

AIDS:
THE ALARMING REALITY

FOURTH EDITION

Copyrights

First Edition	March 18, 1986
Second Edition	October 16, 1986
Third Edition	June 7, 1987
Fourth Edition	January 5, 1988

by

William T. O'Connor, M.D.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the author. Printed in the United States of America.

If you are moved by the arguments and feel this sort of information needs further dissemination, please send a contribution to the address noted at the end of the manuscript. Monetary support by persons who comprehend the gravity of the issue is urgently needed and without that support the currently existing, unopposed AIDS organizations will continue to determine the course of medical and legislative responses.

Additional copies can be obtained through the HIVE Foundation at:

1-10 copies.....	\$5.00 per copy.
11-25 copies.....	\$4.00 per copy.
26-50 copies.....	\$3.00 per copy.
51-or more copies..	\$2.00 per copy.

THE AUTHOR

Dr. William T. O'Connor, M.D. graduated with honors from the University of Colorado, majoring in molecular, cellular, and developmental biology (microbiology) as well as English where he won the Jacob Van Ek award for academic achievement and community service. He obtained his Doctorate of Medicine from the University of Cincinnati with an internship and residency through the University of California, Davis. He is currently board certified, licensed in the state of California as a physician and surgeon, an assistant clinical professor at the University of California at Davis, and the medical director of a northern California clinic with six years experience in the practice of medicine. Dr. O'Connor is recognized as an authority on the topic of AIDS by print, radio, and television media as well as the United States' and the California state's legislatures where he has testified as an expert witness. He also authors a California newspaper column on medical advice in the Suisun Press Democrat.

Above and beyond these criteria, he considers himself to be a "genomist" in that he holds above all else the preservation of the human genome (that sequence of genetic material, DNA, that produces what we know and recognize to be the human species).

He contends that self-preservation translated to its ultimate intent is species preservation. As a genomist, he acts in self-defense by committing himself to oppose any threat to the human genome or any other genome necessary for its survival.

His reasons for writing about the AIDS pandemic rest in his recognition that it exists as a very real threat to the human genome. Prior to his writing, no arguments recognizing that as a fact nor even suggesting the potential for that ultimately important consequence have been advanced. The highly politicized AIDS epidemic has been viewed largely in terms of its status as a disease that kills existing human beings: however, it must be interpreted on a higher plane of significance since it threatens the very DNA of our species.

INTRODUCTION

Without reservation and despite any reassurances to the contrary, the viral disease commonly referred to as AIDS (Acquired Immune-Deficiency Sndrome) is an awesomely frightening and ominously immediate threat unparalleled in human history. Numerous realities of this disease have been selectively ignored and misrepresented to the public enough to detrimentally alter their perception of this pandemic, leading the average individual to believe that they are not personally at risk. This is, in part, due to the inadequate and misconceived response on behalf of Public Health Officials as well as an incessant preponderance of biased, overly optimistic information being disseminated by the media and AIDS organizations.

An anxiety provoking uncertainty pervades current objective thought when a disease Americans were told would not effect them continues unabated to the point where two World Health Organization studies independently predicted that 50 million Africans will acquire the disease by 1992. In New York City it is the leading cause of death for males between the ages of 24-44 and for women aged 25-34. When a disease known to science for just 6 years has been diagnosed in over 35,000 Americans, has killed over 17,000, and estimated to have infected up to 1.5 million, one must constantly question the appropriateness of the response. The response, thus far, has been characterized by a conscious pattern of deception and denial promoted by those who feel the need to protect the public from hysteria generating information.

When AIDS "experts" make statements that cannot be supported with acceptable evidence it is, in essence, lying. Upon countless occasions, respected officials, researchers, and media personalities have made statements with an inordinate degree of confidence that later were demonstrated to be false. When proof became available to demonstrate those fallacies, the average person responded with confusion, anxiety, then fear since it was obvious that an implied trust had been violated. Most people are not so ignorant that they fail to recognize when they have been misled; but, since none of them have the authority to cross-examine or hold accountable the authors of those flagrant misrepresentations, they can only turn within themselves to their darkest hysterical fears--herein is given cause for

those fears to be justified.

THE DISEASE

The disease commonly referred to as AIDS (Acquired Immune Deficiency Sndrome) is caused by a virus. Once the virus gains access to the body, it destroys the cells responsible for defending the body from most of the micro-organisms that exist in the environment; and the person is slowly killed by the virus' invasion of the body itself, a multitude of contagious diseases, and/or many of the bacteria, fungi, and viruses that usually cause minor disease in other people.

When a person is initially infected they feel no immediate symptoms yet become a carrier for the disease and are considered to be infectious. Many develop a flu-like illness with fever, rash, and lymphnode enlargement usually within 3 to 6 weeks. The overwhelming majority also develop an antibody response in 8 to 12 weeks. An antibody response is when the infection fighting cells of the body create proteins that try to attack the virus. The main failing is that by the time an antibody response is generated, the virus has already secured too firm a foot-hold inside numerous cells of the body for those defenses to rid the body of the virus. The most treacherous aspect of this so-called carrier state is that an infectious person can go for months or even years without any other symptoms; but their immune systems appear to be progressively degenerating over time so that eventually they lose the ability to defend themselves adequately from nearly every infectious disease known to infect humans. The progression of illness appears to be relentless. The infected usually progress on to suffer from a chronic wasting condition called ARC (AIDS Related Complex) characterized by weight loss, night-sweats, fatigue, chronic diarrhea, and psychiatric disturbances, then later develop the end-stage state that has historically been termed AIDS.

AIDS is a multi-faceted illness that is most commonly characterized by (but not limited to) the acquisition of unusual infections such as pneumocystis carinii, yeast, or rare forms of tuberculosis that don't routinely destroy persons with normal immune systems. The horror of the disease is that most become demented or can be agonizingly digested by the same yeast that would only cause a mild rash on a baby. A herpes "fever blister" can race through the entire body until the person is covered by the painful sores; or the person can slowly suffocate by their lungs filling with tiny one-celled animals that normally live almost anywhere water collects in the environment. After the first diagnosis of one of these opportunistic infections, 80% of the patients die in three years with 50% dead within 18 months.

Imagine for a moment being forced to witness this happening to a loved one or yourself. Make no mistake about it, it is one of the most

macabre ways a person could imagine dying; and those afflicted deserve all the compassion and empathy a humane person can muster.

There is no reprieve once the virus successfully infects the body. There are no published reports demonstrating that a person has eradicated the virus from their body or recovered from the disease. There are treatments for the various diseases that come as a consequence of the virus; but the underlying immune deficiency remains, insidiously waiting for the next infection to come along. There are some therapies available now; but, at best, they only prolong survival, having often to be stopped because they are so toxic to the patients. New medicines will probably be developed to slow the advance of the virus infection; however, there is no cure on the medically foreseeable horizon.

THE VIRUS

In order to appreciate the magnitude of the threat posed by the AIDS pandemic, one must understand the elegantly dangerous intricacies of the virus accepted to be the agent responsible for the disease. The virus has been named Human Immunodeficiency Virus (HIV or HTLV-III or LAV-I) and is characterized as a retrovirus by virtue of its intrinsic ability to effect the manufacture of new DNA (genetic or chromosomal material) from its own genetic material (RNA) with an enzyme known as reverse transcriptase. This may sound complicated to some. However, it simply means that when a person is infected, the virus enters a cell and takes over the cellular mechanisms responsible for the production of human DNA, forcing the creation of the virus's genetic material which is then incorporated into the chromosomes of the infected person. Simply put, it changes or mutates that human's genetic code, forever.

Once incorporated into the person's chromosomes (and for all intents and purposes, a positive antibody test signifies that this process has occurred), that person's cells have the capacity to make more virus which can go on to infect other cells and other people. By virtue of that reality, it can be said that there is no foreseeable medical technology to produce a cure. A cure would entail going inside a cell's nucleus and selectively incapacitating, removing or destroying the virus's DNA (which only differs from human DNA by its arrangement or sequencing of molecules) while preserving the human DNA. Any medicine that kills the virus' DNA would be toxic to the infected person's DNA as well. If such a technological feat could be accomplished, all cancers and genetic diseases would be cured. In that sense, currently, the disease can be seen as an incurable, contagious mutation.

This is the principle reason why the Herpes virus cannot be eliminated from the body once it has gained a foothold. It, too, incorporates itself into the DNA of nerve cells; and, thus far, science has only been able to develop medicines that interfere with the production of the virus itself (and the disease to some degree can be reduced in severity). So, for AIDS, like Herpes, there is no foreseeable cure given medical science's abilities at this time. What

one is dealing with in AIDS is a disease that will be equally as difficult to cure and similarly transmitted as Herpes. Should this disease become as ubiquitous as Herpes, one has reason to fear for the majority of the human race.

Ironically, its incurability makes any treatment that prolongs the life of an infected person a two-edged sword. The longer the carriers live, the longer they can infect other persons especially if they show no outward signs of the infection. Recent clinical trials of AZT (Azidothymidine) have shown it can prolong survival in AIDS patients but doesn't significantly reduce the virus concentrations; and, presumably, the infectiousness is unchanged. An extension of life comes as good news for the infected; but the epidemiologist concerned about the remainder of the species, however, must look upon it as also prolonging the period in which the carrier is infectious, thereby, increasing the reservoir (existing number of infectious individuals in any population) of the disease. For that reason, any therapy that is not combined with an insurance that the person will not continue to spread the disease (by whatever means) is ultimately not beneficial since it has the potential of only increasing the amount of disease and total numbers of persons who will eventually become infected in any given population.

Never before in the annals of human medicine has there been documented a fatal retrovirus infection of this magnitude and lethal potential. No one who has been infected has ever been demonstrated to have reverted to the virus-free state or recovered from AIDS. Moreover, no prior viral disease has been recognized that principally exercises its fatality by directly destroying the immune system of humans, thereby preventing those persons from defending themselves from the constant onslaught of certain bacteria and disease producing organisms which the human species has been previously successful in combating.

The origin of this virus as a human killer is speculative; but the currently accepted explanation gives researchers another cause for alarm. It is believed to have been previously prevalent in African green monkeys but probably underwent a mutation allowing it to traverse the species barrier to infect humans. This event imparts a major dreadful consequence seen many times before in viruses suddenly able to infect previously unexperienced species (Lassa fever, Marburg Disease, and Ebola hemorrhagic fever). The newly attacked species often has little or no genetic defenses capable of thwarting the invader; and the population is decimated. Also, in diseases of this nature, the newly infected individuals either die so immediately or create an immune response rapidly enough to result only in a transient viremia (temporary virus in the blood) that gives too little time to spread or sustain major epidemics. AIDS, however, is characterized by a permanent viremia (perpetual virus in the blood), resulting in a prolonged infectious period and a self-sustaining epidemic. It is only a matter of time before enough infected individuals in the population make it statistically impossible to prevent the remainder from becoming likewise contaminated and the chances for species survival may be significantly reduced. Addressing this issue, J. Seals in the Journal

of the Royal Society of Medicine, 1985 stated:

"However, a new virus which produces a persistent viremia for life, and causes a slow virus encephalopathy after a mean incubation period of many years, would produce a lethal pandemic...of a magnitude unparalleled in human history. This is what the AIDS virus is now doing."

Adding another insidious dimension to the virus's armamentarium, researchers have demonstrated that the virus has the ability to change its molecular surface coat so easily that a vaccine may be impossible to develop. It mutates so rapidly that immunologically distinct forms of the virus can be found in the same individual over different periods of time. In one study, over seventy different strains were identified. Already, three Human Immunodeficiency Viruses have been found which represent such major changes that the blood tests for detecting one will not work with the other. To put this reality in context, the main reason why a vaccine for the common cold viruses have not been developed despite ample time and existing technology is because they, too, exist as so many alternative forms that one would have to create a new and different vaccine for each form in order to be effective. It is becoming an accepted reality that a universally effective vaccine is probably not possible in the near future.

Precious little consideration has been given to the ultimate and infinite evolutionary significance of this virus. By assembling a number of known realities, this virus can be seen as the vehicle for an impending genetic disaster, threatening the human species and its genome (the assemblage of genetic material that comprises any given living entity or population). First, the virus has demonstrated its ability to efficiently parasitize the human reproductive process since it is sexually transmissible through high concentrations of virus in semen and vaginal secretions. Unavoidably, sexual reproduction is necessary for species survival. Retroviruses are also known to incorporate into the chromosomes of sperm and ova creating inheritable defects; and the HIV has been demonstrated capable of incorporating into the genomes of multiple cell types. These findings lead one to the conclusion that the human genome is at risk; but the key finding is that the infection is passed on from mother to child in 65 to 91% of cases. So, even if the disease is arrested in the parent, the virus lives on in the offspring; and, as long as the offspring survive, they are capable of infecting their offspring and others. When therapies become available to maintain the lives of sufficient numbers of infected people or certain individuals are able to survive long enough to engage in sexual behavior, the infection will then become self-sustaining, ubiquitous, and perpetual.

In this regard, the human race can be seen to be passively embarking upon a heretofore poorly recognized form of major evolutionary change. The equivalent of extensive "mutations" are imposed upon the individual's cells when the virus incorporates its DNA into that person's chromosomes. After incorporation, it is only a matter of time before the reproductive cells or secretions become

infected. If the carrier survives long enough to reproduce, this event can then result in a passing on of the devastating trait that the offspring born to the infected person will carry with them in their chromosomes for eternity. In this case, the trait is a markedly diminished capacity to live in this earth's environment.

Previously, evolutionary change defined by Darwin's theory presumed that changes occurred in the environment which allowed only those with the survivable genome (chromosome complement) to continue to exist after the particular environmental change. When a mutation occurred in the genome that made a species or individual less able to survive in its environment, the change was considered a selection disadvantage; and the species or individual organism did not successfully reproduce, thereby becoming extinct. The AIDS virus does exactly that. It induces a mutation that makes humans unable to live in an environment populated with disease producing bacteria, molds, and viruses that previously have been combatted successfully by a sophisticated immune system. To this author's understanding, this is the first recorded, documentable event wherein a virus has been described to influence the human genome in such a manner. For that reason, it makes this epidemic all the more frightening since no previous examples exist to give humanity a means of predicting the effect this will have on our species.

COMMUNICABILITY

Complacent, non-hysterical individuals rarely respond physically or emotionally to threats if they do not perceive themselves or their progeny to be at risk. There seems to be a pervasive effort to place limits on the communicability of the AIDS virus. Numerous references can be cited from as far back as the original descriptions of the disease, reassuring that its ability to spread is limited to a very few means. In fact, the first major media coverage by Time magazine on July 4th of 1983 quoted Dr. James Curran, head of the AIDS task force at Atlanta's Centers for Disease Control (CDC), as follows:

"For a person not in a known risk group (and, at that time the risk groups were specifically defined as active homosexual men, intravenous drug users, immigrants from Haiti, and hemophiliacs) the risk is not only minimal but likely to remain minimal. It apparently is not spread through routine contact or through respiration like the flu."

It must be stressed that in 1983 when he made such a profound statement it was made in advance of any means of supporting or proving that statement, because it was not until the spring of 1985 that a serologic (blood) test was available for wide-spread use to prove if someone was infected; and it was not known to be caused by a virus until 1984. This made James Curran and anyone who promoted that information as fact guilty of defrauding the scientific process, since

they elevated the hypothesis that AIDS could not be spread routinely or "casually" to the level of a fact.

Unfortunately, these statements which have been promulgated to prevent hysteria and over-reaction have not only been demonstrated to be false but have served to disarm the entire process of disease control. Early on in the course of this epidemic, the observation was made that the disease primarily existed within only a few known population groups--the "risk group" hypothesis was born by the CDC. However, that was only an observation; yet, it was used to educationally reassure the public that they had nothing to fear if they were not within those risk groups. Later, serologic tests became available to determine who, in reality, had been exposed to the virus. It became largely apparent that not only was it predominately a sexually transmitted disease, but it was obvious that it was being spread by means other than sexual and blood products transfer--the risk group hypothesis was then abandoned by the CDC.

Currently, it is constantly being implied that the limits of communicability of this virus are known; and it is constantly being stated that "there is no evidence to suggest 'casual' contact" as a means of transmitting the virus. Despite the fact that "no evidence" statements constitute nothing more than an admission of ignorance, "casual contact" doesn't exist in medical dictionaries and it is arrogant to presume that the limits of communicability would be known after so short an experience with the disease, issue needs to be taken with those statements because there is a great deal of evidence to suggest that there are other modes of communicability, making any "null hypothesis" (the belief that something cannot happen) difficult to support.

As of December 1986, three to four percent of all known AIDS cases reported to the CDC are listed as not belonging to recognized risk groups. Excluding those who died or refused interview there remained 647 cases that have unexplained modes of transmission. Of those cases, 458 are conveniently classed as under investigation; but despite exhaustive follow-up interviews, 189 patients had no identifiable risk behavior. In California, 18% of adult/adolescent females fall into no identifiable risk group. In Europe as of October 1985, it was seven percent; and, in pediatric patients, twelve percent had no known risk factors. The most frightening statistic is that in Europeans of African and Haitian descent, where the disease was felt to have existed in higher concentrations for a longer period of time, no known risk factors were identified in approximately eighty percent. In Belgium, France, Greece and Switzerland patients not belonging to any identified risk group constituted the second largest number of cases. In a study by Robert J. Biggar of the National Cancer Institute, 250 outpatients in a hospital in eastern Zaire, Africa were tested for evidence of the HIV Antibody and it was most prevalent in children. Finding the infection in children is significant because it largely rules out acquiring the disease through sexual activity or blood products transfer.

In 1984-85, Jonathan Mann studied 368 children between the ages of 2-14 years with a mean age of six years admitted for various diseases

at the Mama Yemo hospital in Kinshasha, Zaire and found 11% with positive AIDS antibody tests. It is interesting to note that during the period (1980-81) immediately antedating the births of those children another study showed only 3% of pregnant women at the time had positive antibody tests. Which begs the question: If the principle accepted means by which the children could have been infected was through their mothers before, at, or near birth, then why did the pregnant women in the same city during the time when the children were being born have such a substantially lower prevalence of infection?

Also, a study was conducted by researchers from New York's Montefiore Medical Center and the Federal Centers for Disease Control in which 101 family members who lived with AIDS patients were studied for evidence of infection. One person, a five-year-old girl was found to be infected. This study is constantly referred to as evidence to show that AIDS is not spread by casual contact; but what can't be ignored is the fact that they studied a hundred family members; and one of them did, indeed, show evidence of infection without known risk group behavior. The authors invoke perinatal transmission; yet for that to have occurred, the mother would have to have been among the first persons in the United States to have been infected in 1978-79 in order to have given the child its infection at birth. Certainly, that is possible, but one cannot use the study to eliminate the possibility of household contact spreading the disease.

A more recent study by Jonathan Mann, published in the Journal of the American Medical Association, 1986; Vol. 256;# 6, purports the absence of household communicability; however, a very erudite criticism of that interpretation stated very convincingly:

"Mann (et al) claim that their study in Zaire 'provides evidence against horizontal HTLV-III transmission among household members.' Actually, their data indicate the opposite...thus, there is no statistical basis for supporting the null hypothesis, such as an eight-fold or even greater risk of infection among household contacts of patients with AIDS."

In a reply to this criticism, the original authors answered: "We agree with Dr. Rothman that, as stated in the discussion section of our article, our study results do not rule out the possibility of household clustering of HIV infections in Zaire." Yet, this study is often cited as proof that casual communicability is not occurring.

Admittedly, one is led to believe by the relatively low numbers of seropositive household members that the disease is probably not rapidly or easily acquired through household contact at this time. However, these household members have only been studied for a relatively short period of time. An important epidemiological constant is neglected by premature reassurances:

"If a chronic infectious carrier state characterizes a disease, it will be subject to transmission even by

infrequent contacts and inefficient practices. The infectious period for HTLV-III may be lifelong: reversions from the retroviral infection to virus-free state appear to be very rare, if they occur at all."--De Gruttola, V, (et al), Rev Infectious Dis, 1986; Mar-April; Vol.8; # 2.

In the spirit of proper scientific discourse, statements placing limits on HIV communicability are premature and potentially damaging if used to influence behavioral changes that ultimately may prove ineffective or cause persons to commit acts that open them to infection. After only two years experience with widely available serologic evidence and little or no Public Health Department case/contact finding efforts (due to legal prohibition of HIV antibody test results' release in the States of highest incidence), C. Everett Koop, M.D., United States Surgeon General, writes in a 1987 Public Health Department educational brochure:

" 'We would know by now if AIDS were passed by casual non-sexual contact'...There is no danger in visiting a patient with AIDS or caring for him or her."

Evidence contradicting this statement has been presented in the form of case reports wherein infection was acquired by a mother who was providing nursing care for her infant, an English home-care nurse became infected caring for an African patient, a German child was infected by his three-year-old brother, and a sixty-one year old impotent male infected his wife. Moreover, the CDC recently released three cases in which health care workers were infected from splatter type exposures. One only had the infected blood spilled on her hands.

Some claim that these cases represent only the rare insignificant occurrence; however, one must realize that to substantiate these cases the researchers had to reasonably rule out all other known modes of transmission. That is painstaking to accomplish since it is very difficult to find people who have not engaged in risk group behavior, especially heterosexual contact. So, when one finds these cases so early in the course of the epidemic, they have to be interpreted as significant. At the very least, they exist as evidence to refute the belief that the disease cannot be spread by modes other than sexual, inoculation with blood products, and from mother to offspring.

In efforts to prevent panic, it is often stated that HIV is a fragile virus. In November of 1985, the magazine California Physician quoted the opinion of former San Francisco Public Health Department director, Mervyn Silverman, M.D. (who is and has been repeatedly interviewed as an expert on the topic of AIDS) who stated:

"AIDS requires contact to move from person A to person B, and that isn't just casual contact. It's very fragile...that's why it can only live within (the body) and why you cannot get the disease by shaking the hand of someone who has it. Basically, don't share needles and

don't exchange body fluids, and you won't get AIDS."

Contradicting this two months in advance, The Lancet cited a study done by the Pasteur Institute in which the virus was able to survive at room temperature completely dried out for up to ten days before losing appreciable infectivity. The researchers pointed out that:

"This resistance of LAV at room temperature may explain the appearance of some AIDS cases in non-risk groups."

Too, in The Journal of the American Medical Association, 1986; April 11; Vol. 255, # 14, Resnick (et al) stated that HIV can be recovered after more than a week from an aqueous environment held at room temperature. When dried and held at room temperature the virus retains appreciable infectivity for more than three days. They pointed out:

"It is important not to ignore any potential implications regarding possible transmission of virus by contaminated needles and syringes or in clinical situations involving contact with patient and body fluids."

This evidence gives the virus an even more sinister ability since, under the right circumstances, a person theoretically could become infected by coming in contact with viral particles left on room temperature surfaces for at least as many as three to ten days. Too, just over two years ago and contrary to previously long-held beliefs, studies with the virus responsible for the common cold demonstrated that a significant percentage of the transmission was due to touching an infected person and then touching one's own mucous membranes. That is certainly not reassuring in light of the preceding information.

DOUBLE STANDARD FOR PROTECTION

A rather bold inconsistency exists in the handling of this epidemic between the advice given physicians and health-care workers on protection from contact with the disease and the recommendations that are given to the public. On one hand, the health care workers are being told to gown, glove, mask and even to put on goggles when treating individuals known to be infected by the HTLV-III virus. Yet, the public is constantly being reassured that there is no way that this virus can be transmitted through airborne secretions or by touching carriers of the virus. Agreed, health-care workers are at higher risk by virtue of their increased contact with secretions, blood products, and AIDS patients but the same risk must logically exist in a smaller degree to the public. In the January 1986 issue of Infectious Disease Focus, a computer search of 28 articles summarized precautions for health-care workers dealing with AIDS patients. The following (not all-inclusive) recommendations were proffered:

1. Thorough hand washing with soap and water is mandatory before and after contact with the patient as well as after any contact with potentially contaminated specimens or environmental surfaces.
2. Gloves should be worn by those in contact with blood, blood specimens, tissue, any body fluids or excretions, or any surface or articles potentially contaminated by them.
3. Gowns are recommended if direct contact with secretions, excretions, or blood is likely.
4. Masks should be worn by any coughing patient who leaves the hospital room and by visitors and health care workers with direct and sustained contact with a coughing patient or an intubated patient whose throat is being suctioned.
5. Contaminated environmental surfaces should be cleaned immediately with a disinfectant. Also, all contaminated disposable items visibly soiled with potentially infectious material should be identified as infectious waste that requires special transport and disposal.

It is just not common sense to apply these precautions in one situation and ignore them in another. The Center of Disease Control statistics say that up to 95% of those persons with a positive HTLV-III antibody test have active viremias (the live virus in their blood) and are therefore assumed to be contagious. If a patient is capable of spreading the AIDS virus, or one of the multitude of associated infectious agents they harbor, they can spread it in or outside of a hospital. It is ironic that if these measures were employed by a lay person they would most certainly be labeled as a form of hysterical behavior.

A misrepresentation associated with this double standard is the use of hospital staff studies to attempt to convince people of the impossibility of AIDS being spread by hand or respiratory contact. Studies like these cannot be used to justify a minimal risk probability to the population at large, since the public is not going to make the assumption that they are routinely encountering persons with infectious diseases and is not going to be afforded the opportunity to gown, glove, or mask. Health care workers are and have been taking standard precautions against all infections; nonetheless, one study showed that out of 361 health care workers, 6 were infected. Three of whom had no known risk group behavior (JAMA, Oct 1985). Also, health care workers comprise 5.5% of all reported AIDS cases which appears to constitute an over-representation for any given occupation since there is no reason to assume any higher percentage of risk group members employed in these professions and health care workers only comprise 2.3% of the nation's population.

SEXUAL TRANSMISSION

One of the most efficient and common modes of transmission proven thus far is through sexual intercourse. When the disease was first seen in homosexuals, the misconception was promoted that it was solely a consequence of homosexual activity instead of recognizing it as a threat associated with any sexual activity, understandably being seen

first in those populations with the highest frequency of sexual activity. Then, when it was identified in heterosexuals, some people tried to convince the public that it was a result of anal intercourse or trauma during the sex act predicated upon the erroneous belief that blood transfer had to occur to transmit the disease. Any disease transmitted by body fluid transfer can be expected to be seen first and most frequently in those persons who commit acts which exchange large volumes of these fluids; but this certainly does not give anyone reason to limit its spread to these modes. Nor does it give anyone license to reassure others that it takes prolonged or repeated contact to transmit the disease.

Two well-documented occurrences demonstrate how easily the virus can be spread by heterosexual contact. The first involved an Australian artificial insemination clinic where the semen of a symptomless carrier whose blood test was negative was deposited in the healthy vaginas of eight women in an attempt to get them pregnant. Four of those women were infected by the virus. The donor was re-examined and his antibody test was positive. The second relates to a symptomless Rwandian engineer who travelled through Belgium. Out of seventeen sexual contacts that agreed to be interviewed, ten were found to be infected. Two of them only had intercourse with him once!

The above studies only relate to how easily acquired the infection is when passed from a man to a woman. Exploring the ease with which it is transmitted from woman to man, Dr. Robert Redfield of the Walter Reed Institute of Research in Washington found that three out of five men married to transfusion related AIDS patients became infected. A Miami study at Jackson Memorial Hospital showed statistically equivalent seroconversion rates among married Haitian men and women--45% among men married to women carriers and 41% among women married to men with AIDS. It is crucial to consider when interpreting the significance of these findings that the amount of secretions passed between a woman to a man during the sex act is very minuscule and to design educational programs discounting other behaviors (such as kissing) that transfer a similar volume of secretions carries the potential for failing to prevent numerous avoidable infections.

A study by M. Fischl published in JAMA, Feb 6, 1987 showed a 41% infection rate (after an average of one year) in spouses who were counseled not to have unprotected sex with their infected partners. Ten other persons in that study did use condoms and despite their use still infected their spouses in three out of ten cases (this was revealed after the study was published in a newspaper article--San Fran. Exam. Chron. 2\22\87).

This study points to the absurdity of relying solely upon education and condoms to prevent the spread of this disease. Here, they had 13 uninfected people who were told that their sexual partner had a fatal disease which they could contract by continued sexual behavior. They did not abstain and those thirteen people will probably die as a result of their indiscretion. Logic demonstrates how, if the infected spouse had been isolated from the other, that would not have occurred; but, since that was and still is not being done, these events will be repeated over and over again until so many people are infected

that it will be too late to expect any realistic containment strategy to work.

Dr. Raymond Oliver, a retired surgeon lieutenant who studied venereal disease for the British Navy maintains that minute wounds caused by pubic hairs caught in and pulled out by condoms are a common conduit for sexually transmitted diseases to enter the body, providing an opportune route for the AIDS virus to infect male users.

One must ask, is it rational, consciencious, or right to educate our young people that AIDS is "HARD TO CATCH." This is being done in California schools at this time as they promote condoms as a realistic alternative.

INSECT TRANSMISSION

The most awesome prospect when considering the potential impact of this disease is that there is evidence to suggest that insect-borne transmission (or another environmental factor) is contributing to the spread of the AIDS virus, and it is irresponsible to dismiss the possibility since the consequences of doing so can be so catastrophic.

Researchers in Belle Glade, a small town composed largely of Haitians in central Florida, have found the highest per capita incidence of AIDS. Quoting from the magazine Discover in December of 1985:

"On the surface, it seems the pattern of AIDS infections in Belle Glade is unlike that elsewhere in the United States; and it could have grave implications for non-drug using heterosexuals.

This is also the view of Mark Whiteside from the Institute of Tropical Medicine in North Miami. He believes the high incidence of AIDS in Belle Glade, or in central Africa, can't be explained unless environmental factors, especially insect borne transmission, are considered.

"I don't buy the arguments that AIDS is caused by one virus that travels solely through the blood or by sexual contact," says Whiteside. "Every major epidemic in history has been linked to environmental factors."

In the Journal of the American Medical Association, January 24, 1986, Dr. Marvin J. Blazer of the Veteran's Administration Medical Center in Denver contends that several pieces of information suggest a possible role for insect borne spread in the tropics. Quoting Dr. Blazer:

"I believe that several pieces of information suggest a possible role for insect-borne spread in the tropics, that fifty of seventy-five serum samples collected from healthy children in the west Nile region of Uganda in 1973 had

antibody to Human T-cell Lymphotropic Virus type III indicates that transmission is wide-spread and may occur early in life. Either heterosexual or homosexual transmission with subsequent vertical transmission is unlikely to account for such a high prevalence of the infection."

He went on to explain that by analysis of the then current distribution of the known AIDS cases and on distribution of the antibodies to HTLV-III, the infection is focal (localized to discrete geographical areas) and not widely distributed in the tropics. Diseases that are spread solely through a venereal mode of communication are not usually focal, which raises the possibility that an insect vector with limited range could explain the focal nature of HTLV-III infection. He points out that in equatorial Africa Kaposi's sarcoma (a cancer associated with AIDS) is highly area specific, with a clustering of cases. He states,

"Considering the long incubation period of AIDS and the relatively constant fraction of AIDS patients not identified as belonging to a high risk group, despite the increasing number of cases, insect-borne and other forms of transmission should be more carefully examined."

In the April issue of The New England Journal of Medicine, 1986, an interesting study was cited in which a researcher tested new malarial infections in Venezuela for evidence of the HTLV-III antibody. It was found that a significantly higher percentage of those persons with the recently acquired malaria had antibodies to the AIDS virus (25%) when compared to the population at large (less than 1%), thus indicating that it is possible that persons recently infected by malaria have also been infected by the AIDS virus.

More recently, further information to evidence the potential for insect transmission came with the discovery of DNA segments of the virus being found in mosquitoes, cockroaches, fleas, and numerous other insects. Dr. Jean-Claude Chermann of the Pasteur Institute in Paris, using sensitive DNA hybridization probes, found the DNA of the virus incorporated into the chromosomes of nearly every African insect he studied that had contact with humans. He then tested similar insects in Paris and found none of them infected. He summarized:

" These data suggest that insects could be a reservoir or a vector for the AIDS virus."

Dr. S. F. Lyons (et al) in The Lancet, July 5, 1986 have suggested that the common bedbug is capable of transmitting the AIDS virus by mechanical transmission when they demonstrated that the HIV can survive for at least one hour after the insects were fed a blood/virus mixture.

Also, Dr. Melvyn Greaves of the University of London's Institute for Cancer Research said that he and his colleagues found that T-Cell leukemia which is caused by a virus (HTLV-I) believed to be related to

the AIDS virus was most likely to occur near open water sources where mosquitoes breed and in the poorest homes where it is difficult to keep mosquitoes out.

"We've argued that a good candidate for transmission would be a domestic insect,...If we are right, I'm sure people are going to be concerned that the possibility of mosquitoes transmitting AIDS is increased,...If we can substantiate this, we ought to take a very serious look at insects if only to rule them out for AIDS...We've looked at the contrary evidence on sexual transmission and blood transfusion and concluded that that evidence is rather weak."

Dr. Jai Nayar of the Medical Entomology Laboratory of the University of Florida found that the AIDS virus could be recovered from mosquitoes at least 48 hours after ingesting an infected blood meal. This becomes significant when one considers that it only requires the injection of an average ten viral particles to successfully infect a chimpanzee and that thousands of viral particles can occupy a single white blood cell easily able to transverse the mosquito's feeding tube during a regurgitant event.

Those who have continued to downplay the severity of this disease were quick to point out that this information does not prove that insects are transmitting the AIDS virus to humans. However, the existing evidence, viewed in light of the fact that over 80 species of RNA viruses with the same size, shape, and reproductive mechanism of the AIDS virus are known to be transmitted to humans by insects, leads one to conclude that there is little reason to assume it cannot be transmitted in a like manner. The consequences of such a reality are ominous. It is obvious that even though insect-borne transmission may be difficult to prove at this time, as the number of AIDS carriers increases and the number of insects which are exposed to these individuals increases, the insect population may eventually be contaminated. By dismissing the possibility and making no attempt at intervention, this potentially preventable circumstance can be allowed to occur and the result will be irreversible.

The United States' Centers for Disease Control, as of this date, have published no physiologically relevant insect studies that would put this question to rest despite years of opportunity to do so. Failure to put this question to rest is not without peril, as Jay P. Sanford, M.D. in Harrison's medicine textbook summarizes:

"Hence, the isolation of virus from arthropod vectors or the detection of infection in the vertebrate host may provide a means for early detection and enable control of epizootic infection before significant spread to humans occurs.

In other words, if insect transmission is discovered early enough, appropriate disease containment strategies can be employed before it is

too late.

LEGAL RESPONSE

Usually with events of this magnitude, persons in the general population assume that the government is constantly reviewing all the evidence and acting in their best interests. Unfortunately, this is not the case in the AIDS epidemic. It has become highly politicized, with influential forces attempting to insure confidentiality in deference to disease containment. Those persons have passed legislation towards that end, so much so, that, often, one can rely on no protection by the Public Health Departments. In California and New York, which are the states with the highest numbers of AIDS cases, laws were rapidly passed when the HTLV-III antibody test became available that prevented any identifying characteristics to be attached to the HTLV-III antibody test results. In California, this law is the product of Assembly Bill 403 authored by Assemblyman Art Agnos. The law reads:

"...no person shall be compelled in any state, county, city or other local civil, criminal, administrative, legislative, or other proceedings to identify or provide identifying characteristics which would identify any individual who is the subject of a blood test to detect antibodies to the probable causative agent of AIDS."

"Any person who willfully discloses the results of a blood test to detect antibodies to the probable causative agent of the acquired immune deficiency syndrome, to any third party, ...shall be assessed a civil penalty in an amount not less than one thousand dollars and not more than five thousand dollars plus court costs, as determined by the court, which penalty and costs shall be paid to the subject of the test."

By requiring that civil and criminal penalties be assessed against any person who reveals the results of a HTLV-III antibody test to any third party without written consent of the tested person (the law was amended later so that a doctor may tell the spouse), the law completely emasculates any form of disease contact tracing the Public Health Departments or physicians can accomplish. In any other communicable disease such as syphilis, tuberculosis, hepatitis, or gonorrhoea, if a person tests positive and the diagnosis is confirmed, the person's sexual (or household, if necessary) contacts are identified, interviewed, treated, counseled and isolated if necessary. This is accomplished through a case/contact finding service of the Public Health Department. Presently, in the treatment of the AIDS virus, if a doctor were to reveal without specific written consent, the results of a person's test to the Public Health Department, another health care provider, or that person's sexual partner (willfully or negligently), he could lose any lawsuit and be put in jail for up to one year. Thus, as a direct result of Assembly Bill 403, the Public Health Department:

1. Cannot collect valuable data on the spread and prevalence of the disease (it is still impossible to accurately determine the number of persons infected in America to date).
2. Cannot find out who an infected individual has had sexual intercourse or shared needles with to inform them that they might have and be spreading the disease (as is currently done with less fatal hepatitis, syphilis, and gonorrhoea).
3. Cannot stop irresponsible or responsible, known carriers from infecting other people with the AIDS virus or the multitude of other infectious diseases they are at high risk of carrying.
4. Cannot test a confirmed rapist for the AIDS virus so that the victim can be informed of their immediate potential risk for the disease (there were over 8,000 forcible rapes in California in 1985 alone).
5. Cannot test people who intentionally attempt to transmit the disease (i.e. biting a police officer).
6. Cannot inform persons who test positive that they are infectious when anonymous testing is done, abandoning the responsibility of the Public Health Department to protect the public.

Another consequence of this law is that if a doctor discovers the AIDS antibodies in a person who chooses not to inform his or her sexual contacts, the doctor (even if acting in the justifiable spirit of ethical conduct) cannot inform the other persons. Even though he knows that they have nearly a fifty percent chance per year of becoming infected with what appears to be a uniformly fatal disease. If he did, he would be putting his entire assets and freedom at risk since malpractice does not cover criminal acts and the law specifically subjects him to "damages for economic, bodily, or psychological harm which is a proximate cause of the act."

This unequivocally demonstrates the absurdity of the legal and political response to the AIDS epidemic. The legislature was hastily misled by a few politically powerful special interest groups into completely abandoning all disease containment strategies that the Public Health Departments and the medical community have utilized in the past to limit the spread of other, less lethal, contagious diseases. Instead of stopping the persons who intentionally or unintentionally spread the disease, the persons who sponsored that legislation have defined the doctors who try and act responsibly as criminals.

Oftentimes, we are not dealing with conscientious and rational persons who have this disease. In Minnesota, a male prostitute admittedly had sexual intercourse with approximately a thousand persons, even though he knew he had AIDS. He potentially infected a thousand people with this virus before he started feeling guilty about it, deciding, finally, to inform the authorities.

In Texas, another male prostitute was allowed to go on spreading this disease without any attempt by the Public Health Department to

arrest his activities. He continued to have sex, despite the knowledge that he had AIDS and despite the cognizance of Houston officials; and no attempt was made to stop him from doing so. He was even treated for a previously cured sexually transmitted disease which provided incontrovertible evidence that he continued to have sexual relations despite knowing he could infect others; yet the officials contended that there was no proof to stop him.

In the city of San Francisco, a female prostitute with AIDS who was dismissed from the hospital to the streets was asked by a reporter if she would continue her trade after knowing her diagnosis. She said she knew no other way to make money.

Public Health officials in California know of cases where AIDS antibody positive persons are continually returning to clinics to be treated for previously cured sexually transmitted diseases; yet they fail to act on the information by refusing to invoke the quarantine statutes that currently exist to protect the public. Its no small wonder why, according to one study, ten out of two thousand women treated in a sexually transmitted disease clinic in Alameda County, California are antibody positive. As a consequence of Assembly Bill 403, the study was done anonymously and the Public Health Department was not able to inform the persons who tested positive of their ability to kill their sexual partners. Without question, these officials are acting negligently and not in the best interests of the majority of persons for whom they are employed to protect.

Congressional Representative William Dannemeyer (R-Calif.) testified documenting that there are persons who are knowingly and intentionally spreading the disease. There exists a population of persons who have been infected and have the misguided opinion that the only means by which this disease will be cured is if it becomes so widespread that the government has to cure it. Their goal is to continue spreading it as fast as individually possible to reach that end. Dr. John Dwyer, the former chief of immunology at Yale-New Haven Hospital, Connecticut interviewed AIDS patients and has similarly obtained statements such as: "I'm going to take as many people with me as I can."

The Public Health Department should be stopping these people. They should have stopped them in the hospital when they knew they had AIDS and prevented them from further sexual activity by whatever means necessary. They did not; and, instead, these people are still out there continuing to infect unwitting person after person. The list of examples is too numerous to elaborate here.

Too, there is an entire population of people who because HIV testing is not mandatory do not know and do not wish to know that they have been infected by the virus. They know that they are at high risk by their past behavior but really do not care that they can spread the disease; yet they are spreading the disease. The Center for Disease Control recommends that anyone with a positive antibody test be considered as infectious because at any given time, up to 95% of them can have the virus cultured out of their blood. Consider these facts and recall that there is no foreseeable cure or vaccine, the limits of transmission have not been determined as yet, and two thirds of the

people who are infected will probably get AIDS or the chronic wasting syndrome called AIDS Related Complex (ARC) in seven years. As long as these irresponsible people are allowed to freely circulate through our society, they will continue to spread the disease with nothing to stop them, not the Public Health Departments, not the physicians, and, in some cases, not even their own consciences.

One devastating impact that the counter-productive legal response to this AIDS epidemic has had is that it has limited the availability of demographic evidence to determine whether this disease can be spread by ways other than the currently accepted means. For instance, if a number of persons who were tested through the blood banking system or health departments were found to be antibody positive then were interviewed and found not to be homosexual or an IV drug abuser yet only living in a home where such persons also live (and therefore probably got the disease through household contact, insect transmission, or by transmission by minuscule volumes of secretions), one would never be able to know that because it is illegal for anyone to release the results of that antibody test. Therefore, we have lost the ability to correlate the population statistics and to research the individual cases to learn the true extent of HIV communicability.

By criminalizing physician and Public Health Department non-consensual testing, reportability, and case/contact finding, we have lost the ability to track down the sources of the infection so that they might be identified and stopped.

We have lost those abilities because a very few legislators in States like New York and California felt that it was more important to protect the perceived loss of privacy or civil rights of the "few" at the expense of the "many's" lives.

The legal issue, distilled to its essence, comprises the pitting of Man's Law against Natural Law, wherein the consequences of unbridled Natural Law are being ignored for the luxury of a few persons's interpretation of Constitutional Law. This virus operates outside the boundaries and guarantees of human rights and due process. It is nothing more than a sophisticated, elegantly complex assembly of molecules that has found a susceptible host in which it can replicate and increase its numbers. No inalienable considerations or legal precedents will influence the molecular laws governing its survival. It requires swift, seemingly unjust but demonstrably effective disease containment procedures and, frankly, common sense (which seem to have been abandoned in this epidemic's management since its outset).

At this very moment, innocent people are dying because a few politically sensitive people don't want to be allied with any decision that suggests an infringement of privacy or rights. They choose to protect the identity of those persons spreading the disease rather than the vast majority of people to whom it could be spread. When interpreted in terms of the damage officials opposing proven disease containment strategies have accomplished, none can term them less than grossly negligent. It is blatantly wrong to abandon epidemic control measures designed to protect the lives of the entire population in deference to protecting the privacy privileges of a relatively few infected people. There is absolutely nothing that can be done to erase

the damage that the current legal response to this epidemic (Assembly Bill 403, for instance) has done and will continue to do until a basic change in philosophy is undertaken in which a concern shifts from the "few" to the "many."

AIDS IN SCHOOL

There is a very valid concern about allowing children with AIDS to enter the public school system, since the Centers for Disease Control cited that in European children with AIDS, 12% had no known risk factors (Morbidity and Mortality Weekly Report, ;1985, Vol. 4, Nos. 37,38). A great deal of legal maneuvering has been done as well as threatened, seemingly unconscious of the reality that this is a new disease about which we know very little. Science does not know all the ways in which it can be spread. What is known is that health care professionals are being told to take a great many precautionary measures whenever coming in contact with persons who are infected because the virus has been cultured from nearly every body fluid and secretion. They are told to wash their hands after contact, to use antiseptic solutions on any surface which that person has come in contact with, and to wear a mask when the person is coughing. When a student with AIDS enters the classroom, these precautions are impossible. One cannot disinfect the pencil that an infected person has been chewing on when another child borrows it, or the food and drinks that they share. It would be nearly impossible to prevent the high school relationships that culminate in secretion passing sexual activity when school attendance (and therefore exposure to the infected) is mandatory. To deny the reality of copious salivary secretions being exchanged during prolonged adolescent kissing asks one to ignore the risk associated with that behavior. Medical experience demonstrates other viruses can be efficiently spread in this manner, such as the virus responsible for mononucleosis. Right now, science does not have the research evidence to prove that the AIDS virus can be spread by saliva so some are making and acting on the potentially devastating assumption that it cannot. As a result, infected children are being allowed to go to schools despite the laws that say:

"It shall be the duty of the principal or other person in charge of any public, private or Sunday school to exclude therefrom any child or other person affected with a disease presumably communicable, until the expiration of the prescribed period of isolation for the particular communicable disease." (California Communicable Disease Handbook, Section 2526, Exclusion and Readmission by School Authorities)

Regardless of the laws that say they are required to stop these students from entering the schools, they are still being allowed to enter the school systems. There is something basically inadequate about a system that can send home from school a child who may have

strep throat: yet, feels compelled to allow a child with a fatal disease who has exhibited biting behavior access such as is the case in Atascadero, California where the court ordered the school to admit the child.

No one can assure anyone that these children cannot infect other children. In fact, given the knowledge that this disease invades the central nervous system, one cannot rely on those children to behave responsibly. Also, people with an AIDS type immunodeficiency can have tuberculosis and not be identified with the routine skin tests or x-rays that have protected our school systems in the past. A significant percentage of carriers are anergic, which means they don't show a positive reaction when tested for tuberculosis, yet, can still be infectious for that disease. Face the reality, children share saliva with other children. They scratch, bite, and spit on their classmates.

Unfortunately for the healthy children in California who attend the public school system, if a physician were to identify a family or a person with the HTLV-III antibody test positive, he could not inform the Public Health Department or the Public School District officials according to Chapter 11.1, Part 1, Division 1 of the Health and Safety Code as it exists under the changes of Assembly Bill 403. One may well ask: Who is protecting the children from the AIDS virus and the numerous contagious diseases that AIDS patients harbor?" Regrettably, the answer is obvious.

MANDATORY TESTING

Rather than drafting laws that impede disease containment, the societies that are genuinely interested in effective epidemic control should immediately pass legislation for mandatory testing programs. Regardless of the perceived future use or potential for misuse of the results, the benefits are too great to abandon. The wisdom of mandatory testing has been unequivocally demonstrated by established, successful programs that, among other benefits, insure persons will not kill their spouses with sexually transmitted diseases. The legislatures and courts have long upheld society's right to test its members for lethal diseases. Currently, in most states, a marriage license cannot be obtained unless one can prove that no syphilis infection exists in either party. One cannot enter the school system or work in health-care or food-service industries in many States without proving yearly that one is free from Tuberculosis. In California, a marriage license will not be granted without a mandatory test for German measles immunity so that pregnant women know if they may be at remote risk for harming their unconceived children; and a mandatory test for phenylketonuria is imposed upon every newborn child (to uncover a rare and incurable disease at great taxpayer expense).

In each of the above examples, the benefits have been determined to outweigh the costs and infringements on absolute privacy; yet none of them approaches the cataclysmic threat posed by AIDS.

There are multiple reasons why mandatory testing should be applied to the AIDS epidemic. First, knowledge is one key to preventing the

spread of the disease. If a person is made aware that they may kill their sexual partner, in many of cases, simple love of the unafflicted partner may prevent transmission. Many people who are at high risk for being carriers are stringently opposed to mandatory testing partly to deny the possibility that they may have contracted the virus; and, as long as they don't know they are infected, their consciences are "clear." Many risk group members have been counseled by their leaders, AIDS organizations, and their physicians not to be tested for fear of what the knowledge might do to them or what the State might do with the knowledge.

In one study by Dr. T. Coates of the American Psychological Assoc., in 1984 69% of gay men in San Francisco stated that they would take an antibody test before it became available; but only 14% were actually willing to take it in 1985 when it did become available, indicating that most persons at the highest risk are not taking the test voluntarily. The result of that mentality was and is countless preventable deaths, because, presumably, (in those with a conscience) if the test result was positive, a significant percentage would have stopped infecting others. If it was negative, it could have provided a powerful stimulus to stay negative by reducing high risk behavior. Now, as many as 70% of San Francisco's gay men are infected. It is interesting to speculate on how many would have been spared infection if they had used the educational benefit of testing. It is essential to speculate on the potential for the same disastrous consequences in the heterosexual population when the same mentality is applied.

If the Public Health Departments are made aware of the carriers, they can inform past contacts of the need to refrain from repeat exposure to the infected person and can be identified for further, more frequent, testing. They can impose restraint upon those persons who continue to commit behaviors that could result in the deaths of others. They can also test carriers (when appropriate) for the presence of other communicable diseases which they frequently carry. They can provide information, counseling, and follow-up examinations should effective treatments become available. There is no epidemiologically competent reason why the Public Health Departments can't be armed with the weapons necessary to combat this virus.

Arguments are often made that the carriers would "go underground" if testing became mandatory and result in further spread. That concept flies in the face of the common knowledge that years of life can be given to carriers by the prompt use of effective diagnosis and therapy when they develop the many other treatable infections they acquire. Few people would trade life itself for the privilege of withholding a blood test. By making testing mandatory whenever a person accesses the health care system (especially at sexually transmitted disease clinics, in areas where the prevalence of infection is high, and in populations at high risk) one efficiently and cost-effectively accomplishes two goals, the health care workers know when it is necessary to apply life-saving precautions (for both patients and themselves); and anyone who is or thinks they are ill will be screened for the virus.

It is also argued that simultaneously everyone in the population would have to be tested every six months, implying that the strategy

must be "all or nothing." If the proponents firmly support that conviction, then the disease must be worse than they are leading others to believe; and, therefore, the strategy should be applied immediately and shouldn't be eliminated just because it appears too difficult. However, an on-going, hierarchical, system of testing those at highest risk first then gradually widening the testing as deemed necessary would accomplish the task in an admittedly slower, less-efficient, but cost-effective manner. It is not unreasonable, eventually or even now, to legally require any health care worker who suspects an HIV infection (or the risk thereof) to test that individual and report the positive results to the Public Health Department, or to demand that everyone submitting an income tax form provide (at tax-credit expense) proof that they are not a carrier. Testing everyone applying for a driver's license or renewal would help insure that the disease didn't travel very far and everyone who could produce a driver's license would in effect demonstrate that they have not acquired the disease within the last year or so. Testing should be a requirement for entry into any educational setting, entry into this country, and in any other circumstance where it can be shown to be of even remote benefit.

Agreed, no system would be perfect; but many epidemiologically valid options exist. Some believe that if mandatory testing combined with incarceration of those who knowingly continue to spread the disease does not rapidly and significantly arrest the exponential advance of disease, then the universal quarantine option can be exercised. However, to rely primarily on education and abstinence, as we are now doing, exposes the population to almost certain societal, mortal, and genetic catastrophe.

QUARANTINE

Currently, the only definitive means the American population has at its disposal to contain this virus is to invoke the quarantine and isolation provisions existent in nearly every state's communicable disease statutes. In animal populations, the state has the authority to destroy the entire group of diseased animals when infected with lethal diseases. Appropriately, civilized societies have devised more humane means of saving the remainder of the human population from infection when faced with incurable diseases. The laws were made in an era when diseases were recognized as all-powerful and every means available were utilized to contain them. People and physicians educated in an era when infectious diseases were rampant recall how horrible it was to live in constant fear of acquiring these diseases. Unlike some of their counterparts of today, who were educated to believe that infectious diseases were largely conquered, twenty-eight percent of physicians polled nation-wide during December 1986 believed that AIDS patients should be quarantined. They understand that in an epidemiological sense, a quarantine accomplishes the same end as a cure.

The need for quarantine exists independent of whether or not it can be spread by "casual contact." Consider for a minute the concept

that even if it is currently being spread predominately by sexual behavior it still represents a permanent and potentially fatal consequence for our population and species when the disease reaches a threshold or "critical mass" wherein the percentage of infected persons becomes great enough to make it statistically impossible for the remainder to avoid infection.

Without performing the act of sexual reproduction, we would be extinguished as a species within less than one hundred years, so strategies that advocate abstinence and condoms cannot be uniformly successful if our species is to reproduce. Relying primarily on these kinds of methods of disease control will prolong the disease because the epidemic will be sustained by the infected persons who continue to attempt sexual behavior even if it is for the purpose of reproduction.

Sexual behavior cannot be seen as exclusively voluntary. There are subtle yet powerful biological drives and forces at work that have for eons of evolutionary development insured that this behavior occurs regardless of attempts to suppress it. In our society, the advertizing industry has capitalized upon this reality and uses it to sell products. We are in the midst of a "sexual revolution" that will not be stopped simply by education because AIDS is not real to the teenagers in the back seat at the drive-in movie. Reproductive behavior permeates our culture's media as well as our instincts for species survival so completely that every educational effort directed towards decreasing it in the past has been unsuccessful.

Relying principally on educational efforts to change behavior is doomed to failure because even if the efforts were successful in producing a behavioral change, in order to continue reproducing, the sexual act of passing secretions must be employed eventually. This concept was addressed by the Department of Biostatistics at Harvard Medical School:

"Behavioral change, does not necessarily promise any lasting amelioration of the epidemic's course. Change in sexual behavior, especially if it affects frequency but not type of act, is likely only to slow the rate of increase, not to lower the maximum number of people who will ultimately be exposed."

The only absolute means any population has to insure that a person does not have sex with the uninfected is to make it impossible for them to do so; and unless that insurance is forthcoming the disease will continue to spread until it completely permeates the population. Other countries have already started employing definitive preventive tactics. Cuba has already recognized this and has begun to mandatorily test and quarantine its HIV carriers. Korea has adopted a policy of reverse isolation by requiring foreigners to prove that they do not carry the AIDS virus before entering the country. China is mandatorily testing and expelling infected foreigners. Japan is preparing to do the same and is currently employing propagandist techniques to encourage the population to fear contact with foreigners, thereby effecting a societal reverse isolation.

Some are of the opinion that the number of infected persons in America is so great already that it would be impossible to effect the isolation of so many people. The wild, statistical guesses run as high as three million Americans (possibly to instill an aura of fatalism so that people will believe that any containment strategy will be impossible to implement). The reality is that as of the end of 1986 the CDC had accounted for 147,000 antibody tests and only 17% were positive. Studies done in 1985 and 1986 show that only between .02 and .04% of random blood donors are seropositive. In 1987 studies of military recruits (who constitute a good average sampling of the sexually active young predominately male population), only 0.15% are positive. Together, these statistics only represent several hundred thousand people. These statistics indicate carrier numbers well within the realm of a quarantine if your desire to prevent the remaining 240 million and future billions from becoming infected is felt to be worthwhile.

Assuming for a moment, some foreign government captured an area of the United States and said they were going to kill all 179,000 inhabitants by 1991 (this is how many people the Academy of Sciences predicts will be killed by AIDS in the same time frame). The federal government would immediately take millions of men out of their homes, against their wills, force them to live in places not of their own choosing, and make them do things that they would not ordinarily do. They would call it a "draft" under the Selective Service Act. This type of activity has been acceptable in every major war--all in an effort to combat an ideological, perceived threat that never touched American soil. This virus is a physical threat, it is real and it is here now, on our soil, killing Americans. It should be afforded the same defensive considerations we direct towards our ideological enemies in wartime. The alternative is the possible death of our society as we know it and possibly our species.

Most likely, it is too late for any disease containment strategy to prevent the holocaust awaiting the already infected underdeveloped nations such as Africa and South America. It is not too late for the United States since we have the necessary technology and assets at our disposal. Fortunately and unfortunately, isolation of the infected is one of those few technologies that remain viable. One must consider the consequences of not containing the disease in America so that the abhorrent concept of quarantine seems worth the trade. First, there will be a rapid destruction of the segments of our population not reached by the educational efforts, and it is arrogantly irresponsible to deny that these segments exist. One can expect the sexually unsophisticated teenagers, Blacks and Hispanics to suffer immediate exponential mortality rates. This is not a racist view, it is simply an extrapolation of existing statistics that demonstrate over 70% of the women with AIDS are non-caucasians from these populations and indicates an over-representation that can only continue unless the government moves to isolate the infected individuals from their midst. If the government does not protect them from themselves, it will have sacrificed their lives to retain the civil rights of the relatively small population of carriers that exist today. The voters must

consider that that trade off exists now and must be decided now.

Second, a unique subgroup of society comprised of hopeless, diseased, impoverished, bitter, demented individuals will be created, many with a "nothing to lose" attitude and empowered to infect anyone else who ventures within an arm's length of them.

Also, the health care system today cannot exist as we know it if the disease is not immediately contained. It may collapse under the economic burden of AIDS, diverting vital resources from existing health care delivery systems and leaving insufficient resources for care of treatable diseases. Contemplating the economic impact of not absolutely containing the disease immediately, over 1.4 billion dollars have been spent in just hospital costs for the first fifteen thousand diagnosed AIDS patients. The average cost of caring for a single patient from diagnosis to death is approximately \$150,000 (Hardy et al, Economic Impact of the First 10,000 cases of AIDS in U.S., JAMA, 1986; Vol. 255, #2). It is a very expensive disease; and these figures don't include the use of AZT (the only effective therapy for AIDS) which costs up to \$1,000 per month. It will rapidly exhaust a majority of our health care monetary resources. Since the disease rate is doubling at yearly intervals, in two years there is a projected burden of \$18 billion. Taxpayers will be forced to provide that money. If that money were spent today in an active effort to mandatorily test and isolate the carriers, the costs would stabilize and begin a downward trend instead of continuing to escalate at the exponential rates predicted. Even if one were to neglect the human suffering involved, the monetary impact of not containing the disease will be awesomely devastating and forever increasing.

Healthcare personnel will begin to treat everyone as though they are infectious. Health and life insurance will be prohibitively expensive. Medical care probably will be socialized and gone will be the stimulus to provide superlative care for financial reward. In a world where "you get what you pay for" the superlative health care industry we now have will suffer the same decline in access and quality seen in every other socialized medicine system.

Many of the infectious diseases that have been suppressed in our society due to Public Health efforts directed towards identifying and eliminating the reservoirs (people who carry the disease) will become epidemic in incidence. Already we have seen a reversal of the once steady downward trend in Tuberculosis statistics, increasing as a direct result of the AIDS epidemic. Currently, we are experiencing a Salmonella epidemic. Salmonella is commonly one of the many organisms that AIDS patients are unable to eliminate from their intestinal tracts because of a faulty immune system. A few well-placed AIDS patients in the food industry could be responsible; but that possibility isn't being widely considered or discussed. Rather, the chicken processing industry is being blamed regardless of the fact that the same process of cleaning poultry has been employed for years without an epidemic.

As more and more of these "carriers" continue to circulate in our society, we will experience higher rates of their diseases. Of particular interest is the most common form of Tuberculosis that AIDS patients carry called Mycobacterium Avium Intracellulare. No medicine

has been shown to alter the course of the disease; and persons with normal immune systems can be infected. A sound epidemiological argument can be advanced explaining why more people in the past haven't been easily infected because the reservoir of the disease has been maintained so low. Until now, one's chances of contacting a person with this disease has been so diminished that very few people actually acquire it and retain it long enough to transmit it to others. It remains to be seen what effect allowing thousands of people coughing up this bacteria will have on the incidence of this disease in the general population. The same applies to countless other diseases that AIDS patients acquire which are easily transmitted to other people. The infectious disease Utopia we have built in the 20th Century may soon be at end with the Medieval cry of "bring out your dead" again echoing through the streets of Western Society.

If mandatory testing and quarantine is not imposed, the problem is allowed to become infinite with millions and millions of Americans eventually dying. An effective quarantine can be demonstrated to be able to stop the spread of this disease. Education and condoms cannot. Anyone with common sense knows this, but it requires foresight and courage to act on that knowledge.

Ultimately, some form of isolation will have to be accomplished. The uninfected will, out of necessity, reverse isolate themselves to prevent infection. It will be costly, but the alternative of death will make the investment worthwhile for those who can afford to test their sexual partners and insure they do not expose themselves to situations that open them to infection. Already, efforts of this nature are being employed in AIDS-testing single clubs, para-medics abandoning mouth-to-mouth resuscitation, and individually directed blood donations. People in the future will probably be very reluctant to render aid to a stranger who is injured, ill, or bleeding for fear of infection. Someday, AIDS-free communities may have to develop. Our society may be self-segregated into the carriers and the uninfected (unless, of course, laws are passed to prevent any discrimination and then one will not have the right to segregate oneself from the carriers). Without a quarantine, now, the entire fabric of our society may change--undeniably for the worse.

The situation as it exists today has occurred in countless past species/species interactions. One of the better known victims that has become synonymous with stupidity was the Dodo bird which was so naive that when approached by another species bent on its destruction, it failed to even exercise the simplest of defensive options by running away. It didn't fear the other species; and it stood there allowing itself to be clubbed to death. If man feels himself to be immune to the same forces of Natural Law that made other species extinct, then that intellect or lack of it may be considered a selection disadvantage. Nature, in essence, is saying: if one is that imprudent then the sentence is death.

Many very intelligent people are counting upon a vaccine to provide salvation. Another group of very intelligent people are saying that a vaccine may not be available for the medically foreseeable future. So, it appears to be a race with the principle question being:

Can technology beat this virus and all of its future mutations before it overwhelms the population?

An equally valid question is: Is the risk worth taking? Perhaps technology, even if it does not provide an immediate solution, can buy us time. However, a faith in future technology cannot justify the abandonment of previously successful technologies.

A quarantine strategy can only be said to fail if it has been attempted to the best ability of a society and it is proven unsuccessful in practice. If the disease is cured or a vaccine is developed and the entire population at risk is vaccinated, then the quarantine can end. It should not end before it starts just because the most vocal members of certain AIDS organizations or the media give that as their unsubstantiated opinion.

SELF-PROTECTION

Unfortunately, legislative changes are slow and often too late in coming. Uninfected individuals do not have the luxury of waiting. Undiseased persons must act to protect themselves as effectively as they can until the government moves to do so. There are ways in which individuals can protect themselves against this disease.

Most importantly, immediately stop sexual or secretion passing activity with anyone who could even in the remotest possibility have been infected; and do not initiate any secretion passing activity until you know the results of a blood test that can detect the presence of the virus.

This can be accomplished simply by refusing to have any relationship with anyone wherein secretions, body fluids or blood could be passed until that person is tested. Testing is accomplished simply by going to the Public Health Department or a physician and asking to be tested for the AIDS virus. They will take a blood sample. In California and New York, currently, one's name will not be taken; so, be certain that both persons know each other's number so that each will be able to independently determine whether or not either has been exposed to the virus. If one has not been exposed to the virus, the test should be negative. If one has been infected, the test should be positive. However, there is the situation wherein if one were exposed recently and had not yet developed antibodies (usually four to seven weeks but as long as thirty-four months has been documented) the test could be negative; but the person could still be infectious. This situation can be approached by waiting for thirty-four months to be tested again, then, if negative, one can be reasonably certain that infection has not occurred. Alternatively, one may insist that an antigen test be done since it can determine the presence of infection much earlier.

In the near future, it will become necessary to test for all the known AIDS viruses. HIV-II has arrived in this country. Two cases have been identified in New York. Nothing is being done to isolate these people, so one can probably count on the same thing happening as did with the first AIDS virus--HIV-I. An HIV-III has also been

identified in West Africans living in Sweden. There will most probably be more and more major mutations of this virus as time progresses.

There are also cases in which a person's immune system is so damaged that they can no longer produce the antibodies; but this is rare. The person is usually so ill that it is obvious.

One should also be able to identify any one who has ARC or AIDS. Even a person with no medical training can, to some degree, identify those people. One should suspect any young person who has unexplainably lost a great deal of weight in the recent past, has prolonged, recurrent diarrhea, fevers, profuse night sweating, or extreme fatigue. Also, there is a condition called "generalized lymphadenopathy" when the lymph nodes (infection fighting glands of the body) become swollen. The lymph nodes that are usually not seen enlarged in healthy persons can be easily felt beneath the skin at the point where the neck meets the chest, in the hollow of the collar bone area or under the arm pits. If you feel these places on your sexual partner and you notice that there are firm, smooth surfaced, lumps of tissue just under the skin, then that person can be suspected of having a chronic disease--or now, infection with the AIDS virus. Too, there is another finding called "hairy leukoplakia," which is a hair-like white/grey growth on the tongues of those who's immune systems have been damaged by the virus. This is caused by other virus infections in concert with yeast, making anyone who is taking medicine for a yeast infection of the mouth suspect.

Also, women with persistent yeast infections of the vagina requiring constant medication can be suspected. An occasionally recurrent infection shouldn't necessarily cause alarm; but if the person requires continuous treatment for months on end, they should be suspect.

Intravenous drug abusers are at high risk of being carriers and can often be identified by linear, rough-surfaced scars over the veins on the front of the arms or large elaborate tatoos over the crease where the forearm and upper arm meet.

If one's sexual partner has any of the above signs or symptoms it is simple enough to find out if they have been exposed to the AIDS virus by insisting that they get a blood test and that one has access to the result. Having the blood drawn in the interested party's presence insures that there is no subterfuge.

Anyone who continues to have sexual relations with a person who has been infected (that is, having a positive test for the virus's presence in the blood) is risking death. Above all, never assume, fatalistically, that it is too late to take precautions, since acquiring any viral disease is a function of the number of times one is exposed. If one stops being exposed to the disease, one's chances of becoming infected will be likewise reduced. Regardless of whether the virus can be spread by close personal contact or not, one should not maintain unprotected, close contact with AIDS patients since they carry a high risk of harboring and spreading many other infectious diseases (cytomegalovirus, tuberculosis, herpes, infectious mononucleosis, shigellosis, salmonella, toxoplasmosis, histoplasmosis, and wart viruses) which are especially dangerous to pregnant women, persons with

cancer, emphysema, or other chronic diseases, and anyone being treated with steroids or immune suppressive medications.

Since case reports have already demonstrated that the limits of this virus' communicability are unknown, the prudent person should take the following precautions when in close intimate contact with virus carriers:

1. Thorough handwashing with soap and water before and after contact with the person as well as any contact with potentially contaminated surfaces is medical common sense.

2. One should wear latex rubber gloves if one is going to deal with any blood, secretions, body fluids, or any surface or article that has been soiled by them. Case reports have been demonstrated where health care workers have become infected simply by blood contacting their skin (presumably they subsequently touched an open lesion or mucous membrane on themselves) and a dentist has acquired the disease in the absence of any risk group behavior.

3. Any environmental surface contaminated by those person's secretions should be cleaned immediately with a disinfectant. One part household bleach to ten parts water should be sufficient.

4. If you are near anyone who is coughing and not wearing a mask or cannot be compelled to wear a mask, then you should wear a mask when you are in close proximity to those persons.

5. Protective eye-wear should be worn in any situation wherein a spatter of blood, bloody secretions or body fluids is possible.

6. Any clothing worn by the infected should be washed in hot, bleached, soapy water before being worn by anyone else.

7. Do not use or reuse any needles or syringes that have come in contact with another person; and, if you are required to handle such needles, be extremely cautious not to cut your skin or puncture yourself with them. It has been shown that superficial scratches with non-blood, body fluid contaminated needles are sufficient to transmit the virus.

8. Do not share eating utensils with a person whom you suspect to be a carrier nor allow them access to your food whereby their secretions, open sores, or blood could contaminate your food.

9. Stop all sexual or secretion passing behaviors with anyone who is, has been having, or had sex with (after 1978) a high risk group member until they are tested and shown to be uninfected by the virus. The high risk group members are currently defined as prostitutes, homosexuals, bi-sexuals, hemophiliacs, IV drug abusers, blood product recipients who were transfused after 1978, or anyone who has had sex with a risk group member since 1978.

10. If one's school district allows students with AIDS or carriers to attend, warn your children not to have any physical contact with that child. If the child's identity is not known, then do not let your child go to that school. Transfer him/her to another school district or insist that the policy be changed. The existing law is probably on your side, so fight for your rights.

11. If one is placed in a hospital room with an AIDS patient, insist upon being moved to a different room. By proper disease control requirements, patients should be isolated; and, if one's hospital does

not isolate those patients, then it is one's duty to insist upon one's own reverse isolation by being moved.

12. Be very discriminating in where you eat, where you bathe, and even where you swim. The virus can live in aqueous environments for up to seven days. Hot, moist places are excellent places where the other infectious diseases they carry can be spread.

13. If one's children are playing with other children whose parents are high risk group members, then discourage that behavior. Don't make a big issue out of it, just carefully explain to them that you don't want them to play with that child any longer. If a three-year-old German child can transmit the virus to his brother, children in close contact with infected children are at probably small but real risk. If you want to be certain, then ask the parents of that child to have the child and themselves tested. Once you have seen the results, then you can resume contact with safety.

14. Be very certain that any blood or blood product transfusions or injections you or a loved one gets are absolutely life-saving. If your family or close friends can direct donate blood for you, then that is preferable to random acceptance. The estimates of infected blood escaping detection by the antibody tests are currently, variously described as 24 units per year or one in 64,000 (low probabilities but still real); however, there are two new types of the AIDS virus that have been identified. One has already been identified in New York. The currently used blood screening tests do not detect these viruses nor will the tests ever be expected to keep up with the countless others that will continue to be created as the virus mutates further. This problem can be addressed by the development, organization, and participation in community-based direct donor networks, wherein individuals can rely on participants to provide immediate blood donations in the event of an emergency.

15. Until researchers have more experience with the limits of the virus's communicability and the consequences of the other infectious agents AIDS patients carry, avoid any food handling institutions or health care institutions where AIDS patients are employed. Until proven otherwise, it is a potentially dangerous situation in which a health care provider or a food handler has AIDS since these person's secretions have a real chance of coming in contact with your mucous membranes (eyelids, mouth, nasal passages, and gastrointestinal tract lining). Truthfully, thus far, no study has demonstrated that a person with the virus can easily transmit it in such a way; however, there have been no studies thus far published that can disprove this as a means of transmission--only time and further study will tell. A study would have to intentionally attempt to give a known number of virus particles to a group of people by deliberately contaminating them. Such a study would be unethical, therefore, impossible.

16. There are those persons who chose to take risks by sharing drinks, kissing, or having close physical contact with infected carriers. That does not make the behavior safe, even if those persons present themselves as evidence to "prove" it is safe. I would warn against it until more information is available from large population studies--which, as previously explained, are improbable given the

existing laws.

17. Until it is absolutely demonstrated that mosquitoes and other insects cannot transmit the AIDS virus (this has not been done thus far), I would recommend wearing insect repellent and protective clothing when in areas where insect spread is possible, especially in areas where there are high concentrations of carriers (Africa, Haiti, Miami, New York City, San Francisco, etc.). When trustworthy researchers are able to say that they have specifically taken virus carriers, allowed them to be bitten by insects, and those insects (both immediately and after being raised for several generations in captivity) are allowed to bite other individuals or susceptible experimental animals, then one can be reassured. Until then, take precautions against the potential possibility that it can be spread by hematophagous (blood sucking) insects. In the same realm of concern is the possibility that fleas could carry and transmit the virus. In that instance, a valid preventive recommendation would be not caring for the flea-bearing animals of carriers. One recalls that the greatest plague known to man was spread by fleas.

18. Do not get tattooed and do not allow any potentially contaminated object to pierce your skin by whatever possible means this could be accomplished, such as ear piercing with a community needle or a needle that has been shared by someone else. It is a common practice among children to become "blood-brothers." Be certain to educate your children that this should not be done.

19. Educate your children and the people around you not to have sexual or secretion sharing activities without knowing the test results of their contact. That requires them not to kiss or be kissed by risk group members (the viruses of herpes and mononucleosis are very efficiently spread by kissing) and to not have physical contact with sores, cuts, or scrapes of others. "Kissing the boo-boo better" could make you worse.

20. Educate your adolescents appropriately, try to dispel the myth that condoms will prevent the disease. They may reduce the risk, but you don't take chances with a fatal disease. One study demonstrated that after little over a year of use three out of ten carriers went on to infect their spouses while using condoms as the preventative method. The people in the study were educated as to the proper use, given the condoms and explained the importance of preventing the fatal disease; yet they still infected their sexual partners.

CONCLUSION

The preceding information and precautions may seem hysteria generating as well as over and beyond the reasonable means necessary to prevent infection; however, as this disease increases in our society, it will be increasingly easier to come in contact with the secretions of persons who can transmit the disease. Perhaps it is time to stop withholding this type of information for fear that it will result in an emotional overreaction and trust that the public can act rationally, defensively and responsibly armed with the truth. Certainly, an

emotional response is justified when envisioning the deaths of millions and may prove to function successfully as a means of combating this disease with the intensity it deserves. Perhaps this human ability to evoke an emotional response can be viewed as a survival mechanism or selection advantage sequestered deep within the brain's primitive limbic system. Releasing it as a defense is one hope humanity has for surviving such a profoundly threatening menace.

The rules for this epic contest are simple. Those persons and their genomes who are not infected will survive. Those who have been infected probably will not survive. One cannot act under the assumption that a cure or a vaccine will be developed. One must act to prevent the disease's acquisition and spread by whatever means one has at their disposal, hoping all the while that our technology will provide salvation in time.

Since AIDS has become a political disease, one must protect oneself by whatever means possible because disease prevention has been wrested out of the hands of physicians and Public Health Departments by some risk-group activists, lawyers and legislators as if those skilled in managing Natural Law should be subjugated by those defending their interpretations of Constitutional Law. Unfortunately, the State and Federal governments are not providing adequate protection and will only do so when they are given the mandate that the voting public will not tolerate anything less than logical and scientifically demonstrable disease containment strategies.

Although this information is fear producing and controversial, all of the statements in this writing are either documentable, justifiably substantiated facts or defensible with logical argumentation by accepted parameters of scientific discourse. It is unfortunate that we do not live in a perfect Utopia wherein we need not be concerned about being infected by microbes capable of destroying ourselves and permanently mutating our DNA. Yet, as in all processes of natural selection, those who adapt to changes in their environment will survive, those who do not--will perish.

--William T. O'Connor, M.D.

This report was made possible by the **H.I.V.E.** (Human Immuno-deficiency Virus Eradication) **Foundation** and is the only source of funding for its production and distribution. Should you desire updated information, the studies referenced, or documentation supporting the arguments, feel free to request them. If you recognize the importance of this information being widely disseminated as rapidly as possible, your efforts, contributions, gifts, grants, or bequests would be immediately appreciated. Please send contributions and communications to:

The **H.I.V.E.** Foundation
c/o Dr. Wm. T. O'Connor, M.D.
P.O. Box 808
Vacaville, California

95696