

Faculty Scholarship

1988

AIDS and the Law: Setting and Evaluating Threshold Standards for Coercive Public Health Intervention

Eric S. Janus

Mitchell Hamline School of Law, eric.janus@mitchellhamline.edu

Publication Information

14 William Mitchell Law Review 503 (1988)

Repository Citation

Janus, Eric S., "AIDS and the Law: Setting and Evaluating Threshold Standards for Coercive Public Health Intervention" (1988).
Faculty Scholarship. Paper 67.
<http://open.mitchellhamline.edu/facsch/67>

This Article is brought to you for free and open access by Mitchell Hamline Open Access. It has been accepted for inclusion in Faculty Scholarship by an authorized administrator of Mitchell Hamline Open Access. For more information, please contact sean.felhofer@mitchellhamline.edu.

AIDS and the Law: Setting and Evaluating Threshold Standards for Coercive Public Health Intervention

Abstract

This article examines in detail an example of legislation that redefines the scope of permissible public health intervention and provides procedural protections compatible with modern precedent—the Minnesota Health Threat Procedures Act. This Act is an appropriate subject for close study because it is intended to be responsive to the general concerns raised by the commentators: the narrowing redefinition of the scope of coercive public health intervention and the addition of suitable procedural protections. Coercive public health legislation merits close attention because it inevitably invokes a clash of three important values. The purpose of the legislation is the protection of the public's health. This end, when implemented through coercive means, conflicts necessarily with the liberty and autonomy of individuals. As a by-product, the legislation may produce injustice in the form of discrimination against and stigmatization of individuals who are infected with HIV or afflicted with AIDS.

Keywords

HIV, Human Immunodeficiency Virus, Public Health Law, Quarantine, Minnesota Quarantine, Last Resort Principle

Disciplines

Health Law and Policy | Medical Jurisprudence | Public Law and Legal Theory | Torts

AIDS AND THE LAW: SETTING AND EVALUATING THRESHOLD STANDARDS FOR COERCIVE PUBLIC HEALTH INTERVENTION

ERIC S. JANUS†

INTRODUCTION	503
I. CRITERIA FOR EVALUATION OF COERCIVE HIV- RELATED PUBLIC HEALTH LEGISLATION	509
II. OVERVIEW OF THE HEALTH THREAT PROCEDURES ACT	516
A. <i>A Brief History of Quarantine in Minnesota</i>	516
B. <i>Analytical Summary of the Health Threat Procedures Act</i>	521
III. DETAILED ANALYSIS OF THE THRESHOLD CRITERIA FOR INTERVENTION	530
A. <i>Introduction</i>	530
B. <i>Clarity of the Standards For Intervention</i>	531
C. <i>The Act's Implementation of the Last Resort Principle</i>	548
1. <i>The Use of Psychological Constructs to Implement The Last Resort Principle</i>	549
2. <i>The Health Directive and Its Relation To The Last Resort Principle</i>	553
D. <i>The Act's Standards Relating To The Risk of Transmission and the Uncertainty of Prediction</i>	558
E. <i>The Relationship of the General And Enumeration Clauses</i>	559
CONCLUSION	569

INTRODUCTION

The continued spread¹ of the Human Immunodeficiency Vi-

† Associate Professor of Law, William Mitchell College of Law.

I gratefully acknowledge the assistance of Eric Tostrud, Jeff Zick, Scott Shipman, Kate O'Brien, and Nina Goldetsky. I also want to thank my parents, Zelda L. Janus and Philip Janus, for their usual enthusiastic help with this project, and for their life-long work for the public health which has shaped my interest in the subject.

1. Hearst & Hulley, *Preventing the Heterosexual Spread of AIDS*, 259 J. A.M.A. 2428 (Apr. 22, 1988) (AIDS, an "unprecedented public health threat[,] . . . is growing

rus² (HIV), and its always fatal manifestation, AIDS³, has spurred proposals to check the epidemic using the police power of the State to enact coercive public health measures. Some of the proffered measures would entail massive and widespread curtailment of liberty and privacy.⁴

Responsible commentators, in both the legal and public health areas, reject these extreme measures on grounds that they pose significant constitutional⁵, ethical⁶ and health policy problems.⁷ These commentators relegate coercive intervention to the margins of a public health strategy whose central goal is producing voluntary behavior change among those at high risk for the disease.⁸

Coercive public health interventions are not new. Quarantine, isolation⁹ and compulsory medical testing are traditional and, as recently as a generation ago, ubiquitous tools of public

rapidly."'). There is some evidence that the spread of the HIV epidemic is slowing, at least in some subpopulations. Curran, Jaffe, Hardy, Morgan, Selik & Dondero, *Epidemiology of HIV Infection and AIDS in the United States*, 239 SCIENCE 610 (Feb. 5, 1988) [hereinafter Curran & Jaffe].

2. For a complete medical and epidemiological description of HIV, see McGuigan, *The AIDS Dilemma: Public Health vs. Criminal Law*, 4 LAW & INEQUALITY J. 545, 562-67 (1986); Curran & Jaffe, *supra* note 1.

3. See McGuigan, *supra* note 2, at 566-67.

4. Proposals include quarantining persons infected with the AIDS virus or ill with AIDS, see Krieger & Lashof, *AIDS, Policy Analysis and The Electorate: The Role of Schools of Public Health*, 78 AM. J. PUB. HEALTH 411 (1988); and screening of large segments of the population for HIV infection. See Dickens, *Legal Rights and Duties in the AIDS Epidemic*, 239 SCIENCE 580, 584 (1988).

5. See McGuigan, *supra* note 2, at 545; Merritt, *Communicable Disease and Constitutional Law*, 61 N.Y.U. L. REV. 739 (1986) [hereinafter *Communicable Disease*]; Merritt, *The Constitutional Balance Between Health and Liberty*, HASTINGS CENT. REP., Dec. 1986, at 2; Orland & Wise, *The AIDS Epidemic: A Constitutional Conundrum*, 14 HOFSTRA L. REV. 137 (1985); Parmet, *AIDS and Quarantine*, 14 HOFSTRA L. REV. 53 (1985); Note, *The Constitutional Rights of AIDS Carriers*, 99 HARV. L. REV. 1274 (1986).

6. See Bayer, Leving & Wolf, *HIV Antibody Screening*, 256 J. A.M.A. 1768 (1986); Macklin, *Predicting Dangerousness and the Public Health Response to AIDS*, HASTINGS CENT. REP., Dec. 1986, at 16.; Walters, *Ethical Issues in the Prevention and Treatment of HIV Infection and AIDS*, 239 SCIENCE 597 (1988).

7. See Francis & Chin, *The Prevention of Acquired Immundeficiency Syndrome in the United States*, 257 J.A.M.A. 1362 (1986); Mayer, *The Epidemiological Investigation of AIDS*, HASTINGS CENT. REP., Aug. 1985, at 12.

8. Gostin & Curran, *The Limits of Compulsion in Controlling AIDS*, HASTINGS CENT. REP., Dec. 1986, at 24; Macklin, *supra* note 6, at 16.

9. The terms "quarantine," and "isolation" are often used interchangeably. In their technical senses, "quarantine" refers to the separation of individuals in order to determine whether they are infectious, while "isolation" refers to the precautions to be taken to prevent the transfer of communicable disease. Gostin & Curran, *supra* note 8, at 26.

health.¹⁰ Public health officials have had broad discretionary power to test, confine and treat persons who have, or are suspected of having, communicable diseases.¹¹ Coercive measures for the control of communicable disease were considered the paradigmatic exercise of the State's police power.¹² Official coercive intervention to protect public health therefore escaped constitutional scrutiny in all but the most egregious circumstances.¹³

Most of the AIDS-inspired legal commentary on these remedies has worried about the consequences of the traditional hands-off legal doctrine in the age of AIDS. The burden of these commentators' arguments is that wholesale isolation and quarantine of HIV carriers or AIDS victims ought to be analyzed differently from wholesale isolation and quarantine of casually spread diseases, such as tuberculosis or smallpox. The commentators have argued convincingly that the public health would not be served by massive internment or isolation of HIV carriers or AIDS victims, and that modern notions of substantive due process ought therefore to strike down such irrationally overbroad measures.¹⁴ They generally add, without significant discussion, that narrowly drawn coercive measures are appropriate and constitutional as long as they incorporate modern notions of procedural due process.¹⁵

Acceptance of these conclusions entails the need for legisla-

10. Parmet, *supra* note 5, at 53. See also Dickens, *supra* note 4, at 584 (during World War I more than 30,000 prostitutes confined under quarantine laws); Merritt, *supra* note 5, at 2.

11. Parmet, *supra* note 5, at 58; see also MINN. STAT. § 144.05 (1987).

12. *Jacobson v. Massachusetts*, 197 U.S. 11 (1905) (permitting mandatory immunization for smallpox); *Baker v. Strautz*, 386 Ill. 360, 54 N.E.2d 441 (1944) (control and preservation of public health among most important measures subject to the police power).

13. Compare *Baker*, 386 Ill. at 362, 54 N.E.2d at 443, (14th Amendment does not limit police power of the state in the control of communicable disease) with *Won Wai v. Williamson*, 103 F. 1 (N.D.Cal. 1900) (racially motivated quarantine orders unconstitutional); *Huffman v. District of Columbia*, 39 A.2d 558 (D.C.Ct. App. 1944) (prosecution for failing to comply with mandatory testing order not supported by "reasonable suspicion"). See also Merritt, *supra* note 5, at 2.

14. *Communicable Disease*, *supra* note 5, at 778; Note, *supra* note 5, at 1281-84.

15. See Gostin & Curran, *supra* note 8, at 27; *Communicable Disease*, *supra* note 5, at 779 (courts might approve quarantine of those who knowingly engage in high-risk activities or who lack "mental competence to avoid those activities"); Parmet, *supra* note 5, at 58. See also *Greene v. Edwards*, 164 W. Va. 326, 263 S.E.2d 661 (1980) (fourteenth amendment requires procedural protections in tuberculosis commitment case).

tion or administrative regulations¹⁶ redefining the scope of permissible public health intervention and providing procedural protections compatible with modern precedent. To date, only a few states have enacted such legislation,¹⁷ but the number will probably grow.¹⁸

This article examines in detail one of these legislative vanguards, the Minnesota Health Threat Procedures Act.¹⁹ This Act is an appropriate subject for close study because it is intended to be responsive to the general concerns raised by the commentators: the narrowing redefinition of the scope of coercive public health intervention and the addition of suitable procedural protections.²⁰

Coercive public health legislation merits close attention be-

16. Existing public health laws give public health officials broad discretion to intervene, and/or broad discretion to promulgate the rules defining the scope of public health intervention. *See infra* notes 70-87 and accompanying text (discussing history of coercive public health measures in Minnesota). *See also* Gray, *The Parameters of Mandatory Public Health Measures and the AIDS Epidemic*, 20 SUFFOLK U.L. REV. 505 (1986) (discussion of Massachusetts statutory scheme).

This authority is often arguably broad enough to cover intervention to prevent the possible transmission of HIV. In some cases, administrative regulations could be used to provide the narrowed focus. The wiser course would, however, be to make the changes legislatively. Major changes in public health policy, like those under discussion here, should be publicly debated in a legislative body which is politically responsible to the public. Further, administrative bodies may not have the authority to shape the procedures to be followed by the judiciary. *See* Draft, Minnesota Department of Health Discussion Paper on Non-Compliant Human Immunodeficiency Virus Carriers, Nov. 1986, at 5-7 [hereinafter Draft].

17. In an October 1987 report, the United States Public Health Service listed seven states, in addition to Minnesota, which had enacted quarantine-like measures for the control of AIDS applicable to the general population: Alabama, Colorado, Florida, Illinois, Indiana, North Carolina and Oregon. U.S. Dept. of Health & Human Services, The Public Health Service, AIDS, A Public Health Challenge, State Issues, Policies and Programs, Vol. 3, Resources Guide, at 87-126 (Oct. 1987) [hereinafter Public Health Challenge]. The Public Health Service listing is incomplete. In particular, the list omits comprehensive Texas and Washington legislation passed since mid-1987. *See* Tex. Sess. Law Serv., Ch. 543, § 21 (Vernon) (to be codified at TEX. REV. CIV. STAT. art. 44190b-1, §§ 8.01 - .46 (Vernon 19xx)); 1988 Wash. Legis. Serv., ch. 206 (West).

18. The amount of AIDS-related legislation is growing geometrically. Dickens, *supra* note 4, at 585.

19. MINN. STAT. §§ 144.4171 - .4186 (Supp. 1987).

20. The Act was conceived by the Minnesota Department of Health, which set out its intentions in a Draft discussion paper. *See* Draft, *supra* note 16. The Draft notes that existing disease control statutes "predate several decades of court decisions on individual constitutional rights," and that the epidemiology of HIV differs from that of other infectious diseases. It concludes that these facts "require that traditional disease control interventions, including those for non-compliant carriers,

cause it inevitably invokes a clash of three important values. The purpose of the legislation is the protection of the public's health. This end, when implemented through coercive means, conflicts necessarily with the liberty and autonomy of individuals. As a by-product, the legislation may produce injustice in the form of discrimination against and stigmatization of individuals who are infected with HIV or afflicted with AIDS.²¹

The conflict of values can be expected to manifest itself in the legislative process. As with all such conflicts, clarity is a critical, though elusive, starting point in the effort to reach an optimal reconciliation of these values.²² The community must be clear on the values, or public policies, which are the ends of the legislation. It must also understand at a detailed level the operation of the means chosen to reach those ends.

The need for careful analysis of coercive public health legislation is heightened by a combination of factors unique to AIDS. AIDS is, at present, incurable, and persons who become infected with the virus are thought to remain so for life.²³ Thus, public health intervention cannot be justified on a *parens patriae* basis.²⁴ Since there is no cure for the condition, there is

be modified to fit both the epidemiology of the virus and evolving constitutional law." *Id.* at 5.

This was also the purpose of the legislation's sponsors. See, e.g., *Testimony of Representative Greenfield, Hearing on H. F. 1976 Before House Subcommittee on Physical and Mental Health, 75th Minn. Legis., 1987 Sess., Apr. 22, 1987* (audiotape) (legislation will narrow Health department's existing authority and impose procedural protections).

21. Walters, *supra* note 6, at 597. This author describes an "ethical" framework for evaluating AIDS public policies. The framework requires an examination of three considerations, corresponding to the values identified in the text. The protection of health is accounted for in the consideration of the "outcomes . . . benefits and harms, of the policies;" the injustice of discrimination and stigma in "the distribution of those outcomes within the population." Other equivalent formulations of these considerations are "well-being, equity and respect" and "beneficence and nonmaleficence, justice, and respect for autonomy." *Id.* at 598.

22. The quest for a shared preception of the value-reconciliation process is hampered by the fundamentally differing perspectives of the stakeholders in the process. In the Minnesota experience, public health officials and liberal legislators viewed the legislation as enlightened reform, while civil libertarians and gay groups perceived the legislation as creating broad powers of intervention. See Draft, *supra* note 16, at 5. See generally *Testimony of Representative Greenfield, supra* note 20.

23. Macklin, *supra* note 6, at 19.

24. Cf. *State v. Snow*, 230 Ark. 746, 324 S.W.2d 532 (1959) (*parens patriae* basis for tuberculosis isolation order). The *parens patriae* doctrine might be advanced to justify intervention aimed at preventing a person from contracting the HIV infection. It could not justify intervening with respect to a person who is already a carrier of the virus.

no natural ending point for coercive intervention.²⁵ The infectivity rate of HIV is extremely low.²⁶ Though the main routes of transmission of the virus are known, accurate information is lacking on the efficacy of transmission by various means, the cofactors which contribute to transmission, and the incidence of infection in the population as a whole and among various subpopulations.²⁷ The fact that a person is a carrier of the virus is invisible and not always deducible from unique signs and symptoms.²⁸ Infection by the virus is distributed unevenly within society, with higher incidence among groups traditionally subjected to stigma and discrimination.²⁹ Voluntary and widespread changes in behavior are important — perhaps critical — conditions for checking the epidemic.³⁰ These changes require the collection of accurate information about the epidemic and the ability to transmit accurate and meaningful information to persons at high risk of exposure to the virus.³¹ A high level of trust for the health system among the populations at high risk for the disease is a precondition for the success of these voluntary efforts.³²

These factors combine in a complex manner which makes the design of legislation for coercive intervention difficult and important.³³ A thorough examination of the vanguard legisla-

25. The Minnesota Act requires that commitment under the Act terminate when the respondent "is made noninfectious, or completes a course of treatment prescribed by the court," neither of which has any applicability to carriers of HIV. MINN. STAT. § 144.4180, subd. 1(8) (Supp. 1987). Otherwise, commitments under the Act are limited to six months "unless the commissioner shows good cause for continued commitment." *Id.*

26. Hearst & Hulley, *supra* note 1, at 2430. The infectivity rate is the likelihood that the virus will be transmitted from a carrier to a noncarrier on a given encounter. It is much lower for HIV than for other sexually transmitted diseases. *Id.*

27. *Id.*

28. *Id.*

29. Homosexual men, IV drug users, and some subgroups of blacks and Hispanics have the highest incidence of infection. Curran & Jaffe, *supra* note 1, at 611.

30. Becker & Joseph, *AIDS and Behavioral Change to Reduce Risk: A Review*, 78 AM. J. PUB. HEALTH 394, 408 (1988); Fineberg, *Education to Prevent AIDS, Prospects and Obstacles*, 239 SCIENCE 592 (1988); Gostin & Curran, *supra* note 8, at 25.

31. Fineberg, *supra* note 30; Walters, *supra* note 6, at 599.

32. Francis & Chin, *supra* note 7, at 1363 (discussion of contact tracing).

33. Legislators must determine what level of coercive intervention should be authorized. This problem would be relatively simple if any increase in coercive intervention produced a net increase in public health benefit. The legislative task would then be to identify the level at which the benefit of an increment of coercive intervention outweighed the corresponding decrease in personal autonomy.

The problem is not this simple because increasing coercive intervention will at

tion is therefore a critical step in the fight against the AIDS epidemic. The analysis of this legislation proceeds in four sections. In the first, a set of general criteria for judging coercive public health legislation in the context of the AIDS epidemic is outlined.³⁴ Second, a broad overview of the Minnesota Act is provided. Third, those provisions which define the threshold criteria for triggering coercive intervention are explored in some detail. These sections are chosen for in-depth scrutiny because it is within these that the complex interplay of values and policies is most robust.³⁵ Finally, the Article concludes with an evaluation of the broad policy choices the Act entails.

I. CRITERIA FOR EVALUATION OF COERCIVE HIV-RELATED PUBLIC HEALTH LEGISLATION

This section identifies a proposed set of three axioms and a number of corollaries drawn from the axioms for the evaluation of coercive public health legislation aimed at checking the spread of AIDS. The axioms are applications of the three commonly accepted ethical imperatives governing coercive public health intervention.³⁶

some point begin to produce a net decrease in benefit to the public health. Coercive intervention programs have a negative impact on public health efforts which require voluntary cooperation. The net detriment to the voluntary program produced by an increase in coercive intervention may exceed the net increase in benefit produced by the extra coercive intervention. *See Gostin & Curran, supra* note 8, at 28.

At least one commentator concludes that the complexities and uncertainties characterizing the AIDS epidemic make suitable legislation impossible to draft. McGuigan, *supra* note 2, at 573.

34. Minnesota's legislation, like that of a number of other states, is not applicable solely to HIV carriers. Because the characteristics of other diseases are so different from those of HIV, much of the analysis of this paper will not be directly relevant to the law's applicability to carriers of those other diseases. Since the Minnesota law was prompted by, and is clearly aimed at, the AIDS epidemic, *see Draft, supra* note 16, at 4, it is appropriate to focus attention on that aspect of it.

35. *See supra* note 33. The other candidates for close analysis in coercive public health legislation are provisions for procedural protection and protection of confidential information. Procedural protections are important, but their policy analysis does not differ significantly from the analysis of procedural issues in other contexts, such as civil commitment, in which those issues have been well-defined and explored. *See, e.g., Janus & Wolfson, The Minnesota Commitment Act of 1982: Summary & Analysis*, 6 *HAMLIN L. REV.* 41 (1983); JANUS, *CIVIL COMMITMENT IN MINNESOTA* (1986). The problems of privacy and protection of sensitive data are not unique to the coercive public health system. Those issues are briefly touched on, but a thorough exploration is beyond the scope of this Article. *See generally infra* note 137 and authorities cited therein for a discussion of these issues.

36. *See supra* notes 6, 21.

Axiom 1: Public health intervention ought to be coerced only when the intervention will produce a net benefit to society.

Axiom 2: Human autonomy and freedom ought to be respected.

Axiom 3: Injustice, in the form of discrimination and stigma, ought not to be increased or facilitated by the intervention.

The following corollaries flow from one or more of these axioms:

Corollary 1: Last resort principle. Coerced intervention should be undertaken only as a last resort; that is, only when non-coercive methods have been fully explored and tried, and it is determined that they will not, alone, control the epidemic or reduce the harm to individuals.³⁷ This follows from axioms 1 and 2. Coercive public health intervention uses people as a means to an end. It is therefore disrespectful of their autonomy. This disrespect is minimized if coercion is used only as a last resort; that is, only when non-coercive methods cannot achieve the desired ends.³⁸

Corollary 2: Appropriate scale. Except for those cases described in corollary 3, the judgments required in axiom 1 and corollary 1 should be made at the level of populations rather than individuals. That is, intervention should not be coerced unless coercive intervention of the sort proposed is necessary for, and likely to make a material difference on the course of the epidemic in a given population.³⁹

37. See Draft, *supra* note 16, at 14 (“[R]estriction of an individual’s personal liberty should only be undertaken as a last resort, when less restrictive measures have been proved to be inadequate.”). See also Becker & Joseph, *supra* note 30, at 408 (“To call for quarantine is, in essence, to announce that we have given up in our attempts to facilitate [AIDS-relevant] behavior[al] change. Evidence reviewed here suggests this is certainly not necessary”); Walters, *supra* note 6, at 599-600 (presumption in favor of voluntary public health programs should be “overridden only as a last resort, after voluntary alternatives have been vigorously employed and have failed, and only if there is a reasonable hope that a mandatory program would succeed,” as voluntary programs have not received sufficient trial yet).

38. Compliance with the last resort principle minimizes, but does not eliminate, disrespect for the autonomy of individuals. In the conclusion of this Article, the argument is made that the Act sets up a dangerous precedent if it authorizes locking people up to protect against predicted future autonomous behavior. See *infra* text accompanying notes 289-95.

39. See Brandt, *AIDS in Historical Perspective: Four Lessons From the History of Sexually Transmitted Diseases*, 78 AM. J. PUB. HEALTH 367, 370 (1988). Previous quarantine

Corollary 3: The judgments of axiom 1 and corollary 1 may be made at the level of individuals, rather than populations, where circumstances diminish the consensual nature of the behavior which may lead to exposure.

Corollaries 2 and 3 embody a distinction which is important in understanding and evaluating coercive public health legislation aimed at the AIDS epidemic. This is the distinction between harm or risk to individuals, and harm or risk to the collective, to the *public* health.⁴⁰ The distinction is important because of the need to justify coercive measures. Coercive intervention is justified only when some serious harm is prevented by the intervention, and the harm cannot be prevented without the intervention. The measurement and significance of harm depends on its context.⁴¹

In the context of the AIDS epidemic, harm or risk to individuals generally cannot justify coercive intervention because the individual at risk can, if he or she wishes, avoid the risk. AIDS is generally spread by consensual contact.⁴² Individuals can choose to avoid risky situations.⁴³ In general, then, coercive

measures directed at venereal disease had "no apparent impact on rates of infection. . . . From an ethical and legal viewpoint, the first question that must be asked about any potential policy intervention is: Is it likely to work?" *Id.* See also Walters, *supra* note 6, at 599-600.

40. See, e.g., Becker & Joseph, *supra* note 30, at 408: "[T]he public health concern is inevitably somewhat different [from the concern with reducing an individual's risk of infection with HIV]. Here, the question is not how an individual might avoid risk but how a population might avoid further transmission of an infectious agent."

41. For example, the acceptability of the risk of sex while using condoms depends on the context in which it is evaluated. While use of condoms greatly reduce the risk of transmission of HIV, their use does not eliminate the risk. From the point of view of an uninfected individual, the risk arising from a series of sexual encounters with an infected person may be unacceptably high, even if condoms are used. See Hearst & Hulley, *supra* note 1, at 2429. From the point of view of the public health, however, sex with condoms may be judged to pose an acceptable risk since condom use significantly retards the spread of HIV in the population. See Fineberg, *supra* note 30, at 594.

42. This argument does not, of course, apply to those situations in which exposure is involuntary. This case is discussed below.

43. The choice open to individuals is real, not merely theoretical. The choice flows from three facts about HIV. First, it is transmitted only through intimate contact, generally sexual contact and needle sharing. These are not activities in which individuals accidentally or inadvertently engage. Second, due to the extremely low infectivity rate of HIV, see *supra* note 26, an individual must generally be quite persistent in his or her risky behavior in order to contract HIV. Thus, HIV is not likely to be transmitted because of one "mistake" or slip which leads a person to engage in one instance of risky behavior. Finally, the level of public awareness of the modes of transmission of HIV is exceedingly high. In a recent survey, for example, 97% of all

intervention is not necessary in order to protect competent individuals from exposure to the disease.

Where exposure to the virus is not the result of highly voluntary action, the justification for coercive intervention would be much stronger.⁴⁴ Harm to "involuntary transmitters" thus could help to justify coercive intervention.⁴⁵

For clarity, the term "countable" is used to identify harm that is of the type which can justify coercive intervention. Using this term, it can be generally said that HIV transmission to competent individuals is not countable harm.⁴⁶

Harm or risk to the collectivity, the public health, might justify coercive intervention even in the absence of countable harm to individuals.⁴⁷ Countable harm to the public health is not simply the sum of the countable harm to the individuals who make up the public.⁴⁸ Society has collective or community interests which are separate from those of individuals. These are the interests that allow fluoridation laws,⁴⁹ motorcycle hel-

Minnesotans knew that AIDS is spread by sexual contact. Minneapolis Star Tribune, Jan. 18, 1988, at 1E. Awareness is high, as well, among drug addicts. See Fineberg, *supra* note 30, at 595.

These facts distinguish HIV from other contagious diseases. Tuberculosis, for example, is spread through "sharing air." AMERICAN THORACIC SOCIETY, CONTROL OF TUBERCULOSIS 12 (1983). Other sexually transmitted diseases are highly infective; they have a high likelihood of transmission after just a few risky encounters. See Hearst & Hulley, *supra* note 1, at 2430.

44. Examples of non-voluntary transmissions are exploitive relationships involving minors or otherwise vulnerable individuals, encounters involving active deceit about the carrier-status of one of the individuals, coerced sex and perinatal transmission of HIV to newborn infants.

45. For the most part, actions falling into this category are illegal and thus already subject to the coercive intervention of the state in the criminal justice system. Whether the risk of perinatal transmission of HIV would justify coercive intervention is highly problematic, involving questions of procreation, contraception and abortion, all of which are rights of constitutional dimension. See *supra* note 5 (commentators raising constitutional issues regarding regulation of HIV carriers).

46. This distinguishes HIV from other communicable disease. For diseases which are more casually and readily transmitted, individual harm may well be countable.

47. See generally Beauchamp, *Community: The Neglected Tradition of Public Health*, HASTINGS CENT. REP., Dec. 1985, at 28.

48. See *id.* at 29.

[P]ublic health and safety are not simply the aggregate of each private individual's interest in health and safety, interests which can be pursued more effectively through collective action. Public health and safety are community or group interests. . . .

Id.

49. Minnesota State Board of Health by Lawson v. City of Brainerd, 308 Minn. 24, 241 N.W.2d 624, *appeal dismissed*, 429 U.S. 803 (1976).

met laws, and government sponsored anti-smoking campaigns.⁵⁰ With respect to each of these, there is no countable individual harm since individuals can protect themselves from the dangers of tooth decay, head trauma and lung cancer through voluntary action. Nonetheless, the community's interest in its collective health is sufficient to justify government interference with individual choices. In this sense, it could be said that risk of harm to the public health is "countable" in the justification of coercive intervention.

This is not to say, of course, that *any* risk to the public health justifies *any* coercive intervention. The intervention proposed for HIV carriers is quite serious: it implicates the individual's rights to privacy⁵¹ and liberty.⁵² The justification must be correspondingly weighty.⁵³

This Article suggests that only the control⁵⁴ of epidemics is a public health interest weighty enough to justify severe incursions on an individual's privacy and liberty. By epidemic, the Article refers to the rapid and wide spread of contagious disease. It is the fear that AIDS is an epidemic — that the reservoir of virus⁵⁵ in the human population is increasing — which is the cause of the gravest concern.⁵⁶ Epidemics threaten the very existence of populations. They threaten the central interest of society — self-preservation. Hence, the control of epidemics is an interest of sufficient weight to consider interference with the liberty and privacy interests of individuals.⁵⁷

50. See Beauchamp, *supra* note 47, at 32-33.

51. See *Jarvis v. Levine*, 418 N.W.2d 139 (Minn. 1988).

52. See *Humphrey v. Cady*, 405 U.S. 504 (1972).

53. See *United States v. Salerno*, 107 S. Ct. 2095, 2102 (1987) (need for weighty justification).

54. See Cutler & Arnold, *Venereal Disease Control by Health Departments in the Past: Lessons for the Present*, 78 AM. J. PUB. HEALTH 372, 375 (1988). These authors suggest that control rather than eradication is the most that can be expected from AIDS public health efforts.

55. Brandt, *supra* note 39.

56. There is doubt about whether HIV is an epidemic, in the sense of a pool of infection which is increasing in size. See Fineberg, *supra* note 30, at 593-94. This author indicates that there is evidence that the rates of infection may be leveling off in some groups. "It is not certain whether conditions in the United States will sustain an epidemic in the heterosexual population. The conditions in some urban areas and geographical regions may be more conducive to a sustained epidemic than in other areas." *Id.* at 594. Fineberg concludes by pointing out that it is prudent to behave as though an epidemic could be sustained. *Id.*

57. It might be argued that the financial cost to society of AIDS would justify coercive intervention. But this argument is defective because the costs associated

However, coercive intervention could be justified on a public health, rather than individual, basis only on two conditions. First, the intervention must be likely to have a material effect on the course of the epidemic. Intervention cannot be justified if it does not have any benefit. If the epidemic's course is determined by factors other than the intervention, then the intervention should not be justified on public health grounds.⁵⁸ Second, intervention should not be used if the epidemic could be brought under control without the intervention. This is an application of the last resort principle.

Corollary 4: Coercive intervention is not the last resort with respect to a particular individual unless that individual is engaging in behaviors which meet the harm requirements of corollaries 2 and 3, and will not stop the behaviors in the absence of intervention. Appropriate services must be readily available to assist individuals in avoiding behavior which puts themselves or others at risk of exposure to the virus.⁵⁹ Intervention is not the last resort if the individual will stop without it. The last resort principle is illusory if services necessary to assist voluntary behavior change are not available.

Corollary 5: Overbreadth. The appropriate breadth of intervention must be judged in part by its effect on public health programs which require voluntary cooperation for their success. Coercive intervention which reaches too broadly may destroy trust in voluntary programs, or divert scarce resources from those programs.⁶⁰

with AIDS, though substantial, do not pose an extraordinary threat to society. The cost of caring for an AIDS patient is similar to the costs of caring for patients with other serious illnesses. The overall costs of AIDS (including such indirect costs as foregone earnings) has been "small relative to total national health expenditures. . . ." Bloom & Carliner, *The Economic Impact of AIDS in the United States*, 239 *SCIENCE* 604, 607 (1988). "The national economy will not face a major shock, at least into the near future, because the prevalence of AIDS will continue to be small relative to the prevalence of other serious illnesses." *Id.*

58. Intervention might nonetheless be justified by countable individual harm. See *supra* notes 44-46 and accompanying text.

The Draft acknowledges that "the outcome of this epidemic in Minnesota will be largely determined" by voluntary behavior change. Draft, *supra* note 16, at 1. This suggests that intervention will rarely be justified on public health grounds.

59. Draft, *supra* note 16, at 3, 8, 14 (individuals may engage in risky behavior despite knowledge of its risk for reasons of drug or sex addiction, economic pressures, mental illness or sociopathic tendencies; a lack of the right services may create difficulty in changing sexual behavior).

60. See Draft *supra* note 16, at 15. See also Brandt, *supra* note 39, at 370; Fineberg, *supra* note 30, at 596 (importance of "active and sensitive surveillance systems for

Corollary 6: Standards for intervention should be clearly delineated; discretionary conduct by officials should be narrowly confined and subject to meaningful review by courts.⁶¹

This corollary follows from axioms 1, 2 and 3. Coercive intervention, in the name of public health, inevitably interferes with human freedom and autonomy. This interference requires justification. Justification can be meaningful only if the balance struck between public health and individual freedom is clear.⁶²

The potential for poorly defined intervention thresholds is particularly high in the HIV context. The problem flows from two characteristics of HIV infection. First, HIV infection is invisible. Second, HIV has a low infectivity rate.⁶³ As a consequence, there is a wide range of behavior by large numbers of people which poses a *risk* of transmitting HIV, but estimates of the risk of that transmission are quite low and vary by at least five orders of magnitude.⁶⁴ Intervention legislation must specify where along the continuum of risky behavior intervention is justified. If it does not, public health officials and courts — guided at most by the principle that intervention must be justified by some risk of harm to the public health — will have almost boundless discretion in determining which degree of risk justifies intervention.

The stigma and vulnerability of groups at high risk for HIV infection increase the danger that legislative policy choices will be ignored by those executing them. Unclearly articulated standards are easier for public officials to evade.⁶⁵ Further, unclearly articulated standards may produce the appearance that

tracing the incidence" of HIV); Gostin & Curran, *supra* note 8, at 25; Walters, *supra* note 6, at 599.

61. See *infra* notes 155-230 and accompanying text for a more detailed discussion of this standard.

62. See Draft, *supra* note 16, at 4 (society must decide "what degree of public health risk it should bear in the name of personal liberty").

63. Hearst & Hulley, *supra* note 1, at 2429. The risk of infection from a single heterosexual encounter is variously estimated to be 1:500, *id.*, or 1:1000, see Rosenberg & Weiner, *Prostitutes and AIDS: A Health Department Priority?*, 78 AM. J. PUB. HEALTH 418, 421 (1988) (male to female sexual transmission; female to male transmission may be less risky).

64. See Hearst & Hulley, *supra* note 1, at 2429. The estimated risk of HIV infection for an individual who has engaged in 500 sexual encounters ranges from 1 in 110,000 to 2 in 3, depending on the risk status of that person's partners, and on condom use.

65. See Draft, *supra* note 16, at 16 (standard criteria to judge risk and capacity for

the law is subject to abuse. This apparent evasion and abuse may have a negative effect on voluntary measures to combat the epidemic.

Corollary 7: The collection and dissemination of information relating to the coercive intervention program should be limited by well-articulated standards which protect the confidential relationship between the at-risk population and service providers, and which effectively prohibit the use of the information for purposes outside of the public health program.⁶⁶

This follows from axioms 1 and 3. The collection of information held in confidence by doctors and other service providers can undermine the confidence of the at-risk population in those service providers, thus producing a negative impact on voluntary efforts to control the AIDS epidemic.⁶⁷ A similar negative impact could be created by the appearance of overbreadth and insecurity in information handling.⁶⁸ Clarity in drafting standards can avoid the unnecessary creation of that appearance.

Corollary 8: If coercive intervention is justified, it must be the least intrusive appropriate intervention.⁶⁹

Subcorollary 8.1: In order to judge which interventions are "appropriate," standards for judging the success of interventions must be specified.

Subcorollary 8.2: Appropriate services must be made available if needed to support less intrusive interventions.⁷⁰

II. OVERVIEW OF THE HEALTH THREAT PROCEDURES ACT

A. *A Brief History of Quarantine in Minnesota*

Since its territorial days, Minnesota statutory law has authorized public health officials to take steps to control infectious

behavior change needed to "minimize potential abuse of administrative or judicial authority").

66. *See id.* at 18 (need for special sanctions for inappropriate disclosure of information relating to non-compliant HIV carrier cases).

67. *See, e.g.,* Public Health Challenge, *supra* note 17, at 4-1.

68. *Id.* at 4-2.

69. *See* Draft, *supra* note 16, at 16.

70. Guarantees such as the policy that "less restrictive alternatives" are to be preferred are illusory if those alternatives are not available. *See In re Wicks*, 364 N.W.2d 844 (Minn. Ct. App. 1985) (overruling lower court's commitment order directing county to create suitable and less restrictive alternative to institutional commitment).

disease and preserve the public health. The 1851 Revised Statutes of the Territory of Minnesota authorized the Board of Health to make "rules and regulations, as they may deem most effectual, for the preservation of the public health. . ."⁷¹ Violation of any order or regulation "duly published" was a misdemeanor, punishable by a fine not exceeding \$100 or imprisonment not exceeding three months.⁷² Upon learning that an individual was infected with "the small pox or other contagious disease, dangerous to the public health," the local board of health "may immediately cause him to be removed to a separate house . . . and shall provide for him nurse and necessaries. . . ."⁷³ Any two justices of the peace were authorized to make an order directing the law officers to "remove any person infected with contagious disease."⁷⁴

In 1894, the board of health had powers to make "regulations . . . [g]uarding against the spread of disease by quarantine. . . ."⁷⁵ A person "suffering from any dangerous infectious disorder" who was without "proper lodging," or who was lodged in a room occupied by more than one family, could be "removed" to a suitable hospital or place for the reception of the sick upon the order of a justice and the certification of a qualified medical practitioner or the executive officer of the board of health.⁷⁶ Persons who violated quarantine orders were guilty of a misdemeanor.⁷⁷

By 1913, specification of the circumstances under which quarantine could be imposed, and the manner in which it might be imposed, appeared to have been removed from the statutes. The Board of Health was given broad authority to make and enforce reasonable regulations. Upon approval of the attorney general, and with due publication, the regulations "shall have the force of law."⁷⁸ The Board of Health was authorized to promulgate regulations to

control . . . by . . . appropriate means . . . [t]he treatment, in

71. 1851 Minn. Gen. Laws Ch. 18, § 1.

72. *Id.*, § 2.

73. *Id.*, § 9.

74. *Id.*, § 11. The statute did not specify the locations to which a person could be removed. Presumably, this section gave the public health officials the authority to implement section 9, which authorized removal to a "separate house."

75. 1894 Minn. Gen. Laws § 7045.

76. *Id.*, § 7057.

77. *Id.*, § 7063.

78. 1913 Minn. Gen. Laws § 4640.

hospitals and elsewhere, of persons suffering from communicable diseases, including all manner of venereal disease and infection, the disinfection and quarantine of persons and places in case of such disease, and the reporting of sicknesses and deaths therefor.⁷⁹

Through 1987, this basic statutory formula remained unchanged,⁸⁰ though by 1951 the legislature made clear that no rules or regulations could provide for "the treatment in any penal or correctional institution" of persons suffering from any communicable disease.⁸¹ Also, in 1978, the commissioner of health was given the authority to apply for an injunction to "enjoin any violation of a statute of rule."⁸² Violation of any regulation of the commissioner of health remained a misdemeanor.⁸³

Health department rules in effect in 1987 required that physicians "make certain that isolation precautions are taken to prevent spread of disease to others."⁸⁴ This requirement applied to persons diagnosed as having a particular disease, as well as to "carriers," i.e., persons "identified as harboring a specific infectious agent in the absence of discernable clinical disease."⁸⁵ Physicians were required to report to the commissioner the names and addresses of all "cases, suspected cases, and carriers who refuse to comply with prescribed isolation precautions."⁸⁶ Upon receiving a report, the commissioner "shall seek injunctive relief . . . if the person represents a public health hazard."⁸⁷

79. *Id.*

80. *See* MINN. STAT. § 144.12, subd. 1(7) (1987 Supp) (retains unchanged the 1913 language).

81. *See* MINN. STAT. § 144.12, subd. 7 (1951) (addition of penal correctional language to section 144.12, subd. 1(7)).

82. MINN. STAT. § 145.075 (1986) (original version at 1978 Minn. Laws, ch. 762, § 7).

83. *Id.* § 144.49, subd. 1 (1986).

84. MINN. R. 4605.7400, subp. 1 (1987). "Isolation" was defined as the "separation, for the period of communicability, of an infected person from others in places and under conditions as to prevent or limit the direct or indirect transmission of the infectious agent . . ." *Id.* at 4605.7000, subp. 5.

85. *Id.* at 4605.7000, subps. 1, 2.

86. *Id.* at 4605.7400, subp. 2 (1987). The reporting requirement applies only to physicians "attending" a case or carrier. *Id.* subp. 1. The term "attending" is undefined. In 1920, the Attorney General ruled that the then-current reporting requirement, which applied to persons "under [the physician's] treatment" applied only when the "relation of physician and patient exists." 578 Op. Att'y Gen. (1920).

87. The term "public health hazard" is defined in circular fashion to mean the

Against this historical backdrop, the Minnesota Department of Health developed a plan for combatting the spread of HIV infection in the state.⁸⁸ Adopted in June 1986, the plan called for a "multifaceted approach" to the problem, with a major focus on education and "intervention programs designed to effect voluntary behavior changes."⁸⁹ In addition to this major focus, the plan called for the development of particularized programs to deal with specific problem situations. The plan cites two classes of particular problems: AIDS infections among persons with mental handicaps or mental illness, and among persons who are "noncompliant."⁹⁰

The plan was followed by a draft paper discussing means of dealing with the particular problems identified.⁹¹ The Draft Paper begins by emphasizing the limited role coercive measures could play in addressing the spread of HIV. The "most important way to interrupt virus transmission will be through education and voluntary participation in education and support programs."⁹² Only an "extremely small" amount of transmission will occur due to "non-compliant carriers," when compared with the transmission "attributable to the 15,000 - 25,000 individuals in Minnesota, many of whom may be sexually active and unaware of their infectiousness or how it affects others."⁹³ The course of the epidemic, the Draft notes "will be largely determined" [by] voluntary change in behavior, not by "the few people who may be dealt with" by coercive public

presence of an organism or condition "which endangers the health of a specified population." MINN. R. 4605.7000, subp. 11 (1987). Injunctive relief is authorized "to enjoin any violation of a statute or rule" enforceable by the commissioner. *Id.* No statute or rule required individuals to comply with isolation orders. Thus, the literal words of the statute would not authorize injunctions ordering individuals to comply with isolation precautions. This technicality has not deterred courts from entering such orders, however. *See* Draft, *supra* note 16, at 4, reporting that court orders were issued in two situations involving alleged prostitution by HIV-infected individuals. The orders required the individuals to participate in education and counseling programs, to cooperate with public health officials, and to refrain from high risk behavior. *Id.*

88. Minnesota Department of Health, Human Immunodeficiency Virus (HIV) Infection Statewide Risk Reduction and Disease Prevention Plan, June 1986 (summarized at 69 MINN. MED. 467 (Aug. 1986)) [hereinafter "Plan"]. *See also* Draft, *supra* note 16, at 2.

89. Draft, *supra* note 16, at 2.

90. Plan, *supra* note 88, at Objective 7.

91. Draft, *supra* note 16, at 1.

92. *Id.*

93. *Id.*

health measures.⁹⁴

The issues posed by "non-compliant carriers," according to the Draft, are principally two. The identification of persons "who pose a serious public health risk" without "creation of a constitutionally overly inclusive category;" and the reduction of the public health threat posed by these individuals "while their constitutional rights are respected."⁹⁵ These issues pose both legal and public policy questions, among which are "what degree of public health risk [society] should bear in the name of personal liberty."⁹⁶

Present law, the Draft continues, is inadequate to deal with the problem presented by the HIV epidemic. The laws reflect neither current precedent governing constitutional rights in the infectious disease area, nor the unique epidemiology of HIV. The laws must therefore be modified "to fit both the epidemiology of the virus and evolving constitutional law."⁹⁷

Finally, the Draft identified a number of reasons why the legal changes should be legislative rather than regulatory. It is the legislature, not the public health system, which has an expertise in making the sensitive balance between individual liberties and the public good. Also, a coercive system of intervention will involve the expenditure of money, a subject over which the legislature has control.⁹⁸

The Minnesota Legislature promptly took up the project proposed by the Draft. The legislation, supported by the Department of Health, was characterized by its sponsors as restrictive of the public health power of the state.⁹⁹ Opponents criticized the bill as being too vague, and thus allowing possible abuses of the coercive power it granted.¹⁰⁰ Others sought more intrusive power.¹⁰¹ The resulting legislation passed both houses of the legislature nearly unanimously.¹⁰²

94. *Id.*

95. *Id.* at 3.

96. *Id.* at 4.

97. *Id.* at 5.

98. *Id.* at 6-7.

99. *See supra* note 20 (testimony of Representative Greenfield).

100. *See Testimony of Matthew Stark before the House Subcommittee on Physical and Mental Health*, 75th Minn. Legis., 1987 Sess., Apr. 22, 1987 (audio tape).

101. *See Statement of Representative Quist Before the House Subcommittee on Physical and Mental Health*, 75th Minn. Legis., 1987 Sess., Apr. 22, 1987 (audio tape).

102. *See Journal of the Senate*, May 6, 1987, at 2991-92; *Journal of the House*, May 11, 1987, at 4756-57.

B. *Analytical Summary of the Health Threat Procedures Act*

This section provides a relatively brief analysis of the Minnesota Health Threat Procedures Act. Further discussion in following sections details the provisions of the Act which define the scope of the intervention.

The Act defines a group of people — *carriers*¹⁰³ — who are subjected to the law. It defines a category of activity — *health threat to others*¹⁰⁴ — which, if engaged in by carriers, can support judicial proceedings and coercive intervention.

The Act defines a kind of notice — a *health directive*¹⁰⁵ — which is served on a carrier who is thought to be posing a health threat to others. The notice instructs the carrier to cooperate with health authorities to prevent the transmission of disease. The Act defines an *emergency procedure* by which carriers who are thought to pose a “substantial likelihood of an imminent health threat to others” can be apprehended and confined for short periods of time prior to a hearing on the merits of a judicial petition.¹⁰⁶

The Act provides a *judicial procedure* through which the Commissioner of Health can seek to have a carrier who is posing a health threat to others educated, tested, treated, counselled or confined. Except in emergency situations, a health directive must precede the commencement of judicial action.¹⁰⁷ Finally, the Act provides a series of provisions defining *privacy rights and the limits of confidential communication*.¹⁰⁸

The Act is intended to work in the following way. First, the commissioner¹⁰⁹ must determine that a person is a carrier. In

103. See *infra* notes 170-230 and accompanying text for more detailed discussion of the definition and function of the term “carrier.”

104. See *infra* notes 264-88 and accompanying text for more detailed discussion of the definition and function of the term “health threat to others.”

105. See *infra* notes 246-63 and accompanying text for more detailed discussion of the definition and function of the term “health directive.”

106. MINN. STAT. § 144.4182 (Supp. 1987). See *infra* notes 257-63 and accompanying text. Curiously, there is no authorization for holding a person on the grounds that the person may flee the jurisdiction. As originally introduced, the legislation contained such a provision. H.F. No. 1076, § 15, 75th Minn. Legis., 1987 Sess., Mar. 12, 1987 draft.

107. MINN. STAT. § 144.4173, subd. 2.

108. See *infra* notes 136-50 and accompanying text for more detailed discussion of these privacy provisions.

109. Note that the identification of carriers under the Act is not explicitly made delegable to local boards of health. There are strong policy arguments that it is the commissioner who must make the determination that person is a carrier, and that it is

the absence of medical tests,¹¹⁰ the determination can be based on specific facts¹¹¹ which can justify an inference¹¹² that the person harbors HIV. If a person who is a carrier of an infectious disease is acting in a way which poses a health threat to others, the Commissioner of Health can issue a health directive to the person. The health directive "requires" the person "to cooperate with health authorities to prevent or control transmission" of the disease. If the person fails to comply with the health directive and persists in placing others in jeopardy, the Commissioner, or a local board of health with expressly delegated authority from the Commissioner, may commence an action in District Court.¹¹³ The action is commenced by fil-

not delegable even to her subordinates in the Department of Health. Limiting the power to make discretionary gateway decisions to the commissioner can help reduce the potential for abuse inherent in the determination. *Cf.* *State v. Frink*, 296 Minn. 57, 206 N.W.2d 664, 669-670 (1973) (Minnesota Privacy of Communications Act requires application for wiretap to be made by attorney general or county attorney, and application made by assistant county attorney would violate statute's purpose of insuring consistent practice and accountability for abuses).

110. The meaning of this phrase is somewhat unclear. There may well be situations in which the person suspected of being a carrier has been tested — and thus medical tests are not absent — but the commissioner is not privy to the test results. There may also be situations in which the commissioner has access to a medically accepted test, but the test's results are inconclusive. There is a window of uncertain length, between the time of infection with the virus and the time when blood testing will yield positive results for the virus antibody. During this window period, negative results even on medically accepted tests may not be conclusive of freedom from infection. NATIONAL INSTITUTES OF HEALTH, *THE IMPACT OF ROUTINE HTLV-III ANTIBODY TESTING ON PUBLIC HEALTH* 4 (1984) [hereinafter *ROUTINE HTLV-III TESTING*].

111. Because the carrier-by-inference determination is made at the threshold of intervention, and involves sensitive inferences which may not be subject to effective judicial review, the determination should be in writing and should specify the facts relied upon, and the manner in which those facts support the inference.

112. The import of this inference is discussed at length below. *See infra* notes 181-223 and accompanying text.

113. A purpose of the legislation was to centralize control of coercive public health intervention under the Commissioner of Health as a means of attaining consistency in the state. This was seen as a way of limiting discretionary actions which could be discriminatory or abusive. *See Draft, supra* note 16, at 19 ("legal standing" to commence an action "should be limited to the Commissioner in order to ensure that court proceedings are only initiated when there is substantial evidence or an incontrovertible expectation of non-compliant behavior.") *See Testimony of Department of Health Official Mike Moen before the House Subcommittee on Physical and Mental Health*, 75th Minn. Legis., 1987 Sess., Apr. 22, 1987 (audio tape).

In legislation passed almost contemporaneously with the Act, the commissioner was authorized to delegate to any local board of health "all or part of the . . . enforcement duties authorized under [the Act]." MINN. STAT. § 145A.07, subd. 1 (Supp. 1987). The delegation must be in writing and must "list criteria the delegating au-

ing with the court, and serving¹¹⁴ on the respondent, a petition for relief and notice of hearing.¹¹⁵

The Commissioner must prove, by clear and convincing evidence,¹¹⁶ that the person is a carrier and poses a health threat to others. The Act establishes a rebuttable presumption that

thority will use to determine if the designated agent's performance meets appropriate standards and is sufficient to replace performance by the delegating authority." *Id.*, subd. 3(b). During the life of the delegation, the commissioner "shall not perform duties that the designated agent is required to perform under the [delegation] agreement . . ." *Id.*, subd. 3(f).

Further evidence of the retreat from local control of coercive public health intervention is contained in the preemption provision of the act: The Act "preempt[s] and supersede[s] any local ordinance or rule concerning persons who pose a health threat to others or who engage in noncompliant behavior." *Id.* § 144.4171, subd. 2.

114. The Act does not specify how the notice and petition are to be served. Since a health directive must be served in a manner similar to a summons and complaint under the Rules of Civil Procedure, *Id.* § 144.4172, subd. 6, the notice and petition should be served with at least that degree of formality.

115. The notice of hearing must notify the respondent of the right to appear at the hearing and to present and cross-examine witnesses. *Id.* § 144.4176, subd. 2. Since the court may proceed in the absence of the respondent, *id.*, § 144.4179, subd. 4, the notice should also inform the respondent of the possibility of default. *Cf.* *Jasperson v. Jacobson*, 224 Minn. 76, 27 N.W.2d 788 (1947) (notice required to obtain personal jurisdiction in guardianship proceeding).

116. The "clear and convincing" standard is consciously borrowed from the civil commitment context. *See* MINN. STAT. § 253B.09, subd. 1 (1986) (standard of proof in civil commitment cases is "clear and convincing" evidence). *See Testimony of Mike Moen, supra* note 113; *Draft, supra* note 16, at 20. *See also* *Addington v. Texas*, 441 U.S. 418 (1978) ("clear and convincing" is constitutionally mandated standard for civil commitment); *Green v. Edwards*, 164 W. Va. 326, 263 S.E.2d 661 (1980) (noting similarity of purpose between mental health commitments and tuberculosis commitments, borrowing procedural standards for latter from former). *Cf. In re Winship*, 397 U.S. 358 (1970) (criminal "beyond a reasonable doubt" standard applies to juvenile delinquency proceedings).

The *Addington* court's rejection of the *Winship* standard should not be transferred to the HIV commitment context without careful examination. In *Winship*, the Court applied the criminal due process standards to juvenile proceedings despite to state's "civil labels and good intentions." *Winship*, 397 U.S. at 365-366. The *Addington* court distinguished *Winship* on several grounds. First, in the civil commitment context, power is not exercised in a "punitive sense." *Addington*, 441 U.S. at 428. The state confines "only for the purpose of providing care designed to treat the individual." *Id.* at n.4. Since no treatment for HIV infection is available, this rationale may not apply to HIV commitment. Second, the Court noted that persons with mental illness are, because of their illnesses, "neither wholly at liberty nor free of stigma." *Id.* at 429. Thus, the Court reasoned, it may not be better for the mentally ill person to go free than to be committed. *Id.* at 429. Again, this rationale would have only limited applicability to the HIV commitment context. A third rationale for the relaxation of the *Winship* standard in *Addington* was the inherent "lack of certainty and the fallability of psychiatric diagnosis." *Id.* To the extent that HIV commitment involves a prediction of future harmful behavior, this rationale has a parallel application in the HIV commitment context. *See infra* notes 264-88 and accompanying text (prediction).

the person is a carrier if the court finds that the commissioner has proved facts justifying an "inference" that the person harbors an infectious agent.¹¹⁷ The presumption is rebutted if the person "demonstrates noncarrier status after undergoing medically accepted tests."¹¹⁸

If the court finds¹¹⁹ that the commissioner has proven the allegations, the court may order one or more remedies. The remedies range from directing the person to obtain education or counseling, or to participate in a particular treatment program, to committing the person to "an appropriate institu-

117. MINN. STAT. § 144.4179, subd. 3 (Supp. 1987). The presumption provision adds needless confusion to the Act since the presumption created by the Act serves no apparent purpose. The finding required to trigger the presumption — facts that support an inference that the person harbors an infectious agent — are also enough, by virtue of the definition of carrier, *see id.* § 144.4172, subd. 1, to support the inference that the person is a carrier. This finding would, even without the creation of a presumption, shift the burden of production to the respondent to disprove the inference. Since the shifting of the burden of production is the only function of this type of presumption, *see* MINN. R. EVID. 301, the presumption is superfluous. *See also* Shell Oil Co. v. Kapler, 235 Minn. 292, 50 N.W.2d 707 (1951) in which the Minnesota Supreme Court pointed out that a presumption is merely a procedural device for controlling the burden of going forward with the evidence. It has no function other than dictating a decision "where there is an entire lack of competent evidence to the contrary; the very moment substantial countervailing evidence appears from any source, it vanishes completely . . ." *Id.* at 300, 50 N.W.2d at 713 (emphasis in original).

Serious constitutional questions would be raised if the presumption provision is intended to shift the burden of proof to the respondent in the absence of facts sufficient to support the inference of infection. *Compare* *Addington*, 441 U.S. 414 and *Ex Parte Arata*, 52 Cal. App. 380, 198 P. 814 (Cal. Ct. App. 1921) (quarantine order must be supported by "fairly reasonable" inference), *with* *Leary v. United States*, 395 U.S. 6 (1968) (presumption in criminal prosecution which is based on insubstantial connection shifts burden of proof unconstitutionally).

118. The existence of a "window" of uncertain duration between transmission of the virus and seroconversion means that the most common tests for the presence of the virus can never prove conclusively that a person who has engaged in risky behavior during the window period does not harbor HIV.

119. The Act does not indicate how specific the finding must be. In contrast, the commitment act requires a high degree of specificity: "The court shall find the facts specifically, separately state its conclusions of law . . . [T]he findings of fact and conclusions of law shall specifically state the proposed patient's conduct which is a basis for determining that each of the requisites for commitment is met." MINN. STAT. § 253B.09, subd. 2 (1986). The findings must also list the less restrictive alternatives considered and rejected by the court. *Id.* The Minnesota Court of Appeals has repeatedly emphasized the importance of specific findings in the civil commitment area. *E.g.*, *State v. Casanova*, 359 N.W.2d 696 (Minn. Ct. App. 1984). *Cf.* *United States v. Salerno*, 107 S.Ct. 2095 (1987) (limited preventive detention justified in part by requirement of specific findings of fact supporting detention).

tional facility.”¹²⁰ The remedy chosen must be the “least restrictive alternative . . . to achieve the desired purpose of preventing or controlling communicable disease.”¹²¹

Before the court may commit a person to “an appropriate institutional facility,” it must first consider the recommendation of a commitment review panel appointed by the commissioner to review the need for commitment. The panel is to interview the respondent, and explore alternatives to commitment.¹²² This provision is based on the notion of pre-petition screening in the civil commitment act.¹²³ But the commitment review panel provision is a legislative afterthought¹²⁴ which leaves many questions of application unanswered.¹²⁵

The Act imposes no time limits on any of the forms of relief except for commitment. It makes no explicit provision for the termination of the court’s jurisdiction over a person or for the formal termination of the person’s obligations under the court

120. MINN. STAT. § 144.4180 (Supp. 1987). The term is not defined. A carrier cannot be placed in a prison or other similar setting, however. *Id.*, subd. 1 (9).

121. *Id.*, subd. 3. The least restrictive alternative provision is subject to serious undermining in judicial application because of two omissions.

First, the Act fails to define the level of risk which will be acceptable in choosing alternative interventions. If courts always try to reduce risk to the absolute minimum, then the most restrictive alternative will always be chosen. Less restrictive alternatives always carry some added risk. The Draft makes clear that some public health risk is the necessary price for individual liberty. See Draft, *supra* note 16, at 4.

Gostin, Curran, and Clark formulate the principle in terms of “no less restrictive or intrusive means.” See Gostin, Curran & Clark, *The Case Against Compulsory Casefinding in Controlling AIDS—Testing, Screening and Reporting*, 12 AM. J.L. & MED. 7 (1987). But their formulation does not address the problem raised here, because they argue that less restrictive means need be used only when they are no less effective than the more restrictive. But “effective” is a synonym for “less risky.”

Second, the Act omits any mention of a right to appropriate, less restrictive services. As the Draft points out: “[A]n individual with a fatal illness, will find it difficult if not impossible to refrain from high risk activities, especially if those activities are associated with his or her means of support, i.e., prostitution.” Draft, *supra* note 16, at 14. See *supra* notes 69-70 and accompanying text (discussion of least intrusive interventions).

122. MINN. STAT. § 144.4180, subd. 2 (Supp. 1987).

123. *Id.* § 253B.07, subd. 1 (1986).

124. These provisions were not in the legislation as originally introduced.

125. The most significant of the questions involves the timing of the review. It seemingly is to take place after the hearing and is to be based on the record of the hearing. No time limit is placed on the review. There is no indication as to what happens to the respondent while the record is being prepared and the review is proceeding. A second set of questions involves the aftermath of the review. The Act states that the court is to consider the recommendations of the panel. Presumably the hearing is reconvened for that consideration, but the Act is silent in that regard.

order.¹²⁶ The court's commitment order must set a time period for commitment.¹²⁷ The time period cannot exceed six months, "unless the commissioner shows good cause for continued commitment."¹²⁸ This provision is ambiguous, and could be interpreted as allowing for commitment orders of indefinite duration. It should be narrowly construed to avoid serious problems of policy and constitutional dimension.¹²⁹

One important uncertainty about the meaning and intent of the Act concerns the issue of testing. Especially when viewed in light of its legislative history, it is not clear whether the Act is intended to authorize the use of physical force to test people for the presence of HIV. Testing is mentioned several times in the Act. A health directive can "require" a person to undergo medical tests necessary to verify the person's carrier status.¹³⁰ Failure to comply is noncompliant behavior¹³¹ which can form the basis of a petition for judicially sanctioned intervention. After a hearing, the court may order the respondent to "undergo medically accepted tests to verify carrier status."¹³² Even prior to the hearing, the court may, in an emergency, order the respondent held for "testing."¹³³ Nothing in the Act,

126. See MINN. STAT. § 144.4180, subd. 1 (Supp. 1987). Cf. *id.*, § 253B.15, subd. 1 (1986) (head of treatment facility may provisionally discharge civilly committed patient); *id.*, § 253B.16, subd. 1 (head of treatment facility may discharge civilly committed patient); *id.*, § 253B.17 (patient may petition committing court for release).

127. *Id.* § 144.4180, subd. 1 (Supp. 1987). Cf. *In re Melcher*, 404 N.W.2d 309 (Minn. Ct. App. 1987) (enforcing provision of the civil commitment act requiring court to set period of commitment).

128. MINN. STAT. § 144.4180, subd. 1 (8) (Supp. 1987).

129. In *United States v. Salerno*, 107 S.Ct. 2095 (1987), the Supreme Court rejected a constitutional attack on pre-trial "preventive detention" in a criminal proceeding. Since the Minnesota Act authorizes preventive detention, the standards set in *Salerno* may be relevant. Among the grounds emphasized by the *Salerno* Court for upholding the detention were the "careful limits" on circumstances which could authorize detention, and the stringent time limitations imposed on detention. *Id.* at 2104. The provision of the Act under discussion in the text can be understood as authorizing continuing detention beyond six months on a showing of "good cause." In fact, it could be construed to mean that the six month cap on commitments can be ignored altogether on a showing of "good cause."

The lack of definite release provisions is a serious shortcoming of the Act, especially in light of the fact that dangerousness is often overpredicted by experts charged with releasing people from institutionalization. MONAHAN, *THE CLINICAL PREDICTION OF VIOLENT BEHAVIOR* 44 ff (80 to 86% of predictions of violence supporting continued institutionalization erroneous in some studies).

130. MINN. STAT. § 144.4172, subd. 6 (Supp. 1987).

131. *Id.*, subd. 10.

132. *Id.*, § 144.4180, subd. 1.

133. *Id.*, § 144.4182, subd. 1.

however, suggests that force may be used to carry out any such orders. The legislative history is somewhat unclear, though statements during the legislative hearings suggest that it was not contemplated that force would be used.¹³⁴ Forcible testing of competent adults would raise serious constitutional questions.¹³⁵

The Act grants permission to designated service providers to report their "knowledge or reasonable cause to believe that an individual is a health threat to others or has engaged in noncompliant behavior" to the commissioner.¹³⁶ Individuals are protected from liability¹³⁷ for making such a report if they have the requisite knowledge, and the reports are made in good faith.¹³⁸ Lack of this knowledge, or reckless and false re-

134. Testimony of Mike Moen, *supra* note 113 (if individual refuses test, person will not be forced, but court could then determine if person is to be treated as if they were infected). Compare the more ambiguous statement in the Draft:

The court may mandate testing or examination on a case-by-case basis according to statutory criteria delineating probable cause. The court would have discretion about whether to allow an individual's requests for treatment as a presumed HIV antibody positive.

Draft, *supra* note 16, at 21.

135. See *Jarvis v. Levine*, 418 N.W.2d 139 (Minn. 1988). A right to privacy protecting personal autonomy exists under the Minnesota state constitution. That right prohibits forcibly medicating competent patients without consent in non-emergency situations. Testing for HIV, though not physically intrusive or risky, is personally and emotionally intrusive. See, e.g., Bayer, Levine & Wolf, *supra* note 6, at 1768 ("Screening [for HIV-antibody status] may seem to be a minor intrusion in the face of a deadly disease; yet even such an ostensibly limited intervention can have dramatic and deleterious consequences for individuals"); ROUTINE HTLV-III TESTING, *supra* note 110, at 5.

136. MINN. STAT. § 144.4175, subd. 1.

137. Liability could arise from laws generally governing patient rights, e.g., MINN. STAT. § 144.651 subds. 15, 16 (Patient's Bill of Rights providing for confidentiality of examination, treatment and medical records); *Id.* § 144.652 (penalties for violation); statutes or codes governing professional conduct or licensure, e.g., *id.* § 147.091, subd. 1 (Board of Medical Examiners may impose disciplinary measures against physician who discloses "privileged" information about a patient "except when otherwise required or permitted by law"); violation of a fiduciary duty to the patient, see *MacDonald v. Clinger*, 84 A.D.2d 482, 446 N.Y.S.2d 801 (App.Div. 1982); violation of an implied contractual duty to the patient, see *Horne v. Patton*, 291 Ala. 701, 287 So.2d 824 (1974); violation of the patient's "right to privacy," see *id.*; *Doe v. Roe*, 93 Misc.2d 201, 400 N.Y.S.2d 668 (N.Y. Sup. Ct. 1977); violation of "public policy," see *Hammonds v. Aetna Casualty & Surety Co.*, 243 F.Supp. 793 (N.D. Ohio 1965). See generally Comment, *To Tell or Not to Tell: Physicians Liability for Disclosure of Confidential Information About a Patient*, 13 CUMB. L. REV. 617 (1982-83); Note, *Breach of Confidence: An Emerging Tort*, 82 COL. L. REV. 1426 (1982).

138. MINN. STAT. § 144.4175, subd. 2 (Supp. 1987). To gain the liability exemption of this section, a reporter must have the requisite knowledge or reasonable cause to believe and the report must be made in good faith. Good faith alone is not suffi-

ports, render the reporter liable for damages.¹³⁹ The evidentiary privileges¹⁴⁰ of persons voluntarily reporting are waived with respect to information provided in "any investigation under [the Act]."¹⁴¹ It is uncertain whether this waiver is intended to reach information which the service provider did not volunteer.¹⁴²

Data collected under the Act are probably governed by a section of the Government Data Practices Act. This provision defines "health data" as including data on individuals collected,

cient to escape liability. A report made on the basis of an insufficient factual investigation might lack the requisite "cause to believe." Or, a reporter might have an incorrect understanding of the term "health threat to others." The reporter's "reasonable cause to believe" might be insufficient when compared to the proper definition of the term. In these cases, even if it was made with a pure motive, the reporter would not be excused from liability.

139. MINN. STAT. § 144.4175, subd. 3 (Supp. 1987). The liability created by this subdivision does not fill the space outside of the exemption from liability in the previous subdivision. Good faith though careless reports are neither exempt from liability nor explicitly subject to liability.

140. The privileges affected are those created by MINN. STAT. § 595.02, subd. 1, clauses (d), (e), (g), and (j) (1986). These include the doctor-patient privilege; public officer-confident privilege; counselor-patient privilege; and sexual assault counselor-victim privilege. Excluded are the husband-wife privilege; attorney-client privilege; clergy-penitent privilege; incompetency; handicapped interpreter privilege; parent-minor child privilege. *Id.*, clauses (a)-(c), (f), (h), (i).

141. *Id.*, § 144.4175, subd. 4 (Supp. 1987).

142. A broad construction of the waiver language would leverage even the smallest voluntary report into the full coercive subpoena power of the state to require the professional to divulge all information about the individual. In doing so, it takes from the professional control over the disclosure of information. This poses a serious threat to the sanctity of the confidential relationships which are of such importance to the voluntary public health effort.

A narrower construction, in which the waiver is limited to information voluntarily provided, is more consistent with the legislative history of the Act. The legislature consciously rejected broader language for the waiver. As originally introduced, the Act's waiver provision read:

Any privilege otherwise created in section 595.02 is waived with respect to information about the carrier's noncompliant behavior in any investigation or action under [the Act].

H.F. 1076, Section 8, subd. 3, 75th Minn. Legis., 1987 Sess., Mar. 12, 1987 draft. This provision paralleled the waiver provision of the Minnesota Commitment Act. *See* MINN. STAT. § 253B.23, subd. 4 (1986). The appellate courts appear to construe the commitment act position very broadly. *See, e.g., In re D.M.C.*, 331 N.W.2d 236 (Minn. 1983).

As enacted, however, the provision is much more limited. This suggests that the legislature intended to reject a blanket waiver of privilege, in favor of a system in which the professionals, rather than the state, retain control of the waiver mechanisms. *Cf. Whalen v. Roe*, 429 U.S. 589 (1977) (mandatory reporting laws which "evidence a proper concern with, and protection of, the individual's interest in privacy" not unconstitutional).

received or maintained by the department of health or political subdivisions relating to the "prevention and control or disease."¹⁴³ It classifies these data as private data on individuals, but provides special rules for disclosure. Health data can be disclosed only with the approval of the commissioner, and only to the "extent necessary to assist the commissioner" to combat the spread of serious disease, or an "imminent threat" to the public health.¹⁴⁴

The Act does not specify whether information collected by health authorities in connection with coercive intervention is discoverable in other proceedings.¹⁴⁵ If these data are classified as "health data on an individual collected by public health officials conducting an epidemiologic investigation to reduce morbidity or mortality," they are not subject to any discovery.¹⁴⁶

A more general provision of the Government Data Practices Act also governs discoverability of non-public data.¹⁴⁷ This provision requires a hearing to determine

whether the benefit to the party seeking access to the data outweighs any harm to the confidentiality interests of the agency maintaining the data, or of any person who has provided the data or who is the subject of the data, or the privacy interest of any individual identified in the data.¹⁴⁸

This provision provides protection similar to that available

143. MINN. STAT. § 13.38 subd. 1 (b) (1986)

144. The Act itself indicates that "investigative data" are governed by the applicable provision of the Government Data Practices Act. *Id.*, § 144.4186, subd. 1. It is arguable that data collected by the commissioner pursuant to the Act are "investigative data." *Id.*, § subd. 2. The provisions governing investigative data are less protective of the data than are health data provisions discussed in the text. As between the two Government Data Practices Act (GDPA) provisions, the "health data" provision is the more recent. It is also arguably the more specific of the two. The "health data" provision more closely advances the policies which underlie the Act. Since one of the policies underlying the GDPA is the protection of individually identifying information, *see* Gemberling & Weissman, *Data Privacy: Everything You Wanted to Know About the Minnesota Government Data Practices Act — From "A" to "Z"*, 8 WM. MITCHELL L. REV. 573, 575 (1982), the more protective of the two provisions ought to apply where no strong interest will be served by less protective disclosure standards.

145. *Cf.* *Kozup v. Georgetown University*, 663 F. Supp. 1048 (D.D.C. 1987); *Rasmussen v. South Florida Blood Service*, 500 So.2d 533 (Fla. 1987); *Gulf Coast Regional Blood Center v. Houston*, 745 S.W.2d 557 (Tex. Ct. App. 1988) (discoverability of information held by blood banks concerning HIV status of donors).

146. MINN. STAT. § 144.654 (1986).

147. *Id.*, § 13.03, subd. 6.

148. *Id.*

under protective order provisions generally applicable to civil discovery.¹⁴⁹ The epidemiologic data provision should govern the Act's data, since it is more specific and more protective than the general discovery provisions.¹⁵⁰

III. DETAILED ANALYSIS OF THE THRESHOLD CRITERIA FOR INTERVENTION

A. Introduction

Standards which set thresholds for coercive public health intervention are, in essence, articulations of a society's tolerance for the risk of harm from the spread of communicable disease. The axioms and corollaries for intervention establish that there are two aspects of the threshold function which are of importance in judging coercive public health legislation. At bottom, of course, is the level at which the threshold for the risk of harm is set. Harm which is too attenuated, which could be alleviated without coercion, or which does not threaten the population as a whole, may not justify coercive intervention.¹⁵¹ Just as important is the clarity with which the standards for intervention are articulated. Lack of clarity in risk-tolerance standards opens the door for abuse and discrimination both in fact and in perception.¹⁵²

Central to an evaluation of the threshold provision is the concept of *risk of harm*. The discussion of the threshold provisions of the Act will be assisted by an analysis of this notion. In the context of interventions aimed at controlling the spread of communicable disease, the core of the risk is the *risk of transmission* (R_t). This is the probability that a particular behavior (or pattern of behavior) will transmit successfully the virus from the subject of the intervention to another person.¹⁵³ The risk of transmission must be mediated by two additional risks, or

149. MINN. R.C.P. 26.

150. The additional protection of the data would be consistent with the recommendation of the Association of State and Territorial Health Officials (ASTHO):

Generally, ASTHO recommends that "no public health data used to identify individuals, either directly or indirectly, should be made available to anyone for non-public health purposes." In particular, such data will not be disclosed "to parties involved in civil, criminal, or administrative litigation."

Public Health Challenge, Vol. 1, *supra* note 17, at 4-21.

151. *See supra* notes 37-70 and accompanying text (Axioms and Corollaries).

152. *See id.*

153. The efficacy of transmission varies greatly depending on the behavior involved. *See, e.g.,* Curran & Jaffe, *supra* note 1, at 610.

uncertainties. The *uncertainty of prediction* (U_p) arises from the fact that the risk of transmission is tied to particular behavior. The risk of harm from transmission must therefore be modulated by uncertainty about whether the risky behavior will, in fact, take place. The *uncertainty of identification* (U_i) arises from the fact that only carriers can transmit the virus. Thus, the risk of harm must be adjusted by the probability that the subject of the intervention is a carrier of the virus.

In summary form, the risk of harm (R_h) is related to the other factors by the following formula:¹⁵⁴

$$R_h = R_t \times U_p \times U_i.$$

An evaluation of the Act's effort to set standards for intervention based on the risk of harm is necessary. The standards must be evaluated for their clarity and substance.

B. *Clarity of the Standards for Intervention*

In evaluating the clarity of the Act's threshold standards, the broad structure by which the legislature chose to implement those standards, rather than the particular language adopted, is the focus.¹⁵⁵ This analysis concludes that the structure of the standards, which bifurcates the standards into independent determinations, seriously undercuts the clarity of the threshold standards. The result is a threshold standard which is subject to arbitrary and discriminatory application.

The Act adopts a bifurcated approach to establishing threshold standards rather than an integrated approach. The approach is bifurcated because the Act separates into two categories the factors comprising the risk of harm and sets risk standards for each category, rather than for the combined risk of harm. The uncertainty of identification (the identification standard) is addressed in the Act's definition of the term "carrier." The other two factors, the risk of transmission and the

154. In this formula, U_p represents the probability that the given behavior will occur, and U_i represents the probability that the subject of intervention is, in fact, a carrier of the virus. This formula assumes that the three probabilities are independent of each other. See generally Tribe, *Trial By Mathematics*, 84 HARV. L. REV. 1329 (1971) for a description of this simple "product rule."

155. The language of the Act in some provisions will clearly exacerbate any structural lack of clarity. For example, the language defining "health threat to others" is extremely unclear in some respects. See *infra* notes 265-88 and accompanying text. To the extent that the policies underlying the Act are clearly evidenced in its structure, terms which are unclearly drafted can take their meaning from those policies.

uncertainty of prediction (the transmission/prediction standard), are subsumed in the definition of "health threat to others." The bifurcation of this process is evidenced further by the fact that the standards used in the carrier side of the threshold determination are independent of the standards used in the transmission/prediction side of the determination. In order to intervene under the Act, both the carrier standard and the health threat to others standard must be satisfied, and must be satisfied independently of each other.

In contrast, under the integrated approach, which the legislation did not adopt, it is the risk of harm, rather than its component parts, which is the subject of the threshold standards. The approach is integrated because the components are combined before the threshold standards are applied.

The bifurcation of the standards for intervention introduces two related problems into the threshold process. First, as shown above, the underlying measure of the justifiability of intervention is the risk of harm presented by an individual. Persons who present similar risks of harm should be treated similarly by the Act.¹⁵⁶ The risk of harm varies directly with the uncertainty of identification and the risk of transmission/prediction. But, similar risk of harm can be the result of a variety of combinations of the component factors. A high certainty of identification can offset a low risk of transmission/prediction, and vice versa. This means that there cannot be definite standards governing the component factors of the risk of harm, since the standard governing one of the components must take into account the level of the other component.

Table 1 demonstrates this problem. Suppose a court is confronted with three potential candidates for intervention under the Act, S_1 , S_2 , and S_3 . The table lists for each an uncertainty of identification, risk of transmission, uncertainty of prediction and resultant risk of harm.¹⁵⁷ A court confronted with these three cases would want to treat cases 1 and 2 similarly, since they both have similar risks of harm, .02 and .03, respectively.

Case 1 has an uncertainty of identification of .03, and case 2 has a risk of transmission of .05. Case 3 has identification and transmission figures which match these two, but its risk of

156. See *supra* notes 36-37 and accompanying text (Axiom 3).

157. See *infra* notes 160-69 (explaining the assumptions underlying each of these risks).

harm is well below that of cases 1 and 2. Thus, the court would be faced with a dilemma. If it assumes that the Act meant to establish definite standards for the component factors, then it will have to approve intervention in case 3, since each component of case 3 passed the component standards which were applied in cases 1 and 2. But the overall risk of harm in case 3 is dissimilar from the risk of harm in cases 1 and 2, which suggests that case 3 should be treated differently from cases 1 and 2.¹⁵⁸ Clearly, this result is undesirable because it is standardless and thus, open to abuse and discriminatory application.¹⁵⁹

Table 1. Risk of Harm Derived From Its Component Factors

	Risk of Transmission ¹⁶⁰	Probability of Behavior ¹⁶¹	Uncertainty of Identification ¹⁶²	Risk of Harm ¹⁶³
Case 1 (S ₁)	.6 ¹⁶⁴	.95	.03 ¹⁶⁵	.02
Case 2 (S ₂)	.05 ¹⁶⁶	.95	.7 ¹⁶⁷	.03
Case 3 (S ₃)	.05 ¹⁶⁸	.95	.03 ¹⁶⁹	.0014

158. Of course it is possible that the very low risk of harm in case 3 might also satisfy the court. But if that were true, two more cases could be posited (4 and 5) with component factors differing from those of case 3, whose overall risk of harm equalled the risk of harm of case 3. Using those cases the analysis would be repeated to demonstrate that application of definite standards for the component factors would result in approval of case 6 with an even lower overall risk of harm. Eventually, the overall risk of harm would be so low that everyone would agree that intervention would be inappropriate.

159. See *supra* notes 61-65 and accompanying text.

160. Assumptions in this column are based on Hearst & Hulley, *supra* note 1, at 2429. Infectivity of HIV is assumed to be .002 (the "upper limit on the probability that an infected male will transmit HIV to an uninfected female during one episode of penile-vaginal intercourse with ejaculation. Female-to-male infectivity may be lower and infectivity for anal intercourse or intercourse when genital ulcers are present may be higher. The value is a group mean and may vary among individuals.") The failure rate of condoms with spermicide is assumed to be .1. Prevalence of HIV infection among the partner group, P, is indicated in the notes which follow for each entry in this column. The risk given is the risk of transmission for 500 sexual encounters. Hearst and Hulley choose 500 exposures "because the median time between HIV infection and the development of AIDS-related symptoms or signs is about 4 1/2 years, and a typical couple would have intercourse about 500 times during this period." *Id.* (footnotes omitted). Transmission of the virus "occurs principally among individuals who have no symptoms of the disease."

The second problem arising from the bifurcation of the threshold determination relates to the part of the bifurcated determination concerned with the uncertainty of identification, the definition of "carrier." As a result of the bifurcated structure adopted by the Act, the legislature was required to attempt to establish a threshold standard measuring the level of certainty concerning a person's carrier status which would be required to justify coercive intervention. The concept chosen by the legislature for this standard — the notion of carrier-by-inference— provides no usable standard. The scheme implemented in the Act makes sense neither as a garden variety legal inference, nor as a burden-shifting rebuttable presumption. Further, by suggesting that the uncertainty of identification is to be governed by a definite standard which is independent of the other risk factors, the Act will confuse the process of setting the threshold level through judicial construction.

Brandt, *supra* note 39, at 371. The risk of transmission without the use of condoms is obtained by the formula

$$R_i = (1 - P) \times (1 - (1 - .002)^{500})$$

where $(1 - .002)$ is the probability of avoiding infection on one encounter, $(1 - .002)^{500}$ is the probability of avoiding infection on 500 encounters, and $1 - (1 - .002)^{500}$ is the probability of infecting at least one partner after 500 sexual encounters and $(1 - P)$ is the probability that the partners are not already infected. To obtain the risk of transmission when a condom is used, the infectivity rate would be multiplied by .1, which is the assumed failure rate for condoms.

161. This is an arbitrary assumption corresponding to a relatively certain prediction of future behavior.

162. The probabilities in this column are borrowed from Hearsy & Hulley, *supra* note 1, at 2429, and represent the estimated risk of infection after 500 sexual encounters with individuals in various risk categories. The assumptions and methodology are similar to those described in *supra* note 160.

163. Column 1 \times column 2 \times column 3.

164. This is the risk that a carrier will transmit HIV to at least one partner after 500 sexual encounters with persons at high risk for HIV of unknown serostatus (prevalence of HIV infection among the partners assumed to be .05) without using a condom.

165. This is the probability that S_1 is infected with HIV after 500 sexual encounters with partners whose HIV infection is unknown, but who are members of a high risk group where the prevalence of HIV infection is .05, without the use of condoms. Hearst & Hulley, *supra* note 1, at 2429.

166. This is the risk that a carrier will transmit the virus to at least one partner after 500 sexual encounters with members of high risk groups with a prevalence of HIV infection of .5.

167. The risk that the subject is infected after 500 sexual encounters with HIV positive partners without the use of condoms.

168. See *supra* note 166.

169. See *supra* note 164.

By tying one prong of the threshold criteria to the term “carrier”¹⁷⁰ the Act suggests that the target population for intervention extends only as far as those people who are infected with HIV. It suggests a legislative choice that the outer limits of the intervention program should be defined by the limits of the infection pool, rather than by the group of people who may contribute to the expansion of the infection pool. It is a choice for a carrier-based, rather than behavior-based, program of coercive intervention.¹⁷¹

The adoption of a carrier-based limit on intervention is, however, inherently problematic. Carrier status often is invisible and requires intrusive means to determine its existence. This creates a dilemma. If intrusive means are appropriate only for carriers, and carrier status can be determined only by intrusive means, how can a truly noncompliant carrier be brought within the control of the Act?

The Act addresses this dilemma by creating the notion of the “carrier-by-inference.” The Act specifies that the carrier-status of an individual may, at the threshold of intervention, be determined by inference as well as by direct medical testing. This solution transforms, at least in part, the outer limits of intervention to a behavior-based criterion, since it is from behavior that the inference of carrier-status will be drawn. The scope of the Act’s intervention, then, will depend on how wide an inference net is cast by this definition. The clarity of the Act’s intervention threshold will depend on the clarity of the meaning of the inference required by the Act.

It is worth noting that all determinations of carrier status — even those based on medical testing — involve non-trivial inferences. The most common methods of testing for HIV infec-

170. ‘Carrier’ means a person who serves as a potential source of infection and who harbors or who the commissioner reasonably believes to be harboring a specific infectious agent whether or not there is present discernible clinical disease. In the absence of a medically accepted test, the commissioner may reasonably believe an individual to be a carrier only when a determination based upon specific facts justifies an inference that the individual harbors a specific infectious agent.

MINN. STAT. § 144.4172, subd. 1 (Supp. 1987).

171. Given the nature of the HIV epidemic, this is clearly not the only rational choice of focus. HIV is transmitted only through intimate contact which requires, in general, consensual behavior on the part of two parties. Everyone — carriers and noncarriers alike — who engages in such risky behavior increases the chance that the “infection reservoir” of a given population will grow. From a public health point of view, it is that growth which should be the target of intervention.

tion are indirect.¹⁷² They test for antibodies to the virus, rather than for the virus itself. From a positive result on such a test (seropositivity), there are three inferences which must be drawn to proceed to the conclusion that a person is a "carrier-in-fact" as defined by the Act — that is, that the person "harbors" an infectious agent and is a "potential source of infection." The first inference arises from the fact that no test is 100% specific. When used among groups with a low prevalence of infection, many of the positive results on the ELISA test are false positives, or not indicative of the presence of the HIV antibody.¹⁷³ Though the scientific literature suggests that people with ELISA positives which are confirmed by Western blot or immunofluorescence assay "may be considered to have been infected by the virus," testing errors and differing testing standards limit the accuracy of test results.¹⁷⁴

The second inference which must be made is that a person once infected by the virus remains infected, or continues, in the words of the Act, to "harbor" the infectious agent. A Consensus Development Conference Statement from the National Institutes of Health states that the presence of antibodies in the blood "reflects the continuing presence of HIV in the host."¹⁷⁵ But at least one study suggested that only sixty-five percent of "antibody positive persons have had recoverable virus circulating in their blood at any given time, based on one isolation attempt."¹⁷⁶

Finally, it appears that infection does not necessarily entail infectiousness.¹⁷⁷ That is, a fair number of persons who are infected with the virus apparently do not transmit the virus to

172. Direct testing for HIV is "very difficult, time-consuming, and requires highly skilled personnel . . ." ROUTINE HTLV-III TESTING, *supra* note 110, at 3.

173. Francis & Chin, *supra* note 7, at 1359.

174. *Id.* Some studies suggest that error is introduced by inexperience among test givers, and by the existence of different standards for determining what constitutes a "positive" test. *New Questions About AIDS Test Accuracy*, 238 SCIENCE 884 (1987). See also Span, *False Positive: The AIDS Test Nightmare*, The Washington Post, C1, C6 (Mar. 7, 1988) (reporting contested findings that even ELISA with Western Blot confirmation would yield one-third false positive if used on a very low risk population).

175. ROUTINE HTLV-III TESTING, *supra* note 110, at 4.

176. Francis & Chin, *supra* note 7, at 1359.

177. Studies have shown that seropositivity among steady heterosexual partners of persons infected with AIDS "ranged from 7 to 68 percent." Friedland and Klein suggest that such variation may be due to "variations in infectivity among different viral strains . . ." Friedland & Klein, *Transmission of AIDS*, 317 NEW ENGLAND J. MED. 1125, 1129 (1987).

others even though they engage in the kind of behavior which, in general, transmits the virus.¹⁷⁸

In sum, even in the face of medical tests which show the presence of HIV antibodies, the scientific literature is careful to conclude only that a person must be “considered to be potentially infectious.”¹⁷⁹ The Department of Health claims no more for medical testing: “An individual should be considered infectious if he or she is determined to be infected with HIV on the basis of state-of-the-art scientific knowledge.”¹⁸⁰

The problem of determining an individual’s carrier status is, of course, much more serious where no medical test information is available. The Act attempts to address this problem through the notion of carrier-by-inference.

A person satisfies the “carrier-by-inference” definition if the commissioner reasonably believes that the person is harboring an infectious agent. In the “absence of a medically accepted test,” the commissioner may reasonably believe an individual to be a carrier, only when there is a determination based on “specific facts” which justify an “inference” that the person harbors a specific infectious agent.¹⁸¹ This prong of the definition is aimed at situations in which a person’s behaviors — rather than medical tests — support an inference that the person harbors HIV.

The heart of the definition of carrier-by-inference inheres in the meaning of the word “inference” in this definition. As originally proposed, the definition of “carrier” included those whom the commissioner “reasonably suspected” of harboring HIV.¹⁸² The requirement that the suspicion of the commissioner be supported by a “reasonable inference” was added to the definition of carrier midway through the legislative process in response to criticisms by the bill’s opponents that the carrier definition lacked specific criteria for application.¹⁸³ It is thus reasonable to assume that the term “inference” was intentionally chosen by the legislature as a means of assuring that the process of identifying carriers was governed by uniform stan-

178. *Id.* at 1129.

179. ROUTINE HTLV-III TESTING, *supra* note 110, at 4.

180. Draft, *supra* note 16, at 9.

181. MINN. STAT. § 144.4172, subd. 1.

182. H.F. 1076, 75th Minn. Legis., 1987 Sess. (Mar. 12, 1987 draft).

183. *Testimony of Matthew Stark*, *supra* note 100.

dards. Since the term inference is not defined, it is likely that the legislature intended it to have its normal, legal meaning.

In structure, the process of drawing legal inferences is clear. Inferences are chains of reasoning which demonstrate that an otherwise unknown or unknowable state of facts (the "target fact") is true, based on the truth of another set of facts (the "base facts"). In the context of the Act, this process entails two sets of "proofs."¹⁸⁴ The first requires proof of certain "facts" about the suspected carrier. The second requires proof that these facts bear some relationship to the presence of the "infectious agent" in the person.

The strength of an inference depends on two variables. The degree of confidence or certainty about proven facts, and the strength of the relationship shown to exist between those facts, assuming they are true, and the presence of the infectious agent.

The Act specifies a standard of proof for use in judicial proceedings: the commissioner must prove "the allegations of the petition by clear and convincing evidence."¹⁸⁵ The facts underlying the carrier-by-inference determination are covered by this mandate.¹⁸⁶ Thus, at least in the courtroom phase of the operation of the Act, the facts underlying the inference of infection must be proved by clear and convincing evidence.¹⁸⁷

184. Note that the carrier-by-inference definition is operative in two places in the Act: At the pre-judicial administrative health directive stage, and at the judicial proceeding stage. It is only at the latter stage that the commissioner must formally prove the inference. At the former stage that proof should be incorporated in the commissioner's written determination.

185. MINN. STAT. § 144.4178, subd. 12 (Supp. 1987).

186. The standard of proof provision does not, on its own terms, apply to the facts underlying the carrier-by-inference determination. But the standard does apply to the "allegations of the petition." The Act contains no explicit requirement that the petition allege that the respondent is a "carrier." It does require that the petition "set forth . . . the grounds and underlying facts that demonstrate that the respondent is a health threat to others" *Id.* § 144.4176, subd. 1. A person must be a "carrier" to be a health threat to others. It is arguable, then, that the petition must allege the underlying facts showing that the respondent is a carrier. Further, the Act establishes a rebuttable presumption regarding carrier status. This requires that the commissioner "present[] facts justifying an inference" that the respondent harbors an infection. *Id.* § 144.4179, subd. 3.

187. The carrier-by-inference determination has an impact in the pre-judicial operation of the Act in connection with the commissioner's issuance of health directives. *Id.* § 144.4172, subd. 6. Since the commissioner's determination that a person is a carrier carries with it the high potential for intrusion and coercion, *see infra* notes 209-30 and accompanying text, the decision ought to follow the same standards as does the judicial decision.

Once the base facts are proven, the next step in drawing an inference is to prove that there is an inference chain linking those base facts and the target fact. In the context of the Act, the "target fact" is that the person "harbors an infectious agent." More plainly, the target fact is a biological occurrence, the infection of the respondent. The "base facts" can fall into two major categories: behavioral facts about the respondent and demographic facts about the respondent. The inference chain linking the base facts with the target fact is statistical and probabilistic.

An inference that an individual is an HIV carrier would proceed from information about the person's past behavior. Medical studies have shown that the most significant behavioral¹⁸⁸ factor in determining the risk that a given individual will become infected with HIV due to sexual activity is the risk category of that person's sexual partner or partners¹⁸⁹ and the extent of sexual contact. The estimated risk of infection for heterosexual intercourse as related to these two factors has been calculated.¹⁹⁰ The estimated risk of infection for an individual who has one sexual encounter with a member of a high-risk group¹⁹¹ of unknown HIV serostatus ranges from 1:10,000 if a condom was not used, to 1:100,000 if a condom was used.¹⁹² The odds of infection increase after 500 such encounters to 1:32 and 1:210.¹⁹³ The estimated risk of infection from 500 sexual encounters with a person known to be infected, without the protection of a condom is 2:3.¹⁹⁴

The likelihood that a given individual is a carrier could also be determined from the demographic characteristics of the

188. Other factors may include "genetic or anatomic characteristics of either partner, the strain of the virus, drug treatment . . . , age, or other as yet undiscovered cofactors." Hearst & Hulley, *supra* note 1, at 2429.

189. *Id.* The authors' findings apply specifically to heterosexual transmission of HIV. Nothing in the findings suggests that they would be materially changed when applied to homosexual transmission.

190. *Id.*

191. High-risk groups include homosexual and bisexual men, intravenous drug users, hemophiliacs, female prostitutes, heterosexuals from areas such as Haiti and central Africa where heterosexual spread of HIV is common, and recipients of multiple blood transfusions between 1983 and 1985 from areas with a high prevalence of HIV infection. *Id.*

192. These figures are 1:1,000 and 1:10,000 respectively if the homosexual or bisexual men or intravenous drug users are from major metropolitan areas. *Id.*

193. Figures for major metropolitan areas are 1:3 and 1:21. *Id.*

194. *Id.*

person. Prevalence of HIV infection among members of various groups has been estimated. The average rate of infection for such a group would be evidence of the likelihood that a member of the group is infected.

For example, in one study, 3 out of 231 needle-sharing drug addicts in the Minneapolis-St. Paul metropolitan area were infected with the virus.¹⁹⁵ The prevalence of HIV infection among homosexual men varies widely depending on geographic location and test site: 72% of those at a sexually transmitted disease clinic in San Francisco, 40% of a random group in San Francisco¹⁹⁶, 20-25% nationwide.¹⁹⁷ Estimates of the percentage of female prostitutes infected ranges from 5% in Seattle to 40% in Miami.¹⁹⁸ It must be assumed that the rates in Minnesota are at the low end of these scales.¹⁹⁹

These numbers show an alarming spread of the HIV infection. But, do they provide a sufficient basis to make an inference that a particular person "harbors" the AIDS virus? Under the most compelling of conditions which require base facts that would rarely obtain in Minnesota, statistics of this sort would show that there was a statistical probability of 70%, 66% or 40% that a particular individual was infected.²⁰⁰ Even these figures would provide only the upper limits of

195. Minneapolis Star Tribune, *supra* note 43, at 9E.

196. Francis & Chin, *supra* note 7, at 1362.

197. *Spread of AIDS Virus Has Slowed, But Deaths Will Still Soar*, New York Times, Feb. 14, 1988, at 22. *But see* Curran & Jaffe, *supra* note 1, at 612 (prevalence rates among homosexual men vary from 10 percent to 70 percent, with most between 20 percent and 50 percent; data probably overestimate true prevalence).

198. Francis & Chin, *supra* note 7, at 1362.

199. Curran & Jaffe, *supra* note 1, at 613, report HIV seroprevalence in U.S. military recruit applicants and cumulative reported incidence of AIDS per 10,000 population as of November, 1987. Minnesota is in the lower ranges of these statistics. A sample is as follows:

State	Cumulative AIDS Incidence	HIV Seroprevalence
North Dakota	.09	0
Wisconsin	.33	4.0
Minnesota	.56	4.0
Florida	2.78	18.0
California	3.72	14.0
New York	6.93	34.0
D.C.	14.27	96.0

200. These statistics would obtain if the person could be shown to have been a patient at a San Francisco Sexually Transmitted Disease Clinic, or to have had 500 sexual encounters with persons known to be infected, or to be a prostitute in Miami.

probability, since other factors, such as the inherent error in statistical sampling, would reduce their probative value.²⁰¹ It is more likely that the probabilistic proof available to support the Act's inference would be in the order of 1:32 (500 sexual encounters with persons in high-risk groups of unknown infective status), 1:4 or 5 (male homosexual), or 3:231 (needle-sharing drug addict visiting clinic in Minnesota).

These statistics cannot support an inference that a particular individual is infected. Inferences are "logical, permissible deduction[s] from proven or admitted facts."²⁰² Even under the normal standard of proof for civil trials, inferences must be more than merely consistent with the evidence.²⁰³ The evidence must do more than suggest a possibility.²⁰⁴ If anything, these facts are more probative of the absence of infection than of its existence, and therefore, would not support an inference of infection even under a preponderance of the evidence standard. It follows, *a fortiori*, that the inference is impermissible under the more stringent "clear and convincing evidence" standard adopted in the Act.

The foregoing analysis is strengthened by the argument that it is rarely appropriate to support solely with statistical proof the proposition that a particular event (here, infection by HIV) occurred with respect to a particular individual in the past.²⁰⁵ But some may counter that it may be appropriate to consider

201. There are a number of reasons why these statistics may be inaccurate indicators of the likelihood of an individual's infection. There are important cofactors, other than exposure to the virus through exchange of bodily fluids, which help determine infection. Francis & Chin, *supra* note 1. It is unknown whether a person, once infected, remains infectious at all times and for all time. The studies on frequency among various groups may reflect sampling bias and thus, not be representative of the population as a whole, or even of subgroups of the population. Mayer, *supra* note 7, at 13. Mayer points out that societal intolerance towards AIDS victims, together with the fact that "many of the activities in which high-risk individuals engage are illegal in most states," make it "difficult to obtain reliable epidemiologic data." *Id.*

202. *Wilder v. W.T. Grant Co.*, 270 Minn. 259, 260, 132 N.W.2d 852, 853 (1965).

203. *Routh v. Routh*, 256 Minn. 203, 208, 97 N.W.2d 644, 648 (1959).

204. *Cf. Ex parte Arata*, 52 Cal. App. 380, 381, 198 P. 814, 816 (Cal. Ct. App. 1921) (dictum) (fact that a "majority" of prostitutes "may be afflicted with infectious venereal disease" justifies preliminary quarantine of any prostitute); *Gerhardt v. Welch*, 267 Minn. 206, 210, 125 N.W.2d 721, 724 (1964) ("Where two opposing inferences can be drawn with equal justification from the same circumstantial evidence, it cannot be said that one preponderates over the other . . .").

205. *Tribe*, *supra* note 154, at 1350. *Tribe* illustrates this point with the famous blue bus case. In a suit for personal injury, the plaintiff shows that her injuries were caused by a blue bus, and that the defendant bus company operates four-fifths of all

statistical probabilities in establishing which party has the burden of production. In torts, for example, the doctrine of *res ipsa loquitur* "treat[s] the probability as the fact if the defendant has the power to rebut the inference."²⁰⁶ More generally, legislatures can use rebuttable presumptions as a way of shifting the burden of production to the party who has the means to demonstrate that the statistically probable does not obtain in a given situation.²⁰⁷

There are two problems with applying this burden-shifting reasoning to the carrier-by-inference determination under the Act. First, this is clearly *not* what the legislature said it was doing. The Act does, to be sure, create a rebuttable presumption which shifts the burden of production to the respondent. But this shift takes place only after the inference of infection is established.²⁰⁸ It cannot, therefore, be argued that the inference itself can be established with the assistance of a shift in the burden of production.

The second objection is that serious constitutional questions would be raised if the legislature had intended to shift to the respondent the burden of production on the issue of infection. The burden of proof is placed on the commissioner as a matter of constitutional law.²⁰⁹ Thus, any shift of the burden must pass constitutional muster. Rebuttable presumptions in criminal cases are unconstitutional unless "the presumed fact is more likely than not to flow from the proved fact on which it is made to depend."²¹⁰ As shown above, such a strong connection between observable facts and HIV infection is highly unlikely

blue buses in town. If this statistic, taken alone, were sufficient to establish liability, defendant would end up paying for five-fifths of all unexplained blue bus accidents.

In the situation under discussion in the text, if the 1 in 4 probability that a given homosexual man is infected is allowed to support the inference that a particular homosexual man is infected, it follows that all homosexual men can be found to be infected.

206. *Id.* at 1339 (quoting Jaffe, *Res Ipsa Loquitur Vindicated*, 1 *BUF. L. REV.* 1, 6 (1951)).

207. *Id.* at 1340, 1361.

208. *MINN. STAT.* § 144.41798, subd. 3 (Supp. 1987). The rebuttable presumption is created only after the commissioner presents facts justifying an inference that the respondent harbors HIV.

209. *Addington v. Texas*, 441 U.S. 414 (1978).

210. *Leary v. United States*, 395 U.S. 6, 36 (1968). The *Leary* Court reserved judgment on the question of whether, in a criminal case, the connection must be even higher to reflect the "beyond the reasonable doubt" standard. *Id.*, n.64.

in Minnesota.²¹¹

In sum, the carrier-by-inference provision makes sense neither as a garden variety legal inference, nor as a burden shifting rebuttable presumption. An alternative approach to setting a standard for the uncertainty of identification would be a public-health-prudence standard. Under this standard, the proper outer limits of intervention is those individuals who, because of their past and present behavior, present such a possibility of transmitting the virus that they ought, in prudence, to act as if they were carriers. This standard combines the estimated risk that the person is infected with the estimated risk that the person is infecting others, and asks whether given that combined risk, in the absence of actual knowledge, the person should take the precautions a carrier would take.²¹²

It is arguable that this provision more closely serves the purpose of the Act than does the carrier-by-inference language actually adopted. A public-health-prudence standard focuses both on factors which indicate that a person may be infected, and on those which indicate that, if infected, a person may be transmitting the infection. Thus, it focuses directly on the harm posed by a person to the public health. The carrier-by-inference provision, on the other hand, makes no reference to harm. It focuses attention on whether a person is actually a carrier. The public-health-prudence standard focuses on whether the person *ought* to behave like and be treated like a carrier.

Adopting a public-health-prudence standard for evaluating the uncertainty of identification would require reaching well beyond the literal words of the Act. That standard depends for its meaning and legitimacy on a balance not only of individual and group rights, but also, within the latter, of the comparative utilities of voluntary and coercive measures. The Act provides

211. See *supra* notes 160-67 and accompanying text (discussion of probabilities).

212. This formulation is closer than the carrier-by-inference provision to the threshold identification criteria discussed in the Department of Health's Draft. The Draft proposed that "knowledge of infectiousness" be part of the threshold criteria for intervention. The Draft explained the proposal in this way:

[A]ny person engaging in high-risk behavior should be aware of their risk and recognize that they may be infected. If they have not been tested, they should assume that they may be infected and capable of transmitting infection.

Draft, *supra* note 16, at 11.

no guidance on these calculi, either for the commissioner or for the courts.

This state of affairs — the standardlessness of the carrier-by-inference determination, and, by extension, the standardlessness of the gateway to coercive intervention — is exactly what the commentators predicted and warned against. Lack of standards increases the risk that coercive measures will be applied only against the most vulnerable, those whose poverty and lack of sophistication bring them regularly into contact with public officials, and who have little or no constituency among the general public.²¹³

It is not persuasive to argue that the commissioner is, or should be presumed to be, an expert in public health considerations and can thus be trusted with these determinations. The Draft itself recognizes the need for explicit standards to guide discretion and prevent discrimination.²¹⁴ But more importantly, these decisions involve a clash of values. Striking a balance among those values lies in the political and moral realms. The commissioner has no special claim to expertise in those areas.²¹⁵

Since the carrier-by-inference provision lacks the explicit standards necessary to assure that intervention is narrowly and nondiscriminatorily applied, those standards must be set administratively and judicially. Judicial standard setting can occur meaningfully only under the following circumstances.

First, the courts must understand that the carrier-by-inference determination presents a mixed question of fact (both regular facts and scientific facts) and law.²¹⁶ The law portion is

213. The risk of discrimination, and of the perception that the Act is being applied discriminatorily, is perhaps at its greatest at the threshold carrier-by-inference determination. As shown in the text, that determination makes use of epidemiological data. Much of those data are tied directly to racial and sexual preference classifications. See Curran & Jaffee, *supra* note 1, at 613 (rates higher for black and Hispanic prostitutes than for whites; nonwhite drug users may have higher incidence than white); Boffey, *Spread of AIDS Abating*, The New York Times, A1 (Feb. 14, 1988) (series of subepidemics, with varying characteristics for, e.g., inner city blacks and Hispanics). Public health measures which are racially based are disfavored. See *Won Wai v. Williamson*, 103 F. 1 (N.D. Ca. 1900).

214. See Draft, *supra* note 16, at 15.

215. The Draft acknowledges this. *Id.*

216. In this sense, it is similar to the determination that a person is a "mentally ill person" in the civil commitment area. That, too, is a mixed question of fact (both regular and psychiatric) and law. *In re Moll*, 347 N.W.2d 67, 70 (Minn. Ct. App. 1984).

significant, for it contains in kernel form the underlying policy of the Act.

Second, the determination of whether the inference is a lawful one requires the dual calculus described above. This, in turn, can be conducted only if information both about the case *sub judice* and about the entire public health effort is adduced. Thus, the commissioner must prove that it is necessary, in the context of the fight against AIDS, that intervention occur in cases such as the one before the court.²¹⁷

Third, while deference may be due the commissioner on her view of the public health calculus, no deference is due on the rights calculus.

Fourth, in the absence of legislatively imposed standards, those standards must be established through judicial review. This will occur only if the appellate courts understand that the inference is not solely, or even significantly, a fact issue. The carrier-by-inference determination, thus, should not be judged by the "clearly erroneous" standard applicable to facts, but rather by the error of law standard.²¹⁸ Appellate courts will need to be especially careful not to avoid this question on grounds akin to mootness or "harmless error."²¹⁹ Thus, if a respondent who is found to be a carrier-by-inference accedes to the coercive mandate of the presumption and introduces test results, reviewing courts may be inclined to view the initial determination as without importance on review.²²⁰ By the same reasoning, a respondent subject to the presumption who chooses not to introduce test results might be held to have

217. See *supra* notes 36-70 and accompanying text (discussion of Axioms and Corollaries).

218. In civil commitment cases, the appellate court has consistently treated determinations that a respondent is "dangerous" as a finding of fact rather than legal conclusions. See, e.g., *In re Matter of Beard*, 391 N.W.2d 29 (Minn. Ct. App. 1986); *In re Lufsky*, 388 N.W.2d 763 (Minn. Ct. App. 1986). As with the carrier-by-inference determination, the term "dangerous" is a legal standard which is important in defining the threshold for civil commitment intervention. Treating it consistently on appeal as a factual finding effectively prevents any incremental definition of the meaning of the term.

219. Cf. *In re Ringland*, 359 N.W.2d 710 (Minn. Ct. App. 1984) (denial of new trial on ground that respondent improperly denied probable cause hearing upheld where sufficiency of evidence not challenged at the commitment hearing, and discharge from commitment mooted the issue).

220. If the tests are negative, there would presumably be no relief granted and thus, little or no harm to the respondent. If the tests are positive, the inference/presumption will have been "harmless" since it turned out to be true.

“waived” his right to challenge the inference that he or she is a carrier. Questions about the construction of the term “inference” may be disfavored since they may be viewed as technical and not going to the real merits, which is whether the person is, in fact, a carrier and in fact, will pose a danger to others.

The dangers of standardlessness ought to be addressed at the administrative level, as well. The Act requires that the carrier-by-inference process be based on a “determination based on specific facts.”²²¹ This determination should be in writing. It should set out the specific facts relied upon, and the inferential chain leading to the conclusion that carrier-status should be inferred. The writing should provide an adequate basis for judicial review of the commissioner’s determination.²²² Requiring a written record to support the carrier-by-inference “belief” determination furthers the policy of minimizing the potential for careless, arbitrary or discriminatory intrusion by the state.

In conclusion, the definition of “carrier” serves as a threshold or gateway for state intervention. Such intervention is always a point of high risk for individual rights. Two factors associated with the carrier-by-inference determination increase the risk to high levels. First, since it is made in the absence of medically accepted tests, the determination involves inferences which of necessity have an increased level of uncertainty. The determination, as well, may draw inferences which are based on associations or memberships in vulnerable or protected classes.²²³ Such inferences are strongly disfavored, even in the public health area.

The second factor increasing the risk involves the use of the carrier-by-inference determination as a threshold to two steps of the intervention process, the health directive stage and the judicial proceeding stage. At the judicial proceeding stage, the commissioner’s carrier-by-inference determination is subject to prompt, adversary review before a neutral factfinder.²²⁴ At the health directive stage, this is not the case. The health directive is an extra-judicial written or oral statement from the

221. MINN. STAT. § 144.4172, subd. 1 (Supp. 1987).

222. *Bryan v. Community State Bank of Bloomington*, 285 Minn. 226, 172 N.W.2d 226 (1969).

223. *See supra* notes 188-201 and accompanying text.

224. MINN. STAT. § 144.4179, subd. 3.

commissioner of an authorized local health board to a carrier. The directive may "require" the carrier to, *inter alia*, undergo medical tests necessary to verify the person's carrier status and to participate in treatment programs.²²⁵ Although the health directive does not have the force of a coercive court order, it is nonetheless coercive in that it threatens, directly or indirectly, coercive judicial action unless the subject complies.²²⁶ Indeed, the health directive may have a thoroughly chilling effect on the behavior of the subject, who may well steer clear of behavior which might be construed to violate the directive, in order to avoid the commencement of judicial proceedings.²²⁷ In proper cases, of course, this effect is not only desirable, but also the effect which was most likely intended by the legislature in enacting the health directive provision.²²⁸ This effect is desirable only when the subject of the directive poses a risk which falls within the scope of risks which are appropriately addressed by this Act. If it is used in situations which go beyond those risks, then it constitutes an improper use of the coercive power of the state which might escape review.²²⁹

225. *Id.* § 144.4172, subd. 6. See *infra* notes 246-63 and accompanying text for a detailed discussion of the health directive provisions.

226. See *Salerno v. United States*, 107 S.Ct. 2095, 2111 (Marshall, J., dissenting) ("Power of authority to imprison upon prediction" gives government "coercive power" over individuals). See Ellman; *Lawyers and Clients*, 34 U.C.L.A. L. REV. 717, 722 (1987) for definition of coercion.

227. In situations where the carrier-by-inference provisions are invoked, the health directive is likely to require that the subject of the directive undergo medical testing and make the results available to public health officials. Such a health directive would constitute a request for the individual to "supply private or confidential data concerning the individual" and would fall within the scope of the Government Data Practices Act. See MINN. STAT. § 13.38 (Supp. 1987). The health directive must be accompanied by a notice informing the individual whether he or she "may refuse or is legally required to supply the requested data" and "any known consequences arising from supplying or refusing to supply" the data. *Id.* § 13.04, subd. 2. A consequence of failing to supply the information may be that the individual will be classified as "noncompliant" and made the subject of a judicial proceeding under the Act.

228. The Draft does not specifically mention the concept of health directives. The Draft notes, however, the importance of assessing the capacity of the person to change his or her behavior voluntarily, see Draft, *supra* note 16, at 12, 16, and the need to limit restrictions on personal liberty to situations where less restrictive measures have been "proved" to be inadequate. *Id.* at 14. The health directive is aimed at both of these concerns.

The Draft notes, as well, the need to minimize potential abuse of administrative or judicial authority in connection with making these judgments. *Id.* at 16.

229. Public health officials may attempt to "test" the limits of the Act by bringing cases which are at, or close to the borders, as they perceive them, of acceptable intervention under the Act. If their view of the Act is too expansive, their efforts will be

The legitimacy of the coercive intervention authorized by the Act is seriously undermined by the structural lack of clarity in its threshold standards for identification. This deficiency can be mitigated to a limited extent by administrative and judicial sensitivity to the need to articulate standards for intervention. But even if such standards are developed in the course of administering the Act, they will lack the legitimacy of standards set by the popularly elected legislature.²³⁰

C. *The Act's Implementation of the
Last Resort Principle*

As shown above, coercive public health intervention can be justified only when it is the intervention of last resort.²³¹ This principle has two alternate formulations in relation to the control of AIDS. In generally applicable circumstances, where it is the public health, rather than the health of individuals which is of concern, coercive intervention cannot be justified unless it is demonstrated that coercive measures are necessary in order to control the spread of an epidemic. This is the "public health formulation" of the principle. The alternate formulation, the "individual formulation," holds that an individual may not be coerced unless the coercion is necessary to prevent that individual from doing harm to other individuals.

The Act fails completely to implement the public health formulation of the last resort principle. Nothing in the Act requires proof, as a precondition to applying the Act, that control of the epidemic depends on coercive intervention. Nor can it be said that the enactment of the Act was premised on unstated legislative findings that coercive intervention is necessary in order to control the AIDS epidemic. The Department of Health's Draft made it clear that coercive intervention would have a very insignificant effect on the course of the epidemic.²³²

It may be argued that the Act sets intervention standards for transmission which amount to a requirement that the commissioner satisfy the public health formulation of the principle of

rebuffed in court. But to the extent that their expansive health directives chill behavior which is not able to be addressed by the Act, their actions are beyond judicial review.

230. See *supra* note 16.

231. See *supra* notes 37-38 and accompanying text.

232. See Draft, *supra* note 16, at 1.

last resort. Although these standards are not as clearly articulated as they might be, it is reasonable to read the Act as requiring, as a condition of intervention, a showing that an individual will repeatedly transmit HIV.²³³ Since it is repeated transmission of a disease by individuals which fuels an epidemic,²³⁴ intervening with respect to those who are repeat transmitters will assist in controlling the epidemic. But this argument shows that repeated transmission should be a necessary condition for intervention, not that it is a sufficient condition. Under the public health formulation, coercive intervention is not justified unless it is shown that the same control over the epidemic could not be obtained through voluntary means. The consensus among public health commentators appears to be that this showing cannot be sustained at the present time.²³⁵

The individual formulation of the last resort principle is implemented more adequately in the Act. But its implementation is less than ideal because it is indirect, relying on psychological constructs rather than observable behavioral criteria. In addition, the major procedural mechanism for implementing the principle, the health directive, is not as strongly expressed as it should be.

1. The Use of Psychological Constructs to Implement The Last Resort Principle

The last resort principle, as it applies to individuals, is a standard relating to prediction. Coercive intervention is the last resort only when we predict that non-coercive methods cannot prevent a given level of risk. Predictions of future conduct are notoriously inaccurate.²³⁶ In general, past dangerous

233. See *infra* notes 269-77 and accompanying text. This standard would apply unless the persons at risk were not knowingly engaged in the risky behavior.

234. If, on the average, each infected person transmits the disease to only one other person, eventually the epidemic will cease to spread, since those who are killed by the disease will equal those who become newly infected.

235. See *supra* notes 37, 39-40 and accompanying text.

236. Compare Macklin, *supra* note 6, at 18 ("At the present time psychiatry lacks the capacity to identify dangerous patients with sufficient reliability to meet a court's evidentiary test of either beyond a reasonable doubt (about 90 percent) or clear and convincing proof (about 75 percent certainty)') (quoting Alan A. Stone, *Comment*, 132 AM. J. PSYCHIATRY 829 (Aug. 1975) and *Johnson v. Noot*, 323 N.W.2d 24 (Minn. 1982) (difficulty of predicting future dangerousness in civil commitment setting) with *Salerno v. United States*, 107 S.Ct. 2095 (1987) and *Jurek v. Texas*, 428 U.S. 262

behavior is the best predictor of future dangerous behavior; the more recent in time and similar in circumstances to the present, the more predictive past behavior is of future.²³⁷

An adequate implementation of the principle of last resort would reflect these facts about prediction. Coercive intervention would not be the last resort unless the person: (1) has engaged in and is engaging in behavior which exceeds the risk of transmission threshold; (2) has been clearly and specifically requested to stop the behavior, and informed of the risks of that behavior; (3) has been informed that the consequences of continuing may be state intervention; and (4) has been provided or offered the services needed to enable the person to discontinue the behavior;²³⁸ but (5) continues to engage in the behavior so persistently to justify the conclusion that the probability of continued behavior exceeds the uncertainty of prediction threshold.

This formulation recognizes that the future course of an individual's behavior depends both on how that person has behaved in the past, and on the circumstances in the future. The last resort principle requires more than a prediction that the individual will engage in risky behavior in the future. Coercive intervention is not the last resort unless that risky behavior could be prevented only through coercion. The formulation proposed above insures there is an adequate basis for drawing that conclusion.

The last resort principle is incorporated indirectly but unmistakably in the portion of the definition of "health threat to others"²³⁹ which requires a demonstration of the carrier's inability or unwillingness to avoid risky behaviors. The core

(1976) (nothing inherently unattainable about predictions of future criminal behavior).

237. See Macklin, *supra* note 6, at 18; MONAHAN, THE CLINICAL PREDICTION OF VIOLENT BEHAVIOR 60 (U.S. Department of Health and Human Services 1981).

238. See *supra* note 59 and accompanying text (discussion of Corollary 4 and services that should be offered).

239. The text of the definition is set out below:

"Health threat to others" means that a carrier demonstrates an inability or unwillingness to act in such a manner as to not place others at risk of exposure to infection that causes serious illness, serious disability, or death. It includes one or more of the following:

(1) with respect to an indirectly transmitted communicable disease:

(a) behavior by a carrier which has been demonstrated epidemiologically to transmit or which evidences a careless disregard for the transmission of the disease to others; or

(b) a substantial likelihood that a carrier will transmit a communicable

meaning of the last resort principle is incorporated into this definition. If a person is "willing" and "able" to change his behavior voluntarily, then coercive intervention is not the last resort. It follows that, at most, those who are unwilling or unable to change voluntarily are appropriate subjects for coercive intervention.

There are two serious problems with this formulation of the last resort principle. These problems increase the likelihood that the Act can be applied overbroadly. They could be avoided with a direct formulation of the principle, such as that proposed above.

Both problems arise from the fact that the terms "unable" and "unwilling" are psychological constructs. Psychological constructs are not directly observable because they have existence only as constructs. They require the characterization, rather than simply description, of behavior; the transformation of observable behavior into statements about unobservable mental attributes.²⁴⁰

The first flaw in the use of psychological construct language is that the use of constructs such as "unwillingness" and "inability" suggests that these are relatively immutable character-

disease to others as is evidenced by a carrier's past behavior, or by statements of a carrier that are credible indicators of a carrier's intention.

(2) With respect to a directly transmitted communicable disease:

(a) repeated behavior by a carrier which has been demonstrated epidemiologically to transmit or which evidences a careless disregard for the transmission of the disease to others;

(b) a substantial likelihood that a carrier will repeatedly transmit a communicable disease to others as is evidenced by a carrier's past behavior, or by statements of a carrier that are credible indicators of a carrier's intention;

(c) affirmative misrepresentation by a carrier of the carrier's status prior to engaging in any behavior which has been demonstrated epidemiologically to transmit the disease; or

(d) the activities referenced in clause (1) if the person whom the carrier places at risk is: (i) a minor, (ii) of diminished capacity by reason of mood altering chemicals, including alcohol, (iii) has been diagnosed as having significantly subaverage intellectual functioning, (iv) has an organic disorder of the brain or a psychiatric disorder of thought, mood, perception, orientation, or memory which substantially impairs judgment, behavior, reasoning, or understanding; (v) adjudicated as an incompetent; or (vi) a vulnerable adult as defined in section 626.557.

(3) Violation by a carrier of any part of a court order issued pursuant to this chapter.

MINN. STAT. § 144.4172, subd. 8 (Supp. 1987).

240. The term "inability" could also refer to the physical attributes of a person. That meaning is inapplicable here since it is clear that everyone has the physical ability to avoid sex and needle sharing. It is presumably the *mental* inability to control one's behavior that is referred to in the Act.

istics of a person.²⁴¹ In reality, a person may be willing or unwilling to take certain action depending on the information available, and the alternatives to that action. A person may be able or unable to act in a certain way depending on the help, motivation or knowhow he or she possesses.²⁴² The Act's definition suggests that these qualities — unwillingness and inability — can somehow be measured and evaluated apart from context. Yet it is precisely these contextual considerations which are critical to determining whether intervention is indeed the last resort.²⁴³

The second flaw is related to the first. The use of psychological constructs suggests that the real inquiry concerns the mind of the carrier, rather than his or her behaviors. But the mind and its attributes are knowable only inferentially. Thus, in addition to the difficulties of making predictions, courts must deal with the uncertainties of inferring invisible mental attributes from observable behaviors. This is doubly hard, since the concepts of "unwilling" and "unable" have no fixed meaning and the behavior which might qualify to demonstrate the existence of these concepts is similarly variable.²⁴⁴

The fact that the Act calls for the assessment of psychological characteristics, rather than the observation of behavior, may lead some courts to rely on expert psychological testimony to determine whether a person is unwilling or unable to avoid risky behavior. Reliance on expert testimony carries with it the danger that courts will abdicate to the experts the determination of what constitutes "inability" and "unwilling-

241. Diamond, *The Psychiatric Prediction of Dangerousness*, 123 U. PENN. LAW REV. 439, 449 (1974), criticizes the "process of reification, the process by which action or behavior becomes translated into an attribute of the person." *Id.* Diamond's objection is to the use of the label "dangerous" to describe individuals. The same criticism applies to "unwilling," "unable," or "noncompliant" as labels for people.

242. See *supra* notes 40-58 and accompanying text (discussion of Corollary 3).

243. *Id.* See also Shah, *Legal and Mental Health System Interactions*, 4 INT'L J. L. & PSYCHIATRY 219, 238 (1981) (inaccuracy of predictions of future harmful conduct compounded by failure to take into consideration information about settings, situations and environmental variables).

244. Which of the following is evidence of an "inability" to avoid risky behavior? (1) Engaging in prostitution as a means of supporting oneself. (2) Forgetting to use a condom "in the heat of passion." (3) Acquiescing to one's sexual partner's "insistence" on having unprotected sex.

Which of the following is evidence of "unwillingness" to avoid risky behavior? (1) Allowing one's sexual partner to engage in sex without a condom. (2) Handing a freshly used needle to another person with the expectation that he or she will reuse it without sterilizing it. (3) Refusing to have an abortion.

ness.”²⁴⁵ This would be improper since these terms carry the burden of implementing the last resort principle in the Act. They have a legal and policy content about which experts in human behavior have no special insight.

The legislature could have avoided the problems inherent in using psychological constructs by stating the last resort principle in behavioral terms. Doing so would have made the threshold standards relating to prediction much clearer and less subject to improper application.

2. *The Health Directive and Its Relation To the Last Resort Principle*

The health directive requirement²⁴⁶ plays a critical role in insuring that coercive public health intervention is reserved solely for those situations in which no other form of public health intervention will avoid a serious danger to the public health. The health directive is an official notice to a carrier that the carrier's conduct poses a serious public health risk and will subject the carrier to coercive intervention if it continues. If the notice contains adequate information, the fact that the carrier continues the risky behavior after receiving it provides a strong basis for characterizing the carrier as either unable or unwilling to avoid that behavior.²⁴⁷

Despite the importance of the health directive concept, the Act provides little guidance as to its contents and contains an important ambiguity about limitations on its issuance. Most threatening to the principle of last resort, however, are the broad emergency provisions of the Act which, if given their plain meaning, wash away the health directive requirement.

245. See Dershowitz, *Preventive Confinement: A Suggested Framework for Constitutional Analysis*, 51 TEX. L. REV. 1277 (1973).

246. MINN. STAT. § 144.4172, subd. 6. (Supp. 1987):

“Health directive” means a written statement, or, in urgent circumstances, an oral statement followed by a written statement within three days, from the commissioner, or local board of health with delegated authority from the commissioner, issued to a carrier who constitutes a health threat to others. A health directive must be individual, specific, and cannot be issued to a class of persons. The directive may require a carrier to cooperate with health authorities in efforts to prevent or control transmission of communicable disease, including participation in education, counseling, or treatment programs, and undergoing medical tests necessary to verify the person's carrier status. The written directive shall be served in the same manner as a summons and complaint under the Minnesota Rules of Civil Procedure.

247. See *supra* notes 240-45 and accompanying text (meaning of unable or unwilling).

The health directive should serve the last resort principle in two ways. First, it should divert as many individuals as possible from the coercive to the voluntary public health system. In order to do so, it must effectively communicate to the carrier;²⁴⁸ it must provide information to the carrier about what the carrier must do in order to avoid coercive intervention;²⁴⁹ and it must provide information to the carrier about services which are available to assist the carrier in modifying the carrier's behavior.²⁵⁰

Second, the health directive should provide a solid evidentiary basis for coercive intervention. As argued above, coercive intervention is not justified unless, among other things, it is the last resort. Since many people modify their risky behaviors through voluntary, noncoercive participation in education, counseling or other services,²⁵¹ coercive intervention is not justified unless it is shown that those voluntary services will not change the individual's behavior. An individual's failure to comply with a health directive provides that proof only to the extent that it provides understandable notice of the availability of appropriate services.

In addition, the health directive must be clearly official, and must clearly apprise the carrier of the consequences of failure to comply.²⁵² Without such official notice the evidentiary basis

248. The population at high risk for HIV infection is not homogeneous. Communications to individuals must take differences in communication ability into account. Becker & Joseph, *supra* note 30, at 403 ("Unlike the gay community, which is relatively organized and generally characterized by educational and socioeconomic advantage, . . . [the] average level of education [among intravenous drug users] is lower. Language and literacy problems are well recognized, and communication in this subculture is generally oral rather than written").

249. This will require clarity among public health officials about what risk is acceptable. It may also require the acknowledgement, in this official document, that illicit behavior may continue. Public health officials will have to decide whether condom use in connection with anal sex and bleach-rinsing of needles used for intravenous drugs reduce the risk sufficiently to avoid intervention. Suggesting either of these is a tacit acknowledgment that illegal behavior is likely to continue. Failure to mention these alternative behaviors, on the other hand, may render the notice ineffective. See Becker & Joseph, *supra* note 30, at 407 (existence of "preferred strategies being employed for risk reduction" by various at risk groups).

250. See Draft, *supra* note 16, at 15 (need for services); see also Fineberg, *supra* note 30, at 593, 595 ("Sexual practices and drug use are biologically based, socially complex behaviors. . . . Changes in behavior that will reduce risk of [infection] depend upon individual motivation and a reinforcing social environment.")

251. See generally Becker & Joseph, *supra* note 30; Fineberg, *supra* note 30.

252. The Minnesota Government Data Practices Act, MINN. STAT. ch. 13 (1986), requires the disclosure of this information to the extent that the health directive re-

for the last resort determination would be incomplete. It cannot be said that judicially coerced intervention is the last resort until the "threat" or possibility of that type of coercion is made known to the carrier, who ignores it.²⁵³

An important ambiguity of the Act, and in particular in the circumstances in which a health directive can be issued, concerns the following definition: "A health directive must be individual, specific and cannot be issued to a class of persons."²⁵⁴ It is not clear whether this is intended only to govern the form and contents of the notice (the narrow construction) or to limit the circumstances which would justify the issuance of a directive (the broad construction).

In its narrow construction, this sentence simply prohibits blanket notices to groups. Prohibited under this reading would be notices to "all gay men who engage in anal sex;" or "all intravenous drug users who share needles." To count as a health directive under the Act, a notice would have to be directed at, and perhaps name, a particular person, rather than a class or group of people.

Two policies underlie this construction of the law. First, the provision may be intended to reassure those who feared that the coercive means of the Act could be used in a manner which was discriminatory or abusive of those in vulnerable, stigmatized groups. Giving blanket notices could bring entire classes of people within the operation of the Act. Second, group notices lack the individualization necessary to accomplish the health directive's last resort principle function.

But this construction might be questioned on the grounds that it is redundant. The Act's requirement that the health directive be "served in the same manner as a summons and complaint" under the Rules of Civil Procedure²⁵⁵ clearly envisions individual notices. Further, the notices will not be effective in the demonstration that carriers are "unable or unwilling" to

quests the carrier to furnish any private or confidential information. *See also supra* note 227.

253. Of course, the threat of force is coercive. *See Ellman, supra* note 226. But it is less coercive than the actual exercise of force.

254. MINN. STAT. § 144.4172, subd. 6 (Supp. 1987).

255. MINN. R. CIV. P. 4 requires in-hand or substituted abode service. Mailed service is effective if the recipient of the service returns an acknowledgement of service. *Id.*

change their behavior unless they are specific and individualized.

A broad interpretation of the "class of persons" restriction would prohibit the commissioner from using the suspected carrier's membership in a class of persons as all or part of the basis for issuing the health directive or determining its contents. Membership in certain classes of persons carries with it epidemiological probabilities of HIV infection. These probabilities are based on the incidence of HIV infection among persons of that class.²⁵⁶ Thus, an individual's membership in a class could provide some information about the probability that the individual engages in risky behavior. The classes which have a high incidence of HIV infection include those which are traditionally politically and socially vulnerable. The legislature could have decided that the ethical and political costs of using class-based information for coercive intervention purposes were too high.

The health directive provisions of the Act are central to the purpose of the Act, to restrict coercive public health intervention to situations in which there is no other viable approach to avoiding a serious threat to the public health. But for all this importance, the Act evidences a fundamental ambivalence about the notion that administrative intervention must be attempted before judicial proceedings are commenced. The Act provides an exception to the health directive requirement which, if given its plain meaning, gives the commissioner absolute discretion to proceed to court without first issuing a health directive.

The health directive exception is tied to the Act's emergency apprehend and hold provisions.²⁵⁷ The Act's health directive

256. Epidemiologists estimate the prevalence of HIV infection among homosexuals, prostitutes, hemophiliacs and intravenous drug users. Some prevalence rates are given for racial or ethnic subgroups. See generally Curran & Jaffe, *supra* note 1, at 612-612; Francis & Chin, *supra* note 7, at 1362.

257. MINN. STAT. sec. 144.4182, subd. 1. On an *ex parte* or expedited basis, the court may order a person held upon a finding that there is "reasonable cause to believe" that the "person is . . . a substantial likelihood [sic] of an imminent health threat to others." *Id.* The meaning of this emergency intervention standard is exceedingly murky. When is a person an "imminent" health threat to others? Is that more serious, or less serious, than being a health threat to others? Is "health threat to others" used here in its defined sense, or in its everyday sense? If in its defined sense, how can emergency intervention be justified merely on a belief that the person will "imminently" demonstrate that he or she is "unable or unwilling" to avoid risky behavior? If the term is not used in its defined sense, how is it being used?

requirements²⁵⁸ are eliminated whenever the “an emergency court order is sought” pursuant to the emergency apprehend and hold provisions.²⁵⁹

Added to the Act late in its legislative history,²⁶⁰ the emergency exception was clearly meant to mediate the conflict between the emergency apprehend and hold provisions of the Act, which contemplate precipitant judicial action in the face of an emergency, and the health directive provisions, which contemplate deliberate, incremental intervention.

Read literally, the emergency exception gives the commissioner unilateral control over the applicability of the health directive requirements. Merely by seeking an emergency order, the commissioner can eliminate the need to find noncompliant behavior prior to filing a petition, to allege noncompliant behavior in the petition, and to prove noncompliant behavior in order to prevail on the petition.

The most obvious reason for an emergency exception to the health directive mechanism is that there may be situations in which the danger posed by a carrier is so great, so certain, and so imminent that the public health would be ill served by postponing judicial intervention until after formal administrative intervention has failed. This concern is addressed in large measure by the provision for oral health directives in “urgent circumstances.”²⁶¹ A carrier who is thought to pose an imminent, serious threat can be given a health directive orally. There would be no need to intervene on an emergency basis unless the person acts inconsistently with that directive.²⁶² If the person does act inconsistently with the directive, that conduct would constitute noncompliant behavior and would satisfy the health directive provisions of the Act.

258. In general, the commissioner must plead and prove, as a condition for obtaining judicial relief under the Act, that the carrier failed to comply with a health directive. *Id.* § 144.4176, subd. 1.

259. *Id.*

260. For most of its journey through the legislature, there was no emergency exception to the requirement that noncompliance with a health directive was a necessary element for judicial relief. The legislation did, from the beginning, contain emergency apprehend and detain provisions which were similar to those in the final version. *Compare* Journal of the Senate, Apr. 13, 1987, at 1366, *with* Journal of the Senate, May 5, 1987, at 2951.

261. MINN. STAT. § 144.4142, subd. 6.

262. A health directive can direct the person to participate in treatment programs. Noncompliance with this sort of a directive would be readily apparent.

It is difficult to conceive of situations in which imposing a requirement that an oral directive be given would prove too much of a delay. The problems posed by such remote situations could be dealt with by a narrowly drawn exception to the health directive requirement. The provision should excuse the commissioner from complying with the health directive requirements only when the commissioner demonstrates that such compliance would materially increase the risk to the public health.²⁶³

D. The Act's Standards Relating to the Risk of Transmission and the Uncertainty of Prediction

Setting standards relating to the risk of transmission is critical because of the wide range of risks of transmission of HIV posed by various sorts of behavior.²⁶⁴ Standards relating to prediction are important because they are the manner in which the central principle, the last resort, can be most directly articulated in legislation. Our uncertainty about the likelihood of a person behaving in a risky manner translates directly into our conclusions about whether intervention is, indeed, the last resort.

The Act's definition of "health threat to others" is its vehicle for articulating its standards for transmission and prediction. The articulation of these standards suffers from imprecise drafting. Unless they are construed with care against a background of the policy of coercive public health intervention, the standards permit a reach for intervention which is far too broad.

The definition of health threat to others is divided into two major parts. In the first part, the "general clause," the Act sets out in relatively broad language the two aspects of the transmission/prediction standard. The transmission element is contained in the phrase "places others at risk of exposure to

263. In general, a delay of several days would not materially increase the risk to the public health even if the carrier continued to engage in risky behavior. The incremental risk for each risky act is small. It is only the cumulative risk of repeated behaviors which may be countable in the public health calculus. See *supra* notes 236-45 and accompanying text.

264. See generally Curran & Jaffe, *supra* note 1, at 611; Ginzburg, *The Acquired Immunodeficiency Syndrome, Human Immunodeficiency Viruses, and the Community and the Workplace—A Medical Precipis*, 39 N.Y.U. CONF. LAB. 15-1 (1986). Hearst & Hulley, *supra* note 1.

infection.” Since it does not identify any level of risk along the wide band of risk of transmission associated with various types of behaviors, this phrase, standing alone, conveys nothing more than that the legislature did not intend to authorize coercive intervention merely because a person carries an infection. The second aspect of the general clause contains a broad statement of the predictive determination which must be made to justify intervention. Intervention is limited to those carriers who “demonstrate[] an inability or willingness” to avoid risky behavior. This phrase, as shown above, is best understood as the legislature’s articulation of a portion of the principle of last resort.

The second part of the definition of health threat to others, the “enumeration clause,” contains a list of factors which might have a bearing on either the risk of transmission or the predictive determinations. But the exact manner in which the factors are to be taken into account in the threshold determination is clouded. The enumeration clause follows the general clause, and is linked to the general clause with the phrase “[i]t includes one or more of the following.”

The general clause leaves undefined two key aspects of the transmission/prediction process. It does not define what level of risk of transmission will justify intervention. It does not define what degree of predictive certainty is required to justify intervention. The enumeration clause provides only limited additional guidance on these critical issues.

The meaning of the enumeration clause is unclear for two reasons. First, the relationship of the enumeration clause to the general clause of the definition is not clearly articulated. Second, the clause mixes together issues of transmission with issues of prediction in a way which makes it unclear what standards it is setting for either.

E. The Relationship of the General and Enumeration Clauses

As a matter of statutory drafting, there is nothing inherently unclear in the structure chosen by the legislature to set out the transmission/predictive threshold of the Act: An introductory, general clause can convey the broad policy or abstract concepts underlying a definition; a subsequent clause can enumerate more specific and concrete benchmarks for the

definition.²⁶⁵ To be successful, however, this structure must specify carefully the relationship between the two parts of the definition.

The enumeration clause is introduced with the phrase, "It includes one or more of the following" This phrase is equally compatible with at least four possible relationships between the general and enumeration clauses. The enumeration clause could be:

- (1) an enumeration of conditions, satisfaction of at least one of which is *necessary* for being covered by the health threat to others definition;
- (2) an enumeration of conditions, satisfaction of any one of which would be *sufficient* to satisfy the health threat to others definition;
- (3) a list of *factors* which *may* be taken into account in making the health threat to others determination; or
- (4) a list of *factors* which *must* be taken into account in making the health threat to others determination.

There are five items in the enumeration clause. The first two of these items can be best understood as defining the risk of transmission standard as a public health standard, rather than an individual harm standard.²⁶⁶ The second two set out those conditions under which the standard is to be an individual harm standard. The clause also contains items which define the uncertainty of prediction in making the predictive determination. Because the general clause is the Act's only articulation of the last resort principle, none of the items in the enumeration clause should be considered to be sufficient, standing alone, to satisfy the transmission/prediction threshold.

The first and second items in the enumeration clause²⁶⁷

265. Compare the definition of "mentally ill person" in the civil commitment act. See MINN. STAT. § 253B. 02, subd. 13 (1986). This definition begins with a construct — "substantial psychiatric disorder," — which sets the broad boundaries of the definition. The meaning of the construct is anchored to observable reality in the definition's requirement that the construct must be "manifested by" certain types of behavior. It must also pose a "substantial likelihood of physical harm;" the likelihood of harm must be demonstrated by past behavior of a defined sort. In that definition, the relationship between the construct and the behavioral elements is clear: the behavioral elements are a necessary, though not sufficient, element of the definition.

266. See *supra* notes 152-70 and accompanying text.

267. The first item in the clause is as follows:

repeated behavior by a carrier which has been demonstrated epidemiologi-

should be read together as adopting a public health, rather than an individual harm, threshold for the risk of transmission. The public health standard measures the risk that an individual's behavior will contribute to the uncontrolled increase in the extent of infection.²⁶⁸ The spread of the HIV infection will increase without limit only to the extent that carriers, on average, transmit the disease to more than one other person.²⁶⁹ A carrier is not a danger to the public health unless the type of behavior he or she engages in transmits the disease, on average, to more than one other person.

The public health standard is most directly and clearly adopted in the second item of the enumeration clause, which requires a showing of a substantial likelihood that the carrier will "repeatedly transmit" the disease to others. But the clarity of that standard is moderately clouded by the first item, which refers to "repeated behavior by a carrier which has been demonstrated epidemiologically to transmit the disease to others."

For two reasons, the repeated-transmission language is the better candidate for the Act's risk of transmission standard. First, the repeated-transmission phrase is explicitly predictive, whereas the repeated-behavior language is apparently retrospective. The risk of transmission standard must judge future, not past, behavior.

Second, the repeated-transmission language provides a solid, relatively unambiguous standard, whereas the repeated-behavior language does not. To understand this, the repeated-behavior language must be carefully reviewed.

This phrase is tied to behavior which has been "demonstrated epidemiologically to transmit" the disease. Epidemiol-

cally to transmit or which evidences a careless disregard for the transmission of the disease to others.

MINN. STAT. § 144.4172, subd. 8 (2) (a) (Supp. 1987). The second item in the clause is as follows:

a substantial likelihood that a carrier will repeatedly transmit a communicable disease to others as is evidenced by a carrier's past behavior, or by statements of a carrier that are credible indicators of a carrier's intention.

Id., subd. 8 (2) (b).

268. See *supra* notes 232-35 and accompanying text.

269. If carriers transmit the disease only to one other person, the epidemic will be self-limiting since newly infected person will simply replace, on a one-for one basis, carriers who are killed by the disease. Fineberg, *supra* note 30, at 594 (if "net rate of additions . . . to the infected pool falls below the rate of loss from the infected pool, the epidemic will not be sustained.")

ogy is a science concerned with finding statistical relationships between a disease and biological or societal characteristics, and "ascertain[ing] the meaning of the relationship[s]."270 Epidemiology looks for causal relationships, but adopts a "pragmatic concept of causality."

A causal relationship would be recognized to exist whenever evidence indicates that the factors form part of the complex circumstances that *increase the probability of the occurrence of disease* and that a diminution of one or more of these factors decreases the frequency of that disease.²⁷¹

Thus, epidemiology looks, among other things, at human behavior, and attempts to establish probabilistic relationships between types of behavior and the transmission of disease. The fact that a certain behavior had been epidemiologically demonstrated to transmit HIV would tell us that engaging in that behavior is associated with some probability of transmitting the disease. An epidemiologically demonstrated relationship, however, might have a risk of transmission which falls anywhere along the full continuum of risks.²⁷² The range of risks associated with "repeated" behavior of this sort would, similarly, have a wide spectrum of risks associated with it. The width of the spectrum would be driven in part from the spread of risks associated with the behavior, and in part from the lack of definition of the term "repeated." Table 2 is an example of the range of risks which could be associated with behavior which transmits HIV.

270. LILIENFELD & LILIENFELD, FOUNDATIONS OF EPIDEMIOLOGY 289 (1980).

271. *Id.* at 295. (emphasis in the original). The authors emphasize the difference between epidemiologic studies, which can yield "highly probable causal hypotheses," and "experimentation and the determination of biological mechanisms," which "provide the most direct evidence of a causal relationship." *Id.* at 316.

272. See *supra* notes 63-4 for authorities discussing the range of risks of transmissions of various behaviors.

Table 2
Risk of at Least One Transmission by a Carrier²⁷³

Partner(s)	(1) 1 Sexual Encounters	(2) 2 Sexual Encounters	(3) 500 Sexual Encounters
High Risk²⁷⁴			
-w/o condoms	1:1000	1:500	1:3
-w/ condoms	1:10,000	1:5000	1:20
Low Risk²⁷⁵			
-w/o condoms	1:500	1:250	2:3
-w/ condoms	1:5000	1:2500	1:10

If we assume that behavior is “repeated” if it is engaged in more than once, then this table shows that repeated behavior which can transmit HIV is associated with risks of transmission ranging from 1:5000 to 2:3, with a full spectrum of risks ranged between those two extremes. Clearly, the repeated behavior standard includes such a wide range of risks as to be practically no guidance at all for judging the risk necessary to invoke coercive intervention.

In contrast, the repeated-transmission standard would require a determination as to whether the respondent’s predicted behavior would be “substantially likely” to “repeatedly transmit” the disease. Using estimates of the prevalence of HIV infection among the partner(s) of the carrier and the frequency and type of the risky behavior, public health statisticians can derive estimates for the risk that the carrier’s behavior will succeed in transmitting HIV to a given number of persons.

Courts would still need to determine the meaning of “substantially likely” and “repeatedly,” but discretion to make those determinations could be limited by the principle that intervention is not justified unless it is necessary to limit spread of the epidemic. Public health officials should be required to justify the proposed intervention by showing that the control of the epidemic will be materially enhanced by intervening in situations with the risk level similar to that posed by the re-

273. See Hearst & Hulley, *supra* note 1, at 2429.

274. This risk assumes a prevalence of HIV among the partners of .5.

275. This risk assumes a prevalence of HIV among the partners of .000001.

spondent. Clearly, the lower the risk of transmission, the harder it will be to make this showing.

In addition to the risk of transmission, the definition of health threat to others addresses the standards for making predictions. Discussion above, in connection with the principle of last resort, suggested that the predictive standards of the Act ought to require a pattern of recent past risky behavior as a predicate to the prediction of future risky behavior. The Act stops short of a clear requirement for such a behavioral predicate. Instead, the Act mentions four items which clearly should be factors to be considered in making predictions of future behavior. But these items really amount to a requirement of a predicate of risky behavior.

The predictive standard in phrase (b) of the enumeration clause requires that the showing of substantial likelihood be "evidenced" by either past behavior or "by statements of a carrier that are credible indicators of" the carrier's "intention." Phrase (a) of the enumeration clause refers to repeated behavior which has been "demonstrated epidemiologically to transmit HIV" or which "evidences a careless disregard for the transmission of the disease to others." The Act does not make clear what relationship is intended between the past-behavior/credible-statements language and the epidemiologically-demonstrated/careless-disregard language of phrase (a).

The reading of this language most in keeping with the last resort principle is that repeated risky behavior — that is, behavior which meets the repeated-epidemiologically-demonstrated requirement of phrase (a) — should be viewed as a mandatory predicate to the prediction of future risky behavior.²⁷⁶ Non-risky behavior — including behavior which satisfied the careless-disregard requirement and credible statements of intent — would not suffice as the predicate for the prediction that there is a "substantial likelihood of transmission of the virus."

Courts and public health officials would have little basis for judging that a carrier's statements of future intent to place others at risk were "credible" unless the carrier had in the past placed others at risk. Similarly, it would be hard to argue that behavior evidenced a careless disregard for the transmission of

276. Past risky behavior which is not repeated may be accidental or aberrational. It would therefore have more limited predictive value than repeated behavior.

the virus unless the behavior was of the sort which could transmit the virus.

Though not sufficient to justify a prediction of future harmful behavior, the care which a person demonstrates in choosing past behavior is certainly a factor relevant to that prediction. Thus, it may be relevant not only that a person has engaged in risky behavior, but also that she did not seem to care that she had done so. Similarly, statements of intent to continue past risky behavior are certainly relevant to predicting future behavior.

The third and fourth items in the enumeration clause clearly intend to adopt a different standard for intervention when the persons placed at risk by the carrier's behavior have not vountarily undertaken the risk of the risky behavior. These two items amount to an individual harm standard for intervention in these limited circumstances.²⁷⁷

Read literally, the third item²⁷⁸ would appear to authorize intervention based solely on one instance of a carrier's misrepresentation of his or her carrier-status prior to engaging in risky behavior. Such a construction, which omits to require any prediction of future harm, would impute a punitive purpose to the Act which would render this provision of doubtful constitutionality.²⁷⁹ The legislature would be justified, however, in imposing a risk of transmission standard in such circumstances which was aimed at protecting the individual partners of the dishonest carrier. This threshold could be lower than the public health-driven threshold applicable where the potential transmitters are not misled.²⁸⁰

Further, some policy considerations would support dropping the repeated behavior requirement as a predicate to the predictive determination where there has been dishonest behavior. Threshold criteria for the invocation of coercive measures should measure the likelihood that risky conduct will continue into the future in the absence of coercive interven-

277. See *supra* notes 40-58 and accompanying text for discussion of the individual harm standard.

278. "[A]ffirmative misrepresentation by a carrier of his or her carrier status prior to engaging in any behavior which has been demonstrated epidemiologically to transmit the disease."

279. See *United States v. Salerno*, 107 U.S. 2095 (1987) (dictum) (punitive detention without criminal protections would be unconstitutional).

280. See *infra* notes 281-82 and accompanying text.

tion. The legislature may have concluded that affirmatively misrepresenting one's carrier status was generally good evidence that such behavior would continue, without coercive intervention, into the future. The fact that a person lied about his or her carrier status might indicate a high level of knowledge about the potential harm of transmission, and a willingness nonetheless to engage in behavior which risks transmission. In this limited case, dishonest behavior may be good evidence that coercive intervention is, in fact, the last resort.

People who lie about their carrier-status are, of course, morally responsible for the consequences of their behavior to a greater degree than are people who engage in risky behavior with others who are equally aware of the risks. This higher level of moral responsibility should be largely irrelevant in determining whether to invoke coercive public health measures. Public health intervention is not intended as punishment for past bad acts. Rather, its purpose is prevention. The moral quality of a person's past actions should be relevant only to extent that a willingness to act badly in the past may be predictive of a willingness to act badly in the future.

The Act also excepts from the repeated-behavior rule behaviors which place at risk people who, in one way or another, could not be expected to consent knowingly and intelligently to the risk of transmission of the virus.²⁸¹ This exception to the repeated-behavior rule has, like the affirmative-misrepresentation provision, two possible rationales. Since the vulnerable transmitters have an impaired ability to understand and assess the risks of HIV transmission, they cannot be said to have consented to undertake those risks. The State thus has a

281. The list of vulnerable transmitters include minors, persons of diminished capacity by reason of mood altering chemicals, and persons who have been "diagnosed" as having "significantly subaverage intellectual functioning." This is part of the definition of "mentally retarded person" in the Civil Commitment Act. See MINN. STAT. § 253B.02, Subd. 14.

Also included are persons who have "an organic disorder of the brain of a psychiatric disorder of thought, mood, perception, orientation, or memory which substantially impairs judgment, behavior, reasoning or understanding. This is a partial restatement of the definition of mentally ill persons from the civil commitment act. See *id.*, § 253B.02, Subd. 13. It is not clear whether there is significance to the use of the term "diagnosed" in connection with mentally retarded persons but not in connection with mentally ill persons. Persons who have been adjudicated as incompetents would be included in this category of vulnerable transmitters, as would vulnerable adults as defined in MINN. STAT. § 626.557 (1986).

high interest in protecting them from further exposure to those risks. That interest is not dependent on behavior which is of such frequency to put the public at risk.

As discussed above, coercive public health measures should be invoked only when harmful behavior is likely to continue in the absence of those measures. An exception to the repeated-behavior rule would be justified for behavior which is, in general, more predictive of future harm than ordinary risky behavior. Though some behavior with vulnerable transmitters may fall into that category, it is far from clear that all does. First, it is not true that all single instances of risky behavior involving vulnerable transmitters involve morally bad behavior. The carrier may be unaware that the person being placed at risk is a minor or has a mental illness or has been adjudicated an incompetent. Further, not all interactions with vulnerable people are exploitive. For example, if two minors, or two mildly retarded or mentally ill persons engage in sex, the relationship, though risky, may not have the moral quality the same act would have if the transmitter were a fully competent adult. Finally, the exposure of the vulnerable person may be unintentional. For example, a drug addict may share a needle with a group, not knowing that a minor would subsequently share the needle. A woman may give birth to a baby, thereby exposing the baby to the virus, though never in any sense intending to do so.

In short, the vulnerability of the transmitter may be a factor in judging the moral quality of the carrier's actions. But unlike the affirmative-misrepresentation situation, it cannot be conclusive about the quality. Thus, in general, it would be incorrect to say that single instances of risky behavior involving vulnerable transmitters are more highly predictive of future behavior. If this provision were limited to those situations in which the behavior was exploitive of the vulnerable person, then the moral quality of the behavior, and hence its predictive value, would have been much clearer.

Last in the enumeration clause is the following: "Violation by a carrier of any part of a court order issued pursuant to this chapter."

Two types of court orders can be issued pursuant to the Act. The Court issues *remedy orders* after hearings on the merits of

judicial petitions,²⁸² and *apprehend and hold orders*²⁸³ which are interim, possibly *ex parte* orders issued pursuant to the emergency provisions of the Act.

Apprehend and hold orders are issued to health officers and "institutional facilities." Strictly speaking, a carrier could not "violate" these orders since they are not directed at carriers.²⁸⁴

Remedy orders are directed at the carrier, and are issued after a hearing on the merits of a petition. The court may order a variety of remedies including that the carrier "participate" in education, counselling, treatment, medical testing, and monitoring, and that the carrier live in a supervised setting or be committed to an institution.

As with the other items in the enumeration clause, it is unclear how this order-violation provision fits into the health threat to others determination.²⁸⁵ This item is best understood as a factor which may be taken into account in making the last resort/predictive determination.

Evidence of an order violation would be available only where the carrier previously had been found to present a health threat to others in a proceeding under the Act. If the carrier violates a provision of the final order in that proceeding, the commissioner might desire to return to court, presumably to seek different, perhaps more restrictive, relief.

Evidence that the respondent had violated a previous remedial order would be of direct relevance in determining what remedy would be appropriate in the current proceedings. In particular, the violation could be relevant to determining what level of intervention would be necessary in order to change the respondent's behavior.²⁸⁶

A key function of the health threat to others determination is

282. MINN. STAT. § 144.4180, subd. 1.

283. *Id.*, § 144.4182, subd. 1; *id.*, § 144.4183, subd.3.

284. Apprehend and hold orders may direct a health officer or peace officer to take a person into custody for "observation, examination, testing, diagnosis, care, treatment, and if necessary, temporary detention." *Id.*, § 144.4181, subd. 1. Even if such an order were construed as an order directed at the carrier, it is an interim order which can be entered *ex parte*. It would seem impermissible bootstrapping to denominate a violation of such an order a "health threat to others."

285. See *supra* notes 265-66 and accompanying text for a list of possible options.

286. The court is limited to ordering the least restrictive intervention which can accomplish the Act's goal of limiting or controlling the spread of HIV. MINN. STAT. § 144.4180, subd. 3. A violation of the relief granted in a previous order is probative of the need for different relief, though not necessarily more restrictive relief.

to identify carriers whose behavior demonstrates that they are substantially likely to place others at risk of exposure to the disease. A history of recent risky behavior is predictive of future risky behavior.²⁸⁷ Behavior which is violative of a court order does not, *ipso facto*, pose a risk to others, and thus does not share that predictive power.

Behavior which is violative of a court order measures a person's ability and willingness to obey the order. This has only a contingent relationship to the person's ability and willingness to avoid placing others at risk of exposure to a disease. Violation of a court order may indicate a general inability or unwillingness to respect authority. Or, it may indicate an inability or unwillingness to comply with public health directives. In either case, the public's health is at risk only if, in addition to disrespecting court orders, the respondent acts to put others at risk of exposure to the disease.

If the order-violation provision of the Act is interpreted as providing an independent basis for the health threat to others determination, the risk of adjudicative error will increase.²⁸⁸ This provision should be interpreted narrowly as providing for the permissive consideration by the court of order-violations as a factor in making the health threat to others determination. As with other behavior, this behavior should be given weight only to the extent that it is independently predictive of future risky behavior.

CONCLUSION

The Minnesota Health Threat Procedures Act is one legislature's attempt to address the harm posed by individuals who spread infectious disease. The Act embodies the resolution of two major tensions. The first tension is the conflict between individual and collective rights. The second involves the arena

287. See *supra* notes 276-77 and accompanying text.

288. Suppose the court makes a determination in the first proceeding against an individual to the effect that the person will engage in harmful behavior unless he is required to attend an educational program. Suppose further that the determination is erroneous, in the sense that the person will cease risky behavior even without attending the educational program. If the person ceases the risky behavior, he does not pose a threat to others which could justify intervention. But if, having ceased his risky behavior, he decides to cease attending the educational program as well, he will have violated the court's order. If order violating behavior provides an independent sufficient basis for a health threat to others finding, the court's original error could be propagated into a second proceeding.

in which that conflict is to be resolved. It has been the thesis of this Article that the legitimacy of this Act is attenuated by its failure to resolve clearly the first of these tensions. The Article has argued that the threshold criteria for intervention lack clarity. This lack of clarity compromises the resolution of the conflict between individual liberty interests and the state's interest in protecting its citizens from harm.

The second tension underlying the Act is perhaps more fundamental. It is the tension between the utilitarian and deontological justifications of coercive state action. Under the utilitarian view, state coercion of individuals is justified if the benefits to the society outweigh the harm to the rights of the individual. Under a deontological analysis, coercion is justified only if it is "deserved" by the individual. At the level of policy, the public health approach to problems represents the utilitarian view, whereas the imposition of criminal sanctions for harmful behavior corresponds to the deontological approach. At a more philosophical level, the utilitarian approach justifies coercive action as a means to a certain end, the preservation of public health. The deontological approach demands that people be treated as ends in themselves, and that coercion is justified only if it is deserved. The Act has clearly opted for a utilitarian, public health approach to the problem of recalcitrant carriers of infectious disease. Though this may seem to be the choice for a benign, enlightened approach to the problem, there is a worrisome aspect of the choice which must be acknowledged.

In its mildest form, the public health approach is indeed benign. It envisions the provision of counselling, education and services to assist people in avoiding dangerous behavior. In its severest form, though, the public health approach embodied in the Minnesota Act authorizes an extraordinary remedy — non-criminal preventive detention — for a serious but plainly ordinary variety of dangerous behavior. This remedy is worrisome because it extends the reach of noncriminal preventive detention beyond its traditional limited reach.²⁸⁹

Preventive detention is a familiar form of social intervention. In ordinary situations, its reach is limited to protecting society against behavior which is not under an individual's control.

289. See Altshuler, *Preventive Pre-Trial Detention and the Failure of Interest-Balancing Approaches to Due Process*, 85 MICH. L. REV. 510 (1986).

This is the reach of the civil commitment laws. To the extent that the Act is limited to intervention of this sort, it shares the legitimacy of civil commitment laws.²⁹⁰

But the Act extends its reach beyond uncontrollable behavior, and seeks to prevent future dangerous behavior which is under the individual's control.²⁹¹ The Act, in short, gives the State the authority, without a criminal conviction, to confine competent adults for indefinite periods to protect against the threat of future dangerous acts.

The principle which underlies this exercise of state power is dangerously expansive. If noncriminal preventive detention is justified by the prediction that a person will expose others to HIV, would it not be justified by the prediction that the person will drive drunkenly, engage in armed robbery, or engage in domestic violence? And if the latter, does this not entirely wash away the fundamental notion underlying our criminal justice system, that imprisonment is justified only to the extent that it is the just desert for past criminal conduct proved beyond a reasonable doubt?²⁹²

It might be argued that the extraordinary harm posed by an epidemic is compelling enough to justify the extraordinary intervention of noncriminal preventive detention. But this argument fails here, because the scientific evidence does not show that preventive detention is either necessary or effective in controlling the spread of the AIDS epidemic.²⁹³

A legislative choice for criminal penalties, rather than public health intervention, as the appropriate tool for controlling behavior which spreads HIV would eliminate some of the policy problems posed by the public health approach. So long as criminal sanctions were reserved only for those behaviors with appropriately high culpability, criminal sanctions would be deserved and hence legitimate.

For a number of reasons, however, a legislature should be hesitant to impose broad criminal sanctions for behavior which transmits HIV. Most of this behavior involves two consenting

290. See generally Dershowitz, *supra* note 245.

291. Cf. *State of Minnesota ex. rel. Pearson v. Probate Court*, 205 Minn. 545, *aff'd*, 309 U.S. 270 (1940) (state's attempt to confine individuals for uncontrolled, though not uncontrollable sexual acts would raise constitutional problems).

292. See generally Zimring & Hawkins, *Dangerousness and Criminal Justice*, 85 MICH. L. REV. 481 (1986).

293. See *supra* notes 37, 39 and accompanying text.

adults, which is not consistent with the high level of culpability generally thought necessary for criminal sanctions. People who are HIV-positive are already potentially victims of a deadly disease. They may also be highly stigmatized because of the implications about sexual and drug behavior many draw from HIV infection. Criminalizing their behavior would add further to the stigma and suffering of the disease.²⁹⁴ Further, whatever culpability is otherwise associated with engaging in risky behavior is negated by the absence of knowledge, counselling, financial resources, treatment or other supportive services. These services may be necessary in order for an individual to abstain from risky behavior.²⁹⁵ Finally, a legislature might consider graduated incremental public health intervention to be more benign and more effective than the relatively inflexible sanction of imprisonment available in the criminal justice setting.

In short, both the public health and criminal sanctions approaches have serious shortcomings. However, those shortcomings appear to be complementary. The difficulties with the public health approach appear most strongly where the culpability of the behavior is the highest. Conversely, criminal sanctions are the most questionable where culpability is more doubtful.

These shortcomings suggest that a coordinated public health/criminal sanctions approach to the problem might have the most legitimacy. Public health intervention should be of limited intrusiveness, and should be aimed at providing the assistance needed by individuals to avoid risky behavior. Public health intervention should not include involuntary confinement or commitment except on an extremely limited basis, or in circumstances which would justify commitment for mental impairment. If the society deems certain risky behavior to be highly culpable, people who engage in that behavior should be held responsible for it in the same way that people are held responsible for other highly culpable behavior, through the structured protections of the criminal justice system, and only after public health interventions have failed.

The Minnesota Health Threat Procedures Act attempts to

294. See McGuigan, *supra* note 8, for a persuasive argument against criminalizing behavior on the grounds that it promotes the transmission of HIV.

295. See *supra* note 70 and accompanying text.

make the public health system carry the entire burden of protecting society against acts which transmit HIV. Public health intervention, with its justification in the utilitarian calculus, ought to have a more limited role. The Act's failure to acknowledge the limits of utilitarian intervention compounds its failure to clarify the intervention thresholds against which the calculus is measured. The values competing in this area — human liberty and autonomy, the health and safety of the public and of individuals — are too important for such a clouded resolution.

