

# IN DEFENSE OF SMOKERS!

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**IN DEFENSE OF SMOKERS**  
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## ===Foreword===

This book had its genesis in some reading and research that I did, a couple of years ago, relating to the causes of the disease, AIDS. Most people think that AIDS is caused by a virus, the HIV virus. There are, however, a substantial number of dissident scientists, who question whether the HIV virus is the true cause of AIDS. Some even question whether the virus, itself, has been isolated. An excellent book, dealing with this controversy is *\*Re-Thinking AIDS\**, by Robert Root-Bernstein, ISBN 0-02-926905-9, The Free Press, 1993. Now, I never did decide whether the so-called "HIV virus" causes AIDS, or not. There are excellent arguments on both sides. Some, like Professor Duesberg, argue that the virus exists, but is harmless. He points out that AIDS, supposedly, does not develop until many years after exposure to the virus. That requires the hypothesis that there is something like a "lenticular" (delayed reaction) virus at work. But no such "lenticular virus" has been found to cause any other disease, in humans. According to Duesberg and others in his camp, the HIV virus is just a pussycat; infection might bring on some mild flu-like symptoms, but there should be no long term effects. The tests for the AIDS virus don't really test for the presence of the virus at all. Rather, they test whether a person has developed antibodies against the virus. But with other viruses, the development of antibodies generally means that the individual has developed successful defenses against the disease. Why, Duesberg argues, should the AIDS virus be different? Robert Gallo, the government scientist who claims to have discovered the HIV virus, obviously takes a different point of view. He asserts that the virus and nothing but the virus is the cause of AIDS. So, indeed, does every scientist and researcher employed by the government or any private organization receiving research money from the government. Dissenting views are not permitted and, indeed, Duesberg has been unable to obtain funds for his own research, and learned scientific journals have refused to publish his papers, lest they incur the ire of the "health establishment". While I never did decide whether AIDS is caused by a virus or by something else, I began to see, rather clearly, that there is a "health establishment", composed of officials in such agencies as the Public Health Service, the Centers for Disease Control, the National Institutes of Health, etc., and researchers and scientists in the private center who depend upon government funds for research grants. It also became very evident to me that the health establishment is very powerful; and that it enforces conventional and rigid dogma and brooks no dissent.

Moreover, it soon became apparent that the health establishment regularly "cooks the books"; that statistics and other data are regularly folded, stapled and mutilated to "prove" that the official dogma is true. The CDC, for example, has changed the definition of AIDS three times. Moreover, there is a trend to the changes. Each time the definition was changed, it included more and more women (under the latest definition, any woman with cervical cancer who tests positive under the official HIV tests is considered to have AIDS). Furthermore, each change in the definition broadened the number of people considered to have AIDS so that, while using the original definition, the AIDS epidemic appeared to be winding down, the new definitions made it appear that the epidemic was exploding.

I recalled that Matilda Krim, a private AIDS researcher who receives government funds, had appeared on television some 7 or 8 years ago, to state that there were 2,000,000 HIV infected people in the U.S., and that, supposedly, we'd soon see 2,000,000 cases of AIDS (it didn't happen).

I asked myself, why were these people cooking the books? The answer came through, loud and clear: MONEY. The government folks wanted to expand and enlarge their agencies and promote their careers; and the folks outside government wanted more and more money for their private research projects. Up to that time, I'd pretty much accepted the establishment view of smoking, i.e., that it's bad for you and may lead to lung cancer. But when I saw what the health establishment was doing in the field of AIDS, I began ask myself some questions.

Could it be that the government figures on smoking, like those on AIDS, were cooked to produce a desired result? I began a two year research project, which resulted in this book.

As a result of that project, I learned many things. Most important, I'm afraid, I learned that government statistics on smoking, like those on AIDS, cannot be trusted. Important figures, like the 400,000 "smoking related deaths every year", are made up out of whole cloth. Studies which appear to refute the "dangers" of smoking, e.g., animal studies or some of the second hand smoke studies, are either ignored or subjected to manipulation and distortion to make them fit the official line.

I wrote this book to refute the wild, irresponsible and untruthful anti-smoking propaganda which obscures the truth. I do not expect it will ever make any money, nor do I want it to make any money. Copies of the book were sent to numerous publishers, but even the subsidy publishers, who print and promote books for money, were unwilling to take it. All of which proves that in this country, "If you want a free press, you'd better own a press". Numerous people assisted me in the project. My wife, Kristine, while a non-smoker, never-the-less encouraged me in the effort and I dedicate this book to her. Peter Petrakis, a former Washington, D.C., health writer now living in Washington State, provided much of the early material, including the Mark Twain quotes and the autopsy studies. I drew ideas from writings posted on the Internet alt.smokers newsgroup by such persons as Joe Dawson, Robert Wagner, and Ed Dambik. Jennifer Kraljevich did the cover design.

A disclaimer should not be necessary, but I furnish one, anyway. I am not an employee of any tobacco company. I own no tobacco stocks. I have never worked for any tobacco company as a lawyer or in other capacity. Neither am I a tobacco grower, nor do I participate in any business of any kind in which I profit from the growing, sale, or distribution of any tobacco product.

## ==Chapter 1: The Hysteria==

I am a 64 year old male and I have been smoking cigars and pipes since I was 18. Recently, however, like other smokers, I have found myself hounded, bullied and repressed by a government-sponsored campaign against smoking and smokers. In fact, I've been thrown out of some of the best restaurants in the country, because of my smoking habits! What particularly galls me is the prejudice against cigar and pipe smokers!

The original Surgeon General's Report, released in 1964, showed no ill effects from pipe smoking, or moderate cigar smoking. Indeed, studies relied upon by the SG actually showed that pipe smokers lived longer than non-smokers. The only exception was pipe smokers who quit smoking. They died somewhat sooner than the non-smokers or the active pipe smokers. The SG speculated that the pipe smokers who quit might have done so because they were ill.

In this book, I will show that the case against smoking based on bogus statistics and downright lies. I will show that the case for a link between smoking and disease has not been proven and that, indeed, the international statistics suggest that there's no link at all. Furthermore, I will show that the government estimates of "smoking-related deaths" are simply fraudulent and that the recent EPA report, purporting to show a risk to non-smokers from second hand smoke was predicated on manufactured "evidence" which some of the EPA's own scientists found appalling.

First, however, it may be helpful to recite a little history. From Winston's Cumulative Encyclopedia, published in 1911: \_"Smoking is generally supposed to have been introduced into England by Sir Walter Raleigh, but Camden says the practice was introduced by Drake and his companions on their return from Virginia in 1585. It was strongly opposed by both priests and rulers. Pope Urban VII and Innocent IX issued bulls excommunicating such as used snuff in church, and in Turkey smoking was made a capital offense. In the canton of Bern the prohibition of the use of tobacco was put among the ten commandments, immediately after that forbidding adultery. The Counterblast or denunciation written by James I of England is a matter of history. All prohibitions, however, regal or priestly, were of no avail, and tobacco is now the most extensively used luxury on the face of the earth."

Extensively used, perhaps, but never non-controversial. On his 70th birthday in 1905, Mark Twain said:

I have achieved my seventy years in the usual way: by sticking strictly to a scheme of life which would kill anybody else. It sounds like an exaggeration, but that is really the common rule for attaining old age. When we examine the program of any of these garrulous old people we always find that the habits which have preserved them would have decayed us...I will offer here a sound maxim...that we can't reach old age by another man's road...

I have made it a rule never to smoke more than one cigar at a time. I have no other restriction as regards smoking. I do not know just when I began to smoke. I only know that it was in my father's lifetime and that I was discreet. He passed from this life early in 1847, when I was a shade past eleven; ever since then I have smoked publicly. As an example to others, and not that I care for moderation myself, it has always been my practice never to smoke when asleep and never to refrain when awake. It is a good practice. I mean, for me, but some of you know quite well that it wouldn't answer for everybody that's trying to get to be seventy...Today it is all of sixty years that I began to smoke the limit.

So, even in the "Golden Age" of smoking, there were those who thought it a sin, or worse,

including Mark Twain's father. In recent years, however, there has never been such an assault on Smokers as the one being waged, at the present time, by the United States Government. A special agency has been set up, within the Surgeon General's office, to issue or perhaps manufacture statistics showing the dangers of smoking. It is called the Council on Smoking and Health but I have also seen it referred to by anti-smoking activists as the "Council on Smoking or Health".

In Congress, Representative Henry Waxman called the executives of the Tobacco companies to appear before his Sub-committee. He bullied them, shouted them down when they tried to speak, and demanded "yes" or "no" answers to loaded questions that could not be answered "yes" or "no". It reminded me of the tactics used by Senator Joe McCarthy, when he was persecuting alleged "communists". Waxman even had his own "Roy Cohn", whispering conspiratorially in his ear!

In Maryland, California, and Washington State, statewide bans have been enacted on smoking. New York City has enacted a ban. No matter that almost everywhere that such bans have been enacted, there have been drastic reductions in the businesses of bars, restaurants, bowling alleys, etc., that cater to smokers! Nothing will assuage the zeal of the tobacco prohibitionists except an eventual ban on all tobacco use.

But is all this justified? The Europeans don't seem to think so. In Italy, they still have ash-trays on elevators. In England, people still keep cigars and cigarettes in their homes, and politely offer them to their guests. A prominent British medical researcher, a non-smoker, who spent his life attempting to develop a unified theory of cancer, has written prolifically, questioning the alleged association of smoking with disease. I'll have more about that later.

Beginning in 1981, on annual trips to Martinique and Guadeloupe, islands in the Caribbean which are departments of France, my wife and I personally witnessed the relaxed European attitude towards smoking. At the hotels where we stayed, everybody smoked! Some smoked cigarettes, while other smoked pipes or cigars. Every day, at breakfast, lunch and dinner, I puffed away on my cigars and pipes, and nobody complained until the last day of one trip. On that day, a group of Americans sat down next to us at breakfast, and, sure enough, a young American girl began complaining, loudly, about my smoking.

One day, during our trip, we took a day cruise on a glass bottomed boat. There were a bunch of French people on board. We were up on the second deck, and I was smoking my usual cigar, when my wife decided to go downstairs and get a Coke. No sooner had she left than I spotted a young French girl walking towards me, rather aggressively. She was dressed in short shorts and a brief halter top (I'm old, but not blind). When she got about three feet away, she suddenly stopped. I thought "Oh-Oh!, she's going to demand that I throw away my cigar". But I was wrong! She simply held out a cigarette. I gather she wanted me to light it from my cigar, but I figured my wife might not appreciate such an intimate gesture, so I fished a pack of matches out of my pockets and handed them to her.

## ==Chapter 2: The Burden of Proof==

I am lawyer and, in particular, a trial lawyer. In the law, there is something called the burden of proof. The anti-smoking crowd insists that smokers prove to them that smoking is not harmful. That's a trap. Nobody can prove a negative, i.e., that something is not so.

Recently, a client wanted to know whether a particular document was filed with a government agency. I told him my records did not show that it was filed and that I presumed that it wasn't. That didn't satisfy him. He demanded a "yes" or "no": was it filed or wasn't it? I explained to him that I could send a researcher to the agency, and if the researcher found a copy of the document in the agency's files, that would prove, positively, that it had been filed. If, however, the researcher found nothing, it would prove nothing. There would always be the possibility that the document was mislaid or that the researcher overlooked it.

Tobacco companies know a lot about "burden of proof". That's why tobacco executives don't deny there's a risk in smoking. In fact they even boast that there's a risk. One of their own employees testified to the Waxman panel that he wouldn't want his daughter to smoke. You see, the tobacco companies have frequently been sued by people suffering from lung cancer who claim that they got the disease from smoking cigarettes. The conventional wisdom says that smoking does, in fact, cause lung cancer, but the conventional wisdom is often wrong and, in this instance there is plenty of evidence that it is wrong. The tobacco companies, however, don't need to buck the conventional wisdom in order to defend lawsuits. The tobacco companies have found it easier to defend lawsuits by saying to the plaintiff "Didn't you read the warnings on the cigarette packages? Didn't you listen to all the warnings from prominent physicians and public officials? You went ahead and assumed the risk!".

Back in 1890, the conventional wisdom said that masturbation caused blindness. Suppose some doctor dared to challenge the conventional wisdom, and advised a patient that the practice is harmless. The patient takes the advice, goes ahead and masturbates and goes blind. He sues the doctor and I'm hired to represent the doctor in court. Believe me, if I'm a good lawyer, I'm not going to challenge the conventional wisdom and say the blindness had nothing to do with the plaintiff taking my client's advice! A much better defense is to cross examine the plaintiff: "Haven't you read books written by prominent authorities about the dangers of Onanism? Haven't you heard the preacher warn about it, in church? Haven't you heard the lectures by prominent temperance authorities about this dangerous vice? You proceeded at your own risk!"

Where smoking is concerned, it's obvious that if everybody who smoked developed lung cancer, we could say, conclusively, that smoking "causes" lung cancer. But we all know that not everybody who smokes develops lung cancer, and we also all know of many people who don't smoke a day in their lives, but none-the-less develop lung cancer at an early age and die from the disease. Hal Roach, the producer of the "Little Rascals" movies, was a heavy, 3 or 4 pack-per-day cigarette smoker for his entire life, but died recently, at the age of 101, apparently from simple old age<sup>1</sup>. A former governor of Virginia died recently of lung cancer; he was in his 50's and had never smoked. Just the other day, CNN showed a picture of a Lebanese gentleman, who claims to be 134 years old. He was vigorously puffing on a cigarette, burned down almost all the way to his lips. His formula for a long life: smoking and drinking every day, along with the consumption of fresh vegetables. The world's oldest woman, a 125 year old resident of France, smoked until she was 123.

In my own family, my aunt died recently in Florida, at the age of 78, from lung cancer. She'd

been a smoker in her youth, but gave it up about 25 years ago. A family friend, also a female, died in New York at about the same time as my aunt died. The family friend was in her late 70's or early 80's, and had never smoked a day in her life. Thus, these little old ladies became statistics. Or did they? Actually, it may surprise the reader to learn that death certificates never contain any information concerning the life-styles of the decedents. Therefore, while the Public Health Service keeps certain records showing the cause of death from various diseases, nobody, but nobody keeps any records to show whether the decedents were or were not smokers!

There is an Internet News Group devoted to smoking (alt.smokers). Recently, a participant called the Office of Smoking or Health, in an effort to find out how the government arrives at its estimate of 450,000 annual smoking related deaths. After repeated calls to different individuals within the government, it turned out that nobody really knew how the figures are compiled. Some bureaucrat said he thought the calculations might come from a book, "Foundations of Modern Epidemiology", by David Lilienfeld. They don't. I'll discuss this and other interesting statistical manipulations, later.

Before leaving this subject, however, a recent (04/19/95) letter to the editor of the San Jose, Ca., \*Mercury News\* sheds some light on the methods used by the anti-smoking lobby to generate false reports of "smoking related" deaths. The author of the letter, Mary Ellen Haley, reported that a loved one died of adenocarcinoma. Only 17 days elapsed from the deceased's first visit to the doctor to the day of his death. The letter writer was provided with the information for the death certificate, which she took to the attending physician for completion.

On the death certificate there was a line for the doctor to insert the immediate cause of death, and then three lines for "due to". The doctor inserted "cigarette smoking" under "due to". The letter writer questioned the doctor: was he sure the tumor was caused by cigarette smoking? The doctor said he wasn't sure about that, but there were guidelines issued by the American Cancer Society, and that when a person dies of certain conditions and has smoked, the doctor is instructed to list the "due to" as "smoking". In this instance, Ms. Haley persuaded the doctor to omit the usual "due to cigarette smoking", but obviously, this was a rare occurrence. The willingness of the medical profession to blindly observe "guidelines", issued by the Cancer Society generates a continuous stream of death certificates, validating the official line that cigarette smoking causes everything from heart disease to uterine cancer; yet, there is no shred of scientific evidence to validate any of the certificates; they are based on nothing more than official instructions to put down smoking as the cause of death!

### ==Chapter 3: The World Scene==

As I indicated in the last chapter, neither I nor anybody else can prove a negative. Therefore, I'm not going to try to prove that smoking does not cause hangnails, or heart disease or anything else. The burden of proof rests on those who assert that there is, in fact, a smoking/disease connection. The connection most often alleged is the connection to lung cancer. I will concentrate on that connection, in the following pages.

The \*Oxford Atlas of the World\*, ISBN 0-19-520955-9, published in 1992, gives figures for cigarette consumption in different countries during the time period 1986-1988. The figures are in annual consumption of cigarettes per capita. I have taken them from a graph and have attempted to interpolate between dividers; however, the interpolation errors should be negligible. Here are the figures:

<b>Country:</b>	<b>Consumption:</b>
Hungary	2515
Japan	2510
USA	2020
South Africa	1950
UK	1700
France	1690
USSR	1650
Brazil	1200
Philippines	1150
Venezuela	950
Zaire	150
India	100

To draw any conclusions concerning the influence of smoking upon lung cancer in these countries, we need figures on lung cancer death rates (LCDR's). Fortunately, the World Bank puts out a book which gives statistics for a number of countries which give disease statistics in a form known as "45Q15". The "45Q15" number represents the percentage risk of someone who is 15 years old dying from a particular disease by the time he or she is 60. Figures are not available for all countries; such important ones as the former USSR and India either don't report at all or don't break down deaths from cancer into different types of cancer. Never-the-less, we do have Lcdr's for some of the countries for which we have smoking consumption figures. All of the following statistics are in 45Q15 format, which means they are risk figures in percentages.

In the United States, the male Lcdr is 1.4%, the female risk is 0.7%. Hungary, with the highest rate of cigarette consumption of any country, has a male Lcdr of 2.4; female 0.5%. Hungary shares the highest rates with its neighbor, Czechoslovakia, where the male rate is 2.4% and the female rate is 0.3%. Prima facie, these figures indicate that a high smoking rate is associated with a high Lcdr. Or do they?

Let's look at Japan. As we have seen, Japan is practically tied with Hungary for the highest rate of cigarette consumption in the world. It turns out, however, that the male Lcdr in Japan is 0.5%.

That's approximately one-fifth the rate in Hungary; approximately one-third the U.S. rate. The LCDR for females in Japan is also astonishingly low, 0.2%.

Furthermore, although they have the highest smoking rate of any major nation, the Japanese are remarkably healthy! At birth, a Japanese male has a whopping life expectancy of 75 years (as opposed to 72 in the U.S.A.). Japanese girls, at birth, have a life expectancy of 80 years. Those are the highest life expectancies in the entire world.

Another heavy smoking nation is China. The authors of the World Bank book tell us so, and a recent PBS special concentrated on the "alarming" rate of smoking in China. In fact, in China, the government grows tobacco and receives much of its revenue from cigarette sales. In China, however, the LCDR is about the same as in Japan: 0.56% for men; 0.39% for women, in 1988, the last year for which we have World Bank information.

Interestingly, some nations in the tropical and sub-tropical belts have very low LCDR's, notwithstanding evidence suggesting that smoking is widespread in these countries. In Mauritius, an island in the Indian Ocean where tobacco is an important crop, the LCDR for males is only 0.4; for females it is 0.1. In Barbados, the male LCDR is 0.5; the female rate is zero. In the Seychelles, an island paradise in the Indian Ocean, the male LCDR is 0.4; the female LCDR is 1.0, making that nation the only one in the entire world, where the female rate exceeds the male rate.

At least one researcher has suggested that the low LCDR's in the tropical and sub-tropical countries are attributable to the exposure of the residents to sunshine, which raises vitamin D levels. That theory, however, fails to explain the very low LCDR's in China and Japan which are not tropical or sub-tropical countries.

One possible explanation may relate to the diagnosis of lung cancer. Sri Lanka (formerly Ceylon) has the lowest male LCDR of any country in the world (0.1%), and a female rate of zero. So, if you're worried about lung cancer, you should catch the next plane to Sri Lanka. Before you do, however, you should be aware there is a disease category called "Senile and ill defined". The male death rate from "ill defined" illness in Sri Lanka is 3.4%; the female rate is 2.2%. These figures are many times greater than those for another country (for example, the male rate in the U.S. is 0.3%; in Hungary, it is zero). Clearly, the doctors in Sri Lanka are not doing a very good job of diagnosing causes of death. By comparison, in Hungary (which has the largest number of doctors per capita of any country in the world), every death is accounted for, positively. There are no deaths attributed to "ill defined" causes.

Diagnosis, alone, however, cannot be the whole answer. Japan has an excellent medical system, and cases of lung cancer are surely and accurately diagnosed. The death rate from "ill defined" illnesses in Japan is only 0.1% for males; zero per cent for females. In China, also, there is a rigorous effort to pin-point causes of death; the rates of death for males and females from "ill defined" causes are less than 0.1%. Yet, as we have seen, the LCDR's in China and Japan are very low, despite very high rates of smoking. Moreover, the LCDR figures cannot be dismissed as resulting from poor diagnosis, since the low rate of "ill defined" illness in each country proves that a vigorous effort is being made to accurately pin point exact causes of death.

Possibly, genetic factors are at work. Hungary and Czechoslovakia, each with high LCDR's, are contiguous countries, inhabited largely by fair skinned, blue eyed people. Japan and China, which have very low LCDR's, are separated only by the narrow Sea of Japan, and populated by people with relatively similar racial characteristics. Few figures are available on LCDR's in the developing nations in

the tropical and sub-tropical zones, but the available figures suggest that lung cancer rates are small in these countries, which are largely inhabited by Blacks<sup>2</sup>. Can it be that certain races of the world are genetically more susceptible to lung cancer than others?

I don't know. I can, however, say with certainty that smoking doesn't cause lung cancer in Japan and China. If it did, the LCDR's in these countries, which are populated by heavy smokers, could not possibly be so low!

Addendum (2002):

When I wrote this Chapter in 1996, the only information I was able to get on smoking and disease came from a book published by the World Bank. The World Bank used a very peculiar method of computing lung cancer death rates (LCDRs), based on a percentage likelihood that somebody would die by a certain age, from the disease. Also, the Bank didn't have figures for many countries.

With the continued development of the Internet, figures have become available which allow for a comparison of LCDRs, smoking rates, and life expectancies in many countries. A Dutchman, Kees van der Griendt, has compiled data for 87 countries, using data from the World Health Organization and the CIA Fact Book. The complete study is at his web site:

<http://www.kidon.com/smoke/index.html>

It turns out that a high rate of smokers prevalence translates, in many cases, to long life expectancy and low rates of lung cancer. For males, in 1994, the country with the highest life expectancy (76.6 years) was Iceland, where 31% of the men smoked. The next runner-up was Japan, where 59% of the men smoked, and life expectancy was 76.5 years. Other countries with high rates of male smoking and long life expectancies included Israel (45%, 75.9 years); Greece (46%, 75.2 years); Cuba (49.3%, 74.7 years) and Spain (48%, 74.5 years).

Clearly, these figures rebut the hysterical claims of anti-smoking organizations. Figures bandied about in this country, and never challenged, estimate that smoking costs the smoker at least seven years of life expectancy. Figures circulated in Europe and cited on Mr. Van der Griendt's web page, claim as much as 20 to 25 years of loss of life expectancy. But the official vital statistics from countries with high rates of smoking fail to validate these claims. To the contrary, it turns out that some of the countries with the highest rates of smoking have the longest life expectancies. This is important, not only from the standpoint of lung cancer, but also from the standpoint of heart disease. If, as is frequently claimed, smoking leads to heart attacks, the effects should be clearly show up in the form of greatly reduced life spans in countries where a lot of people smoke. They don't.

## ==Chapter 4: The U.S.: A Smoking Laboratory==

Many people believe that the current concern over smoking and health began with the publication of the first Surgeon General's Report, in 1964. Not so! As early as 1952, the American Cancer Society, frustrated by the inability of medical science to find a cure for cancer (or even find the root causes of the disease), began pointing an accusing finger at smoking. In that year, the ACS began a study of a group of volunteers allegedly to find out whether smoking was related to lung cancer but actually, to prove that it was. They had the support of the Surgeon General at that time, Dr. Leroy E. Burney, who, in an article in the Journal of the American Medical Association, opined that cigarette smoking causes lung cancer and that cigarette smoking is 7 times worse than cigar smoking and 3 times worse than pipe smoking. In the following pages, I will be discussing the relationship (if any) between smoking and lung cancer. Before doing so, however, it needs to be pointed out that, despite the claims of the anti-smoking movement, there is no "pandemic" of lung cancer in the United States. In the United States, there are about 2,140,000 deaths from all causes, each year. Of these deaths, less than 120,000 are from lung cancer<sup>3</sup>. Thus, despite what you may have read or heard, lung cancer is not a common illness.

According to the Surgeon General's Report, released in 1964, cigarette consumption in the United States was 50 cigarettes per capita per annum in 1900; 138 in 1910; 1965 in 1930; 1828 in 1940 and 3322 in 1950. In 1961, according to the Report, cigarette consumption reached a "peak" at 3986. In that year, according to the Report, 68% of all males in the United States over the age of 18 were smokers<sup>4</sup>. The interesting word in the "Report" is the word "peak". By 1964, when the Report was issued, the ACS campaign against smoking was already taking hold, and consumption was already declining. By the time period 1986-88, according to the figures published in the \*Oxford Atlas of the World\*, which I've previously cited, it was down to 2020 cigarettes per capita per year, or just slightly over half the peak rate achieved in 1961. A Surgeon General's Report, issued in 1980, reported that in 1965, 51.1% of adult men smoked and 33.3% of women. According to the same source, the figures in 1979 were 36.9% for men; 28.2% for women<sup>5</sup>. According to the CDC (Centers for Disease Control), 26.5% of all Americans were smokers in 1992. Of these, 22.1% were regular smokers, while 4.4% were occasional smokers.

There are approximately 180 million Americans over the age of 18. Assuming that the average smoker smokes a pack a day (20 cigarettes), we can calculate annual per capita cigarette consumption by taking 26% of 180 million to get the number of smokers (which equals 51 million), multiplying by 365 days to get the annual consumption of all 51 million smokers and dividing by 180 million to get the per capita annual consumption. This gives a result of 2069 cigarettes per annum per capita, which is very close to the number supplied in the \*Atlas\*<sup>6</sup>. The United States, therefore, has been turned into a giant laboratory for the evaluation of a cigarette/lung cancer link. If, in fact, cigarettes do, in fact, "cause" lung cancer, we should see a decrease in the LCDCR's over the time period between 1961 and the present, corresponding to the approximately 50% decline in cigarette consumption, and the comparable decline in smoking. The problem is, we don't!

The Statistical Abstract of the United States, published by the Commerce Department, 1993 Edition, gives statistics for cancer death rates in men and women during the time period from 1970 to 1990. Unlike the international statistics, reported in the previous chapter, the figures in the Statistical Abstract are not percentages. Rather, they represent the number of deaths per 100,000 of population.

Where the figures refer to a particular age group, they refer to the number of deaths per 100,000 population in that particular age group. Thus, the figures are automatically "age adjusted" <sup>7</sup>.

It turns out that in every important age grouping, LCDR's have increased, steadily, between 1970 and 1990, notwithstanding the decline in smoking! Here are the figures from the Statistical Abstract:

For Men				For Women:			
Age Group	1970	1980	1990	Age Group	1970	1980	1990
35-44	17.0	12.6	9.1	35-44	6.5	6.8	5.4
45-54	72.1	79.8	63.0	45-54	22.2	34.8	35.3
55-64	202.3	223.8	232.6	55-64	38.9	74.5	107.6
65-74	340.7	422.0	447.3	65-74	45.6	106.1	181.7
75-84	354.2	511.5	594.4	75-84	56.5	98.0	194.5
85 +	215.3	386.3	538.0	85 +	56.5	96.3	142.8

Particularly interesting are the figures for women. They show dramatic increases in LCDR's, in the key age groups where lung cancer is most prevalent, notwithstanding a steady decline in smoking rates. The most obvious interpretation to be given to these figures is simply that the decline in smoking has not produced any decrease in LCDR's and that, in fact, in most age categories, the LCDR's have gone up. The anti-smoking people have an answer to everything, however, and, to combat the obvious implications of the statistics, they have developed a new theory: the "incubation period" theory. According to that theory, lung cancer is caused by smoking, and there is an "incubation period", variously given as 20 years, thirty years, or some other number, during which cancer develops in the lungs of smokers. According to this theory, the dramatic increase in LCDR's in women simply confirms that smoking causes lung cancer, because women began to smoke more recently than men, and the effects are just starting to show up in the figures.

There are a number of problems with the "incubation period" theory. The first is simply that, contrary to the assumptions advanced by the proponents of the theory, women are not newcomers to smoking, in America. A Gallup poll, taken in 1944, revealed that 36% of the women in the U.S. over the age of 17, smoked" <sup>8</sup>. In 1959, the Department of Agriculture estimated that 47% of the overall population of the U.S., over the age of 14, smoked, and that men smoked an average of 24 cigarettes per day while women smoked 19" <sup>9</sup>. I have found no reliable statistics for female smoking earlier than 1944" <sup>10</sup>, but would remind the reader that in films, books, etc., the female "flapper" of the 1920's was usually depicted with a cigarette in her mouth, often in a long white holder. Anyway, various surveys, taken between 1955 and 1985 and cited in \*International Smoking Statistics\* show female smoking rates as low as 27% and has high as 37%, with the latest surveys (1985) at 25% or 28% (according to which survey you believe). The notion that women were shy abstainers from tobacco use until recent

years simply is not supportable.

A second, even more serious problem for the "incubation period" theory is that the statistics for LCDR's in women just don't add up when compared with the overall cancer death rate in women, i.e., the rate of death from cancers of all kinds, combined. According to the Statistical Abstract, that overall cancer death rate, age adjusted, has remained practically constant over the years. In 1970, it was 108.8; in 1990, it was 112.7. But how is this possible, given the dramatic rise in LCDR's in women?

To answer that apparent paradox, we must remember that we're talking death rates, not rates of incidence of disease. The death rate in females from heart disease has declined significantly in recent years. Here are the rates, by age groups, for ischemic heart disease (the major killer in that category):

<b>Age Group</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>
45-54	84.0	52.2	33.6
55-64	299.1	164.5	135.4
65-74	978.0	430.1	415.2
75-84	2866.3	1842.7	1287.6
85 +	6951.5	5280.6	4257.8 <sup>11</sup>

Furthermore, medical science has made considerable progress in curing some of the kinds of cancer which afflict women. Thanks to pap smears and mammography, cancers of the genital organs and breast can now be detected early and often successfully treated. Thus, more women are living to the ripe old age where lung cancer usually strikes. Progress has also been made in prolonging the lives of lung cancer victims through chemotherapy, which may well account for the slight reduction in lung cancer rates in younger women (and men). The anti-smoking crowd, however, refuses to even consider these factors. They are committed to the belief that if smoking were just prohibited, disease, of all sorts, would be practically eliminated. When the statistics fail to show that the drastic decline in smoking has brought about a corresponding decline in LCDR's, the anti-smokers simply postulate longer, and longer "incubation" rates for lung cancer (forgetting, by the way, that on that theory, there also has to be an "incubation period" for the disease in the thousands of non-smokers who develop lung cancer!).

## ==Chapter 5: Some Studies that Went Wrong!==

In February, 1991, a paper was published in the Journal, Cancer, entitled "Comparative Epidemiology of Cancer Between the United States and Japan". The authors, Ernst L. Wynder, M.D., et al, started out with the assumption that smoking causes lung cancer. In fact, Dr. Wynder has been crusading against smoking since the 1950's and the authors' report was paid for by the anti-smoking National Cancer Institute. As we will see, the authors took some liberties with the figures presented in their report, so as to try to make the data fit their preconception that smoking causes lung cancer, but eventually had to admit that the data did not support that assumption. The highlight of the Wynder Report is a graph, which purports to show per capita cigarette consumption in the United States and Japan for the time period 1920 to 1985. The graph relies upon data, plotted at five year intervals. It purports to show a sharp dip in consumption during World War II, to less than 1/3 the pre-war rate. Also, amazingly, it purports to show that for the entire time period between 1920 and 1985, per capita cigarette consumption in Japan was always less than in the U.S.

As we will shortly see, the authors of the Wynder Report presented data which they themselves acknowledged to be in contradiction with their own graph. Before discussing that matter, however, it will be helpful to consider a basic problem in epidemiology, i.e., the difficulty of comparing data for two differing populations.

Suppose we postulate that people who eat jellybeans are prone to develop more carbuncles than people who don't. To test the theory, we decide to study jellybean consumption in two different countries: country A and country B. Both countries have populations of 1,000,000 divided equally between men and women. Jellybean consumption in both countries is 1,000,000 beans per day, yielding a per capita consumption figure of one jellybean per person per day. There is, however, a difference. In Country A, only men eat jellybeans, while in Country B, both men and women eat jellybeans. Obviously, in Country A, the jellybean consumption for men is 2 per day, while in Country B it is one. In Country A, the daily jellybean consumption for women is zero, while in country B it is one. Any comparison of the two countries must take this into account. Dr. Wynder and his colleagues presented data on relative smoking rates for men and women in Japan and the United States. The rates, expressed in terms of the percentage of each sex who smoke, are as follows:

<b>Year:</b>	<b>1955</b>	<b>1965</b>	<b>1976</b>	<b>1980</b>	<b>1985</b>
<b>U.S. Males</b>	52.6	52.1	41.6	37.9	33.2
<b>U.S. Females</b>	24.5	34.2	32.5	29.8	27.9
<b>Japanese Males</b>	81.4	82.3	75.1	70.2	64.6
<b>Japanese Females</b>	12.8	17.7	15.4	14.4	13.7

Likewise, the authors presented statistics for 1970, 1980, and 1986, showing that Japanese males smoke more cigarettes per day than U.S. males, while Japanese females smoke fewer cigarettes per day than their counterparts in the U.S. Clearly, the total consumption figures given in the graph, accompanying the report, need to be adjusted to take into account the differing rates of smoking among

males and females in Japan and the US. Otherwise, the authors are comparing apples and oranges. No adjustment was made but, if one had been made, so as to compare only Japanese males with US males, the graph would most assuredly have shown much higher per capita consumption in Japan than in the U.S. This is so because, in Japan, where few women smoke, the large number of non-smoking women "waters down" or dilutes the per capita consumption figures for the population, taken as a whole.

Other data presented in the report compared the lung cancer death rates in Japan and the U.S. For some reason, the authors elected to give figures only for white U.S. males and females, excluding African Americans and American Indians (probably, the inclusion of that data would have interfered with some pre-conceived notions). Whatever the case, the male lung cancer death rates, age adjusted, for 100,000 of population were presented as follows:

<b>Year:</b>	<b>1955</b>	<b>1965</b>	<b>1975</b>	<b>1985</b>
<b>U.S.</b>	90	130	160	165
<b>Japan</b>	15	35	45	50

At the time of the release of the report, there were interviews on TV with Japanese doctors, who sought to explain the high rate of smoking in Japan and the low rate of lung cancer by declaring that in Japan, cigarettes were hard to get, during World War II. The graph, prepared by Dr. Wynder and his colleagues, seems to support that claim, showing as it does a big dip in cigarette consumption during the War.

The graph is, however, tricky. The data is plotted at five year intervals, and 1945, the last year of the war, is one of the years used. Simple interpolation was used to indicate the data between 1940 and 1945, and between 1945 and 1950; in other words, the authors drew two straight lines, one between 1940 and 1945, and another between 1945 and 1950.

Actually, data is available for annual cigarette consumption in Japan for every year from 1920 to 1990, based upon sales. Those figures come from a book, *\*International Smoking Statistics\**, published by the Oxford University Press in 1993. The figures show that in Japan, as in the U.S., there was a switch from machine made cigarettes to hand rolled cigarettes during World War II. Taking that into account (which the Wynder authors apparently did not), the Japanese consumed 71,158 million cigarettes (of both kinds) in the last year before the War, 1941. Consumption continued unabated until 1944, when 64,280 million cigarettes were consumed. In 1945, consumption dropped to 31,021 million cigarettes. It then rose steadily until 1950, when 75,138 million cigarettes were consumed. So there was a dip, but it lasted only 5 years, and was not nearly as pronounced or as lengthy as the Wynder chart would make it seem.

The bottom line, however, was the concession of Dr. Wynder that the data did not support smoking as a cause of lung cancer in Japan. That concession did not come without a few confusing gyrations. In discussing cancer of the larynx, the authors say that "The age adjusted mortality rates for laryngeal cancer during 1955 are higher in U.S. Whites than in the Japanese. These differences can be partially explained by the higher levels of cigarette consumption and alcohol consumption in the U.S.". The authors discuss cancer of the esophagus, saying that "In spite of the higher tobacco and alcohol

consumption in the U.S., Japanese males have higher esophageal cancer mortality rates, which suggests that other risk factors are of importance". Thus, in their discussions of these two types of cancer, the authors assert that smoking and alcohol use are greater in the U.S. than in Japan, using that "fact" in one instance to justify their preconceived belief as to the cause of laryngeal cancer, and dismissing the "fact" as irrelevant when it comes to the other cancer (esophagus), where the figures just don't bear out the preconception.

When it comes to lung cancer, however, the authors state that during 1955 to 1985, lung cancer death rates are "higher in US White men than in Japanese men which is discrepant with the higher prevalence of cigarette smoking among Japanese males for the same period of time". Exactly! According to the authors' own figures, the lung cancer rate among Japanese males is less than one third the rate among US White males, and as early as 1955, 81.4% of Japanese men were smokers (compared to 52.6% in the U.S.). That is, indeed, a big discrepancy. The Wynder authors must have had to write that word "discrepant" through gritted teeth, but at least they had the honesty to do it.

On January 13, 1995, the \*Wall Street Journal\* reported another study, this one involving animals and funded, in part, by the U.S. National Institutes of Health. According to the report, the study was inspired when a researcher in Buffalo, John Pauly, was studying some tissue from a smoker and lung cancer victim and found a tiny particle of cellulose acetate, the material used to make cigarette filters. He apparently decided that pieces of cigarette filters, imbedded in the lungs, are the cause of lung cancer and decided to do an experiment with mice. He implanted pieces of filters, coated with cigarette tar, in the lungs of six mice and found that they remained intact in the lungs for six months. This finding was hailed as a great break-through, demonstrating that pieces of cigarette filters may lodge in the lungs and cause cancer. What this ignores, however, is a simple fact: no cancers were found in the mice! What the study really proves, therefore, is merely that implanting pieces of cigarette filters, drenched with tar, in the lungs of mice does the mice no apparent harm!

Before leaving this subject, i.e., studies which don't bear out the smoking/lung cancer connection, it's worth mentioning a couple of studies that involve Native Americans. Some of the heaviest smokers (and drinkers) in America are to be found among the Native Americans. In fact, a 1992 study by the CDC showed that 39.5% of American Indians smoked, as opposed to 25.6% of the general population. Knowing this, I have been looking for some statistics on lung cancer among Native Americans.

Turns out there have been at least two such studies. The first was conducted by J.M. Samet, et al, of the University of New Mexico School of Medicine and published at \*Am J Public Health\* Sept., 1988, 79(9) 1182-86. The study dealt with both Hispanics and Native Americans. The authors concluded that in the study \ period (1958-82), "[in whites] age adjusted mortality rates from lung cancer and from chronic obstructive pulmonary disease increased progressively in males and females. Mortality rates for both diseases increased in Hispanics during the study period, but the most recent rates for Hispanics were well below those for Other Whites....in Native Americans, rates for both diseases were low throughout the study period, and did not show consistent temporal trends."

The second study was conducted by M.C. Mahoney, et al., of the New York State Department of Health, using data from Native Americans in upstate New York, during the time period 1980-86. It is published in the \*Int J Epidemiology\*, June, 1989, 18 (2) 403-412. The authors came to the same conclusion as Samet, et al. They stated that the principal causes of death among the Native Americans were TB, diabetes, pneumonia and cirrhosis. However, "fewer than expected malignant

deaths occurred among both Native males and females [and]... A deficit of deaths was observed for colon and lung cancer deaths among Native males and for colon and breast cancer deaths among Native Females...".

In short, Native Americans smoke more than the general population but suffer from less cancer and, in particular, less lung cancer.

## ==Chapter 6: The Propaganda Machine==

Beginning in the early 1950's, the American Cancer Society started to wage war against smoking. Later, the government took up the cudgel and, today, there is a government agency, the Office of Smoking and Health, dedicated to stamping out smoking. Unfortunately, the government propaganda is often predicated upon assertions which are simply untrue. In many instances, these are examples of the "LaLonde effect".

Marc LaLonde was formerly the Canadian Minister of National Health and Welfare. He argued that health messages should be vigorously disseminated, and should be "loud, clear and unequivocal" even if unsupported by scientific evidence. If a particular study showed that smoking might be related to a particular disease, it made no difference to LaLonde whether the study was seriously flawed, or not. He felt that releasing the study was always justified, if it would convince people to stop smoking, since everybody knew that smoking was bad for people.

The LaLonde effect is by no means new. As early as 1955, J. Neyman wrote an article in *\*Science Magazine\**, entitled "Statistics - servant of all sciences". In the article, he commented upon a statistical study of smoking and cancer and concluded that the study was possibly flawed. None-the-less, he felt obliged to remark, in a footnote, that "A referee warns me that in spite of the fictitiousness of the figures in Table 1 and in spite of the emphasis on the methodological character of my remarks, the 'tobacco people' may pick up the argument and use it for publicity purposes" <sup>12</sup>.

Every year, the government releases figures on the number of "smoking related deaths" in the United States. The most recent figure is 470,000, although Congressman Waxman recently said 500,000. Most people assume that there is some scientific basis to that figure. Not so! The government "scientists" simply take a flat percentage of the number of people who die from a particular disease, and assume that to be the number whose death was caused by smoking. There are no autopsies, no studies on actual human beings.

Dr. Bernard M. Wagner, the editor of *Modern Pathology*, recently wrote, "Are there 450,000 smoking-related deaths per year in America? Maybe...but no human beings are ever studied to find out". Wagner went on to say the biggest obstacle to knowing what is actually going on is the low autopsy rate in this country, about 10%.

Perhaps the best (or maybe the worst) example of the LaLonde effect is the recent report of the Environmental Protection Agency on the "dangers" of second-hand smoke (ETS).

In an article published in the Winter 93-94 issue of *Bostonia*, a magazine published by Boston University, the EPA Report was vigorously attacked by Dr. John C. Luik, a non-smoker, and a senior associate of the Niagara Institute, Ontario, Canada. As Luik showed, the EPA study was based on some 30 studies from several different countries. These studies dealt, essentially, with the effect of smoking by a smoking husband or wife on a non-smoking spouse. Of the thirty studies, 24 showed no statistically significant connection between ETS (environmental tobacco smoke) and lung cancer. However, while the EPA saw fit to discuss and refer to all 30 studies, it made a statistical analysis of only 11 U.S. studies. EPA conceded that ten of these studies also showed no statistically significant increase in lung cancer risk. One study alone showed such a risk, but to show such a risk, the EPA was obliged to reduce the statistical "confidence factor" which it normally uses in such analyses from 95% to 90%!

The EPA then went on to merge all of the eleven studies together (a statistically invalid procedure since the studies were not all structured the same way), and to reanalyze the results, using the newly reduced "confidence factor". By folding, mutilating and stapling the data, the EPA decided that the spouses of smokers had a risk of developing 119 lung cancers, as opposed to a risk of 100 such cancers in the spouses of non-smokers. Without the reduction in the "confidence factor", no statistically significant risk could have been shown. None-the-less, the EPA branded ETS a "carcinogen".

Writing in *\*Toxicological Pathology\**, Alvan Feinstein, a Yale University epidemiologist quotes another prominent epidemiologist as saying this about the EPA report: "Yes, it's rotten science, but it's in a worthy cause. It will help us to get rid of cigarettes and become a smoke-free society". The "LaLonde Effect" is alive and well!

Meanwhile, the propaganda machine continues to spew out all kinds of spurious information and distortions. On July 13, 1994, an obituary in the *\*Washington Post\** reported the death, at age 60, of Richard Joshua Reynolds, III, an heir to the founder of the R. J. Reynolds Tobacco Company. The headline, and an accompanying photograph showed the deceased holding a lighted cigarette, implying that Reynolds died from emphysema, caused by smoking. Reading the body of the obituary, however, it turned out that he had quit smoking eight years before his death; that there was a family history of emphysema and the deceased's own father had died from the disease at the age of 58; and that his doctor was unable to state the "immediate cause" of his death!<sup>13</sup>

Recently, also, the Post Office released a postage stamp, honoring a deceased jazz musician. The likeness of the musician is on the stamp, and is based on a photograph, taken while he was alive. The original photograph showed the musician with a cigarette dangling from his lips. But the cigarette has been airbrushed out in the postage stamp!

Recently, on Maryland Public TV, an official of the Maryland Cancer Society made the statement that the smoking/lung cancer connection had been established in "laboratory experiments". Of course, it has not, but nobody challenged him.

Similarly, in a recent CNN television program about smoking, a lady was presented who had lost her larynx to cancer and had to use an artificial voice box. In the course of the program, it came out that the lady was a life long non-smoker. The moderator, however, proceeded to explain that the cancer had been caused by second hand smoke!

Whenever anybody challenges the view that "tobacco kills", they are immediately confronted with the argument that they are tools of the giant tobacco companies. Supposedly, these companies spend millions to spread lies and disinformation concerning smoking.

The truth is that the anti-smoking lobby has successfully demonized the tobacco companies to such an extent that few public officials would dare accept contributions from tobacco companies, lest they be charged at election time with accepting "tobacco money". The truth is, moreover, that there is a lot of money to be made in the anti-smoking movement, and lots of people are benefitting, financially, from that movement.

In 1994, the Labor Commissioner for the State of Maryland proposed a state-wide smoking ban. It was far reaching indeed, and, in its original form, would have prohibited people from smoking, even in their own hotel rooms, on the theory that the maid might come in to clean up, sniff some second-hand smoke and suffer lasting injury.

At the time the ban was originally proposed, a stream of U.S. government officials poured into

Maryland, conducting seminars and public meetings to whip up support for the ban. These officials, from such agencies as the Office on Smoking or [sic] Health, EPA, FDA, etc., make a good living, "educating" the public in the dangers of tobacco. Furthermore, the months leading up to the ban were filled with television spots, featuring animated skeletons, demonstrating the "dangers" of smoking. These spots were paid for with taxpayer monies. A similar television spot campaign runs in California, also paid for with taxpayer dollars.

At the time the Maryland ban was first proposed, William Donald Schaefer was Governor. In November, 1994, an election was held for a new governor, and the smoking ban became a campaign issue. The Maryland "hospitality industry", consisting of owners of restaurants, bars, convention promoters, etc., was terrified that the ban would drive business out of the state to such nearby jurisdictions as the District of Columbia, Virginia, Delaware, West Virginia and Pennsylvania. Ellen Saurbrey, the Republican, promised to do away with the ban. Her Democratic opponent, Parris Glendening, promised to provide exemptions for small businesses, taverns, restaurants, etc.

Glendening won the election by a whisker-thin margin, amidst charges of voter fraud. Upon assuming the governor's office, he forgot all about his campaign promises, and set about to impose what amounted to an all-encompassing ban. At a meeting of anti-smoking forces in the state capital, the governor appeared with Victor Crawford, a self-styled former lobbyist for the tobacco industry, who now has throat cancer and attributes it to his former smoking habit. At the same rally, the Governor declared that 3,000 Marylanders die every year from second-hand smoke (a figure which is a fabrication, pure and simple: remember, even in its highly flawed report on second hand smoke, the EPA claimed no more than 3,000 deaths, annually, in the entire nation). The governor went on to claim that Maryland has the highest rate of cancer in the nation. On the basis of death certificate records, that's technically true; however, the Governor neglected to mention that Maryland has many large cancer treatment centers, e.g., NIH, Bethesda Naval Hospital, and John Hopkins University Hospital, and that when people die from cancer in these institutions, their death certificates are issued in Maryland, even though the deceased may have come here from Iowa!

Ultimately, the state legislature passed legislation, exempting some bars and restaurants from the ban, and the governor compromised, declaring, however, that he would come back later and remove the exemptions. Meanwhile, however, Victor Crawford had a field day with the press. He was featured in editorials and in a "60 Minutes" television interview with Leslie Stahl. In the interview, Crawford asserted that he had served the tobacco companies by "turning out the troops" for pro-smoking rallies; (b) presented false laboratory reports; and (c) presenting false information on poll results, affecting smoking.

The Tobacco Institute has denied that Crawford did any significant amount of work for them. Moreover, in the 22 years that I've lived in Maryland, I never heard about any pro-smoking rallies, or any polls dealing with smoking, or any "laboratory reports". So, I searched the archives of the Baltimore Sun. There were five references to Crawford: three dealing with his present claims that he lied on behalf of the tobacco companies, one dealing with a property dispute, and another, which identified him as a prominent criminal lawyer, who had been involved in 33 capital cases. There were no references to any pro-smoking rallies, or polls dealing with smoking, or lab studies dealing favorably with smoking. So, if Crawford organized rallies, they must have been kept very quiet and, if he distributed information about polls or lab studies, that information must have been kept very quiet.

Crawford, of course, is a confessed liar. In fact, on "60 Minutes", he bragged about the lies he

supposedly told. The question I have is whether a confessed liar can be believed, when he says that he's now telling the truth. Is it possible that he was paid for his appearances with the Governor?

Crawford's name surfaced again in the September 23, 1995 edition of the \*Washington Post\*. There, a story appeared about a prostitute who said she had sex with a Montgomery County judge and that her own attorney offered her \$10,000, if she would leave Maryland after the investigation began. The attorney? None other than Victor Crawford. Crawford denied the allegation of course, but his denial shows that he still has tobacco on his mind. In a telephone interview from Denver, Crawford said, "Somebody's got their facts awfully screwed up if they think I'm involved with this...Ten thousand dollars? Somebody has really been smoking some funny cigarettes on this one...".

The story goes on to say that Crawford gained national attention this summer when he was profiled by the CBS News program, "60 minutes" for abandoning his life as an Annapolis lobbyist for the tobacco industry. Apparently, the \*Post\* forgot that, in their March 4 Edition, Crawford admitted that he really never had a "life" as a tobacco lobbyist in Annapolis or any place else. In an interview, he disclosed that he lives in the posh Washington, D.C., suburb of North Chevy Chase (some 60 miles from Annapolis), and that his career as a tobacco lobbyist consisted solely of working on contract for the Tobacco Institute for 6 years in the late 1980's. In the same interview, he claimed that he received "about \$20,000" for his services, at a rate of "up to" \$200.00 per hour. That meant that, if he can be believed, he devoted approximately 17 hours per year to tobacco lobbying.

Many anti-smoking "experts" are paid, and paid very well. There are grants available from the cancer societies and from governments, for anti-smoking research and "education", and many people benefit from these grants. In California, Proposition 99, passed in 1988, has turned out to be a mother lode for the anti-smoking lobby. Under its provisions, there is so much to dole out that practically anyone with a harebrained scheme can profit, so long as their ideas can be viewed in some way as furthering the anti-smoking cause. Thus, camping trips are funded and the hikers clothed with tee-shirts bearing anti-smoking messages. One group built a race car with anti-smoking slogans on it and now tour the racing circuit at smokers' expense. Swimming pools are built for schools on the condition that smoking be banned throughout the property, including in teachers' cars on the parking lot.

If Crawford is the "Poster Boy" for the anti-smoking movement, Stanton Glantz is the movement's high priest. Glantz is a professor at UCSF, in California. In addition to his salary, Glantz gets generous government research grants as well as speaking fees from numerous groups such as the American Heart Association. Glantz recently came up with a figure of 53,000 deaths per annum in the U.S. from second hand smoke. In truth, Glantz did not support his estimate with any scientific data; he didn't have to. His adoring audiences will believe anything he says, and he gets paid to say it, so long as he tells the audiences what they want to hear.

Before leaving this subject of propaganda, mention should be made of the oft-repeated canard that smoking imposes costs upon society, which must be paid by non-smokers. The State of Florida, among others, is suing the tobacco companies for the medical costs which it claims to have incurred as a result of the smoking habits of its residents.

Now, I do not happen to think that smoking causes any disease. Assuming, however, solely arguendo, that smokers do, in fact, die prematurely from smoking-related diseases, there is a considerable saving to society because these dead smokers do not collect their full social security and/or pension benefits. Moreover, smokers pay cigarette and tobacco taxes, both to the states and the

federal government, which non-smokers do not pay.

In 1991, Willard G. Manning, et al., published a landmark study on the costs to society of alcohol and tobacco <sup>14</sup>. Manning and his colleagues were no friends of tobacco. They assumed that smoking causes premature death, extra sick leave, and fires. Never-the-less, when all of the costs attributed to smoking by Manning are added up and offset against the benefits, it is clear that smokers pay more to society than they take from society. In the following table, a minus sign denotes a cost to society, while a positive sign denotes a saving or benefit. All of the figures are expressed in cents per pack of cigarettes smoked:

Additional medical expenses from smoking	-26
Sick leave costs	-01
Group life insurance	-05
Fires caused by smoking	-02
Lost tax revenues due to premature death	-09
Reduced use of retirement pensions	+24
Reduced use of nursing homes	+03
Federal cigarette tax	+24
State and local taxes <sup>15</sup>	+26
<b>Net Benefit to Society</b>	<b>+34</b>

This is, perhaps, a convenient place to mention another benefit to society which formerly accrued from smoking, but no longer exists, because of the ban on smoking in commercial airplanes. In these aircraft, devices known as "packs" are used to filter the air in the passenger cabins. When smoking was allowed, the airlines used up to six packs to filter the air in first class; a fewer number in economy class. Packs, however, cost the airlines money, because they decrease fuel economy. The smoking ban enabled the airlines to reduce the number of packs they used, and they did so, enthusiastically, since, without the odor of smoke, passengers could not tell whether the air was being efficiently filtered, or not. As a result, the air in commercial airliners is likely to be filthy, and laden with viruses, bacteria, and other unpleasant things. It's no coincidence, therefore, that stories have started cropping up in the newspapers about stewardesses who transmitted tuberculosis to passengers and other crew members <sup>16</sup>. The odor of tobacco smoke formerly served the same function as the odor that gas companies add to natural gas. It warned of insufficient ventilation.

## ==Chapter 7: The Surgeon General's Reports==

At this point, the reader will likely ask, "But what about the Surgeon General's Reports? Don't they prove that smoking causes lung cancer?" Actually, they don't.

It's not easy to get copies of these Reports. When I started my research, I combed the local libraries without success, and called major libraries all over the country. Nobody had any copies. One reason the Reports may be so difficult to obtain is that they contain material which might be embarrassing to the anti-smoking lobby, e.g., the data on pipe and cigar smoking. Ultimately, I found a small company in Alexandria, VA, which was able to supply copies of the reports from 1964 through 1982, on microfilm. During that time frame, there were a total of 15 Reports, issued sporadically between 1964 and 1982. The largest, most massive Report was issued in 1979, and dealt with programs to "educate" (force) people not to smoke. The last Report that I have was entitled the "Changing Cigarette", and dealt with such things as filters, tar content, etc. The basic "science", purporting to show that smoking causes lung cancer was set forth in the first Report, in 1964, and for that reason I will concentrate here on an analysis of the 1964 Report.

The 1964 Report was issued by a committee of ten "scientists", picked from a list of 150 scientists and physicians, heavily weighted towards government agencies and large organizations active in public relations, with a low representation from the scientific community. There were no statisticians on the panel, although statistical expertise was essential to a proper analysis of the epidemiological studies, which formed a large part of the "evidence" which was studied. In 1965, a prominent statistician, K.A. Brownlee, of the University of Chicago, wrote a scathing review of the Report, pointing to many discrepancies in the statistical data. I will refer to that later <sup>17</sup>.

Prior to the writing of the Report, numerous experiments had been conducted, attempting to induce lung cancer in laboratory animals by painting their lungs and trachea with cigarette tars, forcing the animals to inhale vast quantities of tobacco smoke, etc. All of these experiments failed, miserably! Consequently, at page 165 of its Report, the Committee was obliged to concede that "Broncho genic carcinoma has not been produced by the application of tobacco extracts, smoke, or condensates to the lung or the tracheobronchial tree of experimental animals with the possible exception of dogs".

The phrase "possible exception of dogs" related to a single experiment, of which the Committee wrote that "this work has not yet been confirmed". To this day, it remains unconfirmed and it remains true, to this day, that despite hundreds of experiments <sup>18</sup>, nobody has been able to induce a single cancer in lab animals by exposing them to ordinary tobacco products or smoke.

Other researchers attempted to induce lung cancer in lab animals by using nasty combinations of industrial strength carcinogens. They used mixtures of ozonized gasoline and mouse-adapted influenza viruses; polycyclic aromatic hydrocarbons, directly applied to the lungs of rats; mixtures of benzo(a)pyrene and iron oxide dust; radioactive cerium; and beryllium oxide. Even with these noxious brews, the results were not entirely successful. For one thing, some of the experimenters reported "distant metastases", i.e., tumors occurring in sites far from the lungs (which makes me wonder whether the "treatments" had simply weakened the animals' immune systems to the point at which cancers were springing up spontaneously throughout their bodies). Moreover, not all the animals got sick. For example, two out of ten rhesus monkeys injected with beryllium oxide developed cancers but 8 did not.

The animal experiments having failed, the Committee was left with retrospective studies and prospective studies. Retrospective studies are studies in which cancer patients are interviewed about

their smoking habits and compared with another group of controls from the general population, whose smoking habits are likewise identified. In prospective studies, a population is sampled, their smoking habits are ascertained, and they are then followed for a number of years, to determine who develops the disease.

The Committee had a number of retrospective studies available, but wisely decided not to rely much upon them, because of well known problems with such studies. Instead, it chose to rely upon seven prospective studies, as follows:

(1) British doctors, a questionnaire having been sent to all members of the medical profession in the U.K. by Doll and Hill, in 1956.

(2) White American men in 9 states, enrolled by American Cancer Association volunteers, each of whom enlisted 10 white males between 50 and 60 years of age. Hammond and Horn, 1958.

(3) Policy holders of U.S. Government Life Insurance policies. Dorn, 1958.

(4) Men, 35-64 in nine occupations in California which were suspected of having a high occupational risk of lung cancer. Dunn, Linden and Breslow, 1960.

(5) California members of the American Legion and their wives. Dunn, Buell, and Breslow, 1961.

(6) Canadian War Veterans. Best, Josie and Walker, 1961.

(7) American men in ten states, enrolled by volunteers from the American Cancer society, each of whom was asked to enroll about ten families containing at least one person over 45. Hammond, 1963<sup>19</sup>.

Now, right off the bat, there were several sources of bias immediately apparent in the manner in which the surveys were conducted. It was obvious to everyone, including the participants and their doctors why these studies were being conducted, i.e., to prove that smoking causes lung cancer. Thus, an element of detection bias was introduced. I'll return to that point shortly.

There was also the matter of the selection of the survey participants. Not all the holders of U.S. Government Life Insurance policies participated; not all the British doctors participated, etc. Taking the five studies for which it had data on the non-response rate, the Committee concluded that the average non-response rate was about 32%. Then, at page 116 of its Report, the Committee made the following curious observation. Citing a paper by Berkson<sup>20</sup>, the Committee said, "The death rate in the complete population (3,000) was 42% higher than the respondent death rate. The non-smoker death rate was over 38 times as high among non-respondents as among respondents (60.1221/1.553), whereas among smokers it was only 1.8 times as high. [Berkson's] calculations referred to an early year of the study, in which the differential entry of ill persons among smokers and non-smokers are likely to be most marked. Further, as we interpret his writing, the example was intended as a warning against the type of subtle bias that can arise whenever a study has a high proportion of non respondents, rather than a claim that this numerical estimate of the bias actually applied to these studies".

Thus, the Committee was confronted with what should have been a red flag: a finding that the death rate amongst non responding non-smokers was 38 times as great as the rate amongst responding non-smokers, whereas the death rate among non-responding smokers was only 1.8 times as great as the death rate among corresponding respondents. It is apparent, even to a layman, that such a major discrepancy could greatly skew the results of the surveys. Yet, the Committee brushed the point aside, saying, in substance, that it didn't think that Berkson meant what he wrote!

There were troublesome discrepancies. The Committee found that the most potent carcinogen

present in tobacco smoke is benz (a) pyrene (p. 27). According to the Committee, cigar smoke has 4 times as much benz (a) pyrene as cigarette smoke, and pipe smoke ten times as much as cigarette smoke (p. 58). Yet, the Committee found pipe and cigar smoke to be pretty much innocent of causing lung cancer, and even concluded that pipe smokers live longer than non-smokers (unless they quit - the Committee concluding that those pipe smokers who quit had done so because they were already ill).

Some would argue, of course, that cigar and pipe smokers inhale less than cigarette smokers (although, in my case, I inhale both pipes and cigars). If, however, inhalation is a factor in the development of disease, it should show up in relative inhalation rates for cigarette smokers. A study was, in fact, conducted by Hill and Doll, which sought to classify cigarette smokers as inhaling vs. non-inhaling. At page 188 of the Report, there is a reference to a "negative association" between inhaling and lung cancer, based on the "early" Hill and Dole studies.

In 1959, in fact, R.A. Fischer analyzed some of the Hill and Doll data and concluded that inhalers have a lower rate of lung cancer than non-inhalers <sup>21</sup>. Fischer's findings were incorporated into Table 8 of the 1982 Surgeon General's Report, but the Report did not deal with this apparent paradox.

The Committee did, to some extent, recognize the effect of socio-economic status on the various prospective studies which it analyzed. Table 26 at page 109 of the Report showed incidents of morbidity, derived from all seven prospective studies, for 25 different causes of death. In all but two categories (cancer of the rectum and intestines), smokers showed an increased risk of death, as opposed to non-smokers. Indeed, it was claimed that smokers have increased risks of dying from such diverse causes as accidents and suicide, cirrhosis of the liver and bladder cancer, as opposed to non smokers. This troubled Brownlee, because he failed to see the "specificity" of smoking to the disease which the Committee claimed to be "caused" by smoking, i.e., lung cancer. After all, common sense would seem to show no connection between smoking and prostate cancer, or smoking and cirrhosis of the liver. Perhaps, what the studies were really studying was social class. Cigarette smokers tend to come from lower socio-economic strata than cigar or pipe smokers, or non smokers. Perhaps it is socio-economic status that accounted for the paradoxical finding that pipe smokers lived longer than non smokers and that cigar smokers lived the same.

Studies published in recent years (and therefore not available to the 1964 Committee) bear out the relationship between socio-economic status (SES), smoking and morbidity. A 1990 study <sup>22</sup> showed the following relationships between smoking and levels of education:

**Percentage who Smoke (U.S.)**

<b>Years of Education</b>	<b>Males</b>	<b>Females</b>
<b>less than 13</b>	41	36
<b>13-15</b>	30	24
<b>16</b>	25	15
<b>&gt;16</b>	18	17

A 1973 Study <sup>22a</sup> correlated morbidity with educational levels, as follows:

**Ratio of Observed to Expected Deaths, U.S., ages 21-65**

<b>Years of Education</b>	<b>Males</b>	<b>Females</b>
<b>16+</b>	0.70	0.78
<b>13-15</b>	0.85	0.82
<b>12</b>	0.91	0.87
<b>9-11</b>	1.03	0.91
<b>8</b>	1.07	1.08
<b>5-7</b>	1.13	1.18
<b>less than 5</b>	1.17	1.60

What these studies show is that low class people tend to smoke more than higher class people, and that low class people tend to die sooner than high class people: considerably sooner. There may be many reasons for the higher death rates in people with lower SES. They tend to work in hazardous occupations, exposed to hazardous fumes and chemicals. They eat a different diet, tend to become obese, tend to receive less medical care and lower quality care. Moreover, they tend to suffer more from mental depression <sup>23</sup>. So the Committee's concern that the study results might be biased by SES turns out to have been well founded. Subsequent studies confirm that, smoking aside, it is risky to belong to the lower socio-economic strata.

While the Committee did, in fact, acknowledge the possibility of bias due to SES, it appears to have overlooked entirely another important source of bias. That is detection bias. Remember, everybody enrolled in the studies knew what was being studied, and their doctors knew that, also. Thus, everybody was waiting with baited breath for the smokers to develop lung cancer. I will discuss the role of detection bias in more detail in the next chapter. It should be noted, however, that the methodology followed in the SG's studies was calculated to exaggerate the possibility of detection bias, because the researchers were concentrating heavily upon the hypothesis that smoking causes lung cancer.

In the British Doctor's study, for example, all deaths in which lung cancer was a contributing cause were classified as deaths from lung cancer, even though the direct cause of death may have been something else (Report, page 101). It is interesting, in that regard, that the British Doctor's study was the one which purported to show the highest risk for lung cancer, from smoking <sup>24</sup>.

There was, however, another indication of trouble, which has been heretofore overlooked. This troublesome indicator is best illustrated by a more detailed discussion of one of the 6 cancer society studies discussed in the 1964 Surgeon General's Report.

During the time period from October 1959 through February 1960, the American Cancer Society enrolled men in a smoker survey, described in the Report as the "Men in 25 States" study.

Female volunteers were each asked to pick ten families among their acquaintances, each with at least one person over the age of 45, and study them to find out whether they would die during the survey period and, specifically, whether they would die from lung cancer.

There were 448,000 useable replies, representing 448,000 men between the ages of 35 and 89. We don't know how many replies were rejected as unusable because each volunteer was free to use her own criteria. We also don't know how many smokers were studied as opposed to non-smokers because the results, published in the 1964 Surgeon General's Report, don't furnish that information. We do know that during the approximately 22 months that the survey lasted, there were 11,612 deaths. As the Surgeon General acknowledged, this translates to a death rate for both smokers and non-smokers, considerably below the overall death rate for white males, meaning that the participants in the survey were considerably healthier than the average person. At least, that's what the Surgeon General thought that it meant. I have other ideas.

The observed mortality ratios for different types of smokers, as opposed to non-smokers, were as follows:

+ Cigarettes only	1.83
+ Cigarettes and other	1.54
+ Cigars only	0.97
+ Pipes only	0.86

Thus, once again, as with Doll's study, it appears that cigar and pipe smokers actually lived longer than non-smokers - something that modern anti smokers would vigorously dispute.

The SG's Report does not list the number of lung cancer deaths which were recorded by the Cancer Society volunteers. Instead, the results are lumped in with five other studies (some or all of which also seem to have been organized by the cancer societies ), and Doll's study of British doctors. Lumping all of the studies together, there were 26,223 smoker deaths and 11,168 non-smoker deaths. Of these, 1,833 deaths from cancer of the lung occurred in smokers while only 123 occurred in non-smokers, yielding a mortality ratio of 10.8 for death from lung cancer among smokers as opposed to non-smokers.

Table 15 of the Report shows that for all of the various studies, the age-adjusted death rates for the study subjects were much lower than the age adjusted death rate of 22.9 per 1000 man years for U.S. white males, in 1960. In the case of the 25 States study, the death rate for the non smokers was 12.8, for smokers of less than a pack a day, 18.5, and for smokers of 1 pack or more, 19.2. These results were similar to the 5 other cancer society studies, but the Men in 25 States results bear a footnote saying that "These results may be too low by about 1.7%, since the person-years used in the computation included some contribution by men who had not been full traced".

Table 2 at page 85 of the Report gives the mortality ratios for current smokers for various studies, including Men in 25 States. We are assured by the Surgeon General that the figures were age adjusted. Thus, we might expect that all figures given in the Report would be age adjusted and represent current smokers. It turns out, however, that this is not the case.

Table 19 at page 102 shows the number of deaths from each of 25 different causes (ranging from lung cancer down to cancer of the intestines). The figures given in Table 19 represent the sums of all of the deaths recorded in all of the seven studies. It bears a footnote, reading: "Current cigarettes only for four studies: all cigarettes (current and ex-) for the two California studies and Men in 25 States". That little word "ex" has tremendous significance. It means that for purposes of calculating the lung cancer death rate, the Cancer Society dropped the practice of classifying only current smokers as "smokers" and chose, instead, to treat anybody who had ever smoked a cigarette as a "smoker".

In 1961, 68% of the men in America smoked. Therefore, by the time a man reached the age where lung cancer becomes a problem (essentially 50+), the likelihood that he would have smoked, at some time in his life, surely approached or even exceeded 90%. It should not have been a surprise, therefore, nor did it prove anything, that 90% of the lung cancer deaths were in "smokers" since, if a smoker was defined as anybody who had ever smoked, 90% of the population susceptible to lung cancer was comprised of "smokers".

Lumping the seven studies together was also a statistical mistake. Each had different methodologies. Different age groups were studied and different populations (British doctors, U.S. Veterans, etc.). To really sort out what was going on, we need to see the numbers for each individual study but, at this late date, we probably never will.

The fact that there were so few deaths during the study period, compared to the deaths that would be observed in a cross section of ordinary white males, worried the Surgeon General. I gather that the footnote, suggesting that the figures from Men In 25 States might be a bit low, was part of an effort to explain the discrepancy but, if so, it was a misplaced effort since all of the figures from the other 5 cancer society studies were in the same ball park. Still, the Committee found it necessary to speculate, at some length, concerning the discrepancy, suggesting, among other things, that people who were already sick might not have been chosen as study participants, by the volunteers.

One thing that did not occur to the Committee or, if it did, was not mentioned, is that the reported data, itself, may have been wrong or incomplete. This seems to me to be the most logical possibility. According to the Surgeon General, the ladies who conducted the study were free to weed out any responses which, for any reason, they felt to be inappropriate. Also, according to the Surgeon General, the ladies were expected to get a death certificate when a death was reported. I have a feeling that the reason there were so few deaths, particularly among non-smokers, was simply that the ladies didn't report all the deaths. Getting a death certificate would have been a lot of trouble and, if somebody died from some cause which seemed totally unrelated to smoking, the ladies might well have concluded that it wasn't really relevant, and wasn't worth reporting.

In any event, in all of the cancer society studies, the overall death rates, for smokers and non smokers alike, but especially for non smokers, were much, much lower than the death rates for the general population. This should have been a red flag: it should have at least raised questions concerning the quality and/or completeness of the data. But to the Surgeon General's Committee, bent on proving that smoking causes lung cancer, it suggested only that the study subjects were, for some reason, exceptionally healthy.

In 1991, Doll did a forty year followup of the doctors in his study, which is available on line at:

<http://www.bmj.com/cgi/content/full/309/6959/901>

There, we are told that most of the doctors who were smokers of cigarettes only (as opposed to cigars and pipes) at the time the study began had given up smoking by the time of the followup, so that only 6% continued to smoke. Indeed, most gave it up within a few short years after the study began. This, however, did not deter Doll, who continued to try to estimate the number of pack years smoked by the quitters, and to try to develop correlations to lung cancer. To do this, he had to go by the recollections of those interviewed by mail at infrequent follow-ups, as to how long they had smoked and when they gave it up. This seems to me to be a fallacious approach, since it introduces the very element of recall bias that the prospective studies were supposed to avoid. The same approach also required Doll to make numerous adjustments to take into account the effects of quitting - adjustments which, wittingly or not, allowed his biases to get in the way of objective analysis.

Perhaps, however, the most damaging element of the Doll study is an admission that he made when the study was finally terminated, in 2001. Writing in the December, 2001, issue of the British Medical Journal, Doll explained that the study was "devised by Sir Austin Bradford Hill to achieve maximum publicity for the critical link between smoking and lung cancer". In short it was never intended as a serious scientific study to test the hypothesis that smoking may cause lung cancer. From the beginning, it was just propaganda - well intended, perhaps, but propaganda none-the-less.

## ==Chapter 8: Smoking Myths and the Role of Detection Bias==

A common myth about smoking asserts that the lungs of smokers become brown or even black from years of accumulation of tars and goo. Not true, according to Wray Kephart. Mr. Kephart presently works as an engineer but he previously worked in a hospital, performing autopsies, most of which were paid for by insurance companies, seeking to determine whether the deceased committed suicide, or died from "natural causes". Kephart tells me that he's done approximately 1560 autopsies, and he's seen some strange things, such as the lungs of auto painters, which were "effectively sealed with catalyzed lacquers".

Kephart insists, however, that it is normally impossible to tell, from autopsy, whether the deceased was or was not a smoker. Upon resection, the lungs are always clear, unless the deceased lived in a large city where there was significant industrial pollution. In that event, carbon deposits may be found, but these are unrelated to smoking. So the "brown lungs" myth is exactly that: a myth.

Recently, I posed a question to Ed Uthman, M.D., a pathologist practicing in Dallas, TX. The question was whether a surgeon, at autopsy, could determine from an examination of the deceased's lungs, whether the deceased was or was not a smoker. Here is Dr. Uthman's response: I don't think one can tell if the deceased were a tobacco smoker or not by the appearance of the lungs. The absence of any black pigment suggests that the person was either a nonsmoker or a very light smoker. Heavy black pigmentation suggests that the person was either a heavy smoker, or lived in a city with heavy particulate air pollution, or was a coal miner, or some combination of the three. The black pigment in question is elemental carbon, which most investigators believe to be inert in its effects on the lungs (although in the extremely heavy doses that coal miners used to get, it may have had a partial role in coal-workers' lung disease).

When I point these things out to anti-smokers, they frequently say, "But I've seen photographs of smoker's lungs that were shown to me in grade school, and they looked simply horrible." I've seen these photographs also, but they are phonies. A popular Internet web site features side by side photographs of two lungs. One is labeled "Smoker's lung - dead at 50". The other is labeled "Non-smokers's lungs, alive at 70". The problem is simply that the photograph of the smoker's lung is a photograph of a lung ravaged by lung cancer; it is not a photograph of the lung of some smoker who died from some other disease. Therefore, even if the cancerous lung is from somebody who smoked, and the "healthy" lung is from somebody who did not, the photographs prove nothing except that cancerous lungs look different from non-cancerous lungs.

Of course, both photographs are photographs of dead people's lungs, because it's not possible to take a photograph of the lung of a living person. Also, rather obviously, the photographs show the outside surface of the lungs. The outside surfaces of lungs are not exposed to either air or smoke; therefore, it would be impossible for smoke to stain those surfaces.

Another myth, propagated by the anti-smoking crowd, is the notion that lung cancer was a rare disease in this country until some time in the 1930's, when it began to raise its ugly head as the result of smoking. Not long ago, George Will told a story on TV about a physician in the early part of the century who ran across a case of lung cancer and declared it to be such a rare disease that he assembled the medical students to witness the autopsy, believing it to be a rare opportunity.

The story may be true, but it proves nothing, because, in the early part of this century, the diagnosis of lung cancer was complicated by the "consumption factor". "Consumption" was a name

applied to any disease characterized by emaciation, wasting away and coughing. It doubtless included the disease which we now know as "tuberculosis", but it also included other diseases, as well.

Funk and Wagnalls Encyclopedia, published in 1912, has an entry for "consumption". It says, "See: Pthisis". Under "Pthisis" we are told that "strictly speaking, the name includes a group of affections, but it is generally used to indicate pulmonary consumption, i.e., a more or less advancing process of lung destruction, associated with progressive emaciation and other characteristics and symptoms. This is a disease of grave importance, from its frequency and fatal tendency. It has been estimated that consumption is responsible for one-seventh of the mortality of Europe. "

"Tho pthisis was early recognized as a definite disease, and its clinical course fairly well studied, much obscurity has rested over its causation. Medical opinion was divided until 1882, when Koch announced the fact that he had discovered an organism, which he believed to be present in all cases of consumption proper. This organism, the bacillus tuberculosis, is a minute rod-like structure, capable of cultivation outside the human body, and easy of demonstration in the expectorants of consumptive patients..."

"Any condition that weakens the constitution favors the development of pthisis. Thus, malnutrition, syphilis, overcrowding, lack of fresh air, and defective hygiene, are all factors in the causation of pthisis. More especially is this true of occupations whose performance necessitates the inhalation of dust particles, e.g., stone masonry, knife grinding, metal polishing, wood carving, etc...."

"The early symptoms vary much. There may be nothing but a gradual loss of strength, it may be of flesh; there may be slight discharge of blood from the throat or chest; there may be a more or less persistent tickling cough; there may be breathlessness, with or without pain; or there may be little except a tendency to take cold easily...."

Clearly, the state of medical knowledge about "pthisis" was confused. The article implies that all cases of the disease were caused by the tuberculosis germ, discovered by the great Dr. Koch. But many of the symptoms described are applicable to lung cancer and, in 1912, most people were treated by family physicians who made house calls, and probably diagnosed most disease from the symptoms, rather than from any sort of laboratory analysis.

The Historical Statistics of the United States, published by the Government Printing Office, give cancer statistics from 1900 to 1970, but these statistics do not differentiate between different types of cancer. The following table, derived from the Historical Statistics, shows the number of deaths per 100,000 of the population, for tuberculosis, influenza and pneumonia, and malignant neoplasms (cancer), for the years from 1900 to 1970:

<b>YEAR</b>	<b>Tuberculosis</b>	<b>Cancer flu</b>	<b>pneumonia</b>
<b>1970</b>	2.6	162.8	30.9
<b>1960</b>	6.1	149.2	37.3
<b>1950</b>	22.5	139.8	31.3
<b>1940</b>	45.9	120.3	70.3
<b>1930</b>	71.1	97.4	102.5

<b>1920</b>	113.1	83.4	207.3
<b>1910</b>	153.8	76.2	155.9
<b>1900</b>	194.4	64.0	202.2

The government statistics contain no item for "consumption" or for "pthisis". However, as we have seen, "consumption" was still a recognized disease as late as 1912 (and probably later). No doubt, those early death certificates which listed the cause of death as "consumption" have been classified as "tuberculosis", in the later years. Note the nice, linear and inverse relationship between cancer deaths and deaths from "tuberculosis" ("consumption") over the time period covered by the chart. There is no doubt that some of the early deaths reported from "consumption" were really lung cancer. I've also thrown in the figures for influenza, because, in the early years, some terminal lung cancers may have been diagnosed as pneumonia, and also because it's simply interesting to note the devastating impact of influenza and pneumonia in the early years.

It is generally assume that today, doctors can easily recognize lung cancer when they see it. But can they? In 1959, in England, Heasman and Lipworth<sup>25</sup> surveyed reports from 75 hospitals of the National Health Service. Attending physicians diagnosed 338 cases of cancer of the lung, while pathologists discovered 417 cases, by post mortem autopsy. The attending physicians and the pathologists agreed, however, in only 227 instances. If the pathologists were correct, 111 (33%) of the diagnoses of the attending physicians were false positive, while 190 genuine cases of lung cancer (46%) were missed.

A similar result was obtained by Feinstein, in a study conducted at the Yale University School of Medicine, and published in September, 1986, in the Archives of Internal Medicine<sup>26</sup>. Researchers at Yale obtained records on 3,286 adults who had died between 1971 and 1982. 153 of these patients were found, upon autopsy, to have died of lung cancer. The researchers then went back and obtained the death certificates for these 153 patients and attempted to obtain information about their smoking habits. For 13 patients, adequate smoking information was not available, so they were thrown out of the survey. The researchers reported, however, that out of these 13 patients, seven had been correctly diagnosed as having lung cancer during life, but 6 had not.

Working with the remaining 140 cases, it turned out that there were 37 "surprise" cases of lung cancer, i.e., cases which had not been correctly diagnosed during life. 57% of these cases involved non-smokers; 30% involved moderate smokers; but only 16% involved heavy smokers. The researchers concluded that there was a detection bias; that doctors were very ready to diagnose lung cancer in a smoker; very reluctant to make the diagnosis in a non-smoker.

Before leaving this study, it is important to point out that, by reason of the methodology used, working from autopsies backwards to death certificates, the study could only expose false negatives, i.e., cases of lung cancer which had not been discovered during life. It is a pity that the researchers could not have conducted another study, working from death certificates forward to autopsies. That would have yielded a number for false positives, i.e., the number of cases diagnosed as having lung cancer which, upon autopsy, turned out not to be lung cancer.

At the beginning of this book, I said I would describe the work of a British medical researcher, who questioned the hypothesis that smoking causes disease. The researcher was the late Philip R. J.

Burch, a professor of Medical Physics at the University of Leeds. He was a non-smoker, whose principal life work was an attempt to develop a unified theory of cancer.

In 1976, Doll and Peto issued a paper in which they reported that daily cigarette consumption by the British doctors who had been studied in connection with the 1964 SG's report had declined from 9.1 in 1951 to 3.6 in 1971. Doll and Peto claimed that, as a result there was a 38% reduction in lung cancer death rates amongst the doctors. In a paper <sup>27</sup>, however, Burch showed that Doll and Peto had compared the lung cancer death rates among the doctors with the lung cancer death rates for the entire British male population. Burch re-plotted the data to compare the doctors with themselves and showed that, on that basis, the risk for lung cancer amongst the doctors had actually increased by 31%.

Burch may have been on to something here, even beyond what he, himself, saw. His chart shows that during the time period 1955 to 1971, the risk of lung cancer amongst all men in England and Wales more than doubled, while the risk amongst the doctors increased only 31%. Remember our earlier discussion of socio-economic status? The doctors, of course, were, as a group, in a socio-economic class far higher than most other men. They worked indoors at a sedentary occupation, ate different food, and were not as susceptible to depression. Could these factors account for the difference between the doctors and ordinary men?

In the same paper, Burch plotted cigarette consumption for women and men in England and Wales against lung cancer death rates, during the period 1890 to 1971. He showed that the largest increases in LCDR's in both sexes came during the time periods 1916- 1920 and 1931-35, when at a time when cigarette consumption among women in England and Wales was very small. From this Burch concluded that the rise in lung cancer was due to improved diagnosis, not smoking. In England and Wales, there was, in fact, a 30 year gap between the time when males began smoking and females. So it is not surprising that the anti-smoking crowd in Britain made the argument that recent (in 1966) increases in lung cancer among women resulted from a "30 year incubation period". Burch effectively refuted that argument by plotting lung cancer rates for males in 1906 through 1926, against female rates for 1936 to 1966, and showing that while, if the incubation theory was correct, the two curves should have been synchronous, they were in fact completely dissimilar.

Burch also wrote, extensively, about the problem of "detection bias". Primary lung cancer can be simulated by pulmonary metastases from carcinoma of the pancreas, kidney, stomach, breast and thyroid, and by malignant melanoma. He suggested that many cases diagnosed as "primary lung cancer" are not, in fact, "primary lung cancer", but simply metastasized tumors, originating in some other site <sup>28</sup>.

## ==Chapter 9: Smoking Animals==

Remember the smoking beagles? Movietone News, the old newsreel company, featured a piece on these cute little dogs, shot some time in the 1950's or 60's. It's sometimes re-run on late night TV, even today.

Actually, the experiment was rather cruel (although not nearly so much so as later ones). The beagles were strapped side-by-side to a long bench, in a rather unnatural upright position. They were fitted with face masks, which forced them to inhale and exhale smoke from lighted cigarettes. A mechanical device lit a new cigarette and dropped it into the air line, as soon as an old one was used up. Although the Surgeon General later claimed that the smoking machines did not force animals to inhale and exhale deeply, the newsreel footage sure made it look as if the dogs were inhaling and exhaling very deeply.

It was, perhaps, the smoking Beagles that were referred to in the 1964 SG's Report, when the Committee made the observation that with the "possible exception of dogs", the animal experiments had all failed to induce lung cancers. Whatever the case, in the 1971 Report, the Surgeon General conceded that the experiments with dogs, using smoking machines, had failed. However, also in the 1971 Report, the SG described a new experiment, conducted by a government physician, Oscar Auerbach, and others, in which the Beagles were forced to smoke in what the SG described as a "more natural" manner.

Specifically, Auerbach claimed to have slit the throats of 78 Beagles and inserted tracheotomies. He claimed that he had been able to train the dogs to smoke cigarettes through those tracheotomies. A table was presented, showing the number of dogs that managed to survive for 875 days, smoking either regular cigarettes or filter tips or no cigarettes at all. Amongst the 8 controls who did not smoke, there were no deaths. Among the smokers, however, there were 24 deaths from various causes, variously listed as "aspiration of food", lung fibrosis, etc. Although Auerbach did not claim that any of the dogs died from lung cancer, he did in fact claim that 2 of the animals, who smoked non-filter cigarettes, had developed early invasive squamous cell carcinoma in the bronchi.

Auerbach's experiment was again described and the table again presented in the 1977 SG's Report (which was just a reprint of portions of earlier reports). In the 1982 Report, however, the SG described Auerbach's experiment again but this time the SG remarked that Auerbach's "observation has not been repeated so far".

When a scientist says that an observation has not been repeated, it is a polite way of saying that the initial experiment may have been fraudulent. It would be nice to know why Auerbach's experiment was not replicated. Were others unable to train Beagles to smoke through tracheotomies, or were others able to do so, but no harm was done to the dogs? We do not know and the SG does not tell us.

At page 185 of the 1982 Report, there is a general discussion of the difficulties experienced in trying to induce cancer in laboratory animals by forcing them to inhale smoke. We are told that there's too much carbon monoxide in cigarette smoke to allow for continuous exposure, so that inhaling machines must be used. But, we are told, "laboratory animals are not willing to inhale aerosols very deeply and are especially reluctant to inhale tobacco smoke. Rhesus monkeys and baboons have been trained to smoke cigarettes. This approach does not yield neoplasms [cancers] because of insufficient exposure time and because of the tendency of the animals to puff rather than to inhale". Maybe so, but the old newsreel pictures of the smoking Beagles surely seemed to show them inhaling, deeply!

Also, at pages 185 and 186 of the 1982 Report, there is a description of some failed experiments with Golden hamsters, explaining why tobacco smoke had failed to induce lung tumors. Never-the-less, interleaved into all of these discussions of failures, there is a description of an experiment which, allegedly, succeeded. At page 185, we are told that in 1980 experimenters at the Oak Ridge National Laboratories, using a newly developed "advanced inhalation device" were able to induce tumors of the "respiratory tract" in rats. The Report states that "...seven of the 80 smoke exposed rats had tumors.." and that one of 30 "sham exposed rats" had tumors <sup>29</sup>.

Apparently, the "advanced inhalation device" referred to by the SG is the "Maddox-oral smoking machine". It is referred to in an article by A.P. Wehner, et al., which appeared in 1981 in *\*Toxicology and Applied Pharmacology\** at pages 1-17. There, the authors describe an experiment in which 80 female rat were forced to consume 8 cigarettes per day, seven days per week, for 2 years. One of the rats developed a carcinoma of the lung.

Before getting too excited about these experiments, however, we need to consider this: the largest known rats weigh no more than an average of one pound. Forcing a one pound rat to smoke 8 cigarettes per day is the equivalent of forcing a 160 pound human to smoke 1280 cigarettes per day (64 packs). Such experiments are not realistic and in no way replicate exposure to ordinary tobacco smoke. Given the enormous concentrations of smoke used by the experimenters, it is wonder that any of the animals even survived the ordeal; yet, they did, and only a small percentage developed tumors.

Strangely, despite exhaustive research in medical databases, I have been unable to find any additional rat experiments (or experiments with any other animals) conducted in the years since 1980, which replicate the above reported experiments. A 1989 article in *\*Toxicology and Applied Pharmacology\** <sup>30</sup>, describes an experiment in which rats of both sexes were forced to inhale cigarette smoke in high concentrations for 22 weeks. The rats were then killed, and investigations made to determine the effect of the smoke on the level of "DNA adducts". The experimenters concluded that "inhaled cigarette smoke induces lung DNA adducts which may play an important role in cigarette smoke-induced lung carcinogenesis" (emphasis mine). But the experimenters stopped short of claiming that the smoke actually induced any tumors.

A report of a similar experiment with rats forced to smoke for 8 weeks appears in 1985 in the *Journal, \*Cancer Research\** <sup>31</sup>. Here again, however, the researchers did not claim that the smoke did the animals any direct harm. They claimed, instead, that the smoke reduced the level of production of cytotoxin, a substance thought to be toxic to certain types of tumor cells. My question is simply this: why haven't the 1980-81 rat experiments been repeated? Was there something wrong with them? Did the researchers conclude that because of the extremely high concentrations of smoke given to the animals, and the large number of animals that were unharmed, the experiments failed to prove their point? Or was there some other reason? I'm afraid I don't have the answers.

In recent years, new smoking machines have been devised that subject rats to second hand smoke. In an article in the May 28, 1994 issue of *\*The Los Angeles Times\**, writer Sheryl Stolberg describes experiments that have been going on for three years, exposing rats to continuous concentrations of smoke as high as 4,000 micrograms per cubic meter, concentrations many times the concentrations encountered in the real world, even in times of brief exposure, e.g., bars. Bottom line: no significant harm to the animals has been shown, although one researcher at UC (Davis) claims a 6% reduction in birth weight for the offspring of the exposed animals.

In earlier versions of this book, I left the subject of the animal inhalation experiments with

unanswered questions. It appeared that there had been two experiments - never repeated - one of which induced a single carcinoma in a rat, and other of which supposedly induced "tumors" in a very small percentage of rats. In 1998, however, an event took place which enables me to resolve the unanswered questions. In that year, the State of Minnesota brought a lawsuit against tobacco companies to recover damages to the State, allegedly caused by smoking. The case was settled before any judgment could be rendered, but not before a few trial sessions were held.

At these sessions, testimony was taken from experts for both the plaintiff (the State) and the Defendants (the tobacco companies). Experts for both sides agreed that, despite many, many animal inhalation experiments over a period of many years, all of the experiments had failed, i.e., nobody has ever been able to demonstrate, through animal experiments, that inhaling tobacco smoke - no matter in what quantities or concentrations - causes lung cancer. These failures are powerful evidence, indeed. If, as alleged, smoking causes lung cancer, training or forcing animals to smoke should produce lung cancers. It doesn't.

Before leaving this subject, I ran into a couple of strange, weird studies while doing the research on smoking animals. A 1993 study in Norway <sup>32</sup> reminds me of an old joke about a temperance lady who comes to a school to do a demonstration. She has a worm, a glass of water and a glass of booze. She drops the worm into the water and it swims about unharmed; then she drops the worm into the glass of booze and it instantly shrivels up and dies. She asks the class, "Can anyone tells me what this means?". Little Johnny holds up his hand and shouts "It means that booze is mighty good for you if you have worms!".

Anyway, in the Norwegian study, investigators induced pneumonitis (lung inflammation) in rats by exposing the animals to radiation. The animals were then exposed to tobacco smoke, and it was shown that the smoke actually suppressed the inflammation in the lungs. In short, smoking is good for you if you have pneumonitis (I guess) <sup>33</sup>

The other weird study has little to do with smoking; I simply report it because it's interesting. Recently, health food stores have begun selling green tea, because of its alleged health benefits. In fact, some have suggested that the drinking of green tea accounts for the low rate of lung cancer in Japan and China. A study published in 1990 in \*Environmental Research\* <sup>34</sup>, however, claims exactly the opposite. According to that study, females in Hong Kong had a 2.7 times greater risk of developing lung cancer if they drank green tea than if they did not drink green tea. This just proves that you can prove anything with statistics, which is another way of saying you can't prove anything with statistics.

## ==Chapter 10: Is there No Risk?==

So far, I have argued that the case that smoking causes lung cancer has not been proven. The reader may ask, "Well, if smoking doesn't cause lung cancer, just what does?". Recent studies suggest that the answer lies in the genes of those individuals who develop the disease. One must be cautious in assessing the genetic evidence, because molecular biologists, many of whom are employed by the rabidly anti tobacco government establishment, are not above the use of techno-babble in support of the establishment position on smoking. In their book on gene therapy, *\*Altered Fates\**, authors Jeff Lyon and Peter Gorer quote scientist Philp Leder as saying that nicotine is a "mutagen par excellence". A mutagen, according to them, is another way of saying "carcinogen". There are, however, absolutely no studies showing that nicotine is a carcinogen. If it were, the FDA could scarcely have approved the sale of the nicotine patches, used by smokers who choose to quit smoking.

Recently, the press gave much attention to a study by researchers at John Hopkins University School of Medicine, dealing with head and neck cancers and the P53 gene. The P53 gene is called the Guardian Angel gene because it is believed to protect against cells becoming cancerous. According to a report in the March 16, 1995, edition of the *\*Washington Post\**, the researchers studied tissue samples from 129 people with head and neck cancers. The samples were divided into smokers, smoker/drinkers, and total abstainers. About 58% of the tumors from the smoker/drinkers had P53 gene mutations, as opposed to 33% of the smokers who did not drink, and 17% from the abstainers. What the press reports ignored, however, is that everybody who participated in the study had cancer. 83% of the abstainers had perfect P53 genes; yet they still had become ill. The real lesson of this study, if there is one, is that the P53 gene won't keep a person from getting cancer; at least it won't do so if the person is otherwise genetically predisposed to the disease.

A more informative study is described in the August 1, 1990 edition of the Wall Street Journal. That study was conducted by researchers at Louisiana State University Medical Center in New Orleans and Albert Einstein College in New York. The researchers studied 300 families in Southern Louisiana, who had a history of lung cancer, and compared them with 300 controls. The researchers concluded lung cancer is an inherited disease. Based upon retrospective studies (which I do not necessarily accept as accurate) <sup>35</sup> the researchers concluded that if a person had two copies of the lung cancer gene, his chances of getting lung cancer by the age of 50 would be 14% if he did not smoke, increasing to 27% if he were a heavy smoker. In the more likely case of an individual having only one copy of the gene, the researchers concluded that a non-smoker would have practically no risk of getting lung cancer by age 50, but for a heavy smoker the risk increased to 5% by age 50, 16% by age 60, and 25% by age 75.

In the same WSJ article, there is an interesting quote from Neil E. Caporaso, a researcher at the government-owned National Cancer Institute in Bethesda, MD. According to Mr. Caporaso, one out of eight smokers will be stricken with lung cancer (which is another way of saying that seven out of eight will not). Considering the fact that one out of every five Americans dies from some form of cancer, and that lung cancer is the most common form of cancer in persons between the ages of 45 and 74, and the second commonest form in persons over that age, Mr. Caporaso's estimate of the risk seems very modest and wholly at variance with the position taken by most government scientists, who shriek hysterically that smoking "causes" lung cancer.

The fact remains that inheritance seems to play a major role in cancer. Pancreatic cancer is very

rare, but former President Jimmy Carter has seen it in at least four members of his family: his two sisters, his brother and his father. His mother died from breast cancer which metastasized to her pancreas. Diabetes is the scourge of my family. Three of my four grandparents died from the disease. All were obese and all consumed a diet, which was rich in starches and sugars. As a young man, I was obese and ate a lot of starches and sugars. I chose to go on a life-long diet, in which I refrain from eating starches and sugars. Simply avoiding starches and sugars is enough to control my weight (I weighed 240 lbs when I first went on the diet at the age of 38; now, I weigh 162 lbs). I consider this a sensible precaution. If I had a history of cancer in my family, especially lung cancer, I might choose not to smoke. However, I have no such history, so I puff away.

My wife, who is naturally thin, has no family history of diabetes and regularly consumes huge quantities of starches and sugars. I would never presume to ask her to stop. I certainly would not favor legislation to ban the eating of starches and sugars. Of course, the anti-tobacco crowd sees things differently; they are not content with their personal decision not to smoke; they want to impose their decision on everyone else, through widespread smoking bans. Curiously, however, as revealed in the postings on the Internet, many of the anti-smokers are avid devotees of marijuana smoking, which they consider to be healthy. On a more consistent note, many seek legislation to outlaw or restrict the sale of fatty meats, or red meats or vitamins or whatever. They consider themselves "liberals". Their hero is the dour chief of the FDA, David Kessler.

Quite frankly, I do not know whether there is a risk to smoking, or not. I do know that "risk" is not the same as causation. Philosophers, from Plato to Supreme Court Justice Louis Brandeis, have been fascinated with the word "cause", and have written many learned treatises on the subject. My great-grandfather was working on a bridge construction site in 1927, when a careless driver jostled him. My great-grandfather became startled, lost his balance, and fell through a hole in the bridge. Not being able to swim, he drowned in the river below. Was the cause of death (a) drowning; or (b) the actions of the careless driver; or (c) the loss of balance; or (d) the existence of the hole in the bridge flooring; or (e) not being able to swim? Just about every human activity involves risk. Walking across the street runs the risk of getting hit by a car. Bungee jumping involves the risk that the bungee cord may break or become detached from the supporting structure. If, however, a pedestrian is hit by a car, it is far-fetched to say that the cause of death was walking across the street. If a bungee cord breaks and someone is killed, the newspapers will not say that the deceased died from bungee jumping. Rather, they will report that "Smith died when the bungee cord broke, and he descended 100 feet to the ground below".

Anti-smokers are fond of repeating the mantra: "cigarettes are the only product which, when used for their intended purpose, cause death". Nonsense! Firearms are specifically manufactured to cause death in animals and humans. Automobiles, used carefully and driven properly, can still cause death if a tie rod breaks at 60 mph. I don't know whether starches and sugars can cause death in a person genetically susceptible to diabetes, but from personal observation, I feel there is a risk and, because of the history of diabetes in my family, I choose not to take the risk. Before leaving this subject of risk, a very interesting study was recently reported, which confirms that if there is a risk, it has been grossly exaggerated by the anti-smoking movement. On May 23, 1995, the Associated Press reported on a study made by Dr. Gary Strauss. Strauss analyzed 685 lung cancer patients seen at Brigham and Women's hospital in Boston between 1988 and 1994. He found that 59% of the patients were non-smokers at the time their cancers were diagnosed. Of these, 8% of the entire sample had never

smoked; 51% had smoked at one time but had given it up. Of the 51% who had quit, nearly one fourth had been off cigarettes for more than 20 years. On average, the former smokers had been off cigarettes for six years. As I have previously pointed out, lung cancer is not always diagnosed in non-smokers, because doctors aren't looking for it. Currently, according to the CDC, 25% of the population are smokers. In the study years (1988-1994), the percentage was as high as 30%. Thus, purely on the basis of demography, we would expect between 25 and 30% of the sufferers from lung cancer, or for that matter, hangnails or acne, to be current smokers. 41% of the cases studied by Strauss were current smokers. Given the role of detection bias (doctors more likely to diagnose lung cancer in smokers than non-smokers), the 41% figure suggests that the lung cancer risk for current smokers may be little or no greater than for non-smokers. In the article, Dr. David Burns of the University of California, seems to support the view that giving up smoking is not the "cure" for lung cancer. He is quoted as saying, "These folks have done what we told them to do, yet they are still at substantially increased risk. What can we do for them? We owe these people an answer." Burns suggested that it may be possible to devise a genetic test to spot lung cancer. I would go further and suggest a genetic test to spot the likelihood that somebody will get lung cancer. Whether, in such an individual, giving up smoking would do any good, I don't know, but such individuals probably would choose not to smoke, just as I choose not to eat starches and sugars. The same article also reports that deaths from lung cancer have increased by 51% between 1980 and 1994, despite a drop in the percentage of adults who smoke from 42% in 1965, to 25% in 1993. Isn't it about time to stop blindly adhering to the notion that lung cancer will disappear if people simply give up smoking?

Actually, Dr. Burns is not the only medical doctor who has begun to question that simplistic notion. Julian Whitaker, MD, is a practitioner of "alternative medicine", a writer of a monthly newsletter on health and exercise, and no friend of smoking. However, in the October, 1995, issue of his newsletter, "Health and Healing", Doctor Whitaker writes: "Since 1950, the incidence of all cancers in people between the ages of 50 and 60 years has increased by 44%, with even higher increases in some of the more deadly forms of cancer. Breast and colon cancer went up 60%, prostate up 100% and testicular cancer for men between the ages of 28 and 35 went up 300%. Lung cancer has gone up 262%, an increase that is obviously not related to cigarette smoking, because over the same period the number of people smoking cigarettes dropped from 50% to 25%..."

Doctor Whitaker expresses no opinion as to the reasons for the startling increases in cancer in recent years. I, however, have an opinion. Medicine, over the past 40 years, has grown more and more socialized. As late as 1950, people were largely responsible for paying their own medical bills, and doctors hesitated to order expensive tests and treatments for those who couldn't pay the bills.

Today, almost all medical procedures are paid for by insurance or by federal funds, through Medicaid and Medicare. Physicians, therefore, have a strong incentive to order every possible test and treatment, because they know that they will be paid for doing so. As a result, there are no more undiagnosed cases of cancer. Every case is always diagnosed. This will, in my opinion, show up in future years, in the form of statistics which show a leveling off of the number of cancer cases. Only time will prove whether I'm right or wrong.

## ==Chapter 11: Is Nicotine Addictive?==

Much of the rhetoric of the anti-smoking movement seeks to demonize tobacco smokers as "nicotine addicts". In the past, of course, the term "addict" has been generally applied only to mind-altering drugs, e.g., heroin and cocaine. Even alcohol, which is mind-altering, is not generally referred to as "addictive". So, the argument is one of semantics. If nicotine is addictive, so are chocolate candies, pies and cakes, etc. Indeed, if "addiction" is defined as dependence upon some chemical, everyone is addicted, to air! I am not going to engage in a philosophical debate over the definition of "addiction". There is a question in my mind, however, as to whether nicotine is really the active ingredient in tobacco smoke..

Nicotine is a chemical,  $C_{10}H_{14}N_2$ , which is found in the tobacco plant. Anti-smokers are quick to point out that pure nicotine is a poison, used as a pesticide. And it's true that pure nicotine (a colorless, odorous liquid), is poisonous. According to the mens that to kill a 180 lb man, he'd have to drink about 80 mg of the stuff. Many other common substances, however, also have minimum lethal doses. According to the same source, ingesting a gram of caffeine is fatal.

In fact, many substances which are beneficial in small quantities are toxic in large quantities. My mother suffered a stroke some years ago. Her life was saved, and she recovered, by taking a blood ll, so he doubled it. My mother began hemorrhaging, and almost died from loss of blood. The blood thinner, which is life saving in small quantities, proved toxic in large quantities. Of course, most of the nicotine in tobacco is lost in the process of smoking. Only a little finds its way into the smoker's bloodstream. That small quantity may account for some of the beneficial effects of smoking, e.g., improved mental concentration. Strangely, fine Havana cigars, when they were available, contained only 2% nicotine. If, in fact, nicotine is the reason why people smoke, it seems strange that people would pay enormous amounts of money for Havana cigars, which contain so little nicotine.

I question, however, whether nicotine is the active ingredient in tobacco. If it were, nicotine patches should satisfy a smoker's craving for tobacco; they don't! In prisons, where, as a part of the punishment, smoking is sometimes forbidden, the inmates take to smoking corn silk, paper, string, etc., none of which contain any nicotine.

When I was a young man, there was a chain of tobacco stores which sold cheap cigars. They were made almost entirely from brown paper, with only one outside wrapper made from tobacco. I doubt they contained any significant amount of nicotine. Yet, they were a satisfying smoke.

Recently, anti-smoking forces have suggested taking the nicotine out of cigarettes, to discourage smoking. This assumes, of course, that smokers smoke to get nicotine. In their book, "Life Extension", health writers Durk Pearson and Sandy Shaw, take a different approach. Believing that smoke is bad for health but that nicotine is not, Pearson and Shaw suggest that cigarettes be spiked with extra nicotine, so that smokers will consume fewer cigarettes. It is not universally accepted, however, that nicotine is the active ingredient in tobacco smoke. The authors of the widely respected "Merck Manual" say only that it is "probably" the active ingredient. If, in fact, the anti-smokers finally succeed in getting the tobacco companies to remove the nicotine from cigarettes, we will finally find out the truth. My own bet is that a cigarette without nicotine will probably be almost as satisfying as one with nicotine. The active ingredient in smoke is smoke.

Recent studies, reported by the National Institute on Drug Addiction (NIDA), seem to bear out my hunch. These studies suggest that tobacco contains a monoamine oxidase inhibitor (MAOI).

MAOI's are anti-depressants, which work by increasing serotonin levels in the brain. They are used in medicine to treat Parkinson's disease, which may explain why a number of studies have shown that smokers have a far lower rate of Parkinson's than non-smokers. In any event, the MAOI in tobacco smoke may play as great a role in smoking as nicotine.

## ==Chapter 12: Smoking and Heart Attacks==

For many years, anti-smoking activists have insisted that smoking "causes" heart attacks. In truth, there is no scientific evidence to support such a claim.

As early as the 1950's government scientists began conducting studies in Framingham, MA., to assess the "risk factors" which lead to heart attacks and stroke. Early on, they identified three such risk factors: Smoking, high blood pressure and cholesterol. As the years have gone by, however, other researchers have identified still other risk factors. Taking estrogen pills has been identified as a risk factor in women <sup>36</sup>. Male pattern baldness has been identified as a risk factor in men <sup>37</sup>. Vitamin and mineral deficiencies have been blamed for heart attacks, as well as eating fatty foods and drinking too much alcohol.

There are other obvious risk factors: 100% of all heart attack victims breathed air during the time prior to their heart attack. 90% drove automobiles. 95% paid income taxes.

I am, of course, citing these "other obvious risk factors" in jest, to illustrate the absurdity of "risk factor" analysis. If everything is a risk factor, then nothing is a risk factor, because there is no conceivable way of determining whether (a) a particular heart attack or stroke was caused by one of the risk factors and (b) if it was caused by a risk factor, which one.

Risk factor studies are, by their very nature, biased by the opinions of the people who conduct such studies. That's because the researchers must select the factors that they consider risky, before the study ever begins.

Consider this: It is a known fact that exercise sometimes causes heart attacks. I say "known fact" advisedly, because there are many newspaper accounts of athletes and others, dying from heart attacks brought on by exercise. A few years ago, my Congressman, Goodloe Byron, dropped dead of a heart attack while jogging on the CO Canal. He'd been warned by his doctor that he had a weak heart and should not over-exercise, but he disregarded the doctor's advice. Also, a few years ago, Nelson Rockefeller suffered a fatal heart attack while exercising in bed in the company of two nubile young women.

Yet, nobody has ever conducted a study to determine how many heart attacks are caused by exercise. Why not? The answer, of course, lies in the conventional wisdom that "exercise is good for you". Researchers don't conduct studies to link exercise with disease because everybody knows that exercise doesn't cause disease, so there's no point in conducting such a study.

On August 18, 1995, the Wall Street Journal reported on an epidemiological study in England by anti-smoking activist Richard Peto, which claimed that in people aged 30 to 49, smokers have a heart attack risk 2.4 times that of non smokers. For that study to be meaningful, however, Peto would have had to also study a multitude of other risk factors. Smokers tend to be from the lower socio-economic strata of society, and people with low SES tend to be fat and work at hard manual labor (the "exercise factor", again). They may consume too much alcohol and eat diets deficient in the vitamins and minerals which some experts claim are protective against heart disease.

Peto selected smoking as the risk factor to be studied because he believed smoking causes heart attacks. But he might just as well have selected SES, obesity, alcohol consumption, cholesterol, estrogen consumption, diet, baldness, ear creases, etc. Even if he'd studied all of these risk factors, he might still miss the right one, because the real cause of heart attacks may be something that nobody's even remotely considered. After all, we now know that most stomach ulcers are caused by bacteria

and can be treated with antibiotics; yet, until just a few years ago, every responsible physician in the world would have dismissed such a notion as total nonsense.

Just recently, researchers have suggested that the true cause of heart attacks may be surplus iron in victim's diets. This iron, they suggest, oxidizes cholesterol and deposits harmful plaque deposits on the artery walls.<sup>38</sup>

In earlier chapters, I discussed the flaws in the 1950's and 60's studies that attempted to link smoking to cancer and other diseases. Not the least of these flaws was the self-selection of the participants and the failure to establish adequate controls. Take, for example, Doll's famous (or infamous) study of British doctors. In 1951, Doll wrote to 59,600 physicians in the United Kingdom, asking them to fill out questionnaires and become part of his study group, but only 40,701 of the physicians responded<sup>39</sup>. Thus, the participants selected themselves. Furthermore, all of the participants were from the same highly select, elite profession, i.e., medicine. There was no control group, representing the population at large.

In the mid 1970's, some researchers decided to do a study on the effects of smoking cessation as well as other "healthy behaviors". They sought to avoid the flaws that had plagued other epidemiological studies and, to that end, they sought to study groups that were not self selected, but rather were selected, at least in part, on a random basis. The study group was called the "Multiple Risk Factor Intervention Trial (MRFIT) Research Group".

12,866 high risk men, aged 35 to 57 years, were randomly assigned to one of two groups. One group was treated to a special intervention program, consisting of drug-care treatment for hypertension, counseling to stop cigarette smoking, and dietary advice for lowering blood cholesterol (I will call this the "special intervention" or "SI group"). The other group, which I will call the "control group", was left to smoke, eat, and have high blood pressure, without intervention.

The MRFIT Research Group rendered its first report in 1982, reflecting an average follow-up time of 7 years. To the disappointment of the researchers, there was no statistically significant difference between the mortality in the SI group, from that in the control group - despite the fact that, as a result of the nagging, the participants in the SI group significantly "improved" their health habits, i.e., stopped smoking, and lowered their blood pressure and cholesterol levels.<sup>40</sup>

In 1990, the MRFIT group produced another report, reflecting 10.5 years of research, using the same two groups. This time, the results appeared to show a statistically significant reduction in coronary heart disease (CHD) in the intervention group, but this was attributed not to smoking cessation, but rather to reduction in hypertension<sup>41</sup>. It turned out that there were more deaths from ischemic heart disease in the SI group than in the control group (96 vs. 86 deaths). Moreover, there were more deaths from cancer of the respiratory and intrathoracic organs in the SI group than in the control group (66 vs. 55)<sup>42</sup>.

It is amusing to read the explanations of the health establishment for the discrepancies reflected in the MRFIT study. One group of writers tried to explain the higher incidence of lung cancer in the SI group by pointing out that all of the deaths from primary lung cancer reflected in the 10.5 year trial involved smokers or ex-smokers; there were no primary lung cancer deaths among "never-smokers"<sup>43</sup>. These writers apparently forgot that the participants in both groups were selected because they were adjudged to be at "high risk", i.e., smokers and ex smokers. We could hardly expect to find any lung cancer deaths involving "never smokers" in a group that didn't have any "never smokers"!

The MRFIT study is not the only study to use intervention to try to reduce coronary heart

disease (CHD) and cancer, by nagging people to improve their health habits. The World Health Organization conducted a massive study. It involved 63,733 men aged 49 to 59 in 44 factories in Britain, Belgium, Italy, Poland and Spain. The authors estimated that, as a result of smoking cessation and other improved health measures, they managed to reduce the risk of heart attack by 14% in the group as a whole and 24% in a high risk sub-group. Unfortunately, there was no equivalent reduction in the number of heart attacks <sup>44</sup>.

In 1982, Rose, Hamilton, Colvell and Shipley reported on a 10 year follow up study of middle aged smokers, thought to be at high risk for cardiorespiratory disease. The smokers were divided into two groups: a control group who were allowed to continue to smoke and an intervention group (a "SI" group) who were encouraged to give up smoking. The intervention was very successful. In fact, in the SI group of 714 men, the naggers succeeded in reducing the rate of cigarette consumption by half.

As in other studies, however, the results were negative. In fact, 17.2% of the 714 men in the intervention group died during the study period, as compared to 17.5% of the 731 men in the control group - an insignificant difference. There was also no significant difference in lung cancer. There were 25 cases in the control group and 22 in the intervention group. Interestingly, however, there was a statistically significantly greater rate of "all other cancers" in the intervention group than in the control group <sup>45</sup>.

So nagging people to quit smoking - even successful nagging doesn't reduce the rate of either cancer or heart attack.

Perhaps the final word on smoking and heart attacks came in 1998, when the results of a massive study, financed by the World Health Organization, were released. The Monica Study, which assessed 21 countries over ten years, found the incidence of heart disease dropping across Europe, Australia, and North America. But scientists could find no statistical correlation between the reduction and changes in obesity, smoking, blood pressure or cholesterol levels. They didn't look at antibiotic use but maybe they should have, because at least one recent study showed that a course of treatment with antibiotics appears to protect against heart attacks, suggesting that, like stomach ulcers, they may be caused by bacteria.

## ==Chapter 13: Smoking and Emphysema==

On July 13, 1994, an obituary in the Washington Post reported the death, at age 60, of Richard Joshua Reynolds, III, an heir to the founder of the R.J. Reynolds tobacco company. The headline and an accompanying photograph showed the deceased smoking a cigarette and implied that Reynolds died from emphysema, caused by smoking. Reading the obituary in detail, however, it turned out that he had quit smoking eight years prior to his death; and that there was a family history of emphysema, the deceased's own father having died from the disease at the age of 58. Furthermore, the obituary disclosed that the deceased's own doctor was unable to state the "immediate cause" of his death.

Medical opinion concerning emphysema has had an interesting history. My 1973 edition of "Diagnosis and Treatment" (a standard medical textbook), states that emphysema is a disease which involves destruction of the alveolar (lung) tissue but that the cause is unknown, although "many doctors" think it is caused by "cigarette smoking". In 1973, Chronic Pulmonary Obstructive Disease (COPD) had not yet been invented. COPD, while now discussed at length in modern medical textbooks, did not exist in 1973.

Some time subsequent to 1973, a genetic cause of emphysema was discovered. In an article in the latest on-line edition of Grolier's Encyclopedia, Howard Buechner, M.D., explains that a significant number of the people with the disease lack a gene that controls the liver's production of a protein called alpha-1 antitrypsin (AAT). This protein controls or degrades an enzyme called neutrophil elastase, produced by the white blood cells. When the enzyme is left unchecked, it destroys alveolar tissue.

Evidently, the Reynolds, father and son, had genetic cases of emphysema, which may or may not have killed the younger Reynolds, even though he had not smoked for eight years prior to his death. But this raises the question: if there any proof that there is any cause of emphysema other than genetics?

The politically correct medical establishment dances around that question with all of the skill of a lawyer. In the Merck Manual, 14th Edition (1982), we are introduced to a new disease, Chronic Obstructive Pulmonary Disease, or COPD, and, at page 629, we are shown a diagram, showing that the disease is combination of emphysema and bronchitis, and that some patients may have one disease and some the other, but many will have both. Cigarette smoking is said to "presumably" play a role in COPD. At page 630, we are told about AAT deficiency, but this is described as a "rare condition"; it is not clear whether the authors mean that AAT is a "rare condition" that causes emphysema, or that emphysema is rarely caused by AAT deficiency. The language is, I think, deliberate vague.

By 1992, it becomes still more politically imperative to blame smoking for COPD and emphysema. In the 16th Edition of the Manual (1992), it is explained that, yes, emphysema is caused by destruction of lung tissue, caused by an unchecked enzyme. We are told, however, that smoking lowers the body's defenses to the enzyme. No evidence or authority is cited for that proposition.

Thus, we are left with confusing conclusions. We have a new disease, COPD, the exact cause of which is unknown (indeed, the definition of the disease is vague; it seems to be a case of "this patient has something wrong with his lungs, but we don't know exactly what"). Cigarette smoking is thought to play a role; yet the 16th Edition makes it clear that many cigarette smokers never develop the disease, and the authors do not know why. I submit that the reason is very simple: smoking does not cause emphysema.

## ==Chapter 14: Summation==

In this book, I have shown that the case for a smoking/lung cancer connection is by no means proven. Certainly, there is no case whatever for a connection between ETS (second hand smoke) and any disease, nor is there any case for a connection between cigar and pipe smoking and lung cancer. The case for a connection between cigarette smoking and lung cancer rests on the slim reed of a science called epidemiology. But all epidemiological studies, predicated as they are on statistics, are subject to so many co-factors and confounding factors as to be subject to innumerable different interpretations.

Once an assumption is made that, say, eating jellybeans causes carbuncles, it is all too easy to gather and/or manipulate data to support the theory. It is all too easy for researchers to ignore or explain away data which points the other way. We have seen examples of this in the preceding chapters.

In recent years, Americans have embarked upon an increasingly puritanical view of the world. The War on Drugs has dramatically changed the way Americans view the use of marijuana and cocaine (and has also resulted in the U.S. having the largest prison population, per capita, of any major nation). Last year, Surgeon General Jocelyn Elders was fired, essentially for daring to mention the word "masturbation" at a televised conference.

The last time the country went on a binge of Puritanism, the result was Prohibition. The enthusiasm for Prohibition was so overwhelming that when the Congress proposed the 18th Amendment to ban booze, the Amendment was ratified by every state except Connecticut and Rhode Island, and the total votes in the various State Senates were 84.6% for the amendment, while the total votes in the lower houses were 78.5% for the Amendment.

We are moving in the direction of a National Prohibition of smoking. If it passes, we will see bootlegging, smoking speakeasies, smoke police, raids on establishments and maybe even homes where tobacco is believed to be stored or used. We will see the ultimate corruption of public officials and law enforcement officers, bribed to allow illegal smoking establishments to continue in business.

This is a slippery slope! Once the role of government has been firmly established in regulating the personal smoking behavior of its citizens, the next easy step is to begin regulating other forms of personal behavior, deemed offensive to the majority. Soon, books, movies, videos, etc., deemed offensive, will be banned, as well. Already, government regulations are coming into effect which will require employers to limit the use of automobiles by their employees, and to require citizens in certain parts of the county to purchase special types of gasoline which cost more than regular gas and yield less mileage.

Government regulation tends to put people out of business and out of work. It is no coincidence that Prohibition of Alcohol was followed by a market crash in 1929, followed by the horrible depression of the 1930's. Prohibition destroyed the California wine and grape industry; it closed thousands of restaurants and drinking establishments. Of course, it made Al Capone a wealthy man and much admired by the American public, but that can by no means be counted a benefit!

The anti-smoking movement in this country and in the world at large is using unreasoning fear as a weapon to achieve its objectives. An entire generation of Americans has been brain washed to believe that if somebody lights up a cigarette in a room, everybody in that room will shortly come down with a host of fatal ailments.

In their book, "Generations" <sup>46</sup>, authors William Strauss and Neil Howe put forth a theory of American thought, based upon a repeating 80 year cycle. The authors contend that we are presently in a phase of the cycle which corresponds to the generational constellations which brought prohibition in 1919. The authors argue that the baby boomers, a generation of idealists, are now about to seize power. Unlike their elders, the Silents, who valued tolerance and compromises, the boomers are grim moralists, who have no hesitation to impose their values on others. On that theory, Newt Gingrich and Hillary Clinton have more in common than they have in differences; their values may differ, but they share the common view that values are good, and must be imposed, as Hillary did, when she banned smoking in the White House.

If Howe and Strauss are right, we are entering a new era of Puritanism which, they claim, will end only after the Puritans clash amongst themselves or with foreign enemies, resulting in a crisis - which they say will occur sometime after the year 2004. Further, if the authors are right, facts will mean little in this coming Puritanical age. The facts will simply be created to justify bans on smoking, drinking, and other pleasurable things, and to justify the loss of many other personal freedoms. In short, if the authors are right, I am in the position of King Canute, trying to hold back an inevitable force. Never-the-less, I cherish the hope that some people, at least, will still value the facts which I've tried to present.

It is too much to hope that this book will be read by non-smokers. They will have no interest in this tome. My hope is simply that smokers will read these pages, and arm themselves with facts to refute the propaganda.

A medical doctor recently asked me "why do you insist on smoking?". I replied, "Because I enjoy it". I'm afraid he just didn't "get it".

## ==Addendum==

### Smoking and Life Expectancy

When I wrote Chapter 3 in 1996, the Internet was in its infancy and it was very difficult to get reliable information on smoking prevalence in different countries, and to relate those figures to life expectancy. In the intervening years, however, more information has been forthcoming.

A friend of mine, Kees van der Griendt, has compiled figures from 87 countries, which are available at his web site, <http://www.kidon.com/smoke/index.html>. Far be it for me to duplicate all of his work here. Suffice to say that some of the countries with the highest rates of smoking have the lowest rates of lung cancer. Consider the following table, compiled by Kees from figures furnished by the WHO and the CIA:

#### Top 15 Male Life Expectancies

	LE (years)	Smokers prevalence (%)
1. Iceland	76.6 (1994)	31.0 (1994)
2. Japan	76.5 (1994)	59.0 (1994)
3. Costa Rica	75.9 (1994)	35.0 (1988)
4. Israel	75.9 (1994)	45.0 (1990)
5. Sweden	75.5 (1994)	22.0 (1994)
6. Greece	75.2 (1994)	46.0 (1994)
7. Switzerland	74.8 (1994)	36.0 (1992)
8. Netherlands	74.7 (1994)	36.0 (1994)
9. Canada	74.7 (1994)	31.0 (1991)
10. Cuba	74.7 (1994)	49.3 (1990)
11. Australia	74.5 (1994)	29.0 (1993)
12. Spain	74.5 (1994)	48.0 (1993)
13. Malta	74.5 (1994)	40.0 (1992)
14. Italy	74.4 (1994)	38.0 (1994)
15. France	74.3 (1994)	40.0 (1993)
USA	72.6 (1994)	28.1 (1991)

If, as the anti smokers postulate, smoking is a deadly addiction, trimming years off the life of the smoker, how do they explain such examples as Japan, Israel, Greece, Cuba, Spain, Italy and France? How can it be that people in these countries smoke far more than people in the United States, yet manage to live substantially longer?

## ==Notes==

<sup>1</sup> Roach's smoking habits were described in an article entitled "100 Years of Hal Roach", which appeared in *The Washington Post* on January 24, 1992. His death was reported in the December 13, 1992, edition of the *Post*. No date or cause of death was given.

<sup>2</sup> The Seychelles, which I mentioned earlier, are inhabited 99% by Blacks, and have an extremely low rate of male lung cancer. Oddly, however, African Americans, living in the U.S., are said to have a 50% greater LCDCR than Caucasians, despite the fact that African Americans smoke less than their Caucasian counterparts. See, *Progress against cancer*, by John Carpi, *American Health*, v13, issue 8 (Oct., 1994).

<sup>3</sup> The American Cancer Society estimates that in 1993, there were 153,000 deaths from "lung cancer". See *World Almanac and Book of Facts*, 1994 Edition. This figure is comparable with the figure in the *Statistical Abstract of the United States*, for deaths from lung cancer, including deaths from cancer of other "intrathoracic organs", e.g., the esophagus and the throat. I believe, therefore, that the Cancer Society estimates, like the figures given in the *Statistical Abstract*, tend to exaggerate the number of lung cancer deaths, because they include cancers of "other intrathoracic organs".

<sup>4</sup> Report, p. 14.

<sup>5</sup> Report, p. 23.

<sup>6</sup> It is not close to the consumption figures given in *International Smoking Statistics (ISS)*, a book published under the auspices of the Wolfson Institute of Preventive Medicine, which I will use as a source, later on. According to ISS, annual per capita consumption of cigarettes in the U.S. has changed relatively little between 1961, when it was 10.9 per adult per day, and 1985, when it was, allegedly, 8.8 per day, a decline of only 19.2% (ISS, at p. 453). There is something wrong with the ISS cigarette numbers. The same publication shows that annual consumption of all tobacco products in the U.S. has declined from a peak of 13.8 grams per day in 1963 to 8.4 grams in 1985 (ISS, p. 453).

That's a decline of almost 40%. Since the overwhelming bulk of tobacco goes into cigarettes and, according to the same source, the percentage going into cigarettes changed very little between 1965 and 1985, there is no way that a 40% drop in tobacco consumption could translate into a drop in cigarette consumption of only 20%. I suspect, but cannot prove, that the ISS figures do not properly exclude cigarettes made for export. They do not, for example, take into account the large number of cigarettes made for the U.S. domestic market, which are smuggled into Canada to evade high Canadian taxes.

<sup>7</sup> To make any sense, cancer rates must always be age adjusted, to take into account the aging of the population. If a population contains a large percentage of old people, it is likely to have a high incidence of cancer, because cancer is a disease of old age. Conversely, if a population contains a

high percentage of young people, it will have a low incidence of cancer because young people generally don't develop the disease. Over time, the percentage of young or old people in a country may change. Age adjustment corrects for these changes so that statistics for any particular year may be compared with those for another year, without the distortions which would otherwise result from changes in the aging of the population.

<sup>8</sup> International Smoking Statistics, Oxford University Press, ISBN 0 19 2624857 (1993), at pps. 457 and 471.

<sup>9</sup> From "Facts on File", for 04/29/59.

<sup>10</sup> In International Smoking Statistics, which I've previously cited, there is mention of a Fortune magazine poll, taken in 1935, which showed that 26% of the women in the U.S. from age 20 through age 39 smoked, and 9% of those over that age. The authors, however, state that the "age range and product are uncertain". Page 472.

<sup>11</sup> Source: Statistical Abstract of the U.S., 1993.

<sup>12</sup> Cited in Brownlee, "A Review of 'Smoking and Health'", 60 Journal of the American Stat. Assn., 722 (1965).

<sup>13</sup> Recent medical advances in the field of emphysema leave little doubt that Reynolds' case was genetic. In an article in \*Grolier's Encyclopedia\*, Howard Buechner, M.D., explains that a significant number of people with the disease lack a gene that controls the liver's production of a protein called alpha-1 antitrypsin (AAT). This protein degrades or controls an enzyme called neutrophil elastase, produced by the white blood cells. When the enzyme is left unchecked, it destroys alveolar (lung) tissue.

<sup>14</sup> \*The costs of Poor Health Habits\*, A RAND study, Cambridge, MA.; Harvard University Press, 1991.

<sup>15</sup> Average state and local taxes. Source: \*Cigarette Taxes to Fund Health Care Reform\*, Congressional Research Service Report No. 94-214E.

<sup>16</sup> "Flyer Complaints of Illness are Subject of Studies on Plane Cabin Air Quality", by Carl Quintanilla, \*The Wall Street Journal\*, July 29, 1993.

<sup>17</sup> Brownlee, K.A. (1965), A Review of "Smoking and Health", J. Amer. Statist. Ass. 60, 722-739.

<sup>18</sup> Considering each animal to be one experiment.

<sup>19</sup> Source: 1964 Report, p. 83, and the references cited therein.

- <sup>20</sup> Berkson, J. The statistical study of association between smoking and lung cancer. Proc. Staff Meeting, Mayo Clin 30: 319-48, 1955.
- <sup>21</sup> Fischer R.A.: Smoking, The Cancer Controversy, Some Attempts to Assess the Evidence, Edinburg; Oliver and Boyd, 1959.
- <sup>22</sup> Winkelby et al., "Social class disparities in risk factors for disease: Eight year prevalence patterns by level of education" Preventive Medicine: 19:1 (1990).
- <sup>22a</sup> Kitigawa & Hauser, "Differential mortality in the United States: A study in socioeconomic epidemiology", Harvard University Press (1973).
- <sup>23</sup> A Canadian study showed that people with a high SES had a 1.9% chance of suffering a major psychological depression; people in a medium SES had a 4.5% chance, and people in the lowest SES had a 12.4% chance. Murphy, et al, "Depression and anxiety in relation to social status", Archives of General Psychiatry (1991).
- <sup>24</sup> "The original case-control studies by Wynder and Graham and by Doll and Hill are still used in a famous epidemiologic exercise....where they serve as examples of what can go wrong: biased ascertainment of exposure, selection of cases and controls from different source populations, poor ascertainment of caseness, etc..." From page 427 of Invited Commentary: How Much Retrospect?, by J.P. Vandenbroucke, Department of Clinical Epidemiology, Leiden University Hospital, American Journal of Epidemiology, Vol 133, Number 5, March 1, 1991, (pages 426-7).
- <sup>25</sup> Heasman, M.A., and Lipworth, L. (1966) \*Accuracy of Certification of Cause of Death\*, Studies on Medical and Population Subjects, No. 20, HMSO, London. 26 Necropsy Evidence of Detection Bias in the Diagnosis of Lung Cancer.
- <sup>27</sup> \*Smoking and lung cancer: the problem of inferring cause\* (1978), J. Royal Statistical Society A 141:437-477.
- <sup>28</sup> See description of Burch's papers in Eysenck, H.J., \*Smoking, personality and Stress\*, ISBN 0-387-97493-9, at page 34 (1991)
- <sup>29</sup> The experimenters used a mixture of 10% cigarette smoke and 90% air. Evidently, "sham exposed" refers to 100% air.
- <sup>30</sup> Toxicol App. Pharmacol (99) (1).
- <sup>31</sup> Cancer Res. 45 (11 Part 1).
- <sup>32</sup> \*European Respiratory Journal\* 6 (8). 1993 (1173-1180).

<sup>33</sup> Charlotte Roneus, however, a contributor to the alt.smokers Internet group, reminds me that Edgar Cayce, the famous psychic healer, recommended smoking four to six all-tobacco cigarettes per day as a remedy for asthma. Charlotte tells me that she has asthma, and finds that smoking cigarettes soothes the lungs and relieves the attacks. So, it's possible that the Norwegian experiments do, in fact, tell us that cigarette smoke can relieve lung irritation. While anti-smokers may find this difficult to believe, smokers, from experience, will not. Of course, when someone is ill with a cold or flu, smoking becomes unpleasant. But that is not because of smoke irritation. Rather, it's because the body becomes alkaloid when there is a fever, and the nicotine in smoke is an alkaloid.

<sup>34</sup> Environ Res 52 (1). 1990 22-23.

<sup>35</sup> Retrospective studies are studies in which the relatives of deceased persons are questioned about the deceased's smoking habits. In such studies, there is a tendency, if the deceased died from lung cancer, for the survivors to exaggerate his smoking habits. This tendency flows from what psychologists would call "suggestion". Knowing that smoking is supposed to cause lung cancer, people tend to put two and two together and get five. "Oh yes, now that you mention that he died of lung cancer, I seem to recall that Harry was a heavy smoker; I can almost see the cigarette in his lips".

<sup>36</sup> \*Studies Conflict on Estrogen Tie to Heart Attack\*, by Jerry E. Bishop, The Wall Street Journal, October 24, 1985.

<sup>37</sup> \*Baldness in Males and Heart Disease may be Connected\*, by Glenn Ruffenach, The Wall Street Journal, February 24, 1993.

<sup>38</sup> "Base Metal: Heart-Attack Study Adds to the Cautions about Iron in the Diet", \*The Wall Street Journal\*, September 8, 1992.

<sup>39</sup> Doll R, Hill A. B. Lung cancer and other causes of death in relation to smoking, Br Med J 1956;ii:1071-81.

<sup>40</sup> Multiple risk factor intervention trial, JAMA, 248, 1465-77 (1982).

<sup>41</sup> Writing in the journal Circulation, in 1990, M. O. Kjelsberg commented that "Two factors appear to have contributed to this more favorable mortality trend for the SI [Special Intervention] Group: (1) a change in the diuretic protocol for SI men about 5 years after randomization, which involved replacement of [one blood pressure lowering drug with another]; and (2) a favorable effect of intervention on nonfatal cardiovascular events during the trial years. In addition, delay until the full impact of beneficial effects on mortality end points from smoking cessation and cholesterol lowering could have contributed. Circulation 82 (5) 1616-1628, emphasis supplied. Free translation: the drugs they were giving the people in the intervention group were either killing them or not saving them. They fixed the problem. There was no evidence that smoking cessation had any effect.

<sup>42</sup> Mortality rates after 10-15 years for participants in the Multiple Risk Factors Intervention Trial,

JAMA, 263, 1795-1801 (1990).

<sup>43</sup> Ockene, et al., "Cancer in the Multiple Risk Factor Intervention Trial", Am J. Public Health, 80 (8). 1990. 954-958.

<sup>44</sup> \*World Health Organization European Collaborative Group\* (1982), described by Eysenck, H.J., in \*Smoking, Personality and Stress\*, BN 3-540-97493-8, Springer-Verlag press (1991), at p. 13.

<sup>45</sup> As described by Eysenck, \*Smoking, Personality and Stress\* (cited previously) at p. 13.

<sup>46</sup> William Morrow and Company (1991).