MORTALITY, MORBIDITY AND HEALTH CARE from

The Quality of Life in Canada and the United States from 1964 to 1974

(two volumes, in preparation)

Alex C. Michalos

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excerpts from

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United States from 1964 to 1974

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If one sets out to compare national statistics on mortality, morbidity and health care generally in Canada and the USA in the decade from 1964 to 1974, the result is a set of tables and charts about three times the size of the set in this collection. What we have here is a subset selected for its representativeness, inherent interest and moderate cost. The total story will be told in the larger work from which the material here is drawn. The tree diagram on the very last page of this report will give you a rough idea of the scope of the larger work. If occasionally it looks as if tables have been taken out of contexts in which explanatory details and source materials should be included, that is because that is exactly what has happened. I have fairly rapidly put together a summary report of my current research.

To make a long story short, I regard families as at least as important subjects for analysis as individuals. I have at least as much concern about my wife and children as I do about myself, and I imagine this is not an exceptional or extraordinary view. Furthermore, I doubt that many people would draw the line at anyone living in their household, whether they are blood relatives or not. If you know that someone in your household is suffering, then that very probably bothers you; and if someone at home has just had something wonderful happen to him, everyone probably feels a little bit better. Accordingly, here we will focus primarily on households and sets of households. We will look at the chances of households being touched by death or disease, and the chances of preventing or coping with such calamities. only time I include tables or charts giving rates per 100,000 inhabitants or per capita rates of anything is when there is a significant difference in the trends for these statistics and the household statistics. By the time we finish, we will have a better idea of the quality of life in Canada and the USA in the 1964 to 1974 period so far as that quality is determined by mortality, morbidity and health care

From here on, if you will turn to the tables and charts directly as I briefly describe some of their most salient features, we will be able to proceed most efficiently.

- 1. Pp. 9-10 : Putting life before death and disease, we see that Canadians can expect roughly two more years of life than Americans.
- 2. Pp. 11-13: Canadian death rates per 100,000 households run from 89 to 96 percent of the American rates.
- 3. Pp. 14-42: When Americans and Canadians die, generally what kills them? A rank ordering of deaths by causes per household for the two countries looks like this:

		CANADA	Rank	USA
(biggest	killer)	cardiovascular diseases	1	same
		malignant neoplasms	2	same
		non-motoring accidents	3	influenza/pneumonia
		influenza/pneumonia	4	non-motoring accidents
		motor vehicles	5	same
		diabetes mellitus	6	same
		congenital anomalies	7	cirrhosis of liver
		suicide	8	same
(smallest	killer)	cirrhosis of liver	9	congenital anomalies
(smallest	killer)	cirrhosis of liver	9	congenital anomalies

4. Pp. 14-14: The two major killers are the same in both countries, but there is a difference in dominance. Canadian deaths per 100,000 households by major cardiovascular disease run from 69 to 86 percent of American deaths, but American deaths by malignant neoplasms run from 95 to 99 percent of Canadian deaths.

Whether one takes households or inhabitants as a basic unit of analysis clearly makes a difference to causes of death rankings. Looking at causes of death per 100,000 households, Canadians are usually worse off than Americans with malignant neoplasms, influenza and pneumonia, non-motoring accidents, motor vehicle accidents and suicide. Looking at the same causes of death per 100,000 inhabitants, Americans are usually worse off.

- 5. Pp. 32-33 : Canadian deaths by diabetes mellitus run from 85 to 91 percent of American deaths by this disease.
- 6. Pp. 40-42: Canadian deaths by cirrhosis of the liver run from 58 to 75 percent of American deaths by this disease.
- 7. Pp. 34-39: American deaths by congenital anomalies run from 65 to 75 percent of Canadian deaths; Canadian suicide rates begin at 91 percent of American rates in 1964 and run to 120 percent by 1972.
- 8. Pp. 43-47: When we enquire into the chances of an infant dying, the answers are a bit messy. Canadian infant death rates per 1000 live births run from 88 to 99 percent of the American rates. However, household vulnerability to such mishaps is greater in Canada. American infant death rates per 100,000 households run from 76 to 95 percent of Canadian rates. Then, to make matters worse, American rates per 100,000 inhabitants are smaller than Canadian rates from 1964 to 1967 but bigger from 1968 on.
- 9. Pp. 11-13: Since Canadian death rates per 100,000 households are smaller to begin with and the Canadian percent change decreases more sharply than the American over the 1964-1973 period, the two countries are tending toward greater dissimilarity on this indicator.
- 10. Pp. 48-50: The most significant indicator of morbidity we have is the series of selected notifiable diseases for the two countries. Canadians suffer from 64 to 93 percent of the disease suffered by Americans per 100,000 households. More importantly, there is a

definite trend over the 1964-1973 period toward dissimilarity. The Canadian stock begins at 93 percent of the American and winds down to 64 percent. Moreover, the Canadian values grow only 11 percent in the period compared to 53 percent in the USA.

11. Pp. 51-62: A rank ordering of the diseases for the two countries on the basis of the usual size of their impact per 100,000 households looks like this:

	CANADA	<u>Rank</u>	USA
(most	cases) venereal disease	1	same
	hepatitis	2	same mixed
	tuberculosis	3	same) mixed
	mixed {whooping cough {salmonella}	4	salmonella
	(salmonella	5	bacillary dysentery
(least	cases) bacillary dysentery	6	whooping cough

Pp. 51-52: Venereal disease dominates the field in both countries, with the Canadian rates per 100,000 households running from 49 to 66 percent of American rates.

- 12. Pp. 53-54: On the other hand, American rates for infectious hepatitis run from 38 to 76 percent of Canadian rates, but with a definite trend toward similarity.
- 13. Pp. 55-62: American rates for tuberculosis, bacillary dysentery, whooping cough and salmonella infections also tend to be lower than Canadian rates.
- 14. Pp. 63-67: The trend toward caring for the mentally ill and retarded outside of institutions is evident for both countries, with Americans generally having more people institutionalized per 100,000 households.
- 15. Pp. 68-69: Later we will see that Canadians have more hospital beds per 100,000 households than Americans. So, it is interesting to see that for six of the nine recorded years Canadians also have a greater percent of their beds occupied.
- 16. Pp. 70-71: Our statistics on the mean stay of persons separated from hospitals tell us that Canadians spend roughly two days more on the average in hospitals (once they go in) than Americans.
- 17. P_{p} . 72-73: The data on smokers is not strictly comparable because of the difference in the minimum ages used in both countries. At any rate it shows that for six of seven matching years Canada had a higher percentage of smokers.

- 18. Pp. 74-75: Since AIPO and CIPO polls show that significantly fewer Canadians than Americans believe cigarette smoking is one of the causes of lung cancer, one would have expected an even bigger difference in the proportion of smokers in the two countries.
- 19. P. 76: This AIPO and CIPO set of figures is presented for two reasons; first, to show the difference in Canadian figures on smokers and second, to illustrate the researcher's frustration trying to find matching questions and years.
- 20. Pp. 77-78: If one looks at illegitimate live births as a percentage of live births, one finds the sort of data Canadians and Americans always seem to expect, namely, Canadians don't go in for that sort of thing as much as Americans.
- 21. Pp. 79-80: If one looks at the rate of illegitimate live births per 100,000 households, one finds that for six out of seven matching years the Canadian household vulnerability to such social aberrations is greater than the American.
- 22. Pp. 48,65,668: Reflecting over the morbidity series that seem to lend themselves to rough aggregation (reportable diseases, occupancy, hospitalization for mental health and retardation), the trend seems to be toward dissimilarity for the two countries. This is mainly due to the greater stocks and flows for diseases and institutionalized mental patients in the USA.

So far I have been unable to obtain reliable information on alcoholism and drug addiction for the two countries, but all resources have not been tapped yet. However, the following AIPO and CIPO items are relevant to alcohol use - which is not equal to alcoholism.

- 23. P. **?!** : Slightly more Americans than Canadians report that liquor has been a cause of trouble in their homes a difference slight enough to be nothing but measurement error.
- 24. Pp. **?2-?3**: More Canadians than Americans report having occasions to use alcoholic beverages. The 1969 figures may be a result of simple measurement error but the 1974 figures probably are not.
- 25. P. 84 : Make what you can out of the question on the legalization of marijuana. About all it tells me is that the people who run the AIPO are more concerned with the question than the people who run CIPO.
- 26. Pp. **\$5-86**: Slightly more Americans than Canadians agree that abortion decisions should be made solely by a woman and her physician a difference slight enough to be just measurement error.

Before leaving AIPO and CIPO data, I should say that I have examined <u>all</u> the CIPO items related to health in the period under investigation (as well as all national survey data related to health in Canada) and have found less than a dozen items that could be compared to US surveys. Canadians are not big on national attitudinal surveys.

- 27. Pp. 87-89: One indicator of a society's ability to cope with probelms related to health is its supply of physicians. On the whole, Americans are better off than Canadians, with the US population per physician running from 81 to 86 percent of the Canadian population per physician
- 28. Pp. 90-92: With available hospital beds, the situation is reversed; Americans have from 66 to 70 percent of the bed space that Canadians have per 100,000 households.
- 29. Pp. 93-94: Americans have from 82 to 88 percent of Canadian combined supplies of nutrients available per 100,000 households.
- 30. Pp. 95-96: And Americans have from 85 to 90 percent of Canadian supplies of food energy available per 100,000 households.
- 31. Pp. 87, 40,93,95: Considering stocks and flows of Canadian and American facilities for coping with health problems (physicians, beds, nutrients and calories), there seems to be a <u>diverging</u> trend between the two countries. This is based mainly on Canada's greater stocks and flows for nutrients and hospital beds, and its greater stock and roughly even flows of available food energy.
- 32. Pp. 97-98: Turning to costs now, Canadians spent from 74 to 92 percent of what Americans spent per 100,000 households on food and non-alcoholic beverages.
- 33. Pp. 99-100 : On the other hand, Americans only spent from 75 to 96 percent of what Canadians spent on tobacco and alcoholic beverages.

 So, per 100,000 households, Canadians spent less on food, and more on alcohol and tobacco than Americans.
- 34. Pp. 110-115: The combined personal and government expenditures for medical care and health services in the two countries is not as neat a story as one would like it to be. Canadian per capita expenditures run from 80 to 92 percent of American expenditures for health care which is clear enough. But Canadian per household expenditures run higher than American expenditures for six of the nine years for which we have statistics. On top of this, I just do not know if Canadian and American governments count exactly the same items under the rubric "medical care and health services." Maybe items that are considered

"social welfare" in one country are regarded as "health care" in the other, and only a larger aggregate will yield the truth about comparative expenditures.

- 35. Pp. II6-121: If we look at the comparative costs to persons and governments for the two countries, we find what everyone knows, namely, that Canadian personal expenditures for health care are lower while government expenditures are higher than the respective American expenditures.
- 36. Pp. 110-115: Comparing the combined expenditures per household or per capita for health care and services, we find a tendency toward similarity. For households, Canada begins and ends the 1964-72 period with greater expenditures but a smaller rate of growth than the USA. On a per capita basis, Canada begins and ends the period with smaller expenditures but a larger rate of growth than the USA.

Now, let us try to reduce some information overload. First, the results of our rough assessment of the trends toward similarity or dissimilarity for the two countries on a per household or per 100,000 household basis are as follows. The indicators of mortality, morbidity and coping facilities show that the two countries are diverging, becoming more unlike or dissimilar. Only the expenditure indicators showed a tendency toward convergence, but for reasons mentioned earlier the indicators are bit unclear.

One can make a finer analysis with a year by year count of the stock and flow values for some of the indicators. This I have done as shown on p.122, Table E. The rules of scoring are quite simple.

- (a) Score one point per year for every year to the country whose stock value is preferable.
- (b) Score one point per year for every year to the country whose flow value (percent change) is preferable.
- (c) Sum the points to obtain a final score.

Example: For 1965 Canada makes one point for its death rate per 100,000 households and one point for its smaller percent change over 1964.

I cannot give a justification for picking each indicator in the evaluative set in the space I have here. Generally, I aimed for rough independence, reliability, validity and representativeness. The \aleph

and P above each indicator tells you if it was treated as a negative or a positive indicator, i.e. if lower or higher indicator values were regarded as desirable.

The result is that on a per household or per 100,000 household basis Canada wins 146 to 34. Literally that just means that if we look at every matched pair of indicator-values for our subset of social indicators and ask "Is Canada or the USA better off with respect to these two values?", 146 times the answer is "Canada" and 34 times it is "USA." For the record, on a per capita and per 100,000 inhabitants basis, Canada wins 141 to 40.

If one took the trouble to put, say, von Neumann-Morgenstern standard gamble-type utility values on all our indicators and treated the various rates as probabilities (risks of this or that), then one could obtain an expected value of health - or of something significantly related to health. I applied this tactic to crime for the two countries and found the result less informative and interesting than one might expect. So I haven't tried it for health.

Another way to look at our data collectively is from the point of view of the comparative growth rates of coping facilities versus mortality and morbidity. On a per household or per 100,000 household basis, the results are as follows:

		CANADA	USA
Yearly average % growth:	coping	1.08	.86
Yearly average % growth: and morbidity	mortality	-1.59	16

On both counts, Canadians are better off. Their ability to cope with health problems has increased more, and their suffering death and disease has decreased more than the respective American ability and suffering.

Finally, if one compares expenditures as costs or inputs with the other data, the result is as follows:

	CANADA	<u>USA</u>
Yearly average % growth:		
expenditures	3.09	2.85

Canadian payments for health and nutrition have increased more rapidly on a yearly average basis than American payments.

All things considered, I still think the simple scoring strategy leading to Table E is the most lucid and informative way to look at these social indicators collectively. What it tells us is that on a per household or per 100,000 household basis, so far as the quality of life in Canada and the USA is a function of mortality, morbidity and health care generally, the quality is higher, better, superior, etc. in Canada.

EXPECTATION OF LIFE AT BIRTH*

	MALE		FEMA	ALE
	CANADA	USA	CANADA	USA
1966	68.8	66.7	75.2	73.8
1971	69.3	67.4	76.4	74.8
% CHANGE	0.7	1.0	1.5	1.3

Sources: Statistical Abstract of the United States 1971, p.53, T69;

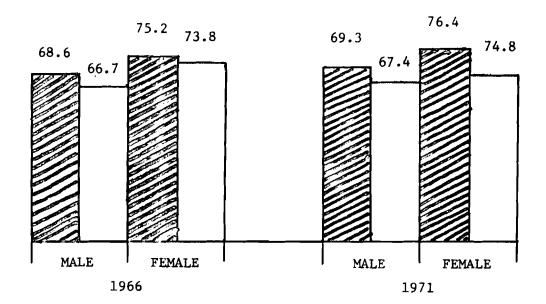
1973, p.57, T78; 1974, p.58, T80;

Canada Year Book 1973, p.230, T5.50;

Life Tables, Canada and Provinces 1970-1972, p.13.

^{*} Canadian Figures are for the three-year periods 1965-1967 and 1970-1972.

EXPECTATION OF LIFE AT BIRTH



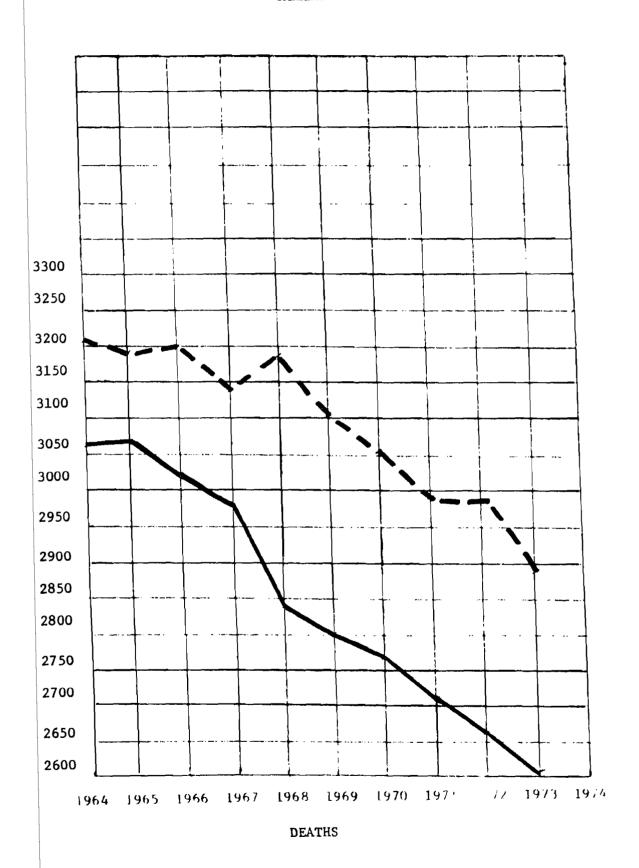


DEATHS

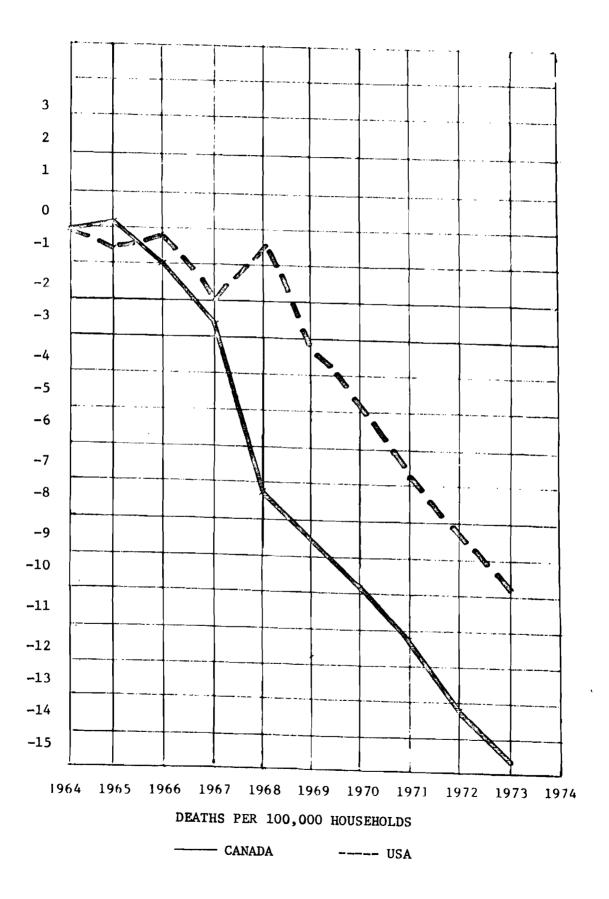
	RATE PER 100,	000 HOUSEHOLDS	% CHANGE O	VER 1964
	CANADA	USA	CANADA	USA
1964	3066.0	3210.9	0	0
1965	3069.0	3192.9	0.1	-0.5
1966	3034.8	3206.9	-1.0	-0.1
1967	2985.3	314 5. 5	-2.6	-2.0
1968	2840.1	3193.0	-7.3	-0.5
1969	2801.5	3109.7	-11.8	-3.1
19 70	2762.3	3055.3	-9.9	-4.8
1971	2721.4	2994.9	-11.2	-6.7
1972	2659.0	2942.5	-13.2	-8.3
1973	2617.9	2896.6	-14.6	-9.7
1974				
	RATE PER 100,00	O INHABITANTS	% CHANGE O	VER 1964
	CANADA	USA	CANADA	USA
1964	756.0	936.9	0	0
1965	758.3	940.8	0.3	0.4
1966	748.5	947.8	-0.9	1.1
1967	736.3	931.5	-2.6	-0.5
1968	738 .6	961.5	-2.3	2.6
1969	733.5	948.3	-2.9	1.2
1970	729.4	937.6	-3. 5	0.1
1971	729.1	931.1	- 3.5	-0.6
1972	743.9	939.4	-1.6	0.2
T217	743.7	333.4	0	
1972	742.5	942.1	-1.7	0.5

RATE PER 100,000 HOUSEHOLDS

CANADA ---- USA



PERCENT CHANGE OVER 1964

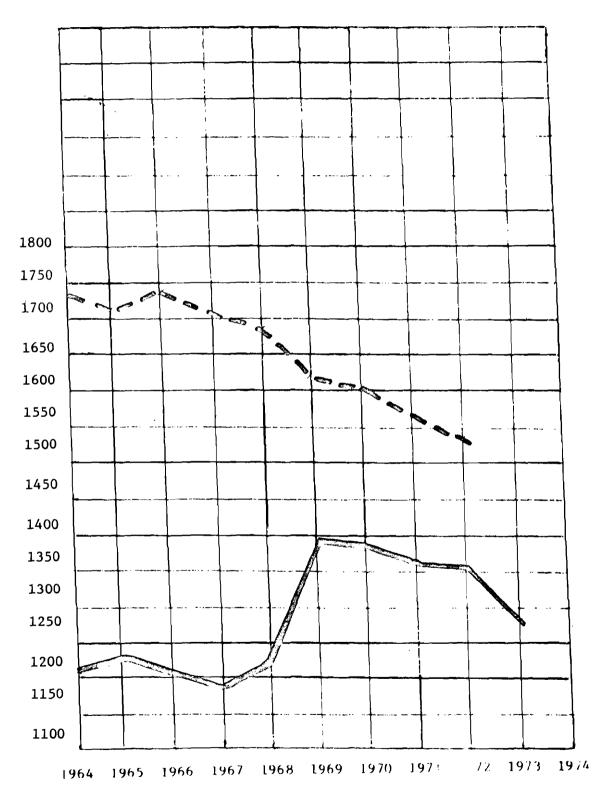


DEATH BY MAJOR CARDIOVASCULAR DISEASE

	RATE PER 100,000 HOUSEHOLDS		S % CHANGE OVER	
	CANADA	USA	CANADA	USA
1964	1215.0	1737.9	0	0
1965	1234.6	1729.5	1.6	-0.4
1966	1207.7	1740.0	-0.6	0.1
1967	1191.3	1702.9	-1.9	-2.0
1968	1132.4	1693.1	-6.7	-2.5
1969	1390.9	1632.5	14.4	-0.0
197 0	1370.5	1604.8	12.7	- 7.6
1971	1345.4	1565.8	10.7	-9. 9
1972	1306.1	1542.6	7.4	-1 1.2
1973	1282.0		5.5	
1974				

RATE PER 100,000 HOUSEHOLDS

CANADA ---- USA



DEATH BY MAJOR CARDIOVASCULAR DISEASE

DEATH BY MALIGNANT NEOPLASMS*

	TOTAL	NUMBER
	CANADA	USA
1964	25637	289577
1965	26050	297588
1966	26848	303736
1967	28007	310983
1968	28615	318547
1969	29627	323330 ^e
1970	30762	330730
1971	31036	332730 ^e
1972	32265	346930 ^e
1973	33069	
1974		

RA'	re per 100,000	O INHABITANTS	% CHANGE OVER 1964	<u>4</u>
	CANADA	USA	CANAD A	USA
1964	133.3	151.3	0	0
1965	133.1	153.5	-0.2	1.4
1966	134.1	155.1	0.6	2.5
1967	137.3	157.2	3.0	3.8
1968	137.9	159.4	3.4	5.3
1969	140.7	160.0	5.5	5.7
1970	143.8	162.8	7.8	7.6
1971	143.9	163.2	7.9	7.8
1972	147.8	166.6	10.8	9.1
1973	149.7		12.3	
1974				

^{*} Includes neoplasms of lymphatic and haematopoietic tissue

Sources: For US see "Death by Major Cardiovascular Disease" table.

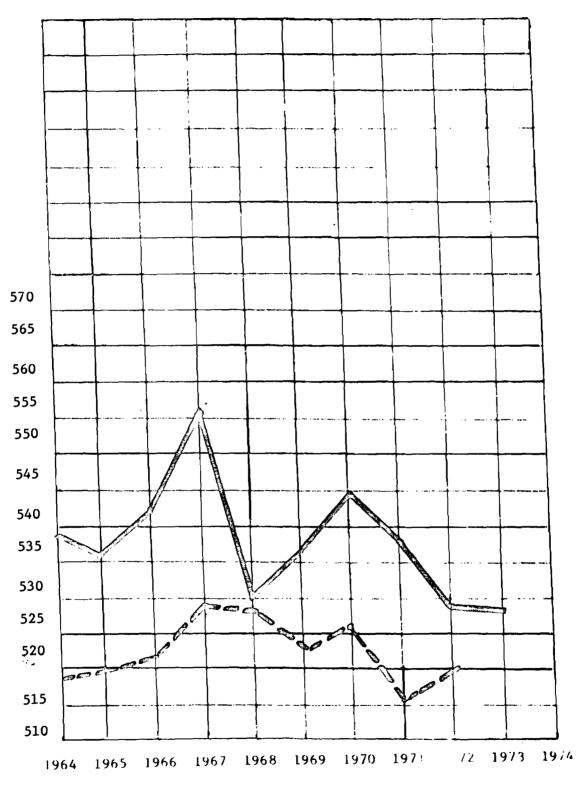
<u>Canada Year Book 1968</u>, p. 269, T18; <u>1969</u> p. 244, T17; <u>1970-71</u> p. 305, T17; <u>1972</u> p. 262-63, T21; <u>1973</u> p. 225, T5.44

DEATH BY MALIGNANT NEOPLASMS

	RATE PER 100,000 HOUSEHOLDS		% CHANGE OVER 196	
	CANADA	USA	CANADA	USA
1964	538.9	517.1	0	0
1965	536.7	519.7	-0.4	0.5
1966	543.7	522.8	0.8	1.1
1967	556.3	528.4	3.2	2.1
1968	530.4	527.0	-1.5	1.9
1969	537.3	523.1	-0.2	1.1
1970	544.8	526.0	1.0	1.7
1971	537.0	516.8	-0.3	-0.1
1972	528.2	520.3	-1.9	0.6
1973	527.7		-2.0	
1974				

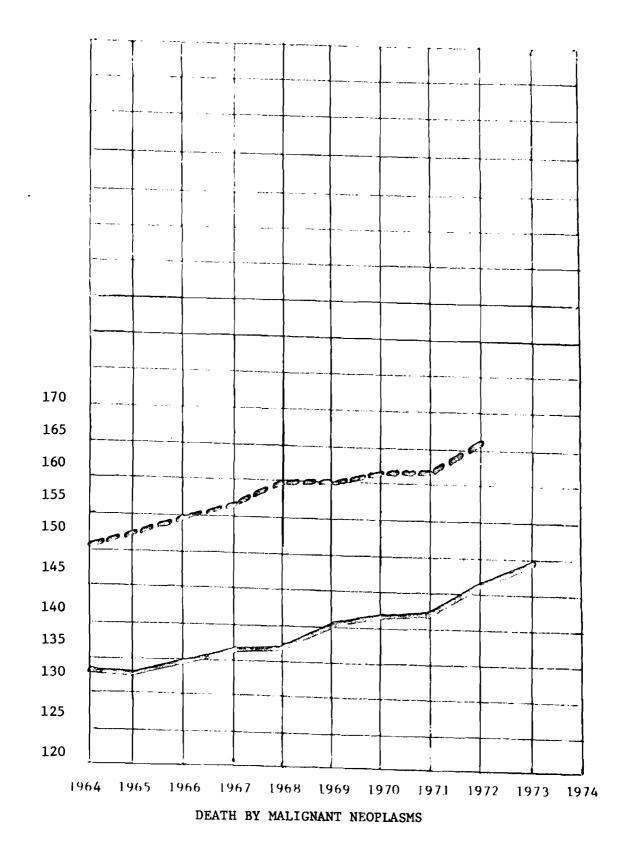
RATE PER 100,000 HOUSEHOLDS

CANADA ---- USA



DEATH BY MALIGNANT NEOPLASMS

---- USA



DEATH BY ALL OTHER ACCIDENTS

TOTAL NUMBER

	CANADA	USA
1964	5702	56913
1965	5929	58841
1966	6064	60522
1967	6074	60245
1968	6005	60002
1969	5995	58980 ^e
1970	6066	60005
1971	6341	58490
1972	6517	57080 ^e
1973	664 5	
1974		

	RATE PER 100,000	INHABITANTS	% CHANGE OVE	R 1964
	CANADA	USA	CANADA	USA
1964	29.6	29.7	0	0
1965	30.3	30.4	2.3	2.3
1966	30.3	30.9	2.3	4.0
1967	29.8	30.4	0.6	2.3
1968	28.9	30.0	-2.3	1.0
1969	28.5	30.0	-3.7	1.0
1970	28.3	29.5	-4.3	-0.6
1971	29.4	28.6	-0.6	-3.7
1972	29.8	27.4	0.6	-7.7
1973	30.0		1.3	
1974				

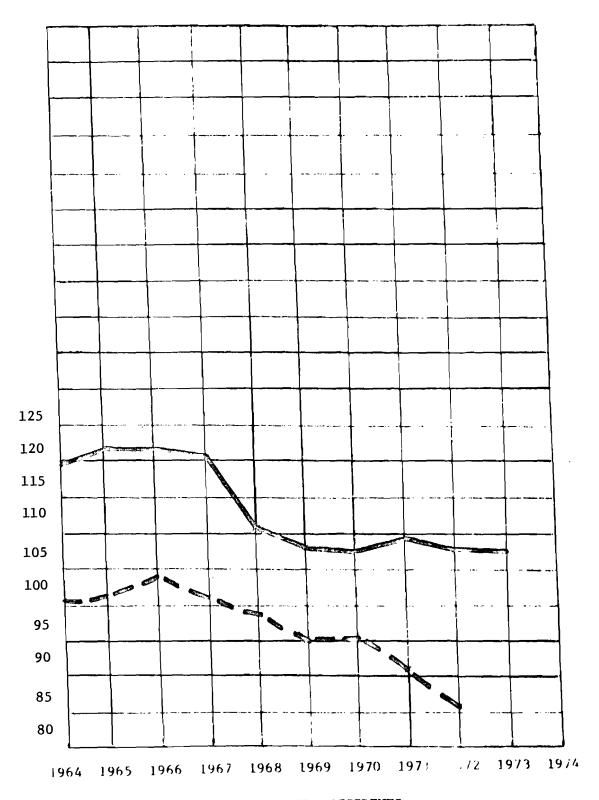
Sources: For US see "Death by Major Cardiovascular Disease" table;
For Canada see "Death by Malignant Neoplasms" table.

DEATHS BY ALL OTHER ACCIDENTS

	RATE PER 100,0	000 HOUSEHOLDS	% CHANGE OVE	R 1964
	CANADA	USA	CANADA	USA
1964	119.8	101.6	0	0
1965	122.1	102.7	1.9	1.0
1966	122.8	104.1	2.5	2.4
1967	120.6	102.3	0.6	0.6
1968	111.3	99.2	-7.0	2.3
1969	108.7	95.4	-9. 2	6.1
1970	107.4	95.4	-10.3	6.1
1971	109.7	90.8	-8.4	10.6
1972	106.6	85.6	11.0	15.7
1973	106.0		11.5	
1974				

RATE PER 100,000 HOUSEHOLDS

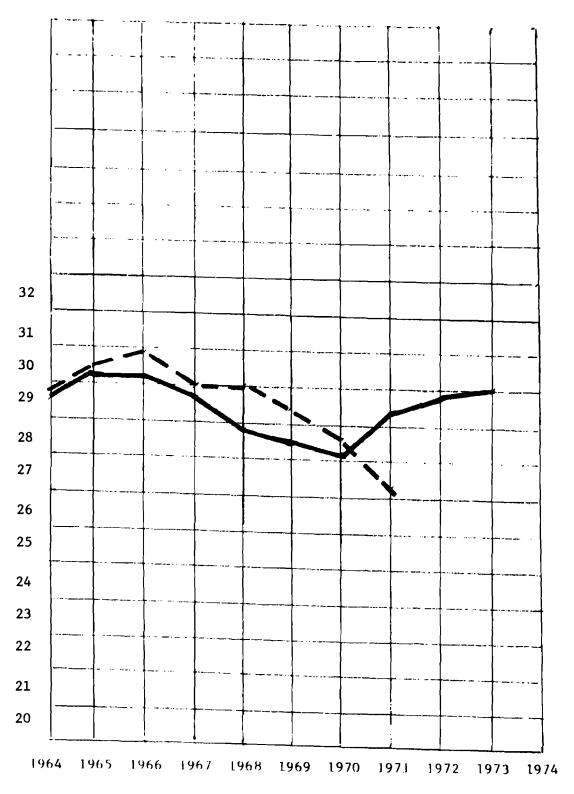
CANADA ---- USA



DEATH BY ALL OTHER ACCIDENTS

RATE PER 100,000 INHABITANTS

---- USA



DEATH BY ALL OTHER ACCIDENTS

DEATH BY INFLUENZA AND PNEUMONIA

	TOTAL	NUMBER
	CANADA	USA
1964	5262	59451
1965	5562	61903
1966	59 6 5	63615
1967	5215	56892
1968	6218	73492
1969	6176	70120 ^e
1970	6008	62739
1971	5504	56310 ^e
1972	5825	61160 ^e
1973	5607	
1974		

	RATE PER 100,00	OO INHABITANTS	% CHANGE OVER 1964
	CANADA	USA	CANADA USA
1964	27.4	31.1	0 . 0
1965	28.4	31.9	3.6 2.5
1966	29.8	32.5	8.7 4.5
1967	25.6	29.9	-6.5 -3.8
1968	30.0	36.8	9.4 18.3
1969	29.3	33.9	6.9 9.0
1970	28.1	30.9	2.5 -0.6
1971	25.6	27.7	-6.5 -10. 9
1972	26.6	29.4	-2.9 5.4
1973	25.3		-7.6
1974			

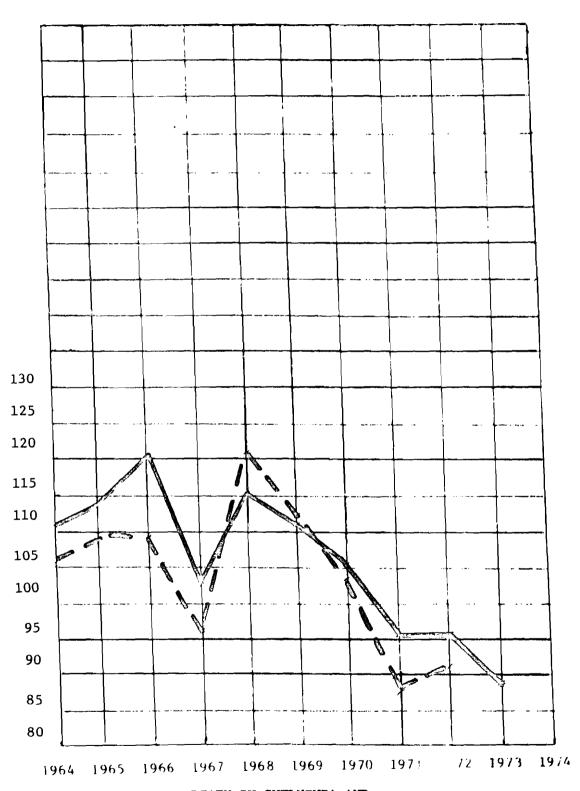
Sources: For U.S. see "Death by Major Cardiovascular Disease" table;
For Canada see "Death by Malignant Neoplasms" table.

DEATH BY INFLUENZA AND PNEUMONIA

	RATE PER 100,000 HOUSEHOLDS		% CHANGE OVER 1964	
	CANADA	USA	CANADA	USA
1964	110.6	106.1	0	0
1965	114.6	108.1	3.6	1.8
1966	120.7	109.5	9.1	3.2
1967	103.5	96.6	-6.4	-8.9
1968	115.2	1 21. 5	4.1	14.5
1969	112.0	113.4	1.2	6.8
1970	106.4	99.7	-3.7	-6.0
1971	95.2	87.4	-13.9	-17.6
1972	95.3	91.7	-13.8	- 13.5
1973	89.4		-19.1	
1974				

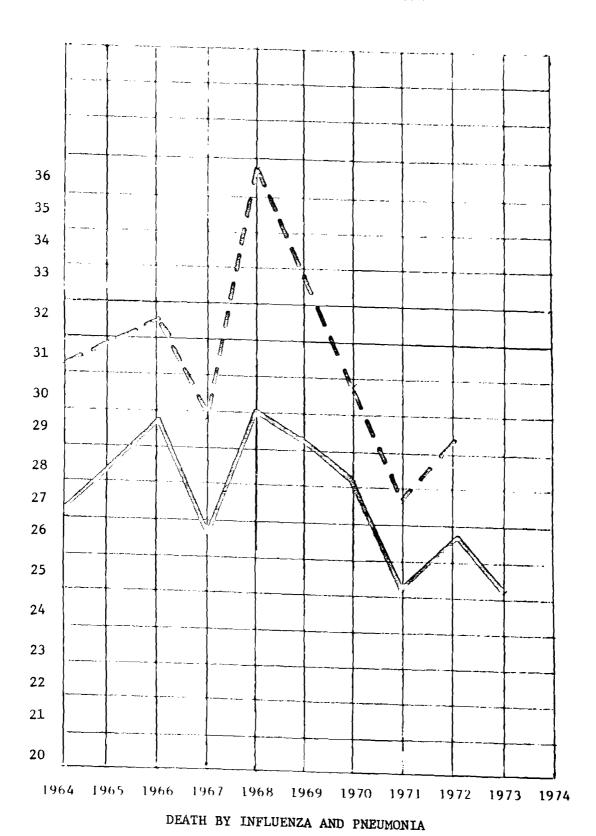
RATE PER 100,000 HOUSEHOLDS

---- CANADA ---- USA



DEATH BY INFLUENZA AND PNEUMONIA

---- CANADA ---- USA



27

DEATH BY MOTOR VEHICLE ACCIDENTS

TOTAL NUMBER

	CANADA	USA
1964	4862	46930
1965	5049	49163
1966	5410	53041
1967	5522	52924
1968	5488	54862
1969	5696	54170 ^e
1970	5312	54633
1971	5 69 0	52660 ^e
1972	6308	56590 ^e
1973	6522	
1974		

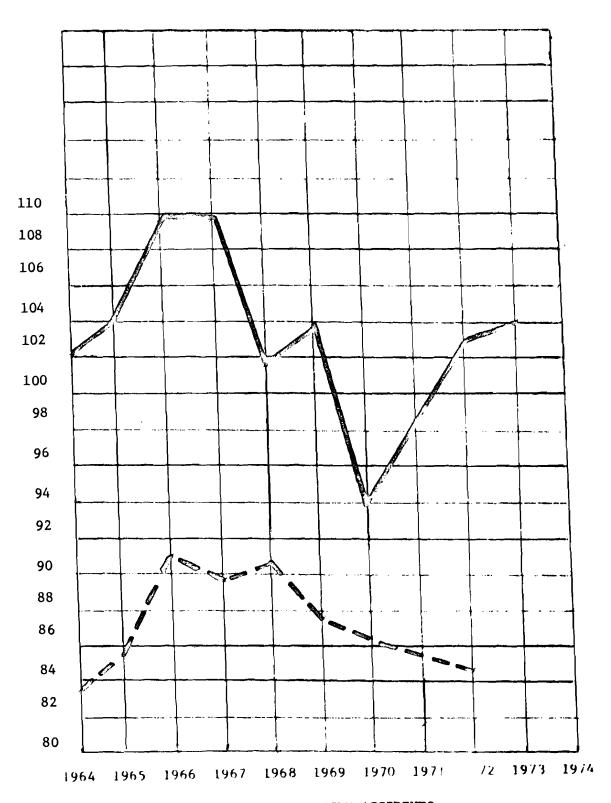
	RATE PER 100,000 INHABITANTS		% CHANGE OVER 1964	
	CANADA	USA	CANADA	USA
1964	25.3	24.5	0.	0
1965	25.8	25.4	1.9	3 .6
1966	27.0	27.1	6.7	10.6
1967	27.1	26.7	7.1	8.9
1968	26.5	27.5	4.7.	12.2
1969	27.0	27.6	6.7	12.6
1970	24.8	26.9	1.9	9.7
1971	26.4	26.3	4.3	7.3
1972	28.8	27.2	13.8	11.0
1973	29.5		16.6	
1974				

Sources: For US see "Death by Major Cardiovascular Disease" table;
For Canada see "Death by Malignant Neoplasms" table.

DEATH BY MOTOR VEHICLE ACCIDENTS

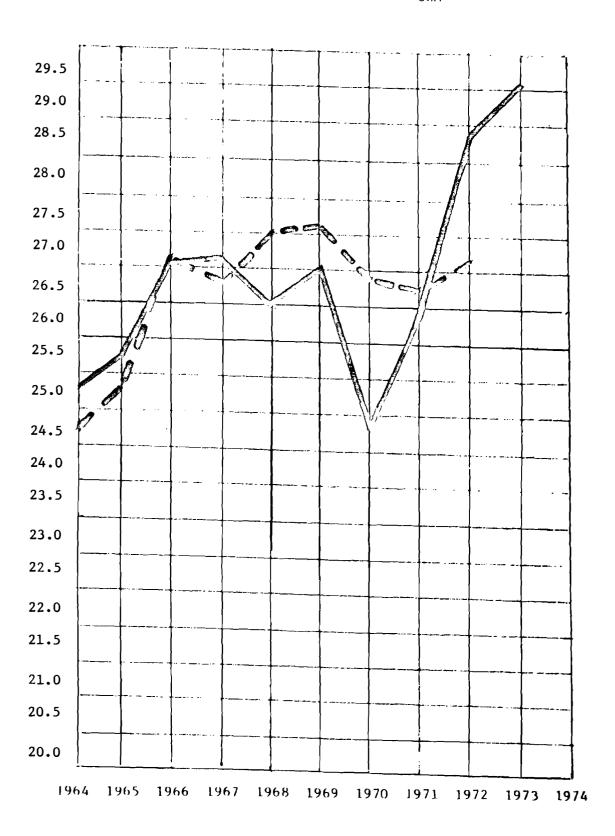
	RATE PER 100,000 HOUSEHOLDS		% CHANGE OVER 1964	
	CANADA	USA	CANADA	USA
1964	102.2	83.8	0	0
1965	104.0	85.8	1.7	2.3
1966	109.5	91.3	7.1	8.9
1967	109.6	89.9	7.2	7.2
1968	101.7	90.7	-0.4	8.2
1969	103.3	87.6	1.0	4.5
1970	94.0	86.8	-8.0	3.5
1971	98.4	81.8	-3.7	-2.3
1972	103.2	84.8	0.9	1.1
1973	104.0		1.7	
1974				

CANADA ---- USA



DEATH BY MOTOR VEHICLE ACCIDENTS

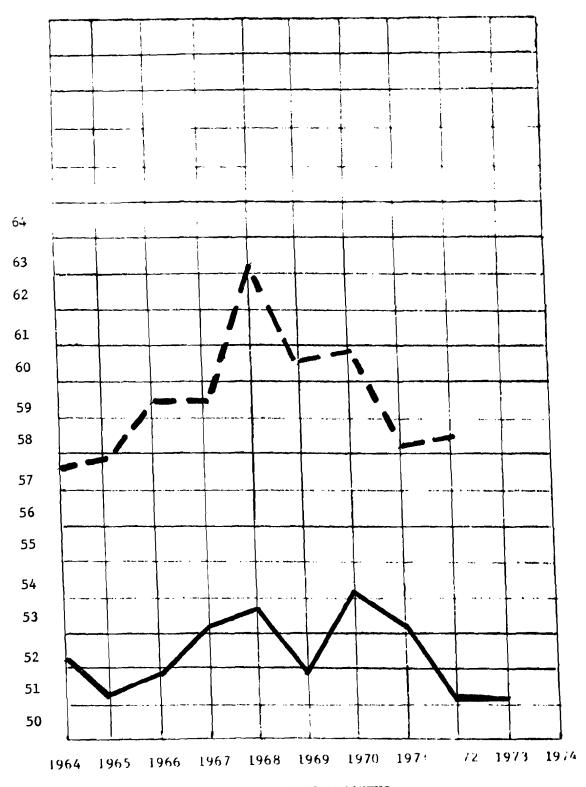
RATE PER 100,000 INHABITANTS CANADA ---- USA



DEATH BY MOTOR VEHICLE ACCIDENTS

DEATH BY DIABETES MELLITUS

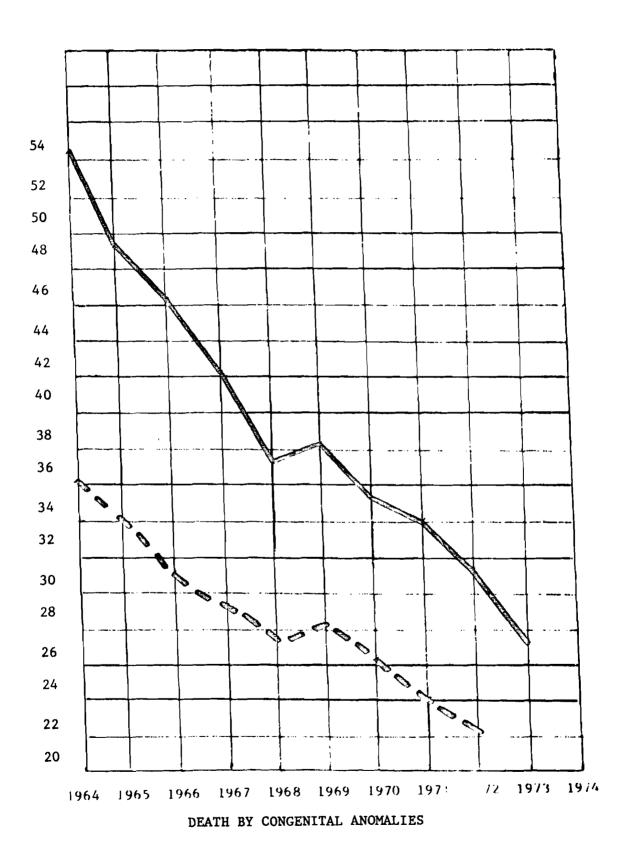
	RATE PER 100,000 HOUSEHOLDS		Z CHANGE OVER 1964	
	CANADA	USA	CANADA	USA
1964	52.3	57.6	0	0
1965	51.4	57.9	-1.7	0.5
1966	51.9	59.5	-0.7	3.2
1967	53.3	59.5	1.9	3.2
1968	53.7	63.4	2.6	10.0
1969	51.9	60.5	-0.7	5.0
1970	54.2	60.9	3.6	5.7
1971	53.1	58.4	1.5	1.3
1972	51.2	58.5	-2.1	1.5
1973	52.2		-0.2	
1974				



DEATH BY DIABETES MELLITUS

DEATH BY CONGENITAL ANOMALIES

	RATE PER 100,000 HOUSEHOLDS		% CHANGE OVER	1964
	CANADA	USA	CANADA	USA
1964	54.4	36.2	0	0
19 6 5	49.2	34.0	- 9.5	-6.0
1966	46.6	31.2	-14.3	-13.8
1967	42.2	29.4	-22.4	-18.7
1968	37.4	2 7. 7	-31.2	-23.4
1969	38.7	28.4	-28.8	-21.5
1970	35.7	26.7	-34.3	-26.2
1971	34.0	24.0	-37.5	-33.7
1972	31.5	22.5	-42.0	-37.8
1973	27.2		-50.0	
1974				



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DEATH BY SUICIDE

TO	TAL	NUME	BER

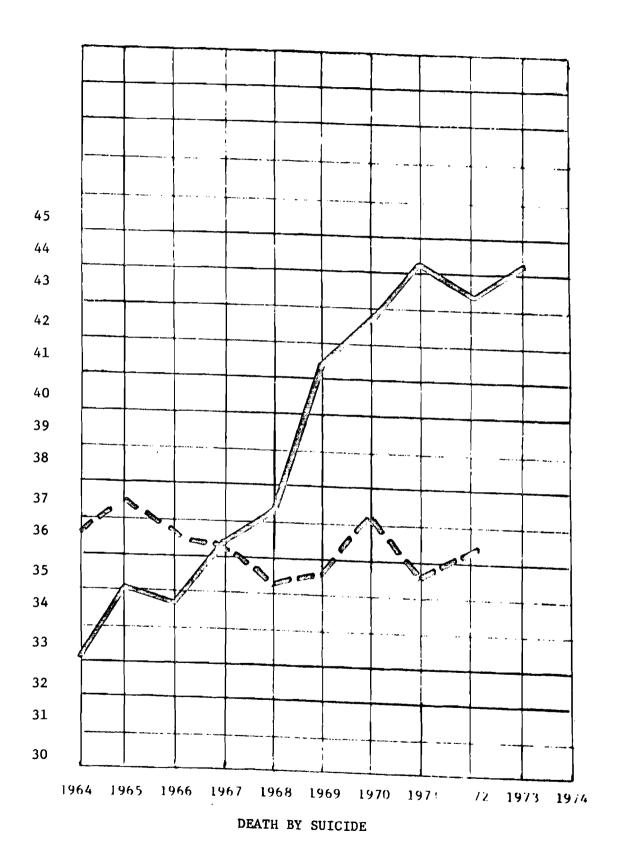
	CANADA	USA
1964	1586	20588
1965	1715	21507
1966	1715	21281
1967	1841	21325
1968	2021	21372
1969	2291	22060 ^e
1970	2413	23480
1971	2559	22980 ^e
1972	2657	24280 ^e
1973	2773	
1974		

	RATE PER 100,00	O INHABITANTS	% CHANGE OVE	R 1964
	CANADA	USA	CANADA	USA
1964	8.2	10.8	0	0
1965	8.8	11.1	7.3	2.7
1966	8.6.	10.9	4.8	0.9
1967	9.0	10.8	9.7	0.0
1968	9.7	10.7	18.2	-0.9
1969	10.9	11.1	3 2.9	2.7
1970	11.2	11.6	36.5	7.4
1971	11.9	11.7	45.1	8.3
1972	12.1	11.7	47.5	8.3
1973	12.5		52.4	
1974				

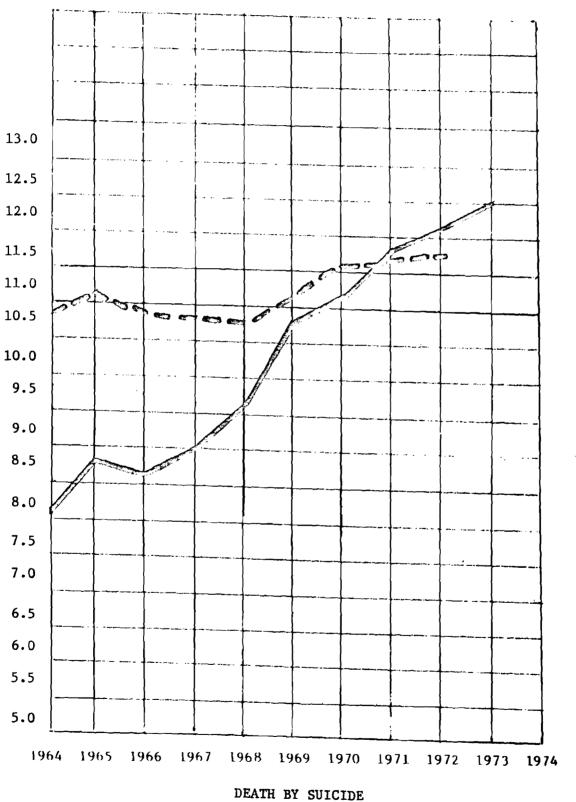
Sources: For US see "Death by Major Cardiovascular Disease" table; For Canada see "Death by Malignant Neoplasms" table.

DEATH BY SUICIDE

	RATE PER 100,0	000 HOUSEHOLDS	% CHANGE OV	ER 1964
	CANADA	USA	CANADA	USA
1964	33.3	36.7	0	0
1965	35.3	37.5	6.0	2.1
1966	34.7	36.6	4.2	-0.2
1967	36.5	36.2	9.6	-1.3
1968	37.4	35.3	12.3	-3.8
1969	41.5	35.6	24.6	-2.9
1970	42.7	37.3	28.2	1.6
1971	44.2	35.6	32.7	-2.9
1972	43.5	36.4	30.6	-0.8
1973	44.2		32.7	
1974	•			

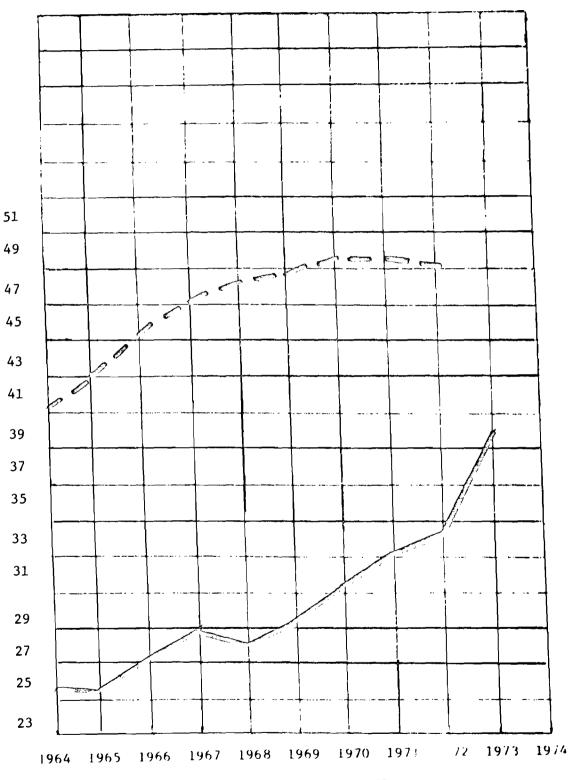


RATE PER 100,000 INHABITANTS

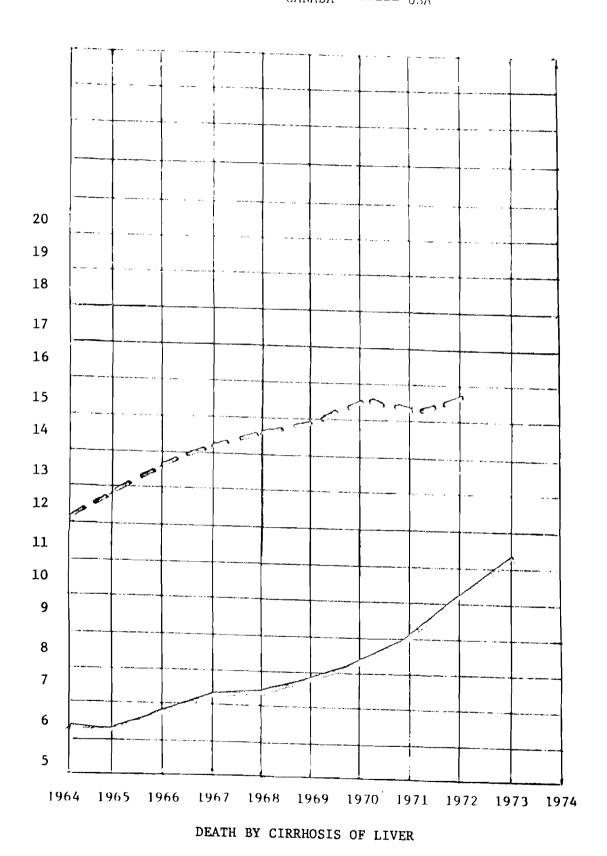


DEATH BY CIRRHOSIS OF LIVER

	RATE PER 100,000) HOUSEHOLDS	% CHANGE OV	ER 1964
	CANADA	USA	CANADA	USA
1964	25.8	41.3	0	0
1965	25.7	43.1	-0.3	4.3
1966	27.2	45.9	5.4	11.1
1967	29 .0	47.2	12.4	14.2
1968	28.1	48.2	8.9	16.7
1969	29.8	48.8	15. 5	18.1
1970	31.8	49.9	23.2	20.8
1971	33.5	49.8	29.8	20.5
1972	36.6	49.1	41.8	18.8
1973	40.0		55.0	
1974				



DEATH BY CIRRHOSIS OF LIVER



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INFANT DEATHS

TOTAL NUMBER

	CANADA	USA
1964	11169	100000
1965	9862	93000
1966	8960	86000
1967	8151	79000
1968	7.583	76000
1969	7149	75000
1970 .	7001	75000
1971	6356	68000 ^p
1972	5938	60000 ^p
1973	5339	55000 ^p
1974		

RATE	PER	1000	LIVE	BIRTHS

•	CANADA	USA
1964	24.7	24.8
1965	23.6	24.7
196 6	23.1	23.7
1967	22.0	22.4
1968	20.8	21.8
1969	19.3	20.7
1970	18.8	20.0
1971	17.5	19.2 ^p
1972	17.1	18.5 ^p
1973	15.5	17.6 ^p
1974		

p preliminary

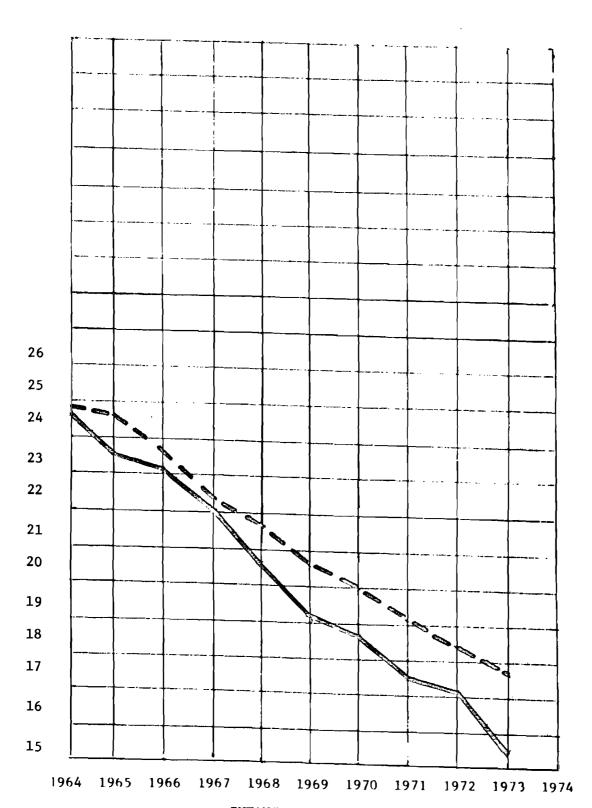
Sources: Statistical Abstract of the United States 1974, p. 51, T67;

Canada Year Book 1968, p. 251, T1; 1972, p. 242, T1; 1973, p. 226, T 5.46;

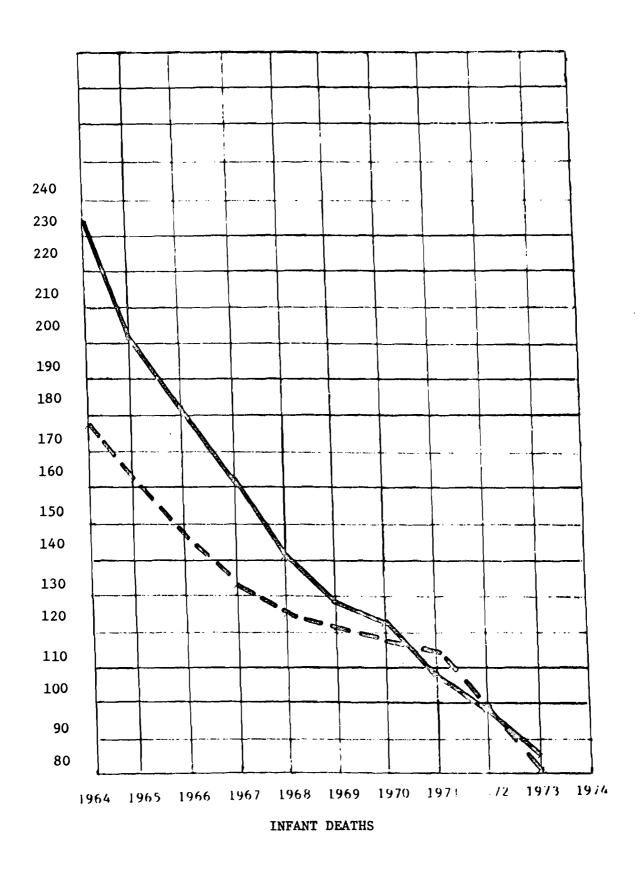
Vital Statistics 1970, p. 7, T3

INFANT DEATHS

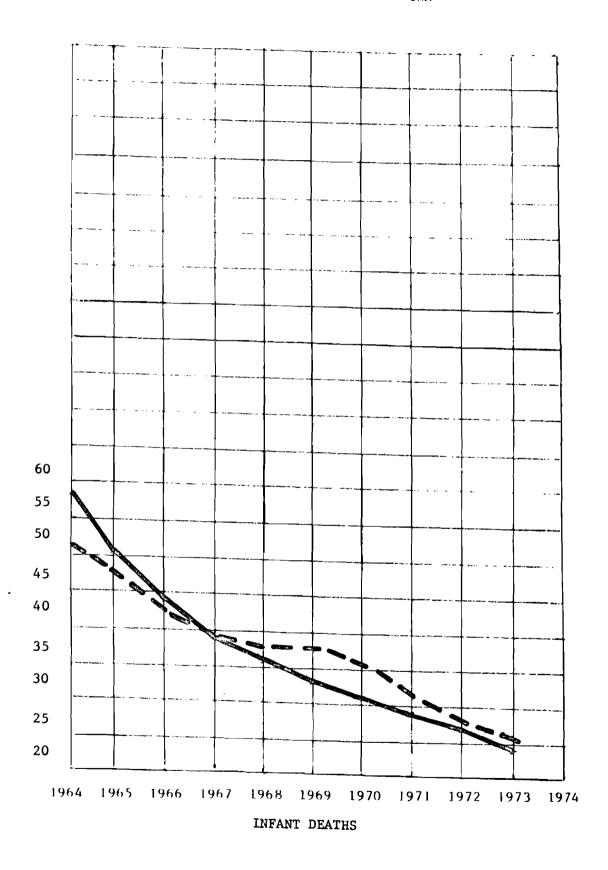
	RATE PER 100,	000 HOUSEHOLDS	% CHANGE OVER	1964
	CANADA	USA	CANADA	USA
1964	234.7	178.5	0	0
1965	203.2	162.4	-13.4	-9.0
1966	181.4	148.0	-22.7	-17.0
1967	161.9	134.2	-31 .0	-24.8
1968	140.5	125.7	-40. 1	-29.5
19 69	129.6	121.3	-44.7	-32.0
1970	123.9	119.2	-47.2	-33.2
1971	109.9	105.6	-53.1	-40.8
1972	97.2	89.9	-58 .5	-49.6
1973	85.2	80.5	-63.6	-50.4
1974				
	RATE PER 100	USA	% CHANGE OVER	1964 USA
1064				
1964	57.9	52.1	0	0
1965	50.2	47.8	-13.2	-8.2
1966	44.7	43.7	-22.7	-16.1
1967	39.9	39.7	-31.0	-23.8
1968	36.5	37.8	-36.9	-27.4
1969	33.9	37.0	-41.4	-28.9
1970	32.7	36.6	-43.5	-29.7
1971		32.8	-49.2	-37.0
1972		28.7	-53.0	-44.9
1973	24.1	26.2	-58.3	-49.7
1974				



INFANT DEATHS
RATE PER 1000 LIVE BIRTHS
----- USA



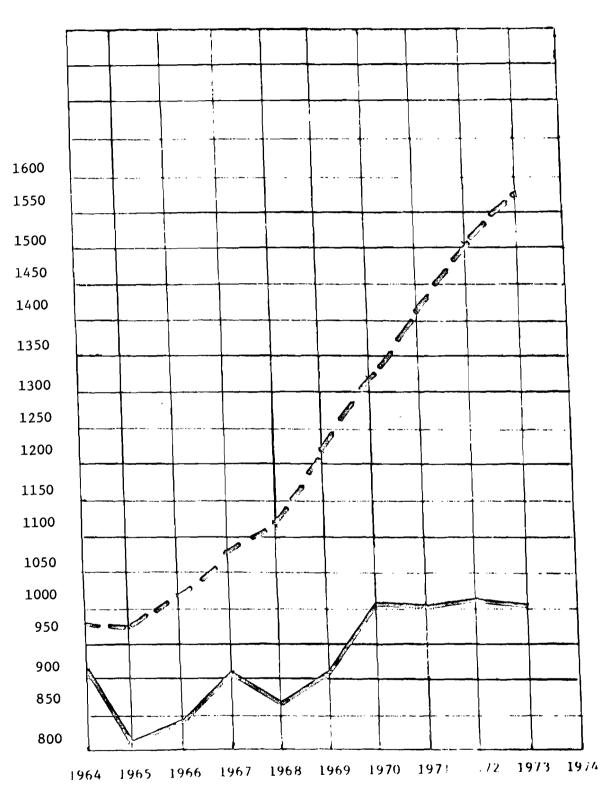
---- CANADA ---- USA



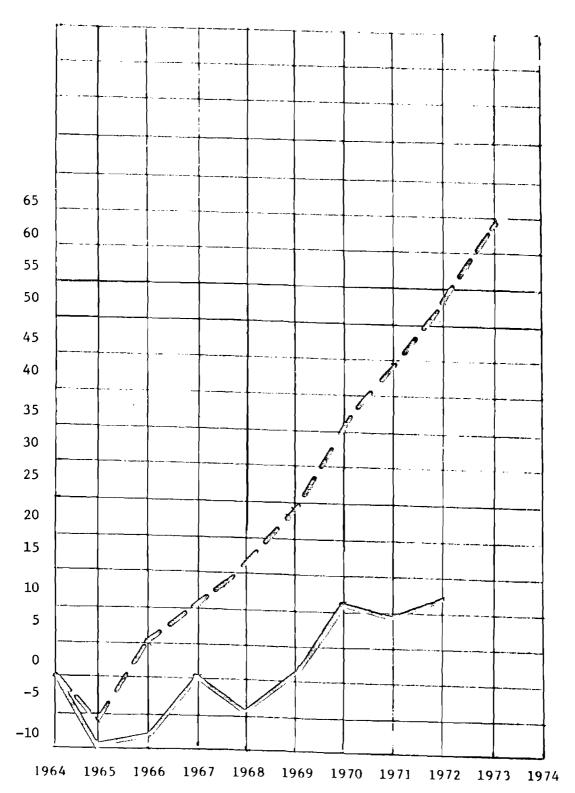
SELECTED REPORTABLE DISEASES*

	RATE PER 100,000 HOUSEHOLDS		% CHANGE	OVER 1964
	CANADA	USA	CANADA	SA
1964	917.4	979.8	0	0
1965	824.7	973.7	-10.1	-0.6
1966	846.1	1029.3	-7. 7	5.0
1967	918.8	1082.2	0.1	10.4
1968	871 .9	1139.9	-4.9	16.3
1969	920.7	1222.8	0.3	24.8
1970	1018.3	1329.4	10.9	35.6
1971	1005.9	1419.3	9.6	44.8
1972	1021.1	1503.6	11.3	53.4
1973	1009.0	15 67.6		59.9
1974				

^{*} Venereal disease, infectious hepatitus, tuberculosis, whooping cough, salmonella infections and bacillary dysentery.



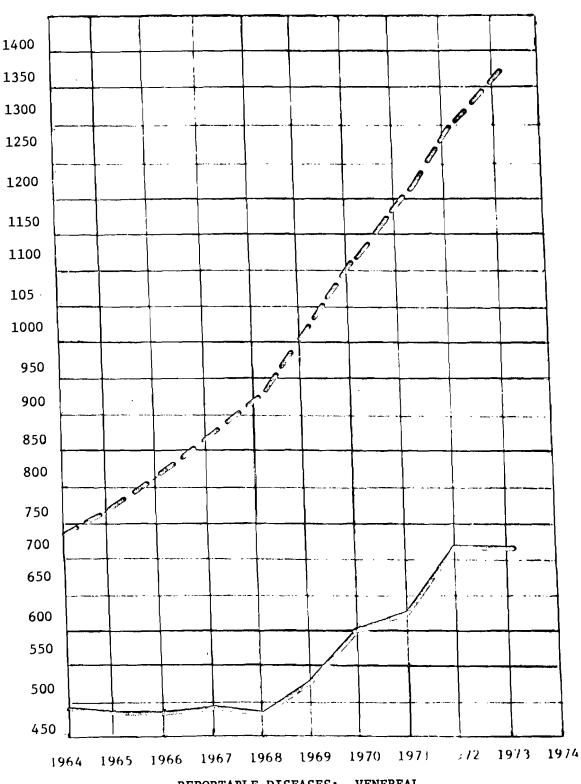
SELECTED REPORTABLE DISEASES



SELECTED REPORTABLE DISEASES RATE PER 100,000 HOUSEHOLDS

REPORTABLE DISEASES: VENEREAL DISEASES

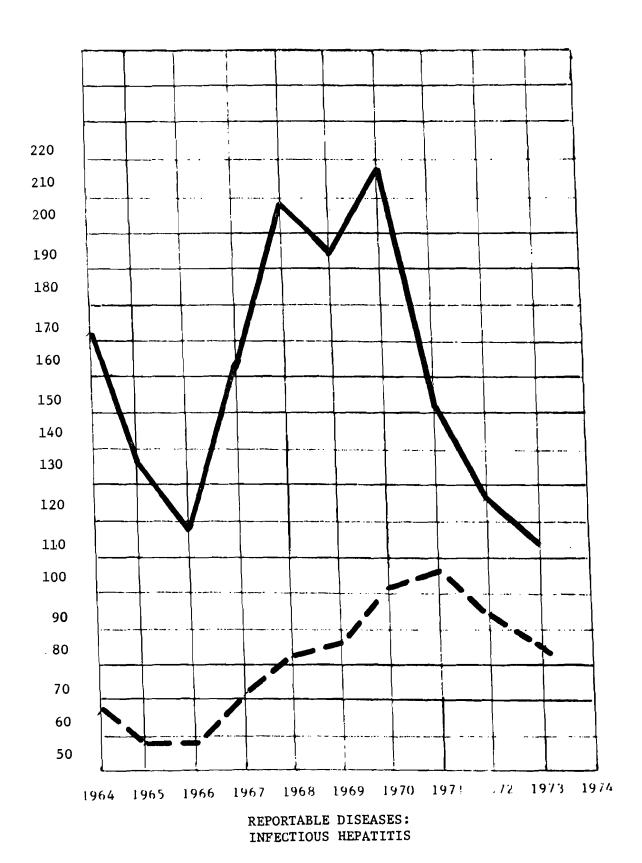
	RATE PER 100,000 HOUSEHOLDS		% CHANGE OVE	OVER 1964	
	CANADA	us	CANADA	us	
1964	491.9	744.8	0	0	
1965	474.2	768.1	-3.5	3.1	
1966	474.9	825.5	-3.4	10.8	
1967	490.5	864 5	-0.2	16.0	
196 8	458.9	930.2	-6.7	24.8	
19 6 9	536.1	1017.4	8.9	36.6	
1970	603.0	1103.1	22.5	48.1	
1971	638.4	1193.5	29.7	60.2	
1972	729.1	1290.7	48.2	73.2	
1973	723.4	1365.1	47.0	83.2	
1974					



REPORTABLE DISEASES: VENEREAL DISEASES

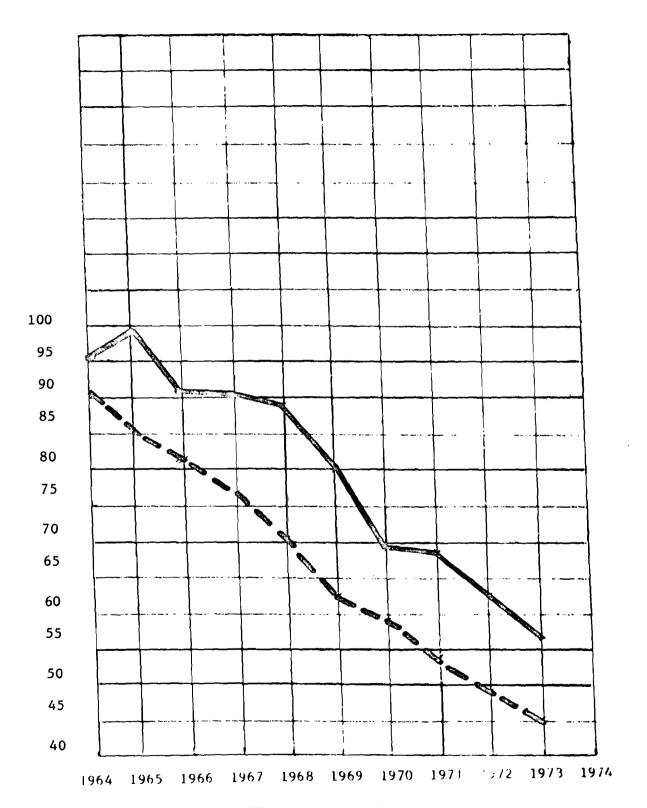
REPORTABLE DISEASES: INFECTIOUS HEPATITIS

	RATE PER 100,000 HOUSEHOLDS		% CHANGE OVER 1964	
	CANADA	USA	CANADA	USA
1964	172.7	67.3	0	0
1965	136.0	59.1	-21.2	-12.1
1966	119.1	59.1	-31.0	-12.1
1967	163.3	70.2	-5.4	4.3
19 6 8	207.6	83.9	20.2	24.6
1969	195.0	87.8	12.9	30.4
1970	217.7	103.5	26.0	53.7
1971	151.9	107.4	-12.0	59 .5
1972	127.8	95.2	-25.9	41.4
1973	114.2	86.7	-33.8	28.8
1974	•	٠		



REPORTABLE DISEASES: TUBERCULOSIS

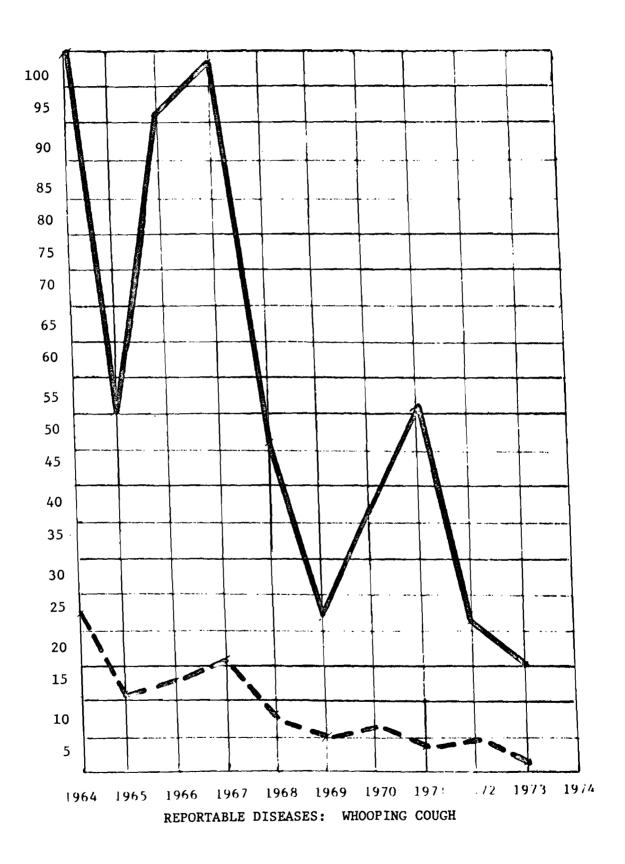
	RATE PER 100,000 HOUSEHOLDS		% CHANGE OV	ER 1964
	CANADA	USA	CANADA	USA
1964	95.4	90.8	0	0
1965	98.9	85 .6	3.6	-5.7
1966	91.4	82.2	-4.1	-9.4
1967	91.3	77.5	-4.2	-14.6
1968	89.4	70.5	-6.2	-22.3
1969	80.4	63.2	~16.1	-30.3
1970	69.4	59.0	-27.2	-35.0
1971	68.2	54.7	-28.5	-39.7
1972	63.9	49.3	-33.0	-45.7
1973	5 6. 8	45.4	-40.4	~50.0
1974				



REPORTABLE DISEASES: TUBERCULOSIS

REPORTABLE DISEASES: WHOOPING COUGH

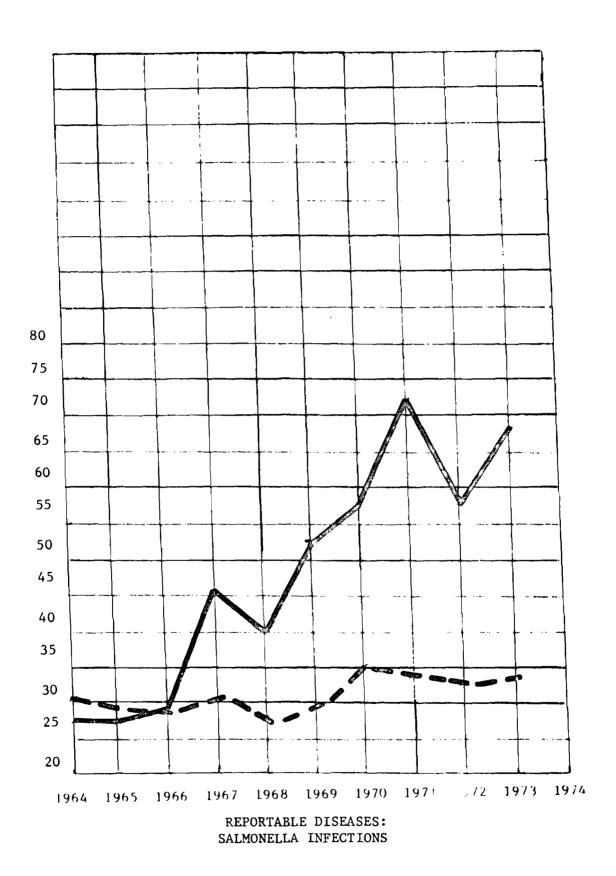
	RATE PER 100,000 HOUSEHOLDS		% CHANGE OVER 1964	
	CANADA	USA	CANADA	USA
1964	101.8	23.2	0	0
1965	50.9	11.8	-50.0	-49. 1
1966	92.2	13.2	-9.4	-43.1
1967	98.4	16.5	-3.3	-28.8
1968	46.4	7.9	-54 .4	-65.9
1969	22.5	5.3	-77.8	-77. 1
1970	37.1	6.7	-63.5	-71. 1
1971	51.9	4.7	-49.0	- 79.7
1972	21.2	4.9	-79.1	-78.8
1973	15.9	2.5	-84.3	-89.2
1974				



REPORTABLE DISEASES: SALMONELLA INFECTIONS

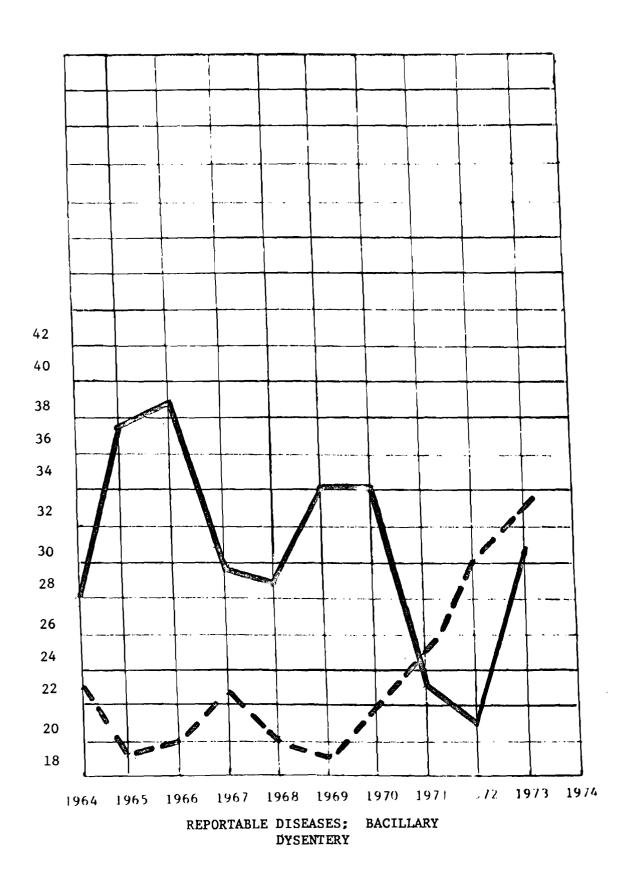
	RATE PER 100,000 HOUSEHOLDS		% CHANGE OVER 196	
	CANADA	USA	CANADA	U SA
1964	27.4	30 .6	0	0
1965	27.1	29.9	-1.0	-2.2
1966	29.6	28.9	8.0	-5.5
1967	45.7	30.7	66.7	0.3
1968	40.7	27.3	48.5	-10.7
1969	52 .7	29.8	92.3	-2.6
1970	57.1	35.1	108.3	14.7
1971	72.2	34.0	1 6 3. 5	11.1
1972	58.0	33.2	111.6	8.4
1973	68.0	34.8	148.1	13.7
1974				

____ CANADA --- USA



REPORTABLE DISEASES: BACILLARY DYSENTERY

	RATE PER 100,000 HOUSEHOLDS		% CHANGE OV	ER 1964
	CANADA	USA	CANADA	USA
1964	28.2	23.1	0	0
1965	37 .6	19.2	33.3	-16.8
1966	38.9	20.4	37 .9	-11.6
1967	29.6	22.8	4.9	-1.2
1968	28.9	20.1	2.4	-12.9
1969	34.0	19.3	20.5	-16.4
1970	34.0	22.0	20.5	-4.7
1971	23.3	25.0	-17.3	8.2
1972	21.1	30.3	-25. 1	31.1
1973	30.7	33.1	8.8	43.2
1974				



END OF YEAR RESIDENT PATIENTS IN PUBLIC MENTAL HOSPITALS

TOTAL NUMBER

	CANADA	USA
1964	43213	490449
1965	40542	475202
1966	37388	452089
1967	34428	426309
1968	32415	399152
1969	30103	366815
1970	28541	338592
1971	26889	308024
1972	25213	27 59 9 5
1973		248562
1974		

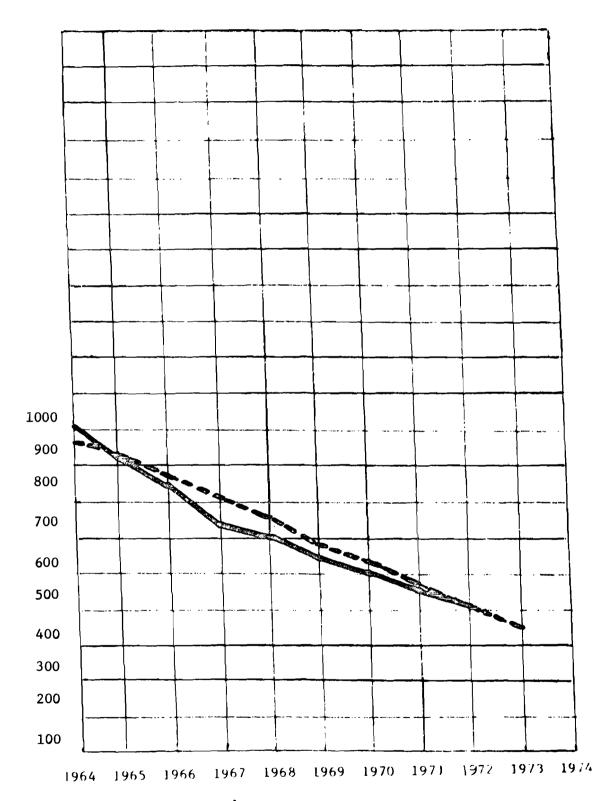
1974

	RATE PER 100,000 HOUSEHOLDS		% CHANGE OVER 196	
	CANADA	USA	CANADA	USA
1964	908.4	875.8	0	0
1965	835.4	830.0	-8.0	-5.2
1966	757.2	778.2	-16.6	-11.1
1967	683.9	724.4	-24.7	-17.2
1968	600.9	660.3	-33.8	-24.6
1969	545.9	593.5	-39.9	-32.2
1970.	505.5	538.5	-44.3	-38.5
1971	465.2	478.4	-48.7	-45.3
1972	412.7	413.9	-54.5	-52.7
1973		364.1		-58.4
1974				

Statistical Abstract of the United States 1967, p.79, T103; 1968, p.74, T99; 1971, p.74, T107; 1974, p.83, T130; Sources:

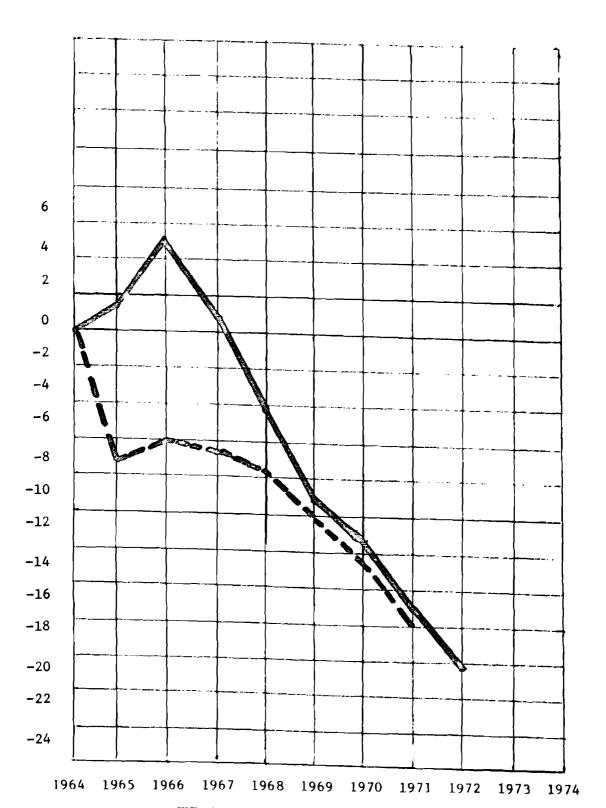
Social Indicators 1973, p.34, T1/13;

Statistics Canada, Hospital Section of the Health Division.



END OF YEAR RESIDENT PATIENTS IN PUBLIC MENTAL HOSPITALS

PERCENT CHANGE OVER 1964



END OF YEAR RESIDENT PATIENTS IN PUBLIC MENTAL HOSPITALS RATE PER 100,000 HOUSEHOLDS

---- USA

END OF YEAR RESIDENT PATIENTS IN PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED

TOTAL NUMBER

	CANADA	USA
1964	15132	199599
1965	15672	187273
1966	16438	192053
1967	16161	193188
196 8	15592	192520
1969	15036	189394
1970	14860	186743
1971	14399	180963
1972	13996	
1973		
1974		

RATE PER 100,000 HOUSEHOLDS		% CHANGE OV	ER 1964
CANADA	USA	CANADA	USA
318.0	356.4	0	0
322.9	327.1	1.5	-8.2
332.8	330.6	4.6	-7.2
321.0	328 .2	0.9	-7.9
289.0	318.5	-9.1	-10.6
272.6	306.4	-14.2	-14.0
263.1	297.0	-17.2	-16.6
249.1	281.1	-21.6	-21.1
229.1		-27.9	
	CANADA 318.0 322.9 332.8 321.0 289.0 272.6 263.1 249.1	CANADA USA 318.0 356.4 322.9 327.1 332.8 330.6 321.0 328.2 289.0 318.5 272.6 306.4 263.1 297.0 249.1 281.1	CANADA USA CANADA 318.0 356.4 0 322.9 327.1 1.5 332.8 330.6 4.6 321.0 328.2 0.9 289.0 318.5 -9.1 272.6 306.4 -14.2 263.1 297.0 -17.2 249.1 281.1 -21.6

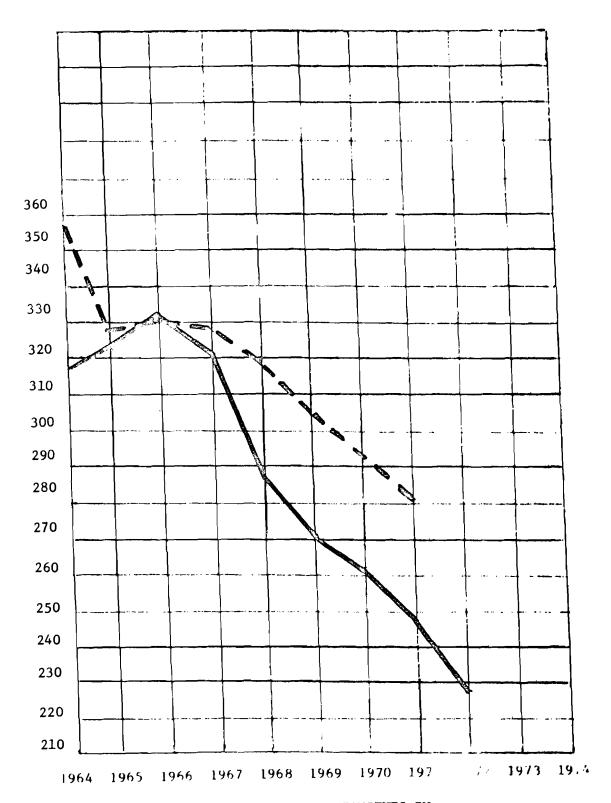
1974

Sources: Statistical Abstract of the United States 1967, p.79, T103; 1969, p.72, T97; 1971, p.73, T106; 1974, p.82, T129;

Mental Health Statistics, Vol. I 1964 to 1971, pp. 31-39, T1 in each volume.

Statistics Canada, Hospital Section of the Health Division

____ CANADA --- USA



END OF YEAR RESIDENT PATIENTS IN PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED

HOSPITAL OCCUPANCY RATES*

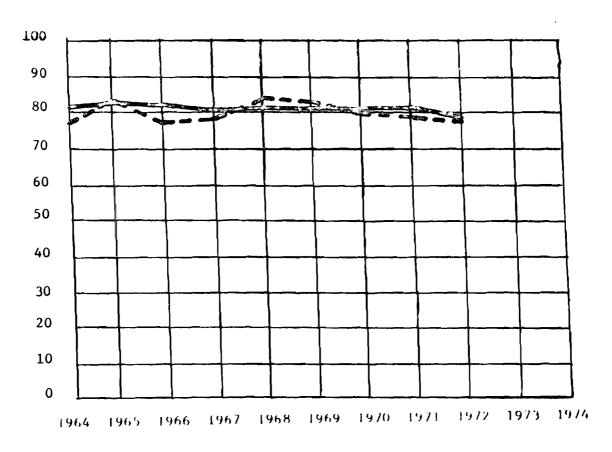
	PERCENT OCCUPIED		% CHANGE OVER 19	
	CANADA	USA	CANADA	USA
1964	81.1	77.2	0	0
1965	82.3	82.3	1.4	6.6
1966	81.4	77.1	0.3	-0.1
1967	80.2	78.1	-1.1	1.1
1968	81.2	82.9	0.1	7.3
1969	80.7	81.6	-0.7	5 .6
1970	80.9	80.3	-0.2	4.0
1971	81.3	79.5	0.2	2.9
1972	78.7	78.0	-2.9	1.0
1973				
1974				

Sources: Statistical Abstract of the United States 1974, p.77, T118;

American Hospital Association, Hospitals, 1964-1968

Hospital Statistics Vol. 1 - Hospital Beds 1972, p.47, T14;

^{*} Estimated percentage occupancy in short-term public general and allied special hospitals.



HOSPITAL OCCUPANCY RATES PERCENT OCCUPIED

---- USA

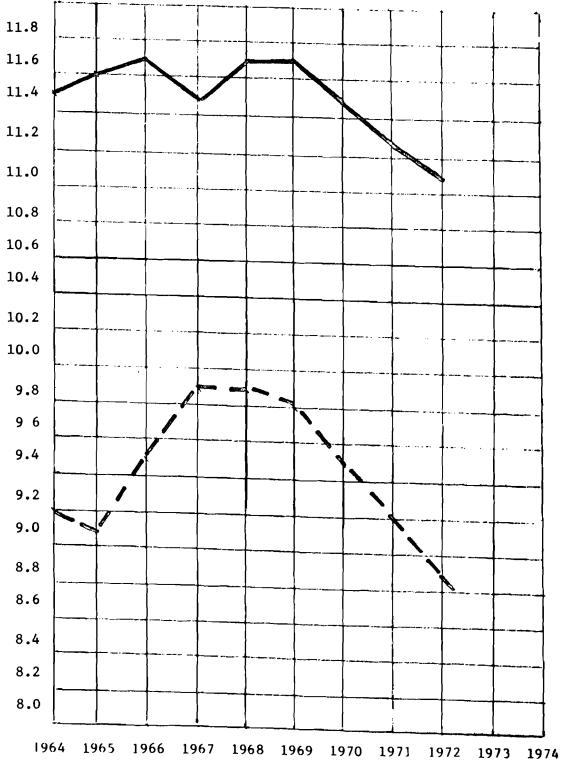
MEAN STAY OF SEPARATIONS IN HOSPITALS*

	NUMBER OF DAYS		% CHANGE OV	ER 1964
	CANADA	USA	CANADA	USA
1964	11.5	9.2	0	0
1965	11.6	9.1	0.8	-1.0
1966	11.7	9.5	1.7	3.2
1967	11.5	9.9	0.0	7.6
1968	11.7	9.9	1.7	7.6
1969	11.7	9.8	1.7	6.5
1970	11.5	9.5	0.0	3.2
1971	11.3	9.2	-1.7	0.0
1972	11.1	8.9	-3.4	-3.2
1973				
1974				

Sources: Statistical Abstract of the United States 1969, p.69, T92; 1971, p.70, T100; 1973, p.78, T115; 1974, p.80, T123;

Statistics Canada, Hospital Statistics Vol. I, Hospital Beds 1972, p.47, T14;

^{*} Short-term public general and allied special hospitals.



MEAN STAY OF SEPARATIONS IN HOSPITALS

---- USA

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PERSONS WHO SMOKE CIGARETTES REGULARLY*

	PERCENTAGE		% CHANGE OV	ER 1964
	CANADA (15 yrs and up)	USA (17 yrs and up)	CANADA	USA
1964	42.0	42.9 ^e	0	0
1965	42.8	41.6	1.9	3.0
1966	42.8	40.2+	1.9	6.2
1967	42.7	39.1	1.6	8.8
1968	42.0	37.7	0.0	12.1
1969	40.6	36.4 ^e	-3.3	15.1
1970	40.6	36.7	-3.3	14.4
1971				
1972	39.8		-5.2	
1973	40.0		-4.7	
1974				

^{*} usually smoke cigarettes every day

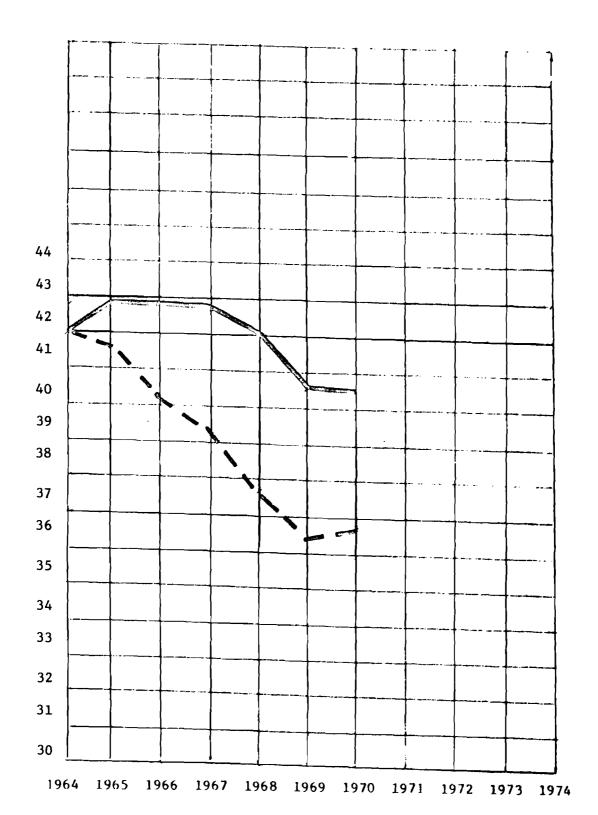
Sources: Department of National Health and Welfare, News Release, June 10, 1971, T1; Smoking Habits of Canadians 1973, T2c;

Statistical Abstract of the United States 1969, p.80, T111;

1971, p.79, T117; 1974, p.88, T141;

U.S. Vital and Health Statistics, Series 10, No. 59, 1970, p.5.

^{+ 18} Years and up e estimate



PERSONS WHO SMOKE CIGARETTES REGULARLY: PERCENTAGE

---- USA

WHAT IS YOUR OPINION -- DO YOU THINK CIGARETTE SMOKING IS ONE OF THE CAUSES OF LUNG CANCER OR NOT?

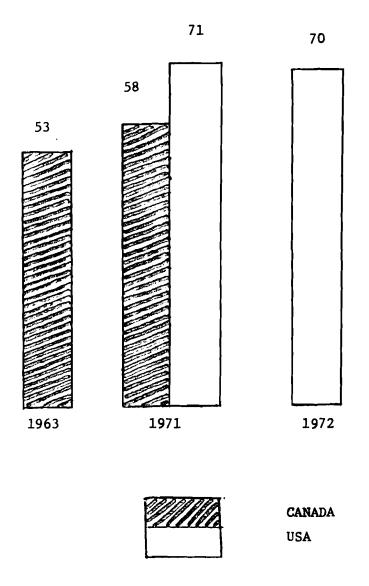
PERCENTS

	CANADA		บร	A
	YES	NO	YES	NO
1963	53	23		
1969			71	11
1971	58	24	71	16
1972			70	13

Sources: CIPO #303 June 1963; #348 July 1971;

Gallup Poll Index, July 1971, p. 23; July 1972, p. 13;

PERCENT THINKING CIGARETTE SMOKING IS ONE OF THE CAUSES OF LUNG CANCER



HAVE YOU, YOURSELF, SMOKED ANY CIGARETTES IN THE PAST WEEK?

Percents

	CANADA		USA	
	YES	NO	YES	NO
1963	54 c	46		
1963	49 c	52		
1964	50 c	50		
1969	45	55	40	60
1971			42	5 8
1972			43	57
1973			40	60
1974			40	60

Sources: CIPO #303 June 1963; #304 August 1963; #307 April 1964; Ledain Drug Study Dec. 1969;

Gallup Poll Index, July 1971, p. 22; Gallup Opinion Index, June 1974, p. 21;

c The CIPO question was: "in an average day do you smoke more than one packet of cigarettes, less than one packet, or don't you smoke at all?" Answers to "more" and "less" were added to form "yes" response.

ILLEGITIMATE LIVE BIRTHS

TOTAL NUMBER

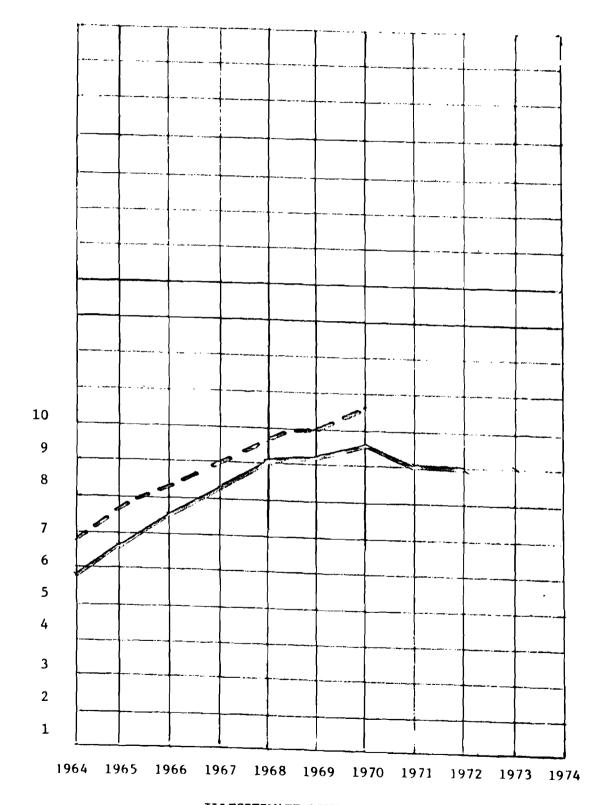
	CANADA	USA
1964	26556	275700
1965	28078	291200
1966	29391	302400
1967	30915	318100
1968	32629	339200
1969	34041	360800
1970	35588	398700
1971	32693	
1972	31257	
1973	31005	
1974		

	AS PERCENTAGE OF LIVE BIRTHS		% CHANGE OVE	R 1964
	CANADA	USA	CANADA	USA
1964	5.9	6.9	0	0
1965	6.7	7.7	13.5	11.5
1966	7.6	8.4	28.8	21.7
1967	8.3	9.0	40.6	30.4
1968	9.0	9.7	52 .5	40.5
1969	9.2	10.0	55.9	44.9
1970	9.6	10.7	62.7	55.0
1971	9.0		52.5	
1972	9.0		52.5	
1973	9.0		52.5	
1974				

Sources: Statistical Abstract of the United States 1968, p.51, T60; 1973, p.54, T70; 1974, p.56, T76;

Canada Year Book 1968, p.258, T5; 1973, p.221, T5.34;

Vital Statistics Vol. I, Births 1972, pp. 75-76, T11; 1973, pp. 67-68, T11;



ILLEGITIMATE LIVE BIRTHS AS PERCENTAGE OF LIVE BIRTHS

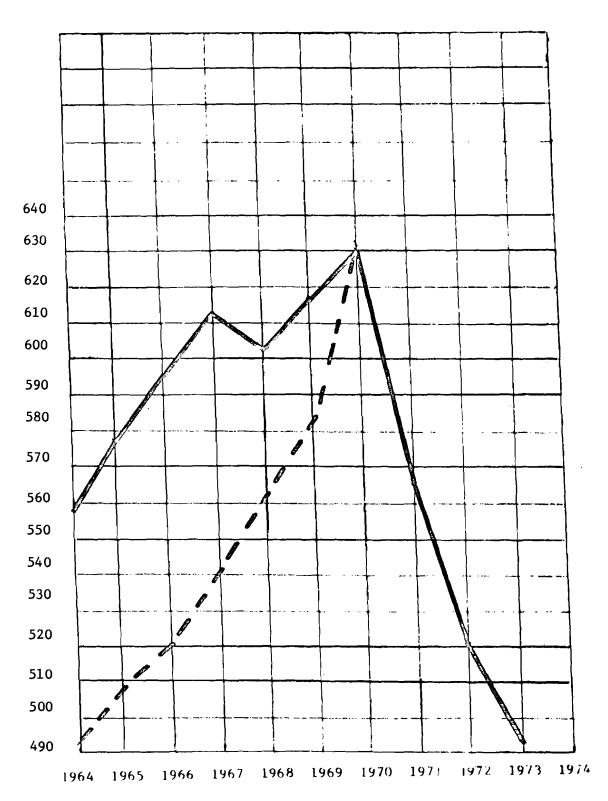
---- CANADA ---- U.S.A.

ILLEGITIMATE LIVE BIRTHS

	RATE PER 100,0	00 HOUSEHOLDS	% CHANGE O	VER 1964
	CANADA	USA	CANADA	USA
1964	558.2	492.3	0	0
1965	578.5	508.6	3.6	3.3
1966	595.2	520.5	6.6	5.7
1967	614.1	540.5	10.0	9.7
1968	604.9	561.1	8.3	13.9
1969	617.3	583.7	10.5	32.5
1970	630.3	634.1	12.9	28.8
1971	565.7		1.3	
1972	511.7		-8.3	
1973	494.8		-11.3	
1974				

RATE PER 100,000 HOUSEHOLDS

---- CANADA ---- USA



ILLEGITIMATE LIVE BIRTHS

---- U.S.A.

HAS LIQUOR EVER BEEN A CAUSE OF TROUBLE IN YOUR HOME?

Percents

	CANADA		USA	
1966	8	92	12	88
1974			12	8 8

Sources: CIPO #318 April 1966;

AIPO #723 January 1966; Gallup Opinion Index, June 1974, p. 19;

DO YOU HAVE OCCASION TO USE ALCOHOLIC BEVERAGES SUCH AS LIQUOR, WINE, OR BEER, OR ARE YOU A TOTAL ABSTAINER?

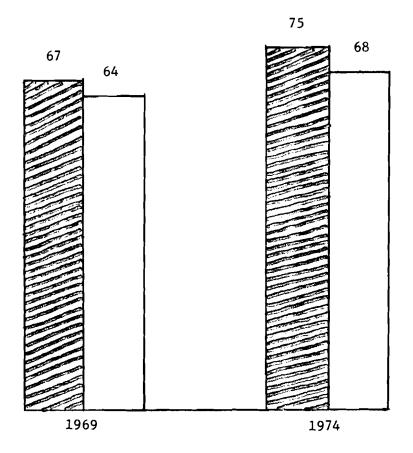
Percents

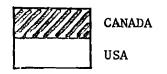
	CANADA		US	SA
	USE	ABSTAIN	USE	ABSTAIN
1964			63	37
1966			65	35
1969	67	33	64	36
1974	75	25	68	32

Sources: CIPO #336 July 1969; May 1974, Toronto Star May 29, 1974, p. B5;

AIPO #723 January 1966; Gallup Opinion Index June 1974, pp. 15-17;

PERCENT USING ALCOHOLIC BEVERAGES





DO YOU THINK THAT THE USE OF MARIJUANA SHOULD BE LEGALIZED OR NOT?

Percents

	CANADA		USA	A
	YES	NO	YES	NO
1969			12	84
1970	14	77		
1972			15	81
1973			16	78
1974			27	73

Sources: CIPO #339 January 1970;

AIPO #789 October 1969; #846 February 1972; #863 January 1973;

Gallup Opinion Index, November 1974, p. 13;

WILL YOU TELL ME WHETHER YOU AGREE, OR DISAGREE WITH THE FOLLOWING STATEMENTS?
THE DECISION TO HAVE AN ABORTION SHOULD BE MADE SOLELY BY A WOMAN AND HER PHYSICIAN.

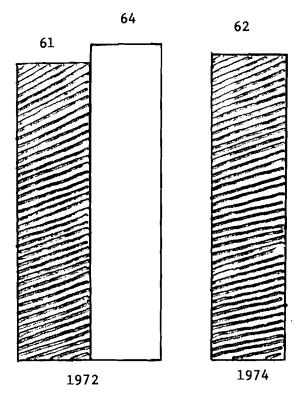
Percents

	CAN	CANADA		A
	AGREE	DISAGREE	AGREE	DISAGREE
1972	61	31	64	31
1974	62	31		

Sources: CIPO #355 September 1972; September 1974, Toronto Star, October 26, 1974, p. B3;

Gallup Poll Index, September 1972, p. 14;

PERCENT AGREEING THAT
A WOMAN AND HER PHYSICIAN
SHOULD MAKE THE DECISION
TO HAVE AN ABORTION





PHYSICIANS

TOTAL NUMBER

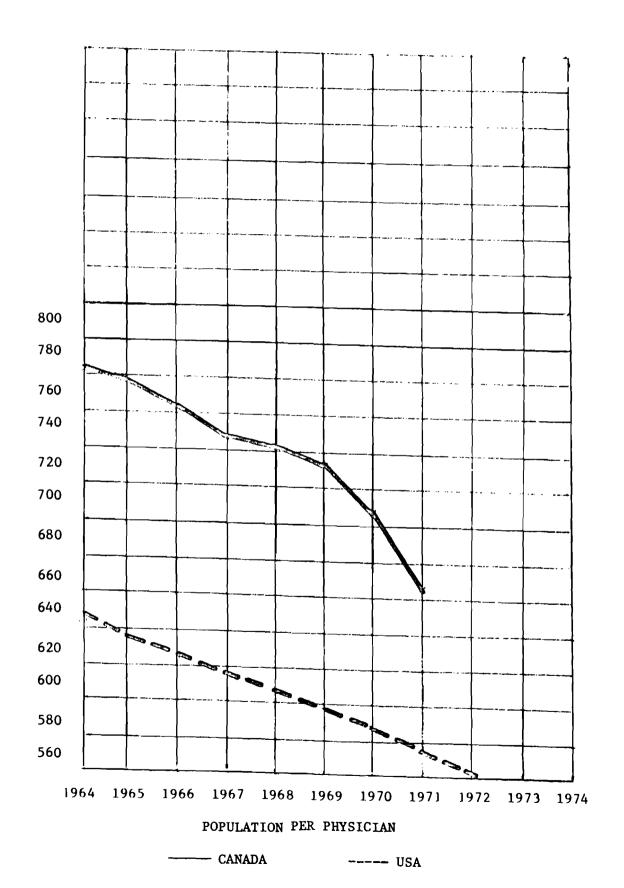
	CANADA	USA
1964	24847	297089
1965	25481	305115
1966	26528	313559
1967	27544	322045
1968	28163	330367 ^e
1969	29659	338400
1970	31166	348328
1971	32625	359423
1972		371434
1973		
1974		

POPULATION PER PHYSICIAN

	CANADA	USA
1964	785	646
1965	779	636
1966	763	626
1967	747	617
1968	742	607
1969	714	598
1970	689	588
1971	666	576
1972		562
1973		
1974		

e estimate

Sources: Statistical Abstract of the United States 1969, p.65, T85; 1971, p.65, T88; 1973, p.70, T101; 1974, P.73, T107; Canada Year Book 1973, p.275, T6.1.



PHYSICIANS

	RATE PER 100,0	OO INHABITANTS	% CHANGE OV	ER 1964
	CANADA	USA	CANADA	USA
1964	128	154	0	0
1965	129	153	0.7	-0.6
1966	132	159	3.1	3.2
1967	134	162	4.6	5.1
1968	135	164	5.4	6.4
1969	140	166	9.3	7.7
1970	145	166	13.2	7.7
1971	151	174	17.9	12.9
1972		174		12.9
1973				
1974				
	RATE PER 100,	000 HOUSEHOLDS	% CHANGE OV	ER 1964

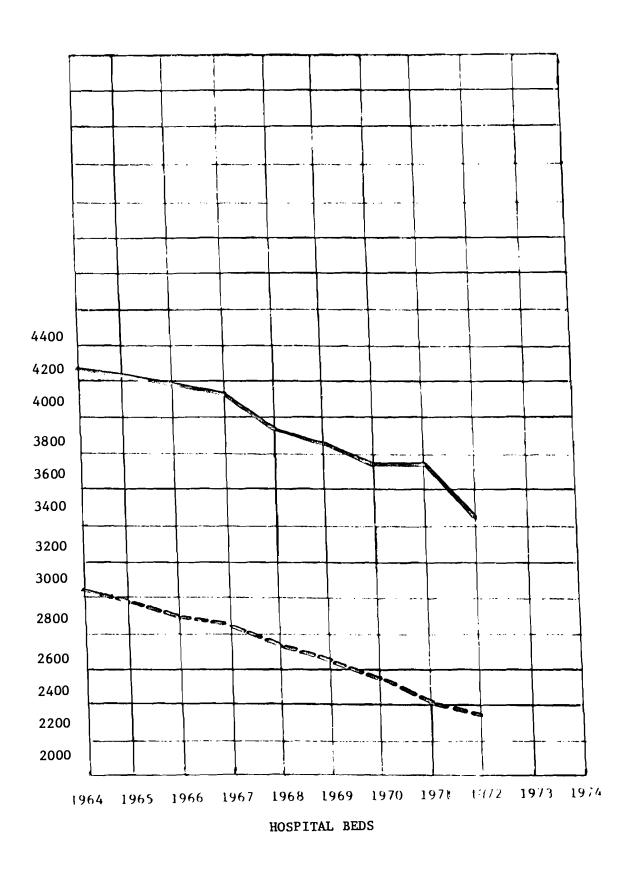
	RATE PER 100,000 HOUSEHOLDS		% CHANGE OVI	ER 1964
	CANADA	USA	CANADA	USA
1964	522	530	0	0 .
1965	525	532	0.5	0.3
1966	537	539	2.8	1.6
1967	547	547	4.7	3.2
1968	522	546	0.0	3.0
1969	537	547	2.8	3.2
1970	552	554	5.7	4.5
1971	564	558	8.0	5.2
1972		557		5.0
1973				
1974				

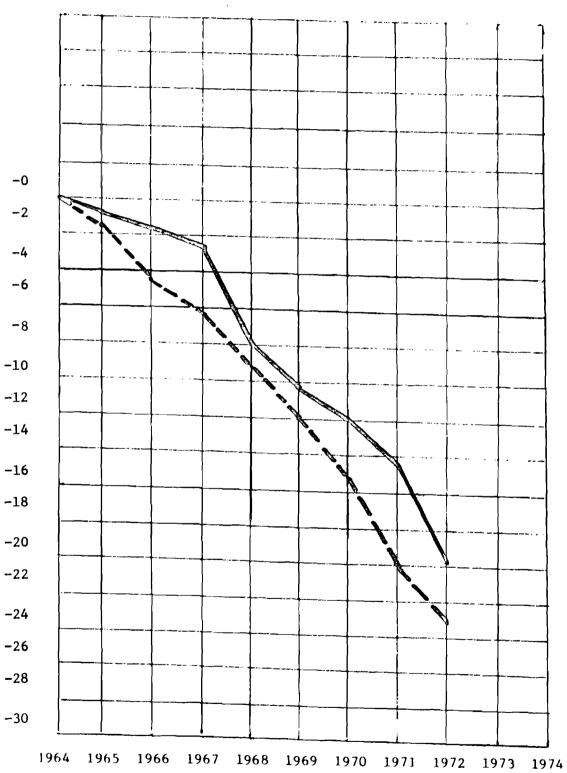
HOSPITAL BEDS

	BEDS PER 100,000 HOUSEHOLDS		% CHANGE OV	ER 1964
	CANADA	USA	CANADA	USA
1964	4272.0	3028.7	0	0
1965	4241.4	2976.3	- 0 7	-1.7
1966	4198.2	2890.2	-1.7	-4.5
1967	4164.0	2839.6	-2 5	-6.2
1968	3930.2	2751.3	-8.0	-9.1
1969	3833.8	2669.6	-10.2	-11.8
1970	3762.3	2570.2	-11.9	-15.1
1971	3653.0	2417.1	-14.4	-20.1
1972	3424.8	2324.6	-19.8	-23.2
1973				
1974				
	BEDS PER 100,00	OO INHABITANTS	% CHANGE C	OVER 1964
	BEDS PER 100,00	OO INHABITANTS USA	% CHANGE C	OVER 1964 USA
1964				
1964 1965	CANADA	USA	CANADA	USA
	CANADA 1053.5	USA 883.8	CANADA O	USA O
1965	CANADA 1053.5 1048.0	USA 883.8 876.9	CANADA 0 -0.5	USA 0 -0.7
1965 1966	CANADA 1053.5 1048.0 1035.5	USA 883.8 876.9 854.2	CANADA 0 -0.5 -1.7	USA 0 -0.7 -3.3
1965 1966 1967	CANADA 1053.5 1048.0 1035.5 1027.0	USA 883.8 876.9 854.2 840.9	CANADA 0 -0.5 -1.7 -2.5	USA 0 -0.7 -3.3 -4.8
1965 1966 1967 19 68	CANADA 1053.5 1048.0 1035.5 1027.0 1022.1	USA 883.8 876.9 854.2 840.9 828.5	CANADA 0 -0.5 -1.7 -2.5 -2.9	USA 0 -0.7 -3.3 -4.8 -6.2
1965 1966 1967 1968 1969	CANADA 1053.5 1048.0 1035.5 1027.0 1022.1 1003.8	USA 883.8 876.9 854.2 840.9 828.5 814.1	CANADA 0 -0.5 -1.7 -2.5 -2.9 -4.7	USA 0 -0.7 -3.3 -4.8 -6.2 -7.8
1965 1966 1967 1968 1969	CANADA 1053.5 1048.0 1035.5 1027.0 1022.1 1003.8 993.5	USA 883.8 876.9 854.2 840.9 828.5 814.1 788.7	CANADA 0 -0.5 -1.7 -2.5 -2.9 -4.7 -5.6	USA 0 -0.7 -3.3 -4.8 -6.2 -7.8 -10.7
1965 1966 1967 1968 1969 1970	CANADA 1053.5 1048.0 1035.5 1027.0 1022.1 1003.8 993.5 978.7	USA 883.8 876.9 854.2 840.9 828.5 814.1 788.7 751.5	CANADA 0 -0.5 -1.7 -2.5 -2.9 -4.7 -5.6 -7.1	USA 0 -0.7 -3.3 -4.8 -6.2 -7.8 -10.7 -14.9

RATE PER 100,000 HOUSEHOLDS

---- CANADA ---- USA





66 1967 1968 1969 1970 1971 1972 1973 1974 HOSPITAL BEDS

PER 100,000 HOUSEHOLDS

CANADA ---- USA

COMBINED SUPPLIES OF NUTRIENTS* AVAILABLE FOR CONSUMPTION PER DAY

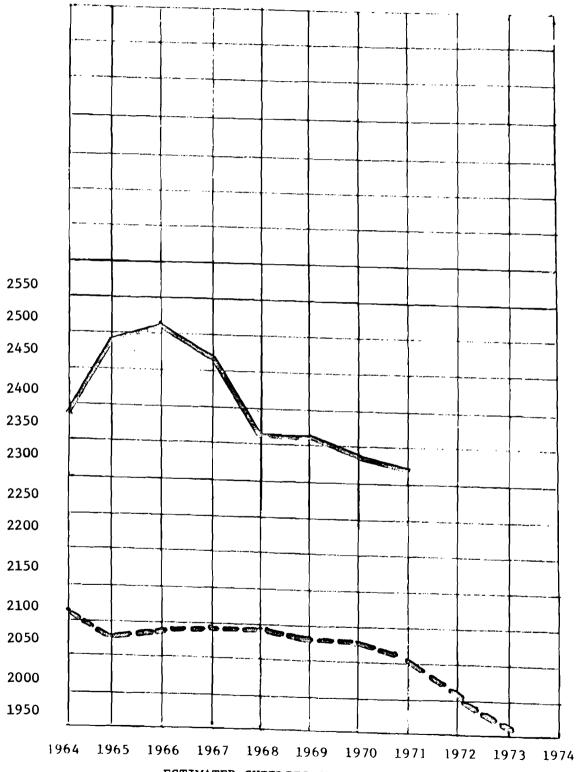
TOTAL GRAMS PER CAPITA

	CANADA	USA ·	CANADA	USA
1964	591	619	0	0
1965	616	612	4.2	-1.1
1966	619	615	4.7	-0.6
1967	610	621	3.2	0.3
1968	613	631	3.7	1.9
196 9	619	633	4.7	2.2
1970	618	637	4.5	2.9
1971	623	639	5.4	3.2
1972		640		3.3
1973		638		3.0
1974				
	TOTAL GRAMS F	USA	% CHANGE O	VER 1964 USA
1964				
1964 1965	CANADA	USA	CANADA	USA
	CANADA 2397	USA 2120	CANADA O	USA O
1965	CANADA 2397 2493	USA 2120 2076	CANADA O 4.0	USA 0 -2.0
1965 1966	CANADA 2397 2493 2508	USA 2120 2076 2080	CANADA 0 4.0 4.6	USA 0 -2.0 -1.8
1965 1966 1967	CANADA 2397 2493 2508 2471	USA 2120 2076 2080 2095	CANADA 0 4.0 4.6 3.0	USA 0 -2.0 -1.8 -1.1
1965 1966 1967 1968	CANADA 2397 2493 2508 2471 2356	USA 2120 2076 2080 2095 2094	CANADA 0 4.0 4.6 3.0 -1.7	USA 0 -2.0 -1.8 -1.1 -1.2
1965 1966 1967 1968 1969	CANADA 2397 2493 2508 2471 2356 2364	USA 2120 2076 2080 2095 2094 2074	CANADA 0 4.0 4.6 3.0 -1.7 -1.3	USA 0 -2.0 -1.8 -1.1 -1.2 -2.1
1965 1966 1967 1968 1969	CANADA 2397 2493 2508 2471 2356 2364 2339	USA 2120 2076 2080 2095 2094 2074	CANADA 0 4.0 4.6 3.0 -1.7 -1.3 -2.4	USA 0 -2.0 -1.8 -1.1 -1.2 -2.1 -2.1
1965 1966 1967 1968 1969 1970	CANADA 2397 2493 2508 2471 2356 2364 2339	USA 2120 2076 2080 2095 2094 2074 2074 2053	CANADA 0 4.0 4.6 3.0 -1.7 -1.3 -2.4	USA 0 -2.0 -1.8 -1.1 -1.2 -2.1 -2.1 -3.1

^{*} Protein, fats and carbohydrates

% CHANGE OVER 1964

TOTAL GRAMS PER HOUSEHOLD



ESTIMATED SUPPLIES OF NUTRIENTS AVAILABLE FOR CONSUMPTION PER DAY

CANADA ---- USA

ESTIMATED SUPPLIES OF FOOD ENERGY AVAILABLE FOR CONSUMPTION PER DAY

TOTAL CALORIES PER CAPITA

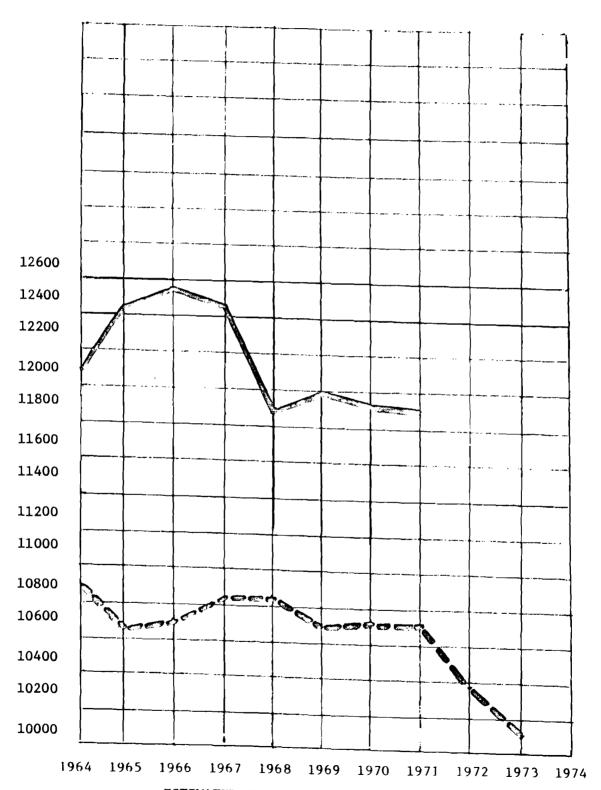
% CHANGE OVER 1964

	TOTAL CALORIA	DO TER ORITIA	% CHANGE CV	DR 1704
	CANADA	USA	CANADA	USA
1964	2986	3190	0	0
1965	3077	3140	3.0	-1.5
1966	3097	3170	3.7	-0.6
1967	3081	3210	3.1	0.6
1968	3097	3260	3.7	2.1
1969	3139	3270	5.1	2.5
1970	3141	3300	5.1	3.4
1971	3174	3330 ^P	6.2	4.3
1972		3320		3.9
1973		3290 ^P		3.1
1974				
	TOTAL CALORIES P	ER HOUSEHOLD	% CHANGE OV	VER 1964
	TOTAL CALORIES P	USA	% CHANGE OV	VER 1964 USA
1964				
1964 1965	CANADA	USA	CANADA	USA
	CANADA 12108	USA 10931	CANADA O	USA O
1965	CANADA 12108 12455	USA 10931 10656	CANADA 0 2.8	USA 0 -2.5
1965 1966	CANADA 12108 12455 12552	USA 10931 10656 10725	CANADA 0 2.8 3.6	USA 0 -2.5 -1.8
1965 1966 1967	CANADA 12108 12455 12552 12488	USA 10931 10656 10725 10839	CANADA 0 2.8 3.6 3.1	USA 0 -2.5 -1.8 -0.8
1965 1966 1967 1968	CANADA 12108 12455 12552 12488 11910	USA 10931 10656 10725 10839 10824	CANADA 0 2.8 3.6 3.1 -1.6	USA 0 -2.5 -1.8 -0.8 -0.9
1965 1966 1967 1968 1969	CANADA 12108 12455 12552 12488 11910 11989	USA 10931 10656 10725 10839 10824 10722	CANADA 0 2.8 3.6 3.1 -1.6 -0.9	USA 0 -2.5 -1.8 -0.8 -0.9 -1.9
1965 1966 1967 1968 1969	CANADA 12108 12455 12552 12488 11910 11989 11892	USA 10931 10656 10725 10839 10824 10722 10753	CANADA 0 2.8 3.6 3.1 -1.6 -0.9 -1.7	USA 0 -2.5 -1.8 -0.8 -0.9 -1.9
1965 1966 1967 1968 1969 1970	CANADA 12108 12455 12552 12488 11910 11989 11892	USA 10931 10656 10725 10839 10824 10722 10753	CANADA 0 2.8 3.6 3.1 -1.6 -0.9 -1.7	USA 0 -2.5 -1.8 -0.8 -0.9 -1.9 -1.6 -2.0

Sources: D.M. Shute, "The Nutritive Value of Food Consumption in Canada (1949-1971)," <u>Canadian Farm Economics</u>, Vol. 8, No. 6 1973, p.14, T1.

<u>Statistical Abstract of the United States 1968</u>, p.83, T118; <u>1969</u>, p.81, T115; <u>1970</u>, p.84, T119; <u>1971</u>, p.80, T119; <u>1972</u>, p.83, T125; <u>1974</u>, p.89, T143;

TOTAL CALORIES PER HOUSEHOLD



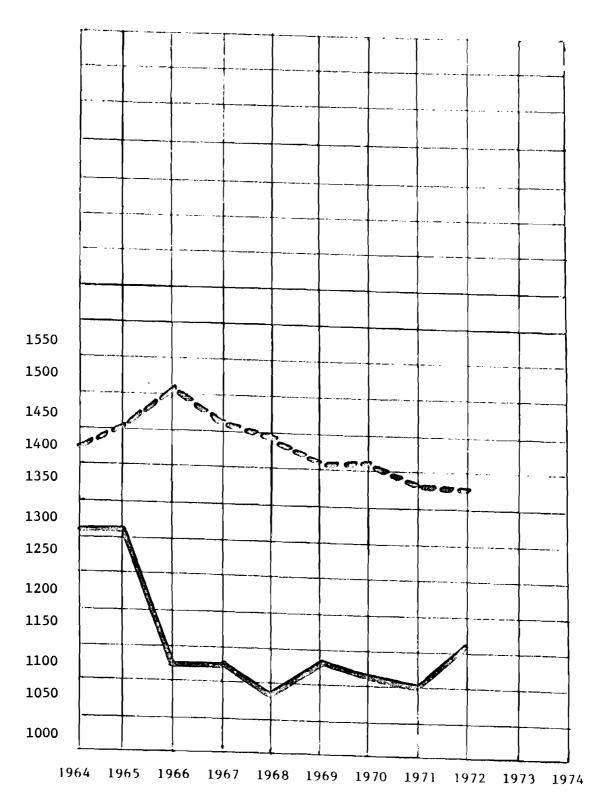
ESTIMATED SUPPLIES OF FOOD ENERGY AVAILABLE FOR CONSUMPTION PER DAY

CANADA ---- USA

PERSONAL EXPENDITURE ON FOOD AND NON-ALCOHOLIC BEVERAGES (CONSTANT 1964 US DOLLARS)

	PER HOUSEHOLD EXPENDITURE		% CHANGE OV	ER 1964
	CANADA	USA	CANADA	USA
1964	1310.5	1426.9	0	0
1965	1316.8	1451.3	0.4	1.7
1966	1129.7	1509.5	-13.7	5.7
1967	1131.9	1457.4	-13.6	2.1
1968	1079.3	1448.6	-17.6	1.5
1969	1131.2	1411.1	-13.6	-1.1
1970	1114.8	1416.3	-14.9	-0.7
1971	1100.3	1384.5	-16.0	-2.9
1972	1160.6	1378.1	-11.4	-3.4
1973				
1974				

PER HOUSEHOLD EXPENDITURE



PERSONAL EXPENDITURE ON FOOD AND NON-ALCOHOLIC BEVERAGES (Constant 1964 US Dollars)

---- USA

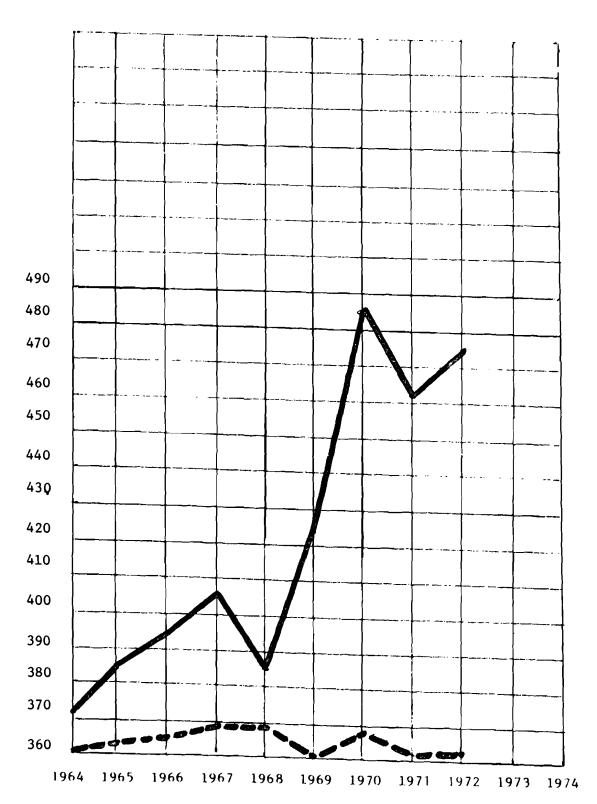
PERSONAL EXPENDITURE ON TOBACCO

AND ALCOHOLIC BEVERAGES

(Constant 1964 US Dollars)

	PER HOUSEHOLD EXPENDITURE		% CHANGE OVI	NGE OVER 1964	
	CANADA	USA	CANADA	USA	
1964	372.5	360.7	0	0	
1965	384.7	362.0	3.2	0.3	
1966	394.3	365.2	5.8	1.2	
1967	406.1	369.4	9.0	2.4	
1968	384.0	369.0	3.0	2.3	
1969	426.9	360.6	14.6	0.0	
1970	486.6	367.6	30.6	1.9	
1971	462.0	362.9	24.0	0.6	
1972	475.0	362.8	27.5	0.5	
1973					
1974					

PER HOUSEHOLD EXPENDITURE



PERSONAL EXPENDITURE ON TOBACCO AND ALCOHOLIC BEVERAGES (CONSTANT 1964 U.S. DOLLARS)

100

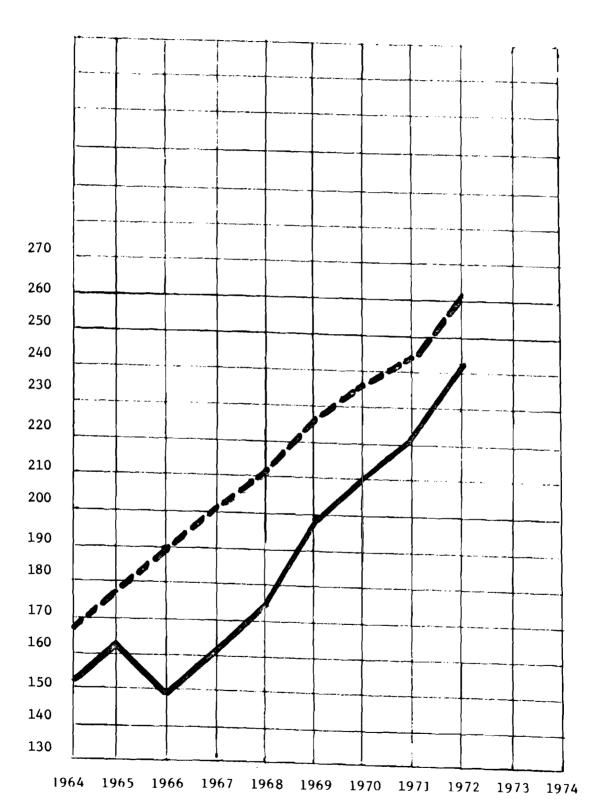
EXPENDITURE FOR HEALTH CARE (Constant 1964 US Dollars)

TOTAL EXPENDITURE (millions)

	CANADA	USA
1964	2995	32279
1965	3203	34641
1966	2973	37398
1967	3316	40146
1968	3635	42487
1969	4163	45852
1970	4510	48449
1971	4780	50694
1972	5313	54716
1973		
1974		

	PER CAPITA EXPENDITURE		% CHANGE OV	/ER 1964
	CANADA	USA	CANADA	USA
1964	152.2	168.2	0	0
1965	163.0	178.3	7.0	6.0
1966	148.5	190.4	-2.4	13.1
1967	162.5	202.0	6.7	20.0
1968	175.2	211.7	15.1	25.8
1969	197.6	226.2	29.8	34.4
1970	210.9	236.4	38.5	40.5
1971	221.5	244.9	45.5	45.6
1972	243.4	262.1	59.9	55.8
1973				
1974				

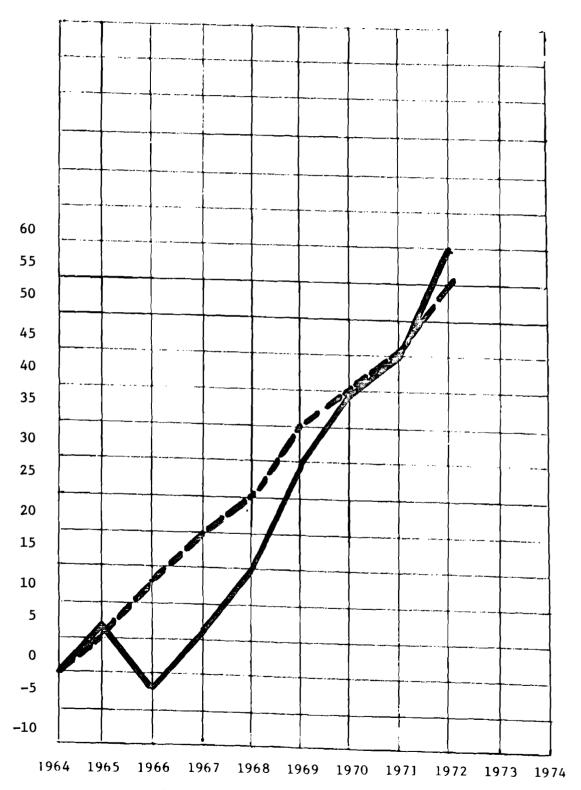
PER CAPITA EXPENDITURE



COMBINED PERSONAL AND GOVERNMENT EXPENDITURE FOR HEALTH CARE (Constant 1964 US Dollars)

---- U.S.A

PERCENT CHANGE OVER 1964



COMBINED PERSONAL AND GOVERNMENT
PER CAPITA EXPENDITURE FOR HEALTH CARE
(Constant 1964 US Dollars)

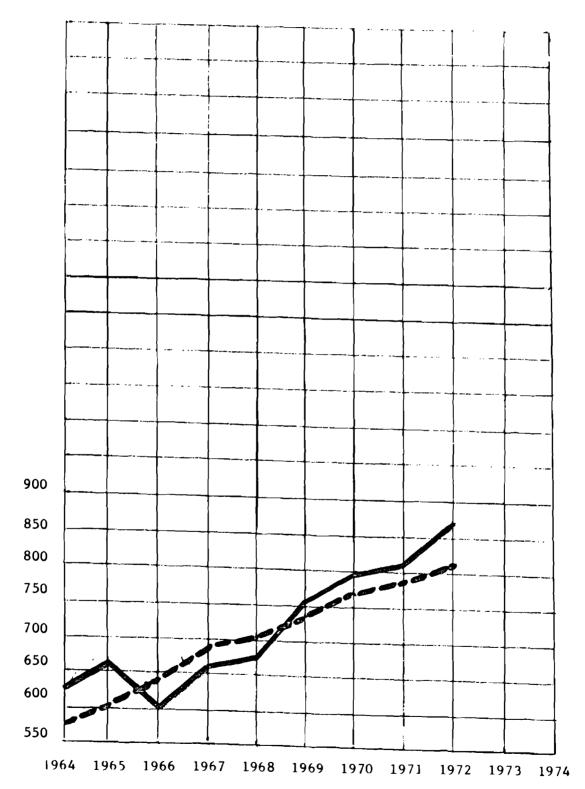
112

- C_{ANADA}

COMBINED PERSONAL AND GOVERNMENT - EXPENDITURE FOR HEALTH CARE (Constant 1964 US Dollars)

	PER HOUSEHOLD EXPENDITURE		% CHANGE OVER 196	
	CANADA	USA	CANADA	USA
1964	629.5	576.4	0	0
1965	660.1	605.1	4.8	4.9
1966	601.9	643.8	-4.3	11.6
1967	658.7	691.5	4.6	19.9
1968	673.9	702.9	7.0	21.9
1969	755.0	741.9	19.9	28.7.
1970	799.0	770.5	26.9	33.6
1971	827.0	787.5	31.3	36.6
1972	869.9	820.6	38.1	42.3
1973				
1974				

PER HOUSEHOLD EXPENDITURE

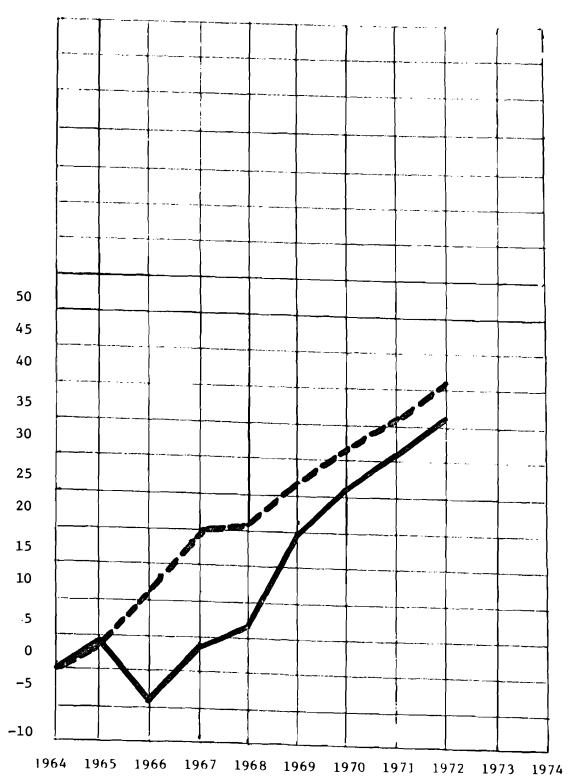


COMBINED PERSONAL AND GOVERNMENT EXPENDITURE FOR HEALTH CARE (Constant 1964 US Dollars)

CANADA ---- U.S.A.

114

PERCENT CHANGE OVER 1964



COMBINED PERSONAL AND GOVERNMENT EXPENDITURE PER HOUSEHOLD FOR HEALTH CARE (Constant 1964 US Dollars)

- CANADA

---- USA

115

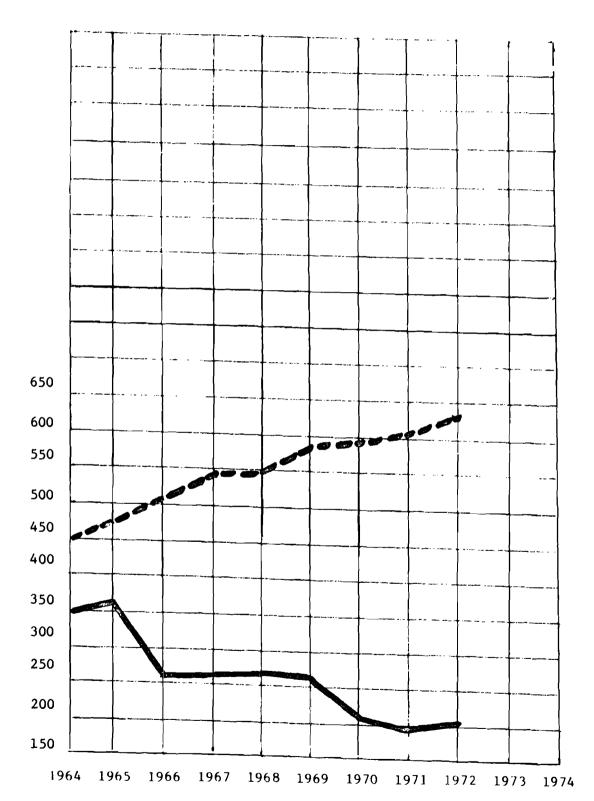
PERSONAL EXPENDITURE ON MEDICAL

CARE AND HEALTH SERVICES

(Constant 1964 US Dollars)

	PER HOUSEHOLD	EXPENDITURE	% CHANGE OVI	ER 1964
	CANADA	USA	CANADA	USA
1964	350.2	450.0	0	0
1965	365.8	475.3	4.4	5.6
1966	260.8	508.0	-25.5	12.8
1967	272.3	544.7	-22.2	21.0
1968	271.3	549.2	-22.5	22.0
1969	269.7	580.2	-22.9	28.9
1970	229.7	598.9	-34.4	33.0
1971	197.5	. 612.7	-43.6	36.1
1972	204.4	632.8	-41.6	40.6
1973				
1974				

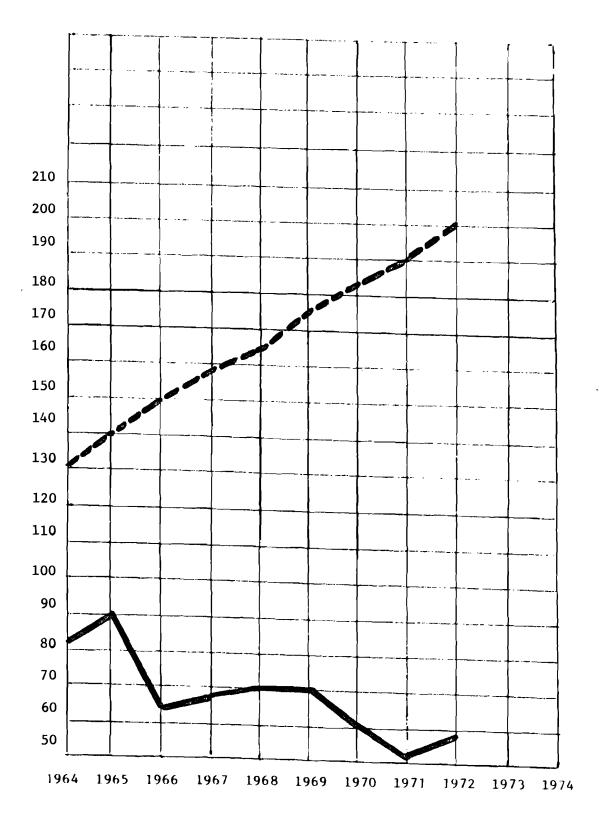
PER HOUSEHOLD EXPENDITURE



PERSONAL EXPENDITURE ON MEDICAL CARE AND HEALTH SERVICES (Constant 1964 US Dollars)

---- U.S.A.

PER CAPITA EXPENDITURE



PERSONAL EXPENDITURE ON MEDICAL CARE AND HEALTH SERVICES (Constant 1964 US Dollars)

---- U.S.A.

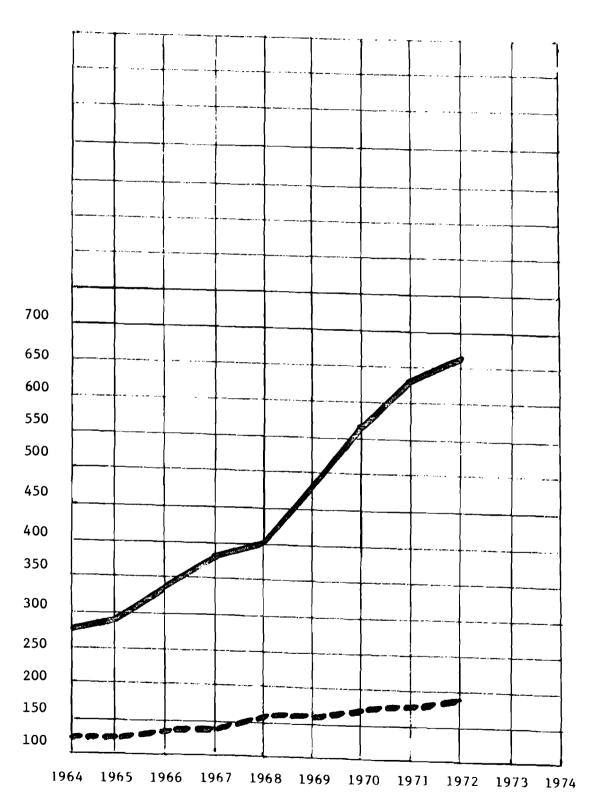
CONSOLIDATED GOVERNMENT EXPENDITURE

FOR HEALTH CARE

(Constant 1964 US Dollars)

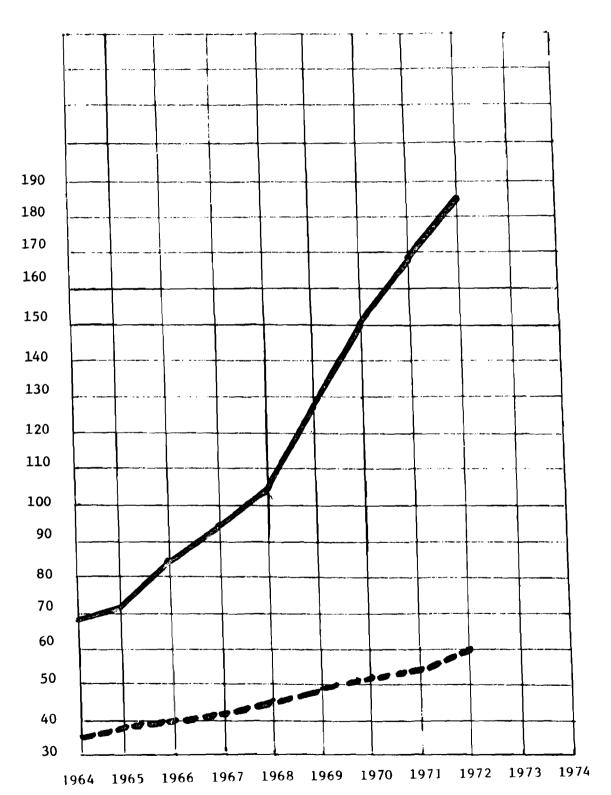
	PER HOUSEHOL	D EXPENDITURE	% CHANGE OVER	% CHANGE OVER 1964		
	CANADA	USA	CANADA	USA		
1964	279.3	126.4	0	0		
1965	294.3	129.8	5.3	2.6		
1966	341.1	135.8	22.1	7.4		
1967	386.4	146.8	38.3	16.1		
1968	402.6	153.7	44.1	21.5		
1969	485.3	161.7	73.7	27.9		
1970	569.3	171.6	103.8	35.7		
1971	629.5	174.8	125.3	38.2		
1972	665.5	187.8	138.2	48.5		
1973						
1974						

PER HOUSEHOLD EXPENDITURE



CONSOLIDATED GOVERNMENT EXPENDITURE FOR HEALTH CARE (Constant 1964 US Dollars)

CANADA ---- U.S.A.



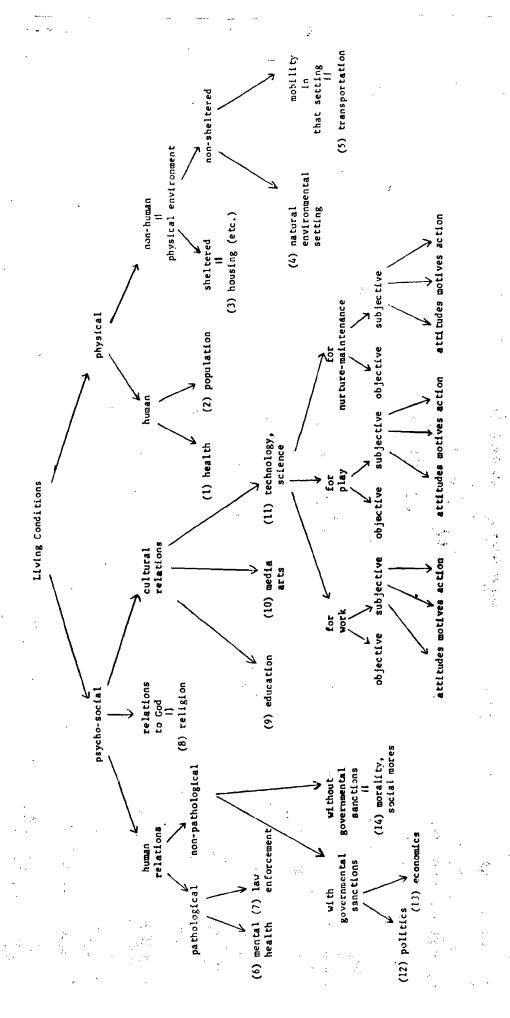
CONSOLIDATED GOVERNMENT EXPENDITURE FOR HEALTH CARE (CONSTANT 1964 U.S. DOLLARS)

CANADA ---- U.S.A.

TABLE E

EVALUATION FOR HOUSEHOLDS

	N Death		N Foo	N Food Expenditure		N Combined Health Exp.		P Combined Nutrients	
	Stock	Flow	Stock	Flow	Stock	Flow	Stock	Flow	
Canada	10	8	9	8	3	8	8	5	
USA	0	1	0	0	6	0	0	2	
	P Available _Calories		Hospi	P Hospital Beds		P Physicians		N Reportable Diseases	
	Stock	Flow	Stock	Flow	Stock	Flow	Stock	Flow	
Canada	8	4	9	8	1	5	10	8	
USA	0	3	0	0	6	2	0	0	
	N Hospital Occupancy			N Mental <u>Patients</u>		N Retarded <u>Patients</u>		Grand Total	
	Stock	Flow	Stock	Flow	Stock	Flow			
Canada	2	7	7	8	7	3	14	6	
USA	6	1	2	0	1	4	3	4	



Each of the 14 numbered nodes is subdivided like

(11) technology and science.

Total