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The Americans With Disabilities Act: magic Bullet or Band-Aid for Patients and Health Care Workers Infected wit The Human Immunodeficiency Virus?

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THE AMERICANS WITH DISABILITIES ACT: MAGIC BULLET[1] OR BAND-AID FOR PATIENTS AND HEALTH CARE WORKERS INFECTED WITH THE HUMAN IMMUNODEFICIENCY VIRUS?

'If you are asked to treat a patient with [the plague and] no chance of recovery,' wrote one surgeon in a late 14th-century book of advice for medical students, 'say that you will be leaving town shortly and cannot take the case.'[2]

INTRODUCTION

The acquired immune deficiency syndrome (AIDS), which has rapidly assumed epidemic proportions in many urban areas, has confronted the medical profession with difficult ethical and legal dilemmas. In particular, many physicians and other health care workers refuse to care for patients infected with human immunodeficiency virus (HIV)[3] and many patients fear they will contract the disease from infected physicians.[4]

The magnitude of the AIDS epidemic is reflected in an array of alarming statistics and projections. An estimated one million persons in the United States are infected with the HIV virus.[5] It is projected that by 1993 there will be as many as 225,000 Americans living with AIDS.[6] Large urban centers, such

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[1] "Magic bullet" is medical jargon suggesting that a therapeutic intervention will provide a miraculous cure for an ailment. Penicillin was such a cure for syphilis. Stephen J. Clark, *Magic Bullets*, 92 AM. J. MED. 85, 86 (1992).

[2] Abigail Zuger & Steven H. Miles, *Physicians, AIDS, and Occupational Risk, Historic Traditions and Ethical Obligations*, 258 JAMA 1924, 1925 (1987) (quoting PARK, DOCTORS AND MEDICINE IN EARLY RENAISSANCE FLORENCE 202 (1985)).

[3] *See* Philip M. Boffey, *Doctors Who Shun AIDS Patients Are Assailed by Surgeon General*, N.Y. TIMES, Sept. 10, 1987, at A1; *When Doctors Refuse to Treat AIDS*, N.Y. TIMES, Aug. 3, 1987, at A16 (editorial).

[4] *See* Patricia A. Marshall et al., *Patients' Fear of Contracting the Acquired Immunodeficiency Syndrome From Physicians*, 150 ARCHIVES INTERNAL MED. 1501 (1990).

[5] Centers for Disease Control (CDC), *Estimates of HIV Prevalence and Projected AIDS Cases: Summary of a Workshop, October 31 - November 1, 1989*, 39 MORBIDITY & MORTALITY WKLY. REP. 110, 110 (1990). *Morbidity & Mortality Weekly Report* is a publication of the CDC, a federal agency whose authority extends to many medical issues related to HIV infection.

[6] *Id.* at 117.

as New York City, have been disproportionately affected by the AIDS epidemic.[7] However, practitioners and health care facilities in rural and suburban areas are increasingly being called upon to care for HIV-infected patients as the AIDS epidemic spreads beyond large metropolitan areas.[8]

AIDS is unique among diseases that have previously confronted the medical community. While less contagious than hepatitis B or poliomyelitis, AIDS is uniformly fatal.[9] Moreover, an

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[7] Notwithstanding the rapid spread of HIV infection to nonurban areas, the disease remains concentrated in a small number of geographic areas. *See* CDC, HIV/AIDS SURVEILLANCE REPORT 7-8 (1991); CDC, *Update: Acquired Immunodeficiency Syndrome-United States, 1981-1988*, 38 MORBIDITY & MORTALITY WKLY. REP. 229, 230-31 (1989); David E. Rogers, *Federal Spending on AIDS—How Much is Enough*, 320 NEW ENG. J. MED. 1623, 1623 (1989). Half of all AIDS patients are cared for in only 5% of the nation's hospitals. NATIONAL COMM'N ON AIDS: ANNUAL REPORT TO THE PRESIDENT AND THE CONGRESS 33 (1990). Moreover, 40% of all AIDS cases have been reported from only five cities. David J. Rothman & Eileen A. Tynana, *Advantages and Disadvantages of Special Hospitals for Patients with HIV Infection. A Report by the New York City Task Force on Single-Disease Hospitals*, 323 NEW ENG. J. MED. 764, 764 (1990). While 16 states have a prevalence of AIDS of less than 4.9 cases per 100,000, New York State, with a prevalence nearly tenfold greater, leads all other states. CDC, *Mortality Attributable to HIV Infection/AIDS-United States, 1981-1990*, 39 MORBIDITY & MORTALITY WKLY. REP. 494, 507 (1990). New York City is the epidemic's epicenter in the United States. *See* Neil L. Albert, *A Right to Treatment for AIDS Patients?*, 92 DICK. L. REV. 743, 757 (1988). While the city comprises 3% of the nation's population, it is the source of 22% of the nation's AIDS cases. *See* Donald H. Gemson et al., *Acquired Immunodeficiency Syndrome Prevention. Knowledge, Attitudes, and Practices of Primary Care Physicians*, 151 ARCHIVES INTERNAL MED. 1102, 1102 (1991). It is estimated that 200,000 New Yorkers, or 1 in 35 residents, are infected with HIV. Jane Gross, *Many Doctors Infected With AIDS Don't Follow New U.S. Guidelines*, N.Y. TIMES, Aug. 18, 1988, at B1.

[8] The number of AIDS cases reported from geographic areas with populations of less than 500,000 rose from 10% before 1985 to 19% in 1988. CDC, *First 100,000 Cases of Acquired Immunodeficiency Syndrome-United States*, 38 MORBIDITY & MORTALITY WKLY.. REP. 561, 561 (1989). Conversely, the proportion of new cases of AIDS reported from New York City and San Francisco fell from 44% before 1985 to 25% in 1988. NATIONAL COMM'N ON AIDS, *supra* note 7, at 32. In 1989 the number of newly reported cases of AIDS in the United States increased 37% in rural areas as compared to only 5% in metropolitan areas. *Id.* at 158. It is predicted that 80% of new AIDS cases will occur in geographic areas outside of New York City and San Francisco. *Id.* at 32. *See also* Raymond C. Bredfeldt et al., *AIDS: Family Physicians' Attitudes and Experiences*, 32 J. FAM. PRAC. 71, 72 (1991) (thirty-two percent of family practitioners in communities with fewer than 2500 residents have dealt with AIDS patients); Stephen L. Green et al., *Community-Based Plan for Treating Human Immunodeficiency Virus-Infected Individuals Sponsored by Local Medical Societies and an Acquired Immunodeficiency Syndrome Service Organization*, 151 ARCHIVES INTERNAL MED. 2061 (1991) (community-based care for HIV-infected patients by primary care providers in Virginia); note 194 and accompanying text *infra*.

[9] *See generally* THE MEDICAL MANAGEMENT OF AIDS (Merle A. Sande & Paul A. Volberding eds., 1990).

enormous social stigma is attached to the diagnosis of AIDS that encompasses both fear of contagion and prejudice directed toward the victims' lifestyles.[10] The negative attitude of society toward the disease is reflected in many health care professionals' reluctance to care for HIV-infected patients or refusal to treat such patients.[11]

In 1990 the National Commission on AIDS, an advisory body to the President and the Congress, decried the shortage of physicians willing to take care of HIV-infected patients as one of crisis proportions.[12] In particular, the Commission observed that only 2000 of the nation's 600,000 practicing physicians were on the referral list maintained by the Physicians Association for AIDS Care.[13] National organizations of health care professionals have universally maintained that physicians and other health care professionals have an ethical duty to provide care for HIV-infected patients, notwithstanding the occupational risk of HIV transmission.[14] However, given the critical shortage of physicians

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[10] "AIDS brings with it a special stigma . . . [D]isclosure . . . can lead to social opprobrium among family and friends, as well as loss of employment, housing and insurance." Behringer v. Medical Ctr. at Princeton, 592 A.2d 1251, 1269-70 (N.J. Super. Ct. Law Div. 1991). *See also* Cain v. Hyatt, 734 F. Supp. 671, 680 (E.D. Pa. 1990) ("To conclude that persons with AIDS are stigmatized is an understatement; they are widely stereotyped as indelibly miasmic, untouchable, physically and morally polluted.").

[11] *See* NATIONAL COMM'N ON AIDS, *supra* note 7, at 55. *See also* note 3 *supra*. This Note will deal primarily with the duty of physicians to care for HIV-infected patients and will only tangentially discuss issues related to other health care providers and ancillary health care workers.

[12] *See* NATIONAL COMM'N ON AIDS, *supra* note 7, at 167.

[13] *Id.* at 164. The Commission also observed that in New York City, with over 200,000 HIV-infected inhabitants, only 22% of physicians and dentists had ever tested a patient for HIV. *Id.* Moreover, the Gay Men's Health Crisis's referral list of "qualified private AIDS specialists" willing to accept patients only contained approximately 50 names. *Id. But see* Gemson, *supra* note 7, at 1102 (In a 1988 survey, 90% of 473 primary care providers in New York City had ordered an HIV antibody test.).

[14] Professional medical organizations that have promulgated policy statements maintaining that physicians have an ethical duty to treat HIV-infected patients include the American Medical Association (American Medical Ass'n, *Report of the Council on Ethical and Judicial Affairs: Ethical Issues Involved in the Growing AIDS Crisis*, 259 JAMA 1360 (1988)), the American College of Physicians and the Infectious Diseases Society of America (Health and Pub. Pol'y Comm., American College of Physicians and the Infectious Diseases Soc'y of Am., *The Acquired Immunodeficiency Syndrome (AIDS) and Infection with the Human Immunodeficiency Virus (HIV)*, 108 ANNALS INTERNAL MED. 460, 462 (1988)), the Society of Thoracic Surgeons (Society of Thoracic Surgeons Ad Hoc Comm. on AIDS, *Report to the Membership*, 47 ANNALS THORACIC SURGERY, 946, 948 (1989)), the American College of Obstetricians and Gynecologists (Committee on Ethics, American College of Obstetricians and Gynecologists, *Human Immu-*

willing to treat HIV-infected patients, society cannot rely on ethical canons of the profession that impose an obligation to provide care.[15]

The AIDS epidemic has eroded the ethical standards of the medical profession. Many practitioners and health care students believe they are entitled to adopt internal standards of professional conduct and no longer acknowledge an obligation to provide care to all patients they are qualified to treat.[16] Especially disturbing are studies suggesting that approximately one-third of medical students and physicians-in-training have planned their future professional lives to avoid contact with HIV-infected patients.[17] Moreover, educational programs that attempt

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nodeficiency Virus Infection: Physicians' Responsibilities, 75 OBSTETRICS & GYNECOLOGY 1043, 1043 (1990)) and the Association of American Medical Colleges (Association of Am. Medical Colleges, *Professional Responsibility in Treating AIDS Patients*, 63 J. MED. EDUC. 589, 589 (1988)).

[15] *See* Troyen A. Brennan, *The Acquired Immunodeficiency Syndrome (AIDS) as an Occupational Disease*, 107 ANNALS INTERNAL MED. 581, 583 (1987) (editorial) ("It is unrealistic to expect high-quality care for AIDS victims simply because the ethical codes of health care workers call for care for all the sick and injured."). *But see* note 192 and accompanying text *infra*.

[16] *See* Paul M. Arneew et al., *Orthopedic Surgeons' Attitudes and Practices Concerning Treatment of Patients with HIV Infection*, 104 PUB. HEALTH REP. 121, 121 (1989) (eighty-five percent of 325 orthopedic surgeons surveyed in New York, San Francisco, Los Angeles, Miami and Washington, D. C., claimed the right to refuse care); Carol A. Bernstein et al., *Medical and Dental Students' Attitudes about the AIDS Epidemic*, 65 ACAD. MED. 458, 459 (1990) (thirty-six percent of 150 medical students and 70% of 54 dental students at a northeast university failed to acknowledge a responsibility to treat all patients); Bredfeldt et al., *supra* note 8, at 71 (sixty-three percent of family practitioners believed physicians have the right to refuse care to AIDS patients); Charles J. Currey et al., *Willingness of Health-Professions Students to Treat Patients with AIDS*, 65 ACAD. MED. 472, 473 (1990) (fifty-two percent of 150 medical and dental students at a southeast university believed they had a right to refuse care); Theodore B. Feldmann et al., *Attitudes of Medical School Faculty and Students Toward Acquired Immunodeficiency Syndrome*, 65 ACAD. MED. 464, 465 (1990) (thirty-four percent of 170 medical school faculty members at the University of Louisville and 45% of 227 medical students claimed a right to refuse care); Barbara Gerbert et al., *Primary Care Physicians and AIDS: Attitudinal and Structural Barriers to Care*, 266 JAMA 2837, 2839, 2841 (1991) (thirty-two percent of 1121 primary care physicians surveyed nationwide believed they did not have a responsibility to treat HIV-infected patients); R. Nathan Link et al., *Concerns of Medical and Pediatric House Officers about Acquiring AIDS from Their Patients*, 78 AM. J. PUB. HEALTH 455, 457 (1988) (twenty-four percent of 250 New York City medical and pediatric physicians-in-training believed it was not unethical to refuse to provide care for AIDS patients); *Many Plan to Avoid AIDS Care in Practice*, INTERNAL MED. NEWS & CARDIOLOGY NEWS, Aug. 15-31, 1990, at 1 (seventeen percent of 1045 physicians-in-training in 41 medicine training programs nationwide believed physicians in private practice have no duty to care for AIDS patients).

[17] *See* notes 53-57 and accompanying text *infra*.

to reverse purported "fears and prejudices" are arguably of dubious merit or at best an inadequate response.[18] Public officials and legislators have concluded that comprehensive legal remedies are required to compel health care workers to meet their ethical obligation to provide quality care to HIV-infected patients.[19]

The transmission of HIV from an infected Florida dentist to five of his patients has had profound and far-reaching effects on health care policy.[20] The public's fear of contracting HIV from an infected health care provider has engendered discrimination directed against health care workers known or perceived to be infected with HIV.[21] Loss of livelihood due to termination of employment or loss of medical practice often follows the disclosure of the serostatus of an infected physician.[22]

The recently enacted Americans with Disabilities Act (ADA)[23] provides comprehensive rights, protections and legal remedies to HIV-infected individuals seeking health care in both the private and public sectors.[24] Meanwhile, Congress has also recently approved legislation designed to protect the public from the risk of HIV transmission in the health care setting.[25] If enacted, this legislation would require that states either adopt guidelines issued by the Centers for Disease Control (CDC) on preventing transmission of HIV and hepatitis B virus in the health care setting[26] or develop "equivalent" guidelines.[27] CDC guidelines permit the imposition of practice restrictions on HIV-infected physicians who perform procedures associated with a

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[18] Investigators are divided as to whether educational programs can reverse health care professionals' reluctance to care for HIV-infected patients. *See* notes 48-53 and accompanying text *infra*.

[19] *See* note 174 *infra*.

[20] *See* notes 129-43 and accompanying text *infra*.

[21] *See* Mark Barnes et al., *The HIV-Infected Health Care Professional: Employment Policies and Public Health*, 18 LAW, MED. & HEALTH CARE 311, 311-12 (1990).

[22] *Id.*

[23] Pub. L. No. 101-336, 1990 U.S.C.C.A.N. (104 Stat.) 327 (to be codified at 42 U.S.C. §§ 12101-12213 and 47 U.S.C. §§ 225, 611).

[24] *See* notes 173-205 and accompanying text *infra*.

[25] *See* notes 130-32 and accompanying text *infra*.

[26] *See* CDC, *Recommendations for Preventing Transmission of Human Immunodeficiency Virus and Hepatitis B Virus to Patients During Exposure-Prone Invasive Procedures*, 40 MORBIDITY & MORTALITY WKLY. REP. 1 (1991). *See also* notes 115-28 and accompanying text *infra*.

[27] *See* notes 130-33 and accompanying text *infra*.

risk that the physician's blood will contact the patient.[28] Although Congress intended that the protections afforded HIV-infected health care workers by the ADA not be compromised by adoption of CDC (or equivalent) guidelines by the states,[29] this Note argues that an inherent conflict exists. In enacting the ADA, Congress sought to protect HIV-infected persons seeking health care from discriminatory exclusion and HIV-infected health care workers from discriminatory employment practices.[30]

The ADA employs a "significant risk" standard to determine whether exclusionary practices are discriminatory.[31] If courts determine that HIV-infected physicians who perform exposure-prone procedures pose a "significant risk" of contagion, then imposition of practice restrictions pursuant to CDC guidelines would not constitute discriminatory exclusion under the ADA.[32] It would follow that the risk to which a physician is subjected when performing an exposure-prone procedure on an HIV-infected patient must also be deemed "significant" for purposes of the ADA.[33] In that case, a physician who refuses to perform an exposure-prone procedure on an HIV-infected patient would not be engaging in discriminatory conduct.

On the other hand, if courts determine that the risk of transmission from patient to physician is not "significant," thereby holding that exclusion of HIV-infected patients from exposure-prone procedures constitutes unlawful discrimination, it

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[28] These procedures have been termed exposure-prone. *See* CDC, *supra* note 26, at 4; notes 121-23 and accompanying text *infra*.

[29] *See* notes 132-33 and accompanying text *infra*.

[30] *See* note 174 *infra*.

[31] *See* notes 152-58, 161-67, 185 and accompanying text *infra*.

[32] *See* notes 152-58, 161-67, 185 and accompanying text *infra*.

[33] The risk of transmission of HIV from patient to physician during the performance of an exposure-prone procedure is as great or greater than the risk of transmission from physician to patient. *See* pt. II A of this Note and notes 107-14 and accompanying text *infra*. It is not possible to compare precisely the relative risk to both parties. Several determinants of risk have not been accurately qualified.

In only 29% of 99 percutaneous injuries sustained in a study of 1382 surgical procedures did the sharp object causing injury to the surgeon recontact the patient's open wound. Jerome Tokars et al., *Percutaneous Injuries During Surgical Procedures*, *in* VIIth INT'L CONFERENCE ON AIDS, FLORENCE, ITALY, June 16-21, 1991, at 83 (abstract Th. D.108). Thus, in overr two-thirds of instances in which the physician had been exposed to the risk of transmission, the patient had not. *Id. See also* note 111 *infra*. Additional uncertainty is introduced by conflicting data as to how frequently percutaneous injuries to the surgeon result in bleeding with possible inoculation of the patient's blood. *See* note 111 *infra*.

must follow that the risk of transmission from physician to patient is also not "significant." In that case, an HIV-infected physician who follows infection-control precautions but is nevertheless excluded from or restricted in performing exposure-prone procedures pursuant to CDC guidelines would be a victim of discriminatory conduct under the standards of the ADA.

Thus, irrespective of how courts interpret the "significant risk," an inherent conflict exists between provisions of the ADA that protect HIV-infected physicians from unjust discrimination, and the congressional mandate that states adopt CDC (or equivalent) guidelines to protect patients from HIV-transmission in the health care setting. The courts will likely resolve this conflict between the doctor and patient to the physician's disadvantage by invoking policy considerations and principles of professional ethics. Such a resolution will place the physician in a double bind. Physicians are compelled to expose themselves to the risk of contracting HIV from infected patients during the performance of exposure-prone procedures, but if occupational transmission does in fact occur, they are excluded from further practice of the profession on the basis of a risk to the patient that is comparable or not as great.

This Note will focus on the crisis in access to health care for HIV-infected persons and will argue that a one-dimensional legislative approach aimed at compelling physicians to care for HIV-infected patients is an inadequate response. By preventing discriminatory exclusion of HIV-infected persons from health care services, the ADA is expected to help alleviate the severe shortage of health care professionals willing to provide care for HIV-infected patients. This Note argues, however, that legal remedies alone, while compelling some physicians to provide treatment for HIV-infected patients, can neither force physicians to "care" for HIV-infected persons nor ensure that HIV-infected persons receive *quality* health care in the private sector. Moreover, as the HIV epidemic continues its spread to economically disadvantaged segments of society, lack of adequate financial resources will become an even more insurmountable barrier, restricting the access of HIV-infected persons to health care in the private sector, irrespective of available legal remedies.[34] This

[34] Some of the largest proportional increases in the incidence of AIDS have occurred among women, African-Americans and Hispanics, that is "disenfranchised populations

Note discusses measures that must be adopted to supplement anti-discrimination legislation. Health care workers must be adequately protected from the risk of occupational transmission of HIV and its devastating financial consequences. In addition, health care financing reforms must be enacted to ensure access to quality health care for HIV-infected persons.

I. PHYSICIAN ATTITUDES TOWARD HIV-INFECTED PATIENTS

Reluctance to care for HIV-infected patients is not limited to practicing physicians but extends also to physicians-in-training (housestaff, house officers) and medical students.[35] Before

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. . . having already less than optimal access to quality health care . . . ." NATIONAL COMM'N ON AIDS, *supra* note 7, at 32. Moreover, approximately one-third of HIV-infected persons acquired the virus as a result of intravenous drug use (including the sexual partners and children of intravenous drug users). CDC, *Risk Behaviors for HIV Transmission Among Intravenous-Drug Users Not in Drug Treatment-United States, 1987-1989*, 39 MORBIDITY & MORTALITY WKLY. REP. 273, 274 (1990). Newly diagnosed cases of AIDS among intravenous drug users in New York have exceeded those among homosexual males. Jeffrey S. Hammond et al., *HIV, Trauma and Infection Control: Universal Precautions are Universally Ignored*, 30 J. TRAUMA 555, 558 (1990). This rapidly expanding segment of the patient population can hardly be expected to have the financial resources needed to obtain access to health care in the private sector.

The average medical expenses of an HIV-infected person with no symptoms are $5150 per year. Pia Hinkle, *U.S. Reports on Soaring Costs of AIDS Care*, S.F. CHRON., June 20, 1991, at A12. In the late stages of AIDS, the cost of care rises to $32,000 per year, including $24,000 in inpatient costs. *Id.* The average cumulative lifetime medical costs of HIV infection have been estimated to range between $50,000 and $150,000 per patient. Daniel M. Fox & Emily H. Thomas, *The Cost of AIDS*, *in* AIDS AND THE HEALTH CARE SYSTEM 200, 202-04 (Lawrence O. Gostin ed., 1990).

It is estimated that 20% of HIV-infected individuals are uninsured and have insufficient resources to meet these expenses. Lawrence Bartlett, *Financing Health Care for Persons with AIDS: Balancing Public and Private Responsibilities*, *in* AIDS AND THE HEALTH CARE SYSTEM, *supra*, at 211, 213, 219. The health care costs of 40% of AIDS patients are provided by Medicaid and only 1% by Medicare. *Id.* at 218-19. Participation in the Medicaid program by physicians is voluntary and large numbers of private practitioners do not participate due, in part, to inadequate reimbursement. NATIONAL COMM'N ON AIDS, *supra* note 7, at 33. As a result of these social and economic factors, cases of AIDS in New York City are disproportionately concentrated in public municipal hospitals. Anthony A. Somogyi et al., *Attitudes Toward the Care of Patients with Acquired Immune Deficiency Syndrome: A Survey of Community Internists*, 125 ARCHIVES SURGERY 50, 50 (1990). The majority of HIV-infected patients cared for by the public health care system have limited or no access to health care in the private sector. *See* note 312 and accompanying text *infra*.

[35] Physicians-in-training (housestaff, house officers) are post-graduate trainees who have completed their medical school studies. Physicians-in-training and medical students assume a disproportionate share of the risk of providing care to HIV-infected patients in municipal hospitals. Molly Cooke & Merle A. Sande, *The HIV Epidemic and*

completion of their training, future generations of physicians have already formed firmly entrenched negative attitudes toward caring for HIV-infected patients.[36] Many medical students and housestaff view HIV-infected patients as "adversaries" from whom they must protect themselves due to the risk of contagion.[37] They perceive a lack of institutional support in their dealings with HIV-infected patients and complain that hospitals fail to provide adequate training, counseling, infection-control

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Training in Internal Medicine, 321 NEW ENG. J. MED. 1334, 1336 (1989).

[36] *See* Bernstein et al., *supra* note 16, at 458 (one-third of 150 students in a northeast medical school do not want to train in a hospital or a specialty with a high prevalence of AIDS); Currey et al., *supra* note 16, at 473 (fifty-two percent of 150 medical and dental students in a southeast university would not treat AIDS patients if given the choice); Feldmann et al., *supra* note 16, at 465 (fifty-one percent of 170 medical school faculty members at the University of Louisville and 44% of 227 students would prefer not to treat AIDS patients); Rodney A. Hayward & Martin F. Shapiro, *A National Study of AIDS and Residency Training: Experiences, Concerns, and Consequences*, 114 ANNALS INTERNAL MED. 23, 26 (1991) (twenty-three percent of 1745 senior medical residents in training programs in ten states would not provide care to patients with AIDS and an additional 10% were uncertain); Link et al., *supra* note 16, at 457 (twenty-five percent of 250 medical and pediatric housestaff in New York City would not care for AIDS patients if given the choice); Vipul Singh et al., *AIDS and Residency Training*, 114 ANNALS INTERNAL MED. 605, 605 (1991) (letter to the editor) (nearly 40% of 198 house officers across the nation will refuse to treat patients with AIDS after completion of training); Bonnie J. Tesch et al., *Medical and Nursing Students' Attitudes about AIDS Issues*, 65 ACAD. MED. 467, 468 (1990) (twenty-two percent of 445 medical students at the Medical College of Wisconsin would refuse to treat AIDS patients); INTERNAL MED. NEWS & CARDIOLOGY NEWS, *supra* note 16, at 22 (more than one-third of 1045 medical housestaff in 41 training programs nationwide did not intend to care for HIV-infected persons in the future); *Many Residents Would Choose Not To Treat Patients With AIDS*, FAM. PRAC. NEWS, July 1-14, 1990, at 1 (twenty-three percent of 2463 medical housestaff in 10 states nationwide would not treat homosexual patients with AIDS).

[37] *See, e.g.*, Bernstein et al., *supra* note 16, at 459 (thirty-six percent of 150 medical students and 56% of 54 dental students in a northeast medical school expressed anxiety about the risk); Currey et al., *supra* note 16, at 473 (seventy-seven percent of medical and dental students at a southeast university were concerned about the risk to their health); Feldmann et al., *supra* note 16, at 465 (twenty-six percent of 485 medical students at the University of Louisville believed they were placed at risk by being exposed to AIDS patients); Hayward & Shapiro, *supra* note 36, at 23 (twenty-three percent of 1745 senior medical residents in training programs nationwide would not work in a high-prevalence area due to fear of infection and 39% were very concerned about contracting AIDS from patients); Link et al., *supra* note 16, at 456 (forty-eight percent of medical and 30% of pediatric housestaff in New York City expressed moderate to major concern about caring for AIDS patients); Singh et al., *supra* note 36, at 605 (universal fear of occupational transmission of HIV among 198 housestaff from seven hospitals across the nation); FAM. PRAC. NEWS, *supra* note 36, at 1 (forty percent of 2463 medical housestaff nationwide were concerned about occupational risk); INTERNAL MED. NEWS & CARDIOLOGY NEWS, *supra* note 16, at 22 (two-thirds of 1045 medical housestaff in 41 training programs nationwide feared occupational risk).

devices and health and disability coverage.[38] The media coverage given to the travails of a house officer at a major teaching hospital who allegedly aquired HIV infection through occupational exposure reinforced this perception.[39]

Surveys of health care professionals indicate a pervasive and entrenched reluctance to care for HIV-infected patients.[40] These studies indicate that 20-40% of students and physicians-in-training and the majority of providers would refuse to treat patients with AIDS if given the option.[41] An even greater percentage of those surveyed believe that health care professionals have the right to refuse to care for HIV-infected patients.[42] A large number expressed anxiety about caring for HIV-infected patients from fear of contracting the disease.[43] While nearly all health care workers surveyed believed that AIDS patients are entitled to the highest quality of health care, few were willing to provide such care themselves.[44]

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[38] Link et al., *supra* note 16, at 458.

[39] Hacib Aoun, *When a House Officer Gets AIDS*, 321 NEW ENG. J. MED. 693, 693 (1989). The former house officer lamented, "[i]f we are to be in the front line, then we must be sure that we are better protected . . . . [N]o other health worker should have to go through what I have endured." *Id.* at 696. The hospital's administration refused to acknowledge that HIV infection was transmitted at the workplace, did not renew the house officer's contract and denied him benefits. *Id.* at 695. In addition, the plight of an unpaid extern who allegedly acquired AIDS through occupational exposure and her court battle with New York City and its Health and Hospitals Corporation received national media attention. Prego v. City of New York, 147 A.D.2d 165, 541 N.Y.S.2d 995 (2d Dep't 1989); Arnold H. Lubasch, *Judge, in Shift, Discloses that Prego Will Get $1.35 Million*, N.Y. TIMES, Mar. 10, 1990, at 27.

[40] *See* notes 36-37 and accompanying text *supra*.

[41] *See* notes 3, 11-13, 36 and accompanying text *supra*. *See also* Bredfeldt et al., *supra* note 8, at 73 (twenty-three percent of family practitioners are unwilling to provide care for AIDS patients); Gerbert et al., *supra* note 16, at 2839 (fifty percent of 1121 primary care physicians would not treat HIV-infected patients if given a choice); Somogyi et al., *supra* note 34, at 51 (over one-third of community physicians in a New York City hospital would not accept new AIDS cases).

[42] *See* note 16 *supra*.

[43] *See* note 37 *supra*.

[44] *See* Ben J. Atchison et al., *Occupational Therapy Personnel and AIDS: Attitudes, Knowledge, and Fears*, 44 AM. J. OCCUPATIONAL THERAPY 212, 214 (1990) (eighty-six percent of 119 midwest occupational therapists believed that AIDS patients are entitled to the highest quality of health care but only 51% were willing to provide such care); Gerbert et al., *supra* note 16, at 2837 (sixty-eight percent of 1121 primary care physicians believed physicians have a responsibility to treat HIV-infected patients, but only 50% would provide care themselves if given a choice); Suzanne M. Selig et al., *Threat of AIDS: Relationship Between Knowledge and Attitudes*, 17 AM. J. INFECTION CONTROL 43, 44 (1989) (letter to the editor) (ninety-two percent of 94 health care workers in a

It has been suggested that negative attitudes held by health care workers toward HIV-infected patients are derived in large measure from irrational "fears, ignorance and prejudice."[45] While homophobia, avoidance of terminally ill patients and antipathy toward intravenous drug users causes some health care workers to eschew HIV-infected patients, fear of contagion is the overriding factor.[46] In addition, economic concerns contribute substantially to AIDS avoidance. Practitioners fear loss of patients and staff were it to become known that they treated AIDS patients.[47]

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midwest city believed that AIDS patients deserve the highest quality of health care but only 29% were willing to provide such care).

[45] *See* NATIONAL COMM'N ON AIDS, *supra* note 7, at 166.

[46] *See* Richard C. Herman, *Risks of HIV Exposure to Medical Students and Health Care Personnel*, 264 JAMA 1187, 1187 (1990) (fear of contagion, not homophobia or discomfort with caring for dying patients, underlies reluctance to care for HIV-infected patients). *See generally* Joseph M. Merrill et al., *AIDS and Student Attitudes*, 82 S. MED. J. 426 (1989). *See also* note 37 *supra*. *But see* Cooke & Sande, *supra* note 35, at 1335 (male housestaff experience greater anxiety and perceive a higher risk in treating homosexual AIDS patients than do female housestaff); Currey et al., *supra* note 16, at 472 (homophobic attitudes and apprehension were associated with reluctance by health care students to provide care to patients with AIDS); Thomas J. Ficarrotto et al., *Predictors of Medical and Nursing Students' Levels of HIV-AIDS Knowledge and Their Resistance to Working with AIDS Patients*, 65 ACAD. MED. 470, 470 (1990) (homophobia, antipathy toward intravenous drug users and lack of knowledge were associated with reluctance by health care students to care for AIDS patients); Gerbert et al., *supra* note 16, at 2837 (homophobia and antipathy toward intravenous drug users prevalent among primary care physicians nationwide; physicians who treated 10 or more HIV-infected patients expressed less negative attitudes but also perceived less risk of contagion); Hayward & Shapiro, *supra* note 36, at 28 (medical residents' nationwide reluctance to provide care for AIDS patients correlated with dislike of homosexuals and intravenous drug users); FAM. PRAC. NEWS, *supra* note 36, at 1 (homophobia, antipathy toward intravenous drug users, fear of contagion and perceived futility in treatment predicted unwillingness of housestaff to care for AIDS patients); INTERNAL MED. NEWS & CARDIOLOGY NEWS, *supra* note 16, at 22 (medical housestaff who did not intend to care for AIDS patients had more negative attitudes toward homosexuals and intravenous drug users than those who intended to care for AIDS patients).

[47] After a New Jersey otolaryngologist's diagnosis of AIDS became known in the community, patients shunned his practice and several employees resigned. Behringer v. Medical Ctr. at Princeton, 592 A.2d 1251 (N.J. Super. Ct. Law Div. 1991). Other HIV-infected physicians have lost their practices or have been discharged when their diagnosis became known. *See* Barnes et al., *supra* note 21, at 311-12. *See also* Bredfeldt et al., *supra* note 8, at 71 (forty percent of family practitioners believe they would lose patients if it were known they treated patients with AIDS); Barbara Gerbert et al., *Changing Dentists' Knowledge, Attitudes, and Behaviors Relating to AIDS: A Controlled Educational Intervention*, 116 J. AM. DENTAL ASS'N 851, 851 (1988) (dentists unwilling to treat AIDS patients due to fear of losing patients and staff and of becoming infected); Gross, *supra* note 7, at B1 (most physicians attending an AMA conference would not them-

Lack of factual knowledge about AIDS does not contribute significantly to the negative attitudes held by health care professionals. While several studies show a correlation between lack of knowledge and reluctance to provide care,[48] other studies fail to confirm these findings.[49] An educational program sponsored by the division of pediatrics at a major New York City hospital, designed to alleviate HIV-related concerns of health care professionals by increasing their factual knowledge, had the opposite effect.[50] Thus, educational initiatives alone will not solve the

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selves seek treatment from an HIV-infected doctor); Barbara Kantrowitz et al., *Doctors and AIDS*, NEWSWEEK, July 1, 1991, at 49 (United States ed.) (sixty-five percent of 614 adults polled nationwide would abandon their physicians if they discovered the doctor was infected with HIV); Patricia A. Marshall et al., *Patients' Fear of Contracting the Acquired Immunodeficiency Syndrome From Physicians*, 150 ARCHIVES INTERNAL MED. 1501, 1501 (1990) (twenty-five percent of 2000 Americans surveyed would change physicians if informed that their doctor treated patients with AIDS); L.P. Samaranayake & K.C. McDonald, *Patient Perception of Cross-Infection Prevention in Dentistry*, 69 ORAL SURGERY ORAL MED. ORAL PATHOLOGY 457, 457 (1990) (in a Scottish study, 50% of 301 dental patients were unwilling to visit a dentist who treated patients with AIDS); Somogyi et al., *supra* note 34, at 51 (thirty-seven percent of New York City hospitals' community physicians would not accept new AIDS patients for fear of losing patients, staff and reimbursement for services; antipathy and fear of contagion were not major factors); Vivienne Walt, *Medical Experts Uncertain About HIV Risk to Patients*, NEWSDAY, June 23, 1991, at 17 (nearly one-third of 279 doctors and nurses surveyed indicated they would switch physicians if their doctor was infected with HIV).

Unscrupulous individuals have attempted to capitalize on the public's concern about the HIV status of their health care providers by offering AIDS-free provider lists or issuing certificates attesting to the holders' HIV negative status. Mike McKee, *Doctors' 'HIV-Free' Ads Getting a Chilly Reception*, RECORDER, Sept. 18, 1991, at 1. In addition, some dental practitioners have advertised their negative HIV status to attract new patients. *Id.*

[48] *See* note 50 and accompanying text *infra*. *See also* Selig et al., *supra* note 44, at 44 (reluctance to provide care was correlated with more knowledge and greater contact with AIDS patients); Link et al., *supra* note 16, at 455 (housestaff less willing to treat AIDS patients as a result of their contact with AIDS patients during training).

[49] *See* Ficarrotto et al., *supra* note 46, at 471 (correlation among lack of knowledge, exaggerated perception of risk and reluctance to provide care); Gerbert et al., *supra* note 47, at 853 (educational intervention increased the willingness of dentists to treat AIDS patients); Tesch et al., *supra* note 36, at 467 (less knowledgeable students more likely to refuse care).

[50] Lloyd R. Feit et al., *The Impact of an AIDS Symposium on Attitudes of Providers of Pediatric Health Care*, 65 ACAD. MED. 461 (1990). Thirty percent of 103 health care workers who participated in this educational program reported heightened concerns about occupational exposure to HIV patients. *Id. But see* Gerbert et al., *supra* note 47, at 853 (educational intervention increased the willingness of dentists to treat AIDS patients).

Most of the 250 medical and pediatric housestaff surveyed in New York City underestimated their risk of contracting AIDS, believing it to be on the order of 1 in 10,000 to

problem.

A critical nationwide shortage of nurses and technical personnel contributes to the crisis in health care for HIV-infected persons.[51] As a result of this shortage, health care professionals may reduce their exposure to HIV-infected patients by selecting practice locations and hospitals on the basis of a low prevalence of HIV-infection. While it may be impossible to avoid exposure to HIV-infected patients completely, exposure can be minimized. Despite the rapid spread of HIV-infection to suburban and rural areas, only a small number of acute care hospitals in the United States account for the vast majority of AIDS cases.[52]

Fear of occupational transmission of HIV infection has encouraged physicians to avoid contact with HIV-infected patients in ways that will profoundly affect the future practice of medicine. National surveys indicate that one-fourth to one-third of physicians-in-training were influenced in their selection of a residency program by the prevalence of AIDS.[53] A similar pro-

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1 in 1,000,000. Link, et al., *supra* note 16, at 456. One wonders what the reaction would be among the 25% that had sustained percutaneous injuries with needles contaminated with blood from HIV or suspected HIV-positive patients to learn that their actual risk was closer to 1 in 167. *See* note 64 and accompanying text *infra*. *But see* Elisabeth Rosenthal, *Practice of Medicine is Changing Under Specter of the AIDS Virus*, N.Y. TIMES, Nov. 11, 1990, at A1 (ten to fifty percent of physicians overestimate their risk). *See generally* Gerbert et al., *supra* note 16, at 851 (primary care providers who treat fewer HIV-infected patients perceive greater risk).

[51] In response to the severe shortage of nurses and medical technicians in New York City, attributable in part to the AIDS epidemic, New York Hospital offered Caribbean vacations and cash bonuses to attract new employees. Theresa Agovino, *Personnel Shortage Plaguing Hospitals, AIDS Fears and Fewer Entrants Cited*, CRAIN'S N.Y. BUS., Sept. 24, 1990, at 3.

[52] *See* note 7 *supra*.

[53] *See, e.g.*, Bernstein et al., *supra* note 16, at 459 (AIDS will influence residency choice of 33% of 150 students at a northeast medical school); Deborah J. Cotton, *The Impact of AIDS on the Medical Care System*, 260 JAMA 519, 522 (1988) (imbalance in case mix in hospitals with high prevalence of AIDS may impair recruiting); Julie L. Gerberding, *Reducing Occupational Risk of HIV Infection*, 26 HOSP. PRACTICE 61, 61 (1991) (students and housestaff avoid training programs and practice opportunities with a high prevalence of HIV infection); Herman, *supra* note 46, at 1187 (prevalence of AIDS cases deters medical students from selecting certain residency programs and may have contributed to a decline in interest in internal medicine); Link et al., *supra* note 16, at 457 (based on their experiences with AIDS patients, 23% of 250 medical and pediatric housestaff in New York City stated they would be influenced in their choice of training program by the prevalence of AIDS if given the opportunity to choose again); Roberta B. Ness et al., *House Staff Recruitment to Municipal and Voluntary New York City Residency Programs During the AIDS Epidemic*, 266 JAMA 2843, 2846 (1991) (difficulty in attracting U.S. medical graduates to high-AIDS municipal training programs in internal

portion plan to practice in a locale with a low AIDS prevalence.[54] In addition, a desire to avoid contact with HIV-infected patients influenced subspecialty choices in 15-30% of trainees.[55] Negative attitudes toward HIV-infected patients have also contributed to a decline in the proportion of medical students entering specialties with high patient contact, such as internal medicine.[56] Moreover, difficulty in attracting house officers to New York City hospitals, due in large part to the high prevalence of AIDS, has encouraged competition among programs to de-emphasize the number of HIV-infected patients treated at their institutions.[57]

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medicine); Roberta B. Ness et al., *Likelihood of Contact with AIDS Patients as a Factor in Medical Students' Residency Selections*, 64 ACAD. MED. 588, 588-94 (1989) (high prevalence of AIDS hurts recruitment in public hospitals); June E. Osborn, *AIDS: Challenges to Our Health Care System*, 57 CLEVELAND CLINIC J. MED. 709, 713 (1990) (students shun training programs in New York City and San Francisco due to high prevalence of AIDS); INTERNAL MED. NEWS & CARDIOLOGY NEWS, *supra* note 16, at 22 (twenty-five percent of 1045 medical housestaff in 41 training programs nationwide selected a program based in part on a low AIDS prevalence).

Other studies have failed to confirm a detrimental effect on housestaff recruitment; however, many of these studies suffer from selection bias or inadequate sample size. *See* Steven L. Brown & John P. Bilezikian, *AIDS and Training in Internal Medicine*, 323 NEW ENG. J. MED. 1567, 1567 (1990) (letter to the editor) (questionnaire study of 17 senior medical students from New York City indicated that HIV prevalence was the least important factor in choice of training program); Molly Cooke & Merle A. Sande, *AIDS and Training in Internal Medicine*, 323 NEW. ENG. J. MED. 1567, 1567 (1990) (letter to the editor) (high prevalence of AIDS at the University of California, San Francisco, not a liability in attracting highly qualified applicants).

[54] *See* Link et al., *supra* note 16, at 457 (thirty-six percent of 250 medical and pediatric house officers in New York City planned to choose a career path less likely to involve HIV-positive patients as a result of their experiences with AIDS patients); INTERNAL MED. NEWS & CARDIOLOGY NEWS, *supra* note 16, at 22 (twenty-five percent of 1045 housestaff in 41 training programs nationwide indicated that the AIDS epidemic influenced their selection of practice locales with low AIDS prevalence).

[55] *See* Bernstein et al., *supra* note 16, at 459 (twenty-nine percent of 104 northeast medical students will select a subspecialty based on a low prevalence of AIDS patients); INTERNAL MED. NEWS & CARDIOLOGY NEWS, *supra* note 16, at 22 (fifteen percent of 1045 housestaff selected a subspecialty based, in part, on a desire to avoid AIDS patients).

[56] *See* Cooke & Sande, *supra* note 35, at 1335 ("The declining preference for residencies in internal medicine and the selection of [other] disciplines . . . by the most academically competitive fourth year students has been attributed in part to AIDS."). *See also* notes 53-55 *supra*. *But see* Mark D. Schwartz et al., *Medical Student Interest in Internal Medicine, Initial Report of the Society of General Internal Medicine, Interest Group Survey on Factors Influencing Career Choice in Internal Medicine*, 114 ANNALS INTERNAL MED. 6, 10 (1991) (1240 senior medical students responding to a nationwide survey indicated that their experiences caring for AIDS patients had only a mildly negative influence on their choice of internal medicine as a career).

[57] *See* Cooke & Sande, *supra* note 35, at 1335 ("High levels of exposure to AIDS

II. Assessment of the Risk of Transmission of HIV Infection

The magnitude of the risk of transmission and whether it can be reduced by reasonable accommodations determines whether denial of medical services to an HIV-infected patient or exclusion from practice of an HIV-infected health care worker constitutes unlawful discrimination.[58] Where to draw the line of acceptable risk must be based on an accurate assessment of the actual risk as established by current scientific evidence.

Cumulative data derived from prospective studies indicate that the risk of nosocomial[59] transmission of HIV infection after percutaneous exposure to needles or sharp instruments contaminated with HIV-infected blood is approximately 0.3%.[60] Despite anecdotal reports of seroconversion[61] among health care workers after exposure of mucous membranes or non-intact skin to HIV-infected blood, prospective studies have failed to document HIV transmission via this route.[62] This suggests that the risk of non-parenteral transmission is too small to quantify accurately. Moreover, it is estimated that 40% of the needlestick injuries and two-thirds of the non-parenteral exposures could have been prevented if infection-control guidelines promulgated by the

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may affect the competitiveness of medical schools and training programs in . . . recruitment . . . .").

[58] *See* notes 152-57, 161-67, 185 and accompanying text *infra*.

[59] The term nosocomial denotes a hospital-acquired disorder. Thomas L. Stedman, Stedman's Medical Dictionary 1063 (25th ed. 1990).

[60] The term percutaneous means through unbroken skin. *Id.* at 1052. The 0.3% figure is derived from studies described in notes 64-66 and accompanying text *infra*.

[61] Seroconversion occurs in individuals who become infected after exposure to the virus and reflects the development of antibodies to HIV. *See* Brett Tindall et al., *Primary HIV Infection: Clinical, Immunologic and Serologic Aspects*, *in* The Medical Management of AIDS, *supra* note 9, at 68. A period of time ranging from several weeks to six months will elapse before the infected individual develops antibodies (seroconverts). *Id.* at 71-76. Most infected individuals will seroconvert within 45-60 days, but in fewer than 5% of cases seroconversion will be delayed as long as six months after exposure. C. Robert Horsburgh Jr. et al., *Duration of Human Immunodeficiency Virus Infection Before Detection of Antibody*, 2 Lancet 637, 639 (1989). Prior to the development of antibodies, infection cannot be readily detected. *Id.* at 637. During an incubation period which averages eight years, the individual may remain asymptomatic. Ruth L. Berkelman et al., *Epidemiology of Human Immunodeficiency Virus Infection and Acquired Immunodeficiency Syndrome*, 86 Am. J. Med 761, 761 (1989); John P. Phair, *Natural History of HIV Infection*, *in* The Medical Management of AIDS, *supra* note 9, at 85-86.

[62] *See* notes 64-65 and accompanying text *infra*.

CDC were followed.[63]

These risk data are derived primarily from a prospective national surveillance study conducted by the CDC of health care workers exposed to blood or body secretions of HIV-infected patients. The study found a 0.42% incidence of seroconversion after 860 needlestick injuries with HIV-infected blood.[64] However, no instance of seroconversion occurred among any of the over 400 health care workers exposed to HIV-contaminated blood or body secretions as a result of contamination of an open wound or mucous membrane exposure.[65] Over one-third of the exposures in this study were deemed preventable had infection-control guidelines been followed.[66]

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[63] *See* Gerald H. Friedland & Robert S. Klein, *Transmission of the Human Immunodeficiency Virus*, 317 NEW ENG. J. MED. 1125, 1127 (1987).

[64] Ruthanne Marcus & CDC Cooperative Needlestick Surveillance Group, *Surveillance of Health Care Workers Exposed to Blood from Patients Infected with the Human Immunodeficiency Virus*, 319 NEW ENG. J. MED. 1118, 1119 (1988). Similar surveillance studies of health care workers in Canada and the United Kingdom failed to document any seroconversions among 72 percutaneous exposures. Kimberly Elmslie et al., *Occupational Exposure to the Human Immunodeficiency Virus Among Health Care Workers in Canada*, 140 CAN. MED. ASS'N J. 503, 504 (1989); Marian McEvoy et al., *Prospective Study of Clinical, Laboratory, and Ancillary Staff with Accidental Exposures to Blood or Body Fluids from Patients Infected with HIV*, 294 BRIT. MED. J. 1595 (1987). In the Canadian study, 34% of exposures and 5.2% of needlestick injuries were deemed preventable. Elmslie et al, *supra*, at 504. Among 273 injuries with HIV-contaminated needles in a San Francisco study, seroconversion occurred in one health care worker. Julie L. Gerberding et al., *Cumulative Risk of HIV and Hepatitis B Exposure Among Health Care Workers: Longterm Serologic Followup and Gene Amplification for Latent HIV Infection, in* PROCEEDINGS AND ABSTRACTS, 30TH INTERSCIENCE CONFERENCE ON ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, ATLANTA, GA. 1990, at 246 (abstract 959). Similarly, in a prospective study of 1344 health care workers at the National Institutes of Health, one seroconversion occurred among 179 percutaneous injuries over a six-year period. No seroconversions occurred after 346 mucous membrane or after 2712 cutaneous exposures to HIV-contaminated blood. David K. Henderson et al., *Risk for Occupational Transmission of Human Immunodeficiency Virus Type 1 (HIV-1) Associated with Clinical Exposures: A Prospective Evaluation*, 113 ANNALS INTERNAL MED. 740 (1990).

Combining data from all reported prospective studies, HIV infection was transmitted to six of 1948 health care workers who sustained 2042 percutaneous occupational injuries exposing them to HIV-infected blood (0.29%). *Id.* at 743-44. No documented transmissions occurred among over 1000 mucous membrane exposures. *Id.* at 744. However, attempts to calculate an overall risk are complicated by variability in the infectivity of source patients and in the type and severity of injuries sustained by individual health care workers. Most source patients in these prospective studies were in the late stages of HIV infection and thus highly infectious, no source patient was receiving anti-retroviral therapy and most injuries involved hollow bore needles which tend to transfer a larger volume of blood than do solid-bore (suture) needles. *See* note 111 *infra*.

[65] Marcus & CDC Cooperative, *supra* note 64, at 1118.

[66] Preventable injuries included those occurring during needle recapping (17%), im-

The CDC has developed infection-control guidelines to prevent transmission of HIV, hepatitis and other bloodborne infections in the health care setting.[67] The term "universal precautions" refers to the use of infection-control precautions for all patients whenever a risk of exposure to blood or body fluids capable of transmitting HIV exists, irrespective of the perceived risk that a given patient carries the virus.[68] Since clinical assessment of HIV status is unreliable, blood and certain body fluids of all patients are considered infectious and appropriate protective measures should be utilized.[69] Universal precautions have been shown to be effective in reducing cutaneous and mucous membrane exposure of health care workers to blood and body fluids;[70] however, a reduction in the occurrence of percutaneous injuries has not been demonstrated.[71] Moreover, compliance

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proper disposal of needles or sharp objects (14%) and contamination of open wounds (6%). *Id.* at 1119. The remaining unavoidable injuries occurred during needle manipulation (36%), performance of invasive procedures (8%), autopsies (2%) or other procedures (17%). *Id.*

[67] CDC, *Update: Universal Precautions for Prevention of Transmission of Human Immunodeficiency Virus, Hepatitis B Virus, and Other Bloodborne Pathogens in Health-Care Settings*, 37 MORBIDITY & MORTALITY WKLY. REP. 377 (1988).

[68] *Id.* at 377-81.

[69] *Id.* at 377. Gloves should be worn when contacting blood, body fluids, mucous membranes and contaminated surfaces and when drawing blood, starting intravenous devices or performing invasive procedures. *Id.* at 379-81. Gowns should be worn in situations where splashing may occur and masks and eye protection should also be worn where blood or body fluids may splash onto mucous membranes. *Id.* Procedures are provided for the safe handling and disposal of needles and sharp objects and recommendations are made regarding the performance of specific medical procedures, the use of resuscitative devices and the exclusion from patient care of health care workers with exuding lesions or weeping dermatitis. *Id.* In addition, standard infection control practices include hand washing after patient contact and require that instruments and other reusable equipment be disinfected and sterilized after use. *Id.* at 381-82.

[70] *See* Barbara J. Fahey et al., *Frequency of Nonparenteral Occupational Exposures to Blood and Body Fluids Before and After Universal Precautions Training*, 90 AM. J. MED. 145, 145 (1991) (in a study comparing self-reported cutaneous exposures to blood and body fluids before and after training in universal precautions, the incidence of exposures decreased nearly 50%); Edward S. Wong et al., *Are Universal Precautions Effective in Reducing the Number of Occupational Exposures Among Health Care Workers? A Prospective Study of Physicians on a Medical Service*, 265 JAMA 1123, 1123 (1991) (implementation of universal precautions and a mandatory educational program increased barrier use nearly 50% and reduced the number of exposures per physician per patient-care-month from 5.07 to 2.66).

[71] *See* Patrick Francioli et al., *Exposure of Health Care Workers to Blood During Various Procedures: Results of Two Surveys Before and After the Implementation of Universal Precautions*, *in* SIXTH INT'L CONFERENCE ON AIDS, S.F., CA. June 20-21, 1990, at 275 (abstract Th.C.602) (no reduction in rate of needlestick injuries among 500 nurses

with universal precautions by physicians and health care facilities is shockingly poor.[72] Educational efforts alone are not clearly effective in increasing compliance.[73] However, a policy of

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after universal precautions instituted); Julie L. Gerberding, *Does Knowledge of Human Immunodeficiency Virus Infection Decrease the Frequency of Occupational Exposure to Blood?*, 91 AM. J. MED. 3B-308S, -311S (1991) ("Compliance with universal precautions is [not] associated with a reduction in the frequency of . . . needlestick exposures—the only quantifiable risk of HIV transmission."); Calvin C. Linnemann et al., *Failure of Educational Program, Needle Disposal Containers and Universal Precautions to Decrease Needlestick Injuries in Health Care Workers, in* THIRD DECENNIAL INT'L CONFERENCE ON NOSOCOMIAL INFECTIONS, ATLANTA, GA., July 31-Aug. 3, 1990, at 61 (abstract C8) (no reduction in needlestick injuries after universal precautions adopted); Rita D. McCormick et al., *Epidemiology of Hospital Sharp Injuries: A 14-Year Prospective Study in the Pre-AIDS and AIDS Eras*, 91 AM. J. MED. 3B-301S, -301S (1991) (sharps injuries to health care workers increased threefold from the number observed in the pre-AIDS era despite educational efforts designed to encourage safe handling of needles and other sharp objects); Mary E. Willy et al., *Adverse Exposures and Universal Precautions Practices Among a Group of Highly Exposed Health Care Professionals*, 11 INFECTION CONTROL HOSP. EPIDEMIOLOGY 351 (1990) (no difference in frequency of needlestick injuries between those who did and did not comply with universal precautions). *But see* Janine Jagger et al., *Rates of Needle-Stick Injury Caused by Various Devices in a University Hospital*, 319 NEW ENG. J. MED. 284, 284 (1988) (one-third of needlestick injuries due to recapping of needles); Carol M. Mangione et al., *Occupational Exposure to HIV: Frequency and Rates of Underreporting of Percutaneous and Mucocutaneous Exposures by Medical Housestaff*, 90 AM. J. MED. 85, 89 (1991) (twenty-two percent of needlestick injuries involving patients known or suspected to be HIV positive were avoidable had CDC guidelines been followed (e.g., not recapping used needles) while an additional 31% of injuries were related to poor equipment design); Wong et al., *supra* note 70, at 1126 (after implementation of universal precautions, needlestick injuries fell from 0.39 to 0.15 exposures per physician per patient-care-month); notes 63-66 and accompanying text *supra*.

[72] *See* Marsha F. Goldsmith, *CDC Ponders New HIV Guidelines*, 264 JAMA 1079, 1079 (1990) (nearly 50% of 700 health care workers surveyed did not follow universal precautions); Jeffrey S. Hammond et al., *HIV, Trauma, and Infection Control: Universal Precautions are Universally Ignored*, 30 J. TRAUMA 555 (1990) (compliance with universal precautions during trauma room resuscitations was 16%; reasons given for lack of compliance included lack of knowledge and the presence of emergency circumstances); Singh et al., *supra* note 36, at 605 (only 24% of 198 house officers practice universal precautions; over 50% recapped needles contrary to CDC guidelines); Carol M. Mangione et al., *supra* note 71, at 89 (one-third of medical housestaff were not wearing gloves when injured by a needlestick); Tim Friend, *Most Doctors Want Required AIDS Testing*, U.S.A. TODAY, July 17, 1991, at D1 (only 42% of 958 physicians surveyed wear gloves while taking blood).

[73] *See* Kenneth R. Courington et al. *Universal Precautions are not Universally Followed*, 126 ARCHIVES SURGERY 93 (1991) (a one-time education program was ineffective in increasing compliance with universal precautions; more than 50% of all procedures and more than three-fourths of surgical procedures were not in compliance with recommended guidelines both before and after the educational program); David A. Talan & Larry J. Baraff, *Effect of Education on the Use of Universal Precautions in a University Hospital Emergency Department*, 19 ANNALS EMERGENCY MED. 1322 (1990) (an in-

mandatory compliance and employee accountability may prove effective in increasing compliance with universal precautions.[74] The Occupational, Safety and Health Administration (OSHA) has recently promulgated standards that give legal authority to universal precautions.[75]

A. *Risk to Physicians*

The risk of nosocomial transmission of HIV from patient to health care professional can be estimated.[76] The risk from a single procedure can be calculated as the product of (1) the risk of percutaneous injury during the procedure, (2) the risk of seroconversion after a single contaminated needlestick injury and (3) the prevalence of HIV infection in the patient population.[77]

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tensive educational program was associated with only a modest increase in compliance).

[74] *See* Gabor D. Kelen et al., *Substantial Improvement in Compliance with Universal Precautions in an Emergency Department Following Institution of Policy*, 151 ARCHIVES INTERNAL MED. 2051, 2051 (1991) (Monitoring and employee accountability significantly improved compliance with universal precautions from 17% to 55% during the performance of major procedures and from 44% to 72% overall. In an earlier study at the same institution educational efforts, absent monitoring and accountability, were judged ineffective. Gabor D. Kelen et al., *Adherence to Universal (Barrier) Precautions During Interventions on Critically Ill and Injured Emergency Department Patients*, 3 J. ACQUIRED IMMUNE DEFICIENCY SYNDROME 987 (1990)); Jeanne Leclair et al., *Prevention of Nosocomial Respiratory Syncytial Virus Infections Through Compliance with Glove and Gown Isolation Practices*, 317 NEW ENG. J. MED. 329 (1987) (successful program to increase compliance with infection-control practices included conspicuous observation and immediate feedback).

[75] *See* notes 297-99 and accompanying text *infra*.

[76] The validity of any estimate of risk is determined by the reliability of each of the assumptions that underlies its calculation. The presentation of statistical data in this Note is in each instance accompanied by reference to those underlying assumptions and to potential criticisms that may be directed at them. *See, e.g.*, notes 77, 111 *infra*. Calculations of risk of transmission must be interpreted with this caveat in mind.

The risk of transmission among categories of health care professionals varies depending on the nature of the procedures performed and the prevalence of HIV in the patient population. The risk of seroconversion after a single percutaneous injury contaminated with HIV-infected blood depends on the infectivity of the patient, the severity and type of injury and the type of needle or instrument causing the injury. *See* notes 77-92, 111 and accompanying text *infra*.

[77] *See* ROY N. BARNETT, CLINICAL LABORATORY STATISTICS 13-19 (2d ed. 1979).

Surgery performed with solid bore needles on patients in early stages of HIV infection may be associated with a smaller risk of transmission than the 0.3% figure suggested by prospective studies that primarily evaluated hollow-bore-needlestick injuries from highly infectious source patients in late stages of HIV infection. *See* notes 60-64 and accompanying text *supra* and note 111 *infra*. Thus, in calculating the risk of HIV transmission during surgery, some investigators have used 0.015% or 0.03% rather than 0.3% as the risk of seroconversion after a single percutaneous injury. *See* note 111 *infra*.

Cumulative risk is determined by the equation: $1-[1-w]^{xyz}$, where w represents the probability of seroconversion after a single needlestick,[78] x represents the time period measured in years, y represents the number of needlesticks per year, and z represents the proportion of HIV-infected patients in the patient population.[79] In order to calculate risk, one must estimate the prevalence of HIV in the patient population. Seroprevalence among patients varies widely; in high prevalence hospitals in San Francisco and New York City estimates range as high as 20% and 50% respectively.[80] One must also ascertain the incidence of percutaneous injuries among physicians.[81] Internists and general practitioners perform few invasive procedures and are at low risk for injury.[82] Housestaff, surgeons and emergency room personnel are at substantially higher risk.[83] The reported incidence of needlestick injuries among general surgeons ranges from 0.12-2.7 per 100 person-procedures.[84] However, emergency room sur-

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[78] *See* notes 60-64 and accompanying text *supra*.

[79] *See* Albert B. Lowenfels et al., *Frequency of Puncture Injuries in Surgeons and Estimated Risk of HIV Infection*, 124 ARCHIVES SURGERY 1284, 1284 (1989). *See also* Michael D. Hagen et al., *Human Immunodeficiency Virus Infection in Health Care Workers. A Method for Estimating Individual Occupational Risk*, 149 ARCHIVES INTERNAL MED. 1541, 1541-42 (1989); A. Leentvaar-Kuijpers et al., *Needlestick Injuries, Surgeons, and HIV Risks*, 335 LANCET 546, 546 (1990).

[80] *See* Cooke & Sande, *supra* note 35, at 1335; Rosenthal, *supra* note 50, at A1. The New York Times has estimated that in 1987 the prevalence of HIV infection in New York's Bellevue Hospital patient population was nearly 50%. *Id.* More than five percent of patients who sought emergency-room treatment at a large metropolitan hospital in Baltimore were infected with HIV; seroprevalence rose to 14% among those with penetrating trauma. *See* Gabor D. Kelen et al., *Unrecognized Human Immunodeficiency Virus Infection in Emergency Department Patients*, 318 NEW ENG. J. MED. 1645 (1988); Gabor D. Kelen et al., *Human T-lymphotropic Virus (HTLV I-II) Infection Among Patients In An Inner-City Emergency Department*, 113 ANNALS INTERNAL MED. 368 (1990).

[81] Approximately 100,000 needlestick injuries are reported each year in the United States. Gerberding, *supra* note 53, at 66. *See also* McCormick et al., *supra* note 71, at 3B-301S (annual incidence of injuries by sharps among health care workers at the University of Wisconsin hospitals was 187 per 1000 health care workers); Joseph Thurn et al., *Needlestick Injuries and Needle Disposal in Minnesota Physicians' Offices*, 86 AM. J. MED. 575 (1989) (needlestick injuries occurred in 44% of private physicians' offices in Minnesota in a one-year period). *See* notes 84, 88 and accompanying text *infra*.

[82] *See* Ezekiel J. Emanuel, *Do Physicians Have an Obligation to Treat Patients with AIDS?*, 318 NEW ENG. J. MED. 1686, 1688 (1988).

[83] *Id. See also* note 88 *infra*.

[84] Several recent prospective studies have attempted to determine the incidence of percutaneous injuries during the performance of surgery—a major determinant of the risk of HIV transmission. In a study performed by the CDC, 99 percutaneous injuries were observed during the performance of 1382 surgical procedures. Jerome Tokars et al.,

geons may experience as many as forty needlestick or instru-

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supra, note 33, at 83. Surgical accidents were more common in gynecologic and cardiac surgery. *Id.* At least one percutaneous injury to a surgical team member occurred in 6.9% of procedures. *Id.* The incidence of injury to individual surgeons was 2.3 to 2.7 injuries per 100 person-procedures. *Id.* (The number of person-procedures is calculated from the product of the number of procedures performed and the number of individuals participating in them. This calculation enables one to estimate the risk of injury to individual members of the surgical team.) The level of risk varied with the experience of the surgeon. *Id.* In only 29% of surgical accidents did the sharp object causing the injury to the surgeon recontact the patient's open wound. *Id.* Thus, in most surgical accidents the patient was not exposed to the surgeon's blood and was not placed at risk for transmission of HIV. *See id. See also* Adelisa L. Panlilio et al., *Blood Contacts During Surgical Procedures*, 265 JAMA 1533, 1533-36 (1991) (Ten percutaneous injuries were observed during 1828 operating room person-procedures. Injuries for an individual surgeon occurred at a rate of 0.12 per 100 procedures or 0.8 per 100 hours in the operating room. Risk factors for blood contact included emergency circumstances, trauma, burn and orthopedic procedures, increased blood loss and surgery lasting more than one hour). In another observational study performed at San Francisco General Hospital, the incidence of parenteral exposures was 1.7% (11 needlesticks, 6 lacerations, 4 mucous membrane exposures and 1 open wound contamination during 1307 surgical procedures). Increased risk was associated with major vascular and intra-abdominal gynecologic surgery, increased duration of procedures, greater blood loss and inexperience of the surgeon. Julie L. Gerberding et al., *Risk of Exposure of Surgical Personnel to Patients' Blood During Surgery at San Francisco General Hospital*, 322 NEW ENG. J. MED. 1788, 1788 (1990). *See also* Hammond et al., *supra* note 34, at 559 (incidence of needlestick injuries during surgery estimated to be 0.15-0.2% but higher in emergency procedures); S.A. Hussain et al., *Risk to Surgeons: A Survey of Accidental Injuries During Operations*, 75 BRIT. J. SURGERY 314 (1988) (Percutaneous injuries occurred in 5.6% of surgical procedures performed by 18 surgeons in Saudi Arabia and included 107 needlesticks and 4 cuts. The occurrence of surgical accidents correlated with the length of the procedure and inversely with the experience of the surgeon.); Leentvaar-Kuijpers et al., *supra* note 79, at 546-47 (overall incidence of percutaneous injuries was 0.37 per 100 person-operations and 0.82 among general surgeons who perform on average 500 operations per year); Lowenfels et al., *supra* note 79, at 1284 (eighty-six percent of 202 surgeons sustained at least one puncture injury in the preceding year with a median injury rate of 2 per year and 4.2 per 1000 operating room hours); McCormick et al., *supra* note 71, at 3B-305S (At the University of Wisconsin hospital, staff surgeons and surgical housestaff sustained on average six injuries per year.); G.G. McLeod, *Needlestick Injuries at Operations for Trauma. Are Surgical Gloves an Effective Barrier?*, 71-B J. BONE & JOINT SURGERY 489, 489 (1989) (glove punctures correlated with duration of surgery and inversely with the level of experience of the surgeon); Suzanne L. Popejoy & Donald E. Fry, *Blood Contact and Exposure in the Operating Room*, 172 SURGERY, GYNECOLOGY & OBSTETRICS 480, 480 (1991) (Three percent of surgical procedures were complicated by percutaneous injuries. The risk correlated with the duration of surgery, blood loss and emergency circumstances); James G. Wright et al., *Mechanisms of Glove Tears and Sharp Injuries Among Surgical Personnel*, 266 JAMA 1668 (1991) (seventy injuries by sharps in 2292 surgical procedures).

The quality of the percutaneous injury is also an important determinant of risk of transmission. Superficial injuries carry a substantially lower risk. *See* note 11 *infra*. While Gerberding et al., *supra*, found all but 1 of 17 needlestick and laceration injuries to be superficial, Wright et al., *supra*, found that bleeding occured in 85% of 70 sharp

ment punctures per year.[85]

If the prevalence of HIV infection among surgical patients is 5% (as in the emergency department of one medical center located in Baltimore),[86] for a surgeon performing 500 operations per year and suffering 0.12 needlesticks per 100 operations, the annual risk is calculated as 0.009% and the risk of seroconversion after a single operation is one in 5.6 million. For a surgeon suffering 2.7 needlesticks per 100 operations, the annual risk of occupationally transmitted HIV infection is 0.20% and the risk from a single operation is one in 247,000.[87] The calculated risk of operating on a single patient infected with HIV ranges from 1 in 12,000 to 1 in 278,000, depending on the assumed incidence of percutaneous surgical accidents. Medical housestaff have been estimated to experience on average 0.5-1 needlestick injuries per year, and in medical centers located in New York City, 7-14% of these injuries involve HIV-positive blood.[88] The calculated an-

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injuries, suggesting possible innoculation of the patient.

[85] *See* Emanuel, *supra* note 82, at 1688.

[86] *See* Kelen et al., *supra* note 80, at 1284.

[87] The prevalence of HIV infection among surgical patients at San Francisco General Hospital is 29%. *See* Cooke & Sande, *supra* note 35, at 1336. *See also* note 80 and accompanying text. This prevalence of HIV infection would raise the risk of a single operation to 1 in 43,000 and would give rise to an annual risk of 1.17% if percutaneous injuries occurred at a rate of 2.7 per 100 person-procedures. However, at San Francisco General Hospital the rate of percutaneous injuries is only 1.3%. *See* Gerberding et al., *supra* note 84.

[88] *See* Hayward & Shapiro, *supra* note 36, at 28 (Twenty-nine percent of 1745 senior medical residents in training programs nationwide have been exposed to a needlestick contaminated with blood from a known (9%) or suspected (20%) HIV-positive patient. This percentage rose to 48% in high prevalence hospitals. Seventy-two percent had received at least one blood-contaminated needlestick; 39% had received more than two.); Daniel B. Jones, *Percutaneous Exposure of Medical Students to HIV*, 264 JAMA 1188, 1188 (1990) (twenty-one percent of 42 medical students in New York City had been injured with a needle contaminated with HIV-infected blood; 50% would not report such injuries to the student health service); Link et al., *supra* note 16, at 456 (sixty-six of 250 housestaff reported a total of 96 needlestick exposures to HIV); Mangione et al., *supra* note 71, at 86-87, 90 (In San Francisco hospitals where 10-20% of patients are infected with HIV, 61% of 86 housestaff have sustained a needlestick injury during their medical career; 19% have been exposed to a needlestick contaminated with HIV-infected blood and an additional 36% were injured with a needle contaminated with blood from a patient at high risk. Fewer than one-third of the needlestick injuries were reported. On the basis of these data the authors estimated that one in 1000 medical interns will become infected.); Sanford M. Melzer et al., *Needle Injuries Among Pediatric Housestaff Physicians in New York City*, 84 PEDIATRICS 211, 211-12 (1989) (two hundred five of 294 house officers who had completed at least one year of training had stuck themselves with a blood contaminated needle—17% of needles were contaminated with suspected or docu-

nual risk of hospital-acquired infection among these trainees is 0.02%; the risk incurred over the course of their training is 0.07%.

It has been projected that the risk of at least one occupational seroconversion per year among health care workers will soon exceed 50% in many large urban medical centers and that one surgeon at San Francisco General Hospital will contract AIDS every eight years.[89] These risks have been compared to the risk of death faced in other occupations.[90] The annual risk of death among police and firefighters is approximately 0.2%.[91] The estimated occupational risk of contracting AIDS faced by emergency room surgeons practicing in many large urban medical centers is as great or greater.[92]

Forty health care workers in the United States are known to have acquired HIV infection through occupational exposure.[93] In twenty-four cases seroconversion was documented by the absence of antibody in blood specimens obtained from injured workers shortly after injury.[94] In the remaining sixteen health care workers seroconversion was not documented, however, occupational transmission was probable.[95] Notwithstanding the alarming risk estimates just described, the prevalence of AIDS among health care workers is no greater than their overall representation in the United States labor force.[96] Even in highly endemic areas where infection-control guidelines are not routinely

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mented HIV-infected blood; 24% of house officers sustained four or more punctures, 24% sustained three such injuries and 31% were punctured twice).

[89] *See* Gary P. Wormser et al., *Frequency of Nosocomial Transmission of HIV Infection Among Health Care Workers*, 319 NEW ENG. J. MED. 307, 307 (1988). *See also* Gerberding, *supra* note 53, at 65.

[90] *See* Emanuel, *supra* note 82, at 1687; Peter Lurie, *Physicians in Training and HIV*, 322 NEW ENG. J. MED. 1393, 1393 (1990) (letter to the editor); Rosenberg et al., *How an Occupational Medicine Physician Views Current Blood-Borne Disease Risk in Health-Care Workers*, 4(s) STATE OF THE ART REV. OCCUPATIONAL MED. 3, 45-47 (1989).

[91] *See* Emanuel, *supra* note 82, at 1688.

[92] *See* notes 85-89 and accompanying text *supra*.

[93] *See* David M. Bell, *Human Immunodeficiency Virus Transmission in Health Care Settings: Risk and Risk Reduction*, 91(S3B) AM. J. MED. 3B-294S, 294S to 295S (1991).

[94] *Id.* at 3B-295S. *See* note 61 *supra*.

[95] *Id.*

[96] As of 1988, health care workers constituted 5.7% of the United States labor force and accounted for 5.4% of all reported cases of AIDS. CDC, *AIDS and HIV Update: Acquired Immunodeficiency Syndrome and Human Immunodeficiency Virus Infection Among Health-Care Workers*, 37 MORBIDITY & MORTALITY WKLY. REP. 229, 229 (1988).

followed, a disproportionate prevalence of HIV infection among health care workers has not been observed.[97] However, it remains unexplained why the proportion of AIDS-infected health care workers having no identifiable nonoccupational risk factors is higher than in other occupational groups.[98] In a cross-sectional study of over 1300 dentists and other dental care professionals, the prevalence of HIV was 0.08% among all those studied and 0.9% among dentists practicing in areas with a high prevalence of AIDS.[99] These and other studies indicate a low seroprevalence among health care professionals, even among those at high risk for occupational exposure.[100]

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[97] *See* Bosenge N'Galy et al., *Human Immunodeficiency Virus Infection Among Employees in an African Hospital*, 319 NEW ENG. J. MED. 1123, 1123 (1988); Bosenge N'galy et al., *Human Immunodeficiency Virus Infection Among Employees in an African Hospital*, 320 NEW ENG. J. MED. 1625, 1625 (1988) (letter to the editor).

[98] Males and non-whites are over-represented among health care workers with AIDS having no identifiable risk factors. CDC, *supra* note 96, at 230. The CDC has suggested that this discrepancy may be explained by a failure of health care workers to report behavioral risk factors or by occupational risk. *Id.* Of the 41 health care workers with AIDS who could not be classified into a high-risk category after investigation, 17 reported needlestick injuries or mucous membrane exposures. *Id.* at 231. Seventy-five other health care workers are still under investigation and 20 others died prior to investigation or refused to cooperate. *Id.*

[99] Robert S. Klein et al., *Low Occupational Risk of Human Immunodeficiency Virus Infection Among Dental Professionals*, 318 NEW ENG. J. MED. 86 (1988). This study included 1132 dentists, 131 dental hygienists and 46 dental associates. *Id.* at 86. Fifty-one percent practiced in areas with a high prevalence of AIDS, 72% had treated patients with AIDS or at high risk, and 94% suffered accidental skin punctures with dental instruments. *Id.* The two infected dentists reported nonoccupational risk factors. Most of the dentists had suffered numerous accidental skin punctures and few adhered to infection-control guidelines. *Id.* at 88. The median number of punctures occurring within the preceding five years was 10. *Id. See also* CDC, *Preliminary Analysis: HIV Sero Survey of Orthopedic Surgeons, 1991*, 40 MORBIDITY & MORTALITY WKLY. REP. 309, 310 (1991) (The prevalence of HIV among orthopedists participating in a study designed to determine the seroprevalence of HIV in this group of physicians at high risk for occupational exposure was 0.06% (two of 3420 study participants). Both infected individuals reported nonoccupational risk factors. Nearly half of the orthopedists had operated on one or more patients known to be infected with HIV and nearly 40% had suffered a percutaneous injury in the preceeding month with a sharp object contaminated with a patient's blood. Data derived from combining 13 studies performed between 1985 and 1988 which examined the seroprevalence of HIV among health care workers show a prevalence of 0.32% (21/6619); this prevalence is similar to that seen in the general population (0.12-0.80%). Gerberding, *supra* note 53, at 63.

[100] Seroprevalence studies may seriously underestimate the prevalence of HIV infection if health care workers who already knew they were infected declined to participate.

B. *Risk to the Patient*

Five patients were infected with HIV that was transmitted during invasive dental procedures performed by a Florida dentist with AIDS.[101] The strain of HIV that infected the dentist was closely related genetically to the strains infecting his patients and shared a unique amino acid sequence not found in any previously described HIV sequence.[102] While the dentist did not consistently comply with recommended infection control guidelines, the precise mode of transmission has not been determined.[103] Aside from this cluster in Florida, no other cases of transmission of HIV infection from health care provider to patient has been documented.[104] "Look-back" studies that have identified and tested thousands of patients who underwent invasive procedures performed by HIV-infected physicians or dentists have failed to detect additional cases of HIV transmission.[105] Nevertheless, currently available scientific data are

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[101] CDC, *Update: Transmission of HIV Infection During Invasive Dental Procedures—Florida*, 40 MORBIDITY & MORTALITY WKLY. REP. 377, 377 (1991).

[102] *Id.* at 379.

[103] *Id.* at 380. Barrier precautions were not always properly employed, gloves were occasionally reused after washing and sterilization techniques failed to comply with recommended guidelines. CDC, *Update: Transmission of HIV Infection During an Invasive Dental Procedure—Florida*, 40 MORBIDITY & MORTALITY WKLY. REP. 21, 25-27 (1991). However, transmission by use of contaminated instruments or dental equipment was considered less likely than direct blood to blood transfer in view of the fragility of the HIV virus in the environment. *Id.* at 27.

[104] *See* note 105 *infra*.

[105] *See* Frances Armstrong et al., *Investigation of a Surgeon with Symptomatic Human Immunodeficiency Virus Infection: An Epidemiologic Approach*, 152 MIL. MED. 414 (1987) (seventy-five patients of a military surgeon with AIDS); Robert W. Comer et al., *Management Considerations for an HIV Positive Dental Student*, 55 J. DENTAL EDUC. 187 (1991) (one hundred forty-three patients of an HIV-infected dental student); Richard N. Danila et al., *A Look-Back Investigation of Patients of an HIV-Infected Physician. Public Health Implications*, 325 NEW ENG. J. MED. 1406 (1991) (three hundred twenty-five patients of an HIV-infected family physician); Ban Mishu et al., *A Surgeon with AIDS. Lack of Evidence of Transmission to Patients*, 264 JAMA 467 (1990) (six hundred sixteen patients who underwent surgery in the seven years prior to the death of a Nashville surgeon from AIDS); John D. Porter et al., *Management of Patients Treated by Surgeon with HIV Infection*, 335 LANCET 113 (1990) (seventy-six patients of a British surgeon with AIDS); *Voluntary AIDS Testing—Protect Patients with Sensible Guidelines*, SEATTLE TIMES, Oct. 7, 1991, at A8 (editorial) (eight thousand patients of 60 HIV-infected health care workers); *See also* Jeffrey J. Sacks, *AIDS in a Surgeon*, 313 NEW ENG. J. MED. 1017 (1985) (letter to the editor) (of four hundred patients who underwent surgery in the five years prior to the death of a Florida surgeon, none were listed in the Florida AIDS registry).

inadequate to assess the precise risk of transmission from HIV-infected physician to patient.[106]

Analogous to the methodology employed to calculate the risk of transmission to physicians, one can calculate the risk of sporadic transmission of HIV to patients undergoing an invasive surgical procedure performed by an HIV-infected physician.[107] The CDC has performed such an analysis[108] by calculating the product of the probability of injury to the HIV-infected surgeon (2.5%),[109] the probability that the surgeon's blood will recontact the patient's open wound after an injury (32%),[110] and the probability of transmission of HIV infection after an exposure to the surgeon's blood (0.03-0.3%).[111] The CDC model estimates that the risk of transmission from an HIV-infected surgeon performing an invasive procedure to his patient ranges from 0.0002

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[106] CDC, *supra* note 26, at 1.

[107] The risk that a cluster of cases might arise due to transmission from a single infected practitioner to muliple patients defies quantification. *Id.* at 3-4.

[108] David M. Bell et al., *Risk of Endemic HIV and Hepatitis B Transmission to Patients During Invasive Procedures, in* VII INT'L CONFERENCE ON AIDS, Florence, Italy, 1991, at 37 (abstract M.D. 59).

[109] *See* note 84 *supra.*

[110] *See* Tokars et al., *supra* note 84.

[111] *See* Bell et al., *supra* note 108. This calculation assumes that the probability of transmission of infection after exposure to the blood of an infected surgeon ranges from 0.03%-0.3%. The 0.3% figure is derived from prospective studies that examined transmission primarily after percutaneous injuries from hollow-bore needles contaminated with highly infectious blood from patients hospitalized with late stages of HIV infection. *See* note 64 and accompanying text *supra.* In fact, the risk of transmission after a percutaneous injury may vary widely. The principal determinant of risk is the infectivity of the blood contaminating the wound. S.T. Mast & Julie L. Gerberding, *Factors Predicting Infectivity Following Needlestick Exposure to HIV: An In Vitro Model,* 39 CLINICAL RES. 381A (1991) (abstract). Infectivity of blood varies with the stage of HIV infection of the source. *Id.* Viral titers in the blood increase dramatically as HIV infection progresses from the asymptomatic stage to full blown AIDS. David D. Ho et al., *Quantitation of Human Immunodeficiency Virus Type 1 in the Blood of Infected Persons,* 321 NEW ENG. J. MED. 1621 (1989). Other determinants of risk include the size of the blood inoculum (which may be higher after injury with a hollow-bore needle), the type and severity of injury (superficial versus deep penetrating wounds), and the protective barrier that use of gloves provide. The effect of anti-retroviral therapy on infectivity has not been ascertained. In an in-vitro needlestick model, the volume of blood transferred varied directly with needle size and the depth of penetration but was reduced by the presence of a glove barrier. Mast & Gerberding, *supra.* Moreover, gloves provided a more effective barrier to blood transmission from hollow than from solid-bore needles. *Id.* The 0.03% figure in the CDC model reflects an estimated tenfold reduction in risk of transmission attributed to such factors as glove use and the use of solid-bore suture needles in surgery.

to 0.002% (approximately 1 in 45,000 to 1 in 450,000).[112] The cumulative risk that an HIV-infected surgeon will transmit the virus to a patient over his remaining "working life" was calculated as 0.81 to 8.1%.[113] The CDC estimates that between 1980 and 1990, 12 to 129 patients may have been infected with HIV during invasive procedures performed by infected surgeons and dentists.[114]

C. *Guidelines for Preventing HIV Transmission in the Health Care Setting*

The CDC has issued recommendations for preventing the transmission of HIV and hepatitis B virus to patients.[115] While the guidelines are not legally binding, legislation recently passed by Congress, if enacted, would require that the states adopt these (or equivalent) guidelines and create enforcement mechanisms.[116] The CDC guidelines state that health care workers who

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[112] Bell et al., *supra* note 108, at 37. For invasive dental procedures performed by an HIV-infected dentist the risk was estimated to be 1 in 263,000 to 1 in 2.6 million. *Id.* The CDC model has been criticized for failing to include the risk of HIV transmission through skin and mucous membrane exposures, contaminated instruments and bleeding into a patient's wound. Nancy W. Dickey, Statement of the American Medical Association to the Centers for Disease Control. Re: HIV Transmission During Invasive Procedures 4 (Feb. 21, 1991). Using slightly different assumptions, other investigators have calculated the risk of transmission from surgeon to patient as 1 chance in 21 million per hour of surgery (assuming the prevalence of HIV among surgeons to be 0.004). Albert B. Lowenfels & Gary Wormser, *Risk of Transmission of HIV from Surgeon to Patient*, 325 NEW ENG. J. MED. 888 (1991) (letter to the editor). The risk of transmission from a surgeon known to be infected with the HIV virus was calculated to range between 1 in 28,000 and 1 in 500,000 per hour of surgery. *Id.* at 889.

[113] Bell et al., *supra* note 108, at 37. This calculation assumes that 3500 procedures would be performed during a remaining working life of seven years. *Id.*

[114] *Id.*

[115] CDC, *supra* note 26, at 5-7. Earlier guidelines issued by the CDC in 1987 recommended that HIV-infected health care workers, especially those performing invasive procedures, undergo individualized review by their personal physician and the personnel health service staff and medical directors of the employing institutions. CDC, *Recommendations for Prevention of HIV Transmission in Health-Care Settings*, 36 (Supp. 2S) MORBIDITY & MORTALITY WKLY. REP. 1S (1987). Review would determine whether an HIV-infected health care worker could adequately and safely continue to perform his or her patient care responsibilities or whether the duties of the infected worker should be restricted. *Id.*

[116] These guidelines may, however, establish a professional standard of care to which defendants may be held in negligence actions for failing to adhere to recommended practices. Larry Gostin, *Hospitals, Health Care Professionals, and AIDS: The "Right" to Know the Health Status of Professionals and Patients*, 48 MD. L. REV. 12, 26 (1989). *See also* notes 130-32 and accompanying text *infra* (congressional mandate).

do not perform invasive procedures and who adhere to universal precautions pose no risk of transmission of HIV to patients.[117] While the risk of transmission of HIV infection from an infected health care worker to patients during the performance of invasive procedures is small, the CDC nevertheless concluded that adequate scientific data to define the risk precisely are not yet available.[118]

In developing guidelines to prevent transmission of HIV to patients, the CDC analyzed published and unpublished reports of transmission of hepatitis B virus to patients during invasive procedures[119] and data it obtained from a prospective study of percutaneous injuries during surgical procedures.[120] The CDC defined "exposure-prone procedures" as those procedures associated with the transmission of hepatitis B virus despite adherence to universal precautions.[121] These procedures involved "digital palpation of a needle tip in a body cavity or the simultaneous presence of the [surgeon's] . . . fingers and a needle or other sharp instrument or object in a poorly visualized or highly confined anatomic site."[122] Exposure-prone procedures are associated with a risk that the surgeon will suffer a percutaneous injury and that his or her blood will contact the patient's wound, body cavity or mucous membranes.[123] Invasive procedures that lack the characteristics of exposure-prone procedures

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[117] *See* CDC, *supra* note 26, at 1.

[118] *Id.*

[119] *Id.* at 2-4. The mode of transmission of hepatitis B virus is similar to that of HIV but much more efficient. *Id.* at 3. Insight into factors that facilitate the transmission of hepatitis B provide valuable information about factors that may enhance HIV transmission. In eight of 20 reported episodes, transmission of hepatitis B virus from an infected health care worker to patients occurred despite routine use of gloves; five of these clusters involved obstetricians or gynecologists and three involved cardiovascular surgeons. *Id.* at 2. Nine of the remaining clusters involved dentists or oral surgeons. *Id.* In each case, transmission was associated with either lack of adherence to infection control practices or an injury to the infected worker. *Id.* at 3. Of the seven health care workers who resumed performing invasive procedures after modifying procedural techniques and adopting infection control measures, two (an obstetrician/gynecologist and an oral surgeon) were involved in additional episodes of transmission. *Id.*

[120] *See* Tokars et al., *supra* note 84, at 83.

[121] *See* CDC, *supra* note 26, at 4. The characteristics of exposure-prone procedures were identified in a prospective study of surgical accidents. *See* Tokars et al., *supra* note 84, at 83.

[122] CDC, *supra* note 26, at 4. Certain oral, cardiothoracic, colorectal and obstetric/gynecologic procedures were identified as exposure-prone. *Id.*

[123] *Id.*

pose a "substantially lower risk, if any" of transmission of HIV.[124]

The CDC guidelines recommend that all health care workers adhere to universal precautions and follow established guidelines for disinfection and sterilization of instruments and other reusable devices.[125] The CDC concluded that current scientific knowledge does not support the imposition of practice restrictions on HIV-infected physicians who perform invasive procedures not identified as exposure-prone if they practice recommended techniques, adhere to universal precautions and follow recommended sterilization and disinfection procedures.[126] However, the guidelines do recommend that health care workers who perform exposure-prone procedures know their HIV status and that HIV-infected workers refrain from performing exposure-prone procedures "unless they have sought counsel from an expert review panel and been advised under what circumstances, if any, they may continue to perform [exposure-prone] . . . procedures."[127] In addition, HIV-infected physicians must notify potential patients of their seropositivity before performing any exposure-prone procedure permitted by the expert panel.[128]

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[124] *Id.*

[125] *Id.* at 2.

[126] *Id.* at 5. The guidelines recommend that medical, surgical and dental organizations and local health care facilities identify exposure-prone procedures. *Id.* The CDC convened a panel of experts in November 1991 to develop a list of exposure-prone procedures. However, most national medical and public health organizations declined to cooperate with the CDC in these efforts in the belief that the risk is so small that it would be impossible to develop such a list. Steve Taravella, *OSHA, CDC Issue Rules on Infection Control*, MODERN HEALTHCARE, Dec. 9, 1991, at 3. Moreover, many organizations believe that the remote risk does not justify practice restrictions. Lawrence K. Altman, *Unexpected Defiance Greets AIDS Guidelines*, N.Y. TIMES, Oct. 15, 1991, at C3.

[127] CDC, *supra* note 26, at 5. Expert review panels are to be established at a local level by individual medical facilities for their employees and by local and state public health officials for health care workers in other settings. *Id.* An emergency room physician with AIDS was forced to resign his position at a hospital in New York State after the local expert panel compiled a list of restricted procedures that included suturing wounds. Craig Wolff, *Doctors with AIDS Virus Evokes Anger and Pathos*, N.Y. TIMES, July 29, 1991, at B1.

[128] CDC, *supra* note 26, at 6. The CDC guidelines recommend that the decision whether or not to notify patients who have previously undergone exposure-prone procedures performed by an HIV-infected physician should be assessed on a case-by-case basis. *Id.*

The American Medical Association (AMA) has stated that HIV-infected physicians have an "ethical obligation not to engage in any professional activity which has an identifiable risk of transmission . . . [of HIV] to the patient." AMA Statement on HIV In-

The transmission of HIV infection from an infected Florida dentist to five of his patients has had an extraordinary impact on health care delivery in the United States.[129] While the risk of transmission of HIV from infected patients to physicians has received some measure of attention from politicians, the news media and the public, the reaction elicited by the Florida incident has been extraordinary. Largely in response to this incident, Congress passed legislation which if enacted would require state public health officials to certify to the Secretary of Health and Human Services that they have instituted the CDC or "equivalent" guidelines.[130] The term "equivalent" was not defined with specificity in the legislation. The director of the CDC would determine whether state guidelines that differ from those of the CDC are indeed equivalent.[131] Congress intended that this legislation not compromise protections afforded HIV-infected health care workers under the ADA.[132] Employers of health care workers whose professional responsibilities are limited pursuant to CDC or equivalent guidelines must make reasonable accommodations to "promote the continued use of the . . . worker's knowledge and skills."[133]

Adoption of CDC guidelines by state health departments pursuant to congressional mandate would have a chilling effect

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fected Physicians, Press Release (Jan. 17, 1991). *See* notes 236-50 and accompanying text *infra* (discussion of the merits of a "no risk" standard for health care delivery similar to that espoused by the AMA). The AMA recommends that physicians who perform invasive procedures and are at risk of HIV infection due to medical practice or lifestyle should be tested and if infected should either refrain from performing invasive procedures that pose an identifiable risk of transmission or disclose their seropositive status to their patients and obtain informed consent prior to performing such procedures. Press Release, *supra*. Similarly, the American College of Obstetrics and Gynecology recommends that HIV-infected physicians inform patients before performing "procedures involving material risk of transmission" or if unwilling to do so, refrain from performing such procedures. Committee of Ethics, American College of Obstetrics and Gynecology, *supra* note 14, at 1045.

[129] CDC, *supra* note 101.

[130] Amendment No. 781 to H.R. 2622, Treasury, Postal Service, Executive Office of the President, and Independent Agencies Appropriations Act, Fiscal Year 1992, 102d Cong., 1st Sess. (1991). States must also establish enforcement mechanisms that subject health care workers who fail to comply to disciplinary procedures. *Id.* States that fail to comply within one year face loss of funding under the Public Health Service Act. *Id.*

[131] 137 CONG. REC. H7383-01 (daily ed. Oct. 3, 1991) (statement of Congressman Roybal).

[132] *Id.*

[133] *Id.*

on the medical community—heightening concerns among physicians over occupational transmission of HIV. The threat of loss of livelihood will exaggerate already existing fears of loss of health and eventual loss of life.[134]

In addition, HIV-infected physicians who treat infected patients may be restricted in their practice of medicine, worsening the already critical shortage of providers.[135] If implemented, these guidelines would encourage many physicians to be even more vigorous in their avoidance of HIV-infected patients. In addition, these guidelines conflict with the "significant risk" standard adopted by the ADA which was designed to prohibit discrimination against individuals with disabilities, including those with HIV infection.[136] Courts relying on CDC guidelines could sustain exclusion of HIV-infected health care professionals from performing exposure-prone procedures on the ground that the health care worker poses a "significant risk" of transmission of HIV infection to patients. Such a holding would necessarily acknowledge that reasonable accommodations, including the use of universal precautions and modifications in surgical techniques, cannot totally eliminate the risk of surgical accidents and percutaneous injuries. Since an invasive procedure performed by an HIV-infected surgeon exposes a patient to a risk of HIV transmission estimated at 1 in 45,000 to 1 in 450,000,[137] this level of risk would constitute "significant risk" within the meaning of the ADA in order to justify the imposition of practice limitations on HIV-infected surgeons. Since the risk of transmission of HIV from infected patient to physician is as great or greater, physicians in turn may argue that HIV-infected

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[134] *But see* Dickey, *supra* note 112, at 5-6 (the AMA does not believe that physicians who treat HIV-infected patients will be deterred by the threat of loss of livelihood or the chance of devastating health consequences).

[135] It is not known whether transmission of HIV from an infected physician to an already infected patient would exacerbate the progression of disease in the latter. Lawrence K. Altman, *AIDS-Infected Doctors and Dentists Are Urged To Warn Patients or Quit*, N.Y. TIMES, Jan. 18, 1991, at A18.

[136] *See* note 174 *infra*.

[137] *See* note 112 and accompanying text *supra*. This risk estimate is calculated from assumptions derived from studies of injuries sustained during both exposure-prone and nonexposure-prone surgical procedures. *See* notes 60-66 and accompanying text *supra*. The CDC guidelines recommend practice restrictions only for HIV-infected physicians performing exposure-prone procedures. CDC, *supra* note 26. The risk to the patient from an exposure-prone procedure would necessarily be greater due to a greater risk that the surgeon's blood will contact the patient.

patients pose a "significant risk" to them during the performance of exposure-prone procedures so as to justify refusal to provide care.[138]

The New York State Health Department has rejected the CDC guidelines and has instead proposed that HIV-infected physicians may continue to perform surgical and other invasive medical procedures without informing patients of their seropositive status provided they adhere to infection control practices and do not suffer from a functional impairment that would interfere with job performance.[139] The New York proposal also recommends that state-appointed review panels be established to determine whether imposition of practice restrictions on individual HIV-infected health care professionals is necessary to protect patients.[140] The evaluation process would consider physical and mental impairments that interfere with the health care worker's ability to provide quality care, the susceptibility of the health care worker to infectious diseases, the presence of exposed, exuding or weeping lesions, the worker's history of compliance with infection control guidelines and the type of invasive procedures performed by the infected worker.[141] This individualized evaluation of HIV-infected health professionals would be voluntary.[142] It is clear, however, that many HIV-infected health care professionals will not voluntarily subject themselves to any risk of practice restrictions.[143]

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[138] *See* note 185 and accompanying text *infra*.

[139] New York State Dep't of Health, Policy Statement and Action Plan to Prevent Transmission of HIV Through Medical/Dental Procedures (Oct. 8, 1991). Michigan's Department of Public Health would also allow infected health care workers to continue to practice absent "clear evidence" of risk. Phillip J. Hilts, *Congress Urges that Doctors be Tested for AIDS*, N.Y. TIMES, Oct. 4, 1991, at A18. The National Institute of Health has also opposed practice limitations on HIV-infected health care workers who perform invasive procedures on the ground that scientific data indicate that the risk is remote and fail to justify practice restrictions. Marlene Cimons, *Don't Bar Doctors with HIV, NIH Says; Health: Federal Researchers Join AIDS Activists and Others Who Oppose Restrictions. The Chance of Infecting a Patient is Seen as Remote*, L.A. TIMES, June 11, 1991, at A22. *See also* Barnes et al., *supra* note 21, at 311-12 (numerous medical organizations have issued policy statements opposing practice restrictions for HIV-infected physicians).

[140] *See* New York State Dep't of Health, *supra* note 139, at 3. The policy proposal also recommends passage of legislation which would require that all health care professionals who perform invasive procedures undergo training in infection-control techniques. *Id.* at 2.

[141] *Id.* at 3.

[142] *Id.*

[143] *See* notes 225-26 and accompanying text *infra*.

III. Federal Remedies Available to HIV-Infected Patients and Health Care Workers

A. *The Rehabilitation Act of 1973*

Refusal of a physician to care for an HIV-infected patient or the imposition of practice restrictions on an infected physician may violate section 504 of the Rehabilitation Act of 1973[144] where the defendant is a recipient of, or is employed by, an organization that receives "Federal financial assistance."[145] The Act provides that recipients of federal funds may not discriminate against "otherwise qualified" handicapped individuals on the basis of their handicap.[146] Regulations promulgated by the Department of Health and Human Services under this statute define a handicapped individual as a person who:

> (i) has a physical or mental impairment which substantially limits one or more of such person's major life activities,
> (ii) has a record of such an impairment, or
> (iii) is regarded as having such an impairment.[147]

The statute defines an impairment as "any physiological disorder or condition . . . affecting one or more . . . body systems . . . [including] . . . hemic and lymphatic."[148] Only individuals who are "otherwise qualified" for the position, benefit, program or activity offered by the recipient of federal financial assistance are protected by the provisions of the Act.[149] Qualified individuals are those who can meet the essential requirements of a program or position with or without "reasonable accommodation" on the part of the covered entity.[150] Furthermore, the covered

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[144] 29 U.S.C. § 794 (1988).

[145] *Id.* For the purposes of the Rehabilitation Act, federal financial assistance includes Medicare and Medicaid payments to the provider. United States v. Baylor Univ. Med. Ctr., 736 F.2d 1039 (5th Cir. 1984) (Medicare and Medicaid constitute "Federal financial assistance" for purposes of the Rehabilitation Act); Glanz v. Vernick, 756 F. Supp. 632 (D. Mass. 1991) (Medicare and Medicaid payments made to hospital clinic qualified the clinic as a recipient of federal funds even though Medicaid did not cover the particular elective surgical procedure the plaintiff desired).

[146] 29 U.S.C. § 794 ("No otherwise qualified handicapped individual . . . shall, solely by reason of his handicap . . . be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance . . . .").

[147] *Id.* § 706(7)(B); 34 C.F.R. § 104.3(j) (1989).

[148] 34 C.F.R. § 104.3(i)(A).

[149] 29 U.S.C. § 794.

[150] 34 C.F.R. § 104.3(k)(1).

entity has an affirmative duty to make "reasonable accommodation[s]" that will enable a disabled applicant to meet the requirements of the program, benefit or position offered.[151]

The United States Supreme Court in *School Board of Nassau County, Florida v. Arline*[152] examined the scope of section 504 with respect to contagious diseases. The appellant, Arline, was dismissed from her position as an elementary school teacher after her third relapse of pulmonary tuberculosis.[153] The Court affirmed the Eleventh Circuit's reversal of the district court's holding that Congress did not intend section 504 to include persons with contagious diseases.[154] The Court held that persons with contagious diseases are not excluded from protection under section 504 and that contagiousness alone did not justify discharge of an employee.[155] However, the Court stated that an individual who poses a "significant risk" of infecting others in the workplace is not "otherwise qualified" for her position if the risk cannot be eliminated through reasonable accommodations made by the employer.[156] The Court went on to instruct district courts to base their determinations of whether or not a "significant risk" of contagion exists and whether or not reasonable accommodations could eliminate the risk on " 'reasonable medical judgments given the state of medical knowledge . . .'."[157] The

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[151] *Id.* § 104.12(a). Accommodations are not reasonable where they impose "undue financial and administrative burdens" on the recipient of federal financial assistance, Southeastern Community College v. Davis, 442 U.S. 397, 412 (1979), or require a "fundamental alteration in the nature of [the] program," *id.* at 410. *See* 45 C.F.R. § 84.12 (1987) (factors to be considered in determining whether an accommodation causes undue hardship).

[152] 480 U.S. 273 (1987).

[153] *Id.* at 276.

[154] *Id.* at 277.

[155] *Id.* at 286, 289. The Court was not faced with the issue of whether a carrier of AIDS is handicapped within the meaning of the Rehabilitation Act. *Id.* at 281 n.7.

[156] *Id.* at 288. This holding has been codified in the Civil Rights Restoration Act which excludes from the definition of "individuals with handicaps" persons with contagious diseases who "constitute a direct threat to the health or safety of other individuals . . . ." 29 U.S.C. § 70 (1988).

[157] *Arline*, 480 U.S. at 288 (quoting Amicus Curiae Brief of American Med. Ass'n). Factors to be considered in determining whether a person with a contagious disease poses a significant risk of infecting others and whether this risk can be eliminated by reasonable accommodations were enumerated by the Court:

'(a) the nature of the risk (how the disease is transmitted),

(b) the duration of the risk (how long is the carrier infectious),

(c) the severity of the risk (what is the potential harm to third parties) and

(d) the probabilities the disease will be transmitted and will cause varying

Court remanded the case for determination of whether Arline was "otherwise qualified" for employment as a school teacher and whether reasonable accommodations could be made to eliminate any risk of contagion she might pose to students and workers.[158]

Post-*Arline* decisions have held that HIV infection, whether symptomatic or asymptomatic, is a handicap under section 504 and that HIV-infected persons must be "reasonably accommodated" to allow such individuals to participate or derive benefit from activities receiving federal funds.[159] A symptomatic HIV-infected individual is included within the first two prongs of the definition of the term handicapped because the infected person has a physical impairment—dysfunction of the hematologic and immune (lymphatic) systems—that substantially limits one or more major life activities including procreation and intimate sexual relationships.[160]

In *Chalk v. United States District Court Central District of California*[161] the Ninth Circuit held that a teacher with AIDS was handicapped within the meaning of section 504 and was "otherwise qualified" for employment.[162] The court found that the district court had failed to follow the standard articulated in *Arline* and had placed an "impossible burden of proof on the petitioner" to demonstrate that he posed no "significant risk" of contagion.[163] The court observed that the plaintiff is not "require[d to disprove] every theoretical possibility of harm . . . ."[164] The court went on to find that the district court had

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degrees of harm.'

Id. In making such determinations, district courts "should defer to the reasonable medical judgments of public health officials." *Id.* The ADA has adopted a standard identical to that set forth in *Arline*. *See* Pub. L. No. 101-336, § 302, 1990 U.S.C.C.A.N. (104 Stat.) 327, 355-62 (1990) (to be codified at 42 U.S.C. § 12182). *See also* note 185 and accompanying text *infra*.

[158] *Arline*, 480 U.S. at 290. On remand the district court found that Arline posed no threat of communicating tuberculosis in the classroom and that she was otherwise qualified to teach and entitled to reinstatement. Arline v. School Bd., 692 F. Supp. 1286 (M.D. Fla. 1988).

[159] *See* notes 161-72 and accompanying text *infra*.

[160] *See* 29 U.S.C. § 706(7)(A); 34 C.F.R. § 104.3(j)(i)(ii) & § 104.3(2)(i). *See also* notes 147-48 and accompanying text *supra*.

[161] 840 F.2d 701 (9th Cir. 1988).

[162] *Id.*

[163] *Id.* at 707.

[164] *Id.* at 709 ("Little in science can be proved with absolute certainty and Section

relied on unsupported speculation and had "rejected the overwhelming consensus of medical opinion" which had concluded that casual contact as might occur in a classroom setting did not present a significant risk of contagion.[165] The Ninth Circuit stated that a transfer of the plaintiff from the classroom was not justified unless the individual posed a direct threat to the health and safety of other employees and reasonable accommodation would not eliminate the risk.[166] Similarly, other courts have held that children with AIDS are handicapped under section 504 and are "otherwise qualified" to attend public school.[167]

The issue of whether an asymptomatic[168] person infected with HIV is handicapped under section 504, i.e., whether that individual has an impairment which substantially limits major life activities, was addressed by a New York trial court in *District 27 Community School Board v. Board of Education of New York*.[169] The petitioner sought to enjoin the Board of Education's policy that prevented dismissal of HIV-infected children in the absence of an individual determination of the necessity of such action.[170] The court held that HIV-positive but asymptomatic school children were handicapped under section 504 because the children had physical impairments of the hematologic and lymphatic systems.[171] Similarly, the Rehabilitation Act has been

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504 does not require such a test.").

[165] *Id.* at 708. In rejecting the consensus of medical opinion, the district court had ignored the instructions of the Supreme Court in *Arline* to "defer to the reasonable medical judgments of public health officials." *Id.* (quoting *Arline*, 408 U.S. at 288). *See* note 157 and accompanying text *supra*.

[166] *Chalk*, 840 F.2d at 707-08.

[167] *See, e.g.*, Child v. Spillane, 866 F.2d 691 (4th Cir. 1989) (kindergarten student with AIDS); Doe v. Dolton Elementary Sch. Dist. No. 148, 694 F. Supp. 440 (N.D. Ill. 1988) (elementary school student with AIDS); Thomas v. Atascadero Unified Sch. Dist., 662 F. Supp. 376 (C.D. Cal. 1987) (HIV-infected kindergarten student referred to as "child with AIDS" by the court). *See also* Doe v. Attorney Gen. of United States, 941 F.2d 780 (9th Cir. 1991) (physician required to reveal whether or not he had AIDS); Martinez v. School Bd., 861 F.2d 1502 (11th Cir. 1989) (mentally handicapped child with AIDS); Robertson v. Granite City Community Unit Sch. Dist. No. 9, 684 F. Supp. 1002 (S.D. Ill. 1988) (elementary school student with AIDS-related complex); Shuttleworth v. Broward County, 639 F. Supp. 654 (S.D. Fla. 1986) (county employee with AIDS); Buckingham v. United States, No. 90-535TJH(SX), 1991 WL 57977 (C.D. Cal. Feb. 15, 1991) (Postal Service employee with AIDS).

[168] *See* note 61 *supra*.

[169] 130 Misc. 2d 398, 502 N.Y.S.2d 325 (Sup. Ct. Queens County 1986).

[170] *Id.* at 401, 502 N.Y.S.2d at 328.

[171] HIV-infected children also qualify as handicapped under the third prong of the definition, insofar as their pursuit of an education is limited by a perceived impairment

held to encompass asymptomatic HIV-infected patients and employees.[172] Thus, both symptomatic and asymptomatic HIV-infected individuals are handicapped under the Rehabilitation Act and are protected by its provisions.

B. *The Americans with Disabilities Act*

The recently enacted Americans with Disabilities Act (ADA)[173] extends to disabled individuals comprehensive rights, including protections and remedies aimed at eliminating discrimination against individuals with disabilities in the private as well as public sectors.[174] The ADA does not limit the rights or remedies available to the disabled under pre-existing federal, state or municipal legislation and mandates that agencies responsible for enforcement coordinate their efforts.[175] Although the ADA does not supplant the Rehabilitation Act, it provides comprehensive protections for HIV-infected persons and is the preferred federal remedy.[176]

Persons with AIDS, as well as asymptomatic individuals infected with the HIV virus, are disabled within the meaning of the ADA and are thus entitled to all the protections it affords.[177]

(the erroneous perception that they pose a risk of contagion in the classroom setting). *See id.* at 415, 502 N.Y.S.2d at 336-37.

[172] *See* Servino v. North Fort Myers Fire Control Dist., 935 F.2d 1179 (11th Cir. 1991) (HIV-infected fire fighter); Glanz v. Vernick, 756 F. Supp. 632 (D. Mass. 1991) (HIV-infected patient); Jenkins v. Skinner, 771 F. Supp. 133 (E.D. Va. 1991) (HIV-infected air traffic controller); Doe v. Centinela Hosp., No. 87-2514, 1988 WL 81776 (C.D. Cal. June 30, 1988) (asymptomatic carrier of HIV held handicapped under section 504 on the theory that the defendant residential drug treatment program regarded him as having an impairment that substantially limited major life activities). *See also* Ray v. School Dist., 666 F. Supp 1524 (M.D. Fla. 1987) (HIV-infected school children).

[173] Pub. L. No. 101-336, 1990 U.S.C.C.A.N. (104 Stat.) 327.

[174] For a discussion of the purpose and goals of this legislation, see Pub. L. No. 101-336, § 2, 1990 U.S.C.C.A.N. (104 Stat.) 327, 328-29; H.R. REP. No. 485, 101st Cong., 2d Sess., pt. 2, at 28-50 (1990), *reprinted in* 1990 U.S.C.C.A.N. 303, 310-32; H.R. REP. No. 485, 101st Cong., 2d Sess., pt. 3, at 23-26 (1990), *reprinted in* 1990 U.S.C.C.A.N. 445, 446-49; H.R. REP. No. 485, 101st Cong., 2d Sess., pt. 4, at 23-28 (1990), *reprinted in* 1990 U.S.C.C.A.N. 512, 513-17.

[175] Pub. L. No. 101-336, § 501(b), 1990 U.S.C.C.A.N. (104 Stat.) 327, 369 (to be codified at 42 U.S.C. § 12201).

[176] *See* notes 181-85 and accompanying text *infra*. Originally the procedures and remedies available under Title III of the ADA were those set forth in section 204(a) of the Civil Rights Act of 1964. 42 U.S.C. § 2000a-3(a). Enactment of the Civil Rights Act of 1991 expanded available procedures and remedies. H.R. 1, 102d Cong., 1st Sess. (1991).

[177] *See* note 180 and accompanying text *infra*.

The ADA defines a disabled individual as one who manifests:

(a) a physical or mental impairment that substantially limits one or more of the major life activities of such individual;
(b) a record of such impairment; or
(c) being regarded as having such an impairment.[178]

This definition parallels that adopted by the Rehabilitation Act of 1973.[179] A patient with AIDS or an asymptomatic HIV-infected individual is included within the first prong of the definition of a disabled individual because of physical impairments of the hematologic and immunologic (lymphatic) systems that substantially limit major life activities including procreation and intimate sexual relationships.[180] Patients with AIDS may, in addition, suffer impairment of multiple organ systems and manifest limitations in other major life activities.

1. The HIV-Infected Patient

Title III of the Americans with Disabilities Act bars discrimination in public accommodations such as municipal, state and Veterans Administration hospitals.[181] Moreover, private and voluntary hospitals and the professional offices of private health care providers are also "public accommodations" for the purposes of Title III if their operations affect commerce, as virtually

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[178] § 3(2)(A)-(C), 1990 U.S.C.C.A.N. (104 Stat.) at 329-30 (to be codified at 42 U.S.C. § 12102).

[179] *See* note 147 and accompanying text *supra*.

[180] People with HIV disease are individuals who have any condition along the full spectrum of HIV infection—asymptomatic HIV infection, symptomatic HIV infection or full blown AIDS. These individuals are covered under the first prong of the definition of disability in the Americans with Disabilities Act, as individuals who have a physical impairment that substantially limits a major life activity. Although the major life activity that is affected at any point in the spectrum of the HIV infection may be different, there is substantial limitation of some major life activity from the onset of HIV infection.

136 CONG. REC. S9696 (daily ed. July 13, 1990) (statement of Sen. Kennedy). "The term [physical or mental impairment] includes . . . infection with the Human Immunodeficiency Virus . . . ." H.R. REP. No. 485, 101st Cong., 2d Sess. pt. 2, at 51 (1990), *reprinted in* 1990 U.S.C.C.A.N. 303, 333. "[A] person infected with the Human Immunodeficiency Virus is covered under the first prong of the definition of the term 'disability' because of a substantial limitation to procreation and intimate sexual relations." *Id.* at 334.

[181] § 302(a), 1990 U.S.C.C.A.N. (104 Stat.) at 355 (to be codified at 42 U.S.C. § 12182).

all do.[182] The ADA prohibits discrimination based on disability "in the full and equal enjoyment of the goods, services, facilities, privileges, advantages or accommodations of any place of public accommodation by any person who owns . . . or operates a place of public accommodation."[183] The ADA provides that no individual shall be denied, on the basis of disability, the opportunity to participate in or benefit from a covered entity nor shall he or she be afforded a service or accommodation that is unequal, different or separate.[184] Thus, the provisions of Title III unequivocally prohibit the denial of health care services to a seropositive individual solely on the basis of HIV infection. Title III, however, does not prohibit exclusion of disabled individuals who pose a "significant risk" in the form of a "direct threat to the health and safety of others."[185]

The ADA requires that a health care provider make "reasonable modifications in policies, practices, or procedures" to accommodate disabled individuals where such modifications are necessary to enable the disabled individual to participate or benefit from the services offered by the provider.[186] Failure to make these modifications constitutes discrimination unless the modifications would "fundamentally alter the nature of . . . [the] services [offered] . . . ."[187] In general, treatment of HIV-infected patients does not require any accommodation whatsoever. CDC guidelines do not require any modifications in practices or procedures by health care providers in caring for an HIV-infected patient.[188] These guidelines recommend instituting universal precautions where there exists a risk of parenteral, mucous membrane or cutaneous exposure to blood or certain body fluids from any patient, irrespective of the perceived risk of HIV infection.[189] Attempts to predict HIV status on the basis of risk fac-

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[182] § 301(1)(7)(F) (to be codified at 42 U.S.C. § 12181).

[183] § 302(a) (to be codified at 42 U.S.C. § 12182). "Full and equal enjoyment means the right to participate and to have an equal opportunity to obtain the same result as others." H.R. REP. No. 485, 101st Cong., 2d Sess., pt. 1, at 55 (1990), *reprinted in* 1990 U.S.C.C.A.N. 445, 478.

[184] § 302(b)(A)(i)-(iii), 1990 U.S.C.C.A.N. (104 Stat.) at 355.

[185] § 302(b)(3).

[186] § 302(b)(2)(A)(iii).

[187] *Id.*

[188] *See* notes 67-75 and accompanying text *supra*.

[189] *See* notes 67-75 and accompanying text *supra*.

tor assessment are unreliable;[190] restricting infection-control precautions to those perceived to be at high risk will miss many cases.[191] Thus, no additional precautions, procedures or modifications in waste disposal practices are required to accommodate individuals known to be HIV-infected.

An important area of potential litigation under the ADA involves the making of referrals by physicians.[192] The legislative history of the ADA clearly indicates that Congress did not intend to "prohibit a physician from referring an individual with a disability to another physician . . . if the disability itself creates specialized complications for the patient's health which the physician lacks the experience or knowledge to address."[193] A family practitioner, general practitioner, general internist or pediatrician may in some cases refer patients with AIDS to infectious disease specialists or to tertiary health care facilities when the doctor lacks the specialized knowledge and expertise necessary to provide care.[194] In contrast, HIV-infected patients with nor-

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[190] Kelen et al., *supra* note 80, at 1647-48.

[191] *Id.* at 1648.

[192] While the AMA states that physicians have an ethical duty to treat HIV-infected patients, it has nonetheless indicated that "[p]hysicians who are unable to provide the services required by AIDS patients should make referrals to those physicians or facilities equipped to provide such services." Council on Ethical and Judicial Affairs, *Ethical Issues Involved in the Growing AIDS Crisis*, 259 JAMA 1360, 1361 (1988). The American College of Physicians and the Infectious Diseases Society of America have indicated that an ethically responsible physician who "feels inadequate or incapable of providing [the best care possible] . . . is ethically bound to refer the patient to a competent colleague . . . ." Health & Pub. Policy Comm., Am. College of Physicians & The Infectious Diseases Soc'y of Am., *The Acquired Immunodeficiency Syndrome (AIDS) and Infections with the Human Immunodeficiency Virus (HIV)*, 108 ANNALS INTERNAL MED. 460, 462 (1988); *see also* Quentin R. Stiles et al., *The Society of Thoracic Surgeons Ad Hoc Committee on AIDS. Report to Membership*, 47 ANNALS THORACIC SURGERY 946, 948 (1989) ("A physician may decline to treat a patient because he or she feels that the requirements for treatment lie outside his or her area of expertise.").

[193] H.R. REP. No. 485, 101st Cong., 2d Sess., pt. 2, at 106 (1990), *reprinted in* 1990 U.S.C.C.A.N. 303, 389.

[194] When the number of helper T-lymphocytes in the blood fall below 500 per milliliter, the HIV-infected patient will benefit from anti-retroviral drug therapy which may require specialized knowledge on the part of the medical practitioner administering these agents. *See* THE MEDICAL MANAGEMENT OF AIDS, *supra* note 9, at xv. When helper T-lymphocyte counts fall further, prophylactic treatment to prevent opportunistic infections is also indicated. *Id.* In addition, the patient with AIDS is susceptible to a host of opportunistic infections of the lung, eye, gastrointestinal tract and other organ systems whose diagnosis and treatment will likely be beyond the ken of the general practitioner. *Id.* at 209-90, 316-38. These infections, while commonly observed among patients with AIDS, are otherwise extremely rare. *Id.* General internists and family practitioners may

mal numbers of helper T-lymphocytes in their blood arguably do not require specialized care and may not be referred solely on the basis of their seropositivity.[195] In addition, the ADA does not preclude a physician-specialist from referring HIV-infected patients with disorders that lie outside the doctor's field of specialization.[196] On the other hand, a surgeon, interventional radiologist or dentist called on to perform "routine" operative, radiologic or dental procedures on a HIV-positive patient could not refer on the ground that he or she was unable to provide necessary services due to inadequate knowledge or experience. The patient's HIV status does not significantly add to the complexity or difficulty of these invasive yet routine procedures.

The ADA prohibits a private entity offering public accommodations or services from establishing eligibility criteria (tests, selection guidelines, or qualification standards) "unless such criteria can be shown to be necessary for the provision of the . . . services . . . being offered."[197] In the health care setting, this

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argue that they lack the expertise to deal with these "specialized" therapies.

On the other hand, in many communities primary care physicians routinely provide care for patients with HIV-infection and AIDS. Gemson et al., *supra* note 7, at 1103, 1106. AIDS is part of most primary care practices in New York City. *Id.* at 1106. Of 473 primary care providers surveyed in New York City, 71% have cared for patients with AIDS. *Id.* at 1103. Moreover, 32% of family practitioners in communities with fewer than 2500 residents have dealt with HIV infection. Bredfeldt et al., *supra* note 8. *See also* Green et al., *supra* note 8 (program for community-based care for HIV-infected patients by primary care providers in Virginia); Gerbert et al., *supra* note 16, at 2837 (seventy-five percent of 1121 primary care physicians nationwide have treated one or more HIV-infected patients; 23% have treated more than 10).

Many primary care physicians believe they lack sufficient knowledge about the care of HIV-infected patients. *Id.* To meet this challenge, New York State has distributed educational materials to primary care providers to instruct them in the evaluation and management of HIV-infected patients. NEW YORK STATE DEP'T OF HEALTH, AIDS INST., HIV MEDICAL EVALUATION & PRIMARY CARE (March 1991). Included were protocols on the use of anti-retroviral therapy and the prophylaxis of opportunistic infections and information on AIDS-related resources available to the practitioner. *Id.* In addition, the state has allocated over $1,000,000 to fund training grants to educate physicians in the care of HIV-infected patients.

[195] *See* note 194 *supra.*

[196] "Nothing in this legislation is intended to prohibit . . . [a physician who has developed an area of specialization] from referring a patient with a disability . . . if that patient is seeking treatment outside the doctor's specialization and if the doctor would make a similar referral for an individual without that disability." H.R. REP. No. 485, 101st Cong., 2d Sess., pt. 2, at 105-06 (1990), *reprinted in* 1990 U.S.C.C.A.N. 303, 388-89.

[197] § 302(b)(2)(A)(i), 1990 U.S.C.C.A.N. (104 Stat.) at 356 (to be codified at 42 U.S.C. § 12182). For example, HIV testing to screen out HIV-infected persons as potential renal transplant recipients is arguably necessary since transplant recipients require

provision prevents a health care provider from requiring that a prospective patient undergo HIV testing as a means of screening for infected individuals.[198] While knowledge of a patient's HIV

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treatment to suppress their immune function that may be detrimental to individuals infected with HIV. In contrast, "a drug rehabilitation clinic . . . could not refuse to treat a person who was a drug addict simply because the patient tests positive for HIV." H.R. REP. No. 485, 101st Cong., 2d Sess., pt. 2, at 106 (1990), *reprinted in* 1990 U.S.C.C.A.N. 303, 389.

[198] Theoretically, knowledge of a patient's HIV status might reduce the exposure of health care workers to infected blood and body fluids by motivating strict compliance with universal precautions and encouraging changes in surgical procedures or techniques that reduce exposure but that are not practical for all patients. However, modifications in practice that unduly increase intraoperative time or lead to the refusal to perform elective procedures may themselves be discriminatory.

Moreover, data fail to confirm that knowledge of a patient's HIV status decreases the risk to health care workers. Julie L. Gerberding, *Does Knowledge of Human Immunodeficiency Virus Infection Decrease the Frequency of Occupational Exposure to Blood?*, 91 AM. J. MED. 3B-308S (1991). No study has provided objective evidence that identifying infected patients decreases exposure frequency. *Id.* at 3B-311S ("[A]vailable literature does not establish a benefit from routine HIV testing or labeling of patients for infection control purposes."). *See also* Julie L. Gerberding et al., *Risk of Exposure of Surgical Personnel to Patients' Blood During Surgery at San Francisco General Hospital*, 322 NEW ENG. J. MED. 1788 (1990) (in a medical center with a high prevalence of HIV infection, intraoperative exposure to blood and body fluids was not influenced by knowledge or perception that the patient was seropositive); Tokars et al., *supra* note 84, at 83 (rate of percutaneous injuries to surgical personnel not significantly reduced when they perceived or had actual knowledge that patients were infected with HIV (percutaneous injury rate 6.9% versus 3.1%, p value not significant)); CDC, *Recommendations for Preventing Transmission of Infection with Human T-Lymphotrophic Virus Type III/Lymphadenopathy-Associated Virus During Invasive Procedures*, 35 MORBIDITY & MORTALITY WKLY. REP. 221, 223 (1986) ("Routine serologic testing . . . is not necessary for . . . patients undergoing invasive procedures . . . . Results of such routine testing would not . . . supplement . . . [universal] precautions . . . in further reducing the negligible risk of transmission during . . . invasive procedures."); CDC, *Recommendations for Preventing Transmission of Infection with Human T-Lymphotrophic Virus Type III/Lymphadenopathy-Associated Virus in the Workplace*, 34 MORBIDITY & MORTALITY WKLY. REP. 681, 684 (1985) ("Routine testing of all patients . . . is not recommended to prevent transmission of . . . [HIV] infection in the workplace. Results of such testing are unlikely to further reduce the risk of transmission, which, even with documented needlesticks, is already extremely low. Furthermore, the risk . . . can be reduced by . . . implementing . . . infection-control precautions . . . ."); CDC, *Update: Human Immunodeficiency Virus Infections in Health-Care Workers Exposed to Blood of Infected Patients*, 36 MORBIDITY & MORTALITY WKLY. REP. 285, 289 (1987) ("[I]t has not been established that knowledge of a patient's [HIV] status increases the compliance of health-care workers with recommended precautions.").

The CDC has recently proposed guidelines recommending that patients in acute care hospitals be tested for HIV after informed consent is obtained and the patient counseled. CDC, *Review of Draft Guidelines for HIV Testing Services for Patients in Acute-Care Hospitals*, 40 MORBIDITY & MORTALITY WKLY. REP. 646 (1991). However, the purpose of testing would not be to protect the physician but to obtain for the patient the

status may be required for proper diagnosis and treatment, serologic screening is prohibited as a prerequisite for delivery of health care.

Sexual orientation is not a cognizable factor in determining disability under the ADA. Homosexuality and bisexuality are specifically excluded from the definition of "impairment."[199] Current use of illegal drugs is also expressly rejected as a disability.[200] However, refusal to provide health care to homosexual or bisexual males or intravenous drug users may violate Title III of the ADA if the refusal is based on perceived risk of HIV infection.[201] Individuals engaged in high-risk behavioral activities, if perceived to be infected with HIV, are disabled within the meaning of the ADA.[202] The third prong of the definition of disability set forth in the ADA includes "being regarded as having . . . [a physical or mental] impairment" that substantially limits a major life activity.[203] This prong covers homosexual and bisexual males and intravenous drug users who are denied health care on the basis of perceived high risk of HIV infection, whether or not the individual is actually infected and thus disabled under the first or second prongs of the definition.[204] Arguably, sexual

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health benefits that result from early diagnosis and treatment. *Id.*

[199] § 511(a), 1990 U.S.C.C.A.N. (104 Stat.) at 375 (to be codified at 42 U.S.C. § 12211) ("For purposes of the definition of 'disability' . . . homosexuality and bisexuality are not impairments and as such are not disabilities under this Act.").

[200] § 510(a), 1990 U.S.C.C.A.N. (104 Stat.) at 375 (to be codified at 42 U.S.C. § 12212) ("[T]he term 'individual with a disability' does not include an individual who is currently engaging in the illegal use of drugs, when the covered entity acts on the basis of such use.").

[201] "Individuals who are homosexual or bisexual and are discriminated against because they have a disability, such as infection with the Human Immunodeficiency Virus, . . . are protected under the [ADA]." H.R. REP. No. 485, 101st Cong., 2d Sess., pt. 3, at 75 (1990), *reprinted in* 1990 U.S.C.C.A.N. 303, 498.

[202] This perception may be based on the prevalence of HIV infection in these populations. Thirty to seventy percent of intravenous drug users in New York City, 50% of homosexual males in San Francisco and 50% of male homosexual prostitutes in New York City are infected with HIV. *See* CDC, *AIDS and Human Immunodeficiency Virus Infection in the United States: 1988 Update*, 38(s-4) MORBIDITY & MORTALITY WKLY. REP. 1, 17-23 (1989).

[203] § (3)(2)(C), 1990 U.S.C.C.A.N. (104 Stat.) at 330 (to be codified at 42 U.S.C. § 12102).

[204] H.R. REP. No. 485, 101st Cong., 2d Sess., pt. 2, at 30 (1990), *reprinted in* 1990 U.S.C.C.A.N. 303, 311 ("Discrimination . . . includes . . . actions taken against those regarded by others as having a disability."). *See also* Poff v. Caro, 549 A.2d 900 (N.J. Super. Ct. Law Div. 1987) (homosexual men held to be disabled within the meaning of the New Jersey Law Against Discrimination (N.J. STAT. ANN. § 10:5-4.1 (West 1976)) on

partners of intravenous drug users may similarly be disabled within the meaning of the ADA if denied health care on the basis of perceived HIV infection—whether or not they or their sexual partners are actually infected.[205]

A physician who does not perform exposure-prone procedures and who refuses to care for an HIV-infected patient on the basis of the patient's serostatus violates Title III of the ADA. A plaintiff-patient must first establish a handicap within the meaning of the Act. Both asymptomatic HIV-infected persons and persons with AIDS have a substantial limitation of major life activities including procreation and intimate sexual activity and are therefore disabled for the purposes of the Act.[206] Moreover, denial of access to health care services due to the perception of contagiousness satisfies the third prong of the ADA's definition of a handicapped individual.[207] The defendant-physician may in turn argue that the HIV-infected patient poses a significant risk of contagion to the physician which cannot be eliminated by reasonable accommodation.[208] However, these arguments will fail. The Supreme Court has held that contagiousness alone cannot be used to exclude the patient.[209] The defendant-physician will be unable to demonstrate that a "significant risk" of contagion exists which cannot be eliminated by reasonable accommodations. The risk of HIV transmission to the health care worker during nonexposure-prone encounters is small and can be further reduced by adherence to infection-control guidelines.[210] National organizations of health care professionals have universally decreed that the level of personal risk associated with caring for AIDS patients is small and does not abrogate the duty of a health care professional to care for an HIV-infected

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the ground that they were members of a group perceived by the defendant as being infected with HIV).

[205] In New York City, 23-50% of sexual partners of HIV-infected persons are also infected. CDC, *supra* note 202, at 23. The ADA provides that "[i]t shall be discriminatory to exclude or otherwise deny equal . . . services . . . to an individual . . . because of the known disability of an individual whom the individual . . . is known to have a relationship or association." § 302(b)(1)(E), 1990 U.S.C.C.A.N. (104 Stat.) at 356 (to be codified at 42 U.S.C. § 12182).

[206] *See* note 180 and accompanying text *supra*.

[207] *See* note 178 and accompanying text *supra*.

[208] *See* note 185 and accompanying text *supra*.

[209] School Bd. of Nassau County v. Arline, 480 U.S. 273, 286 (1987).

[210] *See* notes 26, 117, 126 and accompanying text *supra*.

patient.[211]

However, a physician who refuses to perform an exposure-prone procedure on an HIV-infected patient may offer more cogent arguments to support the contention that the patient poses a significant risk of contagion. If the courts deem the risk of HIV transmission from infected physician to patient during exposure-prone procedures to be "significant," justifying the imposition of practice restrictions pursuant to CDC guidelines, then the risk of transmission from infected patient to physician must also be "significant," justifying refusal to treat. Nevertheless, this argument will likely fail in light of the ethical obligations inherent in the practice of medicine which arguably subject physicians to a higher standard. Moreover, policy considerations will likely preclude courts from upholding exclusion of HIV-infected persons, even from exposure-prone procedures.

Physicians have employed numerous other arguments to justify their refusal to treat HIV-infected patients. In *Glanz v. Vernick*[212] an HIV-infected patient alleged discrimination in violation of section 504 of the Rehabilitation Act by a physician who refused to perform elective ear surgery. The defendant claimed that the plaintiff was not "otherwise qualified" to undergo the surgical procedure because of an increased susceptibility to post-operative infections. The court denied summary judgment to the defendant-physician and indicated that there existed a material issue of fact as to whether the patient was "otherwise qualified" for the surgery. The court stated that physicians may take into account "risks imposed—both on the patient and on themselves" in order to determine whether the patient is "otherwise qualified" to undergo surgery.[213] "[I]f . . . [physicians] properly conclude that there are risks, they must also consider whether it is possible to make reasonable accommodations to enable the patient to undergo surgery despite those risks."[214] However, the defendant-physician's contention—that the patient was not "otherwise qualified" to undergo elective ear surgery on the ground that the procedure posed a "significant risk" to the patient—is not tenable. No medical au-

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[211] *See* note 14 *supra*.

[212] 756 F. Supp. 632 (D. Mass. 1991).

[213] *Id.* at 638.

[214] *Id.*

thority recognizes HIV infection in its early asymptomatic stages to be a medical contraindication to elective surgical procedures. In fact, during discovery the defendant acknowledged that HIV seropositivity alone is not a disqualifying factor for surgery.[215]

In *Doe v. Kahala Dental Group*[216] the plaintiff alleged that the defendant dental group violated Hawaii's anti-discrimination statute[217] by refusing to perform dental work because the plaintiff declined to reveal his HIV status. The court held that the defendant's refusal to treat was not based on the plaintiff's handicap but on the patient's refusal to furnish medical information that was pertinent to the treatment to be rendered. The defendant argued that since the proposed dental procedures[218] might expose him to the patient's blood, additional precautions would be required if the plaintiff were infected with HIV, or alternatively the patient would be referred to another clinic which was "properly equipped" to treat HIV-infected patients. In accepting this argument, the court ignored CDC guidelines which recommend that universal precautions be employed when treating all patients regardless of actual or perceived HIV status.[219] Thus, no additional precautions or procedures are required to treat an HIV-infected patient.[220] The court's holding is clearly not in accord with current medical opinion. As discussed earlier, a claim by the dental group that the proposed exposure-prone procedure would expose them to a "significant risk" of contagion, while tenable, should also fail. It is unlikely that courts will authorize discriminatory exclusion under the rubric of "significant risk."

2. The HIV-Infected Physician

Six thousand four hundred and thirty-six health care workers suffer from AIDS in the United States, including 171 dentists and dental hygienists, 703 physicians, 47 surgeons and 1355 nurses.[221] It is estimated that 50,000 health care workers, includ-

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[215] *Id.* Organ transplantation is contraindicated if the potential organ donor or arguably the potential recipient is infected with HIV. *See* note 197 *supra.*

[216] 808 P.2d 1276 (Haw. 1991).

[217] HAW. REV. STAT. § 489 (1991).

[218] The procedures were root canal or crown work. 808 P.2d at 1277.

[219] *See* notes 67-69 and accompanying text *supra.*

[220] *See* notes 67-69 and accompanying text *supra.*

[221] Elaine S. Povich, *U.S. Senate Backs AIDS Tests in Health Care*, CHI. TRIB., July

ing 7000 physicians, carry the HIV virus and that more than 300 surgeons and 1200 dentists have practiced their profession while infected with the HIV virus.[222] Many HIV-infected physicians will not voluntarily disclose their serologic status, consult peer review panels as recommended by CDC guidelines or refrain from performing exposure-prone procedures.[223] The news media has carried numerous accounts of HIV-infected physicians and dentists who have knowingly continued to perform invasive procedures until their deaths.[224] Health care workers infected with HIV are reluctant to inform their patients or employers of their serostatus because they fear loss of employment or restrictions on their practice of invasive procedures.[225] As a result, health care workers at risk avoid being tested.[226]

The Americans with Disabilities Act affords HIV-infected physicians protection against employment discrimination based on their seropositivity. However, conflict arises between the rights of HIV-infected physicians to be free from discrimination based on their disability and their interests in performing invasive procedures as part of the practice of their profession, on the one hand, and the rights of patients to make informed decisions with respect to the HIV status of their physicians and the interest of society in protecting patients from nosocomial risks, on the other. While the risk of transmission of HIV from physician to patient during an exposure-prone procedure is no greater than other risks tolerated in the health care setting,[227] this risk

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19, 1991, at C1. There are approximately seven million health care workers in the United States. Press Conference, Centers for Disease Control and Others, Federal News Service (Aug. 29, 1991) (statement of M. Roy Schwartz). The total number of physicians in the United States is estimated at nearly 700,000, including 85,000 house officers. *Id.*

[222] Lawrence K. Altman, *Health Units Defy U.S. on AIDS Rules*, N.Y. TIMES, Aug. 30, 1991, at A1.

[223] Jean L. Griffin, *Dental Student Has HIV, Patients Told*, CHI. TRIB., July 24, 1991, at C1; *HIV Infected Health Workers Fear Losing Jobs, Study Finds*, NEWSDAY, Sept. 11, 1991, at 41.

[224] Griffin, *supra* note 223.

[225] *See HIV Infected Health Workers*, *supra* note 223.

[226] In a survey of 196 health care workers infected with HIV or at high risk, nearly 15% indicated that they were dismissed or denied promotions because they were infected or perceived to be infected with HIV. More than half of those at high risk but not yet tested believed that CDC guidelines have threatened their livelihood and increased their reluctance to undergo testing. *See HIV Infected Health Workers*, *supra* note 223.

[227] The risk has been compared to the risk of a fatal automobile accident en route to the hospital. *See* Lowenfels & Wormser, *supra* note 112, at 889.

has been held to justify exclusion of a physician from the practice of these procedures.[228] Whether a health care professional poses a "significant risk" must be determined on a case-by-case basis.[229] Generalizations and speculative or remote risks are not cognizable.[230] HIV-infected health care workers should be evaluated on the basis of the types of procedures they perform, their record of adherence to infection control practices, their technical skill and expertise and the possibility that reasonable modifications in procedural techniques may accommodate their disability. While CDC guidelines advocate such an individualized inquiry, the danger exists that courts will focus solely on the nature of the procedures performed.[231]

Whether a hospital may exclude a surgeon with AIDS from performing invasive procedures was at issue in *Behringer v. Medical Center at Princeton.*[232] The estate of the surgeon, who had practiced otolaryngology and facial plastic surgery, claimed that the defendant medical center engaged in discriminatory practices in violation of the New Jersey Law Against Discrimination[233] when it effectively terminated the physician's surgical privileges after he had been diagnosed with AIDS.[234] On learning of Behringer's diagnosis, the hospital immediately suspended his surgical procedures pending a review by hospital officials. Ultimately, the hospital adopted a policy which stated that a physician "with known HIV seropositivity will continue to treat patients . . . but will not perform procedures that pose any risk of virus transmission to the patient."[235] This requirement effectively barred the plaintiff from performing surgery. In addition, the hospital retained an earlier imposed requirement that the physician reveal his serologic status and obtain written informed

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[228] Behringer v. Medical Ctr at Princeton, 592 A.2d 1251 (N.J. Super. Ct. Law Div. 1991).

[229] H.R. REP. No. 485, 101st Cong, 2d Sess., pt. 2, at 56 (1990), *reprinted in* 1990 U.S.C.C.A.N. 303, 338.

[230] *Id.*

[231] *See* notes 232-56 and accompanying text *infra.*

[232] 592 A.2d 1251 (N.J. Super. Ct. Law Div. 1991).

[233] N.J. STAT. ANN. § 10:5-4.1 (West 1991).

[234] The New Jersey Law Against Discrimination would permit a hospital to restrict the practice of a physician who posed a "reasonable probability of substantial harm to others." *Id.* In contrast, the ADA and the Rehabilitation Act apply a "significant risk" standard. *See* notes 156, 185 and accompanying text *supra.*

[235] *Behringer*, 592 A.2d at 1259.

consent from potential patients before performing invasive procedures.[236] The court held that the hospital's temporary suspension and ultimate restriction of the plaintiff's surgical privileges was justified because Behringer's continued unrestricted practice of surgery posed "a reasonable probability of substantial harm" to potential patients.[237] While recognizing that the risk of transmission of HIV infection from physician to patient was small, the court emphasized the fatal consequences.[238] The court also noted that scientific studies have not yet precisely defined the risk of transmission from physician to patient.[239] Moreover, the court observed that the cumulative risk that an HIV-infected physician will infect one of his or her patients increases in direct proportion to the number of procedures performed.[240]

The court also rejected the argument that the risk of HIV transmission was too remote to require informed consent of the patient and countered that the risk of transmission of HIV was not the sole risk to which the patient is exposed.[241] The court observed that a surgical accident that results in percutaneous injury to an HIV-infected surgeon would raise the specter of HIV

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[236] The court stated that the requirement for informed consent was not superfluous despite the restrictions placed on Behringer's surgical privileges. The court reasoned that medical authorities might determine that certain surgical procedures may be safely performed by HIV-infected physicians (*see* notes 106-28 and accompanying text *supra*). In that event, the informed consent requirement would serve to protect patients from physicians' self-interest. The court observed that physicians have an inherent conflict of interest when making policy decisions involving practice restrictions and also noted that physicians disagree as to which procedures may be safely performed by HIV-infected physicians. 592 A.2d at 1278.

[237] *Id.* at 1276.

[238] *Id.* "The doctor stands in a position of trust . . . in relation to the patient. A small but palpable risk of transmission of a lethal disease to the patient gives the doctor an ethical responsibility to perform only procedures that pose no risk of transmission." *Id.* at 1282. The court also observed that the practice of otolaryngology includes surgery in the ear and oral cavity where visualization is impaired and where a surgical accident would be associated with enhanced risk of transmission due to contact with the patient's mucous membranes which provide a reduced barrier to infection. *Id.* at 244-47.

[239] *Id.* at 1279. "The last word has not been spoken on the issue. . . . Facts accepted at one point in time are no longer accurate as more is learned about the disease and its transmission." *Id.* at 1280-81. Arguably, this analysis skirts but does not violate the standards for interpretation of scientific data articulated in *Arline*. *See* note 157 and accompanying text *supra*. The CDC itself has concluded that, while the risk is small, scientific data do not exist to assess precisely the risk of transmission from infected physician to patient. *See* CDC, *supra* note 26.

[240] 592 A.2d at 1280.

[241] *Id.*

transmission, even where transmission did not occur.[242] The surgical accident would subject the patient to repeated HIV testing and require major lifestyle changes over the ensuing months.[243] The mere possibility of HIV transmission would also engender tremendous anxiety and mental anguish.[244] While the risk of a surgical accident may be reduced by adherence to universal precautions, it cannot be eliminated.[245] The court held that these risks were sufficient to "meet the standard of probability of harm" and required disclosure and informed consent.[246]

The *Behringer* court in effect adopted a "no risk" standard. The court stated that,

> at a minimum, the physician must withdraw from performing any invasive procedure which would pose a risk to the patient. Where the ultimate harm is death, even the presence of a low [risk] of transmission justifies the adoption of a policy which precludes invasive procedures when there is 'any' risk of transmission. . . . The ultimate risk to the patient is so absolute—so devastating—that [it] is untenable to argue against informed consent combined with a restriction on procedures which present 'any risk' to the patient."[247]

The "no risk" standard articulated by the court is untenable; it advocates imposition of practice restrictions that cannot be justified under CDC guidelines and violates guarantees against discrimination afforded by the ADA. Restrictions on the practice of HIV-infected physicians that seek to eliminate all risk of transmission are clearly incompatible with the "signifi-

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[242] *Id.*

[243] CDC guidelines recommend that following a surgical accident which exposes a patient to the blood of an HIV-infected health care worker, the patient should be informed and should undergo periodic HIV testing over at least a 1 year period (a baseline determination followed by repeat testing at 6 weeks and at 3, 6 and 12 months). CDC, *Recommendations for Preventing Transmission of Infection with Human T-Lymphotropic Virus Type III/Lymphadenopathy Virus During Invasive Procedures*, 35 MORBIDITY & MORTALITY WKLY. REP. 221, 222 (1986); CDC, *Recommendations for Preventing Transmission of Infection with Human T-Lymphotropic Virus Type III/Lymphadenopathy-Associated Virus in the Workplace*, 34 MORBIDITY & MORTALITY WKLY. REP. 681 (1985). *See also* note 61 *supra*. The patient should also undergo counseling as to modes of HIV transmission and should follow recommendations to prevent transmission pending a final determination of whether seroconversion has occurred. These recommendations include major lifestyle changes (e.g. alterations in sexual practices and childbearing decisions). *See* note 61 *supra*.

[244] *See* note 285 *infra* (whether the mere fear of contracting AIDS is compensable).

[245] 592 A.2d at 1281.

[246] *Id.* at 1283.

[247] *Id.*

cant risk" standard articulated in *Arline* and adopted in the ADA. A "no risk" standard precludes the individualized determination demanded by the ADA of whether a physican poses a "significant risk" to patients. In addition, a "no risk" standard is impossible to achieve.[248]

By failing to address the comparable risks to the patient from possible physician substance abuse, fatigue, inexperience, medical or psychiatric illness, etc., the *Behringer* court with its "no risk of HIV transmission" standard effectively applied a double standard in violation of the Rehabilitation Act and the ADA.[249] This point was illustrated in *Strathie v. Department of Transportation.*[250] In *Strathie* the plaintiff challenged state regulations that prohibited persons who require hearing aids from driving school buses. The court found that disabilities which posed similar or greater risks (e.g., the need for eyeglasses) had not been addressed in a similar manner by the state regulations.[251] The court held that where a risk which is comparable to other risks tolerated in the workplace is accorded special attention or exclusion, this double standard may constitute unlawful discrimination in violation of the Rehabilitation Act when the reasons put forth by the state do not advance the essential purpose of the program.[252] Disabilities of similar magnitude must be treated in a similar manner.[253] The position of the *Behringer* court fails to meet this standard because it singles out the risk of HIV transmission to the exclusion of other comparable risks and precludes an individualized evaluation of whether an HIV-infected health care worker poses a significant risk.

Other courts have emphasized that the small risk of trans-

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[248] Adoption of a "no risk" standard for surgery would expand the informed consent doctrine to require disclosure of the surgeon's hepatitis B surface antigen status, use of alcohol or illicit drugs and use of prescription medications and their potential adverse side-effects. In addition, the surgeon would have to reveal any coronary artery disease or other medical or psychiatric illnesses, how many hours he or she slept the previous evening, the mortality rate of the surgeon's patients and whether their post-operative wound infection rate exceeds the hospital average, ad infinitum. There is no doubt that these risks may ultimately result in the death of the patient and are arguably more "significant" than the extremely low risk of transmission of HIV infection.

[249] *See* notes 250-52 and accompanying text *infra.*

[250] 716 F.2d 227 (3rd Cir. 1983).

[251] *Id.* at 232.

[252] *Id.*

[253] *Id.*

mission that accompanies an individual surgical procedure by an HIV-infected surgeon may reach significance when aggregated over the total number of patients subjected to the same small risk. The court in *In re: Application of Hershey Medical Center*[254] permitted selective disclosure of the identity of an obstetric-gynecology resident who tested positive for HIV after a surgical accident.[255] The court held that the risk of transmission of HIV infection to former patients during surgery constituted a compelling need for disclosure which outweighed the physician's interest in confidentiality. "[W]hen individuals visit their doctors, they do not expect to confront a risk of illness different from that which they already suffer."[256] While the court acknowledged that the risk of transmission of HIV infection during surgery is small, it emphasized that "the potential [for transmission] is nevertheless there. When one . . . calculate[s] how many individuals may be subjected to the same risk by the same medical worker, multiplied by the aggregate of infected health care professionals, the numbers become staggering."[257]

The extent of practice restrictions that a hospital may impose on an HIV-infected physician was at issue in *Doe v. Cook County*.[258] A neurologist suffering from AIDS brought suit

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[254] 595 A.2d 1290 (Pa. Super. Ct. 1991).

[255] The accident occurred during an invasive procedure in which the patient was exposed to the surgeon's blood. *Id.* at 1291. Disclosure was limited to medical professionals who were engaged in identifying and notifying patients who had potentially been exposed to the physician's blood during the performance of invasive procedures. *Id.* at 1294.

[256] *Id.* at 1296.

[257] *Id.*

[258] Doe v. Cook County, No. 87-C 6888 (N.D. Ill. Feb. 24, 1988) (Consent Decree) [hereinafter Consent Decree]. *Accord* Doe v. Attorney Gen. United States, 941 F.2d 780 (9th Cir. 1991) (The physician plaintiff alleged that the Federal Bureau of Investigation violated section 504 by discriminating against him because he was perceived to be infected with AIDS. The FBI suspended its practice of referring its agents to the plaintiff for pre-employment and annual physical examinations after learning the plaintiff suffered from Kaposi's Sarcoma (a malignancy associated with AIDS in homosexual men). The plaintiff declined to reveal whether he suffered from AIDS but assured the FBI that he adhered to universal precautions and that his examinations posed no risk to its agents.); Lisa Foderaro, *HIV-Positive Pharmacist Fights Job Limits*, N.Y. TIMES, Aug. 19, 1991, at B1 (An administrative law judge in a ruling for the Department of Health and Human Services found that the Westchester County Medical Center violated section 504 of the Rehabilitation Act by making employment of an HIV-infected pharmacist contingent on restrictions that prevented him from preparing solutions for intravenous use where the risk to patients was "so small as not to be measureable."). In a subsequent enforcement proceeding, the hospital was ordered to comply with the original ruling or

against Cook County Hospital whose Board of Commissioners had suspended his clinical privileges.[259] The neurologist claimed that the hospital had discriminated against him on the basis of his disability in violation of section 504 of the Rehabilitation Act and the Fourteenth Amendment of the Constitution. In a consent decree that restored the neurologist's hospital privileges and removed unreasonable practice restrictions, the physician was required to refrain from performing certain invasive procedures and was required to double glove when he performed other invasive procedures or examined body cavities.[260] The hospital was required to "reasonably accommodate [the neurologist's] . . . physical and mental limitations by modifying . . . his duties and responsibilities . . . to permit him to continue to engage in as many of his job duties as he can competently perform."[261]

The risk of transmission of HIV infection from health care worker to patient was addressed by a Louisiana district court in *Leckelt v. Board of Commissioners of Hospital District No. 1.*[262] The plaintiff was discharged from employment as a licensed practical nurse in part because he refused to submit results of an HIV test to his employing hospital after it became known that the plaintiff's roommate had contracted AIDS.[263] The court in-

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lose $107 million in federal funding. Dennis Hevesi, *Hospital Told to Hire Man With H.I.V.*, N.Y. TIMES, Apr. 23, 1992, at B1.

[259] Consent Decree, *supra* note 258. The physician had headed the hospital's neurology clinic and electroencephalographic laboratory. His suspension was subsequently modified and certain clinical privileges were restored subject to restrictions imposed by the Board. *Id.* at 2.

[260] *Id.* at 5. The physician was barred from performing muscle and nerve biopsies and cerebral angiography. It should be emphasized that this decree antedates revised CDC guidelines for HIV-infected health care workers. *See* CDC, *supra* note 26. The revised guidelines do not support the contention that the barred procedures pose a level of risk that justifies practice restrictions. *Id.*

[261] Consent Decree, *supra* note 258, at 7. Cook County Hospital later adopted a policy that permitted patients to refuse treatment from HIV-infected physicians who "routinely provide direct patient care." *Chicago Patients Gain Curb on AIDS Carriers*, N.Y. TIMES, Sept. 22, 1988, at A34. This policy clearly institutionalized discrimination based on disability in violation of the "significant risk" standard of the Rehabilitation Act.

[262] 714 F. Supp. 1377 (E.D. La. 1989), *aff'd*, 909 F.2d 820 (5th Cir. 1990). It should be emphasized that the CDC guidelines in effect at the time of this decision have been superseded by revised guidelines. *See* CDC, *supra* note 26; notes 125-28 and accompanying text *supra*.

[263] 714 F. Supp. at 1384-85.

terpreted then existing CDC guidelines to indicate that a risk of transmission of HIV infection from health care worker to patient exists during invasive procedures and certain other situations where blood from infected staff may contact patients.[264] The court determined that Leckelt's duties as a floor nurse, which included starting intravenous lines, performing catheterizations, changing wound dressings and administering enemas, constituted invasive procedures under CDC guidelines. The court emphasized the fatal consequences of transmission in concluding that Leckelt would pose a significant risk to patients if he were infected, notwithstanding the court's acknowledgment that the probability of transmission was extremely low and would be further reduced by adherence to universal precautions.[265] The risk of contagion in the health care setting was deemed sufficient to justify the hospital's monitoring of Leckelt's exposure to HIV and to create "a substantial and compelling state interest" in preventing spread of HIV infection to patients and co-workers.[266] The court held that the plaintiff did not meet the Rehabilitation Act's threshold requirement that he show he was an individual with a handicap, since he failed to establish that the defendant-hospital perceived him to be seropositive and thus handicapped under the third prong of the definition.[267]

The court went on to find that, even if the plaintiff were handicapped, he was not "otherwise qualified" for employment due to his refusal to comply with reasonable hospital infection-control policies.[268] In determining that Leckelt's duties might place patients at significant risk of contagion if he were infected with HIV, the court interpreted, whether correctly or not, CDC

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[264] *Id.* at 1387-88.

[265] *Id.* at 1381. The court acknowledged that an asymptomatic HIV-infected health care worker "presented a relatively slight risk to patients, coworkers and himself, and may require relatively little accommodation . . . ." *Id.* at 1387.

[266] *Id.* at 1391. *Cf.* Glover v. Eastern Neb. Comm. Office of Retardation, 867 F.2d 461 (8th Cir.), *cert. denied*, 493 U.S. 932 (1989) (HIV testing to screen staff of a residential facility for the mentally handicapped not justified where the staff was engaged in custodial care and did not perform invasive procedures. HIV screening constituted an unreasonable search and seizure where the risk of transmission of HIV infection from staff to residents was "extremely low and approaches zero.").

[267] *Leckelt*, 714 F. Supp. at 1386. *See* note 147 and accompanying text *supra*.

[268] 714 F. Supp. at 1387.

guidelines that have subsequently been revised.[260] Such a conclusion is clearly not justified under current CDC guidelines since Leckelt did not perform exposure-prone procedures.[270] He therefore did not pose a significant risk to patients and the hospital had no interest in monitoring his HIV status. Moreover, the hospital acted in a discriminatory manner by singling out Leckelt for HIV testing from among its other employees who performed invasive procedures. Leckelt was required to submit to testing solely on the basis of his sexual preference and the perception that he was a member of a group at high risk for infection. Such conduct is clearly discriminatory under the ADA.

A more difficult question is whether the ADA would permit a hospital to use compulsory testing to monitor the HIV status of an employee who performs exposure-prone procedures on the ground that HIV testing is a job-related medical examination.[271] The *Leckelt* court concluded that where a health care worker poses a sufficient risk of transmission of HIV to patients, an employing hospital acquires an interest in monitoring the HIV status of that worker and the state acquires a "substantial and compelling" interest in preventing the spread of infection.[272] In this regard, the ADA permits the use of eligibility criteria to screen for HIV-infected health care professionals if "such criteria can be shown to be necessary for the provision of the . . . services . . . being offered."[273] If the health care worker who performs exposure-prone procedures poses a "significant risk" of transmitting HIV to patients, then compulsory HIV testing of that worker would not violate the ADA.[274] The CDC has not recommended compulsory testing of health care workers who perform exposure-prone procedures.[275] However, CDC guidelines do recommend that health care workers who perform exposure-prone procedures know their HIV status and the guidelines permit the imposition of practice restrictions on infected workers

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[269] *See* notes 125-28 and accompanying text *supra*.

[270] *See* CDC, *supra* note 26; notes 125-28 and accompanying text *supra*.

[271] *See* ADA § 102(c)(4)(A), 1990 U.S.C.C.A.N. (104 Stat.) at 333; text accompanying note 197 *supra*.

[272] 714 F. Supp. at 1391.

[273] § 302(b)(2)(A)(i), 1990 U.S.C.C.A.N. (104 Stat.) at 356.

[274] Numerous complex legal and medical issues that are beyond the scope of this Note arise in the debate over HIV testing of health care workers.

[275] *See* CDC, *supra* note 26.

who perform exposure-prone procedures.[276] The question of whether or not compulsory HIV testing of health care workers who perform exposure-prone procedures violates the ADA rests on the courts' determination of whether the level of risk they pose to patients constitutes "significant risk." The CDC guidelines may be interpreted to support the contention that HIV-infected workers who perform exposure-prone procedures may pose a significant risk of contagion.

The patient may also have a say in determining the level of risk of contagion to which he or she may be exposed during the performance of exposure-prone procedures. This issue is closely linked to the question of whether HIV-infected physicians pose a cognizable risk under the doctrine of informed consent. The informed consent doctrine does not require disclosure to the patient of all risks of proposed diagnostic or therapeutic medical interventions.[277] The duty of a physician to inform his or her patients about a potential risk associated with a medical therapy is

> [a] function not only of the severity of the injury, but also of the likelihood that it will occur. Regardless of the severity . . . if the probability . . . is so small as to be practically nonexistent, then the possibilty of that injury occurring cannot be considered a material factor in a rational assessment of whether to engage in the activity . . . .[278]

Whether information about a particular possible injury is material to an informed decision by the patient on whether to undergo a procedure is a function of "the product of the risk and its chance of occurring. A severe consequence . . . would not require disclosure if the chance of [it] occurring was so remote as to be negligible."[279] The CDC has indicated that HIV-infected physicians who do not perform invasive procedures and who ad-

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[276] *Id.*

[277] *See* Precourt v Frederick, 481 N.E.2d 1144 (Mass. 1985).

[278] *Id.* at 1148.

[279] *Id.* at 1148-49. *See also* Pardy v. United States, 783 F.2d 710 (7th Cir. 1986) (no duty to inform where risk of serious reaction to medical procedure lies between 1 in 14,000 and 1 in 40,000); Salis v. United States, 522 F. Supp. 989, 998 (M.D. Pa. 1981) (exception to doctrine of informed consent exists "where the dangers are so remote that the physician has no duty to raise them"; where risk of serious complication from medical procedure ranged between one and two percent, there was a duty to inform patient and obtain consent); Winkjer v. Herr, 277 N.W.2d 579, 588 (N.D. 1979) ("There is no need to disclose risks . . . that are extremely remote.").

here to universal precautions do not pose a measurable risk.[280] Thus, disclosure of the serostatus of these physicians is not required.[281]

On the other hand, CDC guidelines indicate that an HIV-infected surgeon who performs an exposure-prone procedure poses a risk of sufficient magnitude to justify review by an expert panel with the possible imposition of practice restrictions.[282] Where an expert panel has determined that an infected practitioner may "safely" perform exposure-prone procedures, the physician's serostatus would nonetheless be material to an informed decision by the patient as to whether or not to undergo the procedure. This is true because of the uncertainty and debate among medical authorities on which procedures may safely be performed by an infected physician.[283] In contrast to CDC guidelines, the policy statement issued by the New York State Department of Health would allow unrestricted practice by HIV-infected physicians and would not require that serostatus be disclosed and informed consent obtained from patients.[284] This policy can only be sustained if the courts fail to concur with the inescapable implication of the CDC guidelines that the risk posed by an infected physician during the performance of exposure-prone procedures is not so remote as to be immaterial. Certainly, if the courts deem the risk to be "significant" within the meaning of the ADA to justify practice restrictions, it follows that a physician's serostatus is a fact material to an informed decision whether to undergo an exposure-prone procedure performed by the physician.[285]

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[280] *See* CDC, *supra* note 26.

[281] *Id.*

[282] *Id.*; *see also* note 127 and accompanying text *supra*.

[283] *See* note 126 *supra*.

[284] *See* notes 139-42 and accompanying text *supra*.

[285] Actions based on the fear of contracting AIDS have been brought against physicians and their employers by patients who underwent invasive procedures performed by HIV-infected physicians without informed consent. *See* Michelle Salcedo, *Patients' Anxious Wait: Tests to Determine if Dentist Gave Them AIDS Virus*, NEWSDAY, July 28, 1991, at 7. In Rossi v. Almaraz, 59 U.S.L.W. 2748 (Md. Cir. Ct. May 23, 1991), the court held that the fear of contracting HIV from an infected surgeon was not actionable absent proof of exposure. The court observed that since the plaintiff tested negative for HIV more than six months after potential exposure during surgery, it was "substantially likely 'to a high degree of medical certainty' that she was not exposed to AIDS in the first place." *Id.* Moreover, she failed to allege any surgical accident exposing her to the surgeon's blood nor did she allege a failure to use barrier techniques. The court cited

IV. Rights, Protections and Remedies Available to Salaried Health Care Workers

The epidemiology of HIV infection is changing. As the disease moves from the homosexual/bisexual population to economically disadvantaged segments of society, including intravenous drug users and their sexual partners and children, much of the "burden" of care for patients with AIDS has shifted to public municipal hospitals which are staffed primarily by physicians-in-training.[286] Attempts to secure quality health care for HIV-infected persons must acknowledge the attitudes and rights of housestaff as current providers of health services and as the future generation of practitioners. Housestaff are employed by hospitals to perform patient care functions and may at the same time be trainees in academic programs administered by affiliated universities. Thus, the collegial environment in which housestaff training occurs may at times be at odds with the employer-employee relationship that exists between the hospital and the trainee.[287] Health and disability insurance coverage provided by

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with approval Burk v. Sage Prods. Inc., 747 F. Supp. 285 (E.D. Pa. 1990), where a paramedic who had been injured by a needle protruding from a disposal container was denied recovery for the fear of contracting AIDS absent proof of exposure to the virus. Burk had failed to establish that the needle which injured him was contaminated with HIV-infected blood. The *Burk* court observed:

> The cases which have allowed recovery for fear of disease have done so when the plaintiffs were faced only with the question of whether they would contract the disease in the future; the plaintiff [here] . . . faces the additional question of whether he has been exposed to the AIDS virus in the first place. . . .
>
> . . . [W]hile injuries stemming from a fear of contracting illness after exposure to a disease-causing agent may present compensable damages, injuries stemming from fear of the initial exposure do not.

Id. at 287-88. The *Rossi* court characterized the plaintiff's claim as "the fear that something that did not happen could have happened." 59 U.S.L.W. at 2748. *See also* Hare v. New York, 173 A.D.2d 573, 570 N.Y.S.2d 125 (2nd Dep't 1991) (medical technician denied recovery for emotional distress resulting from fear of contracting AIDS from the bite of an inmate where the plaintiff offered no proof that the inmate was infected with HIV and where the technician tested HIV negative); Mosele v. Bures, 139 Misc. 2d 409, 528 N.Y.S.2d 976 (N.Y. Sup. Ct. 1988) (plaintiff precluded from alleging that medical malpractice and resultant blood transfusion caused her to develop a fear of possible exposure to AIDS where plaintiff had not undergone HIV testing). *But see* Kaehne v. Schmidt, 472 N.W.2d 247 (Wis. Ct. App. 1991) (jury may consider plaintiff's claim for damages based on the fear of contracting AIDS from transfusion of unscreened blood from the time he was notified of the risk until the time he tested HIV negative two years later).

[286] *See* notes 34-35 and accompanying text *supra*.

[287] *See* note 39 and accompanying text *supra*.

the hospital are frequently inadequate and place housestaff in a financially vulnerable position in the event of occupational transmission of catastrophic illnesses such as HIV.[288] Continued benefits may depend on contract renewal and continued employment.[289]

In most states, worker's compensation statutes govern compensation for nosocomial transmission of HIV infection to salaried employees, such as housestaff, nurses, laboratory technicians and custodial and transport workers.[290] Medical students are not employees of the hospital and are therefore not protected by worker's compensation when caring for infected patients during clinical rotations.[291] Workers' compensation benefits are based on current earnings and do not account for the anticipated large increase in income of housestaff immediately on completion of training.[292] No compensation is available for pain and suffering.[293] Moreover, causation may be contested by an employer who alleges that infection was contracted outside the scope of employment.[294] In previous instances where health

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[288] *See* Dana W. Dunne et al., *Physicians in Training and HIV*, 322 NEW ENG. J. MED. 1392 (1990) (letter to the editor). *See also* Aoun, *supra* note 39 (financial plight of house officer who contracted AIDS at the workplace). *See generally* Cooke & Sande, *supra* note 35, at 1336-37 (inadequate health and disability insurance coverage provided for house officers). Benefits available to health care workers under New York State's worker's compensation statute are also grossly inadequate. The current schedule of compensation provides a maximum benefit of $340 per week for permanent total disability and $280 per week for permanent partial disability. N.Y. WORK. COMP. LAW § 15 (6)(a)-(b) (McKinney Supp. 1992).

[289] The duration of employment of housestaff is limited to the length of their training period, generally three years, after which time the HIV-infected house officer would have no prospects of obtaining insurance. *See* Dunne et al., *supra* note 288, at 1392. *See also* Aoun, *supra* note 39, at 1334-39 (benefits of house officer who contracted AIDS at the workplace withdrawn when employment contract not renewed).

[290] *See* N.Y. WORK. COMP. LAW § 10 (McKinney 1965 & Supp. 1992); Charles E. Becker et al., *Occupational Infection with Human Immunodeficiency Virus (HIV). Risks and Risk Reduction*, 110 ANNALS INTERNAL MED. 653, 655 (1989); Brennan, *supra* note 15, at 586.

[291] It is not uncommon in some hospitals for medical students to perform a substantial proportion of the phlebotomy (blood drawing) procedures. *See* Jones, *supra* note 88, at 1188. Since medical students and unpaid externs are not covered by workers' compensation statutes, they may sue in tort for negligence. *See* Prego v. City of New York, 147 A.D.2d 165, 541 N.Y.S.2d 995 (2d Dep't 1989).

[292] *See* N.Y. WORK. COMP. LAW § 14(1)-(2) (McKinney 1965); Becker et al., *supra* note 290, at 655; Brennan, *supra* note 15, at 582.

[293] *See* Becker et al., *supra* note 290, at 655; Brennan, *supra* note 15, at 582.

[294] *See Prego*, 147 A.D.2d at 165, 541 N.Y.S.2d at 995; Aoun, *supra* note 39, at 695. A health care worker may establish causation for purposes of workers' compensation or

care workers have claimed they acquired AIDS through identifiable occupational exposures, hospital administrators have refused to acknowledge occupational transmission.[295] Moreover, because of exclusivity clauses in most state worker's compensation statutes, tort actions are generally barred.[296] Thus, health care workers are justified in believing that their remedies are inadequate in the event of occupational HIV transmission, and this perception contributes significantly to their reluctance to care for HIV-infected patients.

Under the Occupational Safety and Health Act, OSHA is responsible for ensuring that health care employers maintain a "safe and healthful" workplace.[297] The agency recently promulgated regulations that are designed to protect health care workers from occupational transmission of bloodborne pathogens.[298] The OSHA standard gives legal authority to universal precautions and requires that health care employers institute engineering and work practice controls, provide medical surveillance and training in infection control practices and provide adequate protective clothing and equipment.[299]

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disability insurance claims or tort actions by following CDC guidelines which recommend HIV testing immediately after an identifiable exposure to blood or blood-containing body fluids. *See* note 243 *supra*. By documenting negative baseline serology, adherence to these guidelines establishes causation in the event of subsequent seroconversion. *See* Cooke & Sande, *supra* note 35, at 1336. However, the vast majority of physicians who have experienced identifiable percutaneous injuries with HIV-infected blood have not submitted to testing. *See* Lowenfels et al., *supra* note 79, at 1286; Melzer et al., *supra* note 88, at 213; *See also* Jones, *supra* note 88 (fifty percent of 42 medical students in New York City would not report needlestick injuries to the student health service); Mangione et al., *supra* note 71 (fewer than one-third of needlesticks sustained by housestaff in San Francisco were reported). This apparently incongruous response may reflect fear of alienation by colleagues and fear of loss of patients, employment and livelihood. Moreover, in view of the long incubation period of HIV infection (*see* note 61 *supra*), adherence to current guidelines does not impact on health care workers who have sustained needlestick injuries with HIV-infected blood over the past decade.

[295] *See Prego*, 147 A.D.2d at 165, 541 N.Y.S.2d at 995; Aoun, *supra* note 39, at 695;.

[296] Exclusivity clauses bar tort actions except in cases of intentional torts. *See* Brennan, *supra* note 15, at 582.

[297] 29 U.S.C. § 651(a)-(b) (1991).

[298] 29 C.F.R. § 1910.1030 (1991).

[299] The OSHA standard requires employers to establish written exposure control plans that identify workers at risk of exposure to bloodborne pathogens and that outline protective measures and training programs. *Id.* Employers must provide puncture resistant containers for disposal of needles and sharp instruments, handwashing facilities and adequate personal protective equipment such as gloves, gowns and masks. *Id.* Employers must also provide post-exposure medical evaluation, prophylaxis, counseling and follow-

A. *Legislative Proposals*

If public policy makers are truly committed to responding to the crisis in health care for HIV-infected persons, they must acknowledge that enactment of anti-discrimination legislation is not a panacea. Legislators must mandate that employers provide adequate life, disability and health insurance coverage for health care workers. Benefits available to health care workers under worker's compensation statutes are grossly inadequate in the event they contract HIV infection through patient contact.[300] While workers' compensation statutes should be restructured to accommodate the impact of the HIV epidemic on the workplace, such modifications would not obviate the need for adequate disability and health insurance coverage.

In addition, worker's compensation statutes and disability insurance coverage should recognize that HIV infection may impair the capacity of a physician to earn a living before actual physical or mental disability.[301] Due to the long latency period of the disease, HIV infection may not lead to physical disability for many years during which time a health care worker may be barred from performing exposure-prone procedures under CDC guidelines or may face discrimination that leads to loss of medical practice or inability to obtain employment in his or her profession.[302] Absent actual physical disability and notwithstanding provisions of the ADA that protect HIV-infected health care workers from employment discrimination, perceived or actual contagiousness may prevent HIV-infected physicians from engaging in their profession.[303] Thus, for the purposes of determining disablement, the New York workers' compensation statute should expressly recognize that HIV infection may limit em-

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up for employees exposed on the job. *Id.* The regulations also establish hazard communication, medical recordkeeping and housekeeping requirements. *Id.* The housekeeping requirements include proper procedures for decontamination of equipment, cleaning, and for storage, handling and disposal of medical wastes, needles and sharp instruments. *Id.* These standards will be enforced through inspections and the imposition of fines ranging up to $70,000 and imprisonment in some cases. OSHA estimates that employers will spend $821,000,000 annually to comply. *Id.* The estimated average cost for a physician's office is $1100 per year. *Id.*

[300] *See* note 288 *supra.*

[301] *See* note 47 *supra.*

[302] *See* notes 47 & 61 *supra.*

[303] *See* note 47 *supra.*

ployability long before physical disability.[304]

Similarly, disability insurance benefits are not payable under standard policies until physical or mental impairment results in disability.[305] A physician-sponsored insurance carrier has recently addressed this problem and will offer disability insurance of up to five hundred thousand dollars payable as a lump sum or otherwise to physicians infected with HIV who must leave or modify their practice.[306] Benefits are payable on seroconversion; a showing of disability is not required.[307] A physician would thus be compensated in the asymptomatic phase of HIV infection for loss of income.[308] Government must mandate that hospitals provide similar benefits to employees who acquire HIV at the workplace.

In another area, New York State should not require that consent be obtained to ascertain the HIV status of a source patient in the event a health care worker or patient sustains a needlestick or other injury exposing him or her to blood or blood-containing body fluids capable of transmitting HIV.[309] Twenty-eight other states have enacted "AIDS right-to-know" legislation that authorize testing where a physician suffers an accidental parenteral exposure capable of transmitting HIV.[310] Health care workers compelled by the ADA to care for HIV-in-

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[304] N.Y. WORK. COMP. LAW § 37 (McKinney 1965).

[305] *See* Christopher Dauer, HIV Coverage Offered to Physicians, National Underwriter, Prop. & Casualty/Employee Benefits Ed., Aug. 26, 1991, at 33.

[306] *Id.* Medical students will be able to obtain insurance for lesser amounts. *Id.* The underwriter's professional liability coverage excludes transmission of communicable diseases to patients where the physician knows he or she is infected but fails to follow infection-control guidelines. *Id.*

[307] *Id.*

[308] *Id.* Other insurance companies plan to introduce similar coverage. *Id.*

[309] *See* N.Y. PUB. HEALTH LAW § 2781(b) (McKinney Supp. 1992) (subject's consent required for HIV-related testing except in three situations).

[310] *See* Terese Hudson, *AIDS: Debate on Infection Control Guidelines Shift to Congress*, 65 J. AM. HOSP. ASS'N 30 (1991). Three states (Oregon, West Virginia and Virginia) have given patients this right. *Id.* The American College of Physicians and the Infectious Diseases Society of America also urge legislation providing for mandatory testing where a health care worker has suffered accidental parenteral exposure to the blood of an individual of unknown HIV status. In one study, the consent requirement prevented assessment of HIV status of the source patient in one-third of 184 instances where health care workers sustained a precutaneous injury or were otherwise exposed to blood or body fluids. Patti J. Miller & Barry M. Farr, *Study of the Rate of Post Exposure Human Immunodeficiency Virus Testing in a Hospital Requiring Written Informed Consent*, 31 J. OCCUP. MED. 524 (1989).

fected patients are entitled to mandatory testing of the source patient. While a negative test will not exclude HIV infection in the source individual and may give the health care worker a false sense of security, a positive result may influence the worker's decision whether to undergo prophylactic treatment with anti-retroviral drugs.[311]

Inadequate Medicaid reimbursement creates a strong financial disincentive for private providers to participate in the care of HIV-infected persons. The low rates of reimbursement for office-based care by primary care physicians encourages referrals to infectious disease specialists and public hospital clinics.[312] State legislatures interested in securing health care for AIDS-infected persons must set reasonable Medicaid reimbursement rates.[313]

The 1991 report of the National Commission on AIDS addressed numerous health care financing issues and made recommendations designed to secure access to health care for all HIV-infected persons.[314] The Commission urged government to guar-

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[311] The patient may test negative but still be infected with HIV because of the window period that precedes seroconversion. *See* note 61 *supra*.

[312] Jesse Green & Peter S. Arno, *The 'Medicaidization of AIDS. Trends in the Financing of HIV-Related Medical Care*, 264 JAMA 1261 (1990). Reimbursement by private insurance for a bronchoscopy is $775 as compared to $60 from Medicaid, for a bone marrow biopsy $173 versus $12, for a follow-up hospital visit $63 versus $8 and for an intermediate care office visit $84 versus $11. *Id.* at 1264. Some physicians have observed that "the few dollars at stake . . . [are] not worth the time and paperwork to bill the Medicaid program." NATIONAL COMM'N ON AIDS, *supra* note 7, at 33. AIDS patients covered by Medicaid are over five times more likely to be admitted to a public hospital than those with private insurance and are more likely to be admitted through the emergency room. Green & Arno, *supra*, at 1264. Between 1983 and 1988, the percent of AIDS-related hospitalizations paid by New York's Medicaid program increased by over one-third to 55%. *Id.* at 1261. During this same period, the percentage of African-American and Hispanic AIDS patients in New York City covered by Medicaid rose from 58 to 67%. *Id.* at 1263. The rapid spread of HIV infection among economically disadvantaged minority groups will further increase the number of AIDS patients whose medical care is paid by Medicaid. *See also* note 34 *supra*.

[313] New York State has recently addressed this issue. *See* Mireya Navarro, *New York Will Raise Fees to Doctors for AIDS Patients*, N.Y. TIMES, Aug 20, 1991, at B1. The state announced that it will increase by up to threefold the reimbursement paid by Medicaid to private physicians for AIDS-related primary care services. *Id.* Despite this increase in the fee schedule, total Medicaid costs are not expected to rise as a result of savings anticipated due to early diagnosis and treatment and preventive care. *Id.* In the past, increased rates of Medicaid reimbursement have helped encourage the proposal of new nursing home beds devoted to AIDS patients and the establishment of state-designated centers specializing in the care of AIDS patients. *Id.*

[314] REPORT OF THE NAT'L COMM'N ON ACQUIRED IMMUNE DEFICIENCY SYNDROME,

antee medical care to all Americans infected with HIV.[315] Currently many HIV-infected persons do not qualify for Medicaid.[316] Eligibility may be limited by income or disability requirements.[317] For instance, HIV-infected individuals who have not yet developed AIDS may not meet disability requirements.[318] The Commission recommended that Medicaid cover the medical care costs of all low income persons with AIDS.[319] This would be accomplished by eliminating the disability requirement for HIV-infected persons and liberalizing income eligibility requirements.[320] Recognizing that inadequate reimbursement to physicians who care for HIV-infected patients covered by Medicaid provides a strong economic disincentive,[321] the Commission recommended that Medicaid payment rates to providers be increased to encourage physician participation.[322] Currently, HIV-infected persons who are disabled and are beneficiaries of Social Security Disability Insurance (SSDI) must wait two years before they are permitted to purchase Medicare insurance coverage.[323] The Commission recommended that HIV-infected persons should be allowed to purchase Medicare coverage immediately after becoming eligible for SSDI and that Medicaid pay Medicare premiums for low-income SSDI beneficiaries.[324] The Commission also recommended that government subsidize health insurance premiums for low-income, HIV-infected persons who have left their jobs and qualify for extension of private health insurance coverage under the Consolidated Omnibus Budget Reconciliation Act but cannot afford to pay the premiums.[325]

AMERICANS LIVING WITH AIDS: TRANSFORMING ANGER, FEAR, AND INDIFFERENCE INTO ACTION (1991).

[315] *Id.*

[316] *Id.* at 76.

[317] *Id.*

[318] *Id.*

[319] *Id.*

[320] *Id.* at 77.

[321] *Id.* at 75. *See also* note 312 and accompanying text *supra*.

[322] REPORT OF THE NAT'L COMM'N, *supra* note 314, at 78.

[323] *Id.* at 73.

[324] *Id.* at 74, 80.

[325] *Id.* at 79.

CONCLUSION

It is unreasonable to expect that the Americans with Disabilities Act, by expressly prohibiting discrimination against HIV-infected persons, will, in and of itself, remedy the critical shortage of health care professionals willing to care for HIV-infected patients. Effective legal remedies will no doubt compel some physicians to provide care; however, anti-discrimination legislation alone will not ensure quality health care in the private sector to HIV-infected persons.

Insufficient attention has been directed toward influencing the attitudes of future generations of physicians. Physicians-in-training develop an adversarial attitude toward HIV-infected patients to deal with actual or perceived risk of contagion which translates into the formulation of career plans designed to avoid these patients in the future. Unless these trends are reversed, legal remedies alone will prove grossly inadequate. Moreover, adoption of CDC guidelines to permit the placement of practice restrictions on HIV-infected physicians will have a chilling effect on the medical community and worsen the already critical shortage of providers.

Health care workers are entitled to be adequately protected from the risk of acquiring HIV infection at the workplace and to receive adequate compensation in the event of nosocomial HIV transmission. Health care institutions must be compelled to provide appropriate infection control devices and to provide adequate training, counseling and catastrophic health and disability insurance coverage to health care workers. OSHA must be vigorous in the enforcement of its regulations to protect health care workers from contracting bloodborne infections at the workplace. Government must subsidize health care insurance coverage for low-income, HIV-infected individuals and provide reasonable reimbursement to health care providers. Finally, state legislators should allow mandatory HIV testing of the source individual following a needlestick injury to a health care worker or patient. The anti-discrimination provisions and enforcement remedies embodied in the Americans with Disabilities Act do

not alone provide a solution to the crisis in health care for HIV-infected individuals.

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