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Sex, Privacy and Public Health in a Casual Encounters Culture

Mary D. Fan
University of Washington School of Law

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The regulation of sex and disease is a cultural and political flashpoint and recurring challenge that law's antiquated arsenal has been hard-pressed to effectively address. Compelling data demonstrate the need for attention — for example, one in four women aged fourteen to nineteen is infected with at least one sexually transmitted disease ("STD"); managing STDs costs an estimated $15.9 billion annually; and syphilis, once near eradication, is on the rise again, as are the rates of HIV diagnosis among people aged fifteen to twenty-four. Public health officials on the front lines have called for paradigm changes to tackle the enormous challenge. Controversial proposals have circulated, such as mass HIV screening for everyone aged thirteen to sixty-four, STD testing in high schools, mandatory HIV screening, strict liability in tort for HIV transmission, and criminalizing first-time sex without a condom.

This Article argues that we should explore informational interventions beyond the cumbersome and costly regulatory regimes of criminal and tort law and the STD-surveillant state. The Article proposes devolving information and power currently centralized in the state to people in the marketplace for sex and romance to ameliorate the information deficit that impedes informed consent to risk exposure. Information can be both a

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carrot and a stick. Providing more reliable ways to verify STD status and seeding a healthier culture of verification can be encouragement to get tested to enhance self-advertising. Rather than criminalization, which comes at too great a cost and too late, preventative privacy-piercing can be an alternative approach to deter the small subset of serial STD spreaders.

TABLE OF CONTENTS

INTRODUCTION

Venturing online to jumpstart her love life after divorce, Diane Reeve met the man who would give her AIDS.[1] Though he had infected other women before her, she had no way of knowing the man she found, Philippe Padieu, was not "clean," as he claimed to be.[2] Padieu might have continued spreading HIV except that Reeve proved to be an unusually determined sleuth. She discovered through his cell phone bills — which she was paying — that he was having sex with other women, including "Susan Brown,"[3] who had also learned she was infected with HIV and herpes.[4] Brown recounted that while Padieu seemed unperturbed at learning that she had contracted HIV, Padieu became enraged and called her a "bitch" who was "trying to ruin my life" when she told him she had named him as her sexual contact during routine contact tracing.[5] When Reeve and Brown

[1] Shana Druckerman & Susan Welsh, *How Women United to Stop HIV-Positive Man*, ABC NEWS 20/20 (Sept. 18, 2009), http://abcnews.go.com/2020/hiv-criminal-busted-women-lied/story?id=8579258.

[2] Padieu had assured several of the women he infected "I'm clean," when they asked about safe sex. Shana Druckerman, *The Case of Philippe Padieu*, ABC NEWS 20/20 (May 28, 2009), http://abcnews.go.com/2020/story?id=7696939 [hereinafter *Padieu Case*].

[3] "Susan Brown" is a pseudonym to protect the identity of the woman Padieu infected. Druckerman & Welsh, *supra* note 1.

[4] *Id.*; *Women Who Contracted HIV from Serial Dater Speak Out*, ABC News 20/20 (Sept. 17, 2009), http://abcnews.go.com/2020/story?id=8594640 [hereinafter *Serial Dater*].

[5] Druckerman & Welsh, *supra* note 1 ("ruin my life"); Stacy Morrow & Randy McIlwain, *Man Accused of Spreading HIV Faces Victims*, NBC DALLAS FORT WORTH (May 21, 2009), http://www.nbcdfw.com/news/local-beat/Man-Accused-of-Spreading-HIV-Goes-To-Trial.html ("bitch"). A common public health practice is to ask about the sexual contacts of people who test positive for infectious diseases so they can be notified and get tested. For excellent histories of the evolution of contact-tracing and partner notification methods in public health, see, for example, AMY L. FAIRCHILD ET AL., SEARCHING EYES: PRIVACY, THE STATE AND DISEASE SURVEILLANCE IN AMERICA 66-80 (2007) and Lawrence O. Gostin & James G. Hodge, Jr., *Piercing the Veil of Secrecy in HIV/AIDS and Other Sexually Transmitted Diseases: Theories of Privacy and Disclosure in Partner Notification*, 5 DUKE J. GENDER L. & POL'Y 9, 23-34 (1998).

learned that another of Padieu's sex partners had contracted HIV as well, they went to the police to try to stop him from harming more women.[6] While the police were puzzling over what to do, Padieu continued exposing other women to HIV.[7] He had sex with another woman without telling her he had HIV, even after receiving an order from the Texas Department of Public Health directing him to "CEASE and DESIST any activity which puts others at risk of infection," including "engaging in sexual intercourse . . . without first notifying the individual of [his] HIV status."[8]

After sleuthing by Reeve and Brown revealed that at least six of Padieu's sex partners were infected, the case was egregious enough for authorities to try to prosecute Padieu by characterizing his conduct as "assault with a deadly weapon."[9] The trial was another difficult experience for the women already wrestling with the trauma of finding out they had been infected. Even with pseudonyms, the victims were effectively put on public trial too. As Brown recalls, "people on the Internet blogs were calling us 'sluts,' 'one night stands,' and 'deserving whores.' "[10] Ultimately Padieu, fifty-four, was sentenced to forty-five years in prison.[11] It took extraordinary sleuthing and tenacity by the women, who had to weather the slings and arrows of a criminal trial, to bring a serial HIV spreader to light.

The case dramatically illustrates how criminal law in this context is clumsy, expensive, and reactionary rather than preventative. The state's response came too late, after multiple women's lives were irrevocably impaired. Law can and should do more to prevent harm from spreading than levying costly sanctions too late and too rarely to be of much deterrence. A higher risk of disease should not be the price

[6] *Serial Dater*, *supra* note 4.

[7] Druckerman, *Padieu Case*, *supra* note 2 (likes sex); Stacy Morrow, *Man Convicted of Spreading HIV Gets 45 Years*, NBC DALLAS FORT WORTH (May 30, 2009), http://www.nbcdfw.com/news/local-beat/More-Women-Testify-Against-HIV-Man.html (continued infecting other women).

[8] *See* TEX. HEALTH & SAFETY CODE ANN. § 81.083 (West 2007) (authorizing cease and desist orders); Padieu v. State, No. 05-09-00796, 2010 WL 5395656, at *1 (Tex. App. Dec. 30, 2010) (recounting Padieu persisted in having sex without informing the partner of his HIV status despite order); TEX. BUREAU OF HIV AND STD PREVENTION, *HIV/STD Form No. 410.003-C: Model Public Health Warning Notice*, *in* HIV/STD POLICY NO. 410.003, ACCELERATED HIV INTERVENTION PROGRAM, ADDRESSING THE POTENTIAL FOR RECALCITRANT TRANSMISSION OF HIV IN TEXAS (last rev. Nov. 14, 2001), *available at* http://www.dshs.state.tx.us/WorkArea/linkit.aspx?ItemID=22522 (containing example of warning language).

[9] Druckerman & Welsh, *supra* note 1.

[10] *Serial Dater*, *supra* note 4.

[11] *Padieu*, 2010 WL 5395656, at *1.

of sexual freedom and romantic choice. This Article argues we should shift our search for an accountability-ensuring regulatory regime from the ill-fitting regimes of criminal and tort law. The Article argues for information-devolution strategies that empower people in their sexual choices to prevent harms before they occur and facilitate redress.

The need for attention is demonstrated by compelling data. Among women aged fourteen to nineteen, one in four is infected with at least one STD.[12] The nation bears the fiscal burden of an estimated $15.9 billion a year to manage STDs, including HIV.[13] Syphilis, once close to eradication, is resurgent, as are HIV diagnoses among the most sexually active age group of fifteen to twenty-four.[14] The enormity of the challenge has prompted recent calls from public health officials on the front lines for paradigm change.[15]

Controversial proposals have circulated to improve our national sexual health, such as mass HIV screening of people aged thirteen to sixty-four at an estimated cost of $864 million a year,[16] STD testing in high schools,[17] mandatory HIV testing for students and pregnant

[12] *See, e.g.*, Kevin A. Fenton, *Time for Change: Rethinking and Reframing Sexual Health in the United States*, 7 J. SEXUAL MED. SUPPLEMENT 250, 250-51 (2010) (summarizing recent statistics).

[13] *Id.*

[14] *See, e.g.*, CTRS. FOR DISEASE CONTROL AND PREVENTION, HIV SURVEILLANCE REPORT: DIAGNOSES OF HIV INFECTION AND AIDS IN THE UNITED STATES AND DEPENDENT AREAS, 2009, at 5-6 (2011), *available at* http://www.cdc.gov/hiv/surveillance/resources/reports/2009report/pdf/2009SurveillanceReport.pdf (reporting that despite stabilization since resurgence in infection rates at turn of millennium, diagnoses are increasing among 15–24 and 50–54 age demographics); CTRS. FOR DISEASE CONTROL AND PREVENTION, TRENDS IN SEXUALLY TRANSMITTED DISEASES IN THE UNITED STATES, 2009 DATA FOR CHLAMYDIA, GONORRHEA AND SYPHILIS 2 (2010) (reporting that the number of syphilis cases overall continues to rise — at 39% more since 2006 — though for the first time in five years, the number of syphilis cases among women — which had increased 88% between 2004 and 2008 — did not rise).

[15] *See, e.g.*, Fenton, *supra* note 12, at 251 (urging conceptual change to address enormity of challenge).

[16] David R. Holtgrave, *Costs and Consequences of the US Centers for Disease Control and Prevention's Recommendations for Opt-Out HIV Testing*, 4 PLOS MED. 1011, 1012, 1015 (2007) (noting controversy among civil libertarians over proposal, estimating costs, and arguing targeted program is more cost-effective); *see also Targeted HIV Testing More Effective than CDC Mass Testing Proposal, Expert Says*, SCIENCEDAILY (June 12, 2007), http://www.sciencedaily.com/releases/2007/06/070612075235.htm (reporting on study's challenge to controversial mass screening proposal for people aged 13 to 64).

[17] Darryl Fears & Nelson Hernandez, *D.C. to Offer STD Tests to All High-School Students*, WASH. POST, Aug. 5, 2009, at A1, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2009/08/04/AR2009080403402.html (discussing pilot program for STD screening in D.C. modeled after Philadelphia and programs and pilots planned

women,[18] strict liability in tort for HIV transmission,[19] and criminalizing first-time sex without a condom.[20] Such approaches center on adjusting the traditional levers of criminal and tort law, and of public health law, with its surveillance and disciplinary regimes that concentrate information and decision-making in the state.[21]

This Article argues for turning our gaze from these approaches toward informational interventions to better inform consumers in the increasingly Internet-mediated marketplace for sex and love. We need a more narrowly tailored approach that looks beyond the clumsy artillery of tort and criminal law and that does not relegate us to the extremes of doing too little or too much when it comes to those who put the public health at risk. This Article argues that we should shift our search for accountability-based regulatory reforms from criminal and tort law to our information culture and shifting of privacy norms.

Information can be both a carrot and a stick. Providing more reliable ways to verify STD status and seeding a healthier culture of verification can provide incentive to get tested as a way to enhance self-advertising. Rather than criminalization, which comes at too great a cost and too late, preventative privacy-piercing for serial STD

in New York, Chicago, New Orleans and Baltimore).

[18] *See, e.g.*, Priya David, *Should Mandatory HIV Testing Be the Norm?*, CBS NEWS (Aug. 16, 2009, 9:26 AM), http://www.cbsnews.com/stories/2009/08/16/eveningnews/main5245708.shtml (discussing proposals to eliminate state informed consent protections to facilitate HIV testing in emergency rooms); *Health Official: Test Students for STDs*, WFSB CHANNEL 3 (Mar. 9, 2010), http://www.wfsb.com/story/14781160/health-official-test-students-for-stds-3-09-2010 (discussing Connecticut official's advocacy of mandatory testing for students); *Talk of the Nation: CDC Shifts Focus To Increasing HIV Testing* (NPR radio broadcast Dec. 1, 2010), *available at* 2010 WLNR 23882562 (discussing CDC support for HIV screening in emergency rooms regardless of reason for coming in, and screening of pregnant women, contributing to higher testing rates for women than men); *see also, e.g.*, DEL. CODE ANN. tit. 16, § 708 (West 2011) (prescribing testing of pregnant women for syphilis, gonorrhea, chlamydia); Udo Schuklenk et al., *Rethinking Mandatory HIV Testing During Pregnancy in Areas with High Prevalence Rates: Ethical and Policy Issues*, 97 AM. J. PUB. HEALTH 1179, 1181-82 (2007) (discussing debates).

[19] Deana A. Pollard, *Sex Torts*, 91 MINN. L. REV. 769, 801-02 (2007); Vladimir W. Sentome, *Attacking the Hidden Epidemic: Why A Strict Liability Standard Should Govern the Transmission of Sexually Transmitted Diseases*, 2006 U. CHI. LEGAL F. 409, 428-40 (2006).

[20] Ian Ayres & Katherine K. Baker, *A Separate Crime of Reckless Sex*, 72 U. CHI. L. REV. 599, 628-29 (2005); *cf., e.g.*, Kimberly Kessler Ferzan, *A Reckless Response to Rape: A Reply to Ayres and Baker*, 39 UC DAVIS L. REV. 637 (2006) (critiquing Ayres & Baker's proposal).

[21] For a cogent critique, see, for example, Lawrence O. Gostin et al., *The Law and the Public's Health: A Study of Infectious Disease Law in the United States*, 99 COLUM. L. REV. 59, 115 (1999).

spreaders can be an alternative approach. Preventative privacy-piercing both deters and enables people to make better-informed sexual choices.

This Article's analysis and proposals unfold in three parts. Part I explains how shifts in our sexual and social mores pose a public health challenge for law and policy. Part II analyzes why laws' current paradigms are cumbersome and ill-suited to address the challenge. Part III proposes two informational approaches to better correct the information deficit in the marketplace for sex and love. The aim is to provide positive incentives as well as more narrowly tailored, cost-effective, and efficient deterrence. First, the Article argues for using information-sharing as a positive incentive to get tested and seed a healthier and more informed sexual culture. In a marketplace with demonstrated demand for reliable information regarding the disease status of potential partners, enabling reliable voluntary verification through an online password-protected check system and verification cards can provide a positive incentive to get tested to better self-advertise. Second, this Article argues for preventative privacy-piercing for the small subset of serial STD spreaders who refuse traditional intervention like counseling and testing. The low-cost but high-deterrent prospect of being revealed to the public as a repeat transmitter of a serious STD will hopefully be sufficient to encourage participation in counseling and testing. If not, and more people are infected, then there is a compelling interest in sharing rather than hoarding the information so that people can make better-informed choices to minimize their risk of exposure to life-altering STDs.

I. EVOLVING SEXUAL AND SOCIAL NORMS AND THE PUBLIC HEALTH CHALLENGE

How we meet and mate today has evolved in the age of advanced consumer choice and shifting sexual and social norms. With the demise of dating and the rise of casual sex, we tend not to know the people we are having sex with as well as people in the past once did.[22] Casual encounters culture and Internet-mediated relationality are becoming increasingly prevalent. We have a new language of acronyms to describe new forms of sexual arrangements and facilitate advertising for them — NSA,[23] FWB,[24] and DDF, for example.[25] Such

[22] KATHERINE BOGLE, HOOKING UP: SEX, DATING AND RELATIONSHIPS ON CAMPUS 2, 11-20 (2008); Anthony Paik, *"Hookups," Dating, and Relationship Quality: Does the Type of Sexual Involvement Matter?*, 39 SOC. SCI. RES. 739, 739 (2010).

[23] "No Strings Attached." *See, e.g.*, *CLICKS: No It Doesn't Mean National Security*

contemporary sexual arrangements often permit what epidemiologists call "partnership concurrency" — having more than one sexual partner in a time period.[26] This Part explores the shifts in how we meet and mate today and the impact on public health that challenges our current legal paradigms.

A. Changes in How We Meet and Mate Today

Shifts in social mores and technologically-mediated means of connecting are producing a pronounced change in the contexts in which we have sex, and with whom. The shifts sweep across age groups, beginning with the young and most sexually active.

1. Post-Dating: Casual Sex Culture

We know very little about how and why the culture of casual sex emerged and supplanted traditional dating, but it appears to have crystallized over the years to the point where we can call it cultural change.[27] Research indicates that young adults and adolescents in America are abandoning traditional dating and increasingly engaging in casual sex with people they do not know very well.[28] Increasing numbers of the young and sexually active are also rewriting social scripts by engaging in sex outside of relationships or in concurrent relationships.[29] Recent surveys indicate that about three-quarters of

Agency, ATLANTA J. & CONST., Mar. 2, 2008, *available at* 2008 WLNR 4133965 (defining term).

[24] "Friends with Benefits." *See* Melissa A. Bisson & Timothy R. Levine, *Negotiating a Friends with Benefits Relationship*, 38 ARCHIVES SEXUAL BEHAV. 66, 66 (2009), *available at* http://www.springerlink.com/content/t22037j0215j4367/fulltext.pdf (defining term).

[25] "Drug and Disease Free." *See, e.g.*, Leon Hale, *Learning About the Personals*, HOUS. CHRON., Mar. 14, 1995, at A13 *available at* 1995 WLNR 5182981 (defining term).

[26] Antony Paik, *The Contexts of Sexual Involvement and Concurrent Sexual Partnerships*, 42 PERSP. ON SEXUAL & REPROD. HEALTH 33, 34 (2010) [hereinafter *Contexts*].

[27] *See* Caroline Heldman & Lisa Wade, *Hook-up Culture: Setting a New Research Agenda*, 7 SEXUALITY RES. & SOC. POL'Y 323, 323-24, 327 (2010).

[28] LAURA SESSIONS STEPP, UNHOOKED: HOW YOUNG WOMEN PURSUE SEX, DELAY LOVE AND LOSE AT BOTH 5 (2007); *see* Robyn L. Fielder & Michael P. Carey, *Prevalence and Characteristics of Sexual Hookups Among First-Semester Female College Students*, 36 J. SEX & MARITAL THERAPY 346, 354-55 (2010); Heather Littleton et al., *Risky Situation or Harmless Fun? A Qualitative Examination of College Women's Bad Hook-Up and Rape Scripts*, 60 SEX ROLES 793, 793-95 (2009) (noting phenomenon).

[29] *See* Elizabeth L. Paul & Kristen A. Hayes, *The Casualties of 'Casual' Sex: A*

college students have had one or more casual sexual encounters.[30] For example, surveys at a large northeastern university found that about 78% of undergraduates have had a hook-up at least once.[31] In the social sciences literature, and in colloquial speech, the term "hook-up" has an array of meanings but generally signifies "casual or non-committal sexual experiences" that may or may not include full-on sexual intercourse between strangers or acquaintances.[32] Among those who reported having at least one hook-up, the average number of hook-ups during the individual's college career was 10.8.[33] Research also indicates that 49–62% of university students have had a FWB arrangement — sex with a friend without romantic commitment.[34] FWB arrangements often permit both parties to graze sexually with multiple partners, perhaps with some negotiated restrictions,[35] and are therefore more frequently associated with concurrent partnerships.[36]

We do know that casual sex often coincides with alcohol use as well as changing cultural mores in which multiple concurrent sex partners, or serial sex partners, are now more socially acceptable.[37] Scholars have pointed to several potential factors accounting for the changes in sexual mores, including the six major factors below:

- *Later Marriage Age*. Marriage is being delayed further, with an average marriage age of twenty-eight for the college-educated and non-college-educated in 2008 compared to twenty-four for the college-educated and twenty-three for people who did not go to college in 1970.[38] The proportion of twenty-five to twenty-

Qualitative Exploration of the Phenomenology of College Students' Hookups, 19 J. SOC. & PERS. RELATIONSHIPS 639, 640-41, 656 (2002) (collecting studies).

[30] *See, e.g.*, Marina Epstein et al., *"Anything from Making Out to Having Sex": Men's Negotiations of Hooking Up and Friends with Benefits Scripts*, 46 J. SEX RES. 414, 414 (2009) (collecting studies).

[31] Paul & Hayes, *supra* note 29, at 644; Elizabeth L. Paul et al., *"Hookups": Characteristics and Correlates of College Students' Spontaneous and Anonymous Sexual Experiences*, 37 J. SEX RES. 76, 81 (2000).

[32] *See, e.g.*, Paul & Hayes, *supra* note 29, at 640 (offering definitions); Paul et al., *supra* note 31, at 76 (collecting definitions).

[33] Paul & Hayes, *supra* note 29, at 644; Paul et al., *supra* note 31, at 79-80.

[34] *See, e.g.*, Bisson & Levine, *supra* note 24, at 68 (60% had at least one FWB).

[35] *See, e.g.*, Mikayla Hughes et al., *What's Love Got to Do with It?: Exploring the Impact of Maintenance Rules, Love Attitudes, and Network Support on Friends with Benefits Relationships*, 69 W.J. COMM. 49 (2005) (analyzing such arrangements).

[36] *See* Paik, *Contexts*, *supra* note 26 at 34 (discussing concurrent partnerships).

[37] *See* Paul et al., *supra* note 31, at 77.

[38] RICHARD FRY, PEW RESEARCH CTR., THE REVERSAL OF THE COLLEGE MARRIAGE GAP 2 (2010), *available at* http://pewsocialtrends.org/files/2010/11/767-college-marriage-

nine year-olds who have ever been married has declined from 86% in 1970 to 46% in 2008.[39] The average age for a first child for women is also increasingly later in Western industrialized nations rising from 21.4 years old for women in the 1970s to 25.2 years old in 2005.[40] In contrast, the age of the onset of menarche — first menstruation reflecting sexual maturity — is moving earlier, from between fifteen and seventeen in the early to mid-1800s to around twelve years old now.[41] The gap between the increasingly early onset of sexual maturity and the increasingly later age of "settling down" with a 'life partner" is growing greater, with more years of sexual maturity to fill by people not yet ready for a long-term partner.[42] Driven young people may also substitute casual sex for more time-intensive relationships because they do not want emotional entanglements to interfere with their professional lives.[43]

- *Gender Imbalance*. Increasing gender imbalances on college campuses, where women outnumber men, render men more of a " 'scarce resource' on campus with greater power to determine sexual norms and scripts" and get women to "capitulat[e] to men's preferences for casual sexual encounters because, if they do not, someone else will."[44] Because of higher grades and test scores and lower drop-out rates than men, women have represented about 57% of the proportion of college classes nationwide.[45] The skews differ between universities, with the Ivy League, for example, still having more men or equal numbers, while other universities have significantly more women.[46]

- *Low Risk Perception*. The evolution of treatments to manage HIV progression has contributed to "post-crisis" "complacency," discounting the risk of HIV, and the rise in riskier sexual

gap.pdf.

[39] *Id.* at 11.

[40] Justin R. Garcia & Chris Reiber, *Hook-Up Behavior: A Biopsychosocial Perspective* 2 J. SOC. EVOLUTIONARY & CULTURAL PSYCHOL. 192, 202 (2008).

[41] *Id.* at 201-02.

[42] Heldman & Wade, *supra* note 27, at 330.

[43] Laura Hamilton & Elizabeth A. Armstrong, *Gendered Sexuality in Young Adulthood: Double Binds and Flawed Options*, 23 GENDER & SOC'Y 589, 602-05 (2009).

[44] Heldman & Wade, *supra* note 27, at 328; Richard Whitmire, *A Tough Time to Be a Girl: Gender Imbalances on Campuses*, CHRON. HIGHER EDUC., July 25, 2008, at A23.

[45] Alex Williams, *On College Campuses: A Shortage of Men*, N.Y. TIMES, Feb. 7, 2010, at ST1.

[46] *Id.*

behaviors.[47] The new generations of sexually active persons did not grow up during the AIDS panic of the previous generation and may be less concerned about, or have a perception of, personal invulnerability.[48] There is also some indication that even older individuals have a reduced personal risk perception.[49] The tendency to underestimate the risk to ourselves is part of our general optimism bias — the tendency to underestimate the likelihood anything bad will happen to us.[50]

- *Rise in Binge Drinking*. Another contributing factor is the increasing prevalence of college binge drinking, defined as five or more drinks on one occasion.[51] Alcohol use often facilitates hook-ups and is a significant predictive factor as to whether a hook-up leads to sexual intercourse.[52]

- *Internet Porn Accessibility*. Porn is readily accessible now that computers are affordable and widely used. Porn challenges old ideals of monogamy and rewrites the sexual script to make oral sex casual and a matter of course, and anal sex a regular part of the repertoire.[53] Repeated exposure to the typical compressed porn narrative may also rewrite our social scripts, making sexual activity seem natural and automatic when two people with any sort of attraction meet.[54]

- *Increasing Sexualization of Media Imagery*. Researchers also posit that the increasing ubiquity of sex on mainstream television is a contributory cause to greater sexual permissiveness.[55] A content

[47] Mark Davis, *E-Dating, Identity and HIV Prevention: Theorising Sexualities, Risk and Network Society*, 28 SOC. HEALTH & ILLNESS 457, 458 (2008); Ronald O. Valdiserri, *Mapping the Roots of HIV/AIDS Complacency: Implications for Program and Policy Development*, 16 AIDS EDUC. & PREVENTION 426, 427-29 (2004).

[48] Katherine E. Bruce & Lawrence J. Walker, *College Students' Attitudes About AIDS: 1986 to 2000*, 13 AIDS EDUC. & PREVENTION 428, 429-30, 435 (2001).

[49] Adedeji S. Adefuye et al., *HIV Sexual Risk Behaviors and Perception of Risk Among College Students: Implications for Planning Interventions*, 9 BMC PUB. HEALTH 281, 289 (2009).

[50] *Id.* at 292.

[51] Mike Mitka, *College Binge Drinking Still on the Rise*, 302 JAMA 836, 836 (2009).

[52] Elizabeth L. Paul, *Beer Goggles, Catching Feelings, and the Walk of Shame: Myths and Realities of the Hookup Experience*, *in* RELATING DIFFICULTY: THE PROCESSES OF CONSTRUCTING AND MANAGING DIFFICULT INTERACTION 141, 151 (D. Charles Kirkpatrick et al. eds., 2006).

[53] Heldman & Wade, *supra* note 27, at 328.

[54] *See id.* (describing sexual scripts promoted by porn).

[55] Heldman & Wade, *supra* note 27, at 328-29; Jennifer L. Peterson & Janet

> analysis study found that the amount of scenes on television dealing with sex more than doubled between the 1997–1998 and 2003–2004 seasons.[56] Another content analysis study of prime time television programs airing between eight and eleven p.m. that feature twelve to twenty-two year-olds found that 90.5% of episodes had some sexual reference and there were an average of 7.9 sexual references per hour.[57] A host of studies indicate that television influences the normative frameworks surrounding sexuality.[58]

Casual sex or sex outside of traditional romantic relationships is not only for the young. The recent large-scale National Survey of Sexual Health and Behavior found that a strikingly "sizeable minority of women and men in all age cohorts" reported that their last sexual event was with a "friend" rather than within a relationship or with a dating partner.[59] Investigators observe that the FWB phenomenon, rather than a feature of young adult relationships, "might also be common across all age groups." In a survey of adults aged eighteen to fifty-nine, one in five people reported having sex outside of a romantic relationship, and a quarter said that they or their partner had more than one sex partner.[60] Research also indicates that women between the ages of twenty-seven and forty-five are more inclined to have sex with someone they just met and engage in more sexual activity than younger women.[61] Rising divorce rates, medical advances that extend women's sexual lives past menopause, and pronounced shifts in gender roles and

Shibley Hyde, *A Meta-Analytic Review of Research on Gender Differences in Sexuality, 1993–2007*, 136 PSYCH. BULL. 21, 23 (2010).

[56] DALE KUNKEL ET AL., SEX ON TV 2005: A KAISER FAMILY FOUNDATION REPORT 58 (2005).

[57] Jennifer Stevens Aubrey, *Sex and Punishment: An Examination of Sexual Consequences and the Sexual Double Standard in Teen Programming*, 50 SEX ROLES 505, 507, 509 (2004).

[58] *See* KUNKEL ET AL., *supra* note 56, at 57 (collecting studies).

[59] Debby Herbenick et al., *An Event-Level Analysis of the Sexual Characteristics and Composition Among Adults Ages 18 to 59: Results from a National Probability Sample in the United States*, 7 J. SEXUAL MED. 346, 359 (Supp. 5, 2010).

[60] Paik, *Contexts*, *supra* note 26 at 33-34.

[61] Judith A. Easton et al., *Reproduction Expediting: Sexual Motivations, Fantasies, and the Ticking Biological Clock*, 49 PERSONALITY & INDIVIDUAL DIFFERENCES 516, 517-18 (2010); *see also* John Cloud, *The Science of Cougar Sex: Why Older Women Lust*, TIME MAG., July 9, 2010, http://www.time.com/time/health/article/0,8599,2002838,00.html (reporting on study findings).

norms all contribute to changes in sexual culture across age groups, even for those raised in the social mores of another age.[62]

2. Technologically Expanded Networks and Norms of Meeting and Mating

The cultural shifts are aided, abetted, and accelerated by technological shifts. Technology expands the marketplace for sex and love and serves as a massive hub for networks of people to intersect.[63] How we meet is no longer limited by distance, the social networks of school and work, geographical gathering points, age, class, or even time zones.[64] Psychologists have pronounced Internet meeting and mating "the next sexual revolution" with the potential to transform human relationships.[65] Technology opens new "technicways" — new normative and behavioral configurations that "may radically change the nature of recognized sexual behaviors, much as did the birth control pill in the 1960s."[66]

The online environment permits us to foster a feeling of intimacy, sharing, and connection without the real-time barriers and filters of judgments based on physical appearance, race, occupation, class, and age.[67] This freedom is potentially liberating in that we can transcend social expectations, identity, and typical scripts for our gender, class, and roles, and experiment with alternate models of relating.[68] One can

[62] *See* Vanessa Schick et al., *Sexual Behaviors, Condom Use, and Sexual Health of Americans Over 50: Implications for Sexual Health Promotion for Older Adults*, 7 J. SEXUAL MED. 315, 315-16, 323 (Supp. s5, 2010) (noting factors that contribute to people spending "greater portions of their lives as sexually active individuals").

[63] *See, e.g.*, Rebecca D. Heino et al., *Relationshopping: Investigating the Market Metaphor in Online Dating*, 27 J. SOC. & PERS. RELATIONSHIPS 427, 429-30 (2010) (arguing that marketplace is salient metaphor through which online daters view experience); Jeffrey D. Klausner et al., *Tracing a Syphilis Outbreak Through Cyberspace*, 284 JAMA 447, 449 (2000) (noting that online outlets "enable persons who otherwise might not meet each other to initiate contact in cyberspace and then to meet in person").

[64] Al Cooper & Eric Griffin-Shelley, *The Internet: The Next Sexual Revolution*, *in* SEX & THE INTERNET: A GUIDEBOOK FOR CLINICIANS 1, 5 (Al Cooper ed. 2002).

[65] *Id.* at 1-18.

[66] James F. Quinn & Craig J. Forsyth, *Describing Sexual Behavior in the Era of the Internet: A Typology for Empirical Research*, 26 DEVIANT BEHAV. 191, 196-97 (2005).

[67] Cooper & Griffin-Shelley, *supra* note 64, at 5.

[68] *See* Nicola M. Döring, *The Internet's Impact on Sexuality: A Critical Review of 15 Years of Research*, 25 COMPUTERS IN HUM. BEHAV. 1089, 1094-95 (2009); Kimberly S. Young, *Internet Sex Addiction: Risk Factors, Stages of Development and Treatment*, 52 AM. BEHAV. SCIENTIST 21, 22-23 (2008) (describing 51 year-old grandmother raised Mormon in rural Utah who was able to explore her sexual domination fantasies,

trade fantasies, explore fetishes, and express desire to transgress old taboos online without the flushing, blushing, and awkwardness of real-time exchanges.[69] The protective shield of the computer screen facilitates a sense of intense and rapid intimacy.[70] Surveys indicate that in an age of instant messaging, texting, Facebook, and Craigslist, men and women believe that social media accelerates the rapidity at which we reach the point of sex.[71]

Technology also expands the marketplace for human connections. Online dating and hook-ups are shedding old stigmas.[72] An estimated sixteen million Americans have used online dating services.[73] Outlets like Craigslist, Match.com, Gay.com, Yahoo! personals, Plenty of Fish, and other sites connect people beyond traditional geographic, professional, educational and other groupings, enabling a wider marketplace, but also one with less information than afforded by old ways of meeting.[74] Such online platforms enable targeted searches for romantic and sexual partners based on salient sorting details, such as age, race, body shape, and profession. However, other important information, such as past partner history, reputation, and "real" relationship goals, are more easily masked online.[75]

The Internet also enables infidelities. For those in serious long-term relationships or marriages, the online environment allows for the thrill

develop "submissive girl persona" and act on fantasies she had kept "bottled up inside").

[69] *See* Jennifer L. Gibbs et al., *Self-Presentation in Online Personals: The Role of Anticipated Future Interaction Self-Disclosure, and Perceived Success in Internet Dating*, 33 COMM. RES. 152, 156 (2006) [hereinafter *Self-Presentation*] (noting intimacy acceleration).

[70] *Id.*

[71] *Social Networking Leads to Sex Faster?*, REUTERS, Jan. 25, 2011, *available at* http://www.reuters.com/article/2011/01/25/us-sex-survey-odd-idUSTRE70O4IJ20110125.

[72] Amy Harmon, *Online Dating Sheds Its Stigma As Losers.Com*, N.Y. TIMES, June 29, 2003, at A1, *available at* http://www.nytimes.com/2003/06/29/us/online-dating-sheds-its-stigma-as-loserscom.html; *see also* Gibbs et al., *Self-Presentation*, *supra* note 69, at 153.

[73] Catalina Toma et al., *Separating Fact from Fiction: An Examination of Deceptive Self-Presentation in Online Dating Profiles*, 34 PERSONALITY & SOC. PSYCH. BULL. 1023, 1023 (2008).

[74] *See* Jennifer L. Gibbs et al., *First Comes Love, Then Comes Google: An Investigation of Uncertainty Reduction Strategies and Self-Disclosure in Online Dating*, 38 COMM. RES. 70, 70-73 (2011) [hereinafter *First Comes Love*] (discussing uncertainty-reduction strategies to fill in the gaps of reduced contextual information).

[75] *See* Jeffrey A. Hall et al., *Strategic Misrepresentation in Online Dating: The Effects of Gender, Self-Monitoring, and Personality Traits*, 27 J. SOC. & PERS. RELATIONSHIPS 117, 126, 132 (2010) [hereinafter *Strategic Misrepresentation*] (discussing masking of relationship history and other personal attributes).

of dating someone new while having the stability and safety net of marriage.[76] The online environment enables easily hidden intimacies and connects people outside of their usual networks, where they can be relatively anonymous and avoid informational and social repercussions.[77] The Internet's efficient advertising process also enables targeted searches for like-minded individuals rather than forging through the vigorous rebuffs that might come if a married or attached individual propositions someone at a traditional venue, such as a bar.[78] Online infidelity has become so normalized that increasingly sites have a "married but looking" box for relationship status, and sites like AshleyMadison are dedicated to matching those looking to cheat.[79] For the more cost-conscious who want a free outlet for shopping and advertising, Craigslist has been a boon.[80] One study of online daters, for example, reported that 40% of those surveyed felt that marital status was a commonly misrepresented fact.[81] In a study of women who found sexual partners through the Internet, 13% of the women reported that their sexual partners lied about their marital status.[82]

A recent headline colorfully illustrates the phenomenon. A New York Congressman, aged forty-six and married with a child, responded to an ad posted by a woman in the "women for men" ("W4M") section of Craigslist and purported to be a thirty-nine year-old divorced lobbyist.[83] He attached a cell phone camera photo of himself shirtless

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[76] *See* Beatriz Lia Avila Mileham, *Online Infidelity in Internet Chat Rooms: An Ethnographic Exploration*, 23 COMPUTERS IN HUM. BEHAV. 11, 12-13 (2007).

[77] *See* DAVID N. GREENFIELD, VIRTUAL ADDICTION: HELP FOR NETHEADS, CYBERFREAKS, AND THOSE WHO LOVE THEM 104-32 (Catharine Sutker ed., 1999); MARLENE M. MAHEU & RONA B. SUBOTNIK, INFIDELITY ON THE INTERNET: VIRTUAL RELATIONSHIPS AND REAL BETRAYAL 4-5, 15 (2001).

[78] *See* Johanna Weidner, *Married but . . . Searching for More: Websites Help Would-Be Adulterers*, KITCHENER REC., Feb. 16, 2008, at W1, *available at* 2008 WLNR 3063710.

[79] Melody McDonald, *Cheaters Site Big in Texas*, HOUS. CHRON., June 14, 2010, at B2, *available at* 2010 WLNR 12178442; Patricia Montimurri, *Michiganders Flock to Web Site for Flings with Married Cheaters*, DETROIT FREE-PRESS, June 28, 2009, *available at* 2009 WLNR 12345914.

[80] Douglas Quenqua, *Recklessly Seeking Sex on Craigslist*, N.Y. TIMES, Apr. 19, 2009, at ST1.

[81] Gibbs et al., *Self-Presentation*, *supra* note 69, at 169-70.

[82] Mary McFarlane et al., *Women, the Internet and Sexually Transmitted Infections*, 13 J. WOMEN'S HEALTH 689, 692 (2004) [hereinafter *Women*].

[83] Brian Montopoli, *GOP Congressman Christopher Lee Resigns Over Craigslist Scandal*, CBS NEWS, Feb. 9, 2011, *available at* http://www.cbsnews.com/8301-503544_162-20031264-503544.html (internal quotation marks omitted).

and flexing in front of the bathroom mirror — the kind of photo ubiquitous in, and better befitting, the Casual Encounters section of Craigslist.[84]

Such misrepresentation and ambiguity in general is rife in the online environment, which merges fantasy and experimentation with the prospect of real-life connections.[85] Based on a survey of user experiences and perceptions, people most commonly lie about age, physical appearance, relationship goals, and status to avoid being filtered out and to self-advertise.[86] When the marketplace is vast and interconnected, and another prospect is just a click and an email away (which can be conveniently and cheaply copied and pasted), honesty is penalized with lower success rates.[87] Misrepresentation is, therefore, a primary and oft-expressed concern of those who seek partners online.[88]

B. The Public Health Challenge

Social shifts in sexual culture have epidemiological implications. Public health researchers call college, the most active zone of hook-up culture, the "epicenter of the HIV/AIDS epidemic."[89] But HIV rate increases are not only limited to the young — the rates of infection are rising in older people, including the over-fifty demographic.[90] Local health officials have also expressed concern about rising HIV rates among youths even before college age.[91] Since 1998, the number of

[84] *Id.*

[85] *See* sources cited *supra* notes 67-71 and accompanying text.

[86] *See, e.g.*, Gibbs et al., *Self-Presentation*, *supra* note 69, at 169-70 (finding most common misrepresentations identified by experienced online daters were "physical appearance (86%), relationship goals (49%), age (46%), income (45%), and marital status (40%)").

[87] *See, e.g.*, *id.* (noting incentives for misrepresentation).

[88] Hall et al., *Strategic Misrepresentation*, *supra* note 75, at 118.

[89] Adefuye et al., *supra* note 49, at 293 (citing to CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP'T OF HEALTH AND HUMAN SERVS., HIV/AIDS AND COLLEGE STUDENTS (1995), *available at* http://www.aegis.com/pubs/cdc_fact_sheets/1995/CPATH003.html).

[90] Sarah Boseley, *HIV Rates Double in Over-50s As Sexual Behavior Changes*, OBSERVER (UK), July 25, 2010, at 34, *available at* 2010 WLNR 14780165.

[91] *See, e.g.*, Christina Boyle, *HIV Rates Rise in City Teens*, N.Y. DAILY NEWS, May 18, 2008, at 25, *available at* 2008 WLNR 9447870 (reporting that HIV infection among New York City teens has risen to highest level since 2001, with number of infected people ages 13–19 rising 29% between 2004–2006); *HIV, AIDS Cases Rise Sharply Among Teens in Michigan*, KALAMAZOO GAZETTE, Dec. 1, 2009, *available at* 2009 WLNR 24245096 (reporting that for fourth year in row, HIV infection rate among Michigan teens has increased, with rate of new diagnoses among 13 to 19-year-olds doubling

adolescents between the ages of thirteen and nineteen diagnosed with AIDS has been progressively increasing, reaching a high of 547 diagnoses among the forty states that report such data in 2009, the most recent year for which data is available.[92] In 2006 alone, approximately 19,200 youths aged thirteen to twenty-nine were infected with HIV, representing 34% of all new HIV infections that year.[93] The demographic core of casual encounters culture — adolescents and youths aged fifteen to twenty-four — experiences nearly half of all new STD infections, though they represent only 25% of the sexually experienced population.[94]

While HIV is the paradigmatic STD that rouses the most public anxiety, there is also cause for concern regarding the prevalence of other diseases like syphilis, which is strongly associated with HIV infection and causes ulcers that increase HIV susceptibility and transmission rates;[95] chlamydia, which can cause pelvic inflammatory disease, infertility, chronic pelvic pain, and also increases susceptibility to HIV infections;[96] and human papilloma virus

between 2003 and 2007); Sherry Jacobson, *Dallas County Groups Join to Fight Rise in HIV Among the Young*, DALL. MORNING NEWS, Sept. 17 2010, *available at* 2010 WLNR 18449089 (noting 30% rise in HIV infections among young people aged 13 to 24 in Dallas County and quoting concern of behavioral intervention specialist that "[i]t's above an epidemic. It's a pandemic"); Christiana Sciaudone, *Youth at Risk for HIV: Health Officials Eye Rise in Cases*, ADVOCATE (STAMFORD, CONN.), July 31, 2005, at A1, *available at* 2005 WLNR 25529181 (reporting alarm among health officials over infection rates among youth, particularly minority youths, in light of CDC data indicating at time that about 50% of new HIV infections are in people under 25 and increasing rates of infection among heterosexual youths).

[92] CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP'T OF HEALTH & HUMAN SERVS., HIV SURVEILLANCE IN ADOLESCENTS AND YOUNG ADULTS, at slide 15, (2010), *available at* http://www.cdc.gov/hiv/topics/surveillance/resources/slides/adolescents/slides/Adolescents.pdf.

[93] CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP'T OF HEALTH & HUMAN SERVS., HIV TESTING AMONG ADOLESCENTS 1 (2009), *available at* http://www.cdc.gov/healthyyouth/sexualbehaviors/pdf/hivtesting_adolescents.pdf.

[94] 2010 CDC SEXUALLY TRANSMITTED DISEASE SURVEILLANCE, 2009, at 63 [hereinafter CDC STD SURVEILLANCE 2009], *available at* http://www.cdc.gov/std/stats09/surv2009-Complete.pdf.

[95] *See, e.g.*, Gabriela Paz-Bailey et al., *A Case-Control Study of Syphilis Among Men Who Have Sex with Men in New York City: Association with HIV Infection*, 10 SEXUALLY TRANSMITTED DISEASES 581, 581, 583, 586 (2004) (reporting that syphilitic ulcers can cause threefold increase in susceptibility to HIV); John-Arne Røttingen et al., *A Systematic Review of the Epidemiologic Interactions Between Classic Sexually Transmitted Diseases and HIV: How Much Is Really Known?*, 28 SEXUALLY TRANSMITTED DISEASES 579, 587, 589-91 (2001) (finding strong association between having syphilis and having HIV).

[96] *See, e.g.*, William C. Miller et al., *Prevalence of Chlamydial and Gonococcal*

("HPV"), which can cause potentially fatal cervical cancer in women, as well as esophageal cancer when transmitted orally.[97] While gonorrhea is finally on the decline, chlamydia, which wreaks more severe long-term harm on women, continues to rise.[98] The ancient scourge of syphilis, which public health officials once thought was on the way to eradication, has also been on the rise every year since 2001, with reported infections increasing 5% between just 2008 and 2009.[99]

Why do the shifts in how we meet and mate today pose a public health challenge? There are two major clusters of reasons. The first is the increased practice of concurrent partners, which is often associated with having more sexual partners in tandem with the tendency to relax risk-reducing practices such as condom use. The second is the rapidity with which disease can spread through Internet-expanded networks and the information deficit regarding sexual history and disease status when different networks interconnect.

1. Concurrent Partners, More Partners, Riskier Sex

A host of studies have found that having concurrent partnerships is a powerful factor in driving the epidemic spread of STDs such as chlamydia, gonorrhea, syphilis and HIV.[100] For an infection to survive and spread in a population rather than be contained, each infected individual must on average transmit the infection to at least one other uninfected individual.[101] Transmission is only possible during the

Infections Among Young Adults in the United States, 291 JAMA 2229, 2229 (2004) (listing complications).

[97] Olga L. Bohn et al., *Identification of Human Papillomavirus in Esophageal Squamous Papillomas*, 14 WORLD J. GASTROENTEROLOGY 7107, 7107 (2008); K.J. Syrjänen, *HPV Infections and Oesophageal Cancer*, 55 J. CLINICAL PATHOLOGY 721, 722, 725 (2002); *see also* John L. Zeller et al., *Carcinoma of the Cervix*, 298 JAMA 2336, 2336-37 (2007) (noting role of HPV in causing most cases of cervical cancer and that every year more than 11,000 women are diagnosed with invasive cervical cancer and more than 4,000 women die from complications of disease).

[98] CDC STD SURVEILLANCE 2009, *supra* note 94 at 1. The increase reflects a continued rise in screening and more sensitive tests, but may also reflect a true increase in prevalence. *Id.*

[99] *Id.* at 2, 64.

[100] Pamina M. Gorbach & King M. Holmes, *Transmission of STIs/HIV at the Partnership Level: Beyond Individual-Level Analyses*, 80 J. URBAN HEALTH (Supp. 3) iii15, iii16, iii21 (2003) [hereinafter *Transmission*]; Sara J. Nelson et al., *Measuring Sex Partner Concurrency: It's What's Missing that Counts*, 34 SEXUALLY TRANSMITTED DISEASES 801, 801 (2007); Mark L. Williams, *An Investigation of Concurrent Sex Partnering in Two Samples of Drug Users Having Large Numbers of Sex Partners*, 17 INT'L J. STD & AIDS 309, 309 (2006).

[101] Sevgi O. Aral, *Partner Concurrency and the STD/HIV Epidemic*, 12 CURRENT

infectious period, which is typically finite, depending on the disease.[102] Even HIV has time-sensitive phases of relative infectious power, with viral load in the semen, for example, highest between the first ten days and the first two months after infection and then leveling lower.[103]

Concurrent partnerships are strong factors in sustaining the spread of STDs because of the importance of timing and transmission.[104] Concurrency enables transmission to multiple people within the window of infectiousness and removes what epidemiologists term "the protective effect of sequence" that monogamy confers, wherein earlier partners are not exposed to the diseases of the later partner.[105] Moreover, concurrent partnerships create a larger and more complex network of people through which disease pathogens can pass rapidly and efficiently to many different people.[106]

STD outbreaks are frequently associated with tightly connected clusters where two individuals have concurrent partners, forming interconnecting dyads.[107] Having concurrent partners is often believed to be particularly potent in driving the spread of HIV because of the particularly high infectiousness in the brief period shortly after HIV infection.[108] Timing is important because transmission is particularly efficient when a newly-infected individual connects with uninfected individuals during that window.[109] Concurrent partners amplify the infective reach during the brief window of high infectiousness and particularly efficient transmission.[110]

The practice of having concurrent sexual partners is becoming increasingly common. A study of urban men and women aged eighteen through thirty-nine, for example, found that 31% of men and 26% of women had concurrent partners.[111] A study of people going to

INFECTIOUS DISEASE REP. 134, 134 (2010).

[102] *Id.*

[103] *See* Christopher D. Pilcher et al., *Brief But Efficient: Acute HIV Infection and the Sexual Transmission of HIV*, 189 J. INFECTIOUS DISEASES 1785, 1788, 1790 (2004), *available at* http://infekt.ch/updown/documents/publ/2004/pilcher_2004_jid.pdf.

[104] Aral, *Concurrency*, *supra* note 101, at 134-35.

[105] *Id.*

[106] Aral, *Concurrency*, *supra* note 101, at 135.

[107] Paik, *Contexts*, *supra* note 26, at 33 (collecting studies).

[108] Jeffrey W. Eaton et al., *Concurrent Sexual Partners and Primary HIV Infection: A Critical Interaction,* AIDS BEHAV., May 2011 (e-publication made available ahead of print), *available at* http://www.ncbi.nlm.nih.gov/pubmed/20890654 (citing studies).

[109] *Id.*

[110] *Id.*

[111] Lisa E. Manhart et al., *Sex Partner Concurrency: Measurement, Prevalence, and Correlates Among Urban 18 to 39-Year-Olds*, 29 SEXUALLY TRANSMITTED DISEASES 133,

STD clinics for testing and treatment found that more than half had concurrent sexual partners.[112]

The risk environment is amplified because people in concurrent sexual arrangements tend not to know each other well. Research on characteristics of concurrent sexual partnership indicates that people who became sexually involved within the first week of a relationship are more likely to have concurrent sexual partners.[113] Part of the reason for the association is that sex within the first week is also strongly associated with "non-serious," casual, nonromantic relationships such as FWB arrangements, which in turn are strongly associated with concurrent sexual partnerships.[114] People who have fewer social ties to their sexual partners are more likely to have concurrent partners.[115] Having fewer social ties further diminishes the level of information available regarding one's partner that is necessary to making informed decisions about what level of precautions to take.

People who have concurrent partners are also likely to have more sexual partners, another heightened risk factor for STD acquisition and transmission.[116] A study of urban young adults aged eighteen to thirty-nine found a stepwise increase in the proportion of individuals with concurrent partners as the number of partners increased.[117] The trend was similar for women as well, though there was not as strong and consistent a stepwise increase as for men.[118] More than half of men — 52% — with fifteen or more sexual partners in their lifetime also had concurrent sexual partners, while 29% of women with fifteen or more sexual partners in their lifetime also had concurrent partners.[119] Having more partners is another factor associated with a heightened risk for STDs.[120] For example, a study of college-aged women found a strong association between the number of sexual partners and having an STD, with women having five or more sexual partners during their

136 (2002).

[112] Nelson, *supra* note 100, at 802, 805 (surveying 1220 people in Seattle, St. Louis, and New Orleans).

[113] Paik, *Contexts*, *supra* note 26 at 40.

[114] *Id.*

[115] *Id.* at 35.

[116] Manhart et al., *Concurrency*, *supra* note 111, at 136; Paik, *Contexts*, *supra* note 26 at 38.

[117] Manhart et al., *Concurrency*, *supra* note 111, at 136.

[118] *Id.*

[119] *Id.*

[120] *Id.* at 138.

3.5 years of college eight times more likely to have an STD than someone with one sexual partner during the same period.[121]

While numbers vary,[122] there is some indication that the number of sexual partners we have today is outpacing the average in the storied sexual revolution of the free-loving late 1960s and 1970s. A British study found that young women today are almost three times more sexually active then women at the height of the swinging 60s.[123] Young British women reported an average of 5.65 sexual partners by age twenty-four, compared to an average of 1.67 partners for young women in the 1960s, and an average of 3.72 partners for young women in the 1970s.[124] Americans may not be as sexually prolific as Britons, who reportedly top other Western nations for casual sex,[125] but a recent longitudinal study found an average of around 5.5 sexual partners by age twenty-four for young American women and around 8.5 sexual partners for young men.[126] A study of college women found that one-third had five or more sexual partners over 3.5 years of college.[127]

Studies of adolescent sexual behavior have found that sex outside a romantic context tends to be associated with nonexclusivity in sexual partners and a lower likelihood of using contraceptives.[128] A study of teen sex found that more than half of teenagers who had sex with someone they had just met did not use contraceptives, whereas only a

[121] Gavin P. Joffe et al., *Multiple Partners and Partner Choice As Risk Factors for Sexually Transmitted Disease Among Female College Students*, 19 SEXUALLY TRANSMITTED DISEASES 272, 276-77 (1992).

[122] *See* Terri D. Fisher, *The Impact of Socially Conveyed Norms on the Reporting of Sexual Behavior and Attitudes by Men and Women*, 45 J. EXPERIMENTAL SOC. PSYCH. 567, 568, 571 (2009) (analyzing impact of impression management and sex role stereotypes on reporting accuracy).

[123] *Swinging 60s Had Nothing on the 90s — Sex Study*, REUTERS, Mar. 16, 2010, *available at* http://www.reuters.com/article/2010/03/16/us-britain-partners-idUSTRE62F23J20100316.

[124] *Id.*

[125] Roger Waite, *Britain on Top in Casual Sex League*, SUNDAY TIMES (UK), Nov. 30, 2008, http://women.timesonline.co.uk/tol/life_and_style/women/relationships/article5257166.ece.

[126] Melanie J. Zimmer-Gembeck & W. Andrew Collins, *Gender, Mature Appearance, Alcohol Use, and Dating As Correlates of Sexual Partner Accumulation from Ages 16-26 Years*, 42 J. ADOLESC. HEALTH 564, 567 fig.1 (2008).

[127] Joffe et al., *supra* note 121, at 276.

[128] *See, e.g.*, Wendy D. Manning, *The Relationship Context of Contraceptive Use at First Sexual Intercourse*, 32 FAM. PLAN. PERSP. 104, 106-07 (2005) [hereinafter Manning, *Contraceptive*] (contraceptive use); Wendy D. Manning, *"Hooking Up": The Relationship Contexts of Nonrelationship Sex*, 21 J. ADOLESCENT RES. 459, 476-477 (2006) [hereinafter *Hooking Up*] (nonexclusivity).

quarter of teens having sex with a relationship partner or someone they went out with occasionally failed to use contraceptives.[129] Those who had sex with someone who was "just a friend" also had a significantly reduced likelihood of using contraceptives during sex.[130] There is also some indication that women may be more comfortable requesting their primary or cohabiting sexual partner to use a condom as a regular matter than partners they know less well.[131]

As a general matter, however, studies in adult populations find a greater tendency to use condoms with casual partners or newer partners whom one does not know as well.[132] This tendency, despite the greater comfort level of women asking primary partners to use condoms, may be because men are more likely to opt to use condoms with casual partners they know less well.[133] Culturally, nonuse of condoms may express intimacy, hope for a loving relationship, and constitute a benefit and symbol of a monogamous relationship.[134]

Because of the tendency to avoid using condoms among adult primary partners, unwitting primary partners of those who seek sex with secondary partners are particularly vulnerable to infection even if they otherwise avoid higher-risk concurrent partnerships or have an overall low lifetime number of partners.[135] In a society with high rates of infidelity in which concurrent partnerships are often not consented to or known, this vulnerability between primary partners has important epidemiological implications for the transmission of disease to unwitting partners.[136] This is particularly true in the Internet age, which, as discussed in Section I.A.2, facilitates extra-relationship sex-seeking and, as discussed below, expands and accelerates webs of transmission.

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[129] Manning, *Contraceptive*, *supra* note at 128, at 107.

[130] *Id.*

[131] Gorbach & Holmes, *supra* note 100, at iii15, iii16.

[132] *See, e.g.*, Maurizio Macaluso et al., *Partner Type and Condom Use*, 14 AIDS 537, 544-545 (2000) (finding condom use more frequent with new and casual partners than regular partners among women STD clinic attendees).

[133] *See* Leah East et al., *Condom Negotiation: Experiences of Sexually Active Young Women*, 67 J. ADVANCED NURSING 77, 77-78, 82 (2011) (intimacy, hope for love, monogamy); Gorbach & Holmes, *supra* note 100, at iii7 (intimacy).

[134] Gorbach & Holmes, *supra* note 100, at iii17.

[135] *Id.* at iii19.

[136] *See, e.g.*, Pamina M. Gorbach et al., *To Notify or Not to Notify: STD Patients' Perspectives of Partner Notification in Seattle*, 27 SEXUALLY TRANSMITTED DISEASES 193, 198 (2000) (describing patients, primarily women, who did not discover infidelity until STD diagnosis).

2. Expanded, Accelerated Webs of Transmission and Information Deficits

For many, the Internet has become an important venue for meeting sexual and romantic partners.[137] While this shift shows the utility of electronic connectivity, a growing body of research has found greater risks for contracting an STD when one seeks sex online rather than offline.[138] Heightened risk — and public health implications — arise because of expanded webs of accelerated transmission and information deficits when we meet people outside of the typical contexts of friends, work, and school that give us more contextual information.[139]

Electronic media connects people in new configurations outside of customary networks.[140] Studies of those who seek sex online found that people often drove distances of 100 miles or more to meet a partner found over the Internet.[141] By mixing up the usual networks and allowing different networks of people who are usually intimate to intersect, the Internet facilitates the movement of infections that otherwise might be contained in one network to spread to new ones, expanding, accelerating, and altering the epidemiological patterns of disease.[142] Targeted shopping and the fostering of a faster sense of intimacy through electronic communication also accelerate the

[137] McFarlane et al., *Women*, *supra* note 82, at 693 (finding that "women and men alike" are increasingly venturing online to find sexual partners); Mary McFarlane et al., *Young Adults on the Internet: Risk Behaviors for Sexually Transmitted Diseases and HIV*, 31 J. ADOLESCENT HEALTH 11, 16 (2002) [hereinafter *Young Adults*] (reporting findings suggesting that "the Internet may be growing in its importance to young adults' sex lives"). *See generally* Mary McFarlane et al., *The Internet As a Newly Emerging Risk Environment for Sexually Transmitted Diseases*, 284 JAMA 443, 444-45 (2000) [hereinafter *Internet*] (finding among STD clinic attendees, Internet-mediated sex-seeking was a common phenomenon).

[138] *See, e.g.*, Eric G. Benotsch et al., *Men Who Have Met Sex Partners Via the Internet: Prevalence, Predictors and Implications for HIV Prevention*, 31 ARCHIVES SEXUAL BEHAV. 177, 182 (2002) (finding Internet partner-seeking "was a significant predictor of having multiple partners for high-risk sexual activities"); Jochen Peter & Patti M. Valkenburg, *Who Looks for Casual Dates on the Internet? A Test of the Compensation and Recreation Hypotheses*, 9 NEW MEDIA & SOC'Y 455, 456 (2007) (collecting studies).

[139] *See, e.g.*, McFarlane et al., *Internet*, *supra* note 144, at 445-46 (discussing risk factors).

[140] *See supra* notes 67-71 and accompanying text.

[141] McFarlane et al., *Women*, *supra* note 82, at 692; McFarlane et al., *Young Adults*, *supra* note 137, at 13, 15 & tbl.3.

[142] *See* McFarlane et al., *Women*, *supra* note 82, at 693 (noting that long distances traveled in meeting Internet sex partners "could result in new sexual mixing patterns, thus altering the epidemiology of sexually transmitted diseases").

expansion of sexual networks and potential disease cross-over to fresh networks.[143]

The architecture and quick-find features of cyberspace are only part of the story. Studies about *why* people who find partners online are more vulnerable to STD infections also point to the culture and characteristics of online sex-seekers. Research on the personality characteristics of online sex-seekers indicate that they tend to be "high sensation-seekers" who are more willing "to take physical and social risks for the sake of" a thirst for "varied, novel and complex sensations."[144] Online sex-seekers are more apt to engage in riskier behaviors, such as casual sex and concurrent partnerships.[145] The nature of the electronic medium has a selection factor for the "sexual adventurers" who are more willing to jump into the relatively new virtual medium and take risks in their "virtual social lives" as well as "actual sexual lives."[146]

Why might high sensation-seekers find the Internet a wonderful place for adventure — and a surer shopping place for satisfying a taste for risk? Riskier sex is fostered by the perceived sense of security afforded by anonymity facilitated by handles and pseudonyms.[147] The Internet also facilitates targeted shopping among searchable personals for someone amenable to riskier modes of sex, such as "barebacking" — the practice of anal or vaginal sex without a condom.[148] Another risk-compounding factor is that those who seek sex online — both men and women — are also more likely to have had a greater number of sexual partners and sexual encounters than those who do not.[149]

As the proportion of Americans who look for their mate online grows, many people are looking for love online rather than a casual

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[143] *See supra* notes 70-71 and accompanying text.

[144] Peter & Valkenburg, *supra* note 138, 460-61.

[145] *See id.* at 460-61, 472 (discussing how higher-risk actors are more apt to seek sex online); Döring, *supra* note 68, at 1097 (self-selection).

[146] Kathleen E. Toomey & Richard B. Rothenberg, Editorial, *Sex and Cyberspace – Virtual Networks Leading to High-Risk Sex*, 284 JAMA 485, 486 (2000).

[147] McFarlane et al., *Young Adults*, *supra* note 137, at 11-12.

[148] *See, e.g.*, Davis, *supra* note 47, at 464-65 (quoting interviewee who explained that internet is preferred forum for seeking bareback sex and utility of Internet for sorting and filtering based on predilections).

[149] *See, e.g.*, McFarlane et al., *Internet*, supra note 137, at 445-46 (finding that those who reported seeking sex partners online were more likely to have had STD, and had greater number of partners); McFarlane et al., *Women*, *supra* note 82, at 693 (finding women who use Internet "have high self-reported rates of STI [sexually transmitted infections], are not regularly using condoms, and are engaging in anal, oral, and vaginal sex with Internet partners").

encounter.[150] The permeable boundaries between those looking for love and those looking for sex make the Internet a particularly powerful and efficient backbone for diseases to spread because it connects higher-risk networks with lower-risk networks.[151] For a high-risk sexual network to connect with a low-risk network, it is as simple as a high-risk actor posting or responding to an ad in the long-term relationship section rather than, or in addition to, the casual encounters section. Indeed, online daters frequently report misrepresentation of relationship goals as a common problem — for example, in one study, nearly half of online daters (49%) reported misrepresentation of relationship goals as a problem.[152] The ease with which high-risk and lower-risk networks can intersect online is an important factor in making the Internet such a powerful, potentially epidemiology-altering engine for helping to sustain high or rising rates of STD infection. If diseases are contained within high-infection networks, the reproduction rate decreases and can burn out because it is not spreading to the uninfected.[153] In contrast, entering into a network with many uninfected individuals facilitates spreading of the infection.

Risks of unwitting STD acquisition are also greater because of the information deficit of meeting people outside of the information-rich customary contexts of work, school, church, or even the gym, where information sources are manifold. The claim that one is "DDF" — drug and disease free — is so prevalent in online ads that the acronym has become a word unto itself, a *de rigueur* part of marketing oneself, whether searching for a casual encounter or a long-term relationship.[154] But beyond representations by individuals who are trying to do their best to self-market and, therefore have split

[150] *See, e.g.*, Wailin Wong, *Connecting Hearts Online: Web-Based Dating Services Shed Stigma, Pierce Mainstream*, CHI. TRIB., July 23, 2010, at C23 (chronicling mainstreaming of online dating and greater prevalence of finding relationship and marriage partners online).

[151] *See* Aral, *Concurrency*, *supra* note 101, at 135 (discussing factors in expanding transmission).

[152] *See* Gibbs et al., *Self-Presentation*, *supra* note 69, at 169-70 (discussing misrepresentation of relationship goals).

[153] *See, e.g.*, Ken T.D. Eames & Matt J. Keeling, *Modeling Dynamic and Network Heterogeneities in the Spread of Sexually Transmitted Diseases*, PROC. NAT'L ACAD. SCI. 13330, 13330 (2002) (explaining that in network of connected individuals "most infected nodes have infected neighbors by whom they were infected or to whom they have transmitted infection" and that "aggregation reduces the average number of susceptible partners per infected individual and consequently slows the propagation of an epidemic").

[154] *See supra* notes 25, 294-96 and accompanying text.

interests,[155] there is a particular dearth of sources to do even a cursory reliability confirmation.

C. Gendered Transmission Dynamics and Burdens

The public health challenge is one that impacts women and men, rich and poor. But transmission dynamics and burdens are particularly gender-unequal in their harder impact on women.[156] While women historically have been blamed for STD transmission, they are more frequently victims of transmission.[157] Women suffer two-thirds of the estimated nineteen million new cases of STDs each year.[158] The profoundly gendered and unequal dynamics of transmission and resulting harms have become impossible to ignore as every region of the world experiences the "feminization" of the HIV/AIDS pandemic, once thought a disease of men.[159] The rate of infection and rapidity of death has risen more rapidly for women than for men, ballooning over the last two decades.[160] An account of unequal transmission dynamics and burdens of STDs, including HIV, can be offered from an array of world views, from scientific to feminist and intersectional theories of inequities based on gender, sexual orientation, and race.

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[155] Mark Davis, *E-Dating, Identity and HIV Prevention: Theorising Sexualities, Risk and Network Society*, 28 SOC. HEALTH & ILLNESS 457, 468 (2008).

[156] Joan R. Cates & Linda Alexander, *Prevention of Sexually Transmitted Diseases in An Era of Managed Care: The Relevance for Women*, 8 WOMEN'S HEALTH ISSUES 169 (1998).

[157] *Id.*

[158] Donna Hubbard McCree & Anne M. Rompalo, *Biological and Behavioral Risk Factors Associated with STDs/HIV in Women: Implications for Behavioral Intervention*, *in* BEHAVIORAL INTERVENTIONS FOR PREVENTION AND CONTROL OF SEXUALLY TRANSMITTED DISEASES 310, 310 (Sevgi O. Aral et al. eds., 2007).

[159] *See, e.g.*, LINDA LEWIS ALEXANDER ET AL., NEW DIMENSIONS IN WOMEN'S HEALTH 194 (2009) (women more likely to die from HIV); S. Mehta, *The AIDS Pandemic: A Catalyst for Women's Rights*, 94 INT'L J. OBSTETRICS & GYNECOLOGY 317, 317 (2006) (" 'feminization' of the epidemic"); *see also, e.g.*, Shannon L. Hader et. al., *HIV Infection in Women in the U.S.: Status at the Millennium*, 285 JAMA 1186, 1187 (2001) (reporting that women "increasingly shoulder the burden of HIV disease" in United States); Ctrs. for Disease Control & Prevention, U.S. Dep't of Health & Human Servs., *AIDS Trends*, at slide 18 (2009), *available at* http://www.cdc.gov/hiv/topics/surveillance/resources/slides/trends/slides/trends.pdf (showing steadily soaring numbers of adult and adolescent females living with HIV/AIDS acquired through heterosexual contact).

[160] ALEXANDER ET AL., *supra* note 159, at 194.

1. A Gender-Salient Account of Transmission Dynamics

Women are substantially more likely to be infected by a male partner than to infect a male partner during heterosexual vaginal or anal intercourse, with efficiency estimates of as much as seven to nine times greater likelihood according to a large-scale ten-year study of Americans.[161] Heterosexual sex is the main mode of infection for women, accounting for 70% of infections in 2005.[162] Heterosexual sex also remains the most the most prevalent form of intercourse in a population where 90% of the population identifies itself as heterosexual, and only 6.2% of men have had anal or oral sex with another man and 11.5% of women have ever had any "sexual experience" with another woman.[163] The greater likelihood of male-to-female transmission is due to a number of factors, including the longer length of exposure for women due to semen deposit inside the body, which may remain for hours, whereas the period of exposure for men is only during the relatively brief act of intercourse.[164] Moreover, the concentration of HIV in semen, particularly during the window of high infectivity, is higher than in vaginal fluids.[165] The cervix and vagina or anal cavity of women is more vulnerable to infection because of the greater surface area of thin blood-rich lining that is exposed to a partner's secretions during sex.[166] Younger women or post-menopausal women are also more vulnerable because their vaginal lining is more prone to tears or lacerations.[167] For similar reasons, women are also

[161] *See, e.g.*, Nancy S. Padian et. al., *Heterosexual Transmission of Human Immunodeficiency Virus (HIV) in Northern California: Results from a Ten-year Study*, 146 AM. J. EPIDEMIOLOGY 350, 354 (1997) (finding seven to nine times greater efficiency of male-to-female transmission); *see also, e.g.*, Anne Buvé et al., *Gender and Sexually Transmitted Diseases*, *in* SEXUALLY TRANSMITTED DISEASES 151, 153 (King K. Holmes ed., 4th ed. 2008) (surveying studies).

[162] Hader, *supra* note 159, at 1187-88; *see also* KAISER FAM. FOUND., WOMEN AND HIV/AIDS IN THE UNITED STATES 1 (July 2007), *available at* http://www.kff.org/hivAIDS/upload/6092-04.pdf (noting that heterosexual intercourse accounted for 70% of infections among women in 2005).

[163] William D. Mosher et al., *Sexual Behavior and Selected Health Measures: Men and Women 15-44 Years of Age, United States, 2002,* ADVANCE DATA, Sept. 15, 2005, at 13-14.

[164] Koray Tanfer et al., *Gender, Race, Class and Self-Reported Sexually Transmitted Disease Incidence*, 27 FAM. PLAN. PERSP. 196, 197 (1995).

[165] ALTA VAN DYK, HIV/AIDS CARE AND COUNSELING: A MULTIDISCIPLINARY APPROACH 35 (2008); *Women and HIV/AIDS*, HIVINFOSOURCE.ORG, http://www.hivinfosource.org/hivis/hivbasics/women/ (last visited Oct. 19, 2011).

[166] VAN DYK, *supra* note 165, at 34-35.

[167] *See, e.g.*, McCree & Rompalo, *supra* note 158 at 310, 311-12 (citing studies).

more likely than men to be infected with genital herpes, gonorrhea, syphilis, and other prevalent STDs.[168]

Unequal transmission dynamics are profoundly intensified because of the cultural contexts of sex. The risk factor for a woman is often defined by her male partner because most infections by women are acquired heterosexually from the male partner.[169] Because of gender constructs of the virile male and the chaste female that still permeate social norms, men are far more likely to engage in casual sex than women.[170] In studies of concurrent sexual relationships, men are more likely than women to report having had a concurrent partner.[171] Among those attending STD clinics, 76% of women reported their main sexual partner also had other partners, compared to the substantially lower percent — 44% — of males so reporting.[172]

Evolutionary psychology posits that the difference in the sexual behavior and predilections of men and women for casual sex also stems from differences in sexual strategies early in the history of human evolution.[173] A host of studies indicate women have a stronger relational orientation than men.[174] Evolutionary psychologists posit that this difference is due to nature as well as nurture. Women, who can only give birth and care for a limited number of children, developed a preference for long-term relationships that remains sustained today by the female endocrine system, which tends to flood the brain with oxytocin — the bonding "cuddle" chemical — during sexual intercourse.[175] In contrast, men experience a surge of testosterone during sex, which drives the desire to seek out more mates, perhaps an endocrinal remnant of an evolutionary reproductive strategy to have many short-term sexual partners to maximize offspring.[176]

The harsher double standard for women who engage in casual sex may also leave women unprotected as a practical societal matter when trust and an agreement are violated. For example, an eighteen year-old

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[168] *See, e.g.*, Buvé et al., *supra* note 161, at 153-64 (citing studies).

[169] McCree & Rompalo, *supra* note 165, at 310, 313.

[170] Tanfer et al., *supra* note 164, at 197.

[171] Paik, *Contexts*, *supra* note 28, at 37 (collecting studies).

[172] Gorbach & Holmes, *supra* note 100, at iii19.

[173] Peterson & Hyde, *supra* note 55, at 22.

[174] *See, e.g.*, Manning, *Hooking Up*, *supra* note 128, at 463 (collecting studies).

[175] *See, e.g.*, STEPP, supra note 28, at 121 (noting oxytocin spike and how many young women feel depressed and used after hook-ups); Peterson & Hyde, *supra* note 55, at 22 (evolutionary psychology).

[176] Peterson & Hyde, *supra* note 55, at 22.

study interviewee related the bad experience of her friend in a FWB relationship: "It turned out very badly because he slept with another girl . . . she said they had a deal that they were just going to sleep with each other."[177] Women in relationships outside the traditional form have little recourse and often little societal sympathy when the agreement is breached and they are exposed to disease.[178]

Power imbalances because of persistent inequities when it comes to status, power, and gendered norms of behavior further heighten the vulnerability of women across the span of relationships.[179] A prime example is the negotiation of condom use. Studies indicate that women feel inhibited in requesting condom use because, among other reasons, requests for condom use are often misinterpreted by men "as an indication of mistrust or infidelity, leading to loss of the male partner or domestic violence."[180] A study of sexually active young women who had contracted sexually transmitted infections found that none asked their male partner to use a condom because of concern that condom negotiation would lead to derogatory labeling as promiscuous and because of gendered social expectations that the woman be the non-initiating, submissive partner.[181] Women may also put their health at risk and eschew asking that the man use a condom to conform to societal ideals that they should put the desires and needs of men over their own.[182] The many contexts where women face physical violence, threat of violence, and other forms of coercion further circumscribe the ability to take protective measures and heighten vulnerability to STDs, including HIV.[183] While the public health challenge is a shared one, the foregoing factors render the need for remedies particularly acute for women.

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[177] Manning, *Hooking Up*, *supra* note 128, at 476.

[178] *Cf.* Mary Crawford & Danielle Popp, *Sexual Double Standards: A Review and Methodological Critique of Two Decades of Research*, 40 J. SEX RES. 13, 13, 20-25 (2003) (discussing persistence of sexual double standard when women rather than men engage in casual sex and prevalence of "bad girl/whore" perception).

[179] *See* Gorbach & Holmes, *supra* note 100, at iii18; *see also, e.g.*, Mehta, *supra* note 159, at 318 ("Gender inequality is the major reason for women's increased vulnerability to HIV infection.").

[180] KAREN SAUCIER LUNDY & SHARYN JANES, COMMUNITY HEALTH NURSING: CARING FOR THE PUBLIC'S HEALTH 467 (2d ed. 2009).

[181] East et al., *supra* note 133, at 78-79, 82.

[182] *Id.* at 82.

[183] *Id.*

2. Gender-Unequal and Intersectional Burdens of STDs, Including HIV

Women also suffer greater harm from some of the most common STDs and bear a statistically unequal burden of STDs. Epidemiological modeling indicates that women have an unequal and higher prevalence of STDs in part because while most women have close to the average number of sexual partners, men have a much wider variance, with a minority of men with a high number of partners accounting for the majority of sexual encounters and transmission of STDs dispersed among women.[184]

Common STDs such as HPV, chlamydia, and gonorrhea also physically impact the female body more harshly.[185] For example, one of the most common sexually transmitted infections, HPV, can cause cervical cancer, an often fatal or debilitating disease in women and the second most common cancer worldwide.[186] As a result, HPV mortality and morbidity rates are higher in women than men.[187] STDs also put women at risk for pelvic inflammatory disease and dangerous ectopic pregnancies in which an egg implants outside the uterus, leading to potential hemorrhage and other complications.[188] STDs such as chlamydia and gonorrhea are also more difficult to detect in women than in men, meaning that the pathogens can flourish until greater damage is done.[189] While the ravages of HIV and AIDS are similar between the genders, women are more likely to die from HIV than men because of insufficient recognition that women as a population are particularly vulnerable to acquiring HIV and resulting obstructions in diagnosis, prevention and treatment efforts.[190]

The intersectionality of marginalization plays a large role in heightened vulnerability to sexually transmitted infections and disproportionate burdens.[191] The burden of STDs, including HIV, is

[184] Rodrigo Gouveia-Oliveira & Anders Gorm Pederson, *Higher Variability in the Number of Sexual Partners in Males Can Contribute to A Higher Prevalence of Sexually Transmitted Diseases in Females*, 261 J. THEORETICAL BIOLOGY 100, 105 (2009).

[185] Buvé et al., *supra* note 161, at 153.

[186] Robert I. Field & Arthur L. Caplan, *A Proposed Ethical Framework for Vaccine Mandates*, 18 KENNEDY INST. ETHICS J. 111, 120 (2008).

[187] Buvé et al., *supra* note 161, at 156.

[188] *Id.*

[189] Tanfer et al., *supra* note 164, at 197.

[190] ALEXANDER ET AL., *supra* note 159, at 194.

[191] *See* Kimberlé Crenshaw, *Mapping the Margins: Intersectionality, Identity Politics, and Violence Against Women of Color,* 43 STAN. L. REV. 1241, 1243-46 (1991) (analyzing how women of color experience "intersecting patterns of racism and sexism" that "tend not to be represented within the discourses of either feminism or

hardest on the most socially marginalized — people of color, especially women of color and men of color who have sex with men.[192] Though gay men are estimated to constitute 2% of the national population, about half of new cases of HIV infections afflict men who have sex with men.[193] From an ecological perspective, these ravages reflect the social impact of discrimination against gay men and the social denigration of gay relationships.[194] The disparity is particularly acute for black men who have sex with men, who suffer more than twice the rates of HIV infection as white men who have sex with men, even though black men who have sex with men generally have fewer partners.[195]

The greatest racial disparity of all is in infection rates for black women, who are at the intersection of historic gender and racial inequities.[196] The disparity in infection for black women exceed every other racial or ethnic group of women by 4–21% and also exceed the disparity for men of color.[197] Black women suffer an HIV incidence rate of nearly fifteen times that of white women and nearly four times that of Hispanic women.[198] Hispanic women are also disproportionately

antiracism"); Angela P. Harris, *Race and Essentialism in Feminist Legal Theory*, 42 STAN. L. REV. 581, 585-63 (1990) (arguing for examining how women's experiences are impacted by race, class, sexual orientation); Darren Hutchinson, *Gay Rights' for 'Gay Whites'?: Race, Sexual Identity, and Equal Protection Discourse*, 85 CORNELL L. REV. 1358, 1363-67 (2000) (arguing for attention to racial inequality and subjugation in gay rights activism and scholarship and multidimensionality).

[192] *See infra* notes 195-203 and accompanying text.

[193] *See* CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP'T OF HEALTH & HUMAN SERVS., HIV AMONG GAY, BISEXUAL, AND OTHER MEN WHO HAVE SEX WITH MEN AIDS 1 (2010), *available at* http://www.cdc.gov/hiv/topics/msm/pdf/msm.pdf (stating 53% of new infections in 2006 were among men who have sex with men).

[194] *See* Gostin et al., *supra* note 21, at 75, 93 (noting "pervasive social hostility" contributed to inducing "a gay subculture built around nonmonogamous sexual relationships" and "secretive and furtive" sex). *See generally* WILLIAM N. ESKRIDGE, THE CASE FOR SAME-SEX MARRIAGE: FROM SEXUAL LIBERTY TO CIVILIZED COMMITMENT (1996) (illuminating how recognizing same-sex marriage will "civilize" gays and straights); PETER NICOLAS & MIKE STRONG, THE GEOGRAPHY OF LOVE: SAME-SEX MARRIAGE AND RELATIONSHIP RECOGNITION IN AMERICA (2011) (chronicling and mapping opposition to same-sex marriage).

[195] Rebecca Voelker, *Studies Illuminate HIV's Inequalities*, 299 JAMA 269, 269 (2008).

[196] Martina Morris et al., *Concurrent Partnerships and HIV Prevalence Disparities*, 99 AM. J. PUB. HEALTH 1023, 1023 (2009).

[197] *Id.*

[198] CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP'T OF HEALTH & HUMAN SERVS., HIV IN THE UNITED STATES 2 (2010), *available at* http://www.cdc.gov/hiv/resources/factsheets/PDF/us.pdf.

infected with HIV.[199] The HIV incidence among Hispanics is more than three times the rate for non-Hispanic whites with the disparity concentrated in Hispanic women, who are more than five times more likely than non-Hispanic white women to have HIV.[200] Black women are less likely to receive treatment for HIV and more likely to die early because of it.[201] AIDS is the leading cause of death among black women aged twenty-five to thirty-four years old.[202]

The hardest impacted racial groups — blacks and Hispanics — are overrepresented in statistics of STD, particularly HIV, infections because a disproportionate number of people of color are economically disadvantaged. They are situated by poverty in higher-risk communities, with decreased access to healthcare and heightened surveillance when healthcare is sought at clinics for the disadvantaged.[203] Scholars have used the concept of "structural violence" — violence arising from unequal distribution of power and resources — to help explain the gross disparities that women of color experience.[204] Societal patterns of disproportionate incarceration of people of color, a low male-to-female ratio because men of color die younger and are incarcerated in severe disproportion, residential segregation and circumscribed access to health services are major structural factors that lead to disproportionate burdens.[205]

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[199] Rosa M. González-Guarda, *HIV Risks, Substance Abuse, and Intimate Partner Violence Among Hispanic Women and their Intimate Partners*, 19 J. ASS'N NURSES AIDS CARE 252, 252 (2008).

[200] *Id.*

[201] ALEXANDER ET AL., *supra* note 159, at 194.

[202] Gina M. Wingood & Ralph J. DiClemente, *HIV Prevention for Heterosexual African-American Women*, *in* AFRICAN-AMERICANS AND HIV/AIDS: UNDERSTANDING AND ADDRESSING THE EPIDEMIC 211, 211 (Donna Hubbard McCree et al. eds., 2010).

[203] Tanfer et al., *supra* note 164, at 197; *see also* INSTITUTE OF MEDICINE, UNEQUAL TREATMENT: CONFRONTING RACIAL AND ETHNIC DISPARITIES IN HEALTHCARE 5-7, 35 (2002) (discussing evidence of racial disparities and inequities in healthcare treatment and access to healthcare); Wingood & DiClemente, *supra* note 202, at 216-18 (higher-risk communities with less access to partners and resources); Miller et al., *supra* note 96, at 2234 (heightened surveillance).

[204] Sandra D. Lane et al., Guest Editorial, *Structural Violence and Racial Disparity in HIV Transmission,* 15 J. HEALTH CARE FOR THE POOR & UNDERSERVED 319, 320 (2004).

[205] *Id.* at 320-22, 323-26; Russell K. Robinson, *Racing the Closet*, 61 STAN. L. REV. 1463, 1525-32 (2009).

II. GAPS AND SKEWED INCENTIVES IN THE CURRENT REGULATORY REGIMES

Despite the mounting public health challenge, law has limped along with continued inefficiencies and inefficacies. Increasingly, however, the societal costs and risks are becoming too great to ignore, and we are realizing that all are vulnerable.[206] To address the challenge, the public and scholars have typically looked to three main approaches: (1) the public health paradigm, (2) tort law, and (3) criminal law.

A. The Public Health Paradigm

The public health approach deploys as a first line of defense data collection regarding the prevalence of disease and voluntary partner notification or contact tracing so that those exposed can be informed and advised to get tested.[207] Experts have illuminated how the public health paradigm is outdated and ill-equipped to address the individual who endangers public health, constraining health officials to either do nothing or do too much. Examples include confinement, isolation, compulsory testing, and similar coercive measures defined by dated laws aimed at politically unpopular populations such as prostitutes.[208]

Surveying the state of public health laws, Lawrence O. Gostin, Scott Burris, and Zita Lazzarini concluded, "The most striking characteristic of state disease control law, and the one that underlies most of its defects, is its overall antiquity."[209] Public health law is a colorful patchwork of state laws accreted over the centuries in response to historical health concerns and shifting paradigms of regulation that often constrain public health officials to do too little or too much when it comes to individuals who endanger public health.[210]

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[206] *See supra* notes 89-99 and accompanying text; *see also, e.g.*, Gostin et al., *supra* note 21, at 63, 90 (noting that when "STDs continued to occur at a high rate among poor urban residents in the 1970s and 1980s, health budgets allotted scant funds for control programs" and political and public support "revived only when the epidemics seemed poised to endanger the 'general population' ").

[207] FAIRCHILD, *supra* note 5, at 7-11, 66-80; Gostin & Hodge, Jr., *supra* note 5, at 10-26.

[208] Gostin et al., *supra* note 21, at 115.

[209] *Id.* at 103.

[210] *Id.* at 63, 66, 103.

1. STD Surveillance, Screening, and Education

The primary stance of public health management is detection, treatment, counseling, education, and STD surveillance.[211] In public health parlance, surveillance means "the systematic observation of a population to identify the causes, prevalence, incidence and health effects of injury or disease."[212] Disease reporting, sexual contact tracing, and data collection regarding the four nationally reportable diseases of chlamydia, gonorrhea, syphilis, and chancroid, as well as HIV/AIDS data under state disease reporting statutes all fall under the rubric of surveillance.[213]

The cornerstone of public health management of STDs is partner notification, an updated term for the practice of "contact tracing," which has long historical roots to early attempts to control the syphilis epidemic at the turn of the sixteenth century.[214] The basic idea behind contact tracing, as practiced today, is that someone diagnosed with a STD is asked by her doctor to voluntarily disclose her sexual contacts, including potential transmitters and infectors.[215] Sexual contacts disclosed by the infected patient, who is termed the "index case" can then be notified so they can get tested and treated.[216] Notification can be delivered by health officials in what is termed "provider notification" or by the patient in what is termed "patient referral."[217] Under a third "conditional referral" approach, the patient has a specified period in which to notify the partners, but if they are not notified, the provider can notify them without identifying the

[211] Cates & Alexander, *supra* note 156, at 169.

[212] Gostin et al., *supra* note 21, at 82.

[213] *See generally* CDC STD SURVEILLANCE 2009, *supra* note 94 at 1, 5-134 (data); 21 CDC HIV SURVEILLANCE REP. 2-30 (2009) *available at* http://www.cdc.gov/hiv/surveillance/resources/reports/2009report/pdf/2009SurveillanceReport.pdf (collecting HIV/AIDS data based on confidential name-based reporting laws implemented in all 50 states as of April 2008).

[214] *See, e.g.*, FAIRCHILD, *supra* note 5, at 66-80 (history); C.S. Estcourt, L.J. Sutcliffe & T. Shackleton, *Achieving Successful Partner Notification: Putting Together the Pieces of the Puzzle*, 20 INT'L J. STD & AIDS 601, 601 (2009) (cornerstone); Gostin & Hodges, Jr., *supra* note 5, at 16-22 (process).

[215] *See, e.g.*, Helen Ward, *Contact Tracing and Partner Notification*, 33 MEDICINE 28, 29 (2005) (describing process). The pronoun "her" is particularly apt in this context because women represent the majority of people who endeavor to get tested and treated for sexually transmitted diseases.

[216] *See, e.g.*, Gostin & Hodges, Jr., *supra* note 5, at 26-34 (describing process).

[217] Pamina M. Gorbach et al., *To Notify or Not to Notify: STD Patients' Perspectives of Partner Notification in Seattle*, 27 SEXUALLY TRANSMITTED DISEASES 193, 193-94 [hereinafter *Notify*] (2000).

patient.[218] The goal is to break the network of transmission of the disease by removing potential nodes of transmission and changing behavior through knowledge from testing, counseling and education.[219]

The vast majority of states have laws explicitly providing for contact tracing for communicable diseases, particularly STDs and HIV/AIDS.[220] The laws impose on doctors and sometimes other categories of people likely to discover an infectious disease, such as school officials and nurses, a duty to report infectious STDs to public health authorities in order to facilitate surveillance over communicable diseases and contact tracing when appropriate.[221] Contact tracing laws are often also accompanied by strong privacy protections for information that a patient tells her doctor against general public release unless a heightened standard of need is met.[222]

A host of studies have documented patient resistance to partner notification efforts regardless of assurances of confidentiality because of fear, privacy desires, and, especially for women, the risk of domestic violence.[223] Unsurprisingly, therefore, partner notification programs have low yield rates. For example, one study found that partner notification for syphilis in Florida and New Jersey located less than 20% of partners who were potentially exposed, with an average of 0.88 people tested out of an average 5.7 people per patient potentially exposed.[224] The identification of approximately 374 additional people

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[218] *Id.*

[219] *See, e.g.*, M. Hogben et al., *Physicians' Opinions About Partner Notification Methods: Case Reporting, Patient Referral and Provider Referral*, 80 SEXUALLY TRANSMITTED INFECTIONS 30, 30-31 (2004) (breaking cycle); Patricia Kissinger & David Malebranche, *Partner Notification: A Promising Approach to Addressing the HIV/AIDS Racial Disparity in the United States*, 33 AM. J. PREVENTATIVE MED. S86, S86-S87 (2007) (changing behavior through notification).

[220] *See* Gostin & Hodges, Jr., *supra* note 5, at 27 tbl.A (collecting statutes in table).

[221] *See, e.g.*, CAL. HEALTH & SAFETY CODE § 121022(a) (2011) (imposing duty on health care providers); 410 ILL. COMP. STAT. ANN. 325/5(a) (2011) (imposing duty on physicians, nurses, physician's assistants and nurses); INDIANA CODE ANN. §§ 16-41-2-2, 16-41-2-3 (imposing duty on physicians); TEX. HEALTH & SAFETY CODE § 81.042 (2011) (imposing duty on doctors, school officials, nurses, nursing home administrators, and others).

[222] *See, e.g.*, COLO. REV. STAT. § 25-4-402(4) (2011) (providing for confidentiality unless disclosure is necessary).

[223] Karen H. Rothenberg & Stephen J. Paskey, *The Risk of Domestic Violence and Women with HIV Infection: Implications for Partner Notification, Public Law and Policy*, 85 AM. J. PUB. HEALTH 1569, 1571 (1995) (collecting studies).

[224] Thomas A. Peterman et al., *Partner Notification for Syphilis: A Randomized, Controlled Study of Three Approaches*, 24 SEXUALLY TRANSMITTED DISEASES 511, 514 & tbl.2 (1997).

who tested positive came at the cost of $422,316 in 1997, which converts to more than $550,000 in today's values.[225]

In our contemporary era of strained state budgets and cuts to public health funding, contact tracing is proving particularly cumbersome, costly, and spotty. For decades, public health funding has been "in chronic decline."[226] Budget-strapped public health agencies have hiring freezes that leave vacancies open and few employees to do the work of many, which has led to triage and limited ability to engage in traditionally costly practices such as contact tracing.[227] For example, in Mississippi, a state that suffers from high STD rates and climbing numbers of STD cases, some areas have only one or two officials to work thousands of new cases every year.[228] Despite the high cost and wide prevalence of partner notification programs, little information exists on the macro level about the efficacy of contact tracing in controlling endemic levels of STDs in a population.[229]

Increasingly the Centers for Disease Control and Prevention ("CDC") and other public health leaders are advocating ramping up the complementary strategy of screening — testing the population for STDs. In 2001, the CDC recommended routine consent-based HIV testing for pregnant women, and in 2006, the CDC pursued a bolder call for routine HIV screening of all people aged thirteen to sixty-four unless the prevalence of HIV in the patient population is less than 0.1%.[230] The routine screening proposal remains controversial. Mass screening is potentially very expensive — costing an estimated $864 million a year[231] — and suffers an aggravated form of inefficient

[225] *Id.*

[226] Gostin, et al., *supra* note 21, at 95.

[227] *See, e.g.*, *id.* at 95-96 (detailing budget cuts); Chris Joyner, *Public Health: Protect or Neglect?*, CLARION-LEDGER (Miss.), June 26, 2006, at A4 (noting funding cut for state health department of 40% in past five years, elimination of 2,900 positions, and that prevention programs across nation are similarly suffering).

[228] Joyner, *supra* note 227, at A4.

[229] *See, e.g.*, Catherine Mathews et al., *A Systematic Review of Strategies for Partner Notification for Sexually Transmitted Diseases, Including HIV and AIDS*, 13 INT'L J. STD & AIDS 285, 286 (2002) ("Partner notification has been practised for decades, with substantial resources directed towards it, and with little evidence as to whether it has made a public health impact on disease transmission."); Ward, *supra* note 215, at 30 (noting lack of evidence).

[230] *Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings*, 55 CDC MORBIDITY & MORTALITY WKLY. REP. RR-14, at 1, 2, 7, (2006) [hereinafter *Revised Recommendations for HIV Testing*] *available at* http://www.cdc.gov/mmwr/PDF/rr/rr5514.pdf.

[231] Holtgrave, *supra* note 16, at 1015.

selection, catching the "worried well" who do not pose as high a risk to the community.[232]

In search of ways to curb high STD rates, however, some jurisdictions are experimenting with routine screening approaches for students. DC, for example, which has epidemic-level HIV rates, recently unrolled a pilot program for screening of all high-school students for chlamydia and gonorrhea.[233] The pilot schools offer an opt-out option modeled after a similar Philadelphia program for routine STD testing of students.[234] Similar screening of high school students for STDs is planned in New York, Chicago, New Orleans, and Baltimore, among other cities.[235]

2. Difficulties Dealing With the Individual Who Endangers Public Health

The assumption behind the primary contemporary approaches of surveillance screening and education is that if an individual is aware and educated about his or her infection, he or she will change behavior to contain the risk posed.[236] But what if someone does not want to be aware and does not care about imposing externalities on others and would prefer to persist in risky behavior? When it comes to the uncooperative individual who endangers public health, the contemporary public health paradigm lurches awkwardly back to the often quite heavy-handed, physically coercive, and expensive practices of the past.

Consider Pennsylvania law as an example. Pennsylvania provides that if an individual who is infected with a "venereal disease" or tuberculosis refuses to submit to treatment, public health authorities may isolate the individual in an appropriate institution.[237] The law provides the following procedure for commitment upon petition:

> Upon filing of such petition, the court shall, within twenty-four hours after service of a copy thereof upon the respondent, hold a hearing, without a jury, to ascertain whether the person

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[232] James M. Hyman et al., *Modeling the Impact of Random Screening and Contact Tracing in Reducing the Spread of HIV*, 181 MATHEMATICAL BIOSCIENCES 17, 19 (2003) (summarizing critiques).

[233] Fears & Hernandez, *supra* note 17, at A1.

[234] *Id.*

[235] *Id.*

[236] *See, e.g.*, Kissinger & Malebranche, *supra* note 219, at S86-S87 (discussing behavior change assumption in context of notification regimes).

[237] PA. STAT. ANN. tit. 35, § 521.11(a.1) (2011).

> named in the petition has refused to submit to treatment. Upon a finding that the person has refused to submit to such treatment, the court shall forthwith order such person to be committed . . . .[238]

The law provides that persons with venereal diseases ordered isolated may be confined in any county jail, but interestingly does not relegate to jail persons ordered isolated because of tuberculosis.[239]

Several other states also afford public health and medical officials a particularly strong hand in dealing with carriers of "venereal diseases."[240] To take another example, New York Public Health Law section 2300 empowers public health authorities to compel testing for "venereal disease" based on a "reasonable ground to believe" an individual may be infected and to "isolate" individuals who refuse to be tested or even isolate individuals who do consent to testing pending test results.[241] A health officer has the power to require people infected with a venereal disease to submit to treatment or face isolation, or compel both testing and isolation.[242] A person who refuses may be ordered by the court to comply based on a showing that "the suspected person may constitute a source of infection to others."[243]

Among the patchwork of laws, Minnesota and Michigan provide examples of more recently updated and modernized regimes. Michigan allows public health officers to petition a court for an array of remedies to deal with someone determined to "be a carrier" of infectious diseases and "a health threat to others" who has failed to comply with a warning notice to cooperate with health authorities in

[238] *Id.* at § 521.11(a.2).

[239] *Id.* at § 521.11(b).

[240] *See, e.g.*, IDAHO CODE ANN. § 39-603 (2011) (authorizing health officers to direct examination of "persons reasonably suspected of being infected with venereal disease, and to require persons infected with venereal disease to report for treatment . . . and also, when in their judgment it is necessary to protect the public health, to isolate or quarantine persons affected with venereal disease"); MONT. CODE ANN. § 50-18-107 (West 2011) (empowering public health officials to require compulsory testing, treatment, and isolation or quarantine for persons who refuse treatment and providing no one but state or local health officer may terminate isolation or quarantine); N.J. STAT. ANN. §§ 26:4-2, 26:4-30, 26:4-31, 26:4-35 (2011) (empowering public health officials to order quarantine and remove infected persons "to a suitable place").

[241] N.Y. PUB. HEALTH LAW § 2300(1), (2), (4) (2011). The law was enacted in 1953 based on a 1909 public health law.

[242] *Id.* § 2303 (2011).

[243] *Id.* § 2301(2) (2011).

testing, treatment, counseling, and other behavioral interventions.[244] "Health threat to others" means "a carrier has demonstrated an inability or unwillingness to conduct himself or herself in such a manner as to not place others at risk of exposure to a serious communicable disease or infection."[245] Such risky behavior can be demonstrated by, for example:

> (i) Behavior by the carrier that has been demonstrated epidemiologically to transmit, or that evidences a careless disregard for transmission of, a serious communicable disease or infection to others.
>
> (ii) A substantial likelihood that the carrier will transmit a serious communicable disease or infection to others, as evidenced by the carrier's past behavior or statements made by the carrier that are credible indicators of the carrier's intention to do so.
>
> (iii) Affirmative misrepresentation by the carrier of his or her status as a carrier before engaging in behavior that has been demonstrated epidemiologically to transmit the serious communicable disease or infection.[246]

Upon a finding that health officials proved their allegations by clear and convincing evidence, remedies include such measures as compulsory testing, education, counseling, treatment, residence part-time or full-time in a supervised setting, and commitment to a facility for the foregoing purposes for up to six months, with extensions permissible on showing of good cause.[247] The judge also has discretion to enter "[a]ny other order considered just" under the circumstances.[248] The individual has the statutory right to an attorney, including a court-appointed attorney if indigent, at the hearing.[249] Minnesota has a substantially similar regime for those who pose a "health threat to others."[250]

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[244] *See* MICH. COMP. LAWS ANN. § 333.5203 (2011) (setting out basis for warning notice and procedure); *id.* at § 333.5205(6)(a)-(i) (2011) (potential court-ordered remedies).

[245] *Id.* § 333.5201(1)(b) (2011).

[246] *Id.* § 333.5201(1)(b)(i)-(iii).

[247] *Id.* § 333.5205(6)(a)-(h).

[248] *Id.* § 333.5205(6)(i).

[249] *Id.* § 333.5205(12).

[250] MINN. STAT. ANN. § 144.4172(8) (2011).

Whether antiquated or updated with more elaborate procedures, the public health paradigm is under strain when dealing with the non-cooperating individual. The contemporary approach of information and education to manage behavior and risk while avoiding direct incursions into physical autonomy is inverted, with a backup arsenal of profoundly physically coercive sanctions.[251] Because respect for self-determination is one of the strongest values of modern health practice, this puts health workers and public health officials in an awkward stance.[252] Fundamentally, the public health paradigm is ill-suited to address the need for accountability when it comes to the small but critically powerful set of individuals who endanger the public health and drive the spread of disease. Indeed, for such individuals, public health officials may look outside their legal turf to other agencies and branches of law, such as police, prosecutors, and the criminal law, to do the coercive lifting.[253]

B. Criminal Law

Numerous state laws criminalize the knowing or intentional exposure of another person to HIV or AIDS and other STDs through sexual contact.[254] Even absent such an express criminal law,

[251] See *supra* notes 237-43243 and accompanying text.

[252] *See, e.g.*, Arthur L. Caplan, *Ethical Issues Surrounding Forced, Coerced or Mandated Treatment*, 31 J. SUBSTANCE ABUSE TREATMENT 117, 117 (2006) ("Today you cannot find a stronger value in the ethics of American medicine than respect for self-determination.").

[253] *See, e.g.*, 105 CODE MASS. REG. § 340.201 (2011) (providing for public health department to "enlist the assistance of other State and local agencies" to deal with "a person [who] is the likely source of multiple STD" and "repeated efforts to contact and/or bring the person into medical care have been unsuccessful").

[254] *E.g.*, CAL. HEALTH & SAFETY CODE § 120291 ("Any person who exposes another to . . . (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."); FLA. STAT. ANN. §384.24 (criminalizing sex with failure to disclose and gain knowing consent by someone with chancroid, gonorrhea, genital herpes Chlamydia, pelvic inflammatory disease [HIV] syphilis and other STDs); 720 ILL. COMP. STAT. ANN. 5/12-5.01 (West 2011) (making it felonious for someone knowing he or she is infected with HIV to expose another to bodily fluids in manner that could result in transmission of HIV unless other person knowingly consents to risk); IOWA CODE ANN. § 709C.1 (West 2003) (same as Illinois); MD. CODE ANN., HEALTH-GEN. § 18-601.1 (West 2011) (making it misdemeanor to knowingly transfer or attempt to transfer HIV to another); MICH. COMP. LAWS ANN. § 333.5210(1) (making it felonious for someone knowing he or she is HIV-infected to engage in sexual penetration of another without first informing partner of serostatus) (West

prosecutions are also possible under state laws criminalizing, for example, assault.[255] Yet, investigations and prosecutions are relatively rare because the clumsy, heavy artillery of criminal law is ill-suited for the problem and poses perverse incentives and potential victim-chilling.[256]

1. Perverse Incentives, Unjust Consequences

An estimated 25% of people infected with HIV do not know they are because they have not gotten tested.[257] The lack of knowledge takes a high toll on public health — 54–70% of new HIV infections are caused by people who do not know about their disease status.[258] There is, therefore, a strong public interest in encouraging testing and treatment to contain the spread of STDs, as reflected in the prevention strategy

2011); N.Y. PUB. HEALTH L. § 2307 (McKinney 2011) ("Any person who, knowing himself or herself to be infected with an infectious venereal disease [e.g., Chlamydia, syphilis and gonorrhea] has sexual intercourse with another shall be guilty of a misdemeanor."); VA. CODE ANN. §§ 18.2-67.4:1, 32.1-289.2 (2004) (making it a felony for a person "knowing he is infected with HIV, syphilis, or hepatitis B" to have "sexual intercourse, cunnilingus, fellatio, anallingus or anal intercourse with the intent to transmit the infection to another person," and a misdemeanor for such an individual with knowledge of infection to engage in specified sexual conduct without disclosing disease status); *see also* Andrew M. Francis & Hugo M. Mialon, *The Optimal Penalty for Sexually Transmitting HIV*, 10 AM. L. & ECON. REV. 388, 389 (2008) (noting that 28 states criminalize exposure to HIV and most make it felony to knowingly expose another person to HIV through risky sexual activity without disclosing HIV status); Zita Lazzarini et al., *Evaluating the Impact of Criminal Laws on HIV Risk Behavior*, 30 J. L. MED. & ETHICS 239, 241-43 & tbl.1, 246 (2002) (tabulating features of laws in 25 states that have disease transmission or exposure statutes comparatively); James B. McArthur, Note, *As the Tide Turns: The Changing HIV/AIDS Epidemic and the Criminalization of HIV Exposure*, 94 CORNELL L. REV. 707, 709 (2009) (collecting HIV/AIDS exposure laws in 21 states, all passed before 2000).

[255] *See, e.g.*, State v. Ferguson, 1999 WL 1004992, at *1-3 (Wash. Ct. App. 1999) (unreported) (affirming conviction for second-degree assault for HIV infection by man who disclosed his status and agreed to use condom, but then removed condom before ejaculating in woman).

[256] *See* Lazzarini et al., *supra* note 254, at 244-45 (finding no prosecutions under general communicable disease or STD exposure statutes and 164 convictions over entire United States for HIV exposure or transmission during five-year period — mostly involving conduct such as nonconsensual sex, prostitution, or assault that are also generally criminalized).

[257] *Revised Recommendations for HIV Testing*, *supra* note 230, at 2.

[258] Bernard Branson, *Current HIV Epidemiology and Revised Recommendations for HIV Testing in Healthcare Settings*, 79 J. MED. VIROLOGY S6, S6 (2007); Gary Marks et al., *Estimating Sexual Transmission of HIV from Persons Aware and Unaware that They Are Infected with the Virus in the USA*, 20 AIDS 1447, 1448-49 (2006).

shift of the CDC to encouraging more testing.[259] Yet the criminalization of knowing or intentional transmission of an STD provides a perverse incentive not to find out one's disease status and gives those who do not get tested and treated a windfall defense of lack of mens rea. Because most criminal laws require, at a minimum, knowledge of one's disease status, those who avoid testing and treatment lack the minimum mens rea for conviction.[260] The influence of criminal law, if any, on sexual health decisions is a disputed and complex phenomenon.[261] At a minimum, however, criminal law's regimes operate to benefit those who do not get tested, whether to avoid liability or for some other reason, such as fear of finding out about infection with a dangerous and stigmatizing disease.[262]

2. Victim Chilling and Barriers to Entry

Healthcare workers responsible for delivering the bad news of an STD infection often find that the patient, upon learning the news, is angry with a partner for transmission and may believe the transmission was intentional.[263] Doctors tend to find that women especially are in the position of wanting to confront partners because the STD diagnosis led them to realize their partner had breached their trust and endangered their health by having other sexual partners without their knowledge or agreement.[264] Yet, most of these people do not bring criminal prosecutions.

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[259] *See* Branson, *supra* note 258, at S7 (discussing CDC's strategy shift in 2003 to encouraging routine testing).

[260] *See, e.g.*, Andrew M. Francis & Hugo M. Mialon, *The Optimal Penalty for Sexually Transmitting HIV*, 10 AM. L. & ECON. REV. 388, 391-97 (2008) (critiquing current knowledge-based criminal penalties regime).

[261] *See, e.g.*, Scott Burris et al., *Do Criminal Laws Influence HIV Risk Behavior?: An Empirical Trial*, 39 ARIZ. ST. L.J. 467, 479 (2007) (finding that whether HIV is criminalized may not influence sexual or health-seeking behavior because reasons for sexual behavior are complex, and, at any rate, people are often ignorant of law and, therefore, do not make decisions based on it). *But see* M. Gorbach et al., *Don't Ask, Don't Tell: Patterns of HIV Disclosure Among HIV Positive Men Who Have Sex with Men with Recent STI Practising High Risk Behavior in Los Angeles and Seattle*, 80 SEXUALLY TRANSMITTED INFECTIONS 512, 514, 516-17 (2004) (reporting — to authors' surprise in light of literature against HIV criminalization — that some high-risk HIV-positive individuals surveyed said prospect of criminalization impacted whether they mitigated risks in sexual behavior).

[262] *See* Burris et al., *supra* note 261, at 479 (indicating fear of discovering that one is infected with dangerous and stigmatized disease is likely deterrent against testing).

[263] *See, e.g*, Gorbach et al., *Notify*, *supra* note 218, at 199 (reporting on anger).

[264] *Id.* at 198; *see also, e.g.*, Miriam R. Chacko et al., *Understanding Partner Notification (Patient Self-Referral Method) by Young Women*, 13 J. PEDIATRIC

One study found no prosecutions under general laws criminalizing exposure to, or transmission of, STDs for the fifteen-year period between 1986 and 2001.[265] For HIV exposure, there were 164 convictions nationally during the fifteen-year period.[266] More than 70% of all prosecutions arose from behavior already illegal under general criminal laws, such as nonconsensual sex, assault, or prostitution.[267] The dearth of prosecutions is unsurprising, when viewed in light of the difficulties in bringing a case.

Victims face many hurdles and barriers that chill the will to make a case of transmission criminal, even if life-altering wrongful conduct was in breach of the consent to have sex. As the women in the Padieu case experienced, the victims are on trial too in a case involving wrongful sexual conduct. [268] Even if they have the option to go by anonymized referents that strip victim identity information from the public record, victims still face the emotional harm of being characterized as "deserving whores" and "sluts," as the women in the Padieu case experienced.[269] The tendency to blame the victim is particularly pronounced in cases of sex, which is an everyday kind of activity. Believing the victim "deserved" the harm preserves a potential sense of invulnerability and control — the idea that what happened to the person harmed will not happen to me.[270] There is a cognitive bias toward thinking the victim deserved the harm as an ego-defensive mechanism to preserve our sense of control over our environment and our desire for the world to be just in who experiences harms.[271]

High "victim attrition" rates in which many victims do not pursue their cases criminally have historically plagued another kind of sex crime — rape — especially before the advent of sweeping rape law.[272]

ADOLESCENT GYNECOLOGY 27, 30 (2000) (finding 39% of young adult women participating in partner notification discussed who gave infection to whom).

[265] Lazzarini et al., *supra* note 254, at 244-45.

[266] *Id.*

[267] *Id.*

[268] *See* text accompanying *supra* note 10.

[269] *Id.*

[270] Linda S. Perloff, *Perceptions of Vulnerability to Victimization*, 39 J. SOC. ISSUES 41, 45 (1983).

[271] *See, e.g.*, Isabel Correia et al., *The Effect of Belief in a Just World and Victim's Innocence on Secondary Infections, Judgements of Justice and Deservingness*, 14 SOC. JUSTICE RES. 327, 338-39 (2001) (studying cognitive bias in context of HIV infection); Chris L. Kleinke & Cecilia Meyer, *Evaluation of Rape Victim by Men and Women with High and Low Belief in a Just World*, 14 PSYCHOL. WOMEN Q. 343, 343-45, 350-52 (1990) (explaining cognitive bias in context of rape).

[272] *See, e.g.*, DIANE E.H. RUSSELL, SEXUAL EXPLOITATION: RAPE, CHILD SEXUAL ABUSE AND WORKPLACE HARASSMENT 36 (1984) (presenting data from study of women in San

Victims were extremely reluctant to pursue criminal cases because of systemic hostility and skepticism towards rape victims by the public, police, prosecutors, and jurors — the key decision-makers in criminal justice.[273] The risk of aggravating trauma and the uncertain-to-low potential for redress impeded recourse via the criminal justice system.[274]

The problem of putting the victim on trial that pervaded rape prosecutions in the past is also a major problem in wrongful exposure and disease transmission cases because consent is usually an issue in this context too.[275] Nearly all statutes that criminalize transmission of HIV are drafted so that disclosure of HIV status, permitting knowing consent to risk exposure during sex, means there has been no crime.[276] This means trials will often be a he-said, she-said (or he-said, he-said, or she-said, she-said) situation regarding whether there was disclosure before sex and the agreement to go forward constituted consent to the risk. With the credibility of both partners at issue, the door is open for potentially humiliating and harsh treatment of the victim.

C. Tort Law

While tort law permits suits for negligent transmission of STDs, this mode of enforcement suffers from similarly high hurdles and potential harms for would-be plaintiffs and the incentive not to acquire knowledge of one's disease. Due in part to the advocacy of women's organizations and the social hygiene movement in the beginning of the twentieth century, tort law began recognizing the "right to know"

Francisco that only 9.5% of rapes were reported); Mary P. Koss, *The Hidden Rape Victim: Personality, Attitudinal, and Situational Characteristics*, 9 PSYCHOL. WOMEN Q. 193, 206 (1985) (finding that only 4% of the 38% of college-age women who experienced conduct that fit definition of rape ever reported violation).

[273] *See, e.g.*, CATHARINE A. MACKINNON, WOMEN'S LIVES, MEN'S LAWS 211, 468 (2007) (discussing systematic barriers rape victims face).

[274] *See, e.g.*, STAFF OF SENATE COMM. ON THE JUDICIARY, 103D CONG., 1ST SESS., THE RESPONSE TO RAPE: DETOURS ON THE ROAD TO EQUAL JUSTICE at iii (Comm. Print 1993) (estimating that 98% of rape victims never see their attackers convicted); Joan McGregor, *Introduction to Symposium on Philosophical Issues in Rape Law*, 11 LAW & PHIL. 1, 2 (1992) (estimating likelihood of rape victim's case ending in conviction at 2–5%).

[275] *See, e.g.*, SUSAN LYNN EHRLICH, REPRESENTING RAPE: LANGUAGE AND SEXUAL CONSENT 121 (2001) (discussing victim-blaming in rape prosecutions); David P. Bryden & Sonja Lengnick, *Rape in the Criminal Justice System*, 87 J. CRIM. L. & CRIMINOLOGY 1194, 1196 (1997) (noting jury victim-blaming problem).

[276] James B. McArthur, Note, *As the Tide Turns: The Changing HIV/AIDS Epidemic and the Criminalization of HIV Exposure*, 94 CORNELL L. REV. 707, 719-20 (2009).

about one's partner's STD status.[277] The duty to disclose one's STD status to a potential sexual partner so that she or he can make an informed decision about whether to engage in sex and take precautions is now widely accepted, applying to a variety of diseases such as genital warts, herpes, human papilloma virus, gonorrhea, and HIV.[278] Providing a readily realizable remedy in the event of breach, however, is another matter.

Courts are hesitant to enter the messy, intimate sphere of warring lovers, sexual partners, or spouses and are apt to dismiss suits for insufficient evidence of knowledge or reason to know, even when a partner has breached a promise to be monogamous and engaged in an affair.[279] The most successful and obvious defense in a tort suit for wrongful transmission of a disease is, therefore, the "I did not know I had it" defense.[280] To mitigate the incentives problem, the vast majority of jurisdictions have a constructive knowledge standard to hold "responsible those who consciously avoid knowledge of infection even when suffering visible symptoms of a disease."[281] Still, courts tend to require either a positive test or proof of symptoms even under the constructive knowledge standard — ratcheting constructive knowledge to essentially a knowledge standard.[282] It is hard to prove that the defendant had symptoms unless the defendant seeks treatment for the symptoms. Thus, tort law also provides perverse incentives against testing or seeking treatment for possible symptoms and provides transmitters a windfall defense if they do not get testing or treatment.

Even if knowledge is proven, moreover, the majority of jurisdictions do not provide a remedy to regulate exposure to an STD, even if there

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[277] Gostin & Hodges, Jr., *supra* note 5, at 14-15.

[278] *See, e.g.*, John B. v. Superior Court, 137 P.3d 153 (Cal. 2006) (HIV); R.A.P. v. B.J.P., 428 N.W.2d 103, 106-07 (Minn. Ct. App. 1988) (genital herpes); Deuschle v. Jobe, 30 S.W.3d 215, 219 (Mo. Ct. Apps. 2000) (herpes and genital warts); DeVall v. Strunk, 96 S.W.2d 245, 246-47 (Tex. Civ. App. 1936) ("filthy vermin, commonly called crabs"); Duke v. Housen, 589 P.2d 334, 340 (Wyo. 1979) (gonorrhea).

[279] *See, e.g.*, McPherson v. McPherson, 712 A.2d 1043, 1046 (Me. 1998) (dismissing wife's suit against her husband, who infected her after having extramarital affair); Endres v. Endres, 968 A.2d 336, 341 (Vt. 2008) (affirming dismissal of suit brought by ex-wife against ex-husband for infecting her with strain of HPV that causes cervical, vulvar, and anal cancer after extramarital affair).

[280] Pollard, *Sex Torts*, *supra* note 19, at 800.

[281] *Endres*, 968 A.2d at 341.

[282] *See, e.g.*, *id.* at 341-42 ("Courts addressing this issue [of what suffices for constructive knowledge] have uniformly allowed plaintiffs to demonstrate knowledge by showing that the defendant has been diagnosed with an STD or has suffered from symptoms of an STD.").

is misrepresentation of disease status, absent transmission.[283] Before the anti-heartbalm tort movements of the twentieth century, tort law provided remedies for emotional harms stemming from misrepresentations and fraudulently obtained consent to sex under a variety of "heartbalm" or "amatory" torts, often aimed at providing women remedies against seducers.[284] By the early twentieth century, however, the interest convergence of men fearing that heartbalm torts were a cover for extortion by women, and women reformers who thought the torts reified antiquated notions of property interest in women, led to a successful elimination movement.[285] Today, this trend of cutting back tort remedies for mental and emotional harm from fraud and misrepresentation in sexual negotiation means that people who have been deceived into having sex, with the validity of their consent vitiated by fraud, have less of a remedy than those in the economic fraud context.[286] People who had sex without informed consent regarding the risk of STD exposure suffer an autonomy harm because of defective consent to sex as well as a potential health harm, but there may not be a remedy.

Potential plaintiffs also face similar risks of being blamed and humiliated as victims under criminal law. The tort liability inquiry is very fact-intensive, subjecting plaintiffs to scrutiny over their sex lives and potential recriminations that they were responsible for bringing STDs into the sexual partnership.[287] Such inquiries open the door to the similar trauma and plaintiff-deterrence in the criminal context. Moreover, in the tort context, while the plaintiff does not face the hurdle of having to convince potentially skeptical police and prosecutors to initiate a case, the plaintiff faces a similarly difficult hurdle in finding a lawyer willing to take the case. A self-styled "STD lawyer" in New York, Matthew Blitt of Levine & Blitt, wrote of the difficulties of practicing "STD law": "Unfortunately for most [of] these victims, a lawsuit over STDs can be very hard to litigate, extremely costly to pursue, and of little remedy even if they win."[288] Because of

[283] Deanna Pollard, *Intentional Sex Torts*, 77 FORDHAM L. REV. 1051, 1061 (2008) (noting "today, only a handful of states entertain actions grounded in sexual deceit in the absence of sexual disease transmission").

[284] *Id.* at 1055-56.

[285] Jane E. Larson, *"Women Understand So Little, They Call My Good Nature 'Deceit' ": A Feminist Rethinking of Seduction*, 93 COLUM. L. REV. 374, 393-94 (1993).

[286] *Id.* at 404.

[287] *See, e.g.*, John B. v. Superior Court, 137 P.3d 153, 155-56 (Cal. 2006) (involving cross-allegation by defendant husband that it was wife who brought HIV into relationship and discovery requests).

[288] Matthew Blit, Levine & Blit, *The Difficulty Practicing New York STD Law*, HG

these perverse incentives and barriers, tort law is also clumsy and ill-suited for addressing the pressing public health challenge.

III. INFORMATION-BASED APPROACHES TO IMPROVING LAW'S INCENTIVES

The confluence of regulatory regimes that have accreted over time treats information with incongruous delicacy and hoards it away from where it can do the most good and justice, even as the law exacts potentially more autonomy-intrusive and expensive sanctions. The result is an information deficit that is particularly pronounced and dangerous because of the rise of sex with partners we know less well.[289] In the absence of reliable, unbiased information, people have to resort to crude heuristics of who is "clean." A study focusing on women, for example, found such highly imperfect strategies as "washing oneself and one's partner before sex" and "inspecting the partner for sores or crusts."[290] A study of college students found that students relied on highly imperfect and potentially discriminatory proxies, such as physical appearance and presentation, as a heuristic to determine if someone is a "safe" and healthy sexual partner.[291]

This section proposes two information-based approaches to ameliorating the information deficit and improving laws' incentives and aim. The first informational strategy corrects the deficit of reliable information and provides incentive to get tested by promoting reliable verification of disease status as a way to bolster desirability as a sexual partner in a marketplace where "DDF" is an advertising point. The second strategy proposes "preventative privacy-piercing" for serial STD spreaders who have been implicated in three cases of transmission without disclosure despite notice to get tested and who decline alternative interventions such as counseling after repeated notice. The preventative privacy-piercing approach is a more efficient, cheaper, and less autonomy-intrusive approach than the costly and clumsy old paradigms of quarantine, isolation, imprisonment, or lawsuits and prosecutions against those who put the public health at

LEGAL DIRECTORIES, Nov. 30, 2009, http://www.hg.org/article.asp?id=7691.

[289] *See supra* Part I.A-B (discussing shift and implications).

[290] Blair Beadnell et al., *Preventing Sexually Transmitted Diseases (STD) and HIV in Women: Using Multiple Sources of Data to Inform Intervention Design*, 4 COGNITIVE & BEHAV. PRAC. 325, 331-32 (1997).

[291] Michael Hennessy et al., *Evaluating the Risk and Attractiveness of Romantic Partners When Confronted with Contradictory Cues*, 11 AIDS AND BEHAV., 479, 485-88 (2007).

risk. The two information-based strategies deploy the power of information as both a reward and sanction with deterrent force.

A. Information as Reward: Positive Incentives for Testing

The first approach, using information as reward, is aimed at correcting both the information deficit and providing positive incentive for regular STD testing. This informational intervention is also aimed at seeding a healthier, more informed culture of sexual choice. Such cultural norm-shifting can be a cheaper and more effective way to achieve a public good such as health.[292]

1. Making Testing Worthwhile: More Reliable Verification

Consider this typical scene in our contemporary sexual culture: Jane makes a connection with a potential romantic or sexual partner at a bar or over the Internet through a site like Craigslist. The potential partner self-advertises as "DDF" as is frequent in both the long-term relationship and casual encounters sections. But how does Jane really know the representation is true? Many people may not have paperwork to prove their claim. If STD tests are all negative, then providers may not call or write the patient or may simply verbally tell a negative-testing patient that he or she has nothing to worry about. The dearth of a reliable source of information means that Jane is forced to rely on unreliable verbal representations by persons with self-interest in self-advertising as DDF.[293]

Clearly there is a desire to mitigate risk of exposure to disease among many in the marketplace for sexual partners. Not only is DDF a common self-advertising point, it is also a frequent request in ads describing romantic or sexual partners, as is apparent upon scanning any of the myriad online sites, such as Craigslist, Plenty of Fish, and the like. Studies indicate that people who meet partners online inquire and care deeply about STD and HIV status. Nearly three-quarters of women who met sexual partners online discussed HIV and STI status with their partners.[294] Around 64% of young people aged eighteen to twenty-four who met their sexual partners online discussed HIV and STD status with their partners.[295] The rate of inquiry was even higher

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[292] *See, e.g.*, Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 947 (1996) (arguing that governmental norm-changing may sometimes be cheapest and effective way to regulate).

[293] *See infra* notes 85-88, 304-06 and accompanying text.

[294] McFarlane et al., *Women*, *supra* note 82, at 692.

[295] McFarlane et al., *Young Adults*, *supra* note 137, at 14 tbl.2.

among individuals twenty-five and older — 75.6% discussed HIV status and 67.8% inquired about other STDs as well with potential partners.[296] These statistics show that people care about their sexual health, but the information deficit dampens protective norms.

A public-private partnership is needed to move social practices past this suboptimal state of information deficit and acquiescence for lack of a better alternative.[297] Imagine the following shift in information culture: patients who get tested for STDs, including HIV, are rewarded with the option of creating a verification password that they can opt to share with potential partners. This online verification can also be coupled with a verification card. The card can be conveniently and discreetly carried in a purse, wallet or pocket and be readily available at a bar, at a party, or on the way to meet a potential partner found online in case a connection is made. Cards alone should not be the sole reference point because cards can be faked. The online verification should be the encouraged route with the card a preliminary screen preferable to none. The verification system is a positive incentive to opt *in* for testing because verifiability can be used to advertise oneself in a more reliable way than representing oneself as DDF or clean.

Of course, a recently checked card or verification site cannot be a guarantee of disease-free status. One may have a sexual encounter and contract an STD shortly after being checked. And tests have limitations so that a "clean" result may not necessarily mean one does not carry the disease. For example, it takes an average of 25 days for an HIV-infected person's body to develop sufficient antibodies for detection on HIV antibody tests.[298] Some may be worried that improving verification of disease status representation would create a false sense of security and enhance receptivity to riskier behavior. The overconfidence concern can be ameliorated, however, by providing notice that the results are no guarantee and a reminder to practice safe sex. Voluntary verification, even if not a guarantee, still plays an important signaling function that a prospective partner cares enough about his or her health — and that of a partner — to get tested and is a safer prospect. Cards may also be faked; but if someone goes to the

[296] *Id.*

[297] *See, e.g.*, Sunstein, *supra* note 292, at 947 (arguing that while ideally, private norm-changing might seem ideal, in reality there may be barriers to joining and forming).

[298] HIV TESTING BASICS FOR CONSUMERS, CTRS. FOR DISEASE CONTROL & PREVENTION, http://www.cdc.gov/hiv/topics/testing/resources/qa/index.htm (last visited Nov. 8, 2011).

trouble to fake an identification card to fraudulently induce someone into sex, then the evidentiary basis for prosecution or a tort suit becomes stronger.

The fact that verification cannot be 100% guaranteed does not detract from the fact that *improved* verification is an improvement over the current state of affairs. As discussed in Part I, people are increasingly engaging in sex with people they know less well in situations without traditional contextual sources of information — with or without reliable information. The question is how to mitigate the public health impact of what people are doing anyway. Status quo bias sometimes leads to the fallacious reasoning that reforms are untenable unless they can be implemented without risk of undesirable consequences.[299] In assessing proposals, however, the correct baseline is not some imagined state of perfection without tradeoffs, but rather the needs of imperfect reality.[300]

2. Fostering the Cultural Climate for Health

The success of the informational innovation would hinge on the ability of law and policy to shift norms to make a quick online verification system as well-accepted as the idea of safe sex and condom use is today. In other words, a private-public partnership of health professionals, celebrity promoters and state health authorities would need to nudge culture and social norms through law and policies and a public health advertising campaign. Such a social norm-shaping campaign is well within the competence and purview of public health authorities. Examples of prior successful public health advertising campaigns include such main staples of contemporary culture as condom promotion, the anti-smoking campaign, the campaign against drunken driving, and the campaigns for healthier diet and exercise.[301]

Health policies aimed at affecting individual behavior tend to operate by changing the social meaning of activities.[302] For example, to encourage condom use, the meaning of requesting a condom was altered from a sign of mistrust to a normalized affirmed practice — "everybody uses condoms" and celebrities are on television promoting

[299] *See* Dan M. Kahan, *What's Really Wrong with Shaming Sanctions*, 84 TEX. L. REV. 2075, 2079 (2006) (discussing status quo bias problem in evaluating policy innovations).

[300] *See id.* (discussing baselines for evaluation).

[301] *See* Gostin, et al., *supra* note 21, at 79-80 (citing examples); Lawrence Lessig, *The Regulation of Social Meaning*, 62 U. CHI. L. REV. 943, 1022-1035 (1995) (citing examples).

[302] Gostin, et al., *supra* note 21, at 73.

it.[303] A successful anti-smoking campaign changed the social meaning of smoking from glamorous to gross.[304] Larry Lessig has termed intervention in social meaning "social construction" and illuminated how the government can play a role in social construction towards the collective good by pursuing laws and policies that change old social meanings.[305] A meaning-shifting nudge from law, policy, and the government can overcome the collective action problem of motivating individuals to engage in small behaviors that can produce a large aggregate of social good, even if the individual good is not immediately apparent or incremental.[306]

To change norms, private-public partnerships are often the best to reach communities and foster trust and legitimacy.[307] Law and policy also must proceed delicately in this domain of fiercely competing worldviews, lest controversy over social meanings undermine a healthy idea. The social meaning handicap has impeded needle exchange programs because of a sense that such programs endorse drug use, leading to a federal ban on funding for such programs that was only recently lifted after two decades, despite efficacy and import in stemming the spread of HIV.[308]

To appeal across polarized worldviews, the informational intervention must be suffused with a multiplicity of meanings capable of affirming competing interests and stances.[309] For egalitarians and liberals, a voluntary verification system has the appeal of enabling sexual freedom and fostering better-informed and more truly autonomous sexual decisions. The approach would also help mitigate potential discrimination in the absence of reliable information and avoid having people rely on crude and stereotypical heuristics for

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[303] *Id.*

[304] *See id.* at 93-94 (discussing social meaning change from glamorous to undesirable); Lessig, *supra* note 301, at 1031 (discussing factors behind successful change in social meaning).

[305] Lessig, *supra* note 301, at 960-68.

[306] *See id.* at 1008 (discussing incrementalism); Sunstein, *supra* note 292, at 957 (discussing collective action problem).

[307] Sunstein, *supra* note 292, at 952.

[308] *See, e.g.*, David Vlahov et. al., *Needle Exchange Programs for the Prevention of Human Immunodeficiency Virus Infection: Epidemiology and Policy*, 154 AM. J. EPIDEMIOLOGY S70, S72 (2001) (chronicling history); Susan Sharon, *Ban Lifted on Federal Funding for Needle Exchange*, NAT'L PUB. RADIO (NPR) MORNING EDITION, Dec. 18, 2009, *available at* http://www.npr.org/templates/story/story.php?storyId=121511681 (describing ban lift).

[309] *See* Dan M. Kahan, *The Cognitively Illiberal State*, 60 STAN. L. REV. 115, 145-48 (2007) (arguing that law and policy should be infused with a surfeit of meanings to appeal to people of divergent worldviews, particularly in controversial contexts).

screening potential risk.[310] For libertarians and conservatives, voluntary verification systems would promote the public health and cut down on the high fiscal costs of managing the burgeoning STD burden through a more minimalist, cheaper and less heavy-handed governmental intervention. While evolving sexual norms may split people of different ideological and religious backgrounds, public health is a shared interest that impacts people across perspectives.

B. Information as Sanction: Accountability for Repeat STD Spreading

A system of effective governance also needs a method of accountability for actors who pose a particularly pronounced threat to the collective interest in public health. An information-based approach can provide a more cost-effective, efficient, and less physical autonomy-intrusive sanction that can be narrowly tailored to impact only those who pose the greatest risk to public health. This section sets out a proposal of preventative privacy-piercing for repeat STD spreaders as a more efficient and cost-effective alternative. The information-based deterrent and sanction is better calibrated to identity and address the small subset of the most problematic actors implicated in the serial spread of the most serious STDs.

1. A Small Subset of the Population Drives STD Spread

The "sexually transmitted disease core" is a well-established concept in STD epidemiology, referring to the tiny proportion of the population that "is responsible for the maintenance and spread" of STDs.[311] The concept is an important part of disease containment strategy because interventions targeted at just this tiny proportion of people would have great impact in rendering the disease unsustainable in the overall population and thus be more efficient and efficacious.[312]

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[310] *Cf.* Lior Jacob Strahilevitz, *Reputation Nation: Law in an Era of Ubiquitous Personal Information*, 102 NW. U. L. REV. 1667, 1670, 1681-82, 1685-88 (2008) (arguing that allowing access to criminal history information would facilitate better-individuated decisions and may help ameliorate resort to illegitimate group-based discriminatory proxies like race deployed as a basis for judging desirability).

[311] Olivier Humblet et al., *Core Group Evolution Over Time*, 30 SEXUALLY TRANSMITTED DISEASES 818, 818 (2003).

[312] Sevgi O. Aral, *Behavioral Aspects of Sexually Transmitted Diseases: Core Groups and Bridge Populations*, 27 SEXUALLY TRANSMITTED DISEASES 327, 327-28 (2000); *see, e.g.*, Julia L. Marcus et al., *Syphilis Testing Behavior Following Diagnosis with Early Syphilis Among Men Who Have Sex with Men–San Francisco, 2005–2008*, 38(1) SEXUALLY TRANSMITTED DISEASES 24, 24-25 (2011).

Definitions of the STD core vary. The mathematical definition is couched in terms of a reproduction rate of infection greater than one, ($R_o > 1$).[313] A reproduction number, or R_o, represents the number of cases of secondary infections that one case of infection produces.[314] A reproduction number greater than one is associated with epidemic outbreaks and sustained endemic levels of infectious disease.[315] The reproduction number is a function, in part, of the transmission efficiency of a person (β), which can be influenced by behavioral decisions such as whether to use a condom or not, as well as the individual's mean number of sexual partners per unit of time (c), and the duration of infectiousness (D). The elegantly simple mathematical equation that emerges is: $R_o = \beta cD$.[316]

In practice, however, the mathematical definition is difficult to deploy because it requires accounting for the number of infections each person is responsible for spreading, which is difficult to determine.[317] Refined clinical definitions of the core employ more observable proxies of measurement, such as people with a substantially higher number of sexual partners and rate of partner change, or people with a high number of infected sexual contacts.[318] An oft-used behaviorally based approximation defines the core group for STD spreading by the number of sex partners within a time period.[319]

Definitions of the core based on the number of sex partners vary as to precisely *how many* sex partners in a given period puts a person potentially in the core, with some researchers using the criterion of four or more sex partners in a year and other researchers using a definition of an average of five or more partners per year over the range of years studied.[320] The latter definition based on an average of five partners per year has been found to correspond to a disease reproduction number greater than one ($R_o > 1$) for gonorrhea, chlamydia and HIV, thus, fitting the mathematical and fundamental

[313] Humblet et al., *supra* note 311, at 818.

[314] For a helpful overview, see, for example, K. Dietz, *The Estimation of the Basic Reproduction Number for Infectious Diseases*, 2 STAT. METHODS MED. RES. 23 (1993).

[315] *Id.*

[316] James C. Thomas & Myra J. Tucker, *The Development and Use of the Concept of a Sexually Transmitted Disease Core*, 174 J. INFECTIOUS DISEASES S134, S135 (1996).

[317] Humblet et al., *supra* note 311, at 818.

[318] Thomas & Tucker, *supra* note 316, at S135.

[319] *Id.* at S137-S138.

[320] *Id.*

idea of the core group of STD spreaders.[321] Unsurprisingly, studies of the behavior of core group members find that they tend to have more concurrent sex partners.[322]

While the shorthand of the number of sex partners is often used in the literature to approximate a core group member, it bears underscoring — elegantly depicted in the mathematical equation for R_o — that a high number of sexual partners alone does not necessarily make someone a core group member. R_0 is partly a function of the transmission probability per sexual partnership (β) and the mean infection duration (D).[323] The reproduction number is impacted by factors such as the number of partners, rate of acquiring partners, *and* engaging in practices that diminish the probability of transmission such as condom usage.[324]

2. Preventative Privacy-Piercing

In choosing sexual partners, people have a strong interest in knowing whether someone is part of the small but critical subset of actors who drive the spread of STDs. People have an interest in avoiding the Philippe Padieus *before* multiple people have been infected with a life-altering incurable STD such as HIV. There is an information deficit, however, so that even if an individual has been repeatedly identified by infected individuals as the transmitter, there is no way for the public to access the information unless the case is one of the few rare cases that make it to criminal prosecution and into the public record — a suboptimal and costly option for the reasons discussed in Section II.B.

The information deficit regarding even repeat STD spreaders stems from an inherited paradigm that hoards information and power in the state. Our current legal regime interposes strong privacy protections for STD information even while incongruously reserving the power for

[321] *Id.*

[322] *Id.* at 822.

[323] G.P. Garnett, P.J. White & H. Ward, *Fewer Partners or More Condoms?: Modelling the Effectiveness of STI Prevention Interventions*, 84 SEXUALLY TRANSMITTED INFECTIONS ii1, ii4-5 (Supp. II 2008).

[324] *Id.* at ii5, ii7, ii9. Recent data indicates that groups that disproportionately bear the *harms* of STDS disproportionately practice *safer* sex and use condoms in greater proportion, thereby dampening transmission efficiency. *See* Stephanie A. Sanders et al., *Condom Use During Most Recent Vaginal Intercourse Event Among a Probability Sample of Adults in the United States*, 7 J. SEXUAL MED. 362, 370 (2010) (finding that condom-protected intercourse "was significantly associated with younger ages, black or Hispanic race/ethnicity, and having sex with a nonrelationship partner").

the state to interpose very intrusive, autonomy-invasive, and costly approaches to control, such as isolation, quarantine, and even confinement.[325] As our social and sexual mores shift and public health officials call for paradigm shifts to more effectively address the problem of STDs surveillance, it is time to explore a more contemporary information-based approach that provides the double benefit of deterrence and correcting the information deficit.

Privacy has never been and should not be an absolute value and veil, especially for practices that infringe on the rights of others and exact collective externalities. As Anita Allen has eloquently argued: privacy matters, but accountability matters too, including accountability for intimate matters of sex.[326] Prominent scholars including Amitai Etzioni, Anita Allen and Mary Ann Glendon have illuminated the need to ground rights in responsibility and accountability, not just autonomy.[327] Even the strongest advocates for a nonutilitarian liberal conception of fundamental rights, such as Ronald Dworkin, recognize limits on rights to safeguard the competing rights of other individuals.[328] A number of health information privacy statutes already balance and contain general exceptions for disclosure when necessary to protect the public health.[329]

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[325] *See supra* note 236 and accompanying text.

[326] ANITA ALLEN, WHY PRIVACY ISN'T EVERYTHING: FEMINIST REFLECTIONS ON PERSONAL ACCOUNTABILITY 4-5, 20-21, 152-54, 161, 185 (2003).

[327] *See, e.g.*, *id.* at 4-5, 16, 20-21, 152-54, 161, 185 (illuminating need to hold individuals accountable to avert harm to others); AMITAI ETZIONI, THE SPIRIT OF COMMUNITY 7-8, 165-89 (1993) (arguing that rights should be calibrated to responsibilities and take into account externalities imposed by deleterious individual behavior); MARY ANN GLENDON, RIGHTS TALK: THE IMPOVERISHMENT OF POLITICAL DISCOURSE at x-xi, 40 (1991) (arguing that lost in rights explosion and rhetoric is need to redress conflict with rights of others).

[328] *See, e.g.*, RONALD DWORKIN, TAKING RIGHTS SERIOUSLY 193-94 (1977) (analyzing how limitations to rights may be justified because of "competing rights" of citizens to state protection); *see also* Linda C. McClain, *Rights and Irresponsibility*, 43 DUKE L.J. 989, 994, 1050-51 (1994) (arguing that "rights make possible the exercise of responsibility" and examining linkage between rights and responsibilities in liberal theory).

[329] *See, e.g.*, COLO. REV. STAT. § 25-4-402(4) (2011) (providing for confidentiality unless disclosure is necessary); N.J. STAT. ANN. § 26:4-41 (2011) (protecting privacy of sexually transmitted diseases information, but authorizing disclosure "when and only when the physician or health authority shall deem such disclosure necessary in order to protect the health or welfare of the person or of his family or of the public"); N.Y. PUB. HEALTH Law § 2785(2) (McKinney 2011) (permitting a court to allow disclosure of confidential HIV-related information upon showing of "clear and imminent danger to the public health").

This recognition that privacy is not absolute and that disclosure is permitted when necessary to protect the public health can be developed and systematized into a more cost-effective approach to ensuring accountability and ameliorating the information deficiency when it comes to sexual decisions. Any approach should be narrowly tailored to focus in on the small subset of the population in the STD core that pose the most significant risk and serve the compelling interest of ensuring the public health.[330] The compelling interest should be viewed at the collective level as well as the individual risk level because of the nature of public health as a collective good in which aggregate individual conduct can wreak dangerous collective externalities.[331]

A systematized balancing would permit a carefully circumscribed preventative privacy-piercing approach to deterring risky behavior and ameliorating the information deficit that people face. The preventative privacy-piercing approach would apply to individuals triangulated by three separately infected persons as a repeat spreader of STDs that pose a substantial health risk and/or life-impacting condition.[332] The paradigmatic STD is HIV. Legislatures may, however, democratically decide to also include other incurable diseases that also impact people's lives irrevocably, such as genital herpes, or heighten vulnerability to contracting HIV, such as syphilis. Where an STD has a gender-unequal impact, the nature of the impact will be measured based on the consequences for the gender most severely impacted.

The approach would give potential victims of transmission, who have good reason to know who has transmitted an infection to them, an outlet outside of the potentially brutal arena of criminal and tort law. In the privacy and comfort of their doctor's offices, they would have the option to report problematic actors who fraudulently obtained consent to sex through misrepresentations about disease status or other misrepresentations, such as breaching the promise of monogamy. In the health law and policy context, I have argued that physicians on the front lines should help public health authorities engage in priority triage by flagging contacts of greatest concern and

[330] *See infra* Part III.C (interest balancing).

[331] *Cf.* Elizabeth Weeks Leonard, *The Public's Right to Health: When Patient Rights Threatens the Commons*, 86 WASH. U. L. Rev. 1335, 1344-49 (2009) (analyzing collective good nature of public health and how overly strong privileging of an individual rights focus may conflict with and deplete the common good).

[332] See *supra* Part I.B-C for a discussion of the impact of these sexually transmitted diseases.

making a record as to the reason for flagging.[333] For example, the infected individual may have a strong basis for inferring who constituted the source of infection because she or he was in a supposedly longstanding monogamous relationship based on a partner's representations.[334] In a time when contract-tracing is impossible for all reports because health departments are understaffed and underfunded, individuals flagged as a priority contacts should be first on the list for public health intervention. Priority contacts pose stronger concern because not only have they been identified as a potential source of infection, but they have also been named as an autonomy-violating transmitter who obtained consent to sex through misrepresentations, thereby rendering the consent infirm.

At the first report of a potential priority contact, intervention should be in the customary mode of notification and education. Priority contact flagging can better guide the aim of interventions such as education, testing, counseling and treatment beyond reliance on heuristics regarding which groups constitute "high-risk" populations that currently is a prominent factor. Rather than group-level generalizations, which concentrate surveillance and intervention on traditionally marginalized groups, there would be a more justified basis for focused intervention. The tiered approach first emphasizes focused provision of counseling, testing and treatment. For the vast majority, the hope is that cooperation and education will obviate the need to ever reach the sanctions stage.

For the small but critical subset of individuals that pose the greatest public health risk, however, sanctions that can be deployed with greater certainty than the expensive, heavy, rarely-deployed hammers of tort and criminal law need to be in the background as a deterrent. On a priority flag report of another infection, there needs to notice of an additional report and a warning. The warning gives notice that a third priority report of infection and allegedly fraudulently obtained consent to sex occurring after the warning could render the individual

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[333] Mary D. Fan, *Decentralizing STD Surveillance: Cultivating a Healthier Sex and Informed Consent Culture*, 11 YALE J. HEALTH POL'Y L. & ETHICS (forthcoming 2011) (manuscript at 34-35).

[334] Consider, for example, this account:

> When I met him [husband] I was very inexperienced. [I] had never had sex b4 [before], and as the relationship developed I thought it was just him and me. It turned out that he had been playing up all along, and I suppose I was lucky not to get a whole lot of worse diseases. I mean, we were married when I found out.

East et al., *supra* note 181, at 80.

subject to civil sanctions of preventative privacy-piercing. The notice would explain that preventive privacy-piercing means revealing the individual as someone who has infected another individual without disclosure and consent despite prior advisal of the need to get tested and duty to disclose before sex.

Notice plays a crucially important role in this informational approach because of due process reasons *and* because if notice is implemented in an effective manner, the *prospect* of preventative privacy-piercing can serve as a deterrent without ever having to proceed to a sanctions phase. The most cost-effective and liberty-protective sanction is one that is at once cheap, has a greater likelihood of being applied, and has sufficient deterrent heft to avert even having to use it in most cases.[335]

In the rare cases where the powerful deterrent is not effective, the state needs to provide a hearing for the defendant to offer an opportunity to be heard, consistent with due process requisites. The State speaks with a special power and to name someone as an individual who has infected someone without disclosure and consent after notice and attempts at cooperative interventions is to brand with a mark of disgrace. The Supreme Court, in *Wisconsin v. Constantineau*, indicated that the State may attach "such a stigma or badge of disgrace" to address a public ill, but "notice and an opportunity to be heard are essential."[336] The advantage of a civil administrative hearing is that it allows greater room for procedures protective of the infected victims and alternative modes of proof by clear and convincing evidence[337] such as victim affidavits filed under seal or testimony by public health investigators regarding victim statements.

Even at this juncture, the rehabilitative stance of the State persists. The ultimate informational sanction could be held in abeyance, if the individual agrees to counseling and a treatment plan addressing both the symptoms and behavior that harm the public health. The goal is to harness the deterrent value of a possible informational sanction to secure cooperation from individuals who may pose a risk to the public

[335] *Cf.* MARK A.R. KLEIMAN, WHEN BRUTE FORCE FAILS 3, 49-50 (2009) (arguing that most cost-effective approach is to ensure swift and certain rather than severe punishment, and to aim for as much deterrence with as little punishment as possible).

[336] Wisconsin v. Constantineau, 400 U.S. 433, 435 (1971).

[337] The clear and convincing evidence standard has been ruled sufficient to satisfy the demands of constitutional due process in the more severe liberty-stripping context of involuntary confinement in the civil context. Addington v. Texas, 441 U.S. 418, 432-33 (1979).

health without ever having to deploy the sanction except in the most egregious cases where rehabilitative efforts have proven unsuccessful.

3. Disinfecting the Bathroom Wall of Private Self-Help

The sunshine of reliable information processed through avenues that provide due process can help disinfect and avert resort to potentially harmful virtual bathroom walls of private self-help. An example of such a virtual bathroom wall site is stdcarriers.com, founded by a man who alleged that his girlfriend infected him with herpes without disclosing her disease status.[338] The web site claims to list the names of more than 850 Americans with STDs.[339] The site is immensely problematic because it lacks any sort of due process protections and simply names people based on actual — or alleged, whether true or false — disease status, rather than on any sort of basis of verifiable public health risk. The site functions as a worldwide-searchable bathroom wall for the bitter, relying on virtual smear power for vengeance.

Smear-power self-help web sites enjoy broad protections from defamation-based actions because of Section 230(c)(1) of the Electronic Communications Privacy Act. The section provides: "No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider."[340] Section 230(c)(1) has been controversially construed to provide a broad ambit of immunity for websites that broadcast potentially defamatory content provided by other users, insulating the reputational and emotional harms that come from online smearing from effective redress.[341] The recent case of *Barnes v. Yahoo!, Inc.* provides an example.[342] *Barnes* involved a suit by a woman whose ex-boyfriend posted a profile on Yahoo! pretending to be her — with nude photos of her, her contact details and a feigned solicitation for sex — which led to several unwanted

[338] *See* Ann Yeager, *Oregon Man's STD Reporting Website Generates Controversy*, KGW NEWS (Or.), Nov. 2, 2008, *available at* http://current.com/groups/culture/89482038_oregon-mans-std-reporting-website-generates-controversy.htm.

[339] NATIONAL SEXUALLY TRANSMITTED DISEASE REGISTRY, http://stdcarriers.com/registry/1-unitedstates.aspx (last visited Sept. 19, 2011).

[340] 47 U.S.C. § 230(c)(1) (2011).

[341] *See, e.g.*, Ann Bartow, *Internet Defamation as Profit Center: The Monetization of Online Harassment*, HARV. J.L. & GENDER 383, 390 (2009) (discussing controversy and harms); Danielle Keats Citron, *Cyber Civil Rights*, 89 B.U. L. REV. 61, 117-22 (2009) (discussing controversies over immunity for web site operators).

[342] Barnes v. Yahoo!, Inc., 570 F.3d 1096, 1102-03 (9th Cir. 2009).

phone calls, emails and personal visits from people expecting sex.[343] The Ninth Circuit held that Yahoo! was insulated by Section 230(c) from suit even though it failed to remove the false, humiliating and harassing information in a timely fashion, despite her repeated notifications and efforts to seek removal.[344] Section 230(c) reflects the notion that online speech should be robust, free-wheeling and wide-open and that the disinfectant for harmful speech is more speech.[345]

The problems with private self-help sites like stdcarriers.com show the need for an informational intervention to ameliorate the information deficit in the limited circumstances where the interest is most compelling and to act as a disinfectant to harmful self-help. The triangulation standard for preventative privacy-piercing ensures that the interest is compelling because an individual has been found, by clear and convincing evidence, to have been a probable transmitter infecting three different people without disclosure. Preventative privacy-piercing corrects the information deficit because there is a particularly compelling basis to believe the public needs the information. If the individual were prosecuted, his or her identity would then be public too. But privacy-piercing spares the resource-strapped system, victims, and plaintiffs the costs of having to turn to the tort or criminal justice system for the state to take an information-based protective measure.

The preventative privacy-piercing proposal should be understood in this dual sense of an information deficit corrective and a deterrent that only intrudes on privacy in the contexts where the need is particularly compelling. In this sense, the preventative privacy-piercing proposal has the power to be suffused with multiple meanings that can appeal across worldviews in a way that the hot-button notion of a "shaming sanction" has difficulty doing — despite the lower human, liberty, and fiscal costs of shaming compared to incarceration.[346] The approach serves goals that appeals across wider worldviews, from ensuring true, fully informed sexual autonomy and consent to protecting the public health from the small subset of actors who pose the most risk through

[343] *Id.* at 1098.

[344] *Id.* at 1102-03.

[345] *See, e.g.*, Carafano v. Metrosplash.com, Inc., 339 F.3d 1119, 1122 (9th Cir. 2003) (explaining that provision is aimed at fostering free exchange of information and ideas over Internet).

[346] *See* Dan M. Kahan, *What's Really Wrong with Shaming Sanctions*, 84 TEX. L. REV. 2075, 2080-89 (2006) (explaining that while shaming is superior, more cost-effective, and more humane than imprisonment, it suffers from deeply partisan meaning that has difficulty bridging divergent cultural worldviews).

a more cost-efficient mechanism of a private-public partnership using the information marketplace.

C. Interest-Balancing and Narrow Tailoring

The proposed informational interventions call for examining our affective sense of privacy as well as the lessons of antidiscrimination law and the constitutional law of information disclosure. We have a deep affective sense of privacy regarding our sexual health information. Virtually every U.S. jurisdiction has laws protecting the privacy of health information, and nearly every jurisdiction has laws on the privacy of STD information.[347] At the federal level, the Health Insurance Portability and Accountability Act of 1996 ("HIPAA")[348] has powerfully transformed medical practice and expressed a strong commitment to privacy of patient health records.[349] At the constitutional level, the U.S. Supreme Court has suggested that "unwarranted disclosure" of health records would violate the privacy protections that inhere in the Fourteenth Amendment's concept of liberty.[350] Yet, no source of law provides absolute protection for privacy against the public's interest in sexual health.

Indeed, HIPAA, for all its strong protections, is "unambiguous about the nearly sacrosanct status of public health surveillance" as reflected in the public health "carve-out" for reporting of notifiable communicable diseases.[351] The HIPAA exception is framed in broad terms for the protection of the public health:

> Nothing in this part shall be construed to invalidate or limit the authority, power, or procedures established under any law providing for the reporting of disease or injury, child abuse, birth, or death, public health surveillance, or public health investigation or intervention.[352]

The Ninth Circuit recently reiterated the broad exception for public health investigation in rejecting a challenge to the public nature of sexual predator evaluations.[353] State privacy protections in the context of STD surveillance laws also contain exceptions for information

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[347] Lawrence O. Gostin et al., *The Public Health Information Infrastructure*, 275 JAMA 1921, 1921-23 (1996).

[348] 42 U.S.C. § 1320d-d(8) (2011).

[349] FAIRCHILD, *supra* note 5, at xix, 233-34.

[350] Whalen v. Roe, 429 U.S. 589, 605 (1977).

[351] FAIRCHILD, *supra* note 5, at 234.

[352] 42 U.S.C. § 1320d-7.

[353] Seaton v. Mayberg, 610 F.3d 540, 541 (9th Cir. 2010).

disclosures to third parties couched in various terms, often focused on the necessity of protection of public health and third parties.[354]

In the constitutional context, the Supreme Court has not clearly delineated the standard governing disclosure of health information. Most recently, in *NASA v. Nelson*, the Supreme Court assumed without deciding that there may be a constitutional right to privacy against government information disclosures, but held that even if there were, government employment questionnaires asking about drug use would not violate it.[355] The key case suggesting there may be constitutional privacy protections against certain kinds of "unwarranted disclosure" of health information was *Whalen v. Roe*.[356] *Whalen* involved a challenge to a New York controlled substances law that required reporting and collecting the names of all people who buy, pursuant to a doctor's prescription, certain drugs such as methadone and cocaine, for which there was then both a lawful and unlawful market.[357] The Court noted that "an essential part of modern medical practice" involved health information disclosures to public health agencies among other entities and cited as an example venereal disease reporting requirements.[358] Though recognizing that in certain instances some unwarranted disclosures might transgress constitutional privacy protections, the Court concluded there was no "invasion of any right or liberty protected by the Fourteenth Amendment" on the facts of the case, involving limited disclosure for public health and safety purposes.[359] Concurring in *Whalen*, Justice Brennan argued that broad dissemination by state officials of medical information "would clearly implicate constitutionally protected privacy rights, and would presumably be justified only by compelling state interests."[360]

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[354] *See, e.g.*, COLO. REV. STAT. § 25-4-402(4) (2011) (providing for confidentiality unless disclosure is necessary); N.J. STAT. ANN. § 26:4-41 (2011) (authorizing disclosure "when and only when the physician or health authority shall deem such disclosure necessary in order to protect the health or welfare of the person or of his family or of the public"); N.Y. PUB. HEALTH LAW § 2785(2) (McKinney 2011) (permitting court to allow disclosure of confidential HIV-related information upon showing of "clear and imminent danger to the public health").

[355] NASA v. Nelson, 131 S. Ct. 746, 751, 755-56 (2011).

[356] 429 U.S. 589, 605 (1977).

[357] *Id.* at 591-93 & n.7.

[358] *Id.* at 602 & n.29.

[359] *Id.* at 605.

[360] *Id.* at 606-07 (Brennan, J., concurring) (citing Roe v. Wade, 410 U.S. 113, 155-56 (1973)).

Justice Brennan's decision for the majority three months after *Whalen* in *Nixon v. Administrator of General Services*, however, cast doubt on what standard applies in the context of information disclosures. *Nixon* involved a suit by former President Richard Nixon arguing, among other things, that legislation directing an executive official to take custody of his Presidential papers and tape recordings to screen them for retention of public documents violated his privacy interest against disclosure of private information.[361] In the analysis of the claim, Justice Brennan cited the flexible interest-balancing standard from the Fourth Amendment administrative search and the *Terry* stop and frisk context.[362] The test was that "any intrusion must be weighed against the public interest in subjecting the Presidential materials . . . to archival screening."[363] Despite citing the government-deferential interest-balancing cases from the Fourth Amendment context in defining his test, Justice Brennan's analysis of the facts of the case also used language that drew on terms reminiscent of intermediate or strict scrutiny. He concluded that "the archival review procedure involved here is designed to serve important national interests . . . and the unavailability of less restrictive means necessarily follows from the commingling of the documents."[364]

In the vacuum of ambiguity as to whether a constitutional right to information privacy exists and what standards apply, some lower courts appeared to apply strict scrutiny, holding that disclosure must serve a compelling state interest in the least intrusive manner.[365] The Court's latest word in *Nelson* suggests that to the extent any constitutional right of information privacy even exists, interest-balancing is the appropriate standard. The Court noted: "We reject the argument that the Government, when it requests job-related personal information in an employment background check, has a constitutional burden to demonstrate that its questions are 'necessary' or the least restrictive means of furthering its interests."[366] While the fog as to whether a right exists at all and what standard might apply is policy innovation-chilling,[367] this clarification — that to the extent a right

[361] Nixon v. Adm'r of Gen. Services, 433 U.S. 425, 459 (1977).

[362] *Id.* at 458 (citing Camara v. Municipal Court, 387 U.S. 523, 534-39 (1967), and Terry v. Ohio, 392 U.S. 1, 21 (1968)).

[363] *Id.*

[364] *Id.* at 464.

[365] *E.g.*, Mangels v. Pena, 789 F.2d 836, 839 (10th Cir. 1986).

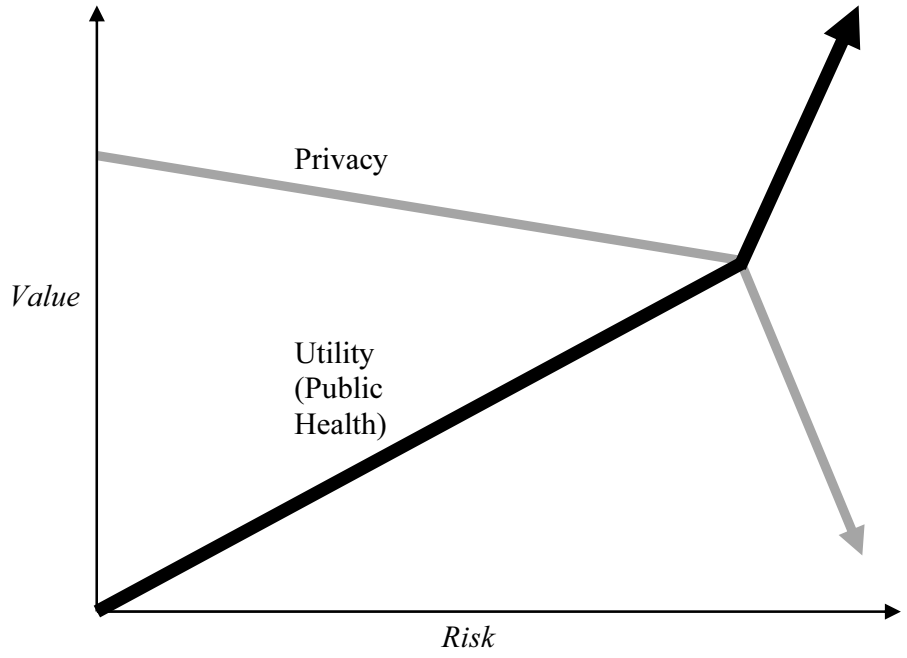
[366] NASA v. Nelson, 131 S. Ct. 746, 760 (2011).

[367] *See* Mary D. Fan, *Constitutionalizing Information Privacy by Assumption*, 14 U. PA. J. CONST. L. __ (forthcoming 2011) (analyzing blur of standards and arguing lack

exists, strict scrutiny is not the standard — mitigates some of the innovation-chilling.

In any event, the preventative privacy-piercing proposal satisfies narrow tailoring and compelling interest standards, even if meeting such a high standard is not constitutionally compelled. As depicted in Figure A, preventative privacy-piercing only arises at the tipping point when interest is compelling. At this inflection point, there is a utility spike because of the high risk posed by someone found by clear and convincing evidence to be an autonomy-infringing transmitter of an STD with serious potential consequences to the public health.

Figure A. Privacy and Utility versus Risk.



CONCLUSION

Both of the proposed approaches harnessing the reward and deterrent aspect of information pose a challenge to old dogma and cultural attitudes about sex, disease, and privacy. Customarily, government intervention is juxtaposed against the countervailing

of clarity is innovation-chilling).

interest of autonomy.[368] In our contemporary context, however, informational interventions by the government can be sexual autonomy–enhancing as well as public health–protective because they enable people to make informed choices. History and the evolution of the concept of privacy have shown that privacy has the plasticity, dynamism, and utilitarian nature to address changing social mores and needs. The foundational law review article framing the right to privacy by Louis Brandeis and his friend Samuel Warren opened with a paean to how law evolves to meet the needs of a changing society.[369] Warren and Brandeis wrote:

> Man's family relations became a part of the legal conception of his life, and the alienation of a wife's affections was held remediable. Occasionally the law halted, — as in its refusal to recognize the intrusion by seduction upon the honor of the family. But even here the demands of society were met. A mean fiction . . . was resorted to, and by allowing damages for injury to the parents' feelings, an adequate remedy was ordinarily afforded.[370]

Informational-contexts, needs, and cultures shift and evolve with particular rapidity and pronounced effects in the electronic age. The concept and law of privacy was not meant to be a shield to avert accountability or a barrier to advances or policy innovations in how we deploy information. A letter that Justice Brandeis penned shortly after authoring his influential article *The Right to Privacy* that gave rise to the contemporary concept of the right to privacy is instructive. Brandeis pondered whether he should write a companion piece to the article titled *The Duty of Privacy*.[371] He explained:

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[368] *See, e.g.*, Robert I. Field & Arthur L. Caplan, *A Proposed Ethical Framework for Vaccine Mandates*, 18 KENNEDY INST. ETHICS J. 111, 113-14 (2008) (explaining perceived conflict between autonomy and governmental health intervention in the form of mandatory vaccination).

[369] Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 193-94 (1890); *see also* Olmstead v. United States, 277 U.S. 438, 570 (1928) (Brandeis, J., dissenting) ("We have likewise held that general limitations on the powers of government, like those embodied in the due process clauses of the Fifth and Fourteenth Amendments, do not forbid the United States or the states from meeting modern conditions by regulations which 'a century ago, or even half a century ago, probably would have been rejected as arbitrary and oppressive.' ").

[370] Warren & Brandeis, *supra* note 369, at 194.

[371] Neil M. Richards, *The Puzzle of Brandeis, Privacy and Speech*, 63 VAND. L. REV. 1295, 1298, 1330 (2010).

> You know I have talked to you about the wickedness of people shielding wrongdoers & passing them off (or at least allowing them to pass themselves off) as honest men. Some instances of that have presented themselves within a few days which have fired my imagination. If the broad light of day could be let in upon men's actions, it would purify them as the sun disinfects.[372]

There is ample dynamism in our law and legal culture of privacy, sex, and autonomy to realize this vision in the context of our contemporary societal demands because of changes and new configurations in our sexual norms and practices.

[372] Letter from Louis D. Brandeis to Alice Goldmark (Feb. 26, 1891), *in* 1 LETTERS OF LOUIS D. BRANDEIS 100, 100 (David W. Levy & Melvin I. Urofsky eds., 1971).