How Much Does Tobacco Smoking, Alcohol Use and Excess Weight Cost Individual Canadian Men?

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Executive Summary

Smoking just five cigarettes and consuming one alcoholic drink per day can cost you $1.5 million.

In 2015, the Canadian Men's Health Foundation commissioned a report titled *The Economic Benefits of Risk Factor Reduction in Canadian Men: Tobacco Smoking, Excess Weight, Physical Inactivity and Alcohol Use*. The report found that the health consequences associated with tobacco smoking, alcohol use and excess weight in middle-aged men are substantial and cost the Canadian economy $20.3 billion annually in treatment costs, disability and premature mortality.

In this follow-up report, we have set out to estimate and document some of the costs to the individual Canadian male associated with these three risk factors. We have focused on the costs of purchasing cigarettes or alcohol and the additional life insurance premiums that are charged to individuals with any one of these three risk factors. The costs vary substantially depending on the level of consumption or excess weight.

To show this variability, we have created three hypothetical males, Low-Risk Joe, Medium-Risk Joe and High-Risk Joe.

- **Low-Risk Joe** smokes five cigarettes per day, consumes one alcoholic drink per day and is six feet tall weighing 258 pounds (a body-mass index or BMI of 35).
- **Medium-Risk Joe** smokes 20 cigarettes per day (1 pack), consumes three alcoholic drinks per day and is six feet tall weighing 295 pounds (a BMI of 40).
- **High-Risk Joe** smokes 40 cigarettes per day (2 packs), consumes five alcoholic drinks per day and is six feet tall weighing 332 pounds (a BMI of 45).

Lifetime Out-of-Pocket Costs

Based on our analysis, lifetime out-of-pocket costs for Low-Risk Joe are $275,000 (see Table ES1). This cost increases to $628,000 for Medium-Risk Joe and to $1.1 million for High-Risk Joe.

Table ES1. Lifetime Cost of Tobacco Smoking, Alcohol Use and Excess Weight
Males in Canada

	Risk Category		
	Low	**Medium**	**High**
Out-of-Pocket Costs			
Cost of Cigarettes	$50,370	$201,478	$402,957
Cost of Alcohol	$47,012	$141,036	$235,060
Life Insurance Premium			
Smoking	$122,283	$122,283	$122,283
Alcohol Use	$0	$42,525	$170,100
Excess Weight	$55,283	$120,771	$186,260
Total	**$274,947**	**$628,093**	**$1,116,659**
Lost Investment Opportunity*	**$1,713,172**	**$3,215,382**	**$8,628,577**

** Based on an average annual rate of return of 9.43%.*

Lost Investment Opportunity

What if Joe took this money and, instead of spending it on cigarettes or alcohol or additional life insurance premiums, invested it between the ages of 30 and 75? The 'cost' to Low-Risk Joe has now increased to $1.7 million. For Medium-Risk Joe the cost has gone to $3.2 million and to $8.6 million for High-Risk Joe.

Life Years Lost

Cigarette smoking, alcohol use and excess weight all result in a shortened life. We have included this because it is an important consideration when discussing costs. Economists have tried to place a dollar value on a life but the results vary substantially, ranging from $1 million to $7 million. In the end, the value Joe places on living extra years is up to him and may change as he gets older. Joe may not, for example, place a high value on these extra years when he is 30 but that value may increase if he becomes a grandfather later in life.

The life expectancy of the typical Canadian male is 79 years. On average, smoking cigarettes will cost Joe 10 years of life, being obese will cost him 5.8 years of life and drinking alcohol will cost him 7.9 years of life. As with costs, this shortening of Joe's life depends substantially on how much and for how long he smokes and uses alcohol. Life years lost also increase with increasing levels of obesity.

Introduction

In 2015, the Canadian Men's Health Foundation commissioned a report titled *The Economic Benefits of Risk Factor Reduction in Canadian Men: Tobacco Smoking, Excess Weight, Physical Inactivity and Alcohol Use*.[1] The results from that report indicate that, across Canada, 26.4% of males between the ages of 30 and 64 smoke cigarettes. Over one-third of these smokers are heavy smokers, meaning that they smoke at least one pack (20 cigarettes) per day.

Over three-quarters (75.6%) of Canadian males ages 30-64 also consume alcohol. Almost half (41.8%) of these males who drink consume at least a portion of their alcohol by binge drinking. Finally, 14.8% of males in this age group consume daily levels of alcohol that would be considered hazardous or harmful to their health.

Furthermore, over one-fifth (21.4%) of Canadian males ages 30-64 are obese.

Compared to Canadian females ages 30-64, more Canadian males smoke and smoke more heavily, drink and drink more heavily and are obese (see Table 1).

Table 1. Prevalence of Tobacco Smoking, Excess Weight, Physical Inactivity, and Alcohol Use
Canada, 2013
Ages 30-64, By Sex and Risk Factor Category

	Females	Males	Difference	% Difference
Smokers				
Light - < 10 cigarettes/day	8.6%	8.4%	-0.3%	-3.3%
Moderate - 10 to 19 cigarettes/day	7.0%	8.0%	1.0%	12.7%
Heavy - ≥ 20 cigarettes/day	4.6%	10.1%	5.5%	54.9%
Subtotal - Smokers	**20.2%**	**26.4%**	**6.3%**	**23.8%**
Alcohol				
Category I - Low	53.2%	61.0%	7.8%	12.8%
Category II - Hazardous	5.6%	7.6%	2.0%	26.3%
Category III - Harmful	2.6%	7.0%	4.4%	63.0%
Subtotal - Drinkers	**61.4%**	**75.6%**	**14.3%**	**18.8%**
% of Drinkers who Binge	30.8%	41.8%	11.0%	26.3%
Excess Weight				
Overweight	27.0%	44.3%	17.2%	39.0%
Obese Class I	12.8%	16.0%	3.1%	19.6%
Obese Class II	4.5%	3.9%	-0.6%	-14.5%
Obese Class III	2.8%	1.5%	-1.3%	-89.0%
Subtotal-Obesity	20.1%	21.4%	1.3%	5.9%
Subtotal - Excess Weight	**47.1%**	**65.6%**	**18.5%**	**28.2%**

The report also found that the health consequences associated with tobacco smoking, alcohol use and excess weight in middle-aged men are substantial and cost the Canadian economy $20.3 billion annually in treatment costs, disability and premature mortality.

While the costs to society associated with these three risk factors are substantial, how about the cost to individual Canadian men? How much of a financial burden is it on men (and their families) if they smoke tobacco, drink alcohol or are obese?

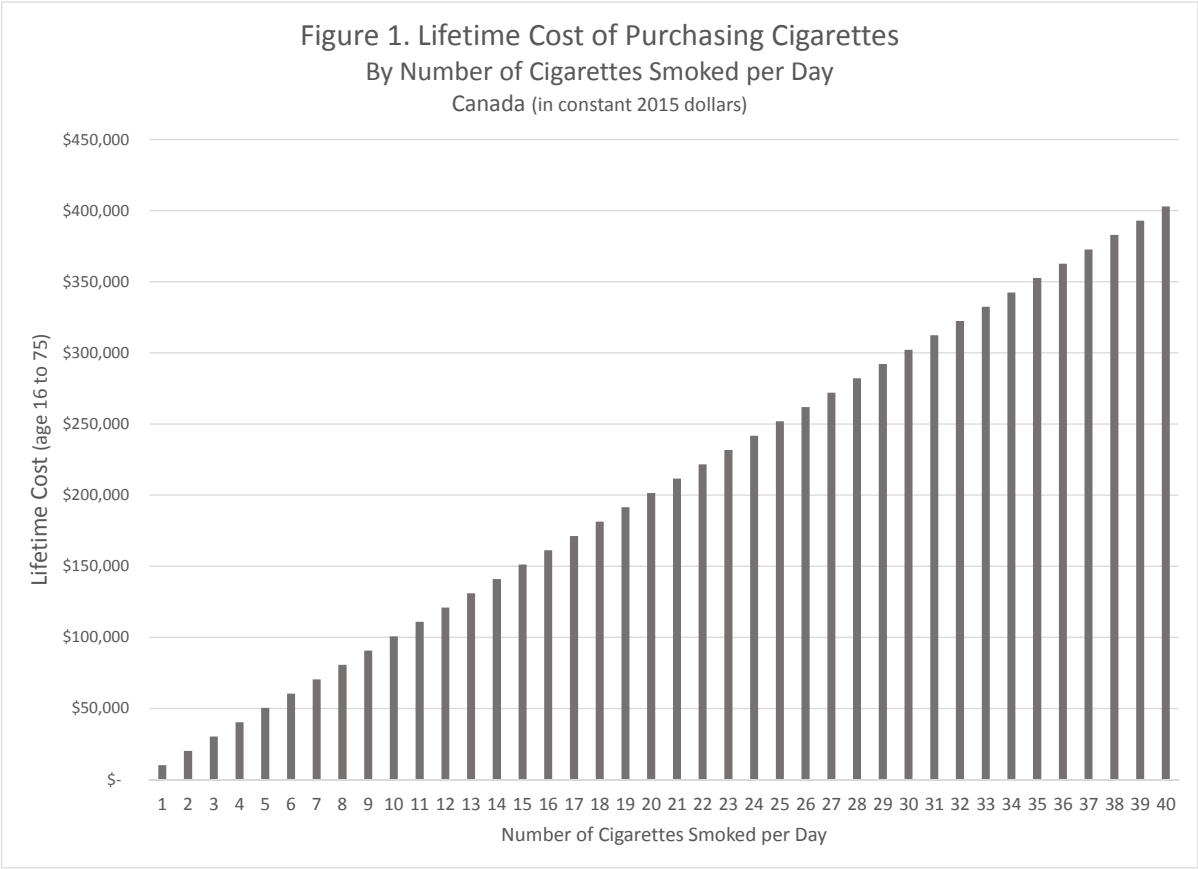
The purpose of this report is to document some of the costs to the individual associated with the risk factors of tobacco smoking, alcohol use and obesity.

Cost of Tobacco Smoking

Purchasing Cigarettes

Cigarettes are expensive, and purposefully so. The high cost of cigarettes serves as a disincentive to start smoking and as an incentive to reduce how much you smoke.[2]

The cost per cigarette varies from a low of $0.43 in Quebec to a high of $0.63 in Manitoba. The average cost of a cigarette across the country is $0.47.[3] If we assume that you start smoking at age 16 and continue through to age 75, then the average lifetime cost of purchasing cigarettes increases by $10,000 for every cigarette you smoke per day (see Figure 1). Smoking an average of one pack a day will cost you $200,000 while smoking two packs a day will cost you $400,000.



Life Insurance

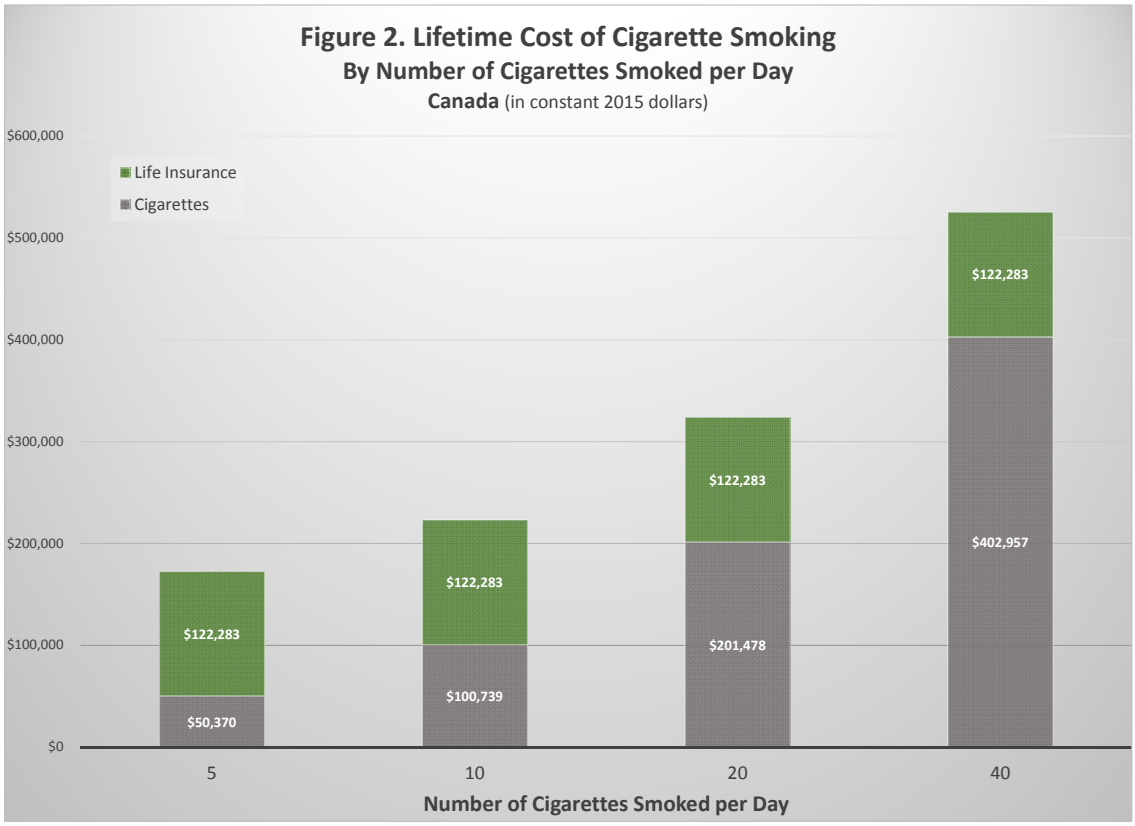
Smoking cigarettes will also increase your life insurance premiums. Purchasing a 10-year term life insurance policy for $500,000 will cost you approximately $85,000 between the ages of 30 and 74 if you are a non-smoker. If, however, you smoke, the cost for the same insurance policy will increase to $207,000 over the same time period. This increase of $122,000 tends to occur regardless of how many cigarettes you smoke per day (see Table 2).

Table 2. Lifetime Cost of a 10-Year Term Life Insurance Premium for $500,000
Males By Risk Factor Status

	Age					Total Lifetime Cost	Additional Cost Compared to Non-Smoker
	30 -39	40 - 49	50 - 59	60 - 69	70 - 74		
Non-Smoker							
Cost Per Month	$30.60	$36.90	$76.05	$223.65	$683.10		
Total Cost During Period	$3,672	$4,428	$9,126	$26,838	$40,986	**$85,050**	
Smoker							
Cost Per Month	$50.85	$83.70	$228.60	$625.50	$1,478.25		
Total Cost During Period	$6,102	$10,044	$27,432	$75,060	$88,695	**$207,333**	***$122,283***

Combined Costs

If we combine the costs of purchasing cigarettes and the additional cost of purchasing life insurance, then smoking just 5 cigarettes per day between the ages of 16 and 75 will cost you $173,000 over your lifetime. This will increase to $223,000 if you smoke 10 cigarettes per day, $324,000 if you smoke 20 cigarettes per day and $525,000 if you smoke 40 cigarettes per day (see Figure 2).



Cost of Alcohol Use

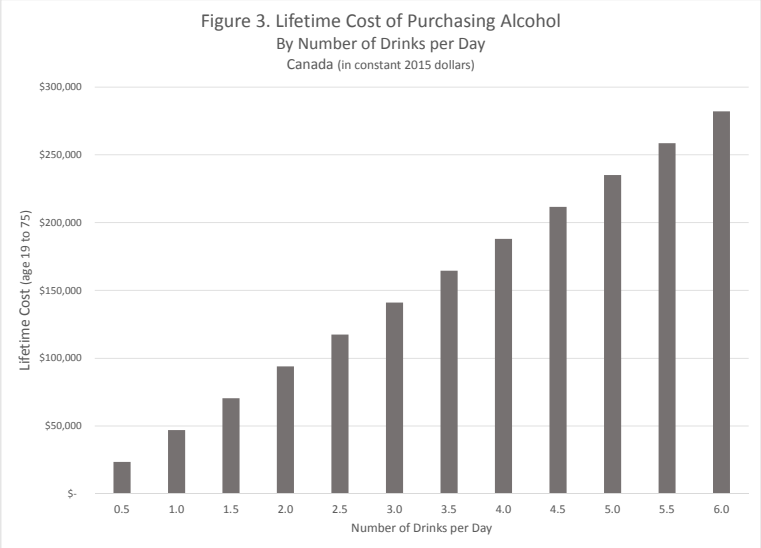
Alcohol use is an important risk factor for disease, injury and premature mortality. One of the challenges of research in this area, however, is the ability to measure how much alcohol people consume. When asked, individuals notoriously underestimate the amount of alcohol they drink. How alcohol is consumed is also important. Consuming a drink per day during a week is much different than if all seven of those drinks are consumed on a Friday night. Episodic heavy alcohol use or binge drinking is formally defined for men as consuming five or more drinks on one occasion.

Levels of alcohol consumption at which the health effects are expected to be modest for men are less than 3 drinks per day or 20 drinks per week, provided the consumption does not include binge drinking. One drink is classified as a 12 oz. can of beer, 5 oz. of wine or 1.5 oz. of spirits.[4] Between 3 and 4.5 drinks per day (20-30 per week) moves you into a 'hazardous' level of alcohol consumption while more than 4.5 drinks per day (> 30 per week) moves you into a 'harmful' category. Health risks generally increase with higher levels of drinking. For example, if you are a moderate drinker (< 3 drinks per day), your risk of getting a cancer of the mouth is 75% higher than a male who does not drink at all. If you consume 3-4.5 drinks per day, your risk of mouth cancer is 185% higher. If you consume over 4.5 drinks per day, your risk of mouth cancer increases by 500%.[5]

Purchasing Alcohol

The price of an alcoholic drink varies substantially, depending on the type of drink, the province in which it is purchased, where the alcohol is purchased (e.g. restaurant, bar, liquor store, etc.) and whether the alcohol is 'home' brewed. For example, a survey of the cost of a 24 of Molson beer found an average cost across Canada of $42.65, but ranging from $26.99 in Quebec to $56.65 in the Northwest Territories.[6]

For the purposes of this analysis, we have calculated that the average cost to purchase one alcoholic drink (as defined above) in Canada is $2.30.[7] If we assume that you start drinking at age 19 and continue through to age 75, then the average lifetime cost of purchasing alcohol increases by $47,000 for each drink consumed per day (see Figure 3). Over your lifetime, consuming an average of 3 drinks per day will cost you $140,000 while consuming an average of 5 drinks per day will cost you $235,000.



Life Insurance

Alcohol use, and particularly alcohol abuse or dependence, has a dizzying array of physical, social and psychological effects.[8] More than 60 causes of death have been attributed to alcohol.[9] In addition, modest daily consumption may have some health benefits. This complexity is recognized by the life insurance industry.[10] While modest levels of alcohol consumption will not usually increase your life insurance premiums, hazardous or harmful levels of alcohol consumption will. Any signs of alcohol abuse on your physical exam will increase your premium. Even one drunk driving conviction will also put you in a higher risk category.

For the purpose of this analysis we have assumed that your life insurance premium will increase between 50% and 200% if you consume an average of between 3 to 5 drinks per day.[11] At higher levels of alcohol consumption, life insurance companies are unlikely to insure you.

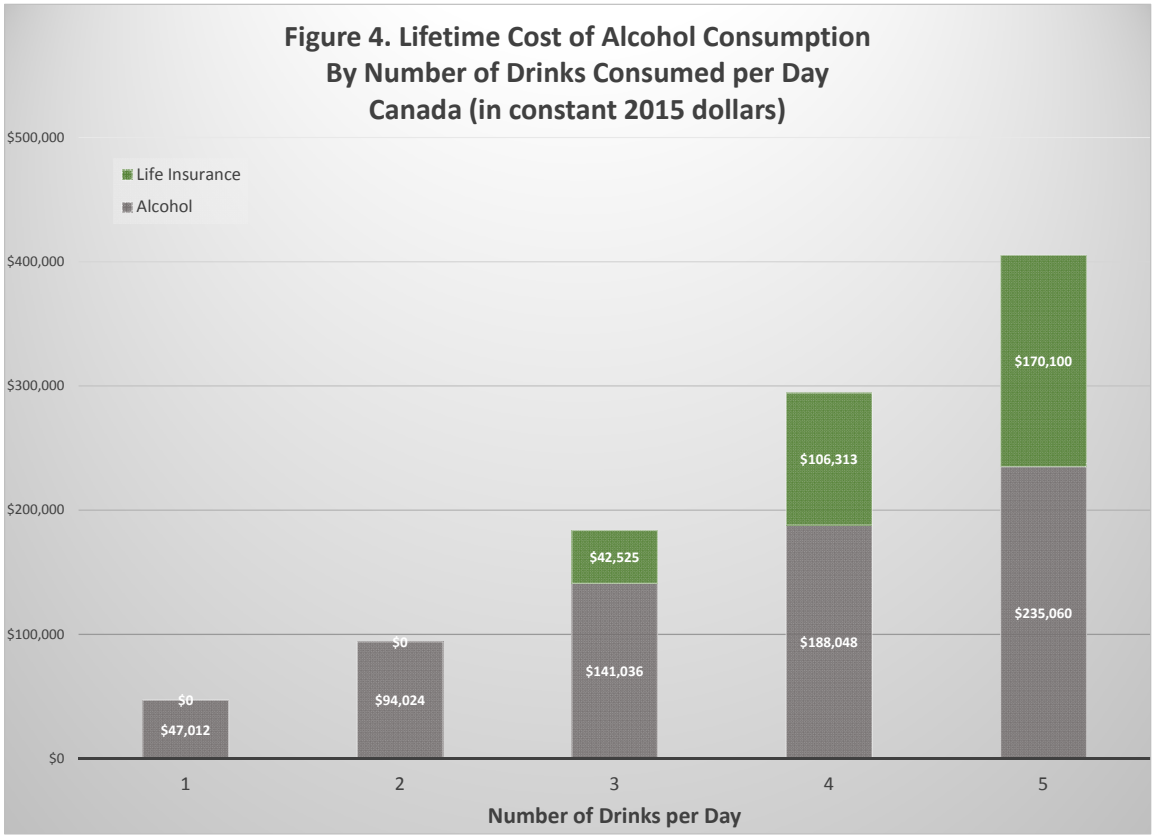
Purchasing a 10-year term life insurance policy for $500,000 will cost you approximately $85,000 between the ages of 30 and 74 if you are a non-smoker and consume less than 3 alcoholic drinks per day (see Table 3). If you consume 3 drinks per day, your cost of purchasing life insurance between the ages of 30 and 75 will increase to $128,000, or an additional life-time cost of $43,000. At five drinks per day, additional life-time costs increase to $170,000.

Table 3. Lifetime Cost of a 10-Year Term Life Insurance Premium for $500,000
Males By Risk Factor Status

	Age					Total Lifetime Cost	Additional Cost Compared to Non/Modest Drinker
	30 - 39	40 - 49	50 - 59	60 - 69	70 - 74		
Non-Smoker, No or Modest Alcohol Consumption							
Cost Per Month	$30.60	$36.90	$76.05	$223.65	$683.10		
Total Cost During Period	$3,672	$4,428	$9,126	$26,838	$40,986	**$85,050**	
Non-Smoker, Average of 3 Drinks per Day							
Cost Per Month	$45.90	$55.35	$114.08	$335.48	$1,024.65		
Total Cost During Period	$5,508	$6,642	$13,689	$40,257	$61,479	**$127,575**	***$42,525***
Non-Smoker, Average of 3.5 Drinks per Day							
Cost Per Month	$57.38	$69.19	$142.59	$419.34	$1,280.81		
Total Cost During Period	$6,885	$8,303	$17,111	$50,321	$76,849	**$159,469**	***$74,419***
Non-Smoker, Average of 4 Drinks per Day							
Cost Per Month	$68.85	$83.03	$171.11	$503.21	$1,536.98		
Total Cost During Period	$8,262	$9,963	$20,534	$60,386	$92,219	**$191,363**	***$106,313***
Non-Smoker, Average of 4.5 Drinks per Day							
Cost Per Month	$80.33	$96.86	$199.63	$587.08	$1,793.14		
Total Cost During Period	$9,639	$11,624	$23,956	$70,450	$107,588	**$223,256**	***$138,206***
Non-Smoker, Average of 5 Drinks per Day							
Cost Per Month	$91.80	$110.70	$228.15	$670.95	$2,049.30		
Total Cost During Period	$11,016	$13,284	$27,378	$80,514	$122,958	**$255,150**	***$170,100***

Combined Costs

If we combine the costs of purchasing alcohol and the additional cost of purchasing life insurance, then consuming an average of one drink per day between the ages of 19 and 75 will cost you $47,000 over your lifetime. This will increase to $184,000 if you consume an average of 3 drinks per day and $405,000 if you consume an average of 5 drinks per day (see Figure 4).

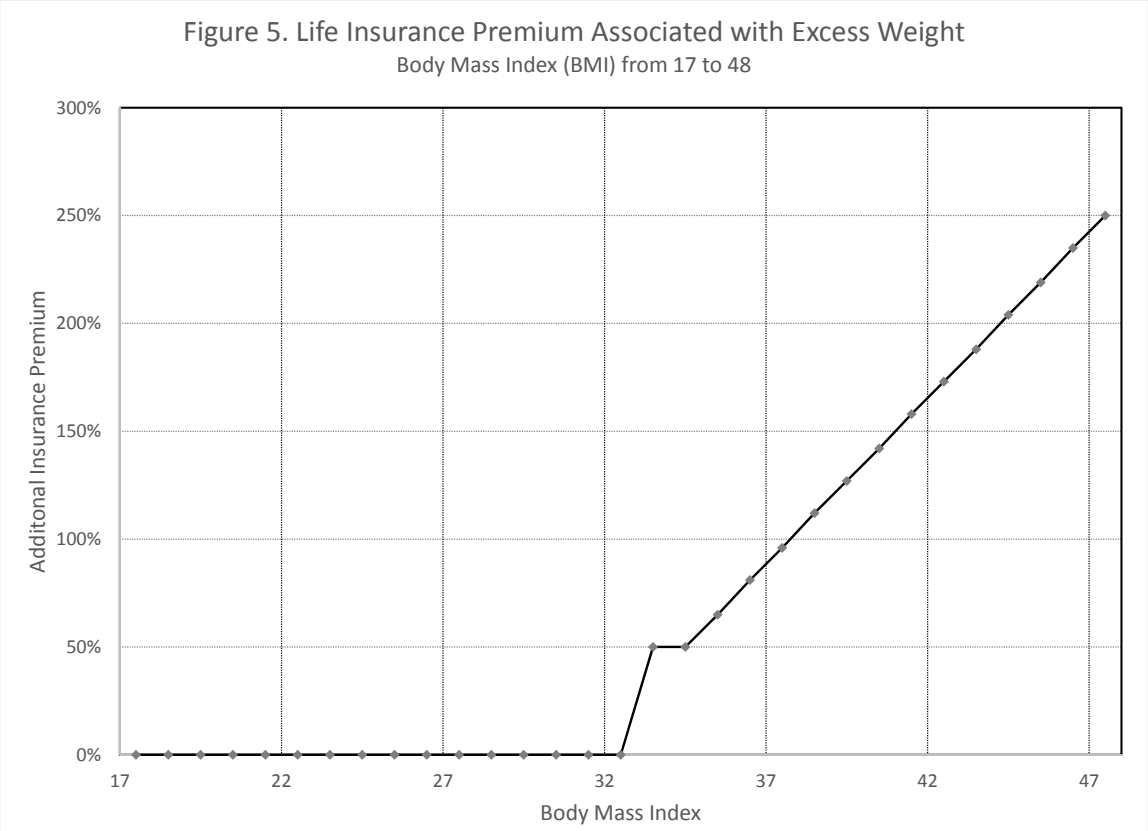


Cost of Excess Weight

Individuals with a body mass index (BMI) of greater than 25 are usually considered to be overweight while those with a BMI of over 30 are considered to be obese. BMI is calculated by taking into account your height and weight. So, for example, a male that is 6 feet tall with a weight of 184 pounds would have a BMI of 25. If that same male weighed 221 pounds, they would have a BMI of 30.

Life Insurance

An individual's BMI is taken into account as a risk factor in purchasing life insurance. Figure 5 provides an overview of the additional costs of life insurance associated with varying levels of BMI. Additional life insurance premium costs start at a BMI of approximately 33, increasing steadily until a BMI of 48, at which point it may be difficult to purchase life insurance. A male that is 6 feet tall with a weight of 243 pounds would have a BMI of 33, increasing to a BMI of 48 with a weight of 354 pounds.



Purchasing a 10-year term life insurance policy for $500,000 will cost you approximately $85,000 between the ages of 30 and 74 if you are a non-smoker with a BMI of between 17 and 33 (see Table 4). At approximately a BMI of 34, your cost of purchasing life insurance between the ages of 30 and 75 will increase to $128,000, or an additional life-time cost of $43,000. At a BMI of approximately 48, additional life-time costs increase to $213,000.

Table 4. Lifetime Cost of a 10-Year Term Life Insurance Premium for $500,000
Males By Risk Factor Status

		Age					Total Lifetime Cost	Additional Cost Compared to Normal Weight, Non-Smoker
		30 -39	40 - 49	50 - 59	60 - 69	70 - 74		
Normal Weight, Non-Smoker								
	Cost Per Month	$30.60	$36.90	$76.05	$223.65	$683.10		
	Total Cost During Period	$3,672	$4,428	$9,126	$26,838	$40,986	**$85,050**	
Excess Weight (BMI)								
33.5	Cost Per Month	$45.90	$55.35	$114.08	$335.48	$1,024.65		
	Total Cost During Period	$5,508	$6,642	$13,689	$40,257	$61,479	**$127,575**	***$42,525***
35.5	Cost Per Month	$50.49	$60.89	$125.48	$369.02	$1,127.12		
	Total Cost During Period	$6,059	$7,306	$15,058	$44,283	$67,627	**$140,333**	***$55,283***
36.5	Cost Per Month	$55.39	$66.79	$137.65	$404.81	$1,236.41		
	Total Cost During Period	$6,646	$8,015	$16,518	$48,577	$74,185	**$153,941**	***$68,891***
37.5	Cost Per Month	$59.98	$72.32	$149.06	$438.35	$1,338.88		
	Total Cost During Period	$7,197	$8,679	$17,887	$52,602	$80,333	**$166,698**	***$81,648***
38.5	Cost Per Month	$64.87	$78.23	$161.23	$474.14	$1,448.17		
	Total Cost During Period	$7,785	$9,387	$19,347	$56,897	$86,890	**$180,306**	***$95,256***
39.5	Cost Per Month	$69.46	$83.76	$172.63	$507.69	$1,550.64		
	Total Cost During Period	$8,335	$10,052	$20,716	$60,922	$93,038	**$193,064**	***$108,014***
40.5	Cost Per Month	$74.05	$89.30	$184.04	$541.23	$1,653.10		
	Total Cost During Period	$8,886	$10,716	$22,085	$64,948	$99,186	**$205,821**	***$120,771***
41.5	Cost Per Month	$78.95	$95.20	$196.21	$577.02	$1,762.40		
	Total Cost During Period	$9,474	$11,424	$23,545	$69,242	$105,744	**$219,429**	***$134,379***
42.5	Cost Per Month	$83.54	$100.74	$207.62	$610.56	$1,864.86		
	Total Cost During Period	$10,025	$12,088	$24,914	$73,268	$111,892	**$232,187**	***$147,137***
43.5	Cost Per Month	$88.13	$106.27	$219.02	$644.11	$1,967.33		
	Total Cost During Period	$10,575	$12,753	$26,283	$77,293	$118,040	**$244,944**	***$159,894***
44.5	Cost Per Month	$93.02	$112.18	$231.19	$679.90	$2,076.62		
	Total Cost During Period	$11,163	$13,461	$27,743	$81,588	$124,597	**$258,552**	***$173,502***
45.5	Cost Per Month	$97.61	$117.71	$242.60	$713.44	$2,179.09		
	Total Cost During Period	$11,714	$14,125	$29,112	$85,613	$130,745	**$271,310**	***$186,260***
46.5	Cost Per Month	$102.51	$123.62	$254.77	$749.23	$2,288.39		
	Total Cost During Period	$12,301	$14,834	$30,572	$89,907	$137,303	**$284,918**	***$199,868***
47.5	Cost Per Month	$107.10	$129.15	$266.18	$782.78	$2,390.85		
	Total Cost During Period	$12,852	$15,498	$31,941	$93,933	$143,451	**$297,675**	***$212,625***

Lost Investment Opportunity

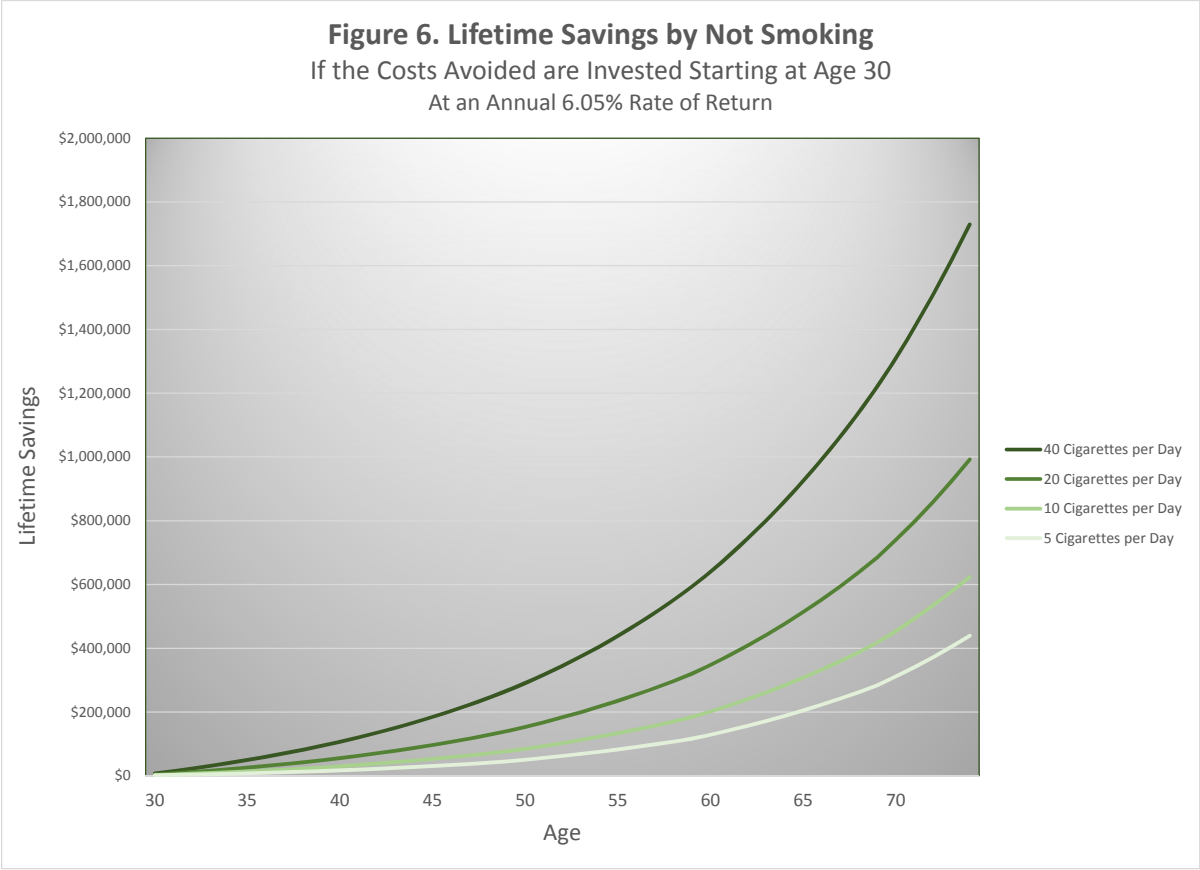
Until now we have simply estimated the out-of-pocket costs of tobacco smoking, excess weight and alcohol use. That is, how much money you will need to take out of your wallet because of tobacco smoking, excess weight or alcohol use. What if, however, you took this money and, instead of spending it on cigarettes or alcohol or additional life insurance premiums, you invested it? Instead of this costing you $324,000 if you smoke 20 cigarettes per day, it would 'cost' you much more. We will call this your lost investment opportunity.

In the following analysis we have assumed that the money used to purchase cigarettes or alcohol and/or the additional costs of buying life insurance would instead be invested, starting at age 30. We have assumed a modest 6.05% annual rate of return. This is equivalent to the average rate of return for the Toronto Stock Exchange over the past 50 years. We note that this estimate is conservative as it does not include gains based on dividends. If dividends are included, then the annual rate of return over the past 50 years would be 9.43%.[12]

Cigarette Smoking

As seen in Figure 6, the amount of savings by age 75 associated with not smoking and investing the savings depends to a large degree of how much you smoke, with $440,000 saved if you smoke 5 cigarettes per day, $625,000 saved if you smoke 10 cigarettes per day, $992,000 saved if you smoke 20 cigarettes per day and $1,730,000 saved if you smoke 40 cigarettes per day.

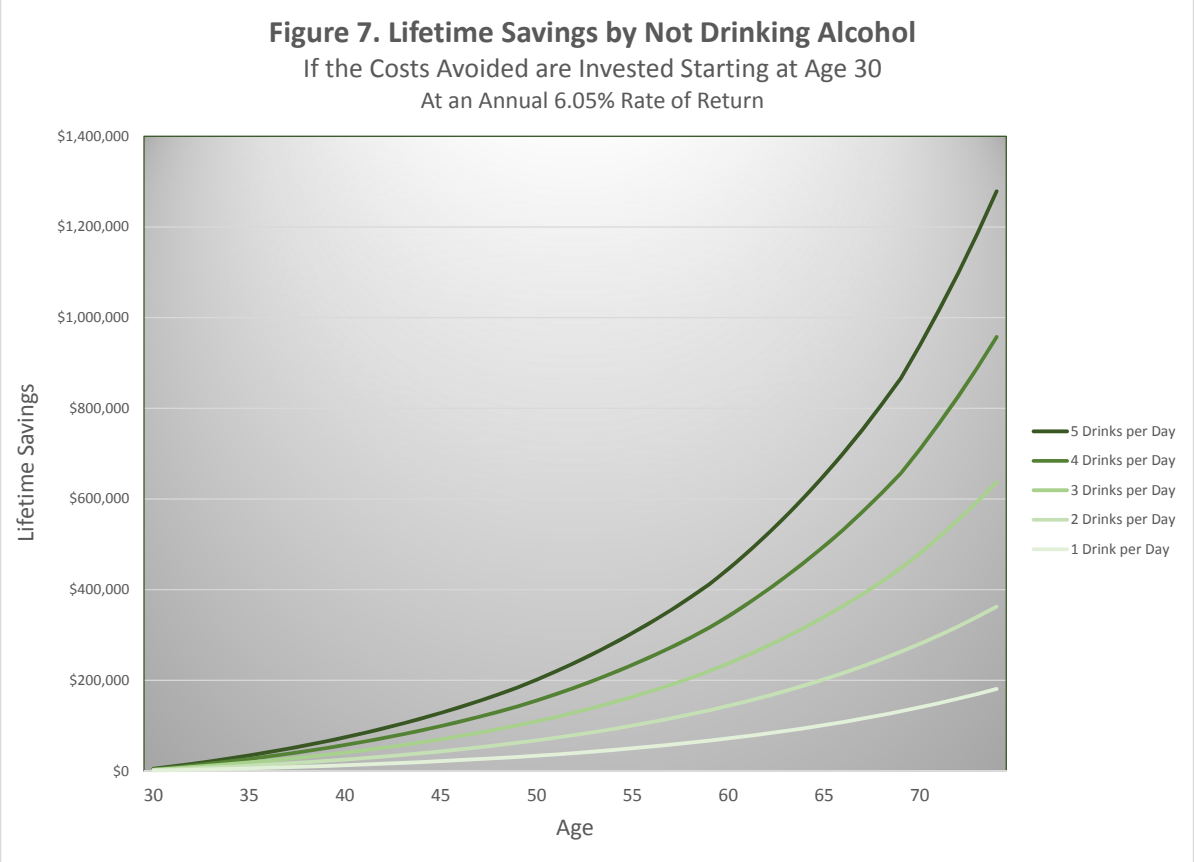
Put another way, smoking an average of 20 cigarettes per day will cost you a million dollars.



If we use the higher rate of return on your money of 9.43%, then smoking 5 cigarettes per day would cost you $970,000 in lost investment opportunity. This increases to $1,482,000 with 10 cigarettes per day, $2,510,000 with 20 cigarettes per day and $4,560,000 with 40 cigarettes per day.

Alcohol Use

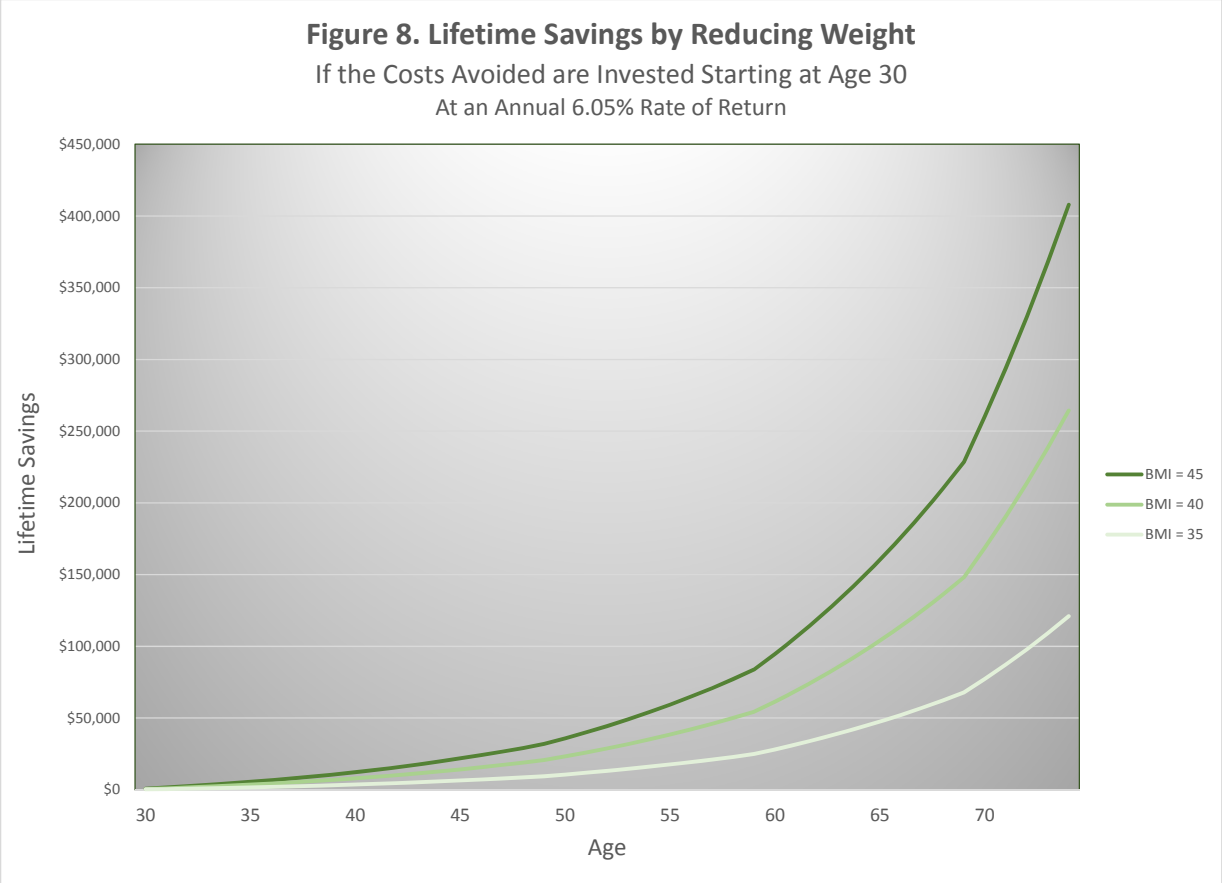
As seen in Figure 7, the amount of savings by age 75 associated with not drinking and investing the savings depends to a large degree of how much drink, with $181,000 saved if you average one drink per day, $362,000 saved if you average two drinks per day, $637,000 saved if you average three drinks per day, $958,000 if you average four drinks per day and $1,279,000 saved if you average five drinks per day.



If we use the higher rate of return on your money of 9.43%, then you would save $505,000 by not consuming an average of one drink per day, $1,009,000 saved if you average two drinks per day, $1,698,000 saved if you average three drinks per day, $2,479,000 if you average four drinks per day and $3,260,000 saved if you average five drinks per day.

Excess Weight

As seen in Figure 8, the amount of savings by age 75 of reducing your weight to a BMI of 33 or less and investing the savings from lower life insurance premiums depends to a large degree on your starting BMI. Your potential savings would be $121,000 with a starting BMI of 35, $265,000 with a starting BMI of 40 and $408,000 with a starting BMI of 45.



If we use the higher rate of return on your money of 9.43%, then a starting BMI of 35 would cost you $239,000 in lost investment opportunity. This increases to $523,000 with a starting BMI of 40 and $806,000 with a starting BMI of 45.

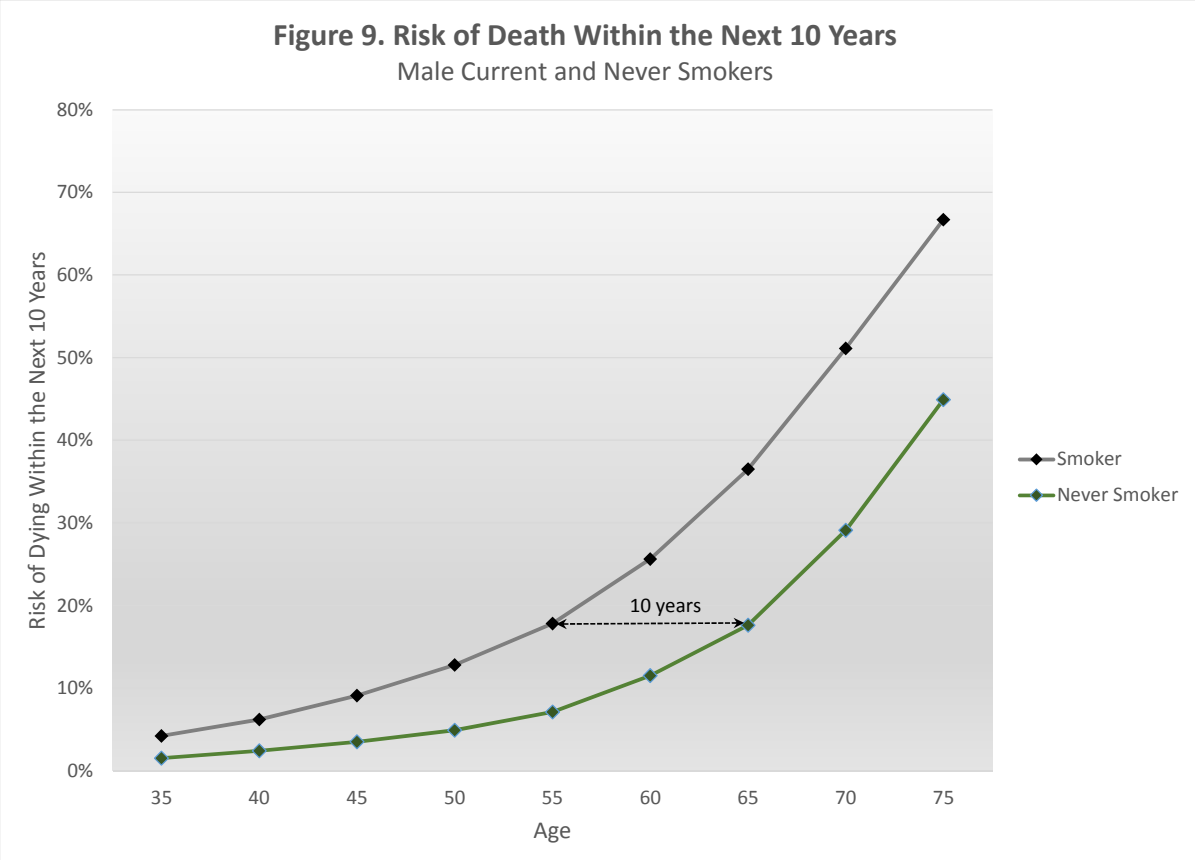
A Shorter Life

Cigarette smoking, alcohol use and excess weight all result in a shortened life. Economists have tried to place a dollar value on a life or on life years lost but the approaches and results vary substantially, with a common range being from $1 million to $7 million.[13,14,15] A typical approach in valuing a life year lost is to use an individual's earning capacity based on average annual wages. In Canada, this would place the value of a life year lost at approximately $50,000 to $60,000.

In the end, the value you place on living 10 extra years is up to you and may change as you get older. You may not, for example, place a high value on these 10 extra years when you are 30 but that value may increase if you become a grandfather later in life.

Cigarette Smoking

Cigarette smoking, on average, reduces your life expectancy by about 10 years.[16,17] That is, as a smoker your risk of dying at age 55 is the same as a 65 year old who has never smoked (see Figure 9).



Your risk of dying prematurely also increases with the number of cigarettes smoked per day. Compared to men who have never smoked, smoking less than 10 cigarettes per day increases this risk by a magnitude of 1.2 times, smoking 10-19 cigarettes per day increase this risk by a magnitude of 1.6 times, smoking 20-39 cigarettes per day increase this risk by a magnitude of 2.3 times and smoking ≥40 cigarettes per day increase this risk my a magnitude of 3.1 times.[18]

The number of years you smoke also increases your risk of dying prematurely. Smoking less than 30 years increases this risk by a magnitude of 0.5 times (or 50%) while smoking more than 30 years increases this risk by a magnitude of 1.7 times.[19]

If you quit between the ages of 25-34, however, your lifetime risk will essentially revert back to that of a never smoker and you will gain back the ten potential lost years of life associated with smoking. Quitting between the ages of 35-44 will allow you to gain back nine of those potential lost years. Quitting smoking later in life reduces this to six years if you quit between ages 45-54 and four years if you quit between ages 55-64.[20]

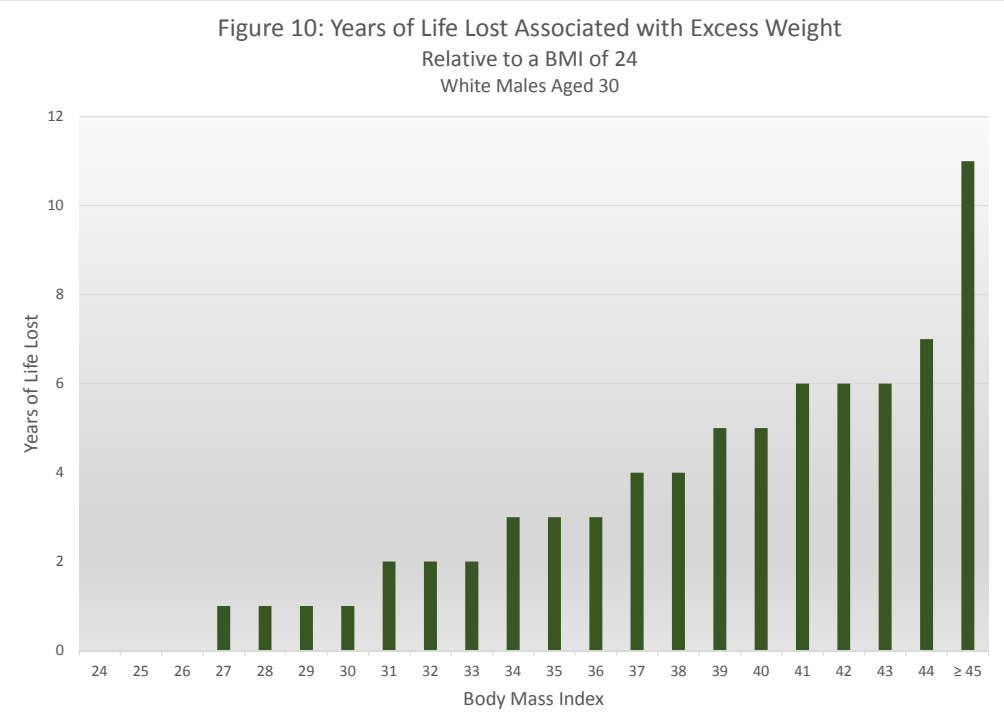
Alcohol Use

On average, alcohol consumption reduces a Canadian male's life expectancy by about 10% or 7.9 years.[21] Higher levels of consumption result in an increasing loss of life years. Males with a diagnosis of 'alcohol abuse' or 'alcohol dependence', for example, lose an average of 17 years of life.[22]

Episodic heavy alcohol use or binge drinking also significantly increases the risk of an early death due to an intentional or unintentional injury. Intentional injuries include, for example, homicide and suicide. Unintentional injuries include, for example, motor vehicle accidents and drowning. Alcohol-related *intentional* injury deaths in Canadian males occur at an average age of 38 while alcohol-related *unintentional* injury deaths occur at an average age of 44.[23]

A Shorter Life

Like tobacco smoking, excess weight is associated with a shorter life span. Being obese (i.e. a BMI of ≥ 30) is associated with 5.8 years of life lost.[24] The higher the excess weight, the greater the number of life years lost (see Figure 10).[25] A BMI of 45 or higher is associated with 11 years of life lost.



Summary and Conclusion

We have set out to estimate and document some of the costs to the individual Canadian male associated with the risk factors of tobacco smoking, alcohol use and obesity. We have focused on the costs of purchasing cigarettes or alcohol and the additional life insurance premiums that are charged to individuals with any one of these three risk factors. The costs vary substantially depending on the level of consumption or excess weight.

Lifetime Out-of-Pocket Costs

Smoking one pack (20 cigarettes) per day, for example, will cost you at least $324,000 in out-of-pocket expenses. This ranges from $173,000 for 5 cigarettes per day to $525,000 for two packs (40 cigarettes) per day (see Table 5).

Consuming three drinks of alcohol daily will cost you $184,000. This ranges from $47,000 for one drink per day to $405,000 for five drinks per day.

Having excess weight (a BMI of 40) will cost you $121,000. This ranges from $55,000 with a BMI of 35 to $186,000 with a BMI of 45.

Table 5. Lifetime Cost of Tobacco Smoking, Alcohol Use and Excess Weight
Males in Canada

	Cigarettes per Day			
Smoking	5	10	20	40
Cost of Cigarettes	$50,370	$100,739	$201,478	$402,957
Life Insurance Premium	$122,283	$122,283	$122,283	$122,283
Total	**$172,653**	**$223,022**	**$323,761**	**$525,240**
Lost Investment Opportunity				
Conservative Rate of Return (6.05%)	$439,272	$623,561	$992,139	$1,729,294
Average Rate of Return (9.43%)	$969,089	$1,482,363	$2,508,911	$4,562,008

	Drinks per Day				
Alcohol Use	1	2	3	4	5
Cost of Alcohol	$47,012	$94,024	$141,036	$188,048	$235,060
Life Insurance Premium	$0	$0	$42,525	$106,313	$170,100
Total	**$47,012**	**$94,024**	**$183,561**	**$294,361**	**$405,160**
Lost Investment Opportunity					
Conservative Rate of Return (6.05%)	$181,219	$362,437	$636,772	$957,665	$1,278,558
Average Rate of Return (9.43%)	$504,724	$1,009,447	$1,698,294	$2,479,202	$3,260,110

	Starting BMI		
Excess Weight	35	40	45
Life Insurance Premium	$55,283	$120,771	$186,260
Lost Investment Opportunity			
Conservative Rate of Return (6.05%)	$121,051	$264,450	$407,849
Average Rate of Return (9.43%)	$239,360	$522,910	$806,459

Lost Investment Opportunity

What if you took this money and, instead of spending it on cigarettes or alcohol or additional life insurance premiums, you invested it? Smoking a pack a day will now 'cost' you between $1.0 and $2.5 ***million*** in lost investment opportunity. That is, by not smoking and investing the money saved, you would have between $1.0 and $2.5 million available for your use at age 75 (see Table 5).

Reducing your weight from a BMI of 40 to 33 or less would result in an additional $0.3 to $0.5 million available for your use at age 75.

Similarly, reducing your alcohol consumption from three to no drinks per day would result in an additional $0.6 to $1.7 million available for your use at age 75.

Life Years Lost

The life expectancy of the typical Canadian male is 79 years. On average, smoking cigarettes will cost you 10 years of life, drinking alcohol will cost you 7.9 years of life and being obese will cost you 5.8 years of life. As with costs, this shortening of your life depends substantially on how much and for how long you smoke and use alcohol. Life years lost also increase with increasing levels of obesity.

Economists have tried to place a dollar value on a life or on life years lost but the results vary substantially. In the end, the value you place on living extra years is up to you and may change as you get older. You may not, for example, place a high value on these extra years when you are 30 but that value may increase if you become a grandfather later in life.

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