the action of exposure, knew that the action of exposure could result in transmission of the human immunodeficiency virus, and consented to the action of exposure with that knowledge.

§ 709C.1(5).

109. *Rhoades*, 848 N.W.2d at 26.

110. *Id.*

111. *Id.* at 33. The appeal was based on ineffective assistance of counsel. *Id.* at 26. Rhoades argued that his lawyer should not have advised him to take a guilty plea. *Id.*

112. 719 N.W.2d 547 (Iowa 2006).

113. *Rhoades*, 848 N.W.2d at 27 (quoting *Stevens*, 719 N.W.2d at 550).

114. *Id.* (citing *State v. Keene*, 629 N.W.2d 360, 365 (Iowa 2001)).

115. *Keene*, 629 N.W.2d at 365.

116. *Rhoades*, 848 N.W.2d at 27 (quoting WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY 1771 (unabr. ed. 2002)).

potential for legal liability must be reasonable, not merely theoretical.”¹¹⁷

To determine whether the risk was reasonable, the court explored transformations in the science of HIV transmission between prior cases and the case of Rhoades. The court first cited to a 2001 case, *State v. Keene*,¹¹⁸ in which the defendant argued that there was no factual basis that sexual intercourse could have resulted in the transmission of HIV.¹¹⁹ The court disagreed, finding that HIV could be transmitted through “contact with an infected individual’s blood, semen or vaginal fluid.”¹²⁰ In 2006, in *State v. Stevens*, the court once again found that HIV may be transmitted by an individual’s “blood, semen or vaginal fluid” and that this was common knowledge.¹²¹ In *Rhoades*, however, the court felt that the progress made in HIV treatment prevented it from taking such judicial notice:

Today we are unable to take judicial notice that an infected individual can transmit HIV when an infected person engages in protected anal sex with another person or unprotected oral sex, regardless of the infected person’s viral load. The evidence at the postconviction relief hearing shows there have been great strides in the treatment and the prevention of the spread of HIV from 2003 to 2008. It was not apparent in 2009, at the time of the plea, that this fact was “capable of accurate and ready determination by resort to sources whose accuracy” could not reasonably be questioned. . . . With the advancements in medicine regarding HIV between 2003 and 2008, we are unable to take judicial notice of the fact that HIV may be transmitted through contact with an infected individual’s blood, semen or vaginal fluid, and that sexual intercourse is one of the most common methods of passing the virus to fill in the gaps to find a factual basis for Rhoades’s guilty plea.¹²²

Although the court offered little practical clarity on what a reasonable possibility of transmission is, a reasonableness standard offered the flexibility required to find that Rhoades did not expose

117. *Id.* (quoting *Legg v. Wyeth*, 428 F.3d 1317, 1325 n.5 (11th Cir. 2005)).

118. 629 N.W.2d 360 (Iowa 2001).

119. *Id.* at 366.

120. *Id.* at 365.

121. *State v. Stevens*, 719 N.W.2d 547, 500 (Iowa 2006).

122. *Rhoades v. State*, 848 N.W.2d 22, 32–33 (Iowa 2014) (quoting IOWA R. EVID. 5.201(b)).

another to HIV.¹²³ Further, the court found that viral load must be considered in the determination of risk because developments in HIV treatment prevented the court from taking judicial notice that transmission is possible regardless of viral load. Based on the transformation in knowledge and the defendant's low viral load, the court vacated the lower court judgment and remanded.¹²⁴

IV. RISK AND GOVERNANCE

A. Adjudicating Conflicting Ideas of Risk

Experts disagree about what probability of risk should equate to “no risk” in either a legal sense or in the context of public health messaging.¹²⁵ Yet, determinations of risk remain central to the project of controlling the spread of HIV and attempting to ensure that people take adequate protection from spreading or contracting HIV. As seen in *Mabior* and *Rhoades*, the concept of risk, when placed in the realm of the law, becomes an axis upon which to distribute individual responsibility and accountability.¹²⁶ In turn, assessments of risk come with distributional consequences and, as argued by legal scholars Jonathan Simon and Tom Baker, outside of the context of HIV, ideas of risk have the potential to govern bodies and lives.¹²⁷ This occurs not only at the individual level but also as courts influence the knowledge

123. *Id.* at 30.

124. *Id.* at 33. *Rhoades* and advocacy by HIV and LGBT organizations led to the reform of Iowa's HIV criminalization statute. See Press Release, Sero Project, Iowa First to Reform HIV Criminalization Statute: Governor Terry Branstad Signs Senate File 2297 (May 30, 2014), http://seroproject.com/wp-content/uploads/2014/05/Iowa_Governor_HIV_Criminalization_Reform_FINAL.pdf (“The new law creates a tiered sentencing system that takes into consideration whether there was intent to infect another person, whether there was any significant risk of transmission, and whether transmission occurred.”).

125. *Expert Statements and Guidance for Individuals*, *supra* note 48.

126. Nikolas Rose has argued that experts utilizing risk might aim to reduce a risk to the public but, in doing so, they “identify, classify, and if possible neutralize the riskiness of the individual pathological person.” Nikolas Rose, *At Risk of Madness*, in *EMBRACING RISK: THE CHANGING CULTURE OF INSURANCE AND RESPONSIBILITY* 209, 213–15 (Tom Baker & Jonathan Simon eds., 2002).

127. As developed by Jonathan Simon and Tom Baker, the idea of governing through risk “is the use of formal considerations about risk to direct organizational strategy and resources.” Tom Baker & Jonathan Simon, *Embracing Risk*, in *EMBRACING RISK: THE CHANGING CULTURE OF INSURANCE AND RESPONSIBILITY*, *supra* note 126, at 1, 11.

environment around HIV risk and transmission and the broader legal and policy environment on HIV.¹²⁸

As cases are adjudicated, a lack of clarity persists in the specifics of how ART will mitigate culpability. In *Mabior* and *Rhoades*, for example, the courts landed on conflicting ideas of the constitution of risk. At the conclusion of *Mabior*, the Supreme Court of Canada found that risk of spreading HIV is mitigated only when the individual has both a low viral load and uses a condom.¹²⁹ Thus, in cases where *Mabior* had not utilized a condom, he was found guilty of non-consensual sex. In *Rhoades*, where the issue was not non-consensual sex but the criminal act of HIV exposure, the Iowa Supreme Court did not make a determination about the usefulness of condoms, although it acknowledged that *Rhoades* did use a condom. Instead, the court appeared to rest its case on the low viral load, and corresponding changes in the science of HIV, as the mitigating factor in the crime of exposing another person to HIV.¹³⁰

In turn, questions remain unresolved both from an epidemiological and a legal perspective: How “low” is a low viral load necessary to establish no risk of transmission?¹³¹ In other words, at what point or threshold does a low viral load translate into an inability to transmit the virus?¹³² The Supreme Court of Canada, in *Mabior*, did not specify what counts as a “low” viral load; however, advocates have read the case to suggest that one’s viral load should be considered low if there are below 1,500 copies of the virus per milliliter of blood.¹³³ The Iowa Supreme Court did not address the question, simply noting

128. SHEILA JASANOFF, SCIENCE AND PUBLIC REASON (2012).

The third, and in some ways most challenging, line of social analysis also takes its inspiration from constructivist theories of knowledge, but its focus is on the ways in which the concept of risk mediates between knowledge and power. Risk analysis, according to this approach, is first and foremost a specialised language and set of practices – in formal terms, a discourse – that serves to channel power in society. The decision to frame environmental problems in terms of risk, for example, rules out other possible ways of talking about harms to human beings and the environment. Risk-talk implicitly empowers some people as experts and excludes others as inarticulate, irrelevant or incompetent.

Id. at 135 (citations omitted).

129. *See supra* note 95 and accompanying text.

130. *See supra* note 122 and accompanying text.

131. CANADIAN HIV/AIDS LEGAL NETWORK, THE OBLIGATION TO DISCLOSE HIV-POSITIVE STATUS UNDER CANADIAN CRIMINAL LAW (2014), <http://www.aidslaw.ca/site/criminal-law-and-hiv/>.

132. NIH Newsroom, *supra* note 7.

133. CANADIAN HIV/AIDS LEGAL NETWORK, *supra* note 131.

that Rhoades had a “nondetectable” viral load. An undetectable viral load is one in which there are under 40 to 75 copies per milliliter of blood.¹³⁴ HHS has stopped short of stating that individuals are not infectious with a low or undetectable viral load:

Having an undetectable viral load greatly lowers your chance of transmitting the virus to your sexual and drug-using partners who are HIV-negative. However, even when your viral load is undetectable, HIV can still exist in semen, vaginal and rectal fluids, breast milk, and other parts of your body. For this reason, you should continue to take steps to prevent HIV transmission.¹³⁵

While good public health messaging, the lack of a strong affirmative position on decreased likelihood of transmission when an individual has a low viral load could have an impact on the prosecution of people living with HIV. What remains to be litigated is how PrEP, which would be taken not by the accused but by the plaintiff, will or will not be a mitigating factor in finding defendants culpable of exposure.

B. Risk and Race

The language of risk provides a means to ascertain the likelihood of transmission in a manner that has the valence of neutrality. The epidemic in the United States, and globally, is an epidemic of marginalized groups. Understanding the potential racial effect of evaluations of “risk of transmission” requires an examination of who actually has access to the antiretrovirals that lower viral load and lessen the likelihood of being held accountable for exposing another to HIV.

In the United States, it is racial minorities and women, largely women of color, who bear the brunt of the epidemic and are least likely to be able to access care. A 2012 meta-analysis by Gregory Millet et al., published in the *Lancet*, found that Black MSM in the United States were 60% less likely than other MSM to initiate combination antiretroviral therapy.¹³⁶ Black MSM were also less likely to have health insurance, adhere to antiretroviral therapy, and be virally

134. *Viral Load*, AIDS.GOV (Sept. 3, 2015), <https://www.aids.gov/hiv-aids-basics/just-diagnosed-with-hiv-aids/understand-your-test-results/viral-load/>.

135. *Id.*

136. Gregorio A. Millett et al., *Comparisons of Disparities and Risks of HIV Infection in Black and Other Men Who Have Sex with Other Men in Canada, UK, and USA: A Meta-Analysis*, 380 LANCET 341 (2012).

suppressed than other MSM.¹³⁷ Structural challenges (e.g., unemployment, low income, prior incarceration, and having less education) contribute to the inability to access or remain on treatment.¹³⁸ In 2014, of the women who contracted HIV, 62% were African-American and 16% were Latina. According to the CDC, 84% “[o]f women diagnosed with HIV in 2013 . . . were linked to HIV medical care within 3 months.” Of those, however, “only 55% . . . were retained in care.”¹³⁹ In 2012, only 39% of women living with HIV had been prescribed ART and only 30% had achieved viral suppression.¹⁴⁰

In turn, while it is correct to celebrate the decreased risk of transmission associated with regular antiretroviral therapy and the concomitant use of this information to limit criminal liability, individuals who are unable to access and maintain care will not necessarily benefit legally from the scientific advances that limit culpability. On an aggregate level, it is likely that racial disparities will emerge in findings of guilt and innocence where culpability rests on access to ART. The lack of access to antiretrovirals also has ramifications for criminal liability in cases involving actual transmission, given that individuals who are not on antiretrovirals, and do not have low viral loads, are more likely to transmit HIV. This has already been borne out in several high-profile cases of young Black men tried and sentenced for HIV transmission or exposure.¹⁴¹ As is frequently true with criminal cases, broader structural forces, which led these young men to deny their own HIV status and not access the antiretroviral care that could have prevented transmission, played little

137. *Id.*

138. *Id.*; see also Laura M. Bogart et al., *Conspiracy Beliefs About HIV Are Related to Antiretroviral Treatment Nonadherence Among African American Men with HIV*, 53 J. ACQUIRED IMMUNE DEFICIENCY SYNDROMES 648, 648–55 (2010). “HIV conspiracy beliefs, especially those related to treatment mistrust, can contribute to health disparities by discouraging appropriate treatment behavior. Adherence-promoting interventions targeting African Americans should openly address such beliefs.” *Id.* at 648.

139. *HIV Among Women*, CDC, <http://www.cdc.gov/hiv/group/gender/women/> (last updated Mar. 16, 2016).

140. *Id.*

141. See, e.g., Lisa Kennedy, *The Miseducation of Nushawn Williams*, POZ (Aug. 1, 2000), <https://www.poz.com/article/The-Miseducation-of-Nushawn-Williams-1380-9216>; Steven Thrasher, *A Black Body on Trial: The Conviction of HIV-Positive “Tiger Mandingo,”* BUZZFEED (Nov. 30, 2015, 7:26 PM), <http://www.buzzfeed.com/steventhrasher/a-black-body-on-trial-the-conviction-of-hiv-positive-tiger-m>. Russell Robinson argues that a larger discourse of men on the “down-low” furthers the blame and stigma on Black men. Robinson, *supra* note 8 *passim*.

role in determining their culpability or in media surrounding the case, which vilified the accused.

CONCLUSION

HIV arrived at a time when social services gave way to an increased reliance on a crime-and-punishment model. As HIV transmission is subject to criminal adjudication, judges make findings of fact that shape the legal and public health environment in which people living with HIV, providers, and advocates operate. The science of HIV is not static, however. Since the discovery of HIV, scientific advancement and increased knowledge of HIV transmission have resulted in various proven or potential means of mitigating HIV transmission. These means include maintaining a low viral load through the use of antiretrovirals, condom use, and pre-exposure prophylaxis. Courts wade into this epidemiological space when determining criminal culpability for exposure to or transmission of HIV. Findings of the court may help to legitimate particular public health claims or add to contradictory, and sometimes incorrect, information about HIV. Importantly, considerations of “risk of transmission,” a seemingly neutral category and one in which progress is being made in curbing the spread of HIV, masks deep inequities in access to care and the legal implications thereof. These inequities translate into legal culpability. For many racial minorities, and others without access to ART, the benefits of scientific progress will not have a protective effect against either HIV transmission or findings of guilt.