Science and Secondhand Smoke

The Need for a Good Puff of Skepticism

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THERE IS NOTHING MORE POWERFUL THAN A lie whose time has come. Thus, the smoking bans.

The experts proclaim that 63,000 Americans are killed yearly by secondhand smoke, more than the victims of AIDS, drunk drivers, the Iraq war, and Hurricane Katrina, put together. If it's true here, imagine the death toll in China.

One would think such a strong assertion would be followed by demands for strong evidence by the scientific establishment, the medical community, the media and the man in the street. Instead, with very few exceptions, scientists and doctors have remained silent, the media have led the orchestra, and the citizens have waltzed to the music.

But the claims about the deleterious effects of second hand smoke are based on nothing more than cooked statistics—there are no bodies, no autopsy reports. But they have led to draconian smoking bans imposed by governments from California to New York to Ireland to Israel to Australia to England. In the process, civil liberties have been trampled and smokers demonized, driven into the streets and lately, in some places, off the streets as anti-smoke zealots promote the notion that outdoor smoking is virtually as insidious as indoor smoking.

The blueprint for this campaign dates to 1975 when British delegate Sir George Godber instructed the World Health Organization on how to get smokers to quit.¹ As reported in "Passive Smoking: How Great the Hazard?", Sir George said, "it would be essential to foster an atmosphere where it was perceived that active smok-

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ers would injure those around them, especially their family and infants or young children who would be exposed involuntarily to the smoke in the air." Eleven years had passed since the U.S. Surgeon General stunned the tobacco industry with a 387-page report linking cigarette smoking and lung cancer. It was an historic event, ranking among the top news stories of 1964.² But people weren't kicking the habit because they didn't think cancer would happen to them. Sir George understood what it would take to overcome this mindset. Make the nicotine addicts believe they delivered death to innocent bystanders.

For the mother of all guilt trips to take hold, what was needed was an official imprimatur. The U.S. Surgeon General delivered it in 1986 with a report concluding that secondhand smoke "can cause lung cancer in nonsmokers." The data "suggest" that nonsmokers are exposed to levels of environmental tobacco smoke (ETS) that "would be *expected to* generate a lung cancer risk," wrote Surgeon General C. Everett Koop (emphasis added). Put together it spelled, "maybe," but two paragraphs later, Dr. Koop wrote: "It is certain that a substantial proportion of the lung cancers that occur in nonsmokers are due to ETS exposure."³

This sleight-of-hand went unnoticed by the popular media, which promoted the report as truth itself. But throughout the next decade, experts repeatedly criticized Dr. Koop's conclusions. After reviewing the Surgeon General's report, the International Agency of Research on Cancer (an offshoot of the World Health Organization) concluded that, as far as the risk of lung cancer was concerned: "The observations on nonsmokers that have been made so far are compatible with either an increased risk from passive smoking or an absence of risk."⁴

Dr. Ernst Wynder, president of the American Health Foundation, a pioneer who in 1951 had connected active smoking and lung cancer, asked a question unanswered to this day: "If passive inhalation in fact increases our risk of lung cancer, there should have been a steady increase in the incidence of lung cancer among nonsmokers. This would have been observed in the female population for the last forty years. As more and more men smoke, more women passively inhale the smoke of their husbands. [Yet] there has been no significant increase of lung cancer in male or female nonsmokers. In this case we have a

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non-fit."⁵ Exactly. Data from national mortality surveys show that lung cancer rates among neversmoking women remained stable between the 1950s and the mid-1980s; lung cancer rates among women didn't rise until decades after women started smoking.

Why this emphasis on married women? Because the statistical studies relied upon by the Surgeon General (and ever since) were mainly based on the incidence of cancer among nonsmoking married women who lived with smoking husbands. As compared to nonsmokers married to nonsmokers. Linda Stewart, in her seminal article "How to Read a Study," lays out the flaw in this approach:

All it does is, it counts things up, and then relates one set of numbers to another:

In a group of 10 people, 6 have a cold. Of the 6 who have a cold, 3 own a cat. Of the 4 without a cold, 1 owns a cat.

Epidemiology can then give you a formula: People who own cats have twice the rate of colds. What it *can't* do is offer a connection: "Cats cause colds."⁶

Which brings us to the first rule of epidemiology: Correlation does not prove causation. The late Dr. Alvan Feinstein, for 40 years Sterling professor of medicine and epidemiology at Yale, testifying before the Congress on secondhand smoke, related a challenge he gave his seminar each year: "Go into the statistical abstract of the United States...and pluck out data to support the most outrageously silly contention you can come up with." The winner was somebody who found a strong statistical relationship between the sale of VCRs and the incidence of AIDS. "A wonderful statistical relationship," said Dr. Feinstein. "And then if you want plausibility, well, what are they doing while they're watching VCRs, and so on and so forth."7

If Feinstein had published this "proof" that VCRs caused AIDS, he'd have been consigned to the cuckoo's nest. Using the same analysis to make the case against secondhand smoke...well, here's what happened after the Surgeon General turned correlation into causation. In 1987, Congress banned smoking on all U.S. domestic flights of two hours or less. This was done before airline cabin air was measured; there was zero evidence that secondhand smoke endangered passengers or crews. Three years later,



after the U.S. Department of Transportation reported that nicotine levels were virtually the same on planes that did and did not allow smoking, the ban was extended to six hour flights and by 1998 to *all* flights worldwide.

In 1988, New York City Mayor Ed Koch banned smoking in all public buildings and required nonsmoking sections in restaurants. In the same year, 380 ordinances nationwide banned smoking in various venues, a four-fold increase in the two years since the Surgeon General's report. The anti-smoking brigade grumbled. Too many people still puffing.

In 1992, the Federal Environmental Protection Agency came through, labeling secondhand smoke a Class A carcinogen that caused lung cancer and killed 3,000 Americans annually.8 The report received Class A support from mainstream media. Newsrooms, once the smoking fields of reporters and editors, fell for it with few exceptions. They embraced regulations that sent smokers into closed rooms or to the street. Old inkstained wretches shook their heads but had no chance against the young lions of journalism, who eschewed cigarettes and saloons for health clubs and home cooking. Here was irony writ large: The famous baby boomers, who brought us hard drugs, hard rock and hard porn, morphed into the new prohibitionists.

Out of that generation came First Lady Hillary Rodham Clinton, who responded to the EPA report by banning smoking in the White House. Her action made page one, above the fold, in *The New York Times*. And so went the nation. The

www.skeptic.com SKRPNO headline-grabber was the body-count—not part of the Surgeon General's report. Three thousand dead of secondhand smoke was a trophy for editors, a quotable number. But it was a computergenerated estimate, and there were no bodies. If environmental tobacco causes lung cancer, the computer was asked, how many deaths does it cause? Linda Stewart: "The operative word is *if*. As in *if* pigs could fly, then 47 a year would crash."

Had the press explained this to the public, the EPA report would have had the life-span of pigs who try to fly. Instead the press ignored that the EPA never did its own study but cherrypicked among eleven epidemiological studies to find one that yielded a connection between secondhand smoke and cancer. And they had to move the goal posts to get even that weak link. At the established statistical "confidence level" of 95%—meaning that there is only a five-percent chance that the findings could be random—they couldn't connect passive smoke and lung cancer, period. So they downgraded to a 90% confidence level, doubling the possibility that the findings were statistically flawed.

In 1993, to bolster the case, Congressman Henry A. Waxman (D-CA), chairman of the House subcommittee on Health and the Environment, commissioned the universally credible Congressional Research Service to produce the final, definitive study on the perils of secondhand smoke. For nearly two years, CRS considered the whole canon of studies and interpretations, reporting:

- The statistical evidence does not appear to support a conclusion that there are substantial health effects of passive smoking.
- It is possible that very few or even no deaths can be attributed to ETS.
- If there are any lung cancer deaths from ETS exposure, they are likely to be concentrated among those subjected to the highest exposure levels... primarily among those non-smokers subjected to significant spousal ETS.
- The results are not definitive. And even at the greatest exposure levels, the measured risks are still subject to uncertainty.

CRS rejected the very foundation of the EPA's hypothesis—that the smoke inhaled by a smoker and the smoke inhaled secondhand are so chemically similar that if one is carcinogenic, then logically so is the other. Secondhand smoke, it said,

is "substantially diluted...when compared to even low levels of active smoking."9

How did Mr. Waxman react to this devastating report? He viewed it as a slam-dunk for his antismoking crusade! "NEW CONGRESSIONAL STUDY CONFIRMS DANGERS OF ENVIRON-MENTAL TOBACCO SMOKE," headlined his press release. The CRS report "vindicates the conclusions that secondhand smoke is a dangerous human lung carcinogen," and presents a "major finding" that "the lung cancer risks from exposure to ETS are exceptionally high."¹⁰ But CRS found the opposite: "Even when overall risk is considered, it is a very small risk and is not statistically significant at a conventional 95% level."

Using the data from the hairiest study it reviewed, the CRS said someone exposed to spousal and background ETS has about a 2/10th of one percent chance of dying of lung cancer from ETS over a lifetime. Exposure only to background ETS (as in workplaces or bars) drops the number to about 7/100th of one percent. Thanks to Waxman and a compliant press corps, the CRS findings were ignored by the media. When the EPA report got to court, it was thrown out as an outright fraud. Federal Judge William Osteen interviewed a range of scientists for four years, writing a 94-page opinion in 1998. He found:

The Agency disregarded information and made findings based on selective information...deviated from its risk assessment guidelines; failed to disclose important [opposing] findings and reasoning; and left significant questions without answers.... Gathering all relevant information, researching and disseminating findings, were subordinate to EPA's demonstrating ETS was a Group A carcinogen.... In this case, EPA publicly committed to a conclusion before research had begun; adjusted established procedure and scientific norms to validate the Agency's public conclusion, and aggressively utilized the Act's authority to disseminate findings to establish a de facto regulatory scheme...and to influence public opinion While doing so, it produced limited evidence, then claimed the weight of the Agency's researched evidence demonstrated ETS causes cancer.11

The New York Times, which played the EPA report above the fold on page one in 1993, and across the years supported its conclusions in editorials and news stories, ran the judicial destruction of the report deep inside the paper,





no editorial, no follow-up stories.

No congressional investigation, either. No committees vying for jurisdiction. Here was a respected federal judge—a famous anti-tobacco judge accusing a federal agency of corruption, of using junk science to influence public opinion and making it work through regulations, of actually changing the way Americans could live their lives.

But this was 1998, and this was smoking. Everyone "knew" secondhand smoke killed. Laws were based on this specious knowledge. Careers too—taxpayer grants were rolling in to patently biased investigators. When the City Council of New York was about to pass a law restricting smoking in bars—rough enough but before Michael Bloomberg's absolute prohibition—I mentioned Osteen's ruling to various Council members. The answer always: "A North Carolina judge, are you kidding?"

But one year before his ruling on the EPA report, Judge Osteen handed down the worstever defeat for Big Tobacco, deciding that the sale, manufacture, and distribution of cigarettes could be controlled by the Federal Drug Administration. The anti-smoking brigade loved him then, he was a hero, a fair-minded judge out of North Carolina, no less.

Four years later the Fourth Circuit Court of Appeals reversed Osteen's indictment on a technicality: the EPA report was "advisory" and not a "regulatory" function under the Administrative Procedure Act, thus not reviewable by the courts. The anti-smoking crusaders hailed the ruling, saying the court had exonerated the EPA science. They did no such thing—Osteen's shattering dismissal of the science was untouched by the circuit court and remains standing as fact.¹²

In March 1998, three months before Judge Osteen's decision, the World Health Organization's International Agency on Research on Cancer published a study that ran for 10 years, covering 7 European countries. The conclusion: no statistically significant risk for nonsmokers who lived or worked with smokers.¹³

It's impossible to imagine a more damning report out of such an anti-smoking force as WHO. One might have thought that the secondhand smoke campaign found its Waterloo. When the story broke in the London press I obtained the full report and published an account in my *New York Daily News* column, hurrying to scoop the American press. I needn't have worried. *The* *New York Times* didn't touch it, exemplifying the standard of censorship in the media.

Meanwhile, the U.S. Department of Energy wired up nonsmoking bartenders and waiters working in smoke-filled bars and restaurants in 16 cities, with a device that measured the amount of inhalation of secondhand smoke. Nothing like this had been done before; all other studies were statistical. The conclusion across the board: inhalation was so low as to render health hazards negligible to improbable. And yet, this breakthrough report was buried alive like all other challenges to the notion that secondhand smoke buries its victims.¹⁴

Still, Americans smoked, and the zealots fumed. They needed a bigger number than 3,000 lung cancer deaths. As the millennium approached, the heart became the ticket, just next door but 50,000 deaths a year more than the poor old lung. Enter Stanton Glantz, Ph.D., who morphed from aerospace engineer to professor at the University of California, San Francisco school of medicine. Glantz, selfdescribed "lunatic" anti-smoker, founded the Berkeley-based "Americans for Non-Smokers Rights" in the late 1970s, a group whose avowed purpose was to turn smokers into "social outcasts." In the 1980s he successfully lobbied for a tax hike on California smokers (Proposition 99), with the stipulation that a portion of the revenue be earmarked for anti-smoking groups like his.

Glantz's initial take was close to \$500,000, which put him on the map. Once there, he got another \$4 million from the state. Across the years, he has raised fortunes for the crusade, using a combination of political pressure and junk science to achieve a smoke-free America (and world). His advice to his troops on dealing with politicians who oppose smoking bans: "As soon as these politicians start floating trial balloons, they should be attacked publicly. If they can be bloodied, it could well scare the others off. Fear is a great motivator for politicians."¹⁵

Starting in 1985, Glantz tried to get the EPA to accept secondhand smoke as the cause of cardiovascular disease with the death rate of 50,000 per annum—a figure that was originally DOA at the EPA—rejected by the same EPA that had *created* the discredited 3,000 lung cancer deaths. And in a report dated March 23, 1994, the Congressional Research Service, which (as we have seen) fully deconstructed the EPA's lung cancer finding, called Glantz's heart numbers "implausible."16

But Glantz persisted throughout the 90s, and the bogus combination death toll of 53,000 became a mantra, reverently repeated by the media on any excuse. Glantz's cynical bypass of morality and science has brought us to where we are today.

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New York, New York. Ban it here, you can ban it anywhere. By the eve of the 2001 mayoral election, the city fathers had incrementally made smoking more difficult. Public buildings and private offices were under the ban, as were the ballparks and race tracks. In restaurants, smokers were relegated to the bars. But there were exceptions. Restaurants with 35 or fewer tables were exempt. Stand-up bars with no food were free-fire zones. Private clubs, from Yale to the Veterans of Foreign Wars, were O.K.

Then came 9/11 and the elevation of Rudy Guiliani to national hero. His endorsement of Michael Bloomberg slipped the billionaire mogul into City Hall. And in a New York minute, we were the poster city for the new prohibition. Bloomberg never mentioned smoking in his campaign, for good reason. There were two million smokers in the city, including Rudy. But within a year, abetted by Health Commissioner Thomas Frieden, Bloomberg banned smoking in bars, private clubs, outdoor cafes...the whole ten yards. "One thousand New Yorkers a year die from secondhand smoke," announced Frieden, which Bloomberg said was "literally true," when he signed the ban into law, December 2002.¹⁷

A year later, Bloomberg, in an interview with *Vanity Fair*, said that as many New Yorkers die each year from secondhand smoke as the 3,100 victims of the World Trade Center. When I asked Frieden why he didn't go with that number, he changed the subject. "The evidence that secondhand smoke kills is clear and consistent," Frieden told the City Council. "There is no scientific doubt about the matter."

No scientific doubt? Only long years of media censorship saved him from being hooted out of the chamber where Bloomberg was derided for insisting the bar patrons would drink more if they couldn't smoke.

True scientists embrace doubt. The highly credentialed Frieden surely knew the real unlikelihood was that secondhand smoke killed any-

body. In December 2001, weeks before he took office as New York's health commissioner, the federal Occupational Safety and Health Administration had finally refused anti-smoking advocates' 12-year-old petition that OSHA ban smoking in all indoor workplaces. They couldn't find the scientific grounds to do so, and they remained obdurate throughout the Clinton administration.¹⁸ Frustrated, a group called ASH (Action on Smoking and Health) petitioned the federal court in Washington D.C. to mandamusforce-OSHA to ban smoking in all the nation's workplaces. ASH founding president John Banzhaf is on record as wanting to remove healthy children from intact homes if even one of their family members smokes. He sells litigation kits to help landlords evict smoking neighbors. OSHA's answer to the mandamus lawsuit: If you want us to issue regulations, we will. But the best we'll do is set some official standards for permissible levels of smoking in the workplace. Banzhaf panicked. Permissible levels? Heresy. Nothing would satisfy but zero tolerance.

Finally ASH withdrew its lawsuit in return for OSHA's agreement to do nothing. Its press release announced: "ASH has agreed to dismiss its lawsuit to avoid serious harm to the nonsmokers' rights movement from adverse action OSHA had threatened...we might now be even more successful in persuading states and localities to ban smoking on their own, once they no longer have OSHA rule-making to hide behind."¹⁹ In other words, OSHA caved, allowing the lie of secondhand smoke to go unchecked, and ASH spun reality, leaving states and municipalities free of official standards or limits on credulity.

Before the City Council, Frieden made no mention of OSHA's repeated refusal to ban workplace smoking. The last thing he wanted was to breach the received opinion. Secondhand smoking kills; science says so. Even a half-hour exposure to secondhand smoke could cause a heart attack. And Mayor Bloomberg chimed in, as if invoking a law of physics, that the average bartender inhaled half a pack a day from his customers.

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Frieden's half-hour was based on a Japanese study of 30 people—half of them smokers, half non-smokers—that actually proved the opposite of what Frieden and others loudly claim.²⁰ While the Otsuka study showed "an effect"—platelet stickiness—on the non-smokers, the study

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concluded, far more significantly, that there was *no* reduced blood flow to the heart. A definitive study conducted in Europe and published in London showed that bartenders inhaled the equivalent of six cigarettes annually, no daily half pack.²¹ The aforementioned U.S. Department of Energy study came to a similar conclusion. No scientific doubt: Secondhand smoke kills.

Political correctness and fear of retribution silenced doctors and scientists who knew better. Every lung specialist and cardiologist I questioned across the years scoffed at the story that secondhand smoke caused death. "But don't quote me, or I'll be dead." Dr. Elizabeth Whelan, president of the prestigious American Council on Science and Health, is made of stronger stuff. She denounced Bloomberg's claim that his ban would save a thousand lives a year. "Patently absurd," she wrote. "There is no evidence that any New Yorker—patron or employee—has ever died as a result of exposure to smoke in a bar or restaurant."

Whelan is no Big Tobacco shill. A world-class epidemiologist out of Harvard and Yale, Whelan is a leading foe of smoking, oft quoted in the establishment press. Her direct attack on the mayor and implicitly on his health commission was a natural for headlines. But her pronouncements never surfaced beyond the blogosphere. The *Times* and the rest of the press ignored Whelan, just as they had ignored Judge Osteen, the Congressional Research Service, the Department of Energy, and OSHA.

Nevertheless, thanks to the power of the blogosphere the controversy is alive and kicking, and the anti-smoke brigade wasted no time trashing Whelan. "The hatred was palpable," she told me, "out of control. The intolerance is scary. They refuse to permit any dissent. I've been against the tobacco industry and smoking forever. But now I'm the enemy, because I won't buy the hype on secondhand smoke, which I made plain I totally dislike." On her website, Whelan wrote: "Secondhand smoke is annoying, it makes your clothes and hair stink and can ruin an otherwise delightful dining experience. The majority of New Yorkers will welcome a smoking ban primarily for aesthetic reasons, not for health reasons."²²

The sine qua non of the smoke-free enterprise is that somebody else's addiction will kill you and your loved ones. Aesthetics is never mentioned, for good reason: It leads inexorably into questions about freedom of choice. If it's about shampoos and cleaning bills and rank smells, saloons and restaurants could post signs. No smoking. All smoking. Bar smoking. Section smoking. Prohibition then would work nowhere, except maybe a one-diner town. To play New York, with its 36,000 restaurants and famous tolerance, it had to be to protect the bartenders and waiters, life and death, no choice.

A few months later, Whelan came out for a smokeless tobacco product, in the form of a tea bag that gives a similar hit to nicotine, which she believes could reduce direct smoking deaths to 6,000 from an estimated 400,000. "That did it," she told me. "The next day I got an email from an old comrade. It said, 'You are now ex-communicated'!" I asked her why she put herself and her organization in the line of fire.

"Look," she said, "I like the ends. I'm for a smoke-free world. I don't agree that the ends justify the means. The means here amount to junk science, and once junk science gets accepted as science in one field, it threatens to pollute other fields. Science must always strive to be pure, unencumbered by ideology. This secondhand smoke business, with its preposterous claims, fails every test. I can't be silent." And her Council? "We have 380 scientists here and they're in accord, or I wouldn't be speaking in the name of the Council."

Dr. Michael Siegel was ex-communicated in late February 2006. A momentous event in the annals of anti-smoking militancy, for Siegel was a pioneer in the long fight to bar smoking in restaurants. He's a physician and a professor in Boston University's School of Public Health. If the Movement had a College of Cardinals, he'd have been among the first to wear the red hat. These credentials availed him nothing, for he committed the Mortal Sin of Criticism against the Infallible ASH and its pontiff, John Banzhaf.

What brought Siegel to the apostasy was his revulsion at ASH's "fanatical" positions: that outdoor smoking be banned, that companies should fire all smokers, that cities that permitted outdoor smoking would likely be sued by nonsmokers who keeled over from heart attacks, and for boasting that they were going to break the final frontier, by banning smoking in private homes.

The means to these ends was ASH's claim that 30 minutes of secondhand smoke could cause fatal heart attacks in otherwise healthy