Human Immunodeficiency Virus (HIV) Testing Life Insurance and the Law: A Medical Director's Perspective

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THE NATURE OF THE THREAT — OVERVIEW OF THE HIV PANDEMIC

Introduction: The worldwide epidemic of human immunodeficiency virus (HIV) and related retroviruses is a national and international health problem of extraordinary scope and unprecedented urgency. The name "human immunodeficiency virus" has replaced the earlier names for the "AIDS virus" including "lymphadenopathy — associated virus" (LAV) and "human T — lymphotropic virus type III" (HTLV-III). The related retroviruses include LAV-2, HTLV-4 and other recently recognized retroviruses which are related to HIV. In this paper (HIV) stands for all of these viruses. In addition, HIV infection refers to the gamut of clinical entities from the asymptomatic (HIV infected) person to overt AIDS.

HIV is the etiologic agent of the acquired immunodeficiency syndrome (AIDS) which was first described in the United States in 1981.[1] The Centers for Disease Control (CDC) in the U.S. has adopted the following definition for acquired immunodeficiency syndrome:

- Presence of reliably diagnosed disease at least moderately indicative of underlying cellular immunodeficiency (Kaposi's sarcoma in a patient under 60 years of age, pneumocystis pneumonia, other opportunistic infections).
- Absence of known causes of underlying immunodeficiency and of any other reduced resistance reported to be associated with the disease (immunosuppressive therapy, lymphoreticular malignancy).

The HIV retrovirus that causes AIDS and related diseases was described in 1983.[2,3] It has been isolated from blood, semen, urine, feces, bone marrow, tears, breast milk, saliva, cervical secretions, cerebrospinal fluid, brain and lymphnode tissue. Modes of transmission include sexual contact, shared contaminated needles, infected blood or blood products, infected organ or tissue transplants, across placental membranes during delivery,[4] and infected breast milk.[5] Casual non-intimate human contact has not been incriminated.[6]

Epidemiology: The AIDS epidemic is different from any that has been recorded in history. All prior epidemics were short in duration, usually weeks from infection to clinical outcome. In contrast, the time between infection with HIV to the onset of symptoms (latency or incubation period) ranges from months to five years or longer.

Because of the long latency period, rates of incidence of HIV infection have not been precisely predicted in the U.S. population. However, the Surgeon General and the Public Health Service estimate a prevalence reservoir of 1.0 to 1.5 million infected persons. These are expected to yield over 200,000 AIDS cases by 1991 (range 150,000 to 700,000 total cases[7,8]). By April 1988, however, more than 59,000 cases of AIDS were reported with over 33,000 deaths.[9]

Demographic factors associated with HIV seropositivity were demonstrated by Burke *et al*[10] among over 300,000 U.S. recruits for military service, October 1985 to March 1986. 460 were HIV positive as determined by Western (immune) blot reactivity. The mean prevalence of HIV infection in this population of teenagers and young adults was 1.5 per 1,000. Age, black race, male sex, residence in a densely populated county, and residence in a metropolitan area with a high incidence of the acquired immunodeficiency syndrome were the demographic factors found to be significant independent predictors of a positive HIV-antibody test by multivariate analysis. HIV positive applicants were found in 43 of 50 states. Counties with high prevalence rates for HIV (75 per 1000) were located in New York state (four counties), New Jersey (three counties), California, (two counties), Maryland (two counties), and Texas, Colorado, and Washington, D.C.

AIDS is an enormous global problem. It is particularly prevalent in Central Africa where it was first noted in the 1970's.[11] The virus, transmitted primarily heterosexually, had killed at least 50,000 and infected two to five million others. By the end of 1986 AIDS had been reported in 85 countries with particularly heavy concentrations in Western Europe, Brazil, the Philippines and Haiti.

The World Health Organization Special Programme on AIDS[12] (WHO.SPA) has estimated that in excess of 100,000 people have contracted AIDS, 1,000,000 have AIDS-related disorders and 10,000,000 are infected and capable of spreading HIV.

TRANSMISSION, PATHOGENESIS AND NATURAL HISTORY OF HIV

Transmission: The United States cumulative AIDS cases summary reported to the CDC by transmission categories current to April 1988 is presented in the Table. The total (reported) number of all cases is 59,287 of which 33,060 have died. Homosexual mode and intravenous drug abusers represent the most significant percentages (89). The heterosexual

population accounting for 4% of the known prevalence has remained stable since January 1988 although the cumulative number has increased to 2,392 cases.

Table

AIDS
Cumulative United States Cases Reported to CDC
11 April 1988

Transmission Categories Adults/Adolescents	Males Number %	Females Number %	Total Number %
Homosexual/Biosexual Male	37159 (69)		37159 (64)
Intravenous Drug Abuser (IV)	8308 (15)	2319 (51)	10627 (18)
Homosexual Male and IV Drug Abuser	4325 (8)		4325 (7)
Hemophilia/Coagulation Disorder	559 (1)	23 (1)	582 (1)
Heterosexual Cases	1079 (2)	1313 (29)	2392 (4)
Transfusion, Blood/Components	929 (2)	499 (11)	1428 (2)
Undetermined	1455 (3)	387 (9)	1842 (3)
Subtotal (% of ALL Cases)	53814 (92)	4541 (8)	58355 (100)
Children (under age 13)			
Hemophilia/Coagulation Disorder	50 (10)	2 (0)	52 (6)
Parent with/at risk of AIDS	355 (71)	362 (84)	717 (77)
Transfusion, Blood/Components	77 (15)	51 (12)	128 (14)
Undetermined	19 (4)	16 (4)	35 (4)
Subtotal (% of ALL Cases)	501 (54)	431 (46)	932 (100)
Total (% of ALL Cases)	54315 (92)	4872 (8)	59287 (100)

Hearst and Hulley[13] have estimated the risk of HIV infection from a single unprotected heterosexual contact, and from 500 contacts with the same seropositive person over a 4½ year time frame. The risk is 1 in 500 and 2 in 3 respectively. They conclude that while prevention by awareness and avoidance of high-risk partners is the only available strategy, nevertheless, testing will become more important if HIV prevalence increases in low-risk populations. Recent cost-benefit analysis of premarital screening for HIV by Cleary *el al*[14] suggests that it would be grossly inefficient. However, Osborne[15] recognizes the awesome severity of the situation in the New York City area where the rates of seropositivity in men and women 18 to 25 years of age are nearly equal and approach two percent.

Although the fate of people with HIV infection is only partially defined, the presence of HIV antibodies indicates the potential for transmission. This follows from the fact that HIV integrates its genome into the host cell genome, with the result that once one is infected, one is always infected and infectious, unless an effective treatment is developed.

Pathogenesis: Clinical presentation of HIV infection depends on the integrity of T-helper cells and T cell immunity.[16] The pathogenetic hallmark of the immunodeficiency in AIDS is a depletion of T_4 + helper/inducer lymphocytes according to Bowen *el al.*[17] Klatzmann and his associates[18] first showed the selective tropism and replication for HIV in this population of lymphocytes.. With HIV replication the T_4 + cell is killed. Being a central figure in the immune response, even a selective depletion of the T_4 + cell population can result in a compromised immune system leading to the morbid opportunistic infections characteristic of AIDS and AIDS related complex (ARC).

Weeks to months after infection, antibody to several HIV proteins develop. Paradoxically these are not only not necessarily protective but a persistent viremic carrier state exists despite the presence of antibody. In addition, neurologic disease appears to be a direct result of HIV induced destruction of brain cells according to Petito *et al.*[19] For a detailed review of the mechanisms of disease, the reader is referred to the excellent technical paper by Ho *et al.*[20]

Natural History/Walter Reed Staging Method: Once infected, a number of HIV - associated outcomes have been distinguished and are characterized by the "Walter Reed Staging Method".[21] Staging reflects the manifestation of HIV infection from the asymptomatic carrier state (with viremia or anitbody or both), through chronic generalized lymphadenopathy, to sub-clinical and clincial T-cell deficiency.[22] It allows categorization of a progressively morbid spectrum of virulent clinical expression ending in death. The Walter Reed Staging Method parallels the Frankfurt Study[23] which prospectively observed 543 subjects in high risk groups through six progressive stages from apparent good health to death.

The "Walter Reed Staging Method" may be divided into five classifications as follows:

1 a Healthy persons at risk for HIV infection, but testing negative.

1 b Otherwise asymptomatic persons testing HIV positive.

2 a Patients with HIV and lymphadenopathy syndrome (LAS), together with moderate cellular immune deficiency.

2 b Patients with HIV infection and LAS, together with severe cellular immune deficiency (AIDS-Related Complex, or ARC, as defined by CDC).

3 Patients with AIDS as currently defined by CDC.

The sixth and final stage is death.

In the Frankfurt study, a sufficient number progressed from HIV infection or from a more serious stage of the disease to one or more successively worse stages, or to death, to enable the results from one stage progression to the next to be linked together. The study describes the 5-year survival of a cohort of newly seroconverted HIV subjects to be approximately 80%, 10-year survival is approximately 40% and 15-year survival, 20%.

Lethality of AIDS: As of April 1988, the CDC reports that 33,060 out of 59,287 cumulative (reported) cases of AIDS

had died from their disease. The mean number of months from diagnosis to death is less than twenty-four according to Bacchetti *et al* (previously cited).[22] Also, more than 80% of all U.S. AIDS cases who have been diagnosed as having the disease for 3 or more years have died (Hardy, previously cited).[23]

It appears that the only factor of significance in the progress of the disease from HIV infection to AIDS is time. The National Cancer Institute (NCI) Study[24] showed an even more rapid progression of immune system impairment than did the Frankfurt Study clearly supporting the poor longevity prospects of HIV infected people. Stated another way, even under the most favorable conditions, mortality patterns of HIV infected populations bear no meaningful relationship to standard mortality in the general population nor to that of insured lives with fewer than one survivor in twenty after eight years.

PROJECTIONS: THE HIV PANDEMIC

Despite inescapable uncertainties regarding progression, scope, natural history, vaccine development and social and political reactions to the HIV pandemic, WHO.SPA for planning purposes made the following assumptions for the period 1987-91:

- HIV infection will continue to spread and HIV prevalence will increase in already affected areas,
- 500,000 to 3 million new AIDS cases may occur during the period 1987-91 among persons already infected by HIV in 1986,
- The majority of HIV-infected persons will develop AIDS or HIV associated disease (including HIV neurological problems) during the 5-10 years after infection,
- Additional health problems, most probably including cancers and autoimmune diseases, will be recognized as complications of HIV infection,
- Worldwide, 50 to 100 million persons may be HIV infected by 1991,
- The outcome of HIV infection may be modified by pharmaceuticals,
- Vaccine will not be generally available,
- Other pathogenic retroviruses will be discovered.

HUMAN IMMUNODEFICIENCY VIRUS (HIV) TESTING

Serologic Tests: Tests to detect antibody to human immunodeficiency virus (HIV) were first licensed by the Food and Drug Administration (FDA) in 1985, primarily as screening tests for blood and plasma donation. Given the medical and social significance of a positive test for HIV antibody, test results and interpretations must be accurate and correct because these tests do not directly detect the virus. The Public Health Service[25] has emphasized that an individual be considered to have serologic evidence of HIV infection only after an enzyme immunosassay (EIA) screening test is repeatedly reactive and another such confirmatory test as Western blot (WB) or immunofluorescence assay has been performed to validate the result.

The terms "reactive" or "nonreactive" are used to describe serum or plasma specimens that give reactive or nonreactive test results and to describe the test results from EIA or WB tests before final interpretation. The terms "positive" and "negative" are used to describe the interpretation of EIA test results indicating that the specimen tested is 1) repeatedly reactive (positive) or 2) nonreactive or not repeatedly reactive (negative). The terms "positive", "indeterminate," and "negative" are used to describe the interpretation of WB test results that indicate that the specimen tested is:

- Reactive with a specific pattern of bands (Positive: a band present at p24 PLUS p31 PLUS EITHER gp41 or gp 160.)
- Reactive with a nonspecific pattern of bands (Indeterminate: any bands present but pattern does not meet criteria for positivity), or,
- Nonreactive (Negative: no positive bands).

Licensed test kits currently approved by the FDA for HIV antibody testing comprise seven EIAs and one WB. Clinical data submitted by the manufacturers to FDA for licensure indicate that the sensitivity and specificity of the EIA tests currently marketed in the United States are 99.0%.

Sensitivity is the probability that the test result will be reactive if the specimen is true positive; specificity is the probability that the test result will be nonreactive if the specimen is a true negative; and reproducibility (reliability) is the ability to replicate qualitative results with the same or similar test procedures on blindly paired samples. The predictive value of a positive or negative test is the probability that the test result is correct. In routine use both the sensitivity and specificity of the tests depend on the quality of laboratory testing.

For the licensed WB test interpretation of reactive and nonreactive tests is based on data from clinical studies submitted to FDA for licensure. When the manufacturer's stringent criteria are used for interpreting test results, the probability of either a false-positive or false-negative result is extremely small. Dr. James Allen,[26] of the CDC stated:

- "When the total sequence of testing...repeating the EIA test for all specimens with initially reactive results, performing a Western blot test with stringent interpretation of test results, and repeating the Western blot test for a second specimen if results are equivocal...is performed by a qualified laboratory, the probability of a false-positive test in a population with low prevalence of infection is approximately 0.001% (1 in 100,000)."

HIV-Antibody Testing Accuracy: The accuracy of HIV-testing in low-risk populations has been questioned by Meyer and Pauker[27] and Lawrence Miike[28] of the Office of Technology Assessment (OTA). They predict that an increasingly high percentage of false-positive test results can be expected. They did not explicitly mention HIV-antibody testing by the laboratories of life and health insurance companies. Burke,[29] however, is a strong advocate of testing in low-risk populations citing the military experience. The Department of Defense (DOD) has screened more than 1.4 million civilian recruits for military service and 800,000 personnel in training and on active duty. 0.16 percent of the men and 0.06 percent of the women were noted to be seropositive (overall prevalence for HIV infection was 1.5%). The overall false-positive rate in this low-risk population was 1 in 135,000 people or (0.001%).[30] In testifying before House of Congress members, Burke cited the Army's rigorous quality assurance/risk management control over their processing laboratories as important factors in the accuracy of their tests.[31]

Blood-banking experience in Minnesota shows a still lower false positive rate: one possible false positive in 455,725 tests, or 0.0002%.[32]

Assuming an HIV prevalence of 1% and a joint false positive rate of 0.001% (the product of a repeat-EIA false positive rate of 0.4% and a WB false positive rate of 0.24%), it appears that HIV antibody testing by insurers can achieve extremely high levels of specificity (99.999%) with positive predictive values of 99.9%. Life and health companies utilize only the highest quality laboratories (Home Office Reference Laboratory, GIB Laboratory or Clinical Reference Laboratory in Kansas). These are federally licensed, proficiency tested by the College of American Pathologists as well as the American Association of Bioanalysts, and inspected by the U.S. Department of Health and Human Services. Both laboratories use the standard EIA-EIA-WB protocol and both use the federally-licensed duPont WB kit, which has a specified criterion for its interpretation.

The basic fact remains that regardless of prevalence, with a false positive rate of 0.001%, for every 100,000 uninfected persons tested, there would be only one who would be unfairly stigmatized, an extraordinarily low number indeed.

Results of Testing To Date: Home Office Reference Laboratory (HORL) is reporting an overall seropositive rate of 0.3% (3 in 1000). GIB Laboratory reports 0.45%. These are raw data and do not differentiate between seropositivity for routine screening and testing for cause.

Recently, the use of the newer and highly specific Biotech/DuPont Western blot test can be expected to yield a higher indeterminate result: over 80% of results will remain unchanged, 4% of previously positive results will now be indeterminate and about 10% of previously negative tests will be called indeterminate. Another 6% of negative test results will be positive. Repeat indeterminate tests performed four or more months apart can be considered negative according to CDC criteria.

Surrogate Test/HIV Antibody Correlation: Since some states do not allow HIV antibody testing or are considering legislation to prohibit antibody testing, surrogate testing protocols have been developed by many insurance companies. Both the "T-cell" test and B-2 microglobulin test are reasonable markers for an impaired immune system. They are, however, considered non-specific by the American Council of Life Insurance (ACLI)[33] and there is vey poor correlation between an abnormal surrogate test and HIV antibody reactivity. This was confirmed by a small study published by Gregg and Roberts[34] who determined that the best correlation between HIV seropositivity and T-cell abnormalities occurs when the T4/T8 ratio is less than 1.0, the relative percentage of T4 is less than or equal to 35% and the relative percentage of T8 is greater than or equal to 35%. If these three criteria are all present, the positive predictive value of T-cell testing is approximately 13%. Melbye *et al*[35] concluded that HIV infection had an adverse impact on T-cell subsets in most infected persons and that an inverted T-helper/T-suppressor ratio (T4/T8) was a strong predictor of AIDS in seropositive men. However, due to low sensitivity and specificity inherent in surrogate testing and the resultant high degree of false positive (and false-negative) results, their usefulness as screen tests are questionable. According to Ruggieri, surrogate tests are useful in their ability to reflect immunologic dysfunction from any cause, and to announce the morbid progression of pre-existent HIV infection.[36] Paradoxically, in advanced AIDS cases, HIV antibody testing may be negative with quite compromised T-cell subsets reflecting severe immune system impairment.

Another approach to the possibility of detecting HIV infection is to screen for other sexually transmitted diseases (STD) as potential markers. Bove[37] discusses the risk that a high percentage of HIV antibody-positive reactors have serologic evidence of prior hepatitis and other illnesses such as cytomegalovirus, herpes, chlamydia and Epstein Barr infection. Although a history of these illnesses raises underwriting suspicion, their lack of specificity precludes their diagnostic use.

INDIVIDUAL LIFE INSURANCE

The Burden of Risk: Risk can be defined as a compound measure of the probability and magnitude of adverse effect. In short, it is the chance for harm. The primary function of insurance is the creation and indemnification of the counterpart of risk (security), by shifting risk from the individual to the group, and, equitable loss sharing by all members of the group. Premium rates are based on life expectancy commensurate with the risk. The classical elements of an insurable risk include the following factors: 1) a large risk pool of homogeneous exposure units to make the losses reasonably (actuarily) predictable, definite and measurable, 2) the loss should be fortuitous, accidental and beyond the control of the insured to avert the tendency toward adverse selection (accumulating bad risk), and 3) the loss must not be catastrophic; the assumption is that only a small and random percentage of the group (1-3%) will experience standard mortality at any one time.

Comparing the impact on mortality of HIV as against other illnesses illustrates why HIV infection is a significant challenge to the insurance industry. The mortality rate of those with severe coronary artery disease is four to five times higher than standard, diabetics experience four times and smokers twice the standard rate. In contrast, HIV infected people experience a mortality rate 26 times higher than standard and premium pricing cannot reasonably reflect this risk. Most companies will decline these applicants because they cannot afford to bear this risk. The reader is referred to Cowell's excellent review of AIDS mortality and its impact on insurance underwriting, pricing and company solvency.[38]

Since permissibility of HIV testing is the most crucial AIDS-related issue facing insurance regulations today, a brief review of the "pros", "cons" and alternatives to testing will be examined.

The "pros" of HIV Testing by Insurers: Testing allows: 1) accurate assessment of insurable risk and a ban would violate the general rule that insurers may evaluate the possibility of claims and set premium prices accordingly, 2) control over "adverse selection" by negotiating on equal terms with applicants who may be aware of their HIV-antibody status, 3) prevention of subsidization of those at high risk by the majority of policy-holders who are virtually at no risk from getting AIDS, 4) prevention of an unfair premium liability in the demographic groups in which HIV illnesses is most common — males between 20 and 40 years of age, 5) the Public Health potential (with informed consent) to share the results of positive tests with the applicant's physician for counselling, medical follow-up and risk-reduction to uninfected but vulnerable third parties.

The "cons" of HIV Testing by Insurers: 1) Positive HIV tests do not necessarily equate with overt disease; nevertheless, within the framework of the pathogenesis and natural history of HIV related illnesses, positive tests do have significant and measurable actuarial predictive value. 2) Positive HIV tests may be considered discriminatory markers for traditionally disfavored minority groups resulting in loss of access to employment, insurers, school, housing, etc. 3) Positive HIV tests do not argue for the "theory of adverse selection" because increased risks (and resultant premium increases) will be equitably distributed by the insurance industry as a whole thereby limiting individual insurance company competitive advantage. This appears unsound in a free market economy for several reasons: first it implies unfair "protectionism" of a small sub-set of the population at the expense of society in general. Secondly, preferential treatment of HIV positive people discriminates against insurance applicants with an array of other disease who may be rated as substandard or declined outright. 4) HIV testing may pose a serious danger to confidentiality. As commonly understood, this is descriptive of an express or implied agreement of non-disclosure of information.

Confidentiality and the Medical Information Bureau: The presence of HIV positive antibodies is reported to the Medical Information Bureau (MIB) as a blood abnormality not specifically named, to further protect the applicant's privacy.

The protections against disclosure of MIB information have never been breached. Review of MIB information by anyone other than the tested person can come only after lengthy legal proceedings.

It is remarkable indeed that in an industry as information hungry as insurance, breaches of confidentiality are rarely reported.

Testing Alternatives: First, no testing! In a real sense the insurance business approaches being the "ideal industry" because by regulation its premium structure is experience-rated (claims-adjusted). However, experience-rating is not effective here because it is impossible to accurately predict future increases in costs and claims without testing because of the very long latency period of the virus. In this circumstance, insurers should consider increasing their claim reserves for AIDS.

Concerning degree of liability and life company solvency, the Cowell-Hoskins study for the Society of Actuaries, projected a $50 billion price tag by the year 2000 on EXISTING policies alone.[42] The second component of the financial impact is the additional risk from writing new business. Approximately 7.5 million individual life policies were written in 1987 for males ages 20 - 59 (over $1 trillion). With no testing, approximately 55,000 policies would have been issued to HIV infected people with an immediate AIDS claim liability of over $2 billion. At a 5% rate of growth projected to the year 2000, a $20 billion liability can be expected from AIDS amounting to 10 - 15% of the total claims.

Second, issue life contracts with exclusions for HIV associated conditions. This would eliminate the potential for antiselection and catastrophic risks and allow coverage at standard rates of expected mortality. Premium would continue to reflect the principle that an insured pays only for the risks he or she adds to the pool (exclusive of HIV infections).

Third, desist from writing new business in high risk areas. The District of Columbia in 1986 approved the most restrictive legislation concerning insurer AIDS testing in the country. As a result, 80% of insurers do not issue new policies but do honor their commitments to existing policyholders.

Fourth, assist in establishing state pools for AIDS related costs to make coverage available for the uninsurable. This is especially applicable to health insurance; however, fifteen states now have pools to deal with the health coverage needs of the uninsurable.

Insurance Industry Position: The Association of Life Insurance Medical Directors of America (ALIMDA) have resolved that:

- The process of screening for and the underwriting of HIV infection must be permitted to continue in order to

maximize fairness to all policyholders and to be consistent with the principles used in underwriting other diseases and conditions.[39]

The insurance industry supports the National Association of Insurance Commissioners (NAIC) guidelines published in 1986 forbidding discrimination with regard to age, sex, marital status, sexual orientation, occupation, medical history, beneficiary designation or zip-code.[40]

Public Attitudes about AIDS: The industry position appears to be clearly supported by public attitudes in the American Council of Life Insurance (ACLI) National Strategic Research Study.[41] The following survey results are highlighted:

- A clear majority of adults (68%) favored allowing insurers HIV testing,
- 63% say that for life insurance purposes, AIDS should be treated the same as other life threatening diseases,
- A majority of the public (65%) does not support a state prohibition against insurers HIV tests, except in Massachusetts where 50% favor prohibition and 45% oppose prohibition,
- 53% of the public does not favor a state prohibition against rejecting life insurance applicants who test positive. However, in Massachusetts only 42% oppose a state prohibition,
- 62% agree that HIV positive applicants should be charged higher premiums, (In Massachusetts only 51% agree),
- 68% are NOT willing to pay more for life insurance because AIDS testing was prohibited,
- Concerning confidentiality of HIV test data, a slim majority (52%) thinks that life insurance companies will maintain confidentiality,
- One-third believes that Life Companies will cancel the policies of those who become ill with AIDS. (Of course, Life Companies cannot do this.)

GROUP LIFE INSURANCE

Because of the dire aforementioned statistics, the situation is even more ominous in an industry that traditionally rates groups based on their demographics and in which most group plans were developed prior to the AIDS epidemic.[42] The basic concept of — Spread of Risk — is afforded by insuring a number of persons under one master policy contract without evidence of insurability unless the amount of individual life insurance exceeds the guaranteed-issue limit.

The phenomenon of antiselection for AIDS poses a formidable group claims problem according to a recent survey done by Nussbaum.[43] The average group life claim for all causes was about $14,000 whereas the average claim due to AIDS was more than $36,000 - more than 2.5 times greater.

The cost of group life is comparatively low because it is based on yearly renewable term insurance; however, more individual underwriting will be required in the following circumstances: 1) Small group coverage of 10 to 20 or less, 2) optional coverages, 3) late entrants, 4) credit and mass-market insurance. It appears likely that the costs of AIDS mortality will be reflected in the rates of this business generally.

HIV TESTING: LEGISLATION AND REGULATIONS

Until recently, the need for life insurers to inquire and test for relevant medical conditions affecting mortality was generally accepted without question. Since 1985, the issue of testing applicants for the presence of HIV has caused considerable controversy among the industry and state legislators and regulators. A current detailed summary of legal measures affecting the ability to underwrite for HIV related conditions has been prepared for the ACLI by Iuculano and Spiezio.[44]

Jurisdictions Which Prohibit HIV Testing: The California legislature in April 1985 enacted a law that provided that "the results of a blood test to detect antibodies to the probable causative agent of acquired immune deficiency syndrome...shall not be used in any instance for the determination of insurability or suitabiltiy for employment.[45]

The Wisconsin law effective November 23, 1985 permits HIV antibody tests to be used in individual life and health insurance underwriting after findings are made by the state epidemiologist and the insurance commissioner as to the reliability of the tests.[46] It prohibits testing for group insurance. Similarly, New Jersey prohibits testing for group insurance only.[47]

In the District of Columbia, the industry was faced with the most restrictive legislation of its kind in the country. The 1986 legislation prohibits the use of all AIDS-related tests for a five-year period, including tests for the AIDS antibody, tests for the condition of the immune system, and tests to identify the existence of the AIDS virus itself.[48] The Act further prohibits the use of personal characteristics such as age, marital status, geographic residence area, occupation, sex or sexual orientation for the purpose of predicting whether an individual will develop AIDS or ARC. Proponents of this restrictive legislation raised the predictable concerns namely: unfavorable actions based on test results is unfair to persons who never develop AIDS, also, the percentage of infected people who will get AIDS is not convincing to date; confidentiality and discrimination issues against the homosexual or bisexual population.

A Landmark Case: The rapidly developing New York situation is of major interest and importance. Briefly, on 28 August 1987, the Supreme Court of Albany County granted a stay of the effectiveness of the New York AIDS regulation,

11 NYCRR 52 which prohibits HIV testing, pending a determination of its constitutionality. On 15 September 1987, the Appellate Division of the New York Supreme Court upheld the stay (Health Insurance Association of America *et al* v Superintendent of Insurance, No. 55358). In an opinion dated 16 April 1988, the New York Supreme Court, a trial court equivalent to the Massachusetts Superior Court struck down the New York State AIDS regulation.[49] [50] The court's decision now renders this regulation "Null and Void".

The opinion containing language anchored in constitutional and statutory law was favorable to the insurance industry in virtually every area: The New York insurance superintendent lacked the statutory anthority to promulgate the regulation; the regulation was inconsistent with New York insurance law in that it violated the portion of the insurance code which prohibits any unfair discrimination between individuals of the same class; that the regulation itself was arbitrary and capricious; that the regulation was a violation of the equal protection clause under the 14th Amendment of the Consititution in that it provided HIV high-risk individuals with a preferred economic advantage over other high-risk individuals; and finally that the provision of the regulation prohibiting certain inquiries upon an application for insurance constituted an impairment of contract.

Basically, under the separation of powers, the executive branch and its regulatory agencies which fill in the interstices of legislative law, cannot create law without delegated authority of "parent statutes". While the New York Insurance Commissioner may appeal, the case is indeed a very strong one for the insurance industry.

Other AIDS Related Laws, Regulations and Bulletins: Eight jurisdictions prohibit use of HIV tests taken prior to application. These include California, Connecticut, District of Columbia, Florida, Hawaii, Maine, New Jersey and Wisconsin.

Fifteen jurisdictions require informed consent prior to HIV testing including Arizona, Colorado, Delaware, District of Columbia, Florida, Hawaii, Illinois, Kansas, Maine, Maryland, New Jersey, Oregon, South Dakota, Texas, and Wisconsin.

Four jurisdictions require prior test counseling: Kansas (pretest), Maine (post-test), Oregon (both pre and post test), and Texas (post-test).

The jurisdictions of Colorado, Delaware, Florida, Oregon, South Dakota, Texas and Wisconsin have adopted NAIC model guidelines on AIDS underwriting.

On 2 October 1987, in Massachusetts, the Superior Court for Suffolk County issued a preliminary injunction enjoining the implementation and enforcement of the Massachusetts AIDS regulation, 211 CMR 36.00, pending a determination on the merits. *(Life Insurance Association of Massachusetts, et al v. Roger Singer, Commissioner of Insurance,* Civil Action No. 87-5321. This regulation prohibits: HIV testing on health and group insurance, and use of prior HIV test history. It regulates the use of HIV tests on the following basis: 1) "Age and Amount", and 2) "For Cause." Informed consent and pre and post test counseling are required and underwriting decisions based on nationality, sexual orientation, or proxies thereof are prohibited.

For a summary of relevant legal citations with effective dates in the above jurisdiction, the reader is referred to the paper by Iuculano and Spiezio (previously cited).[44]

A MEDICAL DIRECTOR'S PERSPECTIVE

The deepening AIDS epidemic is dreadful and deadly. It is the first major infectious disease in more than a half a century that is beyond the reach of medical science. The social construction and the ethics and language of AIDS convey the deeper meanings that influence public policy, ethical judgements and personal choices.[51] [52] Crime, sin, "war", and a divided polity are idiomatic of a sense of isolation suggesting that AIDS is "someone else's problem."

At the center of this sociocultural maelstrom sits the insurance industry which has traditionally committed itself to identifying and demonstrating solidarity with, and then indemnifying the most profoundly sacred values of our secular estate: life, health, ability to work, education, possessions, the ability to retire, even the ability to be properly buried. It uses the symbol and substance of money to avoid life's uncertainties and in some measure, to guarantee a sense of life satisfaction (expectations met). It is understandable then, that private financial interests would be central to public policy formulation regarding the AIDS epidemic.

Certainly, HIV testing for underwriting must continue. However, Clifford and Iuculano,[53] and Fontana,[54] have discussed the ramifications of the numerous novel and troublesome legal, medical and social questions that interface the insurance industry and local governments. They recognize that AIDS is a societal concern that demands an integrated and equitable approach accommodating the legitimate interests of the key-players: victims, public, industry and government.

In support of egalitarian social values, it is incumbent on insurance medical directors, and the medical and legal professions to become knowledgeable on a variety of interests beyond their usual specialty ken. Equitable social consensus on the economic, medical, legislative and regulatory judgements central to the highly complex and emotionally charged HIV-testing issue, can only be reached by sharing the talents and resources of ordinarily diverse professional cultures. Collegial collaboration at all societal strata is indispensable to fair and reasonable treatment on the common issues of the AIDS pandemic.

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