

PART I

Setting the Stage: Wealth Versus Health

Individuals and Their Stories



When people talk about the health consequences of smoking, they often cite statistics. But these statistics represent real people, as the following personal stories help to show.

Roger Perron

Roger Perron, who now lives in Vancouver, recalls that he was 13 when he started smoking. “I was in a store and some fella, an older student, just gave me a cigarette. After that I became a regular smoker. Smoking was cool. It seemed like everyone was smoking. I smoked Export ‘A’, in the green pack. It was a man’s brand.”

When he was in his twenties, his legs began to feel numb. When he was 28, his left leg was amputated below the knee. The pathologist’s report revealed that Roger had thromboangiitis obliterans, commonly known as Buerger’s disease. This disease causes inflammation of the arteries that impairs blood circulation, especially in the limbs. Buerger’s disease almost always occurs in a smoker. Some doctors colloquially refer to Buerger’s disease as “smoker’s leg.”

Despite being told by his doctor about the disease and the impact of smoking on the disease, Roger continued to smoke. Problems with his remaining leg got worse, and he had to sleep with it elevated. “The pain was incredible. It felt like someone was hammering 100 000 nails into me.” When he was 31, his right leg was amputated below the knee.

Then he stopped smoking. The numbness in his arms went away. He regained the enormous amount of weight that he had lost and started to feel much better. Now he gets around with two artificial limbs, but the story doesn't end there.

"One day I was going down the street and I saw these kids smoking. They must have been 12 or 13. I wanted to do something about it. So I spoke to my lawyer about what could be done to stop stores from breaking the law by selling to these kids. Russell [Stanton] looked into it, did some research, and then one thing led to another and he suggested I take a different approach and sue RJR-Macdonald."

Roger filed a lawsuit in 1988, becoming the first Canadian to do so, but 8 years later his case has not come anywhere close to going to trial. RJR-Macdonald hired one of the top lawyers in the city and tried unsuccessfully to have the claim dismissed outright because it was filed too late.

After all that he has been through, Roger was taken aback when his 13-year-old son was seen smoking at elementary school. "We got together and had a long talk and I think he understood. Since then, I haven't heard of him smoking. At least I hope he hasn't."

"Smoking is in the news all the time now, but I think a point is being missed in the papers. If a person is addicted and you need something to get off, that's negligence. That's somebody's fault, whether the government or tobacco companies."

"Often people fail to understand that when something takes over your mind and takes control of your body, then it has got to be wrong. Once you're hooked, ... they [the tobacco companies] have got you hook, line, and sinker. It's a crock that tobacco companies say tobacco is not harmful to the body."

Julie Laperle

Julie Laperle is 16 years old and a high school student in Sherbrooke, Quebec. She smokes two to three packs a week, although just recently she is smoking less because her mother no longer lets her smoke in the house. Before, she was able to smoke in her bedroom.

Julie was 12 and in her first year of high school when she had her first cigarette. She was at a school dance one night, and the students were allowed to smoke in the cafeteria. The first cigarette came from one of her girlfriends. "I was influenced by my friends. I wanted to feel big," she recalls. "I knew a little bit that it could be harmful to my health, but I didn't believe it. My father seemed in shape like everyone else and he smoked."

When asked today why young girls begin to smoke, she replied "I've asked myself that question a lot myself. They don't know. It's a trip between childhood and adolescence. It's to try. Some are able to quit, others not."

By age 14, Julie was smoking daily. She usually got her cigarettes from a corner store. Only rarely was she refused because of her age. One winter she had problems with her breathing. Her doctor advised her to stop smoking to help the situation, but she continued.

In biology class in her third year, she saw lungs of smokers and nonsmokers. “It looked really bad. Everyone said ‘we are going to stop, we are going to stop’.” But despite the good intentions, neither Julie nor her friends quit.

Julie thought about trying Nicorette chewing gum, but it cost \$15 a box and she did not want to end up having wasted her money if the gum did not work and only part of the box was used up.

At 15, she wanted to quit “because it was expensive and because I wasn’t in perfect health. I imagined all the advantages it could have.” Julie and a friend started to cut down together. “We tried to keep ourselves busy without thinking about it,” she remembers. That generally worked, except that sometimes they cheated. Then Julie and her mother went on a trip to the United States, and Julie quit altogether. But she couldn’t hold out. She bought one pack, and by the time she got back to Sherbrooke, she was back to her regular number of cigarettes.

In Julie’s group of friends, some have now quit smoking. “You get to an age where you know more what you’ve done and you want to do something about it,” she says. “If prices went back up to \$7 a pack, I think I would quit because that’s really expensive. My allowance is \$10 a week and \$7 a pack is hard.” Julie makes it quite clear. If she was able to quit immediately, she would.

George Knudson^[168,338,383,396,531–533,593]

George Knudson grew up in Winnipeg, and from his early days he had a passionate interest in golf. As early as age 10 he was hanging around the St Charles Golf and Country Club. He started to work there, picking up balls on the driving range and later on working as a caddy. His own golf game improved quickly, and by the age of 14 he was winning junior tournaments and getting press coverage.

George went on to become Canada’s greatest golfer ever. By the time Knudson had stopped playing full time on the PGA Tour in 1979, he had won more PGA events than any other Canadian (eight wins between 1961 and 1972). At the time he left the tour, he was ranked in the top 50 of all-time money winners. He was a five-time winner of the Canadian PGA championship and was part of Canada’s first World Cup victory in 1968. Jack Nicklaus and many other top players felt that George had one of the most efficient swings in the game.

On and off the golf course, George and his cigarette seemed inseparable. He called smoking a stinking habit. He often tried to quit but without success. His kids even tried to get him to stop. He smoked for 30 years and thought that cancer wouldn’t get him.

At age 50, professional golfers become eligible to play on the Senior PGA Tour, a tour George was planning to join. But just days before his 50th birthday, George felt chest pains on his way home from a fitness club in Toronto, where he was then living. He checked into a hospital. A few hours later, after a series of tests, he was told he had lung cancer and could expect to live 18 months. The next day he began chemotherapy. Soon he

lost his bushy head of hair, along with his eyebrows, although some hair did come back later. During the treatment, George was violently sick to his stomach but would later tell a reporter that he was lucky because he didn't react as badly as some people do.

In fact, George's recovery went so well that he played in the Legends of Golf Tournament in Austin, Texas, part of the Senior PGA Tour. Newspaper articles noted the event with headlines such as "Knudson's sweet swing returns to the tour."^[532] Unfortunately, this would be his last tournament. He flew to another tournament on Rhode Island, but he was too weak to play and had to return home.

The cancer had spread to his brain. Nine months later George was dead, leaving behind his wife, Shirley, and his sons, Kevin, Paul, and Dean. George had quit smoking after he was diagnosed with lung cancer, but it was too late. At 51, 19 months after the diagnosis, George died, tragically and unnecessarily. Canadian golf had lost its best.

Part of the irony is that the thing that killed George, the cigarette, was for years sponsor of the Canadian Open, Canada's premier golf event. The Royal Canadian Golf Association has even spoken publicly against legislation that would stop tobacco sponsorship of sporting events.

George's son Dean, now 25, spoke about his dad on what turned out to be the anniversary of his father's death. Dean commented on the lost potential, both personal and professional. "He won't see his grandchildren. He won't grow old with my Mom. And God only knows what he could have done on the Senior Tour." Dean now has strong anti-smoking views, and he is not shy about making his opinion known to friends who smoke.

Dean recalls that as his father's 50th birthday approached, the family was strongly encouraging a return to professional golf. His dad had become more enthusiastic about golf than he had been in years. Dean also remembers being with his father at the Rhode Island tournament. "On the first shot of the practice round, he hit the ball in a perpendicular direction. I had never seen him make a bad shot in my life. He had lost his sense of balance and right then he stopped. As we were walking off the course, I saw players like Palmer and Rodriguez. To me this showed how close my father was to returning to the game. Yet his passion was taken away from him."

Julieta Albuquerque de Oliverira^[312]

Julieta Albuquerque de Oliverira lives in Arapiraca, Brazil's northeastern tobacco capital. When she was 13, she learned how to smoke from her cousins. At the time, her father gave her a warning: "Little one, if I ever see you smoking, I'll set fire to these lips of yours!"

But Julieta didn't take him seriously, because he and all her siblings smoked. "If you guys can smoke, I can smoke, too!" she replied.

Now 20 and pregnant, Julieta works in a big tobacco warehouse owned by her uncle. With about 500 other women, she sits on the floor stemming leaves. The warehouse is humid and smells terrible. Among the female workers, headaches, vomiting, nausea,

shortness of breath, dizziness, and stomachaches are common. Julieta's hands are blackened from handling tobacco leaves.

She sometimes works at a day care. There she smokes in the bathroom so that she is not a bad role model for the children. Even though Julieta knows that smoking is dangerous for her health and for her baby, she smokes about 40 cigarettes a day. She doesn't quit because tobacco leaves are always right in front of her. If she is out of cigarettes, she will make them from the leaves with which she is working. Julieta has no intention of quitting, sometimes even preferring a cigarette to a snack.

Tobacco or Health: The Consequences of Tobacco Use



An unparalleled epidemic

The tragedy of the stories about Roger, Julie, George, and Julieta is that their experiences are repeated thousands of times each year. Although many people believe that smoking is harmful, few appreciate just how much damage it really does. Annually, more than 45 000 Canadians suffer early deaths because of tobacco use.^[161,467] This frighteningly large total exceeds the 42 000 Canadian deaths in all the years of World War II. The total also exceeds the number of annual deaths from car accidents, suicide, murder, AIDS, and illicit drug use **combined**.^[380] For AIDS, the total number of deaths reported in 1993 was 998, lower than the 1992 record of 1 116. During the entire period 1979–93, the total number of reported deaths from AIDS in Canada was 6 439.^[233] In 1993, the total number of fatalities from traffic accidents, including those caused by drinking, was 3 601.^[595] It has been estimated that for the period 1955–2005, a total of 12.3 million Canadians will have died prematurely from tobacco use.^[467]

The Canadian Medical Association (CMA) has strong words regarding tobacco and health. As long ago as 1969, the CMA said that

the story of the health hazards created by cigarette smoking represents an unrivalled tale of illness, disability and death. The potential benefits to be derived from the cessation of smoking place it at a level of importance in preventive medicine with pasteurization of milk, the purification and chlorination of water, and immunization.^[76, p. 689]

The total number of smoking-related deaths per year has increased in this century as smoking has increased. The total, when adjusted for an aging population, is now leveling off among men but continues to increase among women, because increases in smoking among women took place later than in men. It normally takes several decades before smoking results in death, so there is a delay before higher smoking rates translate into higher death rates. Similarly, it takes time before lower smoking rates translate into lower death rates.^[369] Even with lower smoking rates, though, the total number of smoking-related deaths will increase in future years because of Canada's growing population and aging baby boomers. Of all smokers who die prematurely, half will die before age 70 and lose an average of 23 years of life.^[467] The half who die after age 70 lose an average of 8 years of life.^[467]

The rise in the health consequences due to tobacco is partially illustrated by Figure 1, which shows the rise in lung cancer since 1950. More than 80% of lung cancer deaths and about 30% of cancer deaths are caused by tobacco use. Unlike some other forms of cancer, lung cancer is usually lethal. Within 1 year of diagnosis, 66% of men and 62% of women are dead; within 5 years, 85% of men and 80% of women are dead.^[427] Smoking also causes cancer of the throat, mouth, tongue, lip, larynx, pharynx, bladder, kidney, and pancreas. It has been associated with several other cancers, including cancer of the stomach and cervix.

As important as smoking is as a cause of cancer deaths, it is responsible for an even greater number of deaths due to heart attacks, stroke, and other forms of heart disease. American research indicates that of all tobacco-related deaths, 46% are due to cardiovascular disease, 26% to lung cancer, 14.3% to chronic bronchitis and emphysema, 7% to other cancers, and 6.7% to other causes.^[602] Of all heart disease deaths, about 30% are

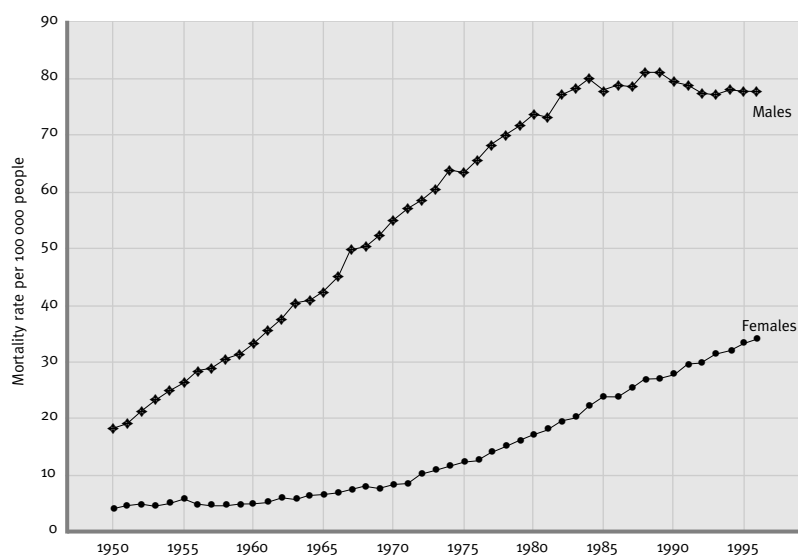


Figure 1. Age-standardized lung cancer death rate for males and for females, 1950–96.^[428,567]

attributable to smoking. Smoking also causes 80%–90% of chronic obstructive lung disease and is the major cause of emphysema and chronic bronchitis. Smoking can cause and aggravate asthma.

Employees exposed to chemicals in certain types of workplaces have an increased risk of certain diseases. If an employee smokes, the risk increases dramatically and is far greater than if just risks from smoking and from workplace chemicals were added together. For example, lung cancer death rates (per 100 000 people) for cigarette smokers exposed to asbestos dust has been reported at 602, compared with 123 for cigarette smokers not exposed to asbestos dust, 58 for nonsmokers exposed to asbestos dust, and 11 for nonsmokers not exposed to asbestos dust.^[541]

Smoking during pregnancy increases the risk of complications, low birth weight, miscarriages, stillbirths, premature births, bleeding during pregnancy, and sudden infant death syndrome. Smoking has been linked to lowered immunity, early menopause, reduced fertility, and peptic ulcers. In men, smoking has been associated with a higher risk of impotence. Smoking can cause gum disease and tooth loss.

Quitting smoking can have a tremendous effect on reducing health risks and on improving life expectancy, especially if quitting occurs early in life. The benefits of quitting can be immediate, and within days or weeks some of the effects of smoking are reversible, including some respiratory problems. After 3 years, on average, the risk of sudden cardiac death approaches that of never smokers. However, increased risks still remain compared with the never smoker. For example, after 10 years of not smoking, the risk of lung cancer remains at 30%–50% of that for continuing smokers^[236] and considerably higher than that for never smokers. And the greater the number of years a person smoked and the higher the number of cigarettes smoked daily, the greater the risks.

One of the most important studies ever done on the health consequences of smoking was carried out in the United Kingdom starting in 1951.^[148] The study involved 40 000 doctors and followed them over the next 40 years, monitoring their smoking and, when applicable, their age at and cause of death. The study, released in 1994, concluded that “half of all regular cigarette smokers will eventually be killed by their habit.”^[148, p. 901] The study also concluded that earlier studies “substantially underestimated the hazards of long term use of tobacco.”^[148, p. 901] Smoking was significantly associated with 24 different causes of death. Interestingly, smokers were less likely to die from Parkinson’s disease, although no explanation is offered. Partway through the study, in 1978, the alcohol consumption patterns of the doctors were monitored. In contrast with smoking, the study found that moderate consumption of alcohol actually increased life expectancy. However, heavier drinking (more than three units a day) led to increased death rates.¹

Cigarette smoke contains more than 4 000 chemicals. At least 43 of these have been identified as carcinogenic in humans or animals, and others have been identified as toxic, so it is no surprise that smoking is so harmful. The substances in smoke include carbon

¹ One pint of beer = 2 units; one glass of wine = 1 unit; 25 mL of liquor = 1 unit.

monoxide (found in car exhaust), acetone (used in paint strippers), hydrogen cyanide (used in gas chambers), ammonia (used in fertilizers and bathroom cleaners), mercury, lead, benzene, cadmium (used in car batteries), formaldehyde, arsenic, and toluene (used in industrial solvents).^[61,231] Unburnt tobacco has more than 2 500 chemical compounds, including pesticides applied during growing and sometimes substances added during the manufacturing process.^[606] Nicotine itself is a potent toxin that has been used in insecticides and rat poison. Indeed, nicotine has been around as a poison since at least the 19th century. For humans, a lethal dose when swallowed has been estimated at only 40–60 milligrams (mg).^[618] That's a mere drop, next to nothing. A smoker may consume more nicotine than that in two packages of cigarettes, but of course the dose is spread out.

There is no such thing as a safe cigarette, including so-called light cigarettes. Tobacco products are the only products legally available on the market that are harmful when used exactly as the manufacturer intends. The industry kills its best customers.

Apart from the health consequences, smoking can yellow fingers, yellow teeth, and speed the onset of facial wrinkles. It can cause clothes and hair to stink and as the saying goes, make kissing a smoker taste like kissing an ashtray.

For most new smokers, the taste of smoking a cigarette is awful. Smoking is an activity that has to be learned, but once learned, it may be extremely difficult to stop. Just ask an ex-smoker. Smokers often fail in attempts to quit because of intense cravings for nicotine and because of withdrawal symptoms. It is not unusual for smokers to need a cigarette in the morning, their body having gone without a fix for 8 hours. In the most extreme and unusual cases, smokers cannot even get through the night without a cigarette. In 1988, the US Surgeon General concluded that nicotine is the drug in tobacco that causes addiction and that the pharmacologic and behavioural processes that determine tobacco addiction are similar to those that determine addiction to drugs such as heroin and cocaine.^[605] Data from Imperial Tobacco indicate that in 1989, 43% of smokers attempted to quit in the previous six months but only 1.8% of the total population did so,^[290] strong evidence of the power of nicotine. Even after surgery for lung cancer, nearly half of smokers resume smoking. One study found that 40% of smokers who had their larynx removed tried smoking again.^[248]

Tobacco is considered by many to be a gateway substance to illicit drug use. Research indicates that preventing tobacco use may help reduce the potential for use of illicit drugs.^[605]

The harm caused by smoking is not limited to smokers. Nonsmokers are harmed by second-hand smoke, technically known as environmental tobacco smoke (ETS) but sometimes referred to as passive smoking or involuntary smoking. ETS includes both the smoke emitted from the lit end of the cigarette and the mainstream smoke exhaled by a smoker. ETS can cause fatal lung cancer in otherwise healthy nonsmokers and has a particularly harmful impact on children's respiratory systems.

Cigarettes are not the only harmful tobacco product. Cigars, pipes, and smokeless tobacco (chewing tobacco, snuff) are not safe alternatives to cigarettes. All of these products can cause cancer in the mouth area, including cancer of the lip and tongue.

No one should assume that he or she is immune to the risks of smoking. Those whose deaths are attributable to smoking include King George VI, musician Nat King Cole, actor Humphrey Bogart, actress Betty Grable, film maker Walt Disney, “Marlboro Man” Wayne McLaren, tobacco company head R.J. Reynolds, as well as descendants R.J. Reynolds, Jr and R.J. Reynolds III.

Economic and other nonhealth consequences

Nonsmokers as taxpayers have to pay for the medical costs resulting from smoking-related disease. Health Canada estimates that the direct health-care costs attributable to smoking in 1993 totaled \$3 billion. If lost productivity, including foregone household income, is added, the total rises to \$11 billion.^[237] In the United States, researchers have estimated that smoking-related health-care costs in 1993 totaled US \$52 billion. When lost productivity was taken into account, the total economic burden rose to more than US \$100 billion.^[643]

Cigarettes are the cause of preventable fires. These fires cause millions of dollars of property and environmental damage, result in the injury and death of innocent victims, risk the safety of fire fighters, and generally increase fire insurance premiums.

The economic consequences of tobacco use are staggering, but there are also significant intangible costs. Nothing can place a value on the pain and suffering caused by disease, the grief of losing a friend or loved one, or the financial crisis created by the death of a family’s wage earner.

Tobacco is harmful to the environment. In addition to the damage from forest fires, the outdoors has to deal with about 2 billion empty cigarette packages annually, several billion plastic and metallic foil overwraps (used to keep the product fresh), and about 50 billion discarded cigarette butts. The butts are often made with cellulose acetate tow, a substance with poor biodegradability. A vast number of trees are cut down each year to produce cigarette paper, packages, cartons, shipping boxes, matches, and matchbooks.

The industry’s position

In the face of the avalanche of knowledge about tobacco and health, the tobacco industry still denies that smoking is harmful to anyone. The industry denies that smoking has been proven to cause lung cancer or any other disease, that anyone has ever died from smoking, that nicotine is addictive, or that ETS is harmful. The transnational (multinational) industry maintains a united stand, regardless of the company or the country.

From the 1950s through the 1960s, and even later, the industry in Canada argued strenuously that smoking did not cause lung cancer. It offered alternative explanations for the rise in lung cancer, such as genetics, a virus, diet, or air pollution. Although the industry has long acknowledged a statistical association (sometimes referred to as risk) between smoking and lung cancer, it has argued that statistics do not prove causation. The industry's position is that although it is true that smokers are statistically more likely than non-smokers to get cancer and heart disease, the cause of the diseases might be explained by other factors. Today the position is unchanged, but now the industry does everything possible to avoid speaking about smoking and health questions. The industry knows that when it says "smoking is not a proven cause of lung cancer," all credibility is lost.

On the question of ETS, however, industry representatives put on their best face, go on the offensive, and deny the dangers of ETS just as vigorously as they once did with direct smoking, saying there is no "scientific consensus." They seek to create the impression that the debate remains open, a decade after the US Surgeon General concluded in his 1986 report that ETS could cause lung cancer.

Because many people find it difficult to believe that the industry still denies that smoking causes any harm to health, a few examples are worth citing. In 1987, Jean-Louis Mercier, then President of Imperial Tobacco, appeared before a House of Commons Committee and was asked whether he believed that any Canadians die of smoking-related diseases. He replied "No, I do not."^[401, p. 13:29] He also stated that the "role, if any, that tobacco or smoking plays in the initiation and the development of these diseases is still very uncertain. The issue is still unresolved."^[401, p. 13:22] Patrick Fennell, the President of Rothmans, Benson & Hedges Inc. (RBH), asserted that "science has not established that there is a causal relationship between smoking and illness."^[171, p. 13:23]

The following is an exchange aired in 1994 on the Canadian Broadcasting Corporation (CBC) *Sunday Morning* radio program between journalist Lynn Glazier and Rob Parker, the industry's chief lobbyist, in his capacity as President of the Canadian Tobacco Manufacturers' Council (CTMC):

Q: Do cigarettes cause cancer?

A: It's an impossible question for me to answer. I'm not a scientist. I can certainly tell you that the industry's view is that there is a statistical link between tobacco consumption and a long list of health ill effects. Cause cancer? That's a scientific question. I'm not qualified to answer it. But I don't believe that there is an established scientific causal link. The risk is clear.

Q: Are cigarettes addictive?

A: What are you planning to do here?

Q: Is nicotine the substance that addicts people to cigarettes?

A: I can't answer the question. I'm not qualified to.^[97]

On another occasion in 1994, Rob Parker stormed off a CBC *Midday* television set in midinterview when David Sweanor of the Non-Smokers' Rights Association (NSRA) asked him a smoking and health question. Parker said that this was violating an agreement made before coming on the show. Also in 1994, Imperial Tobacco spokesperson Michel

Descôteaux told *CTV National News* that “we don’t say that smoking is good for you, we don’t say that smoking is bad for you. All we are saying is that in the state of current knowledge we do not know.”^[129]

At the 1994 annual meeting of Imasco, the parent company of Imperial Tobacco, Chairman Purdy Crawford, was asked how many deaths were caused by tobacco use. “We have no view on that,” he replied.^[242, p. D2] When another questioner asked how the company would respond if it was ever proven that smoking caused lung cancer, Crawford avoided the question and stopped the person from asking further questions, all to a crescendo of applause from shareholders assembled in Montreal’s plush Monument national.

In the November/December 1994 issue of *The Leaflet*, an Imperial Tobacco publication for employees and their families, an article entitled “Clearing the Air: Smoking and Health, The Scientific Controversy” contained this excerpt:

The facts are that researchers have been studying the effects of tobacco on health for more than 40 years now, but are still unable to provide undisputed scientific proof that smoking causes lung cancer, lung disease and heart disease ‘The fact is nobody knows yet how diseases such as cancer and heart disease start, or what factors affect the way they develop. We do not know whether or not smoking could cause these diseases because we do not understand the disease process’.^[30, p. 2]

For decades, the industry has tried to muddy the waters. It has sought to create doubt about the health risks when no such doubt was justified. With a slick, sustained public relations (PR) campaign, the industry has used misinformation to help remove the stain from its products and to protect enormous corporate profits. If consumers do not believe smoking is harmful, their motivation to quit is reduced. If politicians underestimate or do not accept the health consequences of smoking, their motivation to pass tobacco control laws is decreased.

In 1994, Imperial Tobacco commissioned a study by economist Jean-Pierre Vidal in response to other studies showing tobacco to be a net loss to the economy. Vidal stated that tobacco-caused deaths are economically beneficial, in part because people are killed off before becoming a burden to society.^[617] Naturally, this report touched off a storm of criticism. Should children’s hospitals be closed because this would save money? Should all Canadians aged 55+ be denied medical care? Imperial Tobacco quickly responded that it did not agree with the study (of course not, because the company denies that cigarettes kill) and claimed that the study was not supposed to be made public.

Canadian trends in smoking

According to data from Imperial Tobacco, the proportion of Canadians aged 15 and over who smoke declined from 47% in 1971 to 29% in 1993.^[290] Figure 2 shows the overall trend. Prevalence among men peaked at 62% in 1960. Among women, prevalence peaked at 40% in 1974. However, per capita consumption (age 15+) — the average number of

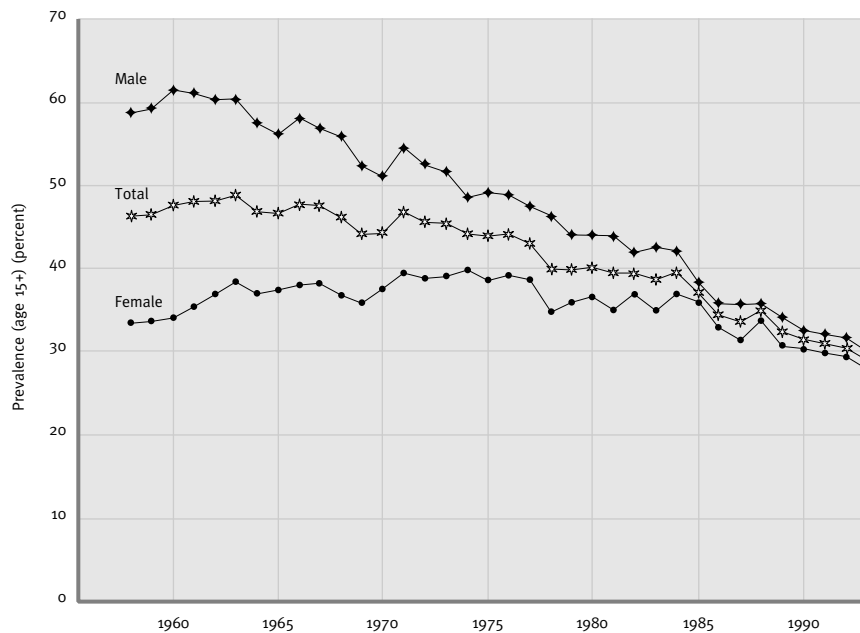


Figure 2. Prevalence of smokers among adults (age 15+) for men, for women, and for men and women, 1958–93. Source: 1958–70, derived from Rose (1981);^[508] 1971–89, Imperial Tobacco (1989);^[290] 1990–93, Imasco (1993, 1994);^[278,279] and derivations from these.

cigarettes (including roll-your-own) smoked per person — may be a better measure of smoking because it takes into consideration both the number of smokers and the amount smoked. These rates peaked in 1966, declined slowly with some ups and downs until 1982, and then began a dramatic decline that lasted until 1993 before rising somewhat in 1994 as lower taxes made smoking more affordable. Figure 3 shows the historical trend.

Even though smoking rates were declining, a growing population meant that tobacco companies enjoyed increased overall sales until 1982. This was the peak year for total tobacco sales in Canada, with 73 billion cigarettes, including roll-your-own, sold. In 1995, the comparable figure, including contraband, was about 51 billion cigarettes, although exact figures are impossible to obtain because of smuggling.

Smoking patterns vary greatly. A Health Canada survey in 1994 found that although 31% of Canadians aged 15+ were smokers (6.6 million smokers), prevalence varied from a low of 25% in British Columbia to a very high 38% in Quebec. Thirty-two percent of men were smokers, compared with 29% of women. Men reported that they smoked an average of 21 cigarettes a day and women reported 17, although actual numbers are somewhat higher than obtained from self-reporting. Of the 31% of the population who were smokers, 25% were daily smokers and 6% were nondaily smokers. Prevalence generally decreased with age, reflecting both successful quitting and early death: 38% of those 20–24 years old smoked, compared with 34% of those 25–44 years old, 29% of those 45–64 years

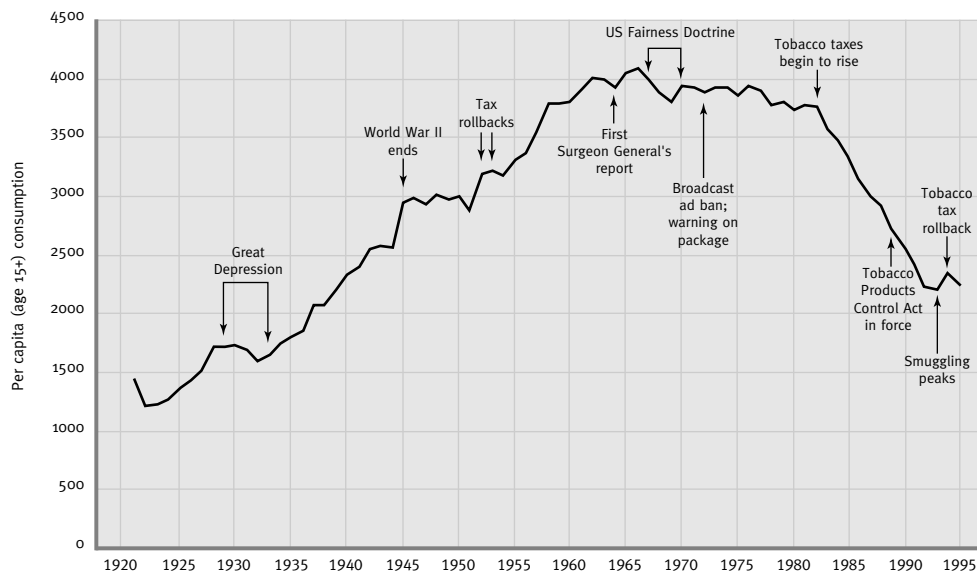


Figure 3. Canadian per capita (age 15+) cigarette consumption (including roll-your-own), 1921–95. Consumption during 1990s includes contraband estimates, and as a result there is some uncertainty. Imports, which are typically very low, have not been included. Source: For legal sales, Goodyear (1994);^[203] Statistics Canada (1995–96);^[566] for contraband, Canadian Tobacco Manufacturers' Council (1993),^[90] Lindquist Avey Macdonald Baskerville Inc. (1993, 1994),^[364–366] Imasco Ltd (1996),^[284] and personal calculations.

old, and 16% of those aged 65+. Among those 15 to 19 years old, 29% smoked.^[235] A 1991 study found exceptionally high rates of smoking among indigenous people: 56% of Indians and 72% of Inuit were smokers,^[241] rates among the highest anywhere in the world. Smoking decreases with education: 33% of people with less than high school education smoke, compared with 19% of people with university education. Among men, 4% smoke cigars, 2% smoke pipes, and 1% use chewing tobacco or other forms of smokeless tobacco.^[235]

Trends in youth smoking are shown in Figure 4. There was a particularly large decline in smoking among teenagers during the 1980s.

A total of 5.9 million Canadians are former smokers (27% of the population aged 15+). Of the 6.6 million current smokers, 4.9 million (74%) have made a serious attempt to quit by giving up smoking for at least 1 week.^[234] Among current smokers, younger people are more likely to have attempted to quit in the previous 3 months than older people: 29% for those aged 15–19, 22% for those aged 20–24, and about 10% for those aged 25+. Older smokers may be less likely to try quitting because of previous failed attempts; if they had been able to quit, they would no longer be smokers. Thirty percent of smokers smoking 1–10 cigarettes per day attempted to quit in the previous 3 months, compared with 5% smoking 11–25 cigarettes.^[235]

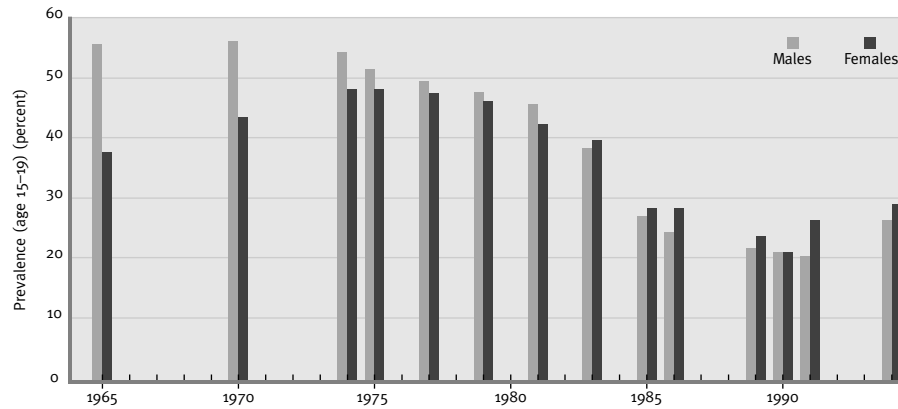


Figure 4. Smoking prevalence reported by 15–19 year old Canadians, 1965–1994, according to government surveys. Source: National Clearinghouse on Tobacco and Health.^[429] Note that the 1994 *Youth Smoking Survey* found a smoking prevalence among 15–19 year olds of 23% for males and 24% for females,^[240] lower than the results from the *Survey on Smoking in Canada* illustrated in the graph.

Overall, the good news is that the number of smokers has been going down. The bad news is that some 6.6 million Canadians still continue to smoke. The bad news is made worse by the fact that tens of thousands of teenagers start smoking each year. Apart from the addictiveness of nicotine, why do so many people continue to smoke and so many teens begin smoking? The answer lies largely with the wealth, power, and skill of the tobacco companies — the merchants of death.

Industry Wealth: “More Money Than God”



From a profit perspective, the cigarette business is an exceptionally lucrative business. A cigarette can cost about a penny or two to make, it can be sold at a high profit margin, and most of all, because of addiction, customers will remain loyal whether they want to or not. The business is recession proof, and it is huge. The total retail value of Canadian tobacco sales in 1992 was \$9.8 billion.^[89]

In Canada, despite declining sales, tobacco industry profits in 1995 again set an all-time record high. Profit levels surpassed records set in each of the previous 8 years. As Figure 5 illustrates, lower smoking rates clearly have not hurt the industry's bottom line. High profitability is not new. Imperial Tobacco has shown a profit every year since 1928 (its financial data are not available for earlier years). Imperial was even profitable during the Great Depression.

Here is what one American company executive said about the tobacco industry and its profitability:

I'll tell you what I like about the business. First, there are no surprises. There is nothing more to be said or discovered about the cigarette business or the industry. And there's no way to write an article that could do us any more harm than what has already been written. Second, no new company wants to get into the tobacco business. That's great. Third, we have the best partners in the world: the governments. In a lot of countries, it's incredibly important to the whole welfare state that we sell our products to

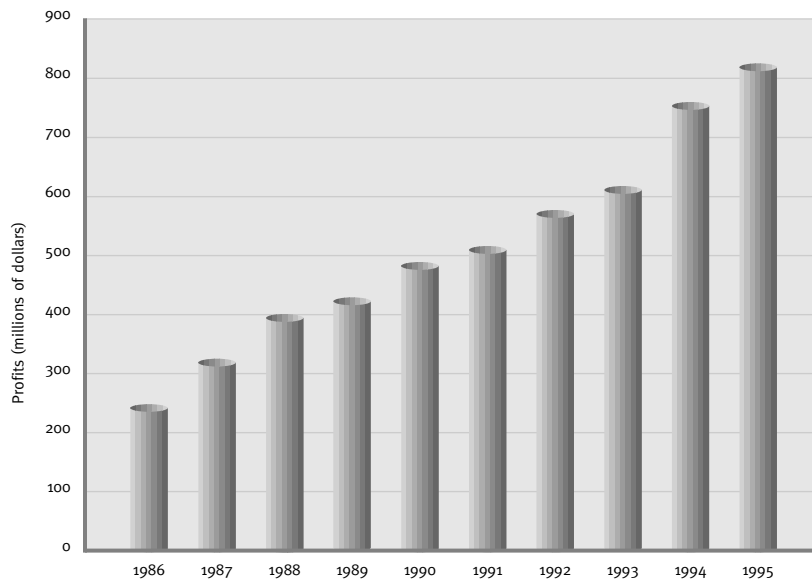


Figure 5. Combined pretax profits of Imperial Tobacco Ltd and Rothmans Inc., 1986–95.^[276,512] Profits for RJR–Macdonald Inc. are not available for all years in this period and thus are not included.

collect taxes. ... So no matter how you look at the cigarette business, it's incredibly predictable, it's extremely secure as an investment vehicle and, therefore, it's a great business to be in — if you can deal with the fact that some people are not going to like you.^[509, p. 41]

The tobacco manufacturing industry in Canada is 99% dominated by an oligopoly of three foreign-controlled, transnational tobacco companies (TTCs). Each is discussed in turn below.

Imperial Tobacco Ltd

Montreal-based Imperial Tobacco Ltd is the dominant player in Canada, with a 67% share of the domestic cigarette market. The company's performance has consistently improved since 1975, when its market share was 36.7%.^[290] Imperial is 100% owned by Montreal-based Imasco Ltd, which in turn is controlled by British-based tobacco conglomerate B.A.T Industries plc (BAT). BAT owns about 41% of the Imasco shares. Imperial Tobacco's leading brand families are Player's and du Maurier, which together account for 59% of Canadian cigarette sales. Imperial also sells Matinée, the company's third most important brand family, as well as Cameo, Peter Jackson, Avanti, and Medallion cigarettes. In the United States, Imperial's sister company is Brown and Williamson, a company also controlled by BAT.

Imperial Tobacco's roots go back to 1895, when the American Cigarette Company moved into Canada and started to manufacture cigarettes in Montreal. Soon afterward, the American Tobacco Company of Canada Ltd was created by a merger of the American Cigarette Company and D. Ritchie & Company, a Montreal firm dating from 1885. Over time, American obtained controlling interest in the Empire Tobacco Company, the B. Houde Company, and the Joliette Tobacco Company. In 1907, the American Tobacco Company obtained a 50% interest in a company later known as the National Tobacco Company, a firm now best known for marketing smokeless tobacco. Imperial Tobacco sold this 50% interest in 1986.^[289] In 1908, Imperial Tobacco was created by a formal merger of the American Tobacco Company of Canada and Empire Tobacco Company. In 1912, the present Imperial Tobacco Ltd was incorporated as a successor to the Imperial Tobacco formed in 1908. At this point, controlling interest in Imperial Tobacco was no longer with the American Tobacco Company but with British–American Tobacco Co.

In subsequent years, Imperial acquired other tobacco companies: in 1921, General Cigar Co., a firm that included another company, S. Davis & Son; in 1930, Tuckett Tobacco Company, which controlled Tobacco Products Company of Canada and Philip Morris Co. Ltd, both Canadian firms; in 1936, Landau & Cormack Ltd; in 1942, L.O. Grothé; and in 1949, Imperial Tobacco Company (Newfoundland) Ltd, just as Newfoundland was entering Confederation. Imperial purchased Canadian rights to certain brands and trademarks from British–American Tobacco (now known as BAT) in 1921 and from US-based Brown and Williamson in 1950.

In 1964, when the smoking and health issue was really heating up, Imperial started to diversify, fearing that tobacco was on the road to disappearance. Imperial obtained interests in Canada Foils Ltd, Growers' Wine Company Ltd, and Welland Winery Ltd. In 1968, it acquired Simtel Incorporated and Editel Productions, both of Montreal, and in 1969, it acquired S & W Foods Inc. of San Francisco and Uddo & Taormina Corp. of New Jersey. Imperial also purchased Pasquale Bros Limited (later called Unico Foods), a food distributor based in Toronto. Imperial does not own any of these subsidiaries today.

In 1970, the company's name was changed to Imasco (IMperial and ASSociated COmpanies). Imasco Ltd was the holding company for the various corporate interests. Other companies that Imasco has owned or in which Imasco once had a significant interest include Amco Services (Canada) Ltd (a vending machine company, which subsequently purchased other vending machine companies), Chalet Wines, Grissol Foods, Marché aux Escomptes S & M Ltée (Quebec discount health and beauty aid stores), Collegiate Sports (later Arlington Sports), Red Carpet Coffee Service Ltd, Ski Oberson Boutique Inc., Rancho Francisco, Toltec Foods (tortilla producer), Topmost Foods, Biscuits Montmagny Inc., Henri & Fils, PoP Shoppes of America, Inc., The Outdoor Stores, Lido Biscuit Cie Ltée, Canadian operations of Anco International (a cheese company), La Fromagerie de Comeville Inc., Cavalier China & Gift Shops, Burger Chef Systems, Inc., Flame Oil & Gas Ltd, Ingersoll Cheese, Embassy Cleaners, Tinder Box International (tobacco and gift

shops), Peoples Drug Stores (based in the United States), and Canadian Northwest Energy Ltd.^[173,285] In 1995, Imasco sold off its long-standing ownership of United Cigar Stores.

A lot of these investments turned out to be big mistakes. It was the huge cash flow generated by tobacco that made the acquisitions possible in the first place, and it was the cash flow that allowed the company to get away with errant acquisitions. Many of the now discarded Imasco subsidiaries lost money or were simply not generating profits the way Imperial Tobacco was.

Today, in 1996, Imasco has interests in several large companies. Imasco owns Shoppers Drug Mart/Pharmaprix (Canada's leading pharmacy chain), 98% of Canada Trust (Canada's biggest financial institution after the big five banks), Hardee's (the fourth largest hamburger fast-food chain in the United States), and Genstar Development (a land development company). Imasco's ownership of Shoppers Drug Mart dates to 1978. Since then Shoppers Drug Mart has gobbled up other pharmacies.

In 1993, the conglomerate Imasco was the sixth largest publicly traded company in Canada when ranked by profits. Only Bell Canada, Seagram, and three banks enjoyed greater profitability.^[485] This ranking dropped to 12th in 1994 as other companies with more variable profit than Imasco's moved ahead.^[486]

Imperial Tobacco is the driving factor behind Imasco's financial success. Although Imperial's net revenues only accounted for 16% of Imasco's system-wide total in 1994, tobacco profits represented 51% of Imasco's total pretax earnings from operations. This does not include the tobacco profits arising from retail tobacco sales by Shoppers Drug Mart. A study by University of Quebec accounting professor Léo-Paul Lauzon estimated that for the period 1987–93, the total amount of money provided by Imperial Tobacco to Imasco was greater than the total dividends paid out by Imasco.^[355] Not only was Imperial the source of all Imasco dividends, but also it provided money to reinvest in other Imasco ventures.

Imasco has had many influential individuals on its Board of Directors. In 1996, the directors include Bernard Roy, former Principal Secretary to Prime Minister Brian Mulroney and partner at the Montreal law firm of Ogilvy Renault, the same firm at which Mulroney is now a partner. Rob Pritchard, President of Canada's largest university, the University of Toronto, is a director. Russell Palmer, former Dean of the Wharton Business School at the University of Pennsylvania, is a director. Former directors include Paul Martin, now Minister of Finance; Bill Bennett, one-time premier of British Columbia; and Torrance Wylie, previously a senior official with the Liberal Party of Canada. Claude Castonguay, a former Quebec Minister of Social Affairs and later a Progressive Conservative Senator, was a director in the 1970s. Pauline McGibbon was on the board briefly before she became Lieutenant-Governor of Ontario. McGibbon has also had a long association with the du Maurier Council for the Performing Arts, now known as du Maurier Arts Ltd, a sponsorship-granting body connected with Imperial Tobacco.

Some directors have had simultaneous appointments seemingly at odds with their directorship of a tobacco giant. For example, Nan-Bowles de Gaspé Beaubien, a director

since 1987, is also a director of the Terry Fox Humanitarian Award Committee, an award in memory of Canada's most famous cancer victim and in whose name millions of dollars for cancer research are raised annually. Murray Koffler, the founder of Shoppers Drug Mart, was a director of the Canadian Council on Drug Abuse and a director of Imasco at the same time.

Rothmans, Benson & Hedges Inc.

RBH is Canada's second largest tobacco company. The company's brand families include Rothmans, Craven "A", Benson & Hedges, Number 7, Belvedere, Mark Ten, Viscount, Dunhill, Black Cat, Sportsman, Peter Stuyvesant, Belmont and Canadian Classics.

RBH's stock is 83% foreign controlled. Forty percent is owned by a subsidiary of Philip Morris, the largest tobacco company in the United States. Philip Morris is the world's largest consumer products company through sales of not only cigarettes, but also Kraft products, Miller beer, Toblerone chocolate, Post cereals, Maxwell House coffee, Jell-O desserts, Kool-Aid drinks, and Oscar Mayer meats. Philip Morris also owns 20% of Canada's Molson Breweries. The remaining 60% of RBH stock is owned by Rothmans Inc., a Canadian holding company, which through a series of other holding companies is 71.2% owned by Rothmans International B.V., now based in the Netherlands. Rothmans International is ultimately controlled by the Rupert Family Trusts in South Africa. In 1994, there were 11 corporate levels between RBH and the ultimate South African interest.^[565]

RBH was formed in 1986 with the merger of Rothmans of Pall Mall Limited and Benson and Hedges (Canada) Inc. The former was controlled by Rothmans International, and the latter was a subsidiary of Philip Morris.

RBH's market-share performance has been steadily eroding. In 1975, the combined cigarette market share of Rothmans and of Benson & Hedges was 43%. That has fallen to 20% and may continue to fall, in part because smokers of its brands are older than smokers of competitors' brands.

Benson & Hedges started in Britain in 1873, expanded to New York around 1895, and from there expanded to Canada, opening a store in Montreal in 1906. The company was not a major player until Benson & Hedges (Canada) Ltd, along with its New York counterpart, merged with Philip Morris in 1954. In 1961, Benson & Hedges (Canada) Ltd opened a new cigarette factory near Brampton and started to market aggressively. In 1962, Benson & Hedges (Canada) purchased Tabacofina of Canada, the makers of Belvedere.

Rothmans of Pall Mall started operations in Canada in 1957 at a time when its British parent company was expanding throughout the Commonwealth. In 1958, Rothmans' parent company acquired a controlling interest in Carreras Limited of London, United Kingdom. Carreras had a controlling interest in Canada's Rock City Tobacco Company, a firm based in Quebec City since being founded in 1899 and best known for its

Craven "A", Black Cat, and Sportsman brands. In 1963, all outstanding stock of Rock City Tobacco was acquired by Rothmans of Pall Mall Canada Ltd.

In the late 1960s, Rothmans started to diversify. At one time Rothmans has owned Alfred Dunhill of London Ltd (luxury goods and accessories) and Carling O'Keefe Breweries, which in turn has owned Jordan Valley Wines, Star Oil and Gas, the Canadian Football League's Toronto Argonauts and the National Hockey League's Quebec Nordiques. Carling O'Keefe was sold in 1987, and the Dunhill subsidiary was sold in 1990. RBH now focuses exclusively on tobacco.

Like Imperial Tobacco, Rothmans has had its share of prominent directors. The Chairman of the Board is Progressive Conservative Senator William Kelly. Kelly was appointed as a director shortly after the Conservatives won the 1984 election. Also on the Board of Directors is Roch Bolduc, a fellow Conservative Senator. Pierre des Marais II is President and Chief Executive Officer (CEO) of Unimédia Inc., a firm that owns several French language newspapers including *Le Soleil* in Quebec City and *Le Droit* in Ottawa.

Louis St Laurent, Liberal Prime Minister from 1948 to 1957, was Chairman of the Board of Rothmans during most of the 1960s. For part of the period that St Laurent was Chairman of Rothmans in the early 1960s, he was also President of the Canadian Heart Foundation. Other directors have included John Wettlaufer, former Dean of the business school at the University of Western Ontario; Alistair Gillespie, former Liberal cabinet minister; and Robert Winters, a former Liberal cabinet minister under St Laurent. After being on the Rothmans Board of Directors, Winters returned to politics and became Minister of Trade and Commerce. Winters later ran for the leadership of the Liberal Party but lost to Pierre Trudeau.

Joel Aldred, a high-profile radio and television announcer who recorded hundreds of cigarette commercials during the 1960s and early 1970s, sat on the Board of Directors.^[525] Maurice Sauvé, a former Liberal cabinet minister and husband of Jeanne Sauvé (who became Canada's first female Governor-General), sat on the Benson & Hedges (Canada) Board of Directors before the company merged with Rothmans. Murray Koffler sat on the Rothmans Board of Directors before he sold the Shoppers Drug Mart chain to Imasco, after which he sat on the Imasco Board of Directors.

RJR–Macdonald Inc.

Canada's third largest company is RJR–Macdonald Inc., with a 12% market share. A government publication shows the company is 100% owned by its immediate parent firm, RJR Tobacco Consolidated IHC, Inc. of the Bahamas, a Caribbean tax haven.^[565] This Bahamas company is related to US-based RJR–Nabisco Inc. and R.J. Reynolds Tobacco Company. Like Philip Morris, RJR–Nabisco is a huge global conglomerate that sells not only cigarettes but also such brand-name products as Planters peanuts, Life Savers candies, Oreo cookies, Ritz crackers, and Fleischmann's margarine.

The overwhelming majority of the Canadian subsidiary's cigarette sales come from the Export "A" brand family. RJR–Macdonald also manufactures Vantage, Macdonald, and Contessa Slims cigarettes and imports small quantities of Camel, Winston, Salem, and More cigarettes made by its US parent.

The company was established as Macdonald Tobacco in Montreal in 1858 by W.C. Macdonald, for decades the dominant man in Canada's tobacco industry. The company was a family-owned business until it was sold to R.J. Reynolds in 1974 and renamed. There were some moves toward diversification, such as owning the X-Y Textile Company, but today RJR–Macdonald's business is exclusively tobacco. In the 1990s the company began exporting cigarettes made under contract for its parent company.

Liberal Senator Michael Kirby, a prominent strategist and spokesperson for his party, has been a director of the company for many years. Another past Liberal connection has come through Jeffrey Goodman, who went from Prime Minister Pierre Trudeau's press office to PR for RJR–Macdonald.

Other companies

All cigarette sales other than by the big three companies constitute less than 1% of the Canadian market. This includes all cigarette imports, as well as a small volume of products made by Bastos du Canada Ltée, based in Louiseville, Quebec. Bastos makes house brands and generic products for grocery store chains and other retailers. There are a number of other very small manufacturers.

There is no smokeless tobacco made in Canada. All such products sold in Canada are imported. Cigar sales, which declined substantially during the 1980s and early 1990s, are made up of both domestic and foreign brands.

Corporate wealth

The worldwide revenues of the tobacco transnationals operating in Canada total CA \$168 billion;² Philip Morris has global annual revenues of US \$65 billion;^[470] BAT, GB £21 billion;^[32] R.J. Reynolds, US \$15 billion;^[491] and Rothmans, GB £7 billion.^[519] This mammoth sum provides enormous economic power. The total is greater than the revenues of any single government in Canada, whether federal or provincial. Moreover, unlike many governments, tobacco companies are not laden with horrific debts and deficits. Most significantly, the \$168 billion (US \$123 billion) in annual revenues is more than the individual gross domestic products of 180 of the world's 205 countries.^[599]

The profits allow the industry to pay its Canadian executives handsomely, as indicated by reports filed under securities laws. In 1994, Donald Brown, President of

²Foreign exchange rates used were US \$1 = CA \$1.37 and GB £1 = CA \$2.08.

Imperial Tobacco, earned \$758 846 in salary, bonus, and other compensation. As well, he was given options to purchase 10 000 shares at \$36.00 any time before 2 May 2004. Because the market price of the shares was \$36.00 at the time the options were awarded, Brown gets a risk-free opportunity to take advantage of any increase in share price over a 10-year period. Purdy Crawford, Chairman of Imasco, did even better, earning \$2 030 576 in total compensation plus the option to purchase 24 000 shares.^[283] For fiscal year 1995, Joe Heffernan, President and CEO of Rothmans, Benson & Hedges Inc., earned \$466 000 in total compensation. As well, he can benefit further under long-term incentive plans.^[517]

Professor Lauzon's study^[355] of the industry's financial statements is revealing. He found that over the period 1987–93, the companies earned almost \$2 billion in profits, which in his view ridiculed government antitobacco policies. Dividends equivalent to more than 99% of these profits were declared, 58% of which (more than \$1 billion) was sent out of the country, thereby substantially reducing the real value of the tobacco industry to the Canadian economy. The 58% does not include a further special dividend of \$99 million declared by RBH in early 1994. Each of the companies is generating plenty of cash. In RBH's case, dividends were actually greater than profits. Lauzon also found that the companies were reinvesting very little of their profits in Canada: 17% for the industry as a whole and as low as 5% for RBH. As a proportion of net sales, only 2.4% was reinvested in Canada.

Annual after-tax return on shareholders' investment for the industry as a whole over this period was a very high 33.3%.^[355] In 1993, pretax return on capital used was 84% for Imperial, 69% for RBH, 38% for RJR–Macdonald, and 69% for the industry as a whole^[60] — not bad in a year when individuals owning Canada Savings Bonds were earning interest at the pretax rate of 6%.

Why is the tobacco business so profitable in Canada? According to the Five Forces model of Harvard Business School professor Michael Porter,^[479] tobacco can be considered a five-star industry:

1. Buyers have little power relative to that of the industry, including when it comes to manufacturer price increases. The 6.6 million consumers are spread out across the country, and a great many of them are addicted. Consumers thus do not have the clout to prevent price increases. Intermediate buyers, the wholesalers and retailers, are numerous and normally competitive.
2. The industry's suppliers have little bargaining power because what they supply (tobacco, paper products) are mostly commodities that could be obtained from other suppliers.
3. Few products can directly substitute for cigarettes in the same way that margarine can substitute for butter. Although nicotine gum and the nicotine patch do exist, their sales are small by comparison.

4. Large barriers prevent new competitors from entering the market. Normally, massive returns on investment would entice new entrants, but there have been no new players in Canadian tobacco in almost 40 years. In a business in which trademarks are everything, the biggest barrier is established brand names. With advertising restrictions making it much more difficult to establish new brand names, it becomes almost impossible to break into the Canadian market. As well, there are economies of scale in manufacturing and distribution. Manufacturing is technologically advanced and highly automated, and the equipment is expensive. Distribution requires a trained sales force that must span the country. Instead of there being any new companies in the market, the industry has consolidated from four main companies to three, with more rationalization forecast for the future. In 1989, Patrick Fennell, President of RBH, predicted that Canada's three manufacturers would eventually shrink to two through the amalgamation of RBH and RJR-Macdonald.^[573,587]
5. Rivalry within the industry is relatively tame. Imperial Tobacco is the leader of the oligopoly. When Imperial raises its prices, the other two companies happily follow suit. There has not been a price war since 1986. Advertising restrictions — when in place — have helped reduce the rivalry, although companies still compete by paying retailers for stocking and prominently displaying various brands.

The high profitability of tobacco companies gives them the cash to pay for high-priced lobbyists, lawyers, PR specialists, advertising agencies, and junk-science researchers. One representative of an advertising agency working for a tobacco company said that the client had “more money than God.” Tobacco's enormous profit potential provides a tremendous incentive for keeping the industry sales high. When it comes to efforts to combat tobacco control measures, the industry can write a blank cheque at any time. As the next chapter indicates, attempts to control tobacco use are hardly a recent phenomenon.