

A Profile of the Elderly Population in the Central West Planning Area

A report created jointly by the:

Central West Health Planning Information Network & The Regional Geriatric Program Central



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The Central West Health Planning Information Network Region

District Health Councils	Health Unit Area	Census Division
Grand River District Health Council	Brant Count Health Unit	Brant
	Haldimand-Norfolk Regional Health Department	Haldimand & Norfolk
Hamilton District Health Council	City of Hamilton & Region of Hamilton Wentworth, Social and Public Health Sciences Division	Hamilton-Wentworth
	Halton Public Health Unit	Halton
Niagara District Health Council	Regional Niagara Public Health Unit	Niagara
Waterloo Region Wellington-Dufferin District Health Council	Waterloo Regional Community Health Unit	Waterloo
	Wellington-Dufferin-Guelph Public Health Unit	Wellington
		Dufferin

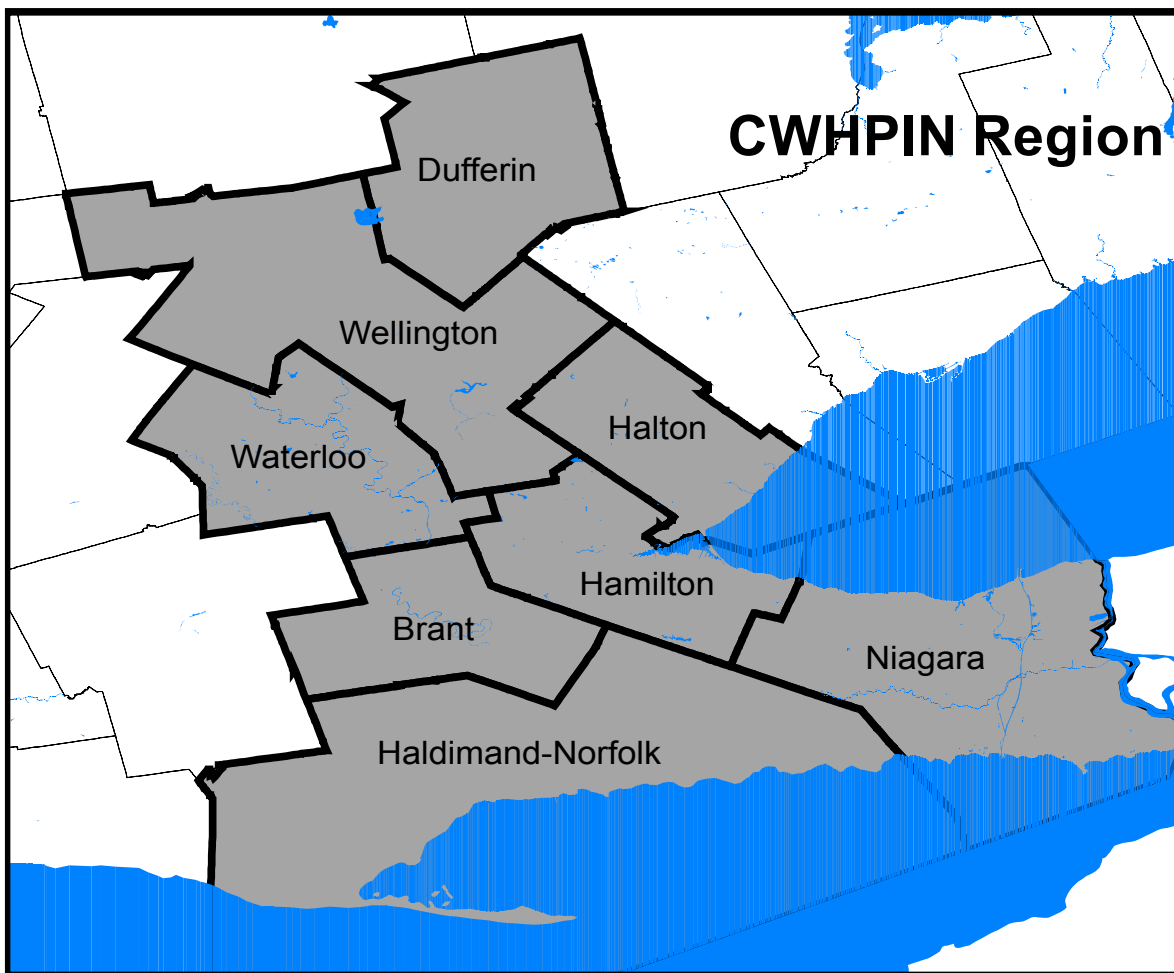


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Introduction:

This report provides a profile of the elderly population in the Central West Health Planning Information Network (CWHPIN) area. The report is organized into six sections representing the following geographic areas; Brant, Haldimand, & Norfolk (BHN) counties; Halton Region; Hamilton Region; Niagara Region; Waterloo Region; and Wellington & Dufferin (WD) counties.

Background:

The recent release of the 2001 Census from Statistics Canada has prompted local (e.g. The Hamilton Spectator) and national (e.g. The Globe and Mail) newspapers to extensively report the potential issues brought about by our rapidly aging population. As the first wave of baby boomers begin to reach an age where they may require more health services, it is important to have appropriate planning in order to minimize the potential burden. This report acts as a reference for planners.

Methods:*Data Set*

Data for this project came from numerous sources. The sources include the 1996/97 Ontario Health Survey (OHS), the Provincial Health Planning Database (PHPDB), the Health Planning System (HELPS) Initiative from the Public Health Branch of the Ministry of Health, and the 1996 Canadian Census. Table 1 lists the source for each variable used in this project. Data collection methods are not the same for all data sets. The OHS collects a sample of approximately 34,000 individuals and extrapolates from these results to the entire population. The 1996 Census is composed of two samples, a 20% and 100% sample. Most sociodemographic indicators such as income and education come from the 20% sample. This means that 1 of every 5 Canadians were asked the question and the total population was inferred from the sample set. The 100% sample asks virtually all Canadians basic questions such as age, sex, and address. HELPS includes data from official death and birth certificates, and the

PHPDB has information from hospital discharge abstracts. To ensure the user has an idea of the origins of the data, a brief description of each data set follows.

1996/97 Ontario Health Survey

The 1996/97 OHS was conducted from October 1996 to August 1997. The response rate was 78.8% of households (general survey) with 94.4% of selected individuals subsequently completing the health component. The general component of the survey included all household residents in the province with the exception of those on Indian Reserves, Canadian Armed Forces Bases and some of the more remote areas of the province. An adult provided information about the socio-demographic and health characteristics of each household member for the 1996/1997 general component. One randomly selected household member over the age of twelve was then asked to provide in-depth responses for the health component. Ontario's counties were grouped into 23 areas that represent public health departments or groups of public health departments. Among those that were grouped are Brant and Haldimand-Norfolk.

Provincial Health Planning Database

The Provincial Health Planning Database (PHPDB), also known as the Data Warehouse, contains data that includes Vital Statistics, inpatient events, day surgery events, homecare events, population estimates, population projections, and the OHS. The Data Warehouse is administered by the Health Planning Branch of the Ministry of Long Term Care.

Health Planning System (HELPS) Initiative

The Health Planning System (HELPS) Initiative originates from the Public Health Branch of the Ministry of Health. It includes vital statistics data and population projections provided by the Ministry of Finance. (see <http://www.fin.gc.ca/>)

1996 Census

The Census includes information on Canada's population covering the nation's demographic, educational, income, language, labour force and mobility characteristics. It is carried out every five years by Statistics Canada.

Where possible census data from the 100% sample was used, but this data was not always available. In order for data to be useful for this report it needed to be broken down both by age and geography. While much of the census data is divided into geographic regions rarely is it reported by both geographic regions and age groups. Consequently, information available by geography only is not relevant.

Table 1: Data sources for each variable used	
Variable Description	Data Source
Population	100% census
Population Projections	HELPS
Dependency Ratios	HELPS
Employment	20% census
Education level	20% census
Type of Household	OHS
Marital Status	OHS
Regular Doctor	OHS
Used Health Care	OHS
Took Medication	OHS
Alternative Medicine	OHS
# of visits to family doctor	OHS
PAP Smear	OHS
FLU shot	OHS
Physical	OHS
Mammogram	OHS
Self Reported Health	OHS
Self Reported Weight	OHS
Physically Inactive	OHS
Regular Drinker	OHS
Low Income	OHS
Smoker	OHS
Vision problem	OHS
Hearing problem	OHS
Mobility problem	OHS
Emotion problem	OHS
Cognition problem	OHS
Problem with pain	OHS
Morbidity	PHPDB
Mortality	HELPS
SMR	HELPS

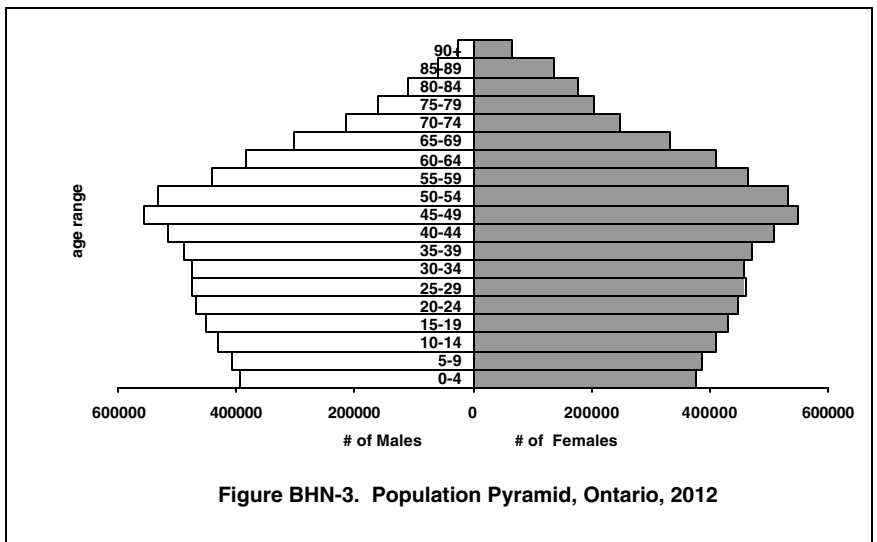
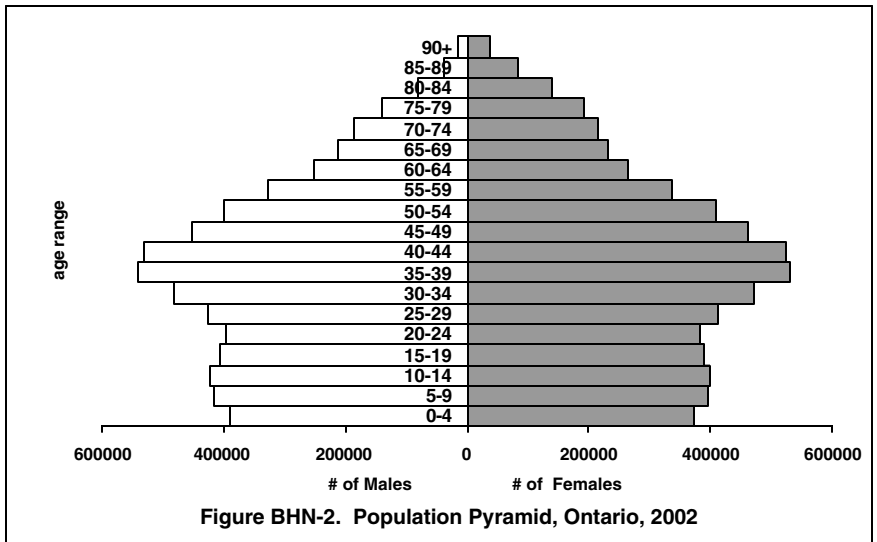
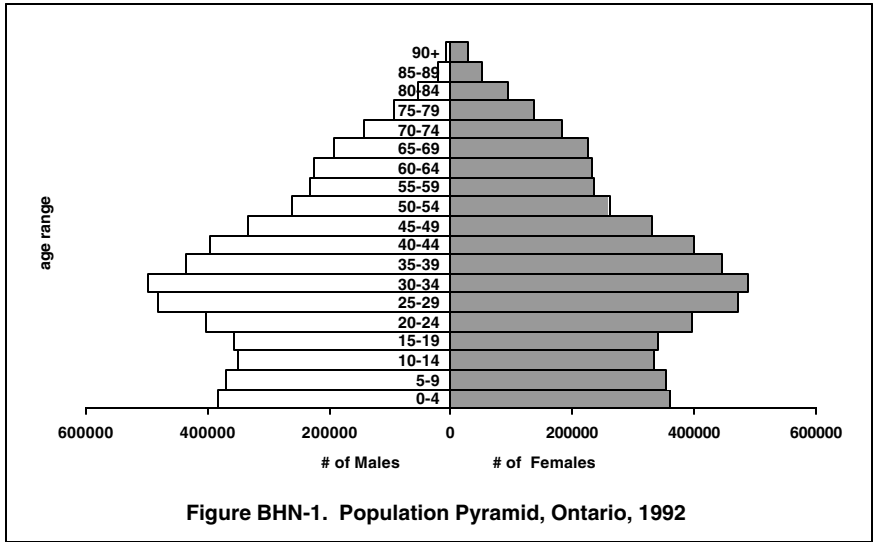
Brant, Haldimand, & Norfolk Counties

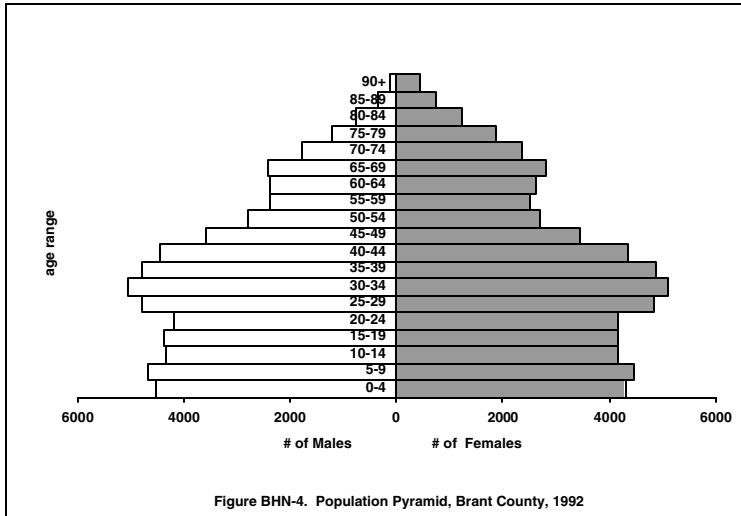
Notes, Definitions & Formulas

Population Pyramids present the age sex composition of a population. They may present either absolute numbers or percents.

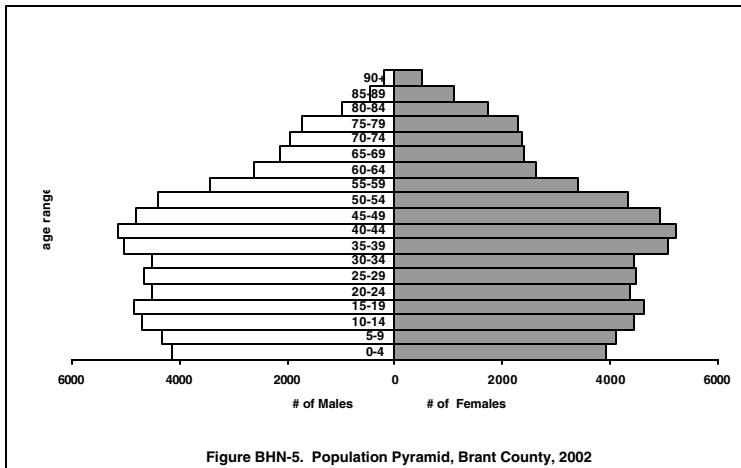
The age of an individual is taken to be the age as of their last birthday (as of census reference date, May 14th, 1996), and is derived from the date of birth.

The sources for the population data are the census and HELPS.

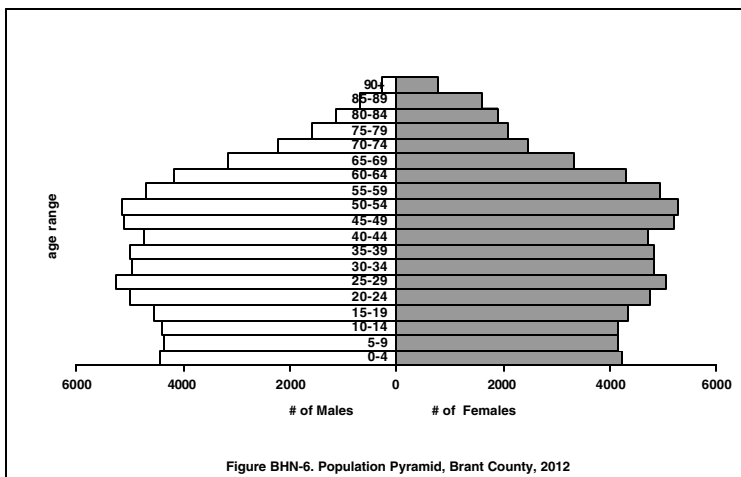




% of total population		
Age	Male	Female
0-4	3.77	3.57
5-9	3.89	3.72
10-14	3.60	3.46
15-19	3.64	3.46
20-24	3.49	3.45
25-29	4.00	4.02
30-34	4.20	4.24
35-39	4.00	4.07
40-44	3.71	3.61
45-49	2.98	2.86
50-54	2.32	2.23
55-59	1.99	2.10
60-64	1.98	2.19
65-69	2.02	2.32
70-74	1.49	1.96
75-79	1.02	1.57
80-84	0.64	1.03
85-89	0.28	0.62
90+	0.49	0.38



% of total population		
Age	Male	Female
0-4	3.15	3.01
5-9	3.30	3.15
10-14	3.58	3.39
15-19	3.69	3.53
20-24	3.45	3.35
25-29	3.55	3.41
30-34	3.43	3.41
35-39	3.83	3.87
40-44	3.93	3.99
45-49	3.67	3.77
50-54	3.65	3.31
55-59	2.63	2.61
60-64	1.99	2.01
65-69	1.63	1.84
70-74	1.48	1.80
75-79	1.31	1.76
80-84	0.76	1.32
85-89	0.34	0.84
90+	0.14	0.38



% of total population		
Age	Male	Female
0-4	3.08	2.94
5-9	3.04	2.89
10-14	3.04	2.90
15-19	3.17	3.02
20-24	3.47	3.30
25-29	3.64	3.51
30-34	3.46	3.36
35-39	3.48	3.36
40-44	3.28	3.27
45-49	3.56	3.62
50-54	3.57	3.67
55-59	3.27	3.43
60-64	2.90	2.99
65-69	2.20	2.32
70-74	1.56	1.71
75-79	1.11	1.46
80-84	0.79	1.31
85-89	0.47	1.10
90+	0.19	0.54

**Table BHN-1:
Population Projections by Age Group, Brant County, 1992-2012**

Age Group	1992 Census	2002 (projection)	2012 (projection)	% change 92 - 12
Brant				
0-4	8825	8067	8653	-1.9%
5-9	9148	8454	8529	-6.8%
10-14	8486	9141	8545	0.7%
15-19	8529	9463	8916	4.5%
20-24	8345	8915	9745	16.8%
25-29	9641	9124	10302	6.9%
30-34	10146	8957	9816	-3.3%
35-39	9693	10087	9846	1.6%
40-44	8806	10378	9429	7.1%
45-49	7023	9748	10329	47.1%
50-54	5468	8728	10428	90.7%
55-59	4926	6864	9638	95.7%
60-64	5006	5245	8480	69.4%
65-69	5227	4546	6492	24.2%
70-74	4147	4306	4699	13.3%
75-79	3109	4024	3700	19.0%
80-84	2007	2722	3024	50.7%
85-89	1083	1553	2267	109.3%
90+	592	680	1052	77.7%
Total	120216	131011	143899	19.7%
Ontario				
0-4	742471	764732	762254	2.7%
5-9	722556	812650	786305	8.8%
10-14	683755	819316	831546	21.6%
15-19	698690	796693	876496	25.4%
20-24	798841	781014	904407	13.2%
25-29	953484	839052	922849	-3.2%
30-34	987524	952608	921961	-6.6%
35-39	880560	1073145	949162	7.8%
40-44	797548	1056980	1015755	27.4%
45-49	665954	912130	1096884	64.7%
50-54	520678	806558	1055663	102.7%
55-59	467820	664124	898386	92.0%
60-64	456475	513262	783207	71.6%
65-69	419263	444065	627732	49.7%
70-74	327300	402385	459222	40.3%
75-79	231989	332089	361141	55.7%
80-84	147311	222321	284578	93.2%
85-89	75312	120019	191100	153.7%
90+	37508	53274	89947	139.8%
Total	10615475	12366850	13819024	30.2%

Notes, Definitions & Formulas

Age dependency ratios take into account the proportions of children, seniors and those of working age and are sometimes used as a measure of economic dependency (i.e. a ratio of the economically inactive population to the active or productive population).

The two dependency ratios presented here are an accepted standard.

Calculation

Youth dependency ratio
 $((P_{\text{age } 0-24}) / (P_{\text{age } 25-64}))$

Aged dependency ratio
 $((P_{\text{age } 65+}) / (P_{\text{age } 25-64}))$

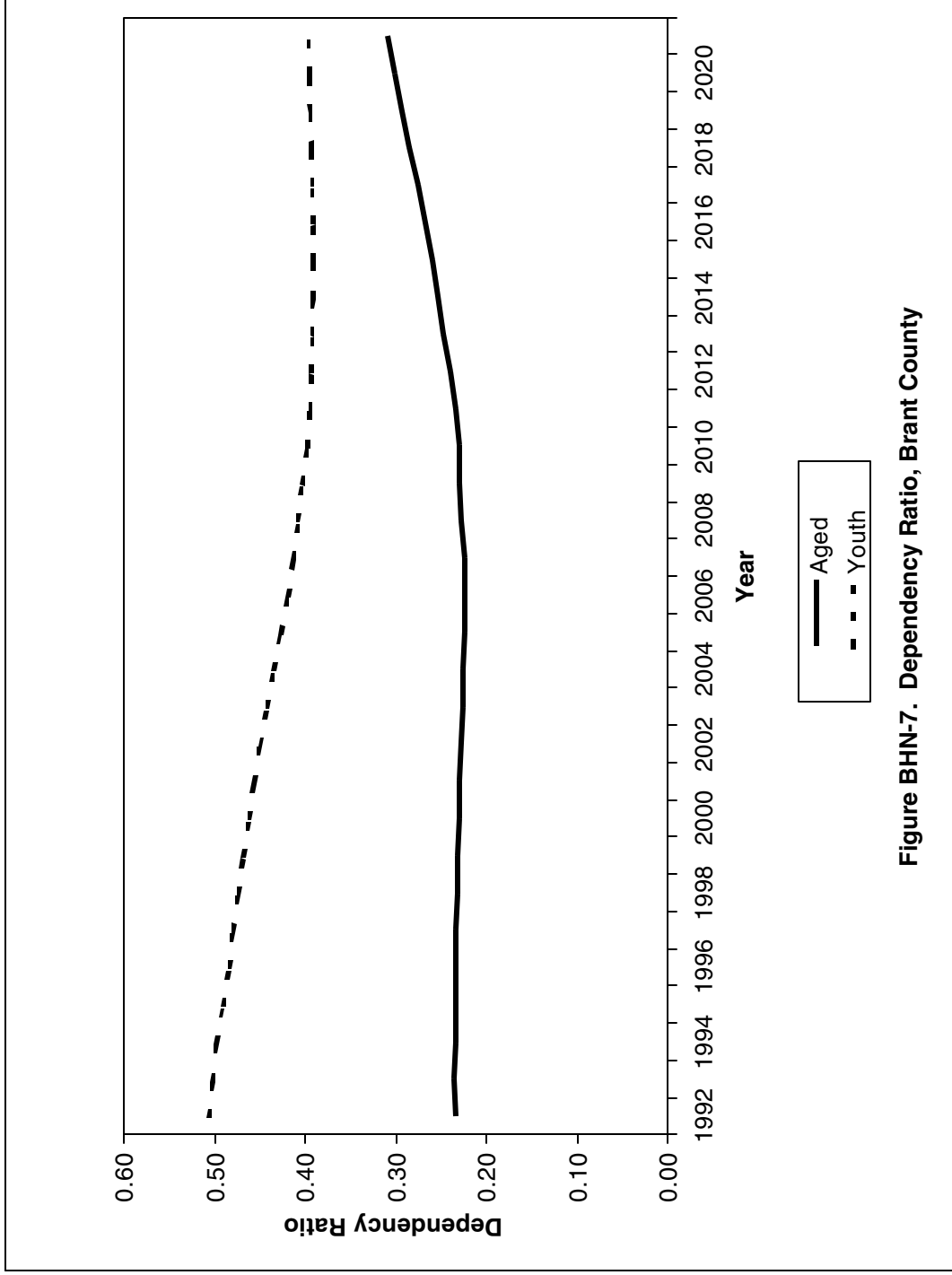
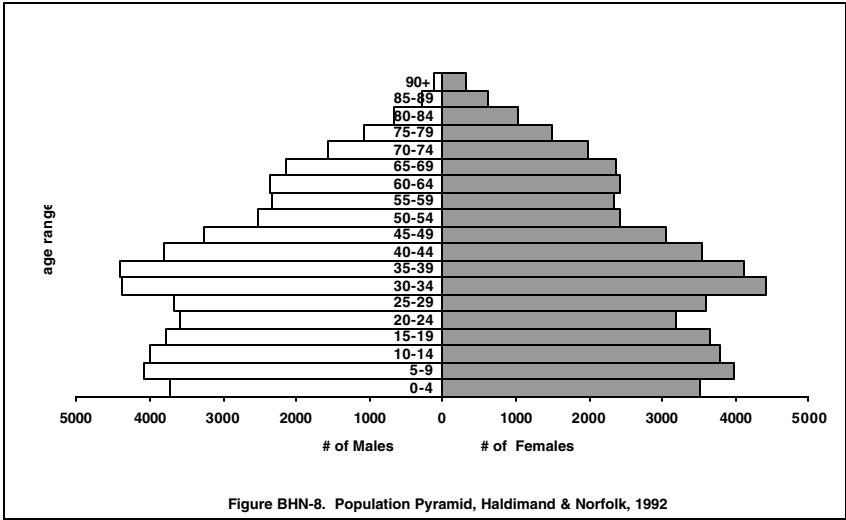
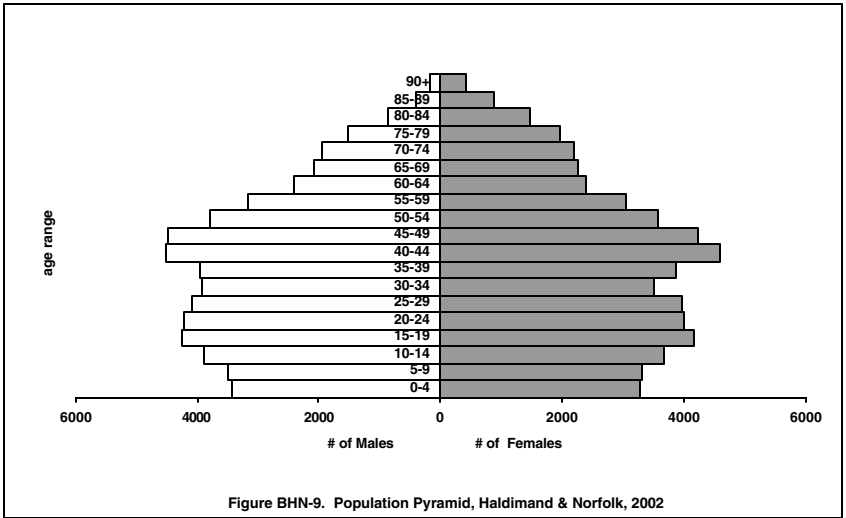


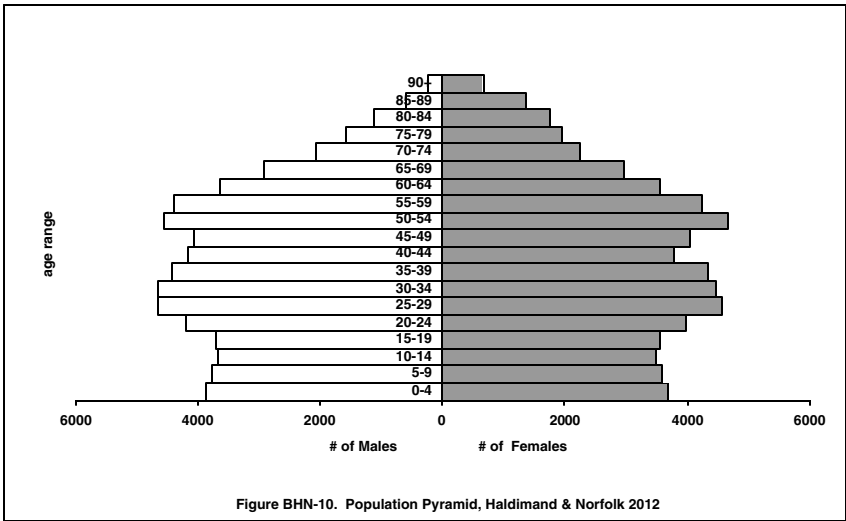
Figure BHN-7. Dependency Ratio, Brant County



% of total population		
Age	Male	Female
0-4	3.58	3.39
5-9	3.94	3.84
10-14	3.86	3.65
15-19	3.64	3.51
20-24	3.46	3.07
25-29	3.55	3.48
30-34	4.22	4.27
35-39	4.26	3.98
40-44	3.68	3.42
45-49	3.15	2.93
50-54	2.44	2.34
55-59	2.25	2.26
60-64	2.29	2.34
65-69	2.07	2.29
70-74	1.52	1.92
75-79	1.04	1.43
80-84	0.65	0.99
85-89	0.28	0.59
90+	0.12	0.30



% of total population		
Age	Male	Female
0-4	3.02	2.88
5-9	3.07	2.92
10-14	3.44	3.25
15-19	3.76	3.66
20-24	3.72	3.54
25-29	3.59	3.50
30-34	3.46	3.10
35-39	3.48	3.42
40-44	3.99	4.05
45-49	3.94	3.72
50-54	3.34	3.15
55-59	2.80	2.68
60-64	2.11	2.12
65-69	1.85	1.98
70-74	1.72	1.94
75-79	1.34	1.74
80-84	0.77	1.30
85-89	0.35	0.77
90+	0.14	0.36



% of total population		
Age	Male	Female
0-4	3.08	2.94
5-9	3.01	2.86
10-14	2.94	2.79
15-19	2.97	2.83
20-24	3.35	3.18
25-29	3.72	3.64
30-34	3.72	3.56
35-39	3.54	3.46
40-44	3.33	3.08
45-49	3.26	3.23
50-54	3.63	3.73
55-59	3.50	3.38
60-64	2.90	2.85
65-69	2.33	2.38
70-74	1.65	1.80
75-79	1.26	1.56
80-84	0.91	1.40
85-89	0.48	1.08
90+	0.20	0.53

**Table BHN-2:
Population Projections by Age Group, Haldimand & Norfolk Counties, 1992-2012**

Age Group	1992 Census	2002 (projection)	2012 (projection)	% change 92 - 12
Haldimand & Norfolk				
0-4	7226	6691	7542	4.4%
5-9	8056	6792	7353	-8.7%
10-14	7774	7588	7177	-7.7%
15-19	7405	8410	7261	-1.9%
20-24	6764	8227	8178	20.9%
25-29	7277	8037	9225	26.8%
30-34	8790	7445	9121	3.8%
35-39	8537	7817	8780	2.8%
40-44	7349	9121	7963	8.4%
45-49	6301	8686	8126	29.0%
50-54	4955	7361	9224	86.2%
55-59	4673	6209	8627	84.6%
60-64	4793	4797	7196	50.1%
65-69	4513	4342	5902	30.8%
70-74	3565	4144	4322	21.2%
75-79	2554	3492	3536	38.4%
80-84	1701	2348	2895	70.2%
85-89	905	1268	1962	116.8%
90+	435	575	907	108.5%
Total	103582	113358	125306	21.0%
Ontario				
0-4	742471	764732	762254	2.7%
5-9	722556	812650	786305	8.8%
10-14	683755	819316	831546	21.6%
15-19	698690	796693	876496	25.4%
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45-49	665954	912130	1096884	64.7%
50-54	520678	806558	1055663	102.7%
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60-64	456475	513262	783207	71.6%
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70-74	327300	402385	459222	40.3%
75-79	231989	332089	361141	55.7%
80-84	147311	222321	284578	93.2%
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90+	37508	53274	89947	139.8%
Total	10615475	12366850	13819024	30.2%

Notes, Definitions & Formulas

Age dependency ratios take into account the proportions of children, seniors and those of working age and are sometimes used as a measure of economic dependency (i.e. a ratio of the economically inactive population to the active or productive population).

The two dependency ratios presented here are an accepted standard.

Calculation

Youth dependency ratio
 $((P_{age\ 0-24}) / (P_{age\ 25-64}))$

Aged dependency ratio
 $((P_{age\ 65+}) / (P_{age\ 25-64}))$

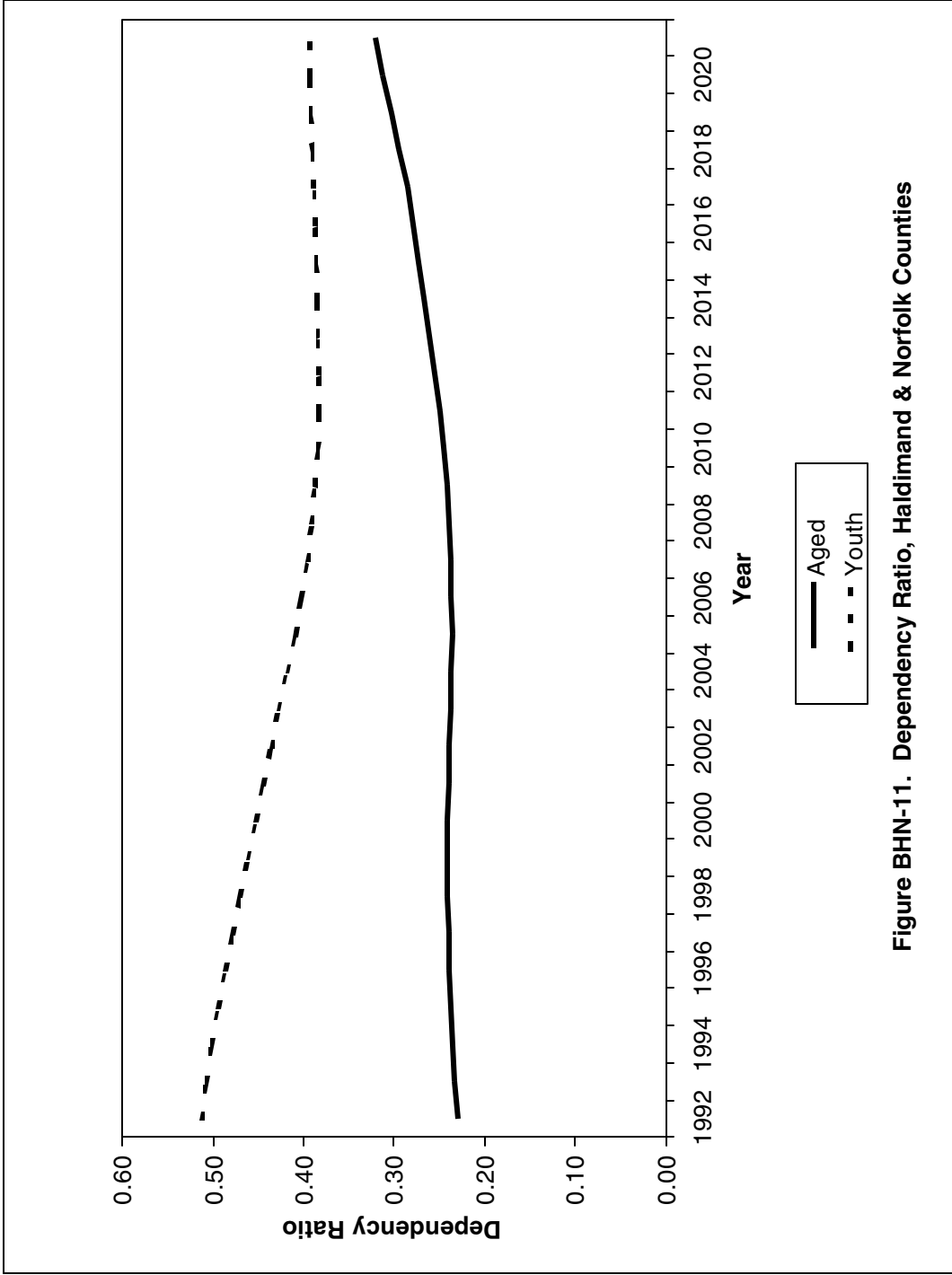
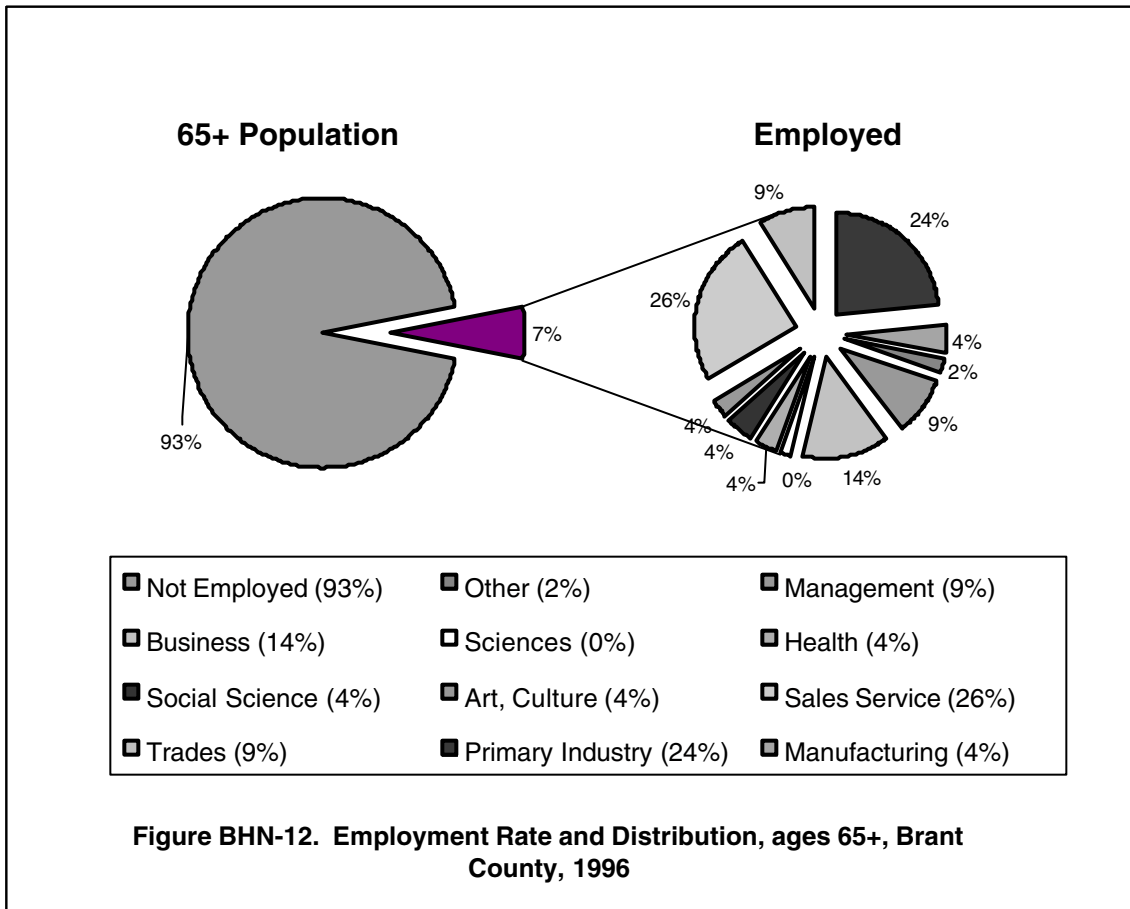


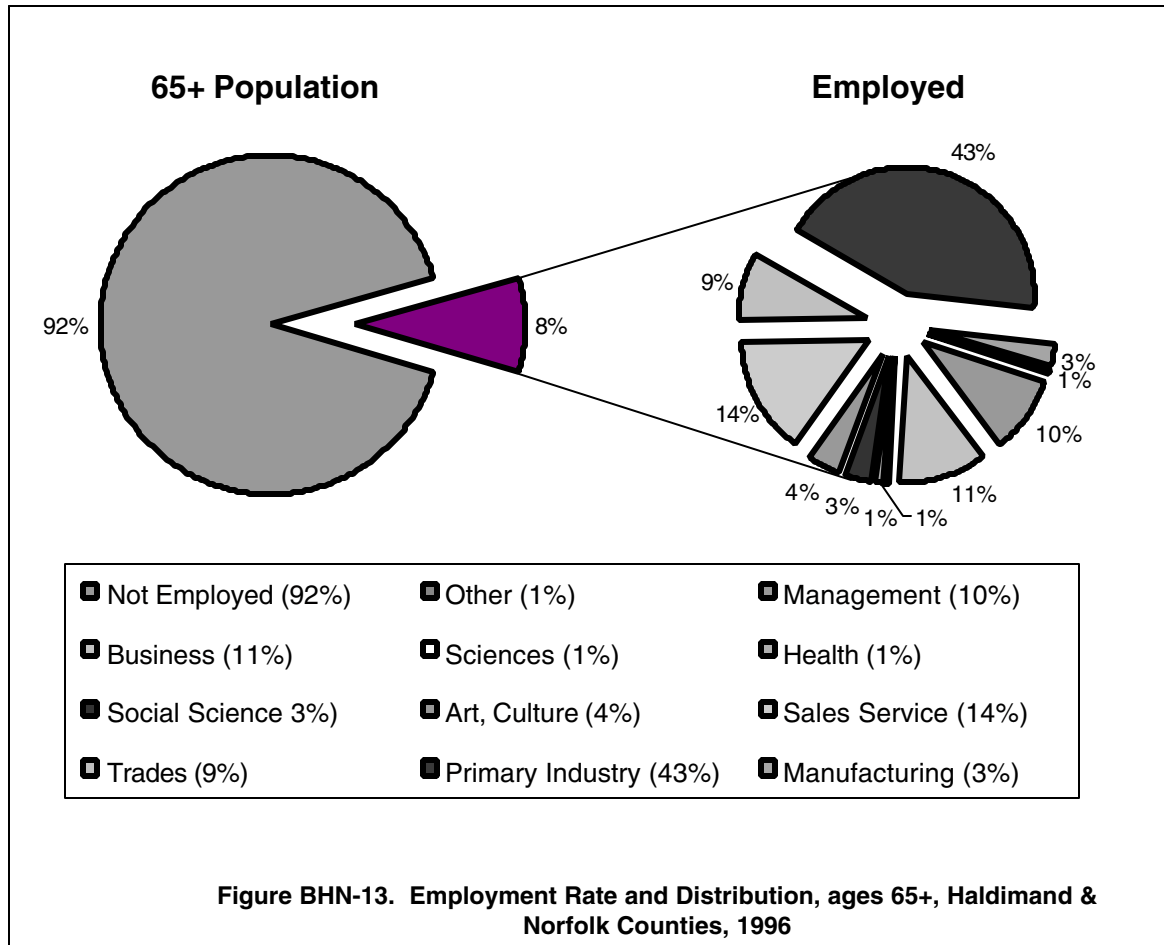
Figure BHN-11. Dependency Ratio, Haldimand & Norfolk Counties



**Table BHN-3:
Job Classification Distribution, Brant County, 1996**

	Ontario	Ontario 65+	Brant 65+
Management	7.14%	0.18%	0.61%
Business	13.30%	0.30%	0.90%
Sciences	2.79%	0.07%	0.12%
Health	4.32%	0.07%	0.23%
Social Science	4.71%	0.10%	0.29%
Art, culture	1.47%	0.07%	0.20%
Sales Service	20.51%	0.42%	1.60%
Trades	17.65%	0.14%	0.58%
Primary Industry	14.43%	0.13%	1.55%
Manufacturing	11.61%	0.09%	0.29%
Other	2.81%	0.04%	0.15%

Source: The Canadian Census, 1996 (20% Sample)



**Table BHN-4:
Job Classification Distribution, Haldimand & Norfolk (HN) Counties, 1996**

	Ontario	Ontario 65+	HN 65+
Management	7.14%	0.18%	0.93%
Business	13.30%	0.30%	1.06%
Sciences	2.79%	0.07%	0.07%
Health	4.32%	0.07%	0.07%
Social Science	4.71%	0.10%	0.33%
Art, culture	1.47%	0.07%	0.40%
Sales Service	20.51%	0.42%	1.42%
Trades	17.65%	0.14%	0.83%
Primary Industry	14.43%	0.13%	4.17%
Manufacturing	11.61%	0.09%	0.26%
Other	2.81%	0.04%	0.07%

Source: The Canadian Census, 1996 (20% Sample)

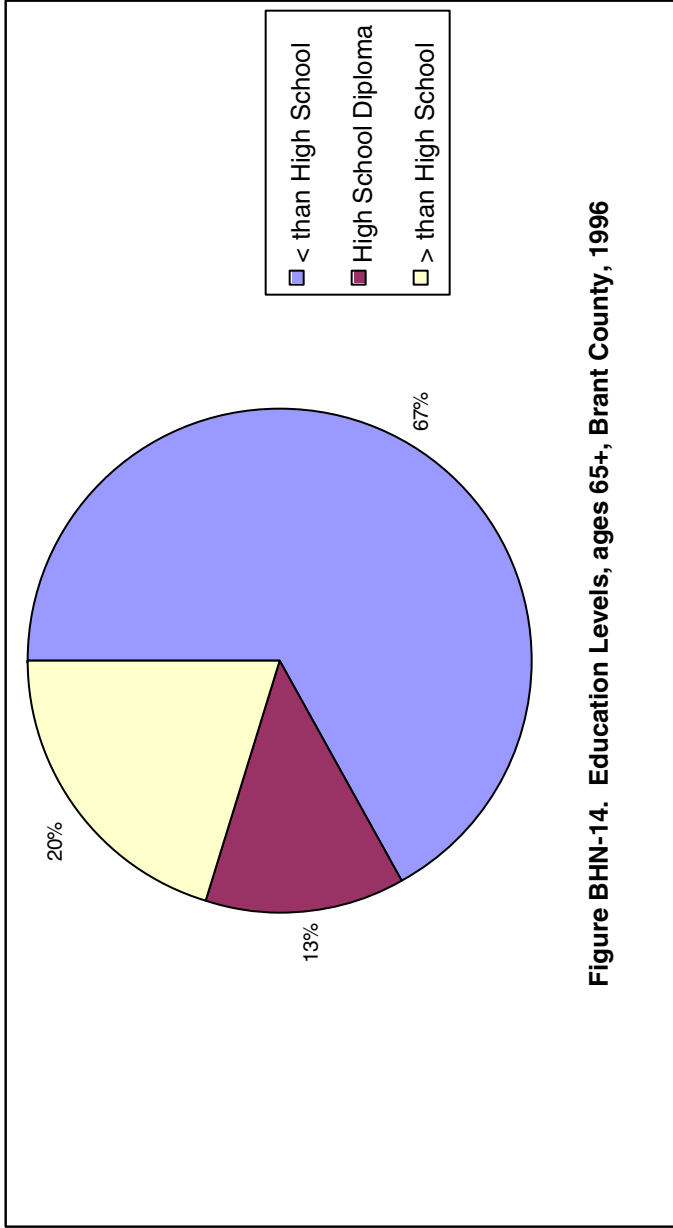


Figure BHN-14. Education Levels, ages 65+, Brant County, 1996

Table BHN-5:

Highest Education Achieved	Highest Level of Education, Brant County, 1996	
	Ontario	Brant 65+
No degree, certificate or diploma	35.04%	66.96%
Secondary (high) school graduation certificate	23.80%	12.73%
Trades certificate or diploma	9.36%	8.44%
Other non-university certificate or diploma	14.95%	6.70%
University certificate or diploma below bachelor level	1.92%	1.02%
Bachelor's degree	9.55%	2.28%
University certificate or diploma above bachelor level	1.75%	0.99%
Medical degree	0.50%	0.41%
Master's degree	2.63%	0.34%
Earned doctorate	0.51%	0.10%

Source: The Canadian Census, 1996 (20% Sample)

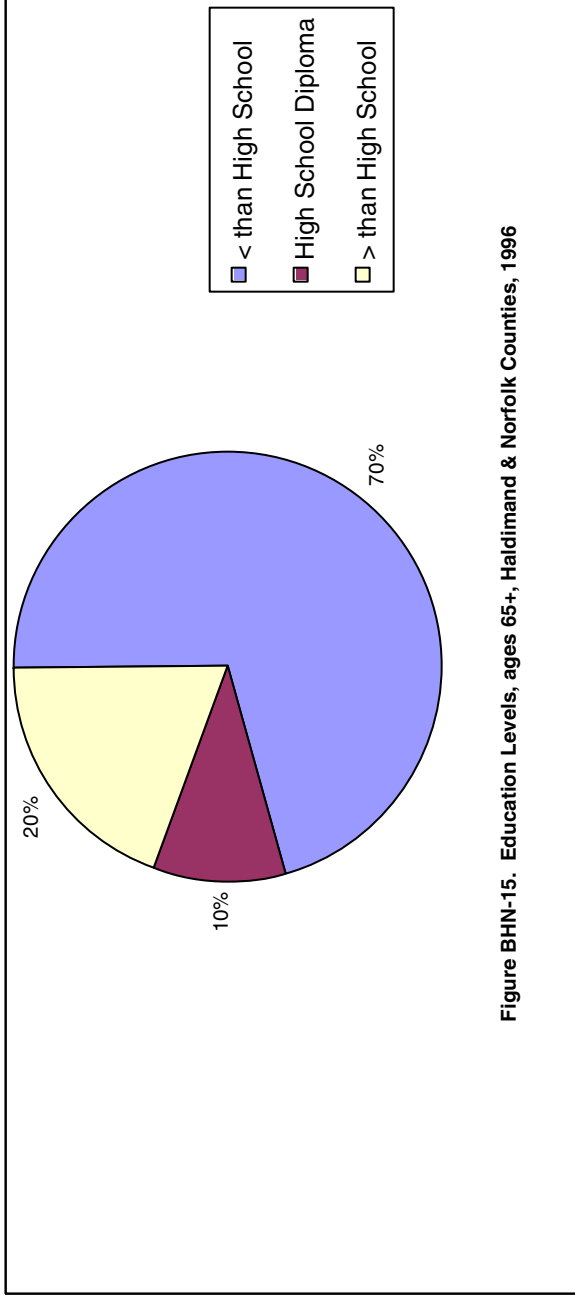


Figure BHN-15. Education Levels, ages 65+, Haldimand & Norfolk Counties, 1996

**Table BHN-6:
Highest Level of Education, Haldimand & Norfolk (HN) Counties, 1996**

Highest Education Achieved	Ontario	Ontario 65+	HN 65+
No degree, certificate or diploma	35.04%	60.58%	70.64%
Secondary (high) school graduation certificate	23.80%	14.69%	9.82%
Trades certificate or diploma	9.36%	8.52%	9.11%
Other non-university certificate or diploma	14.95%	7.59%	6.15%
University certificate or diploma below bachelor level	1.92%	1.96%	1.35%
Bachelor's degree	9.55%	3.71%	1.72%
University certificate or diploma above bachelor level	1.75%	0.88%	0.49%
Medical degree	0.50%	0.47%	0.07%
Master's degree	2.63%	1.18%	0.34%
Earned doctorate	0.51%	0.43%	0.26%

Source: The Canadian Census, 1996 (20% Sample)

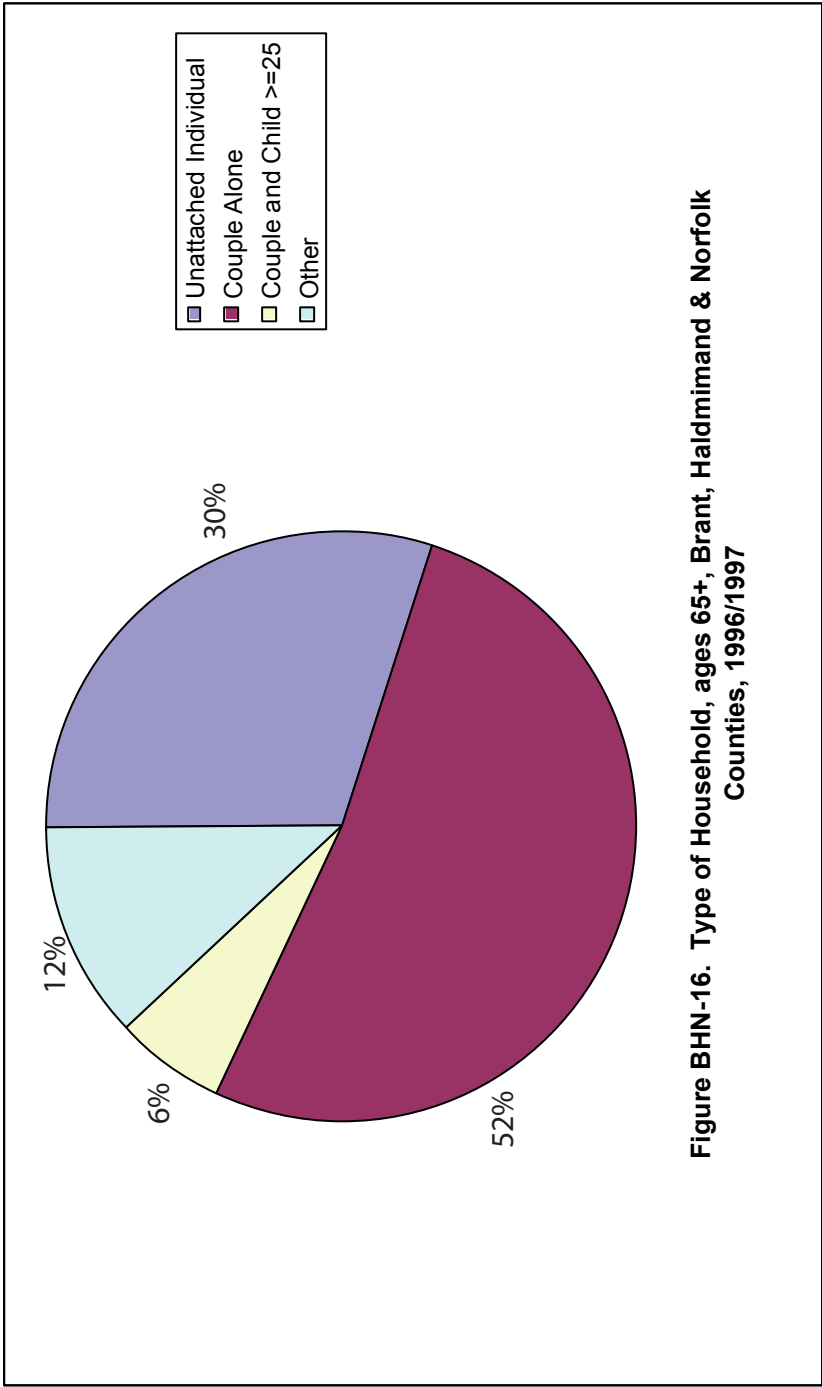


Table BHN-7:

Type of Household, Brant, Haldimand, & Norfolk (BHN) Counties, 1996/1997	Ontario 12+	Ontario 65 +	BHN 65+
Unattached Individual	11%	30%	30%
Couple Alone	22%	54%	52%
Couple and Child >=25	4%	7%*	6%*
Other	63%	9%*	12%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

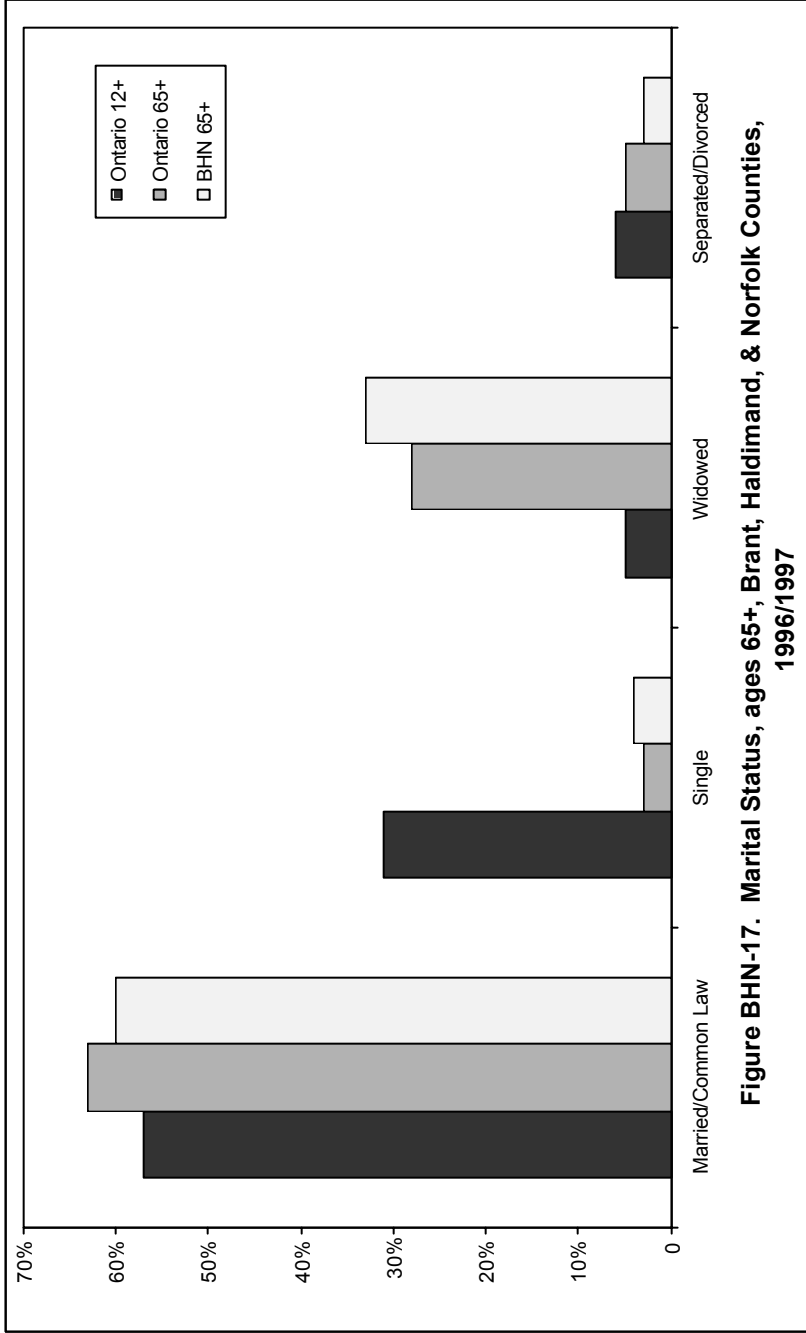


Table BHN-8: Marital Status, Brant, Haldimand, & Norfolk (BHN) Counties, 1996/1997

Marital Status	Ontario 12+	Ontario 65+	BHN 65+
Married/Common Law	57%	63%	60%
Single	31%	3%*	4%*
Widowed	5%*	28%	33%
Separated/Divorced	6%*	5%*	---

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

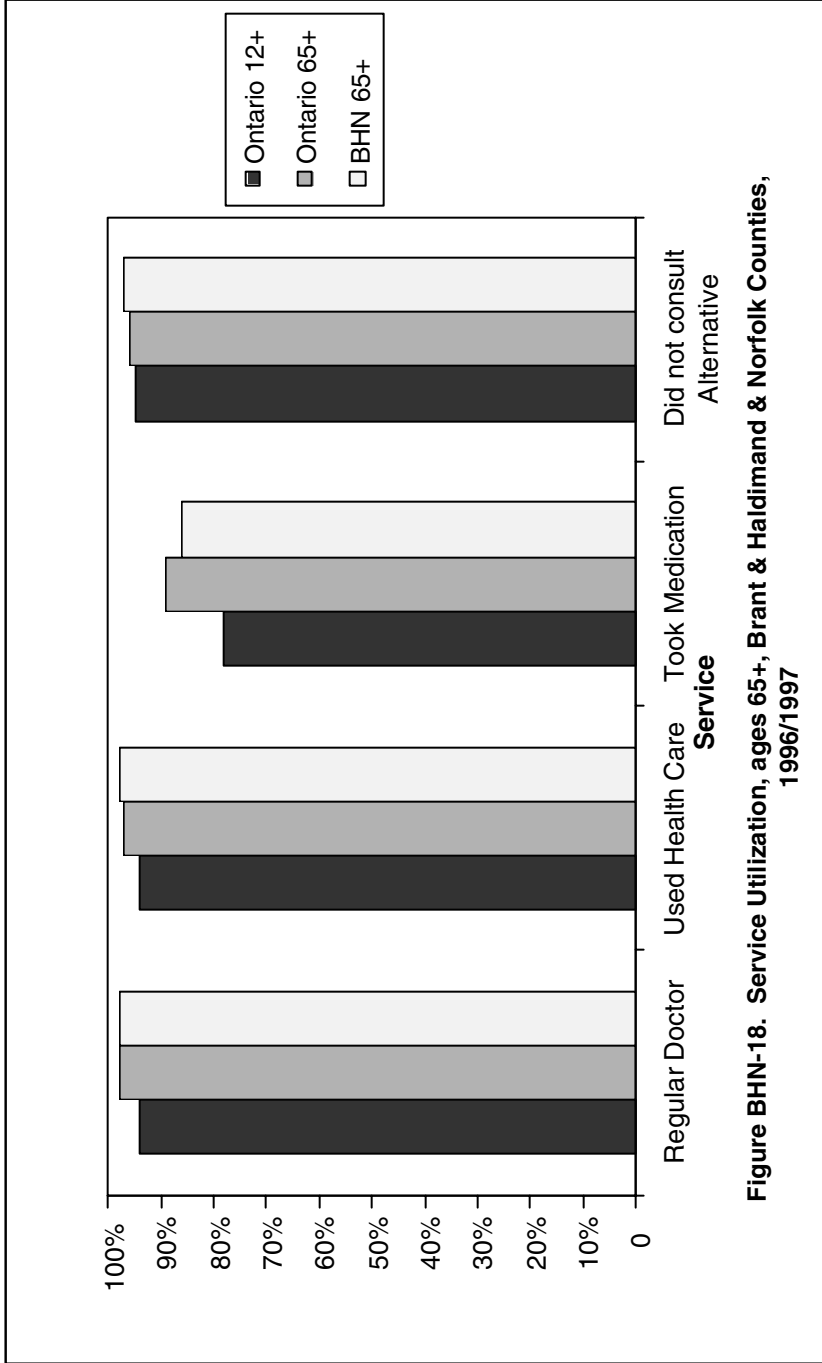


Figure BHN-18. Service Utilization, ages 65+, Brant & Haldimand & Norfolk Counties, 1996/1997

Table BHN-9:
Service Utilization, Brant & Haldimand & Norfolk (BHN) Counties, 1996/1997

Utilization Criteria	Ontario 12+	Ontario 65+	BHN 65+
Has a regular doctor	94%	98%	98%
Used health care in last year	94%	97%	98%
Took medication in last year	78%	89%	86%
Did not consult alternative medicine in last year	95%	96%	97%

Source: The Ontario Health Survey, 1996/1997

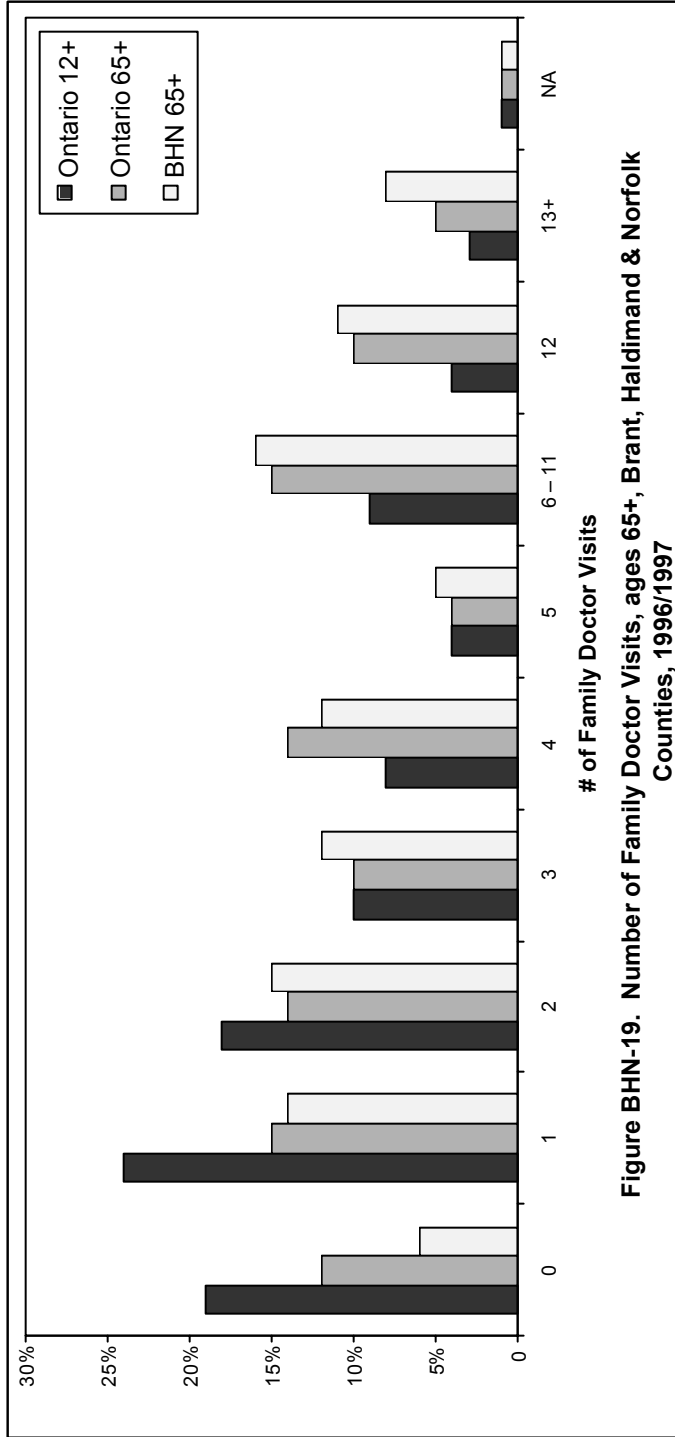


Table BHN-10:

Number of Family Doctor Visits Brant, Haldimand & Norfolk (BHN) Counties, 1996/1997			
Number of Family Doctor Visits	Ontario 12+	Ontario 65+	BHN 65+
0	19%	12%*	6%*
1	24%	15%	14%*
2	18%	14%*	15%
3	10%*	10%*	12%*
4	8%*	14%*	12%*
5	4%*	4%*	5%*
6-11	9%*	15%*	16%*
12	4%*	10%*	11%*
13+	3%*	5%*	8%*
NA	1%*	1%*	1%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

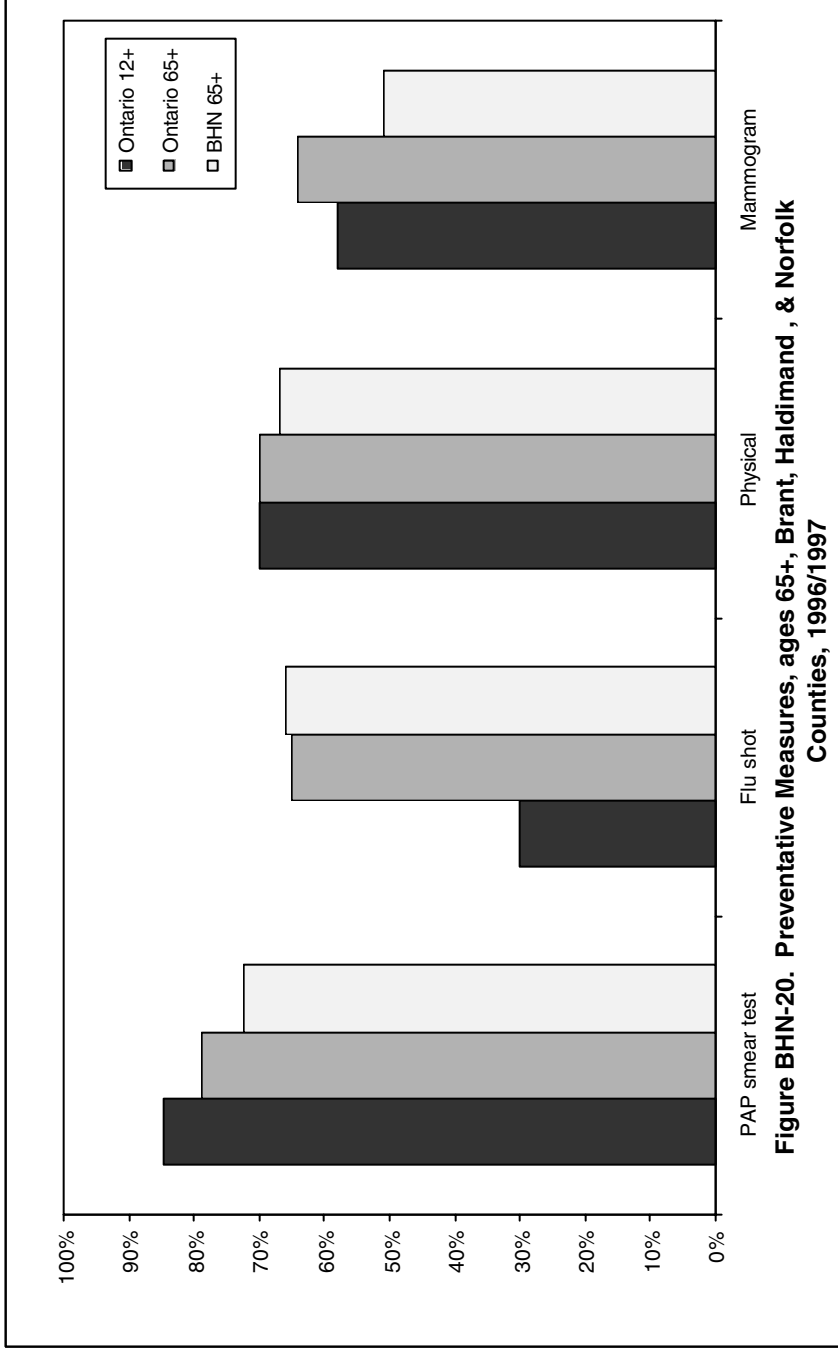


Table BHN-11
Preventative Measures, Brant, Haldimand, & Norfolk (BHN) Counties, 1996/1997

Preventative Measure	Ontario 12+	Ontario 65+	BHN 65+
Ever had a PAP smear test? (All women over 65)	85%	79%	72%
Ever had a Flu shot?	30%	65%	66%
Had Physical within last year?	70%	70%	67%
Ever had a mammogram? (All women over 65)	58%	64%	51%

Source: The Ontario Health Survey, 1996/1997

Notes, Definitions & Formulas

Mammogram data originates from the Ontario Health Survey. Applicable respondents are shown to have answered 'yes,' 'no,' or 'other' ('other' is a combination of numerous responses such as 'I don't know'). Those that have had a mammogram and are of an age between 65 and 72 were further questioned as to 'Last time mammogram was done.'

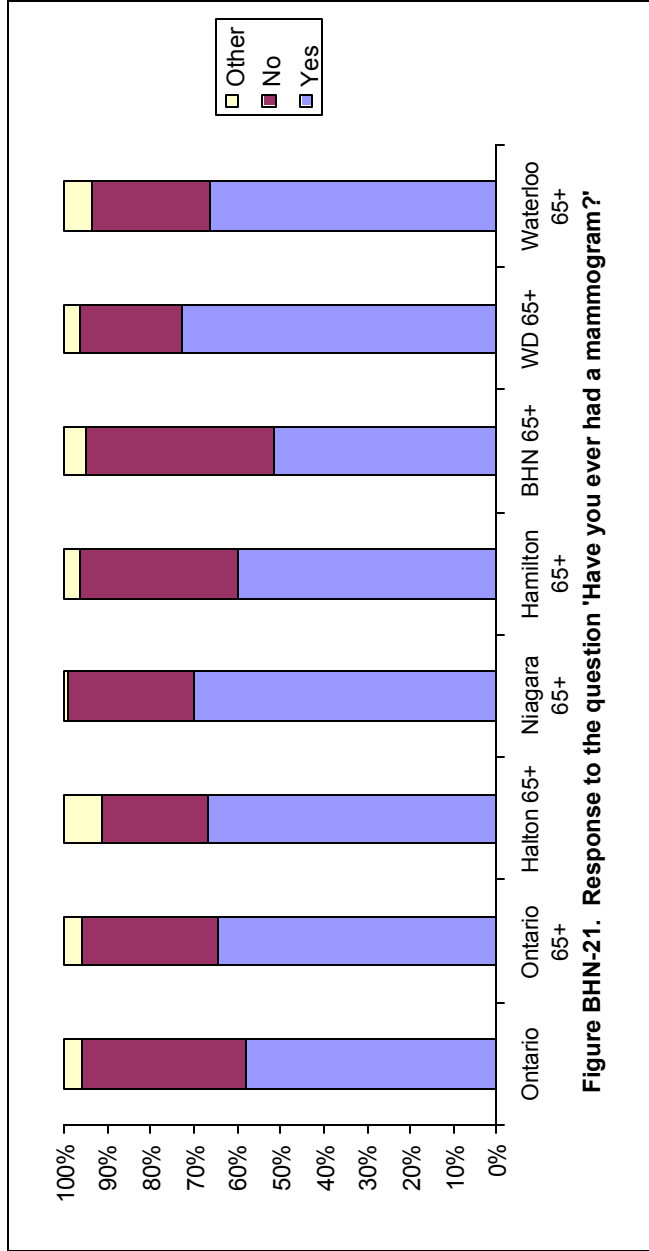
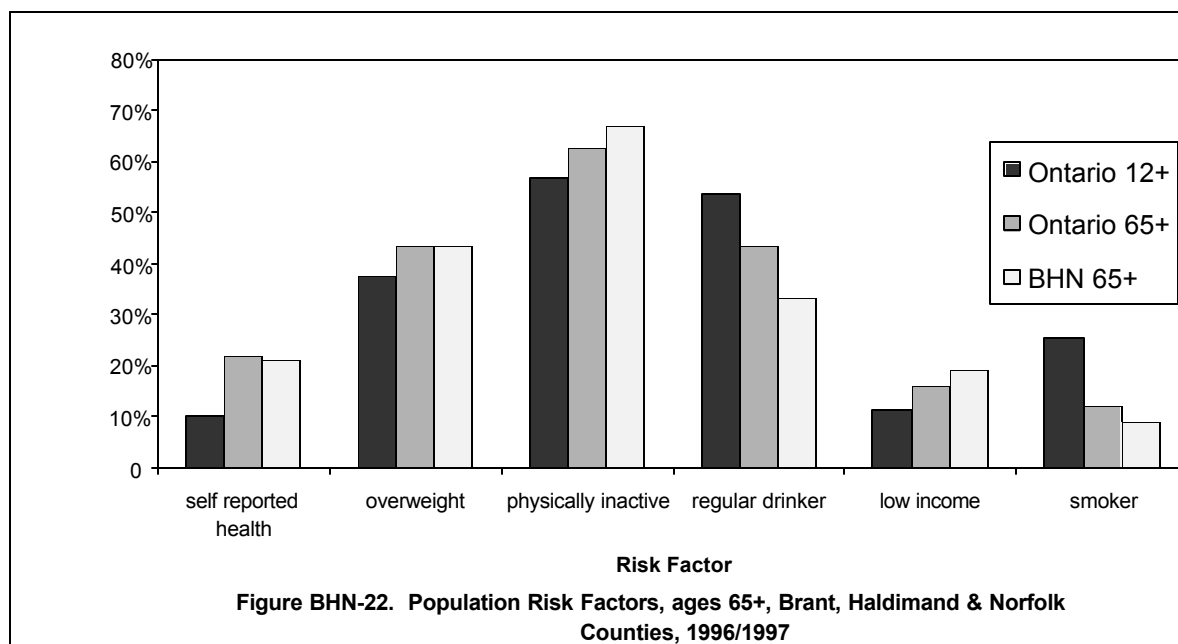


Figure BHN-21. Response to the question 'Have you ever had a mammogram?'

Table BHN-12: When was last mammogram? Brant, Haldimand, & Norfolk (BHN) Counties, 1996/1997

When last Mammogram?	Ontario 65+	BHN 65+
Less than 1 year ago	45%	59%
Between 1 and 2 Years	25%	25%
Over 2 years	30%	16%

Source: The Ontario Health Survey, 1996/1997



Risk Factor	Ontario 12+	Ontario 65+	BHN 65+
Self-reported health was 'fair' or 'poor'	10%*	22%	21%
Self-reported to be 'overweight'	37%	44%	44%
Physically inactive	57%	63%	67%
Regular drinker	54%	43%	33%
Low Income	11%*	16%	19%
Smoker	25%	12%*	9%*

Risk Factor	Definition	Reasoning for Inclusion
Self-Reported Health	How would you rate your general Health?	Research shows self-reported health is related to morbidity and mortality, especially among the elderly ¹
Self-Reported weight	How would you rate your current weight?	BMI scores are not collected for the elderly. Obesity has been linked to numerous health problems ²
Physically Inactive	Derived from many Questions.	Physically activity leads to a healthier lifestyle ³
Regular Drinker	Derived from many Questions.	Research has shown alcohol can lead to many health problems ⁴
Low Income	Derived from many Questions.	Research has linked low income to mortality ⁵
Smoker	Derived from many Questions.	Research has shown smoking can lead to many health problems ⁶

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

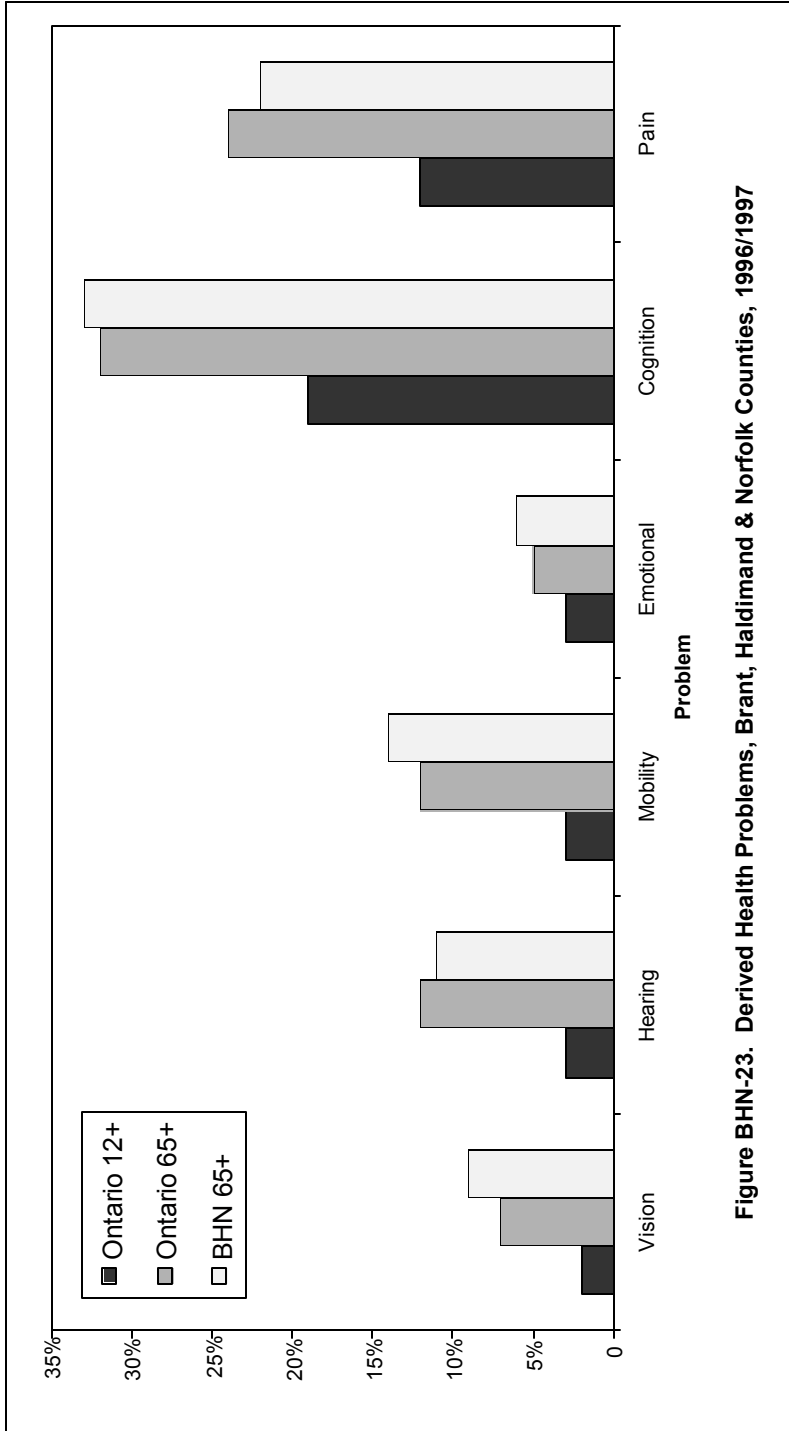


Figure BHN-23. Derived Health Problems, Brant, Haldimand & Norfolk Counties, 1996/1997

Table BHN-15:

Derived Physical/Emotional Problems, Brant, Haldimand, & Norfolk (BHN) Counties, 1996/1997

Type of problem derived from the OHS	Ontario 12+	Ontario 65+	BHN 65+
Has a vision problem beyond corrective lenses	---	7%*	9%*
Hearing	3%*	12%*	11%*
Mobility	3%*	12%*	14%*
Emotion – less than 'Somewhat Happy'	3%*	5%*	6%*
Cognition	19%	32%	33%
Is in some type of pain	12%*	24%	22%

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

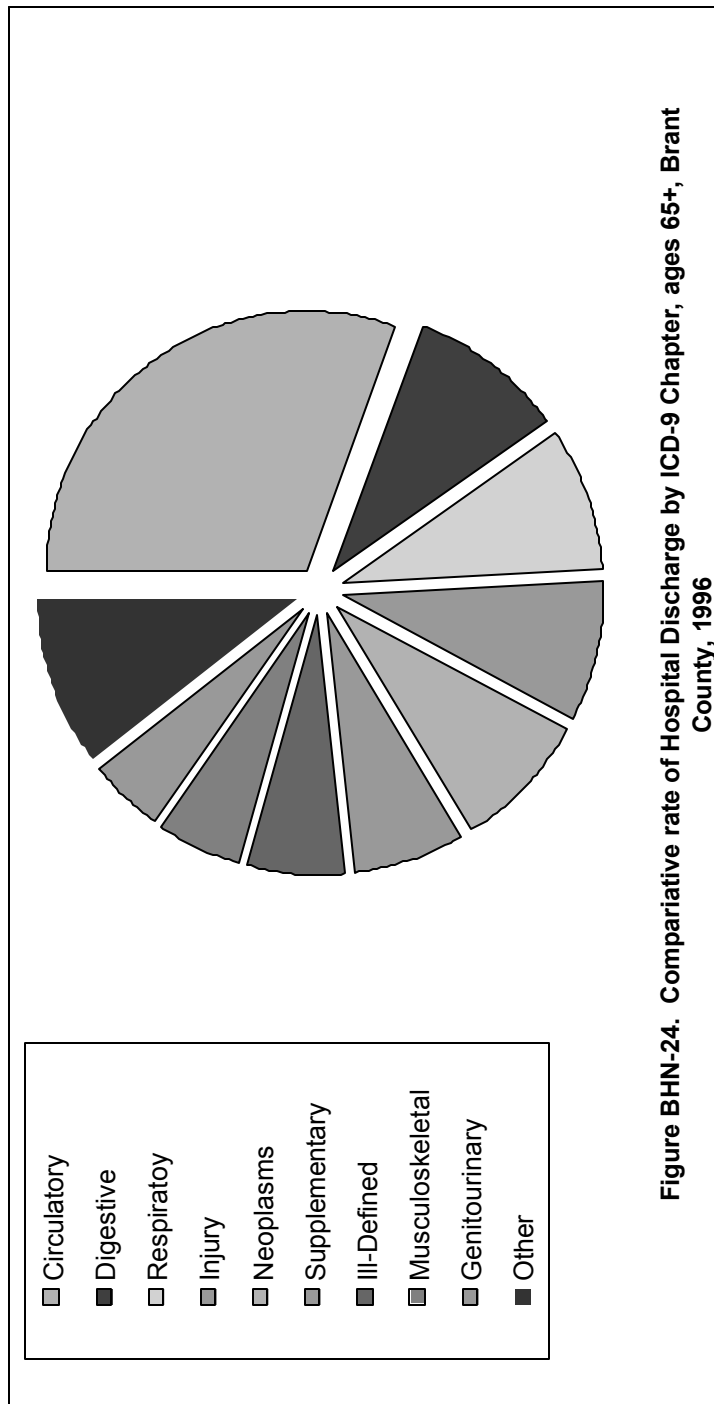


Figure BHN-24. Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, Brant County, 1996

Table BHN-16: Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, 1996

ICD Chapter	Brant	HN	Halton	Hamilton	Niagara	Waterloo	WD
Diseases of the Circulatory System	30.61%	32.32%	30.17%	30.52%	30.83%	28.70%	27.10%
Disease of the Digestive System	9.59%	11.68%	9.12%	7.06%	7.43%	6.42%	7.79%
Disease of the Respiratory System	8.94%	8.78%	7.16%	8.61%	8.96%	9.38%	10.46%
Injuries and Poisoning	8.61%	8.65%	8.53%	8.68%	8.67%	8.28%	9.31%
Neoplasms	8.55%	10.78%	10.71%	11.39%	8.72%	11.12%	9.50%
Supplementary Classifications	6.94%	3.55%	4.45%	4.04%	4.20%	4.73%	4.99%
Symptoms, Signs, and Ill-Defined Conditions	6.18%	4.95%	7.32%	5.60%	5.93%	6.24%	6.37%
Musculoskeletal System and Connecting Tissue	5.30%	4.86%	6.00%	6.41%	5.96%	6.28%	5.88%
Diseases of the Genitourinary System	4.64%	5.21%	3.29%	3.67%	3.87%	3.63%	4.27%
Other	10.64%	9.21%	13.25%	14.03%	15.44%	15.22%	14.32%

Source: Provincial Health Planning Database, 2002

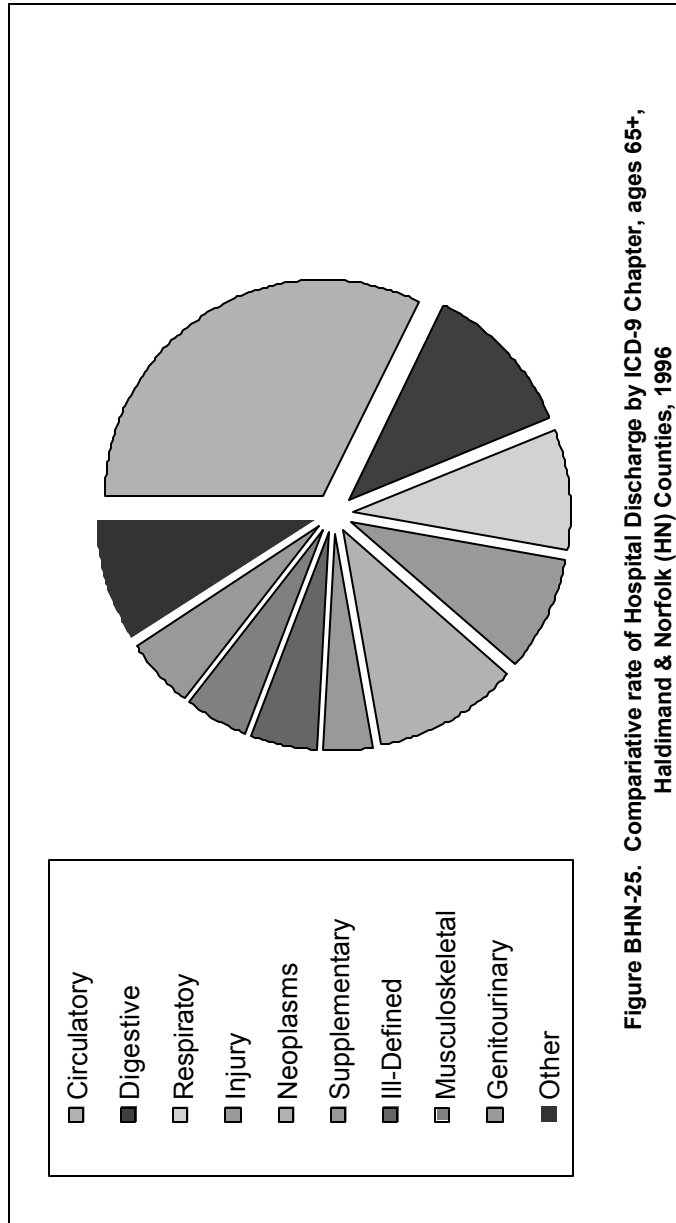


Figure BHN-25. Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, Haldimand & Norfolk (HN) Counties, 1996

Table BHN-17: Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, 1996

ICD Chapter	Brant	HN	Halton	Hamilton	Niagara	Waterloo	WD
Diseases of the Circulatory System	30.61%	32.32%	30.17%	30.52%	30.83%	28.70%	27.10%
Disease of the Digestive System	9.59%	11.68%	9.12%	7.06%	7.43%	6.42%	7.79%
Disease of the Respiratory System	8.94%	8.78%	7.16%	8.61%	8.96%	9.38%	10.46%
Injuries and Poisoning	8.61%	8.65%	8.53%	8.68%	8.67%	8.28%	9.31%
Neoplasms	8.55%	10.78%	10.71%	11.39%	8.72%	11.12%	9.50%
Supplementary Classifications	6.94%	3.55%	4.45%	4.04%	4.20%	4.73%	4.99%
Symptoms, Signs, and Ill-Defined Conditions	6.18%	4.95%	7.32%	5.60%	5.93%	6.24%	6.37%
Musculoskeletal System and Connecting Tissue	5.30%	4.86%	6.00%	6.41%	5.96%	6.28%	5.88%
Diseases of the Genitourinary System	4.64%	5.21%	3.29%	3.67%	3.87%	3.63%	4.27%
Other	10.64%	9.21%	13.25%	14.03%	15.44%	15.22%	14.32%

Source: Provincial Health Planning Database, 2002

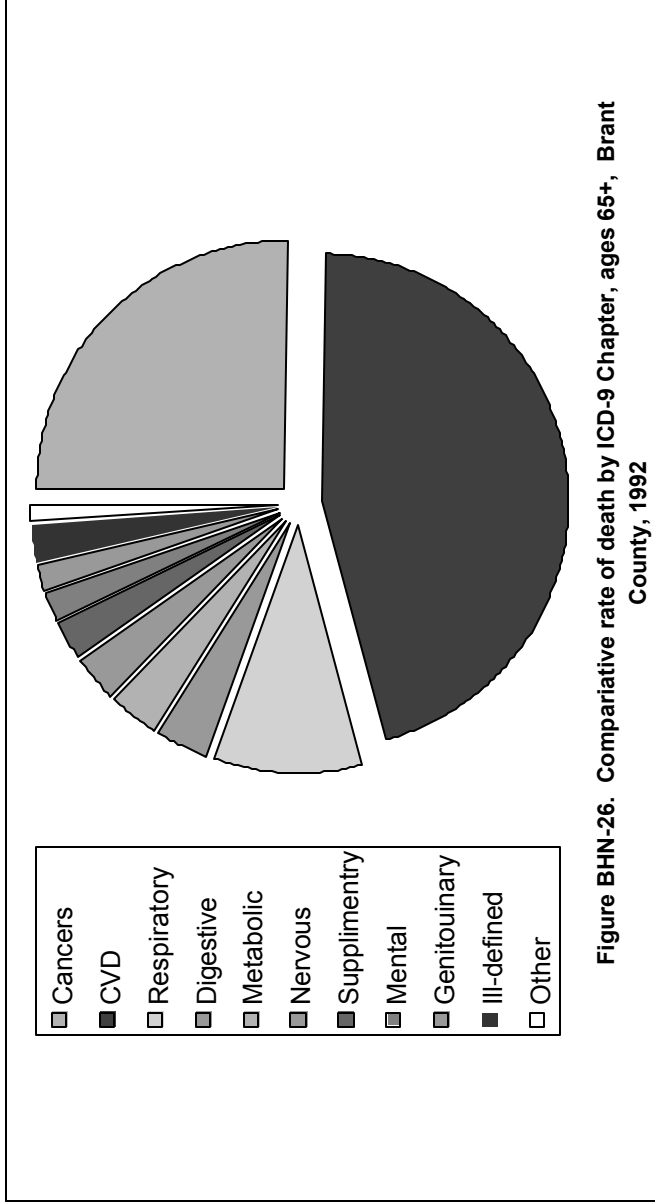


Table BHN-18: Comparative rate of death by ICD-9 Chapter, Brant County, 1992

ICD CHAPTER	Ontario	Ontario 65+	Brant 65+
Neoplasms	27.90%	25.40%	23.10%
Diseases of the Circulatory System	39.70%	45.50%	46.00%
Diseases of the Respiratory System	8.10%	9.70%	13.50%
Diseases of the Digestive System	3.60%	3.40%	3.50%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.10%	3.20%	2.80%
Disease of the Nervous System	2.80%	3.00%	2.60%
Supplementary Classification	5.70%	2.50%	2.90%
Mental Disorders	1.90%	2.10%	1.70%
Diseases of the Genitourinary System	1.50%	1.70%	1.30%
Symptoms, Signs, and ill-defined conditions	2.30%	2.50%	0.90%
Other	3.40%	1.00%	1.70%

Source: Health Planning System Initiative, 2000

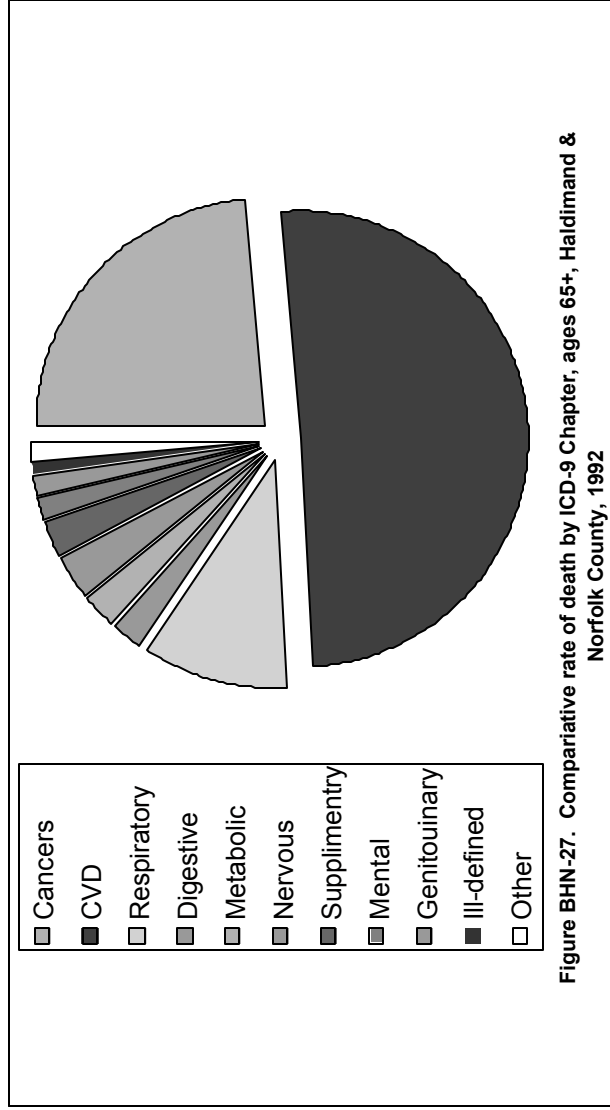


Table BHN-19: Comparative rate of death by ICD-9 Chapter, Haldimand & Norfolk (HN) Counties, 1992

ICD CHAPTER	Ontario	Ontario 65+	HN 65+
Neoplasms	27.90%	25.40%	23.70%
Diseases of the Circulatory System	39.70%	45.50%	50.50%
Diseases of the Respiratory System	8.10%	9.70%	10.30%
Diseases of the Digestive System	3.60%	3.40%	2.20%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.10%	3.20%	2.50%
Disease of the Nervous System	2.80%	3.00%	2.90%
Supplementary Classification	5.70%	2.50%	2.60%
Mental Disorders	1.90%	2.10%	1.80%
Diseases of the Genitourinary System	1.50%	1.70%	1.40%
Symptoms, Signs, and ill-defined conditions	2.30%	2.50%	0.80%
Other	3.40%	1.00%	1.30%

Source: Health Planning System Initiative, 2000

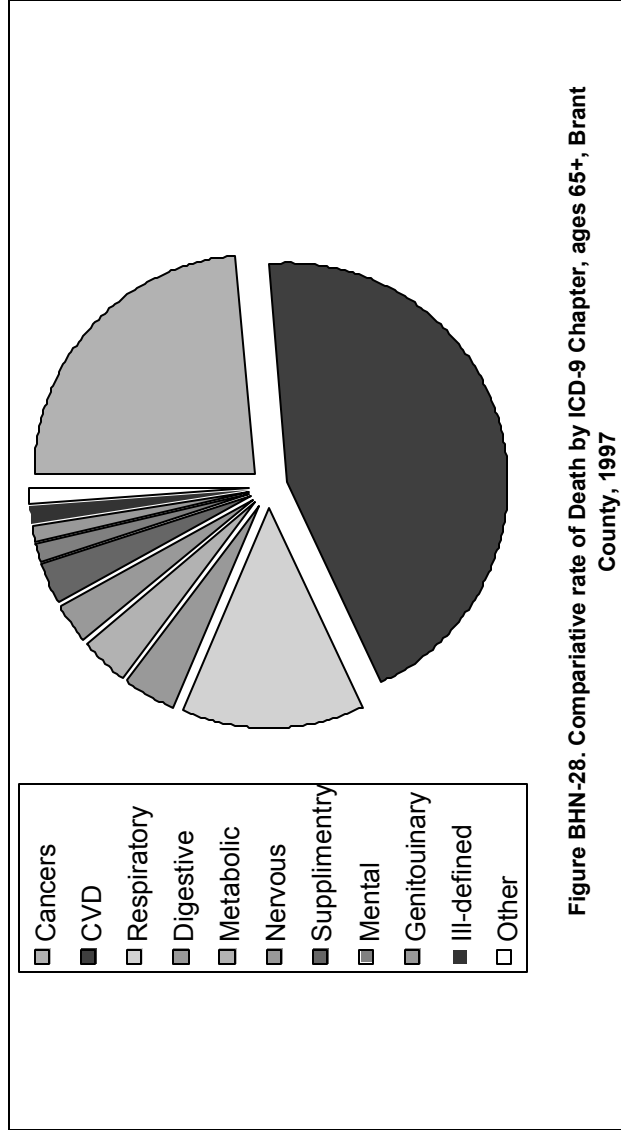


Table BHN-20: Comparative rate of death by ICD-9 Chapter, Brant County, 1997

ICD CHAPTER	Ontario	Ontario 65+	Brant 65+
Neoplasms	27.98%	25.47%	23.72%
Diseases of the Circulatory System	38.04%	42.79%	44.27%
Diseases of the Respiratory System	8.68%	10.18%	13.28%
Diseases of the Digestive System	3.55%	3.46%	3.97%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.54%	3.75%	3.63%
Disease of the Nervous System	3.03%	3.27%	3.06%
Supplementary Classification	5.60%	2.84%	2.95%
Mental Disorders	2.47%	2.82%	1.36%
Diseases of the Genitourinary System	1.62%	1.89%	1.36%
Symptoms, Signs, and ill-defined conditions	1.93%	2.84%	1.14%
Other	3.57%	0.69%	1.25%

Source: Health Planning System Initiative, 2000

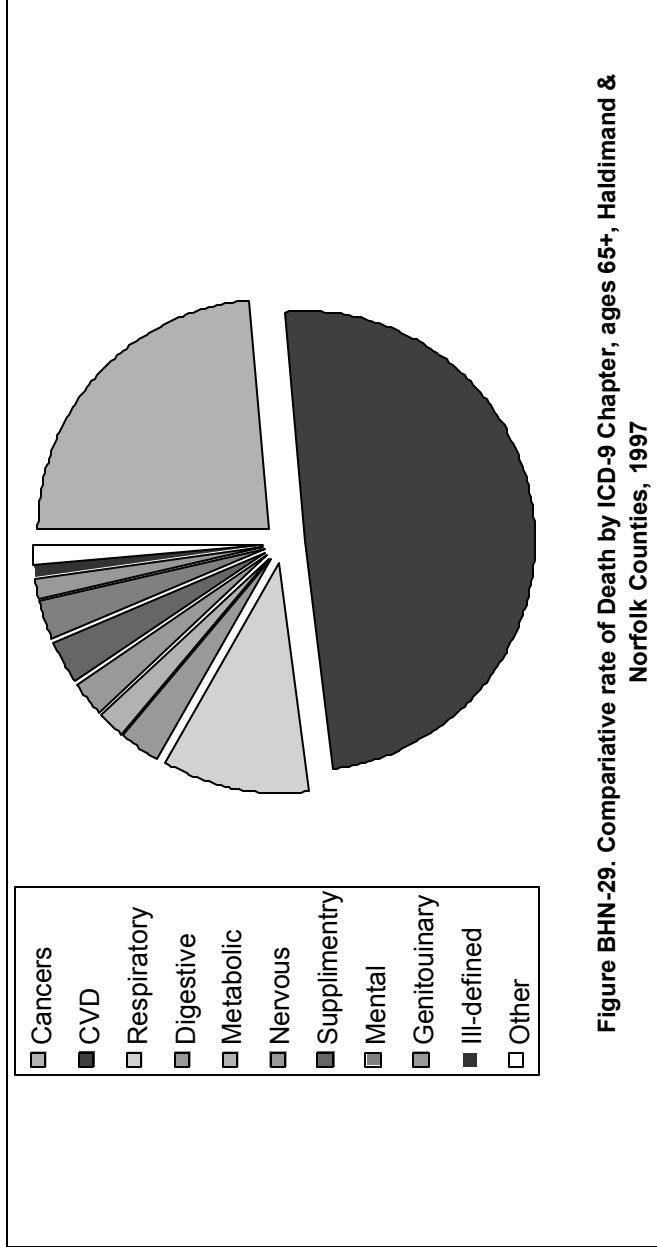


Table BHN-21: Comparative rate of death by ICD-9 Chapter, Haldimand & Norfolk (HN) Counties, 1997

ICD CHAPTER	Ontario	Ontario 65+	HN 65+
Neoplasms	27.98%	25.47%	23.70%
Diseases of the Circulatory System	38.04%	42.79%	49.35%
Diseases of the Respiratory System	8.68%	10.18%	10.29%
Diseases of the Digestive System	3.55%	3.46%	2.73%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.54%	3.75%	2.08%
Disease of the Nervous System	3.03%	3.27%	2.47%
Supplementary Classification	5.60%	2.84%	2.99%
Mental Disorders	2.47%	2.82%	2.86%
Diseases of the Genitourinary System	1.62%	1.89%	1.17%
Symptoms, Signs, and ill-defined conditions	1.93%	2.84%	0.91%
Other	3.57%	0.69%	1.43%

Source: Health Planning System Initiative, 2000

Table BHN-22: Age Specific Indirect Standardized Mortality Ratio, a 1992 County to Ontario Comparison							
Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.20	0.87	0.52	0.73	0.83	1.00	0.70
5-9	0	0.41	0.43	0.74	0.24	0.11	0.20
10-14	1.77	0.48	0.17	0.39	0.72	0.95	0.25
15-19	1.63	2.94	0.68	0.79	1.00	1.30	1.52
20-24	1.82	0.84	0.75	0.85	0.83	0.58	0.71
25-29	1.18	0.78	1.13	1.36	1.00	1.13	1.21
30-34	1.13	1.80	0.68	1.01	1.27	1.06	0.96
35-39	1.06	1.32	1.02	1.24	1.32	1.03	1.28
40-44	1.38	1.01	0.92	0.99	1.07	0.98	0.86
45-49	1.00	1.11	0.89	0.98	1.40	0.92	1.06
50-54	1.35	1.11	0.86	1.19	1.28	1.00	1.06
55-59	1.20	1.34	0.95	1.26	1.10	1.19	1.13
60-64	1.41	1.07	1.02	1.12	1.25	1.01	1.16
65-69	1.16	0.93	0.89	1.22	1.12	0.96	1.17
70-74	1.32	1.04	0.91	1.11	1.11	0.97	0.96
75-79	0.95	1.23	0.94	1.15	1.04	1.04	1.06
80-84	1.00	1.14	0.87	1.00	0.96	0.98	1.12
85+	1.15	0.96	0.94	0.94	1.02	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

**Table BHN-23:
Age Specific Indirect Standardized Mortality Ratio, a 1997 County to Ontario Comparison**

Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.61	0.81	0.64	1.47	1.23	1.30	1.44
5-9	0	0	0.13	0.67	0.35	0.21	0.20
10-14	0.81	0	0.44	0.34	0.66	0.36	1.10
15-19	0.46	0.50	1.04	0.52	0.73	1.01	1.27
20-24	0.87	1.74	0.61	0.88	0.90	0.50	0.97
25-29	0.88	1.07	0.55	1.07	0.65	0.52	0.64
30-34	1.90	1.33	0.59	0.88	1.26	0.65	0.71
35-39	1.39	0.91	0.67	1.08	1.13	0.82	0.90
40-44	1.04	0.78	0.80	1.04	1.03	0.97	0.78
45-49	1.35	0.89	0.55	1.22	0.99	1.14	0.98
50-54	1.42	0.87	0.76	1.17	1.06	0.87	0.88
55-59	0.98	1.13	0.68	1.08	0.99	0.78	0.91
60-64	1.21	1.17	0.82	1.18	1.23	0.84	0.84
65-69	1.17	1.22	0.73	1.11	1.00	0.99	1.17
70-74	0.84	1.03	0.87	0.98	1.06	1.01	0.96
75-79	1.02	0.89	0.93	0.94	0.96	1.01	1.06
80-84	0.99	1.06	0.96	0.99	0.98	0.95	1.12
85+	1.16	1.17	0.81	0.94	0.97	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

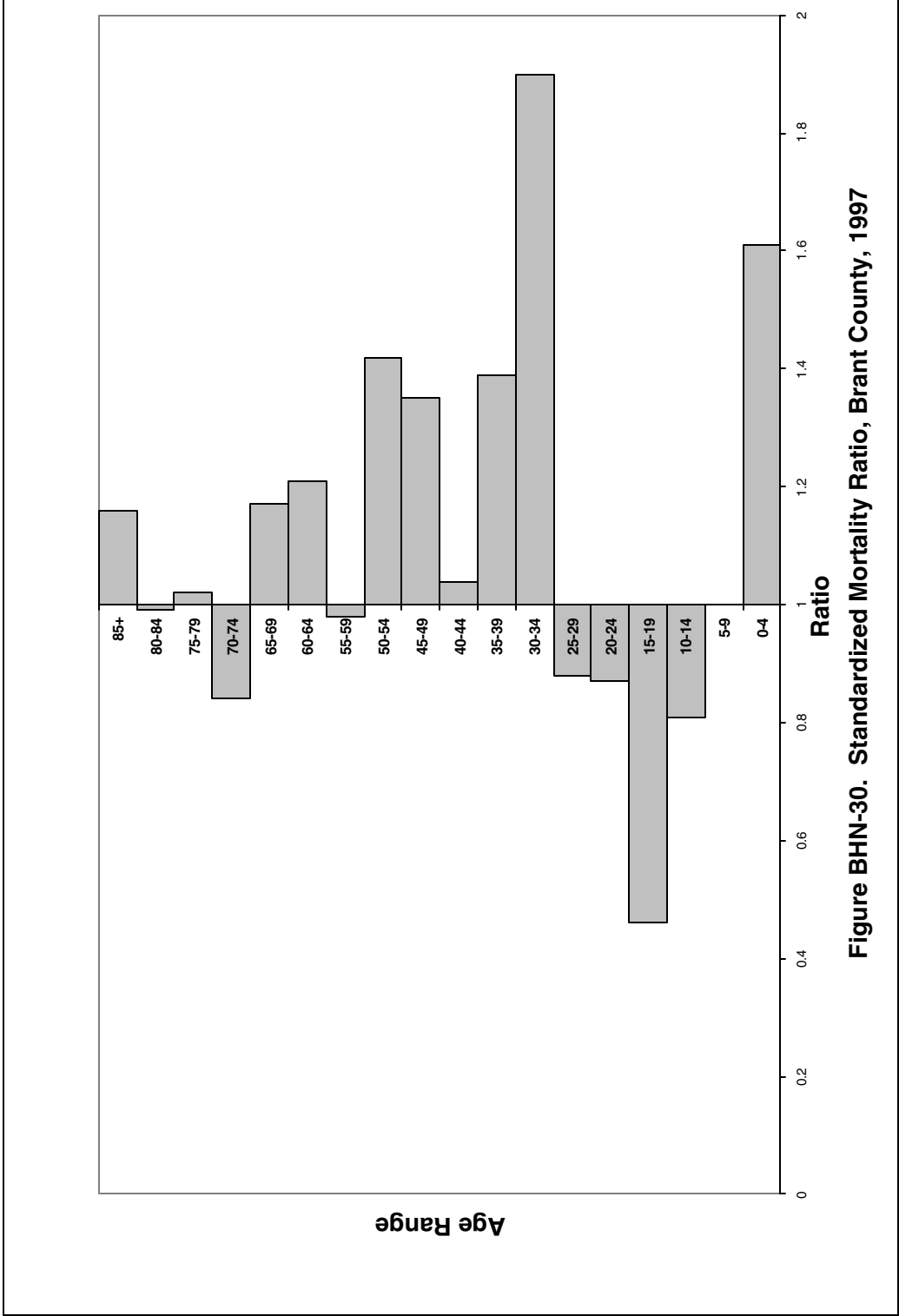


Figure BHN-30. Standardized Mortality Ratio, Brant County, 1997

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

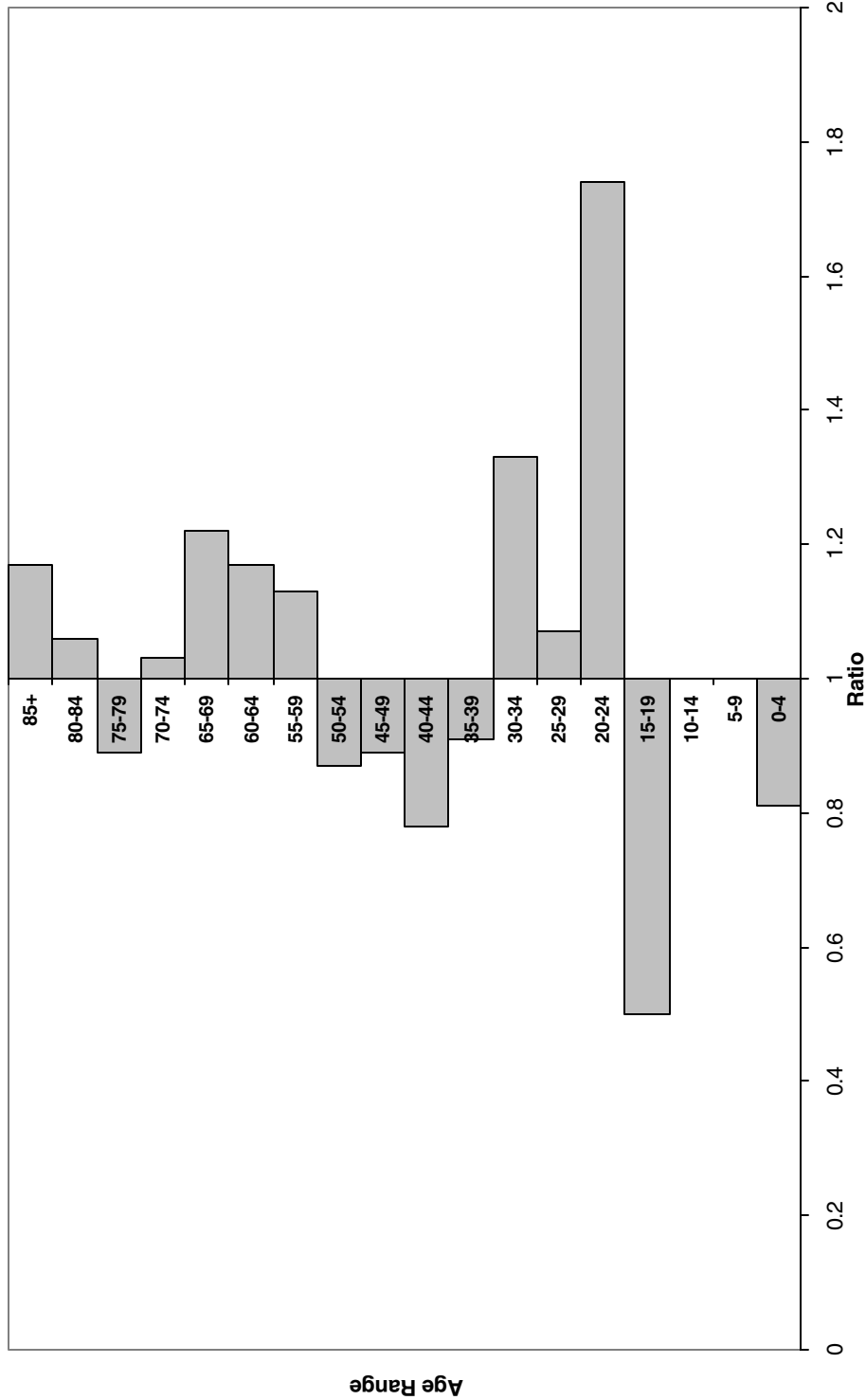


Figure BHN-31. Standardized Mortality Ratio, Haldimand & Norfolk Counties, 1997

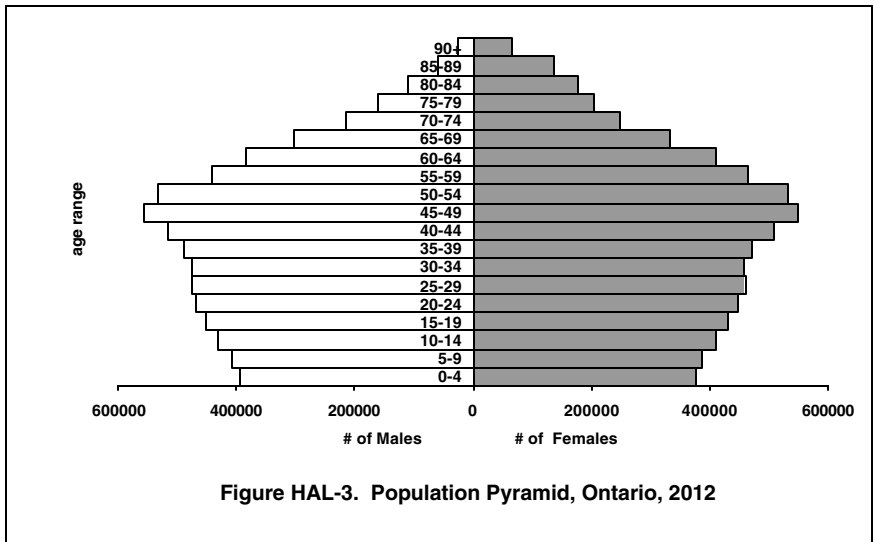
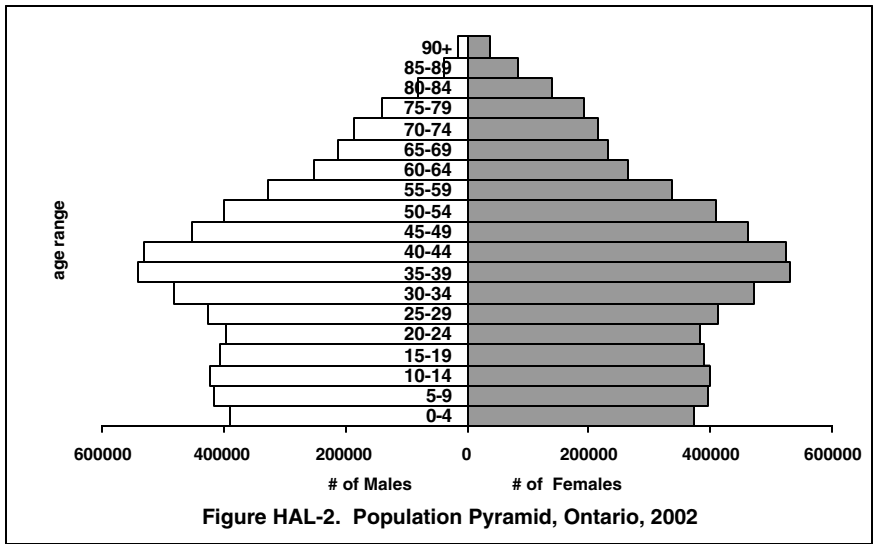
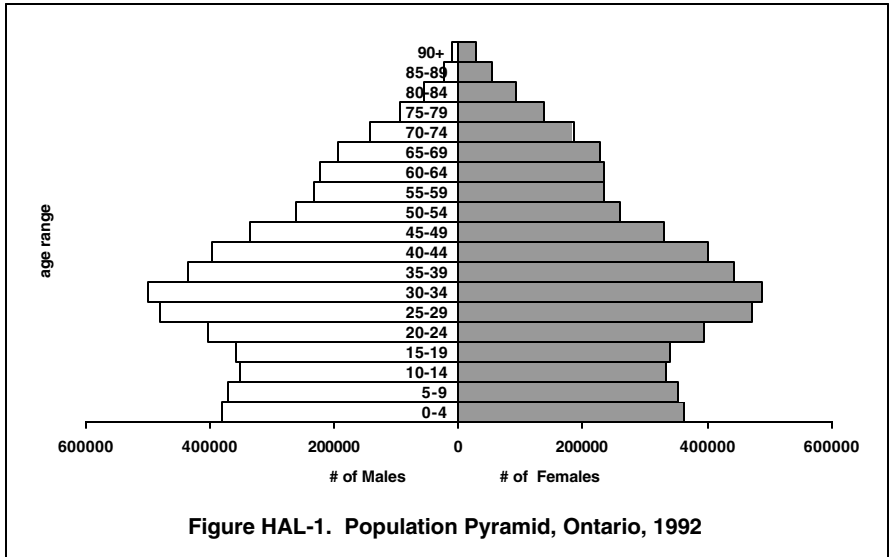
Halton Region

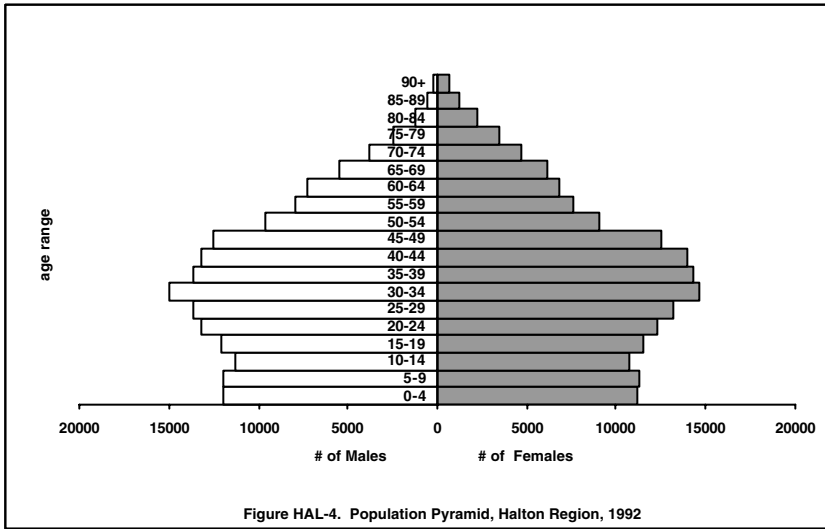
Notes, Definitions & Formulas

Population Pyramids present the age sex composition of a population. They may present either absolute numbers or percents.

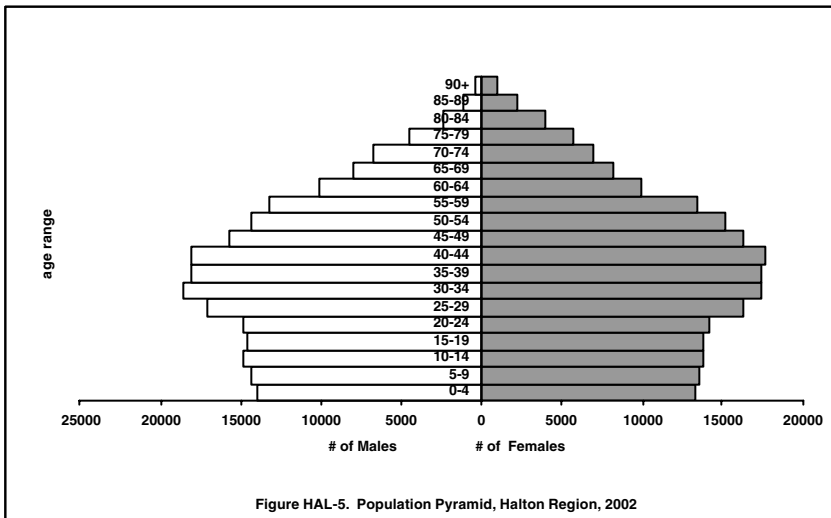
The age of an individual is taken to be the age as of their last birthday (as of census reference date, May 14th, 1996), and is derived from the date of birth.

The sources for the population data are the census and HELPS.

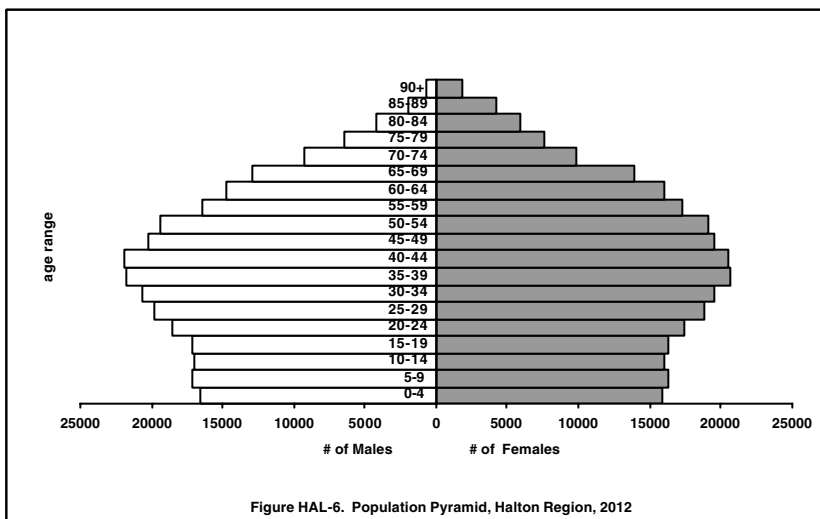




% of total population		
Age	Male	Female
0-4	3.57	3.35
5-9	3.56	3.38
10-14	3.38	3.22
15-19	3.59	3.43
20-24	3.93	3.66
25-29	4.07	3.94
30-34	4.47	4.40
35-39	4.09	4.29
40-44	3.95	4.17
45-49	3.73	3.76
50-54	2.88	2.71
55-59	2.35	2.26
60-64	2.16	2.06
65-69	1.65	1.86
70-74	1.14	1.43
75-79	0.74	1.04
80-84	0.36	0.65
85-89	0.17	0.38
90+	0.07	0.19



% of total population		
Age	Male	Female
0-4	3.17	3.02
5-9	3.24	3.08
10-14	3.36	3.14
15-19	3.32	3.14
20-24	3.36	3.22
25-29	3.86	3.69
30-34	4.22	3.94
35-39	4.11	3.94
40-44	4.10	4.01
45-49	3.57	3.70
50-54	3.27	3.45
55-59	2.98	3.06
60-64	2.28	2.24
65-69	1.80	1.85
70-74	1.51	1.58
75-79	1.00	1.29
80-84	0.55	0.89
85-89	0.24	0.52
90+	0.08	0.22



% of total population		
Age	Male	Female
0-4	3.00	2.87
5-9	3.09	2.94
10-14	3.06	2.90
15-19	3.09	2.93
20-24	3.34	3.14
25-29	3.59	3.41
30-34	3.72	3.53
35-39	3.93	3.74
40-44	3.96	3.71
45-49	3.66	3.52
50-54	3.49	3.44
55-59	2.96	3.12
60-64	2.66	2.89
65-69	2.33	2.52
70-74	1.68	1.79
75-79	1.16	1.37
80-84	0.76	1.08
85-89	0.35	0.76
90+	0.14	0.34

**Table HAL-1:
Population Projections by Age Group, Halton Region, 1992-2012**

Age Group	1992 Census	2002 (projection)	2012 (projection)	% change 92 - 12
Halton				
0-4	23154	27290	32521	40.5%
5-9	23223	27896	33389	43.8%
10-14	22065	28682	33072	49.9%
15-19	23490	28479	33365	42.0%
20-24	25399	29046	35916	41.4%
25-29	26818	33341	38751	44.5%
30-34	29675	35979	40188	35.4%
35-39	28023	35497	42503	51.7%
40-44	27158	35813	42500	56.5%
45-49	25053	32059	39812	58.9%
50-54	18690	29641	38436	105.7%
55-59	15435	26655	33727	118.5%
60-64	14112	19976	30726	117.7%
65-69	11737	16129	26892	129.1%
70-74	8591	13649	19229	123.8%
75-79	5972	10148	14069	135.6%
80-84	3386	6363	10204	201.4%
85-89	1811	3350	6129	238.4%
90+	850	1316	2643	210.9%
Total	334650	441317	554080	65.6%
Ontario				
0-4	742471	764732	762254	2.7%
5-9	722556	812650	786305	8.8%
10-14	683755	819316	831546	21.6%
15-19	698690	796693	876496	25.4%
20-24	798841	781014	904407	13.2%
25-29	953484	839052	922849	-3.2%
30-34	987524	952608	921961	-6.6%
35-39	880560	1073145	949162	7.8%
40-44	797548	1056980	1015755	27.4%
45-49	665954	912130	1096884	64.7%
50-54	520678	806558	1055663	102.7%
55-59	467820	664124	898386	92.0%
60-64	456475	513262	783207	71.6%
65-69	419263	444065	627732	49.7%
70-74	327300	402385	459222	40.3%
75-79	231989	332089	361141	55.7%
80-84	147311	222321	284578	93.2%
85-89	75312	120019	191100	153.7%
90+	37508	53274	89947	139.8%
Total	10615475	12366850	13819024	30.2%

Notes, Definitions & Formulas

Age dependency ratios take into account the proportions of children, seniors and those of working age and are sometimes used as a measure of economic dependency (i.e. a ratio of the economically inactive population to the active or productive population).

The two dependency ratios presented here are an accepted standard.

Calculation

Youth dependency ratio
 $((P_{age\ 0-24}) / (P_{age25-64}))$

Aged dependency ratio
 $((P_{age\ 65+}) / (P_{age25-64}))$

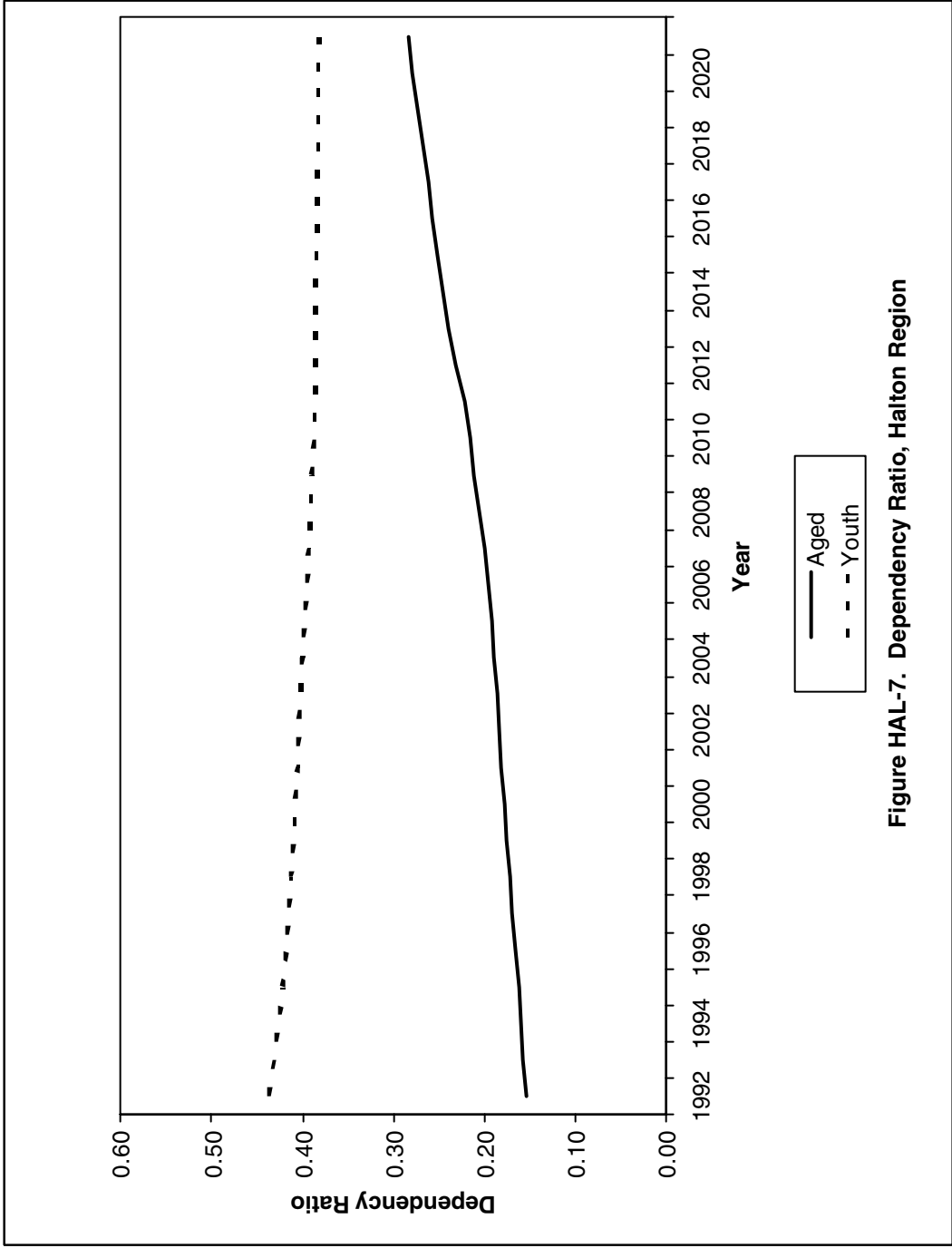
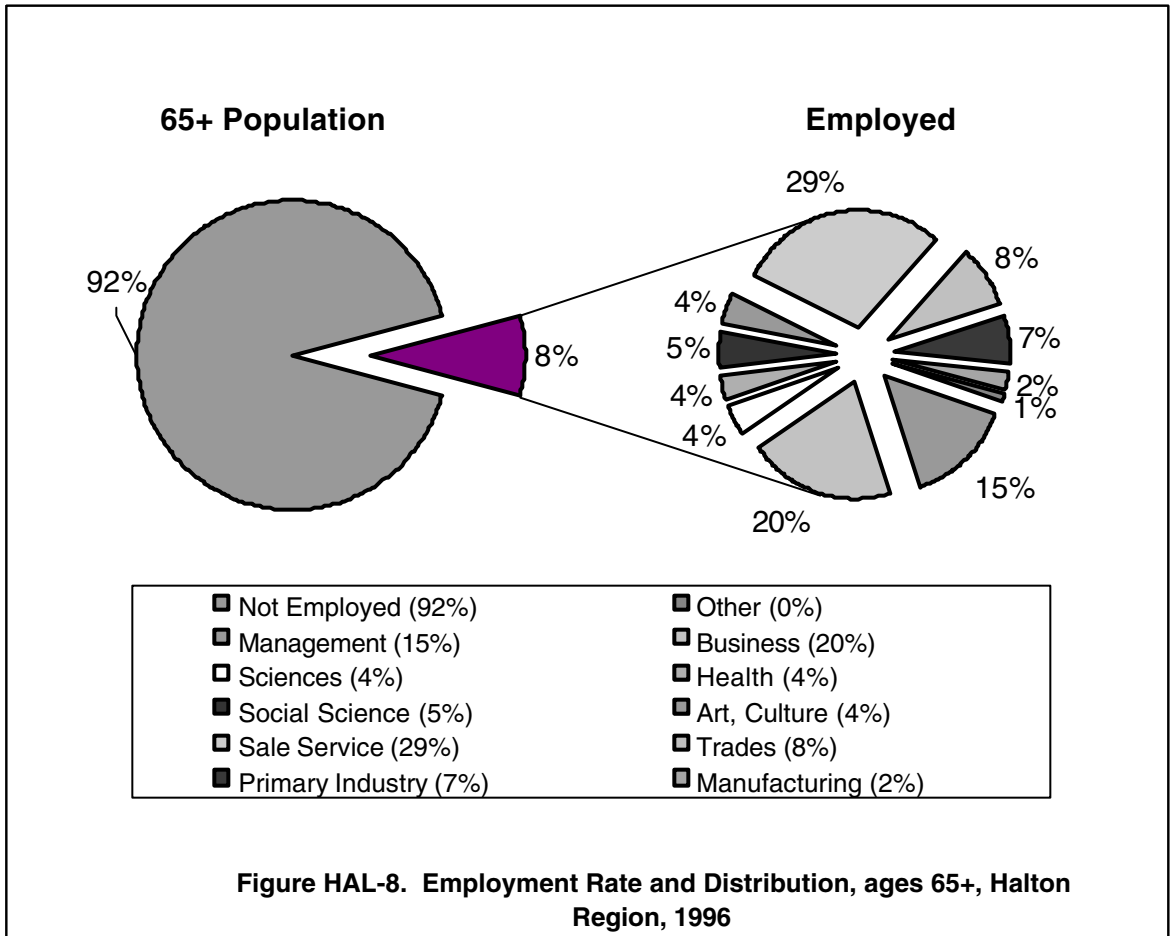


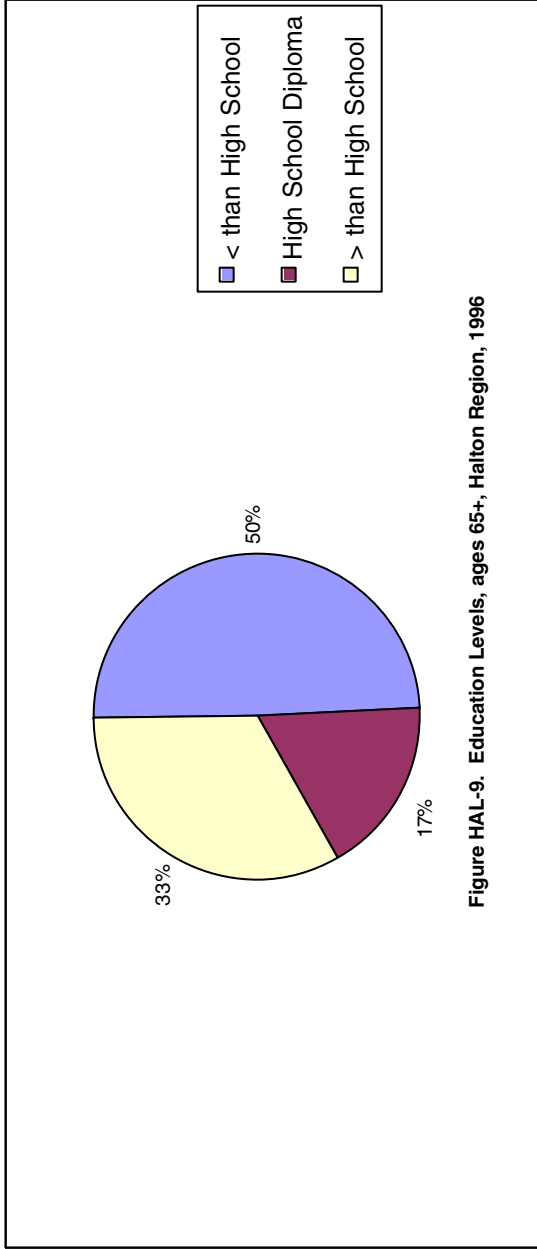
Figure HAL-7. Dependency Ratio, Halton Region



**Table HAL-2:
Job Classification Distribution, Halton Region, 1996**

	Ontario	Ontario 65+	Halton 65+
Management	7.14%	0.18%	1.36%
Business	13.30%	0.30%	1.87%
Sciences	2.79%	0.07%	0.39%
Health	4.32%	0.07%	0.31%
Social Science	4.71%	0.10%	0.45%
Art, culture	1.47%	0.07%	0.40%
Sale Service	20.51%	0.42%	2.70%
Trades	17.65%	0.14%	0.76%
Primary Industry	14.43%	0.13%	0.60%
Manufacturing	11.61%	0.09%	0.23%
Other	2.81%	0.04%	0.10%

Source: The Canadian Census, 1996 (20% Sample)



**Table HAL-3:
Highest Level of Education, Halton Region, 1996**

Highest Education Achieved	Ontario	Ontario 65+	Halton 65+
No degree, certificate or diploma	35.04%	60.58%	49.13%
Secondary (high) school graduation certificate	23.80%	14.69%	17.43%
Trades certificate or diploma	9.36%	8.52%	9.96%
Other non-university certificate or diploma	14.95%	7.59%	11.23%
University certificate or diploma below bachelor level	1.92%	1.96%	2.86%
Bachelor's degree	9.55%	3.71%	5.61%
University certificate or diploma above bachelor level	1.75%	0.88%	1.16%
Medical degree	0.50%	0.47%	0.54%
Master's degree	2.63%	1.18%	1.63%
Earned doctorate	0.51%	0.43%	0.45%

Source: The Canadian Census, 1996 (20% Sample)

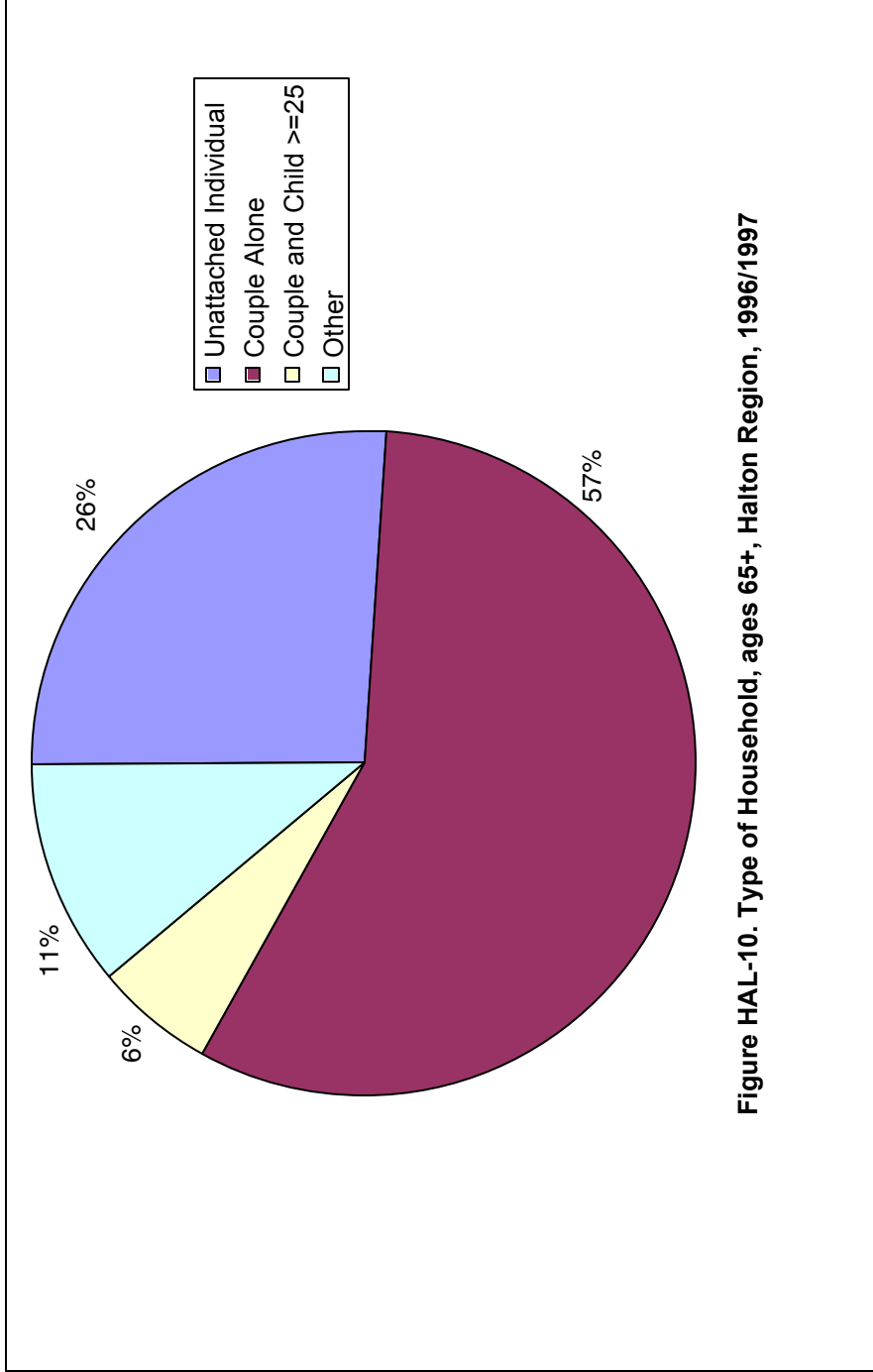


Figure HAL-10. Type of Household, ages 65+, Halton Region, 1996/1997

Table HAL-4:
Type of Household, Halton Region, 1996/1997

Household type	Ontario 12+	Ontario 65+	Halton 65+
Unattached Individual	11%*	30%	26%
Couple Alone	22%	54%	57%
Couple and Child >=25	4%*	7%*	6%*
Other	63%	9%*	11%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

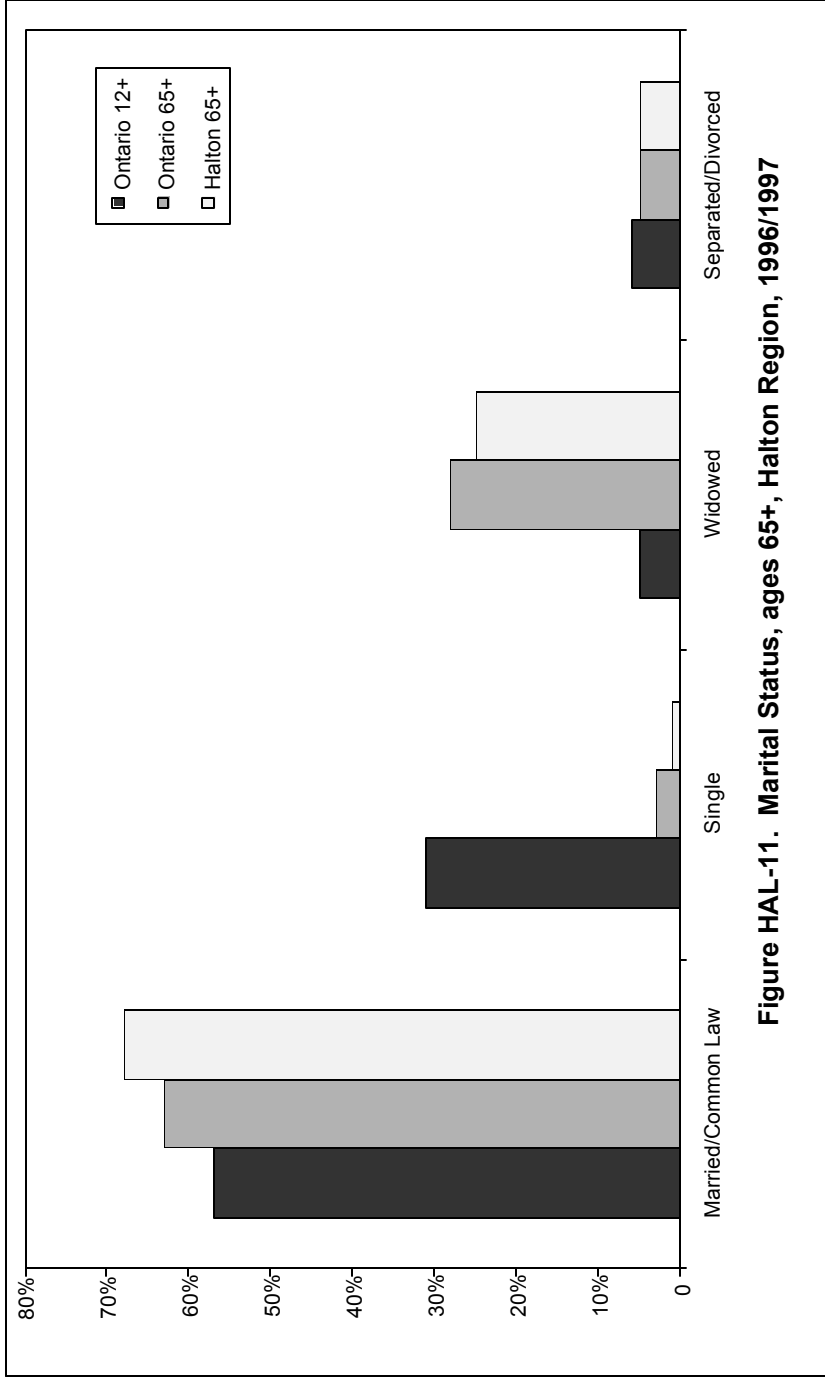


Table HAL-5: Marital Status. Halton Region, 1996/1997

Marital Status	Ontario 12+	Ontario 65+	Halton 65+
Married/Common Law	57%	63%	68%
Single	31%	3%*	---
Widowed	5%*	28%	25%
Separated/Divorced	6%*	5%*	5%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

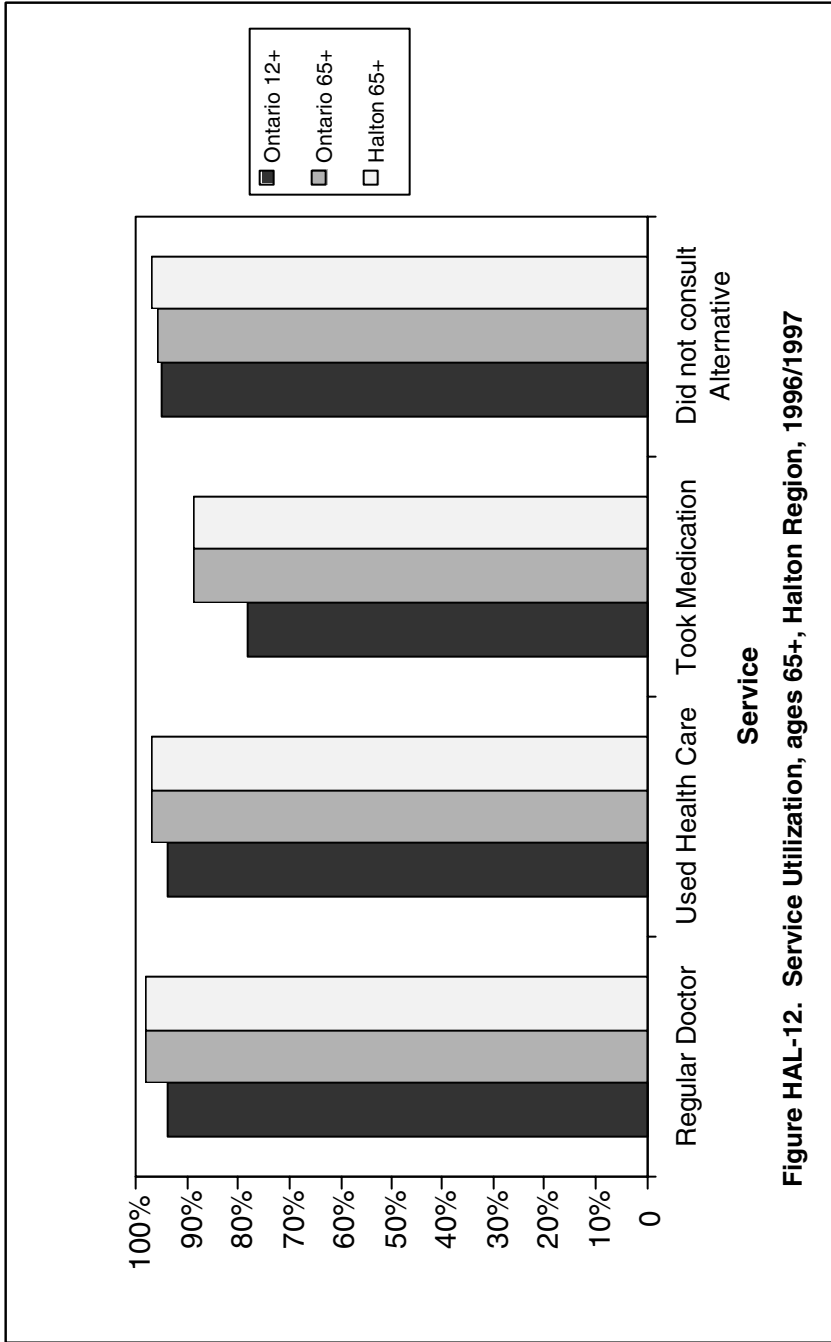


Figure HAL-12. Service Utilization, ages 65+, Halton Region, 1996/1997

Utilization Criteria	Ontario 12+	Ontario 65+	Halton 65+
Has a regular doctor	94%	98%	98%
Used health care in last year	94%	97%	97%
Took medication in last year	78%	89%	89%
Did not consult alternative medicine in last year	95%	96%	97%

Source: The Ontario Health Survey, 1996/1997

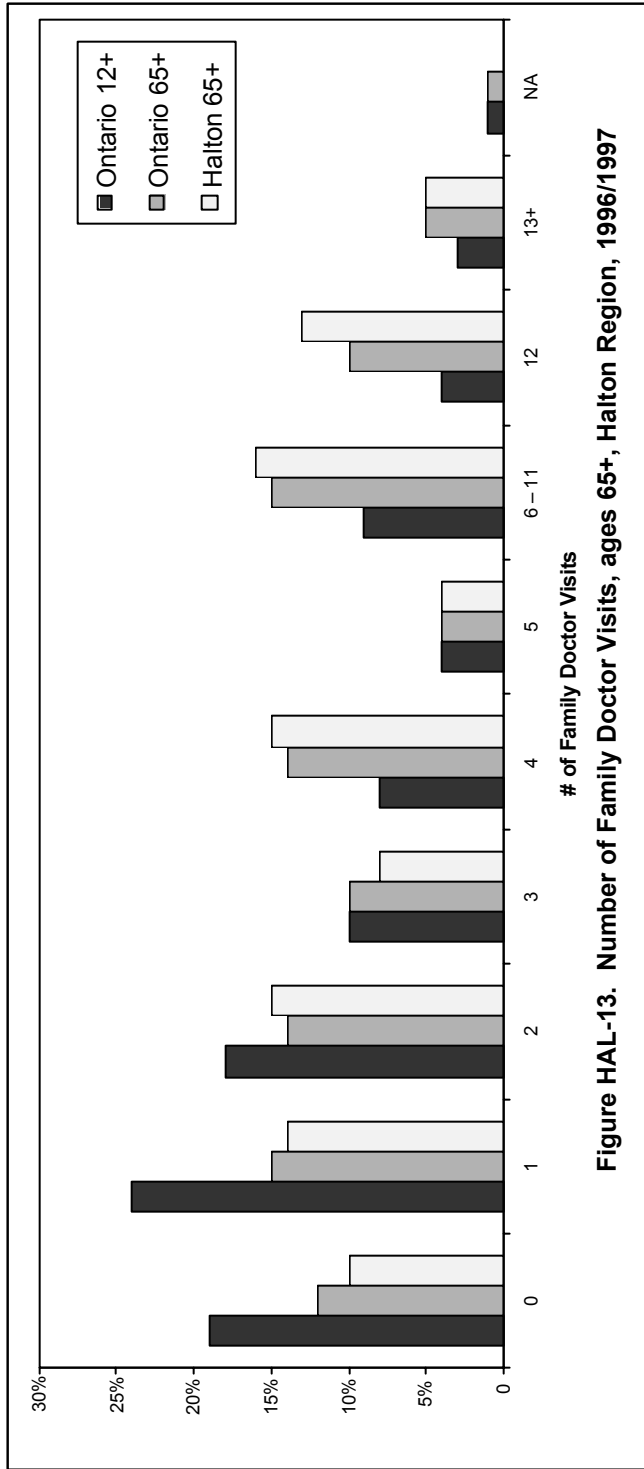


Figure HAL-13. Number of Family Doctor Visits, ages 65+, Halton Region, 1996/1997

Table HAL-7:
Number of Family Doctor Visits, Halton Region, 1996/1997

Number of Family Doctor Visits	Ontario 12+	Ontario 65+	Halton 65+
0	19%	12%*	10%*
1	24%	15%	14%*
2	18%	14%*	15%
3	10%*	10%*	8%*
4	8%*	14%*	15%
5	4%*	4%*	4%*
6-11	9%*	15%	16%
12	4%*	10%*	13%
13+	3%*	5%*	5%*
NA	1%*	1%*	0%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

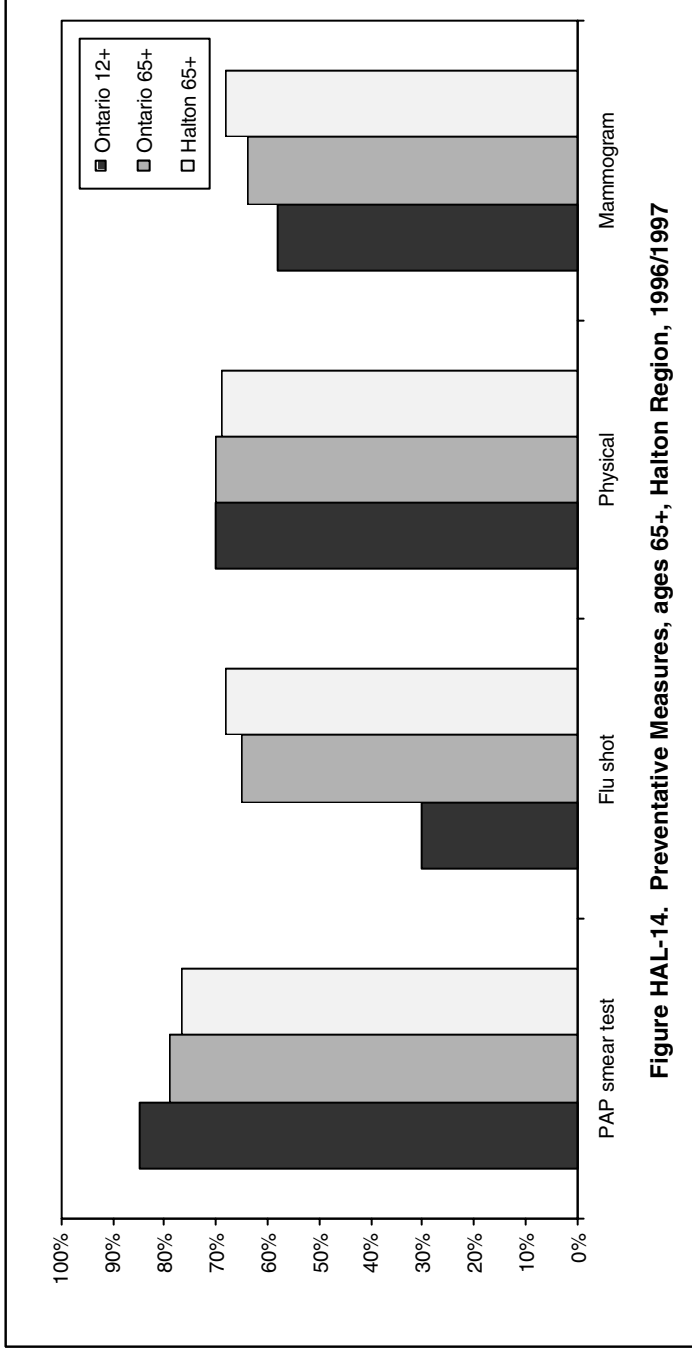


Table HAL-8: Preventative Measures, Halton Region, 1996/1997

Preventative Measure	Ontario 12+	Ontario 65+	Halton 65+
Ever had a PAP smear test? (All women over 65)	85%	79%	77%
Ever had a Flu shot?	30%	65%	68%
Had Physical within last year?	70%	70%	69%
Ever had a mammogram? (All women over 65)	58%	64%	68%

Source: The Ontario Health Survey, 1996/1997

Notes, Definitions & Formulas

Mammogram data originates from the Ontario Health Survey. Applicable respondents are shown to have answered 'yes,' 'no,' or 'other' ('other' is a combination of numerous responses such as 'I don't know'). Those that have had a mammogram and are of an age between 65 and 72 were further questioned as to 'Last time mammogram was done.'

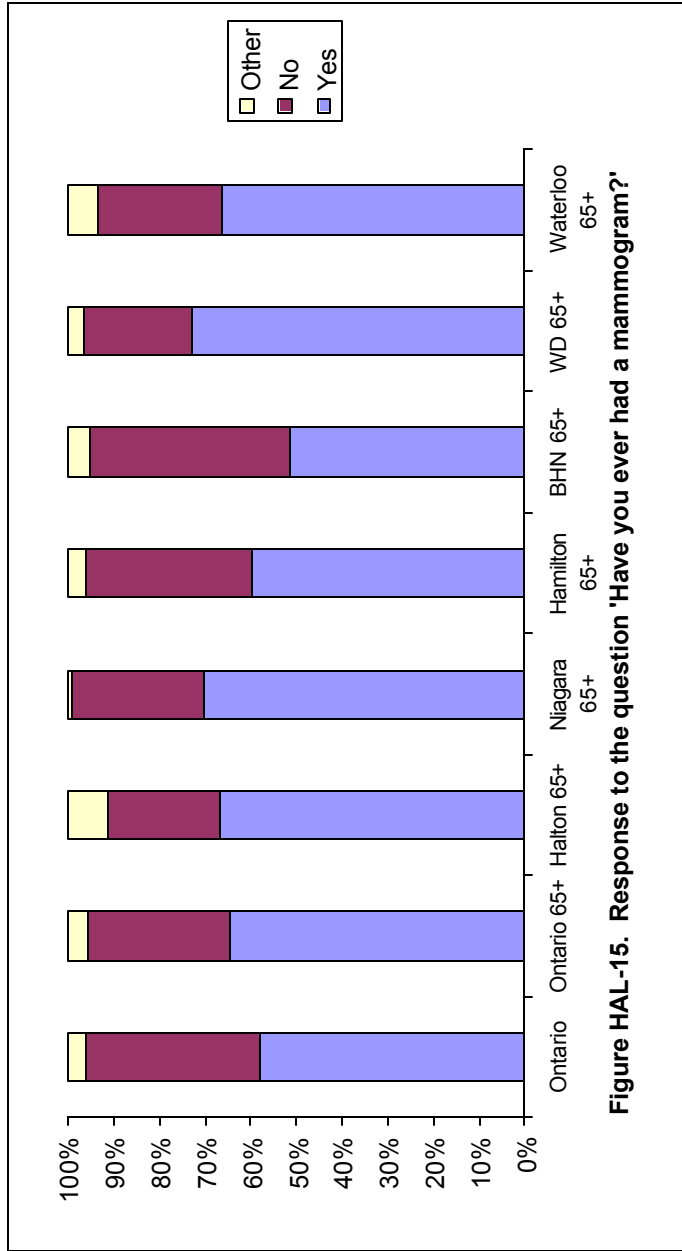
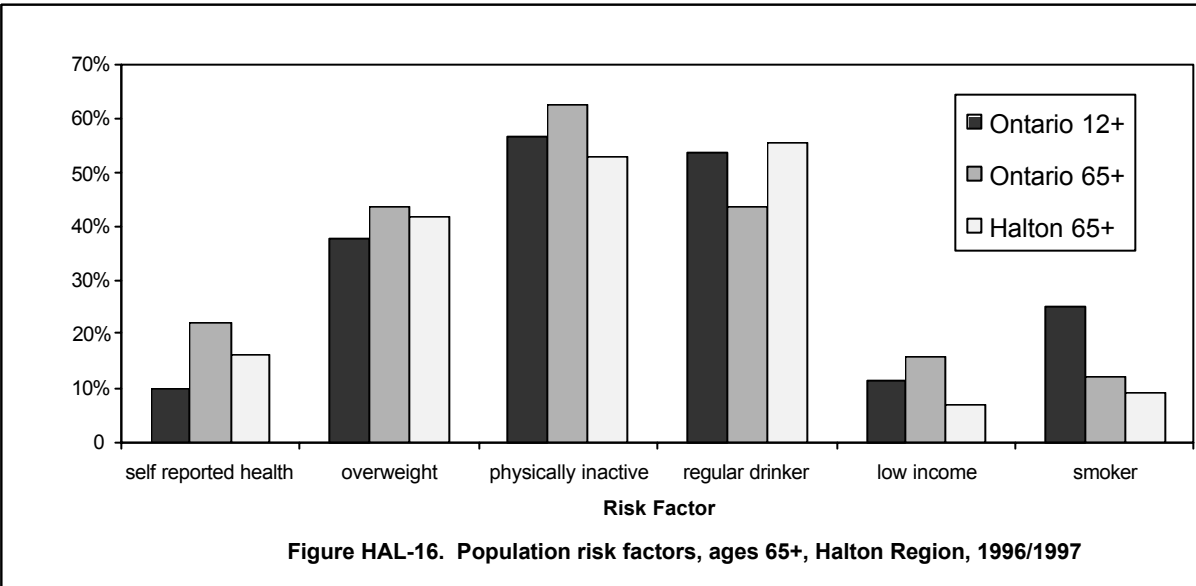


Figure HAL-15. Response to the question 'Have you ever had a mammogram?'

Table HAL-9:

When was last mammogram? Halton Region, 1996/1997		
When last Mammogram?	Ontario 65+	Halton 65+
Less than 1 year ago	45%	50%
Between 1 and 2 Years	25%	21%
Over 2 years	30%	29%

Source: The Ontario Health Survey, 1996/1997



Risk Factor	Ontario 12+	Ontario 65+	Halton 65+
Self-reported health was 'fair' or 'poor'	10%*	22%	16%
Self-reported to be 'overweight'	37%	44%	42%
Physically inactive	57%	63%	53%
Regular drinker	54%	43%	56%
Low Income	11%*	15%	7%*
Smoker	25%	12%*	9%*

Risk Factor	Definition	Reasoning for Inclusion
Self-Reported Health	How would you rate your general Health?	Research shows self-reported health is related to morbidity and mortality, especially among the elderly ¹
Self-Reported weight	How would you rate your current weight?	BMI scores are not collected for the elderly. Obesity has been linked to numerous health problems ²
Physically Inactive	Derived from many Questions.	Physically activity leads to a healthier lifestyle ³
Regular Drinker	Derived from many Questions.	Research has shown alcohol can lead to many health problems ⁴
Low Income	Derived from many Questions.	Research has linked low income to mortality ⁵
Smoker	Derived from many Questions.	Research has shown smoking can lead to many health problems ⁶

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

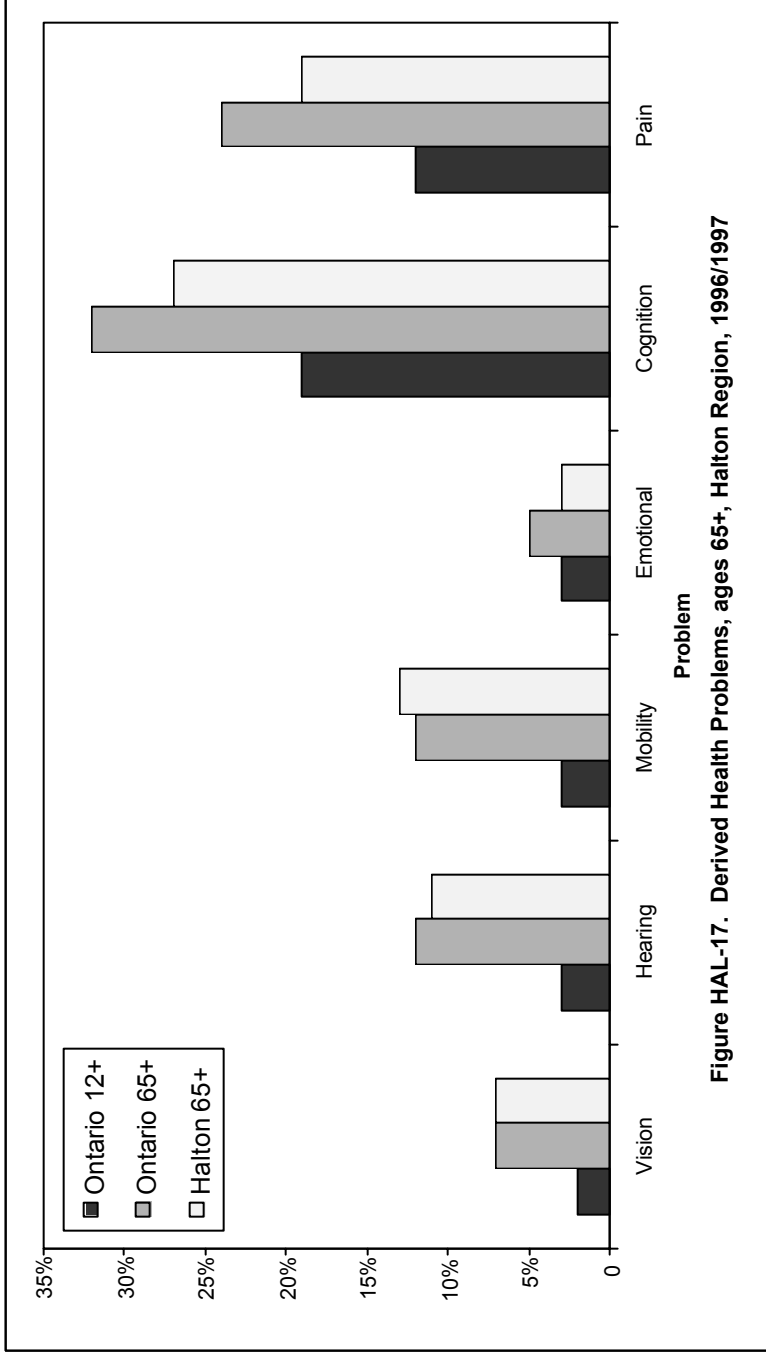


Figure HAL-17. Derived Health Problems, ages 65+, Halton Region, 1996/1997

Table HAM-12:
Derived Physical/Emotional Problems, Halton Region, 1996/1997

Type of problem derived from the OHS	Ontario 12+	Ontario 65+	Halton 65+
Has a vision problem beyond corrective lenses	----	7%*	7%*
Hearing	3%*	12%*	11%*
Mobility	3%*	12%*	13%*
Emotion – less than 'Somewhat Happy'	3%*	5%*	----
Cognition	19%	32%	27%
Is in some type of pain	12%*	24%	19%

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

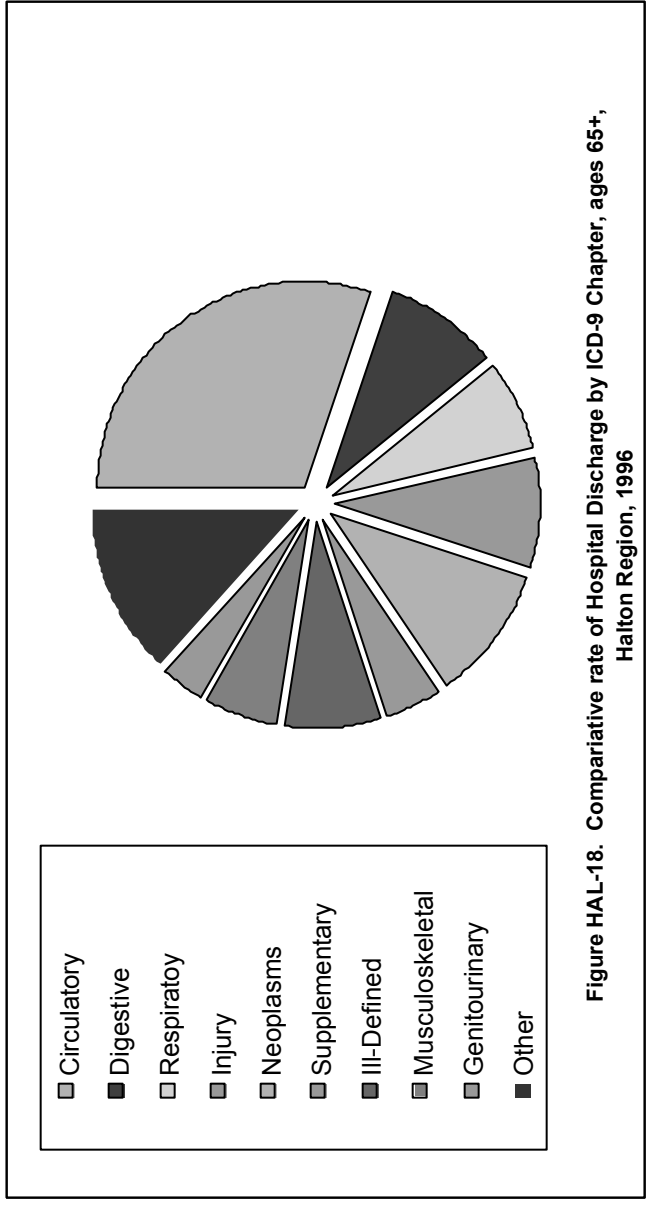


TABLE HAL-13: Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, 1996

ICD Chapter	Brant	HN	Halton	Hamilton	Niagara	Waterloo	WD
Diseases of the Circulatory System	30.61%	32.32%	30.17%	30.52%	30.83%	28.70%	27.10%
Disease of the Digestive System	9.59%	11.68%	9.12%	7.06%	7.43%	6.42%	7.79%
Disease of the Respiratory System	8.94%	8.78%	7.16%	8.61%	8.96%	9.38%	10.46%
Injuries and Poisoning	8.61%	8.65%	8.53%	8.68%	8.67%	8.28%	9.31%
Neoplasms	8.55%	10.78%	10.71%	11.39%	8.72%	11.12%	9.50%
Supplementary Classifications	6.94%	3.55%	4.45%	4.04%	4.20%	4.73%	4.99%
Symptoms, Signs, and Ill-Defined Conditions	6.18%	4.95%	7.32%	5.60%	5.93%	6.24%	6.37%
Musculoskeletal System and Connecting Tissue	5.30%	4.86%	6.00%	6.41%	5.96%	6.28%	5.88%
Diseases of the Genitourinary System	4.64%	5.21%	3.29%	3.67%	3.87%	3.63%	4.27%
Other	10.64%	9.21%	13.25%	14.03%	15.44%	15.22%	14.32%

Source: Provincial Health Planning Database, 2002

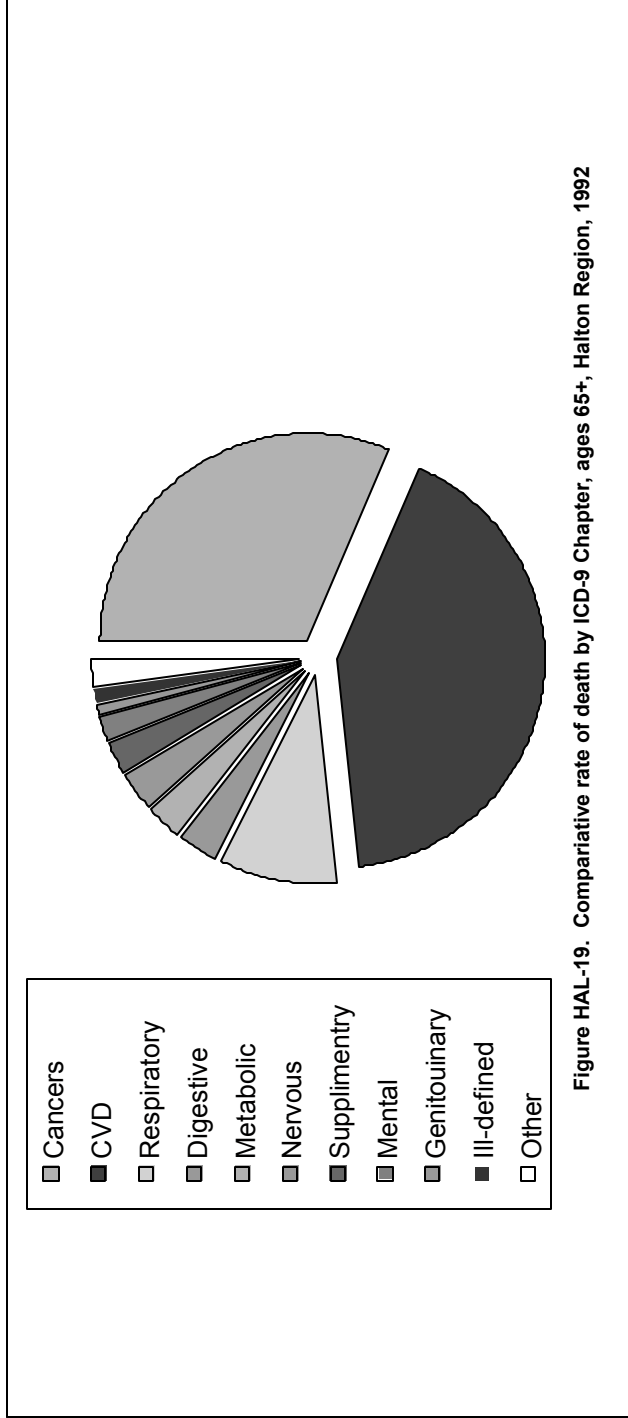


Table HAL-14: Comparative rate of death by ICD-9 Chapter: Halton Region, 1992

ICD CHAPTER	Ontario	Ontario 65+	Halton 65+
Neoplasms	27.90%	25.40%	31.50%
Diseases of the Circulatory System	39.70%	45.50%	41.90%
Diseases of the Respiratory System	8.10%	9.70%	9.20%
Diseases of the Digestive System	3.60%	3.40%	2.90%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.10%	3.20%	2.80%
Disease of the Nervous System	2.80%	3.00%	3.20%
Supplementary Classification	5.70%	2.50%	2.30%
Mental Disorders	1.90%	2.10%	1.90%
Diseases of the Genitourinary System	1.50%	1.70%	1.10%
Symptoms, Signs, and ill-defined conditions	2.30%	2.50%	0.90%
Other	3.40%	1.00%	2.30%

Source: Health Planning System Initiative, 2000

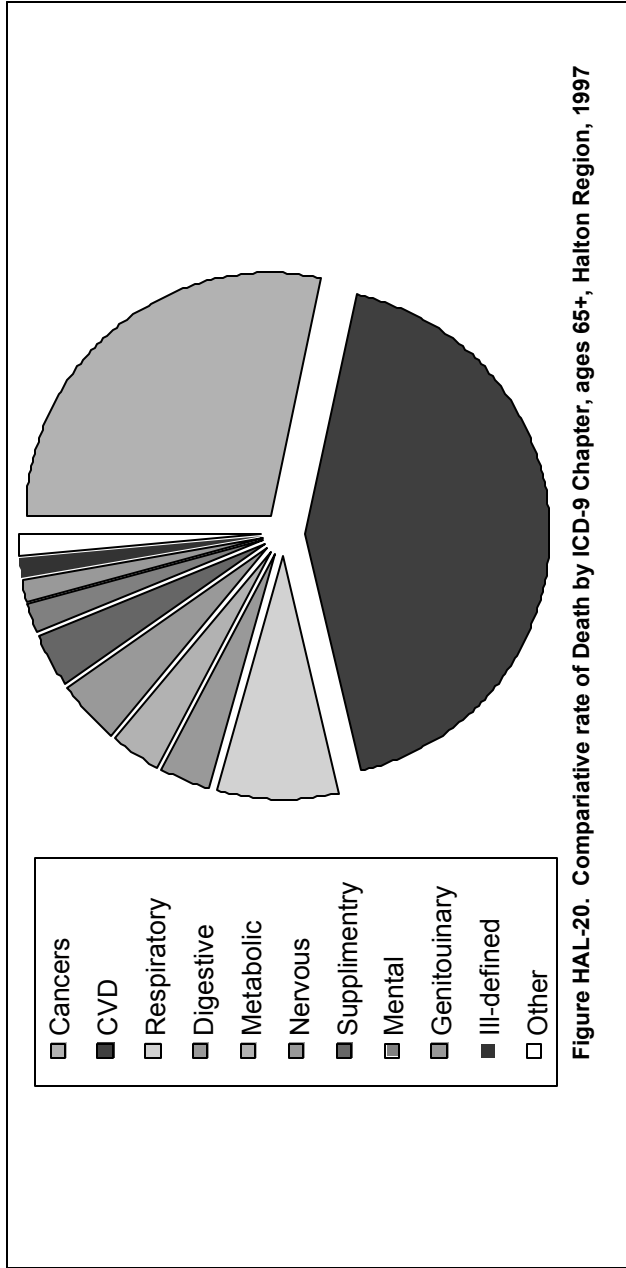


Table HAL-15: Comparative rate of death by ICD-9 Chapter, Halton Region, 1997

ICD CHAPTER	Ontario	Ontario 65+	Halton 65+
Neoplasms	27.98%	25.47%	28.30%
Diseases of the Circulatory System	38.04%	42.79%	43.06%
Diseases of the Respiratory System	8.68%	10.18%	8.14%
Diseases of the Digestive System	3.55%	3.46%	3.17%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.54%	3.75%	3.31%
Disease of the Nervous System	3.03%	3.27%	4.35%
Supplementary Classification	5.60%	2.84%	3.52%
Mental Disorders	2.47%	2.82%	1.86%
Diseases of the Genitourinary System	1.62%	1.89%	1.38%
Symptoms, Signs, and ill-defined conditions	1.93%	2.84%	1.38%
Other	3.57%	0.69%	1.52%

Source: Health Planning System Initiative, 2000

Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.20	0.87	0.52	0.73	0.83	1.00	0.70
5-9	0	0.41	0.43	0.74	0.24	0.11	0.20
10-14	1.77	0.48	0.17	0.39	0.72	0.95	0.25
15-19	1.63	2.94	0.68	0.79	1.00	1.30	1.52
20-24	1.82	0.84	0.75	0.85	0.83	0.58	0.71
25-29	1.18	0.78	1.13	1.36	1.00	1.13	1.21
30-34	1.13	1.80	0.68	1.01	1.27	1.06	0.96
35-39	1.06	1.32	1.02	1.24	1.32	1.03	1.28
40-44	1.38	1.01	0.92	0.99	1.07	0.98	0.86
45-49	1.00	1.11	0.89	0.98	1.40	0.92	1.06
50-54	1.35	1.11	0.86	1.19	1.28	1.00	1.06
55-59	1.20	1.34	0.95	1.26	1.10	1.19	1.13
60-64	1.41	1.07	1.02	1.12	1.25	1.01	1.16
65-69	1.16	0.93	0.89	1.22	1.12	0.96	1.17
70-74	1.32	1.04	0.91	1.11	1.11	0.97	0.96
75-79	0.95	1.23	0.94	1.15	1.04	1.04	1.06
80-84	1.00	1.14	0.87	1.00	0.96	0.98	1.12
85+	1.15	0.96	0.94	0.94	1.02	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

Table HAL -17: Age Specific Indirect Standardized Mortality Ratio, a 1997 County to Ontario Comparison							
Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.61	0.81	0.64	1.47	1.23	1.30	1.44
5-9	0	0	0.13	0.67	0.35	0.21	0.20
10-14	0.81	0	0.44	0.34	0.66	0.36	1.10
15-19	0.46	0.50	1.04	0.52	0.73	1.01	1.27
20-24	0.87	1.74	0.61	0.88	0.90	0.50	0.97
25-29	0.88	1.07	0.55	1.07	0.65	0.52	0.64
30-34	1.90	1.33	0.59	0.88	1.26	0.65	0.71
35-39	1.39	0.91	0.67	1.08	1.13	0.82	0.90
40-44	1.04	0.78	0.80	1.04	1.03	0.97	0.78
45-49	1.35	0.89	0.55	1.22	0.99	1.14	0.98
50-54	1.42	0.87	0.76	1.17	1.06	0.87	0.88
55-59	0.98	1.13	0.68	1.08	0.99	0.78	0.91
60-64	1.21	1.17	0.82	1.18	1.23	0.84	0.84
65-69	1.17	1.22	0.73	1.11	1.00	0.99	1.17
70-74	0.84	1.03	0.87	0.98	1.06	1.01	0.96
75-79	1.02	0.89	0.93	0.94	0.96	1.01	1.06
80-84	0.99	1.06	0.96	0.99	0.98	0.95	1.12
85+	1.16	1.17	0.81	0.94	0.97	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

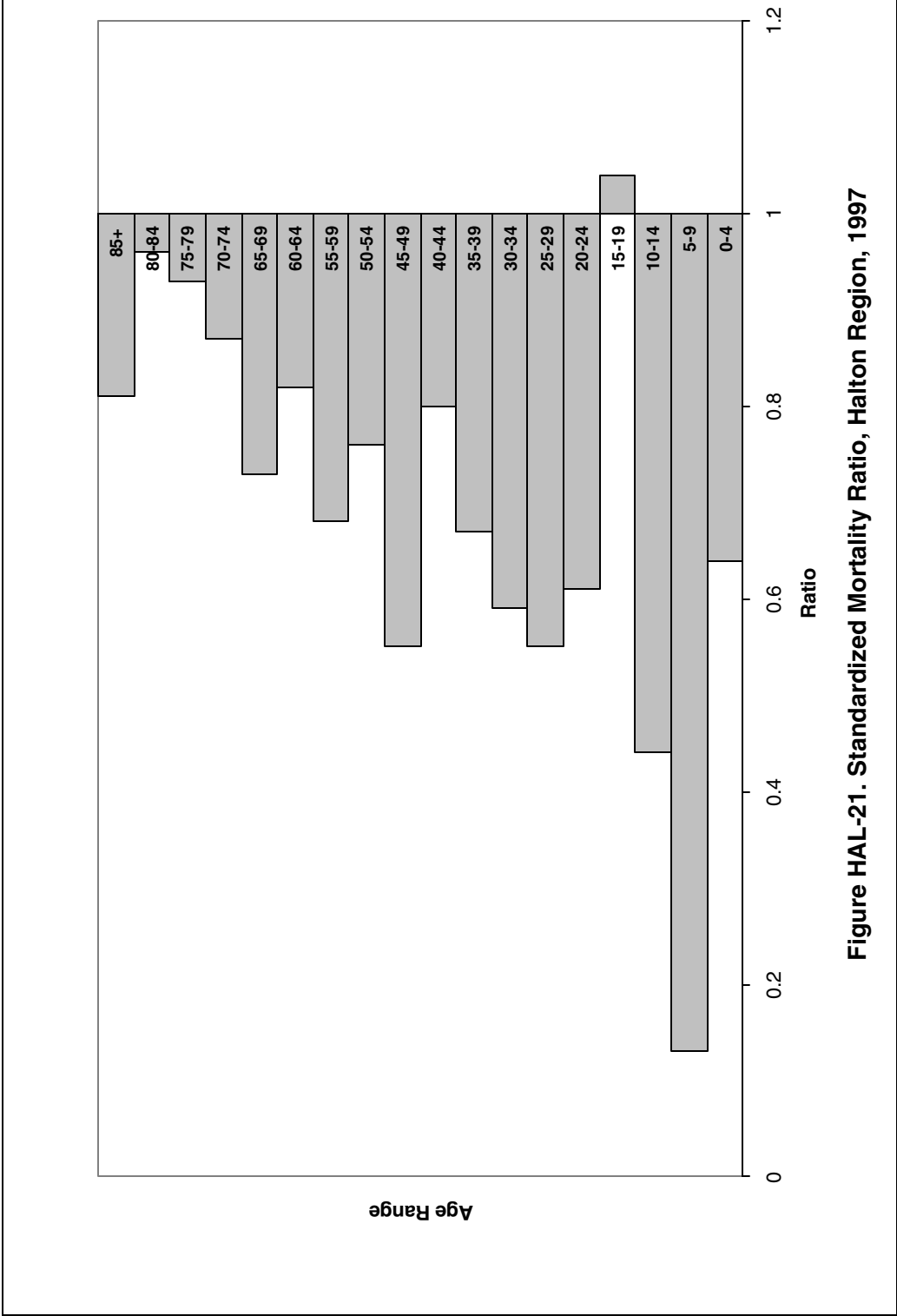


Figure HAL-21. Standardized Mortality Ratio, Halton Region, 1997

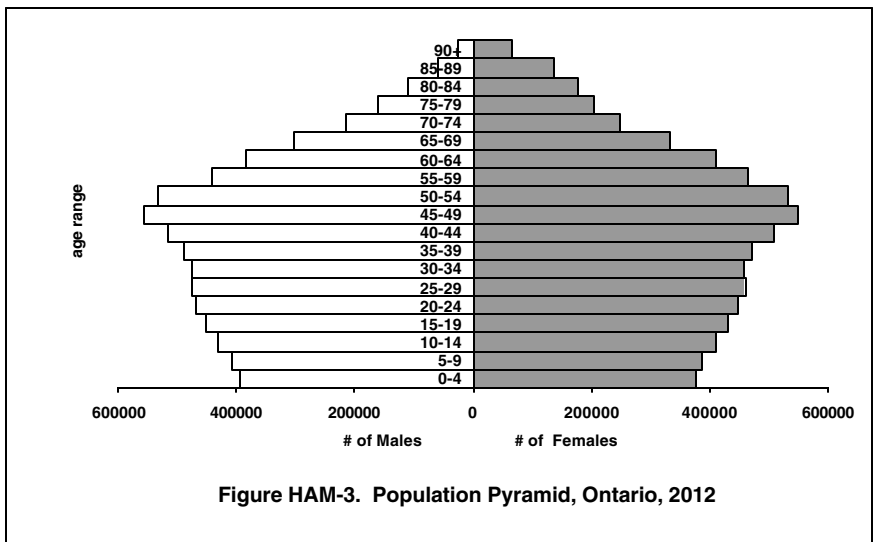
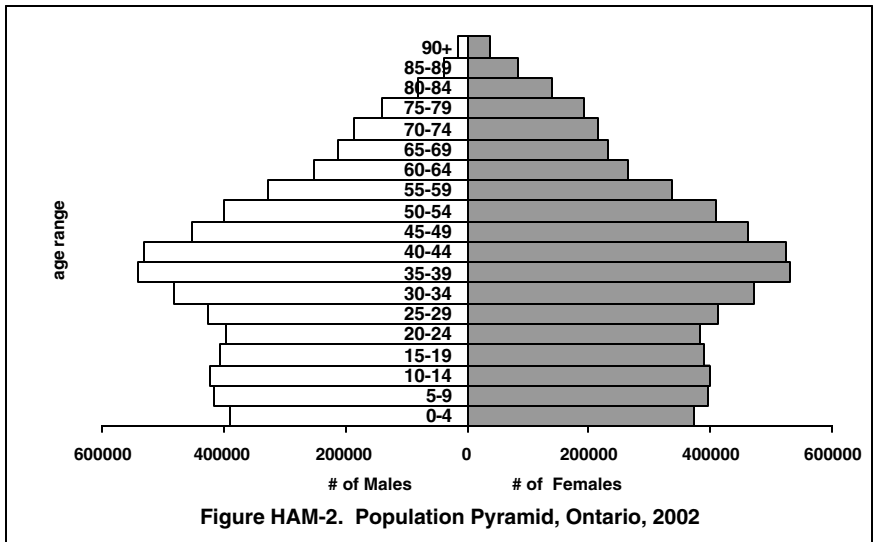
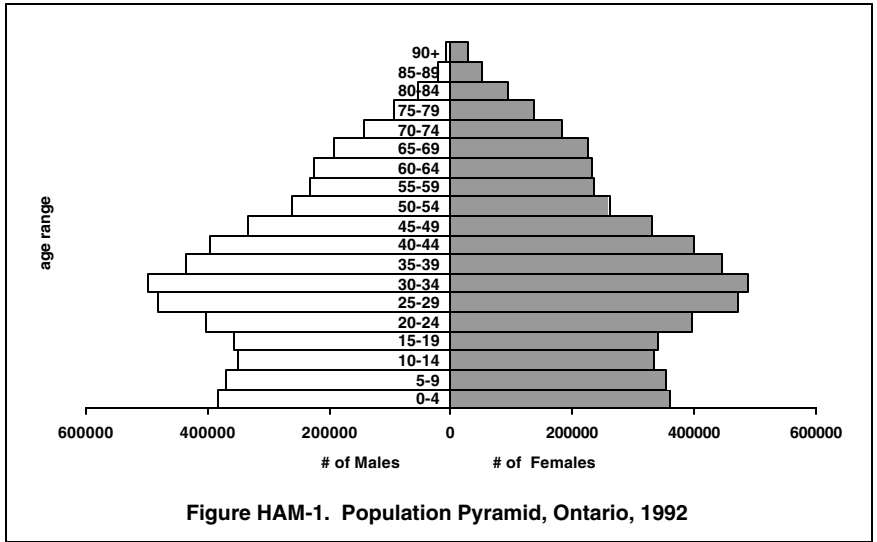
Hamilton Region

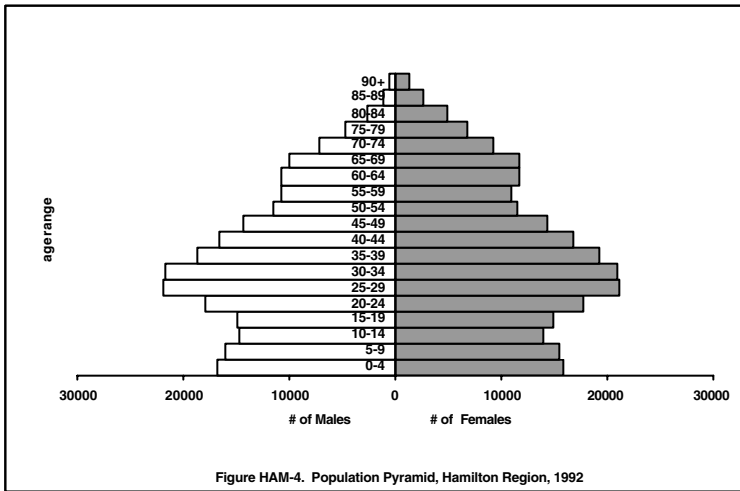
Notes, Definitions & Formulas

Population Pyramids present the age sex composition of a population. They may present either absolute numbers or percents.

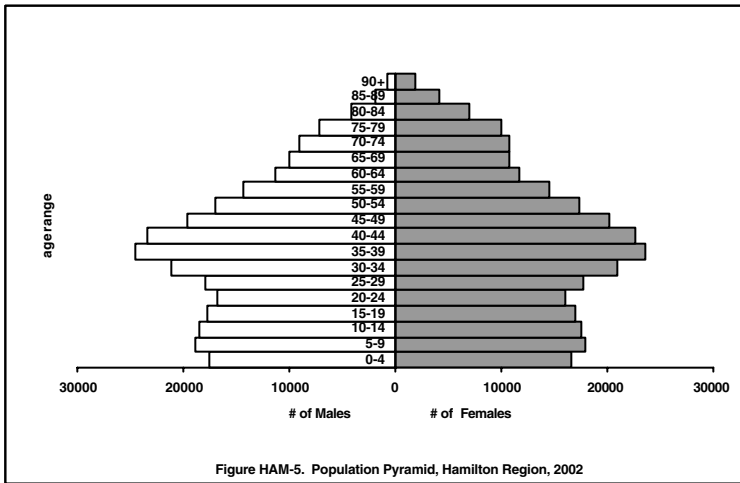
The age of an individual is taken to be the age as of their last birthday (as of census reference date, May 14th, 1996), and is derived from the date of birth.

The sources for the population data are the census HELPS.

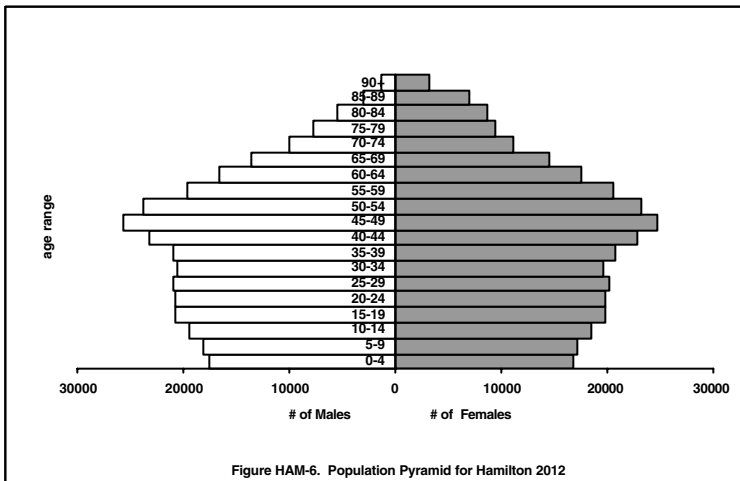




% of total population		
Age	Male	Female
0-4	3.54	3.36
5-9	3.38	3.26
10-14	3.11	2.95
15-19	3.16	3.14
20-24	3.77	3.74
25-29	4.60	4.44
30-34	4.58	4.41
35-39	3.92	4.07
40-44	3.51	3.56
45-49	3.03	3.01
50-54	2.43	2.41
55-59	2.27	2.30
60-64	2.27	2.46
65-69	2.10	2.48
70-74	1.54	1.97
75-79	1.02	1.44
80-84	0.55	1.03
85-89	0.24	0.56
90+	0.10	0.30



% of total population		
Age	Male	Female
0-4	3.18	3.03
5-9	3.44	3.28
10-14	3.37	3.19
15-19	3.21	3.09
20-24	3.05	2.92
25-29	3.25	3.25
30-34	3.85	3.80
35-39	4.45	4.29
40-44	4.25	4.10
45-49	3.55	3.67
50-54	3.09	3.16
55-59	2.60	2.65
60-64	2.05	2.12
65-69	1.81	1.96
70-74	1.65	1.96
75-79	1.32	1.81
80-84	0.76	1.28
85-89	0.34	0.75
90+	0.12	0.36



% of total population		
Age	Male	Female
0-4	2.81	2.68
5-9	2.90	2.76
10-14	3.11	2.96
15-19	3.32	3.16
20-24	3.33	3.17
25-29	3.35	3.24
30-34	3.28	3.14
35-39	3.36	3.33
40-44	3.71	3.67
45-49	4.10	3.97
50-54	3.81	3.72
55-59	3.12	3.30
60-64	2.66	2.82
65-69	2.16	2.33
70-74	1.59	1.78
75-79	1.23	1.53
80-84	0.87	1.40
85-89	0.47	1.11
90+	0.20	0.52

**Table HAM-1:
Population Projections by Age Group, Hamilton Region, 1992-2012**

Age Group	1992 Census	2002 (projection)	2012 (projection)	% change 92 - 12
Hamilton				
0-4	32775	34207	34386	4.9%
5-9	31495	36987	35472	12.6%
10-14	28761	36096	38030	32.2%
15-19	29946	34696	40635	35.7%
20-24	35667	32873	40743	14.2%
25-29	42922	35806	41302	-3.8%
30-34	42646	42111	40251	-5.6%
35-39	37930	48111	41927	10.5%
40-44	33546	46001	46254	37.9%
45-49	28671	39782	50536	76.3%
50-54	23002	34373	47174	105.1%
55-59	21712	28943	40231	85.3%
60-64	22431	22948	34320	53.0%
65-69	21761	20775	28131	29.3%
70-74	16621	19868	21103	27.0%
75-79	11649	17243	17262	48.2%
80-84	7486	11247	14215	89.9%
85-89	3774	5960	9957	163.8%
90+	1861	2648	4522	143.0%
Total	412167	464162	514900	32.0%
Ontario				
0-4	742471	764732	762254	2.7%
5-9	722556	812650	786305	8.8%
10-14	683755	819316	831546	21.6%
15-19	698690	796693	876496	25.4%
20-24	798841	781014	904407	13.2%
25-29	953484	839052	922849	-3.2%
30-34	987524	952608	921961	-6.6%
35-39	880560	1073145	949162	7.8%
40-44	797548	1056980	1015755	27.4%
45-49	665954	912130	1096884	64.7%
50-54	520678	806558	1055663	102.7%
55-59	467820	664124	898386	92.0%
60-64	456475	513262	783207	71.6%
65-69	419263	444065	627732	49.7%
70-74	327300	402385	459222	40.3%
75-79	231989	332089	361141	55.7%
80-84	147311	222321	284578	93.2%
85-89	75312	120019	191100	153.7%
90+	37508	53274	89947	139.8%
Total	10615475	12366850	13819024	30.2%

Notes, Definitions & Formulas

Age dependency ratios take into account the proportions of children, seniors and those of working age and are sometimes used as a measure of economic dependency (i.e. a ratio of the economically inactive population to the active or productive population).

The two dependency ratios presented here are an accepted standard.

Calculation

Youth dependency ratio

$$\left(\frac{P_{age\ 0-24}}{P_{age\ 25-64}} \right)$$

Aged dependency ratio

$$\left(\frac{P_{age\ 65+}}{P_{age\ 25-64}} \right)$$

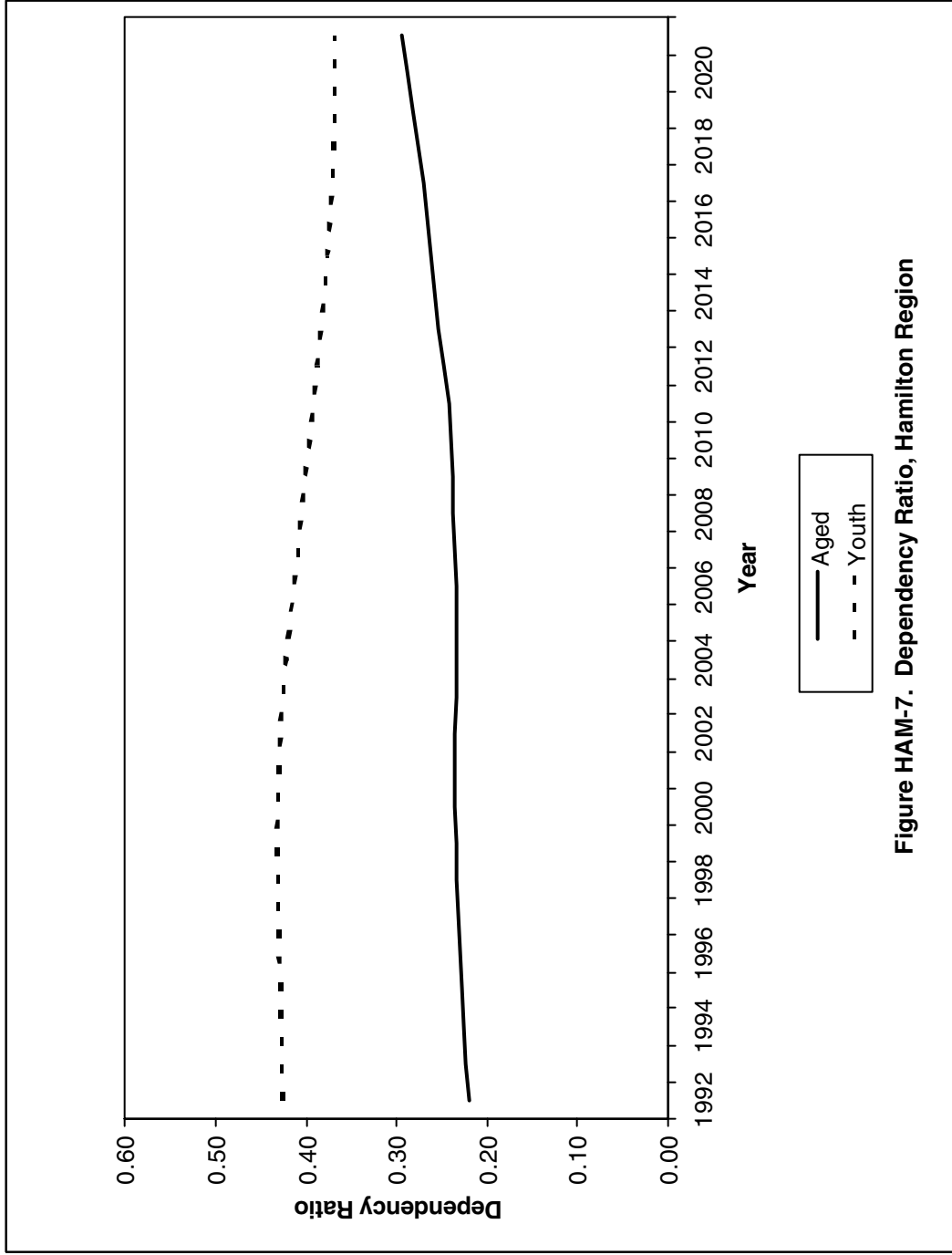
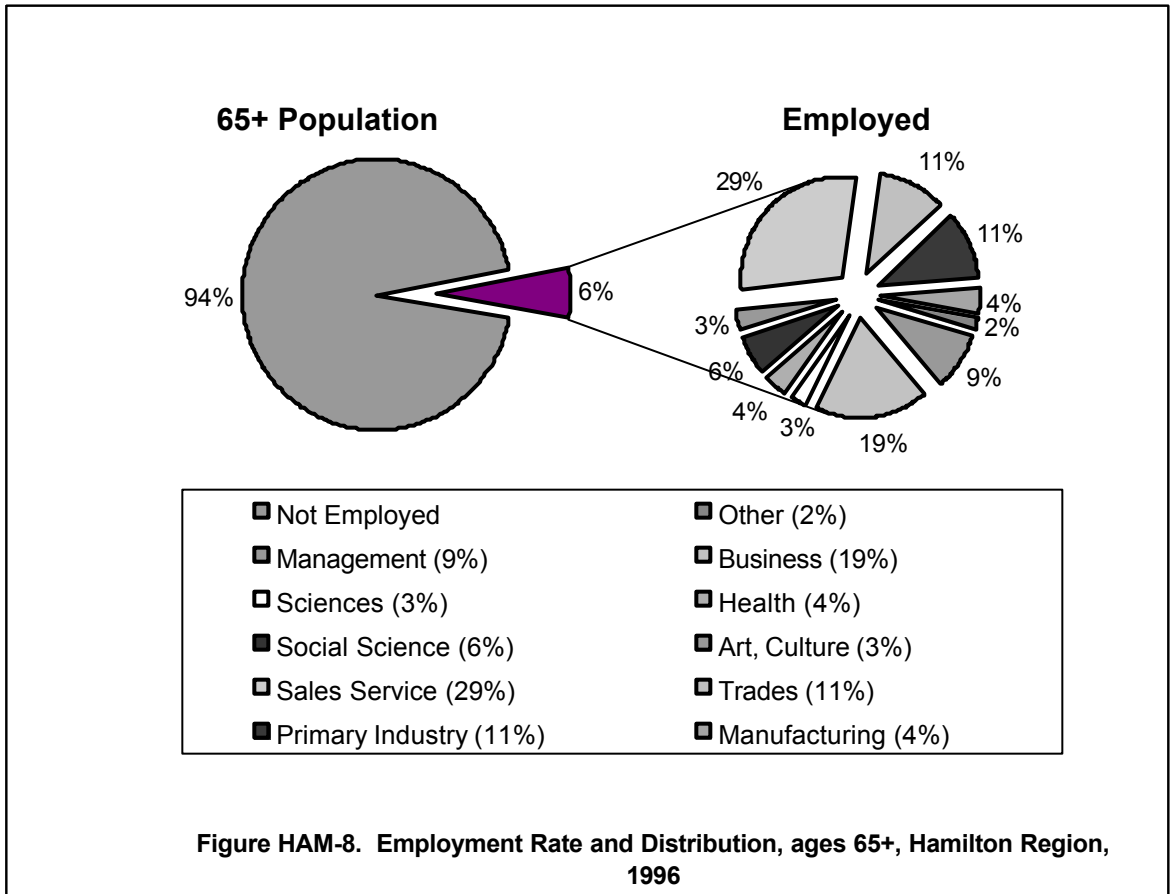


Figure HAM-7. Dependency Ratio, Hamilton Region



**Table HAM-2:
Job Classification Distribution, Hamilton Region, 1996**

	Ontario	Ontario 65+	Hamilton 65+
Management	7.14%	0.18%	0.55%
Business	13.30%	0.30%	1.13%
Sciences	2.79%	0.07%	0.17%
Health	4.32%	0.07%	0.22%
Social Science	4.71%	0.10%	0.38%
Art, culture	1.47%	0.07%	0.20%
Sales Service	20.51%	0.42%	1.75%
Trades	17.65%	0.14%	0.66%
Primary Industry	14.43%	0.13%	0.66%
Manufacturing	11.61%	0.09%	0.23%
Other	2.81%	0.04%	0.13%

Source: The Canadian Census, 1996 (20% Sample)

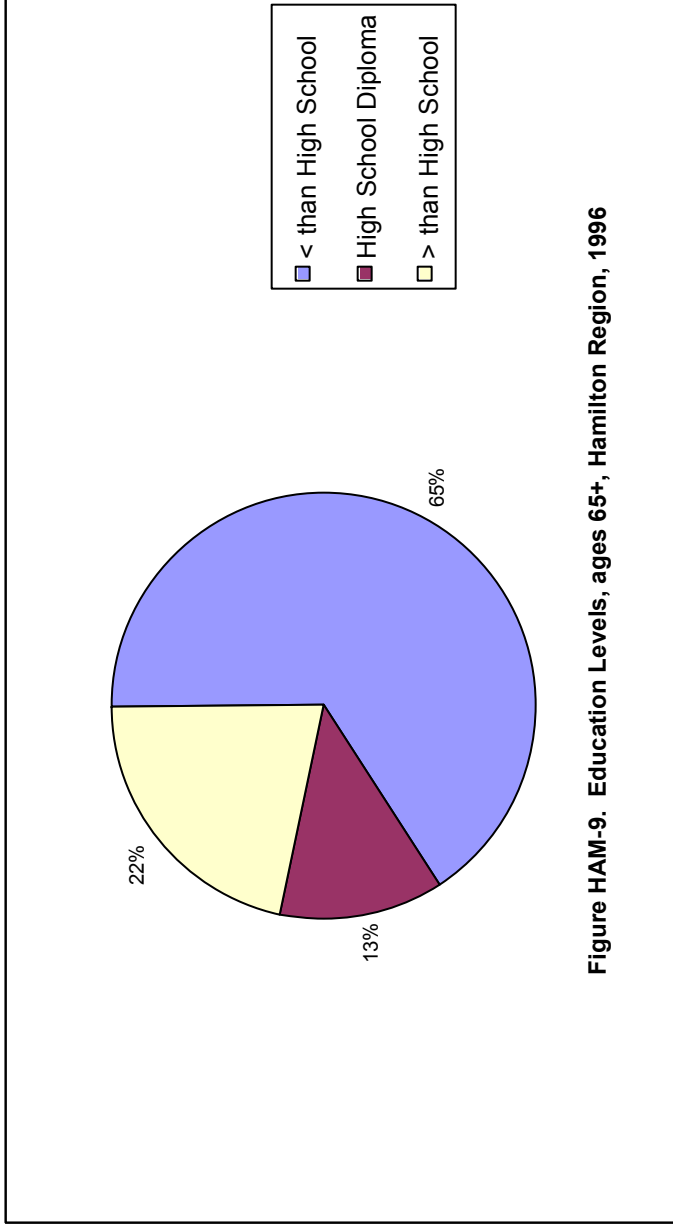


Figure HAM-9. Education Levels, ages 65+, Hamilton Region, 1996

Table HAM-3:
Highest Level of Education, Hamilton Region, 1996

Highest Education Achieved	Ontario	Ontario 65+	Hamilton 65+
No degree, certificate or diploma	35.04%	60.58%	65.85%
Secondary (high) school graduation certificate	23.80%	14.69%	12.56%
Trades certificate or diploma	9.36%	8.52%	9.33%
Other non-university certificate or diploma	14.95%	7.59%	6.61%
University certificate or diploma below bachelor level	1.92%	1.96%	1.27%
Bachelor's degree	9.55%	3.71%	2.22%
University certificate or diploma above bachelor level	1.75%	0.88%	0.62%
Medical degree	0.50%	0.47%	0.35%
Master's degree	2.63%	1.18%	0.90%
Earned doctorate	0.51%	0.43%	0.30%

Source: The Canadian Census, 1996 (20% Sample)

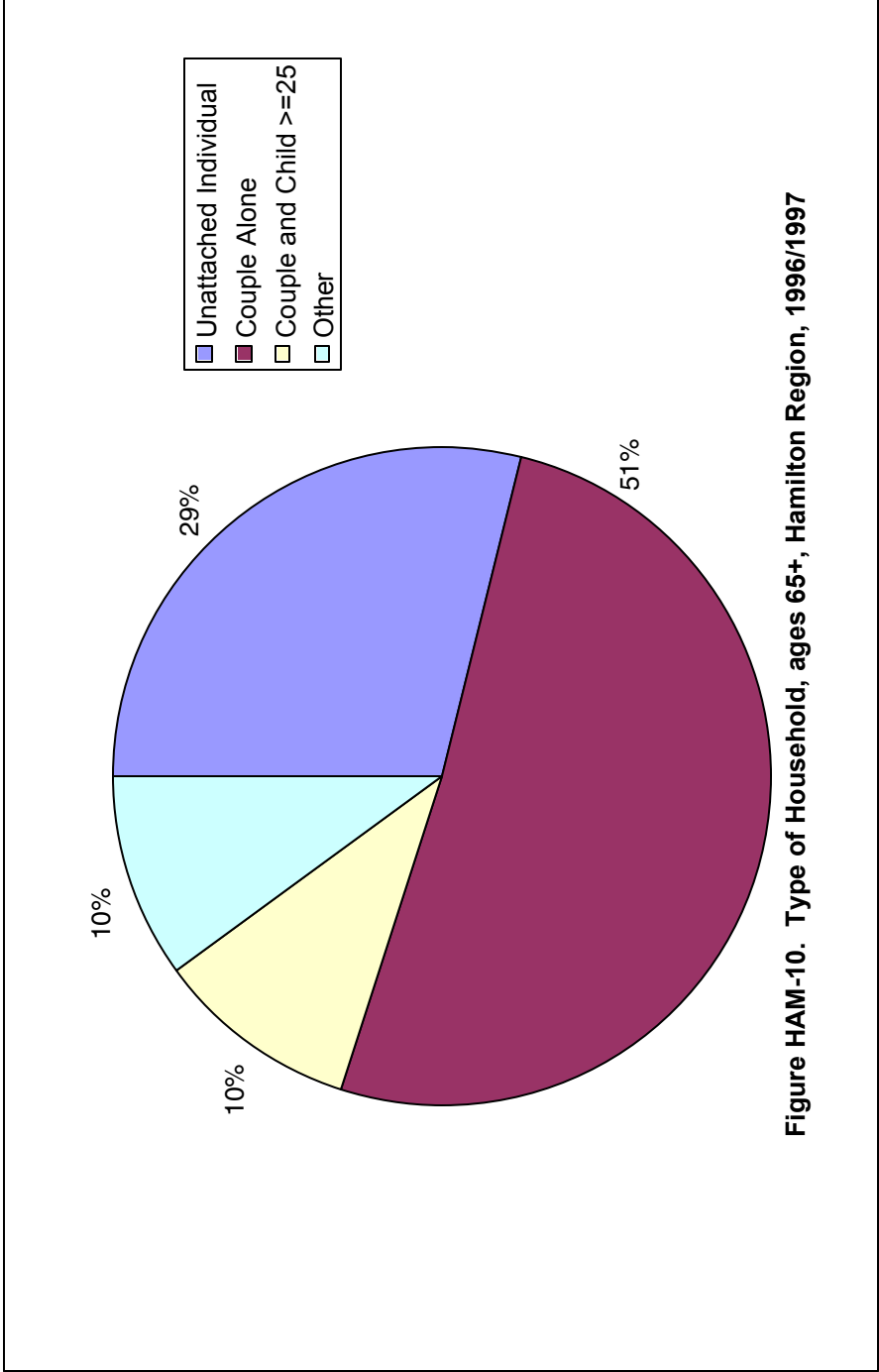


Table HAM-4: Type of Household, Hamilton Region, 1996/1997

Household type	Ontario 12+	Ontario 65+	Hamilton 65+
Unattached Individual	11%*	30%	29%
Couple Alone	22%	54%	51%
Couple and Child >=25	4%*	7%*	10%*
Other	63%	9%*	10%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

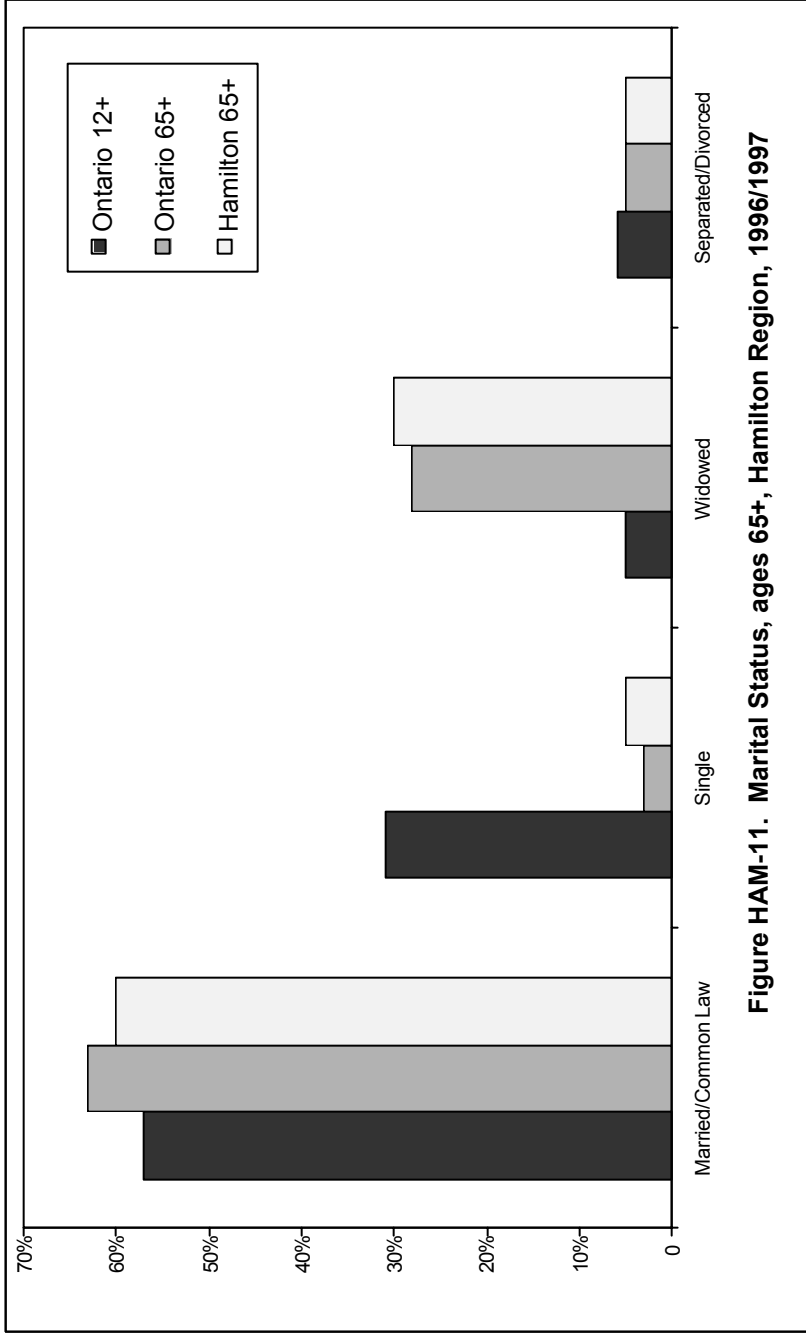


Figure HAM-11. Marital Status, ages 65+, Hamilton Region, 1996/1997

Table HAM-5: Marital Status, Hamilton Region, 1996/1997

Marital Status	Ontario 12+	Ontario 65+	Hamilton 65+
Married/Common Law	57%	63%	60%
Single	31%	3%*	5%*
Widowed	5%*	28%	30%
Separated/Divorced	6%*	5%*	5%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

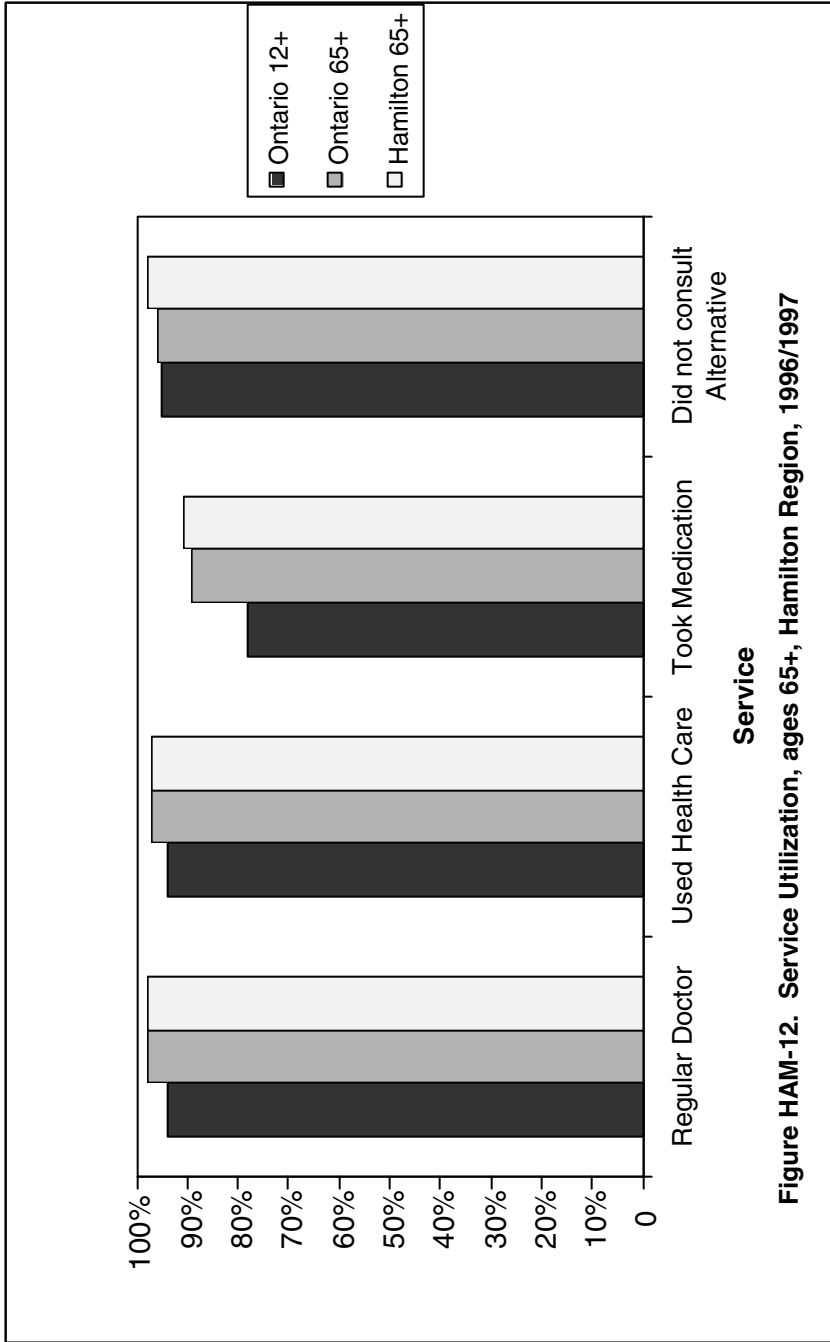


Figure HAM-12. Service Utilization, ages 65+, Hamilton Region, 1996/1997

Utilization Criteria	Ontario 12+	Ontario 65+	Hamilton 65+
Has a regular doctor	94%	98%	98%
Used health care in last year	94%	97%	97%
Took medication in last year	78%	89%	91%
Did not consult alternative medicine in last year	95%	96%	98%

Source: The Ontario Health Survey, 1996/1997

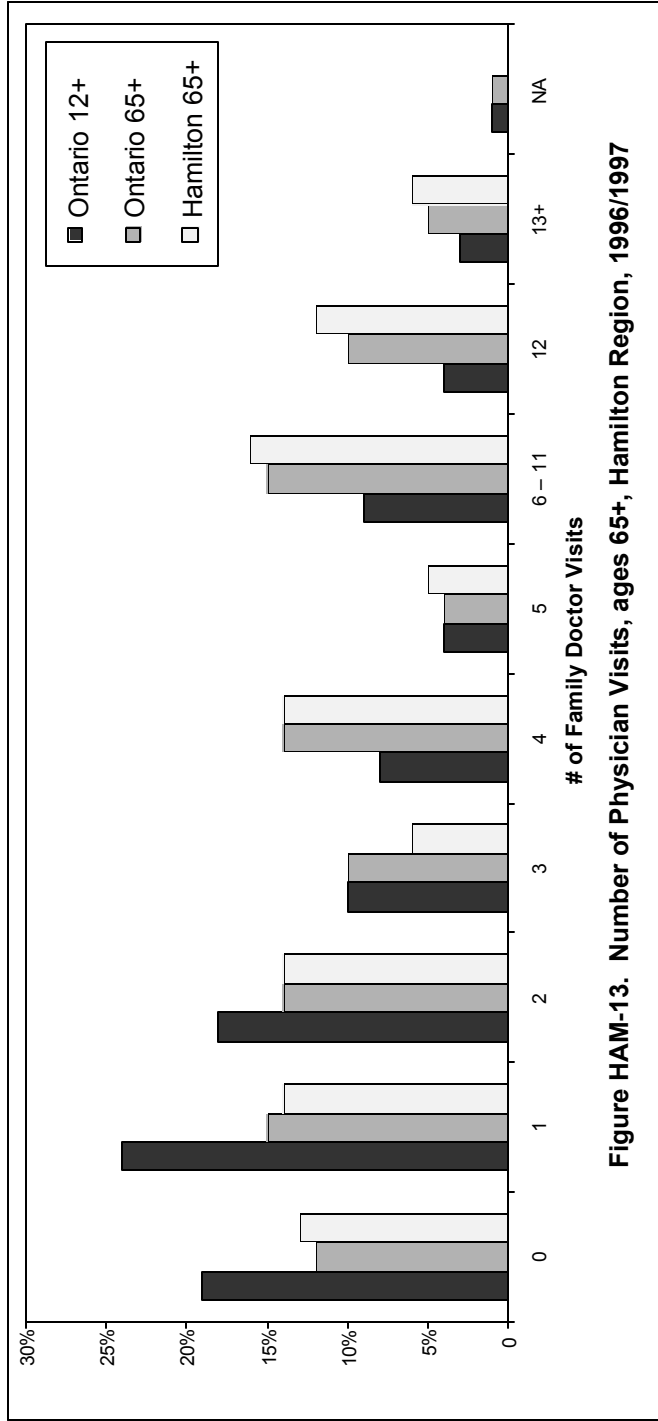


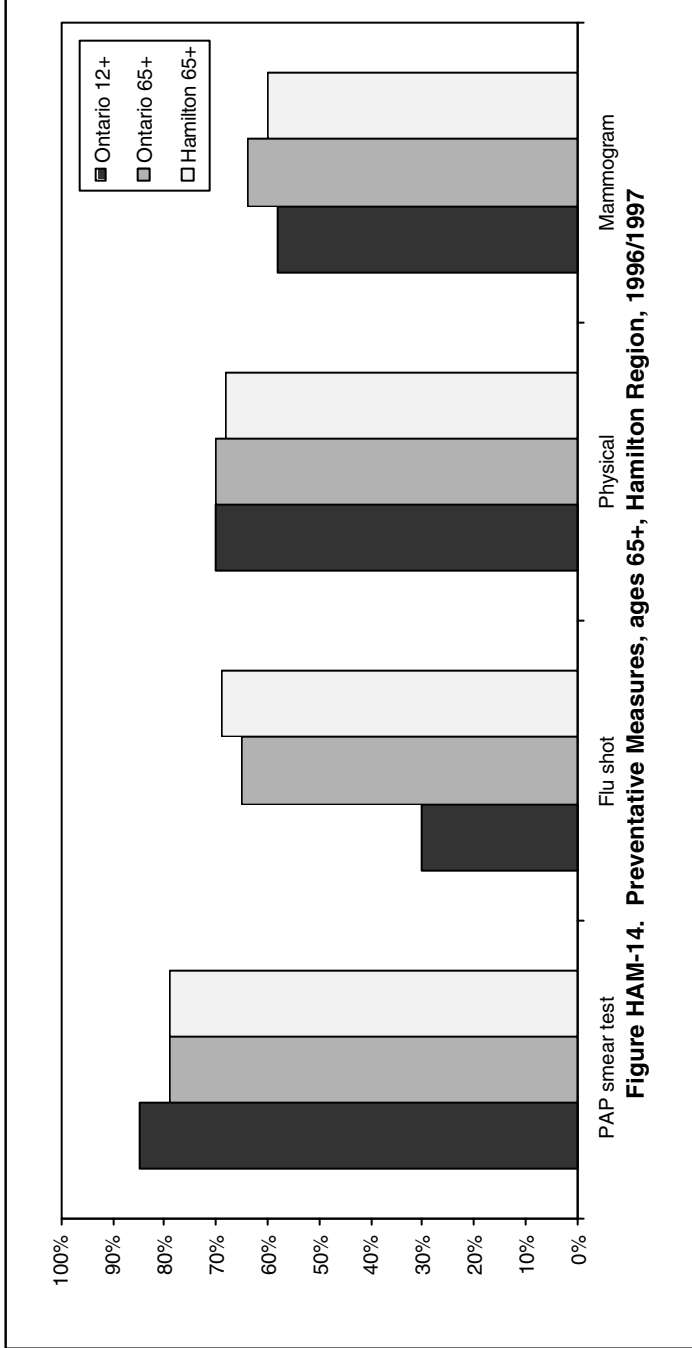
Figure HAM-13. Number of Physician Visits, ages 65+, Hamilton Region, 1996/1997

Table HAM-7:
Number of Family Doctor Visits, Hamilton Region, 1996/1997

Number of visits to Family Doctor	Ontario 12+	Ontario 65+	Hamilton 65+
0	19%	12%*	13%*
1	24%	15%	14%*
2	18%	14%*	14%*
3	10%*	10%*	6%*
4	8%*	14%*	14%*
5	4%*	4%*	5%*
6 – 11	9%*	15%	16%
12	4%*	10%*	12%*
13+	3%*	5%*	6%
NA	1%*	1%*	0%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability



**Table HAM-8:
Preventative Measures, Hamilton Region, 1996/1997**

Preventative Measure	Ontario 12+	Ontario 65+	Hamilton 65+
Ever had a PAP smear test? (Women only)	85%	79%	79%
Ever had a Flu shot?	30%	65%	69%
Had Physical within last year?	70%	70%	68%
Ever had a mammogram? (Women only)	58%	64%	60%

Source: The Ontario Health Survey, 1996/1997

Notes, Definitions & Formulas

Mammogram data originates from the Ontario Health Survey. Applicable respondents are shown to have answered 'yes,' 'no,' or 'other' ('other' is a combination of numerous responses such as 'I don't know'). Those that have had a mammogram and are of an age between 65 and 72 were further questioned as to 'Last time mammogram was done.'

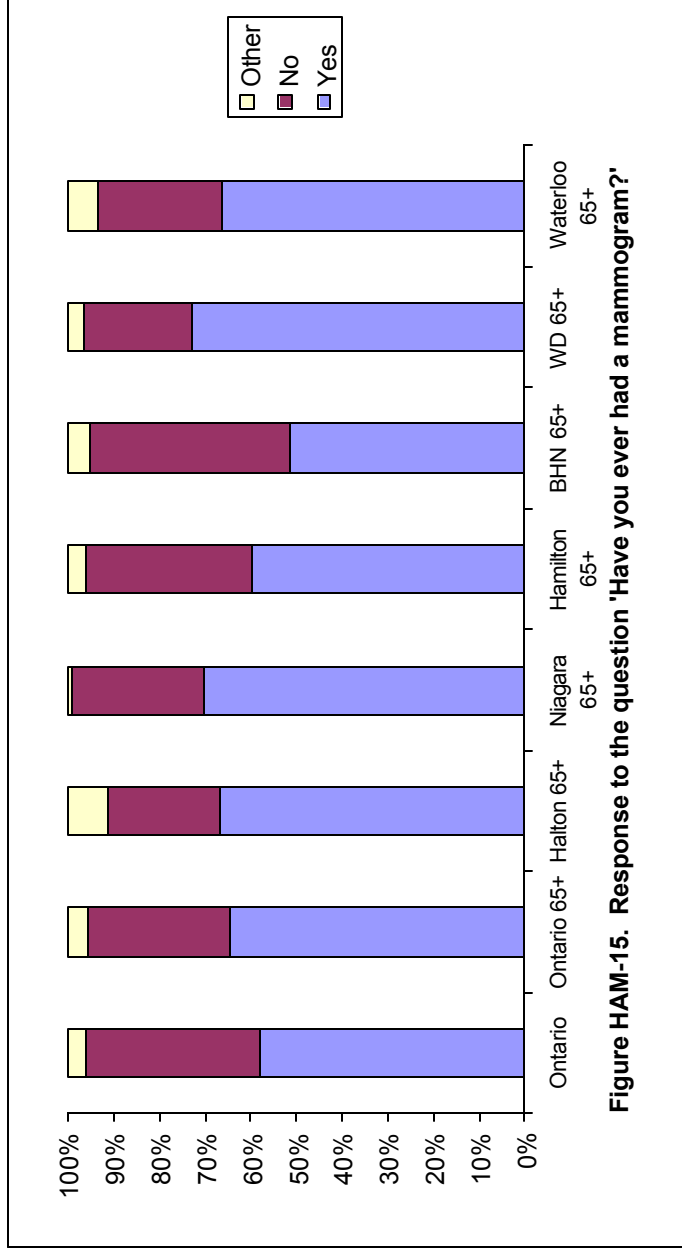
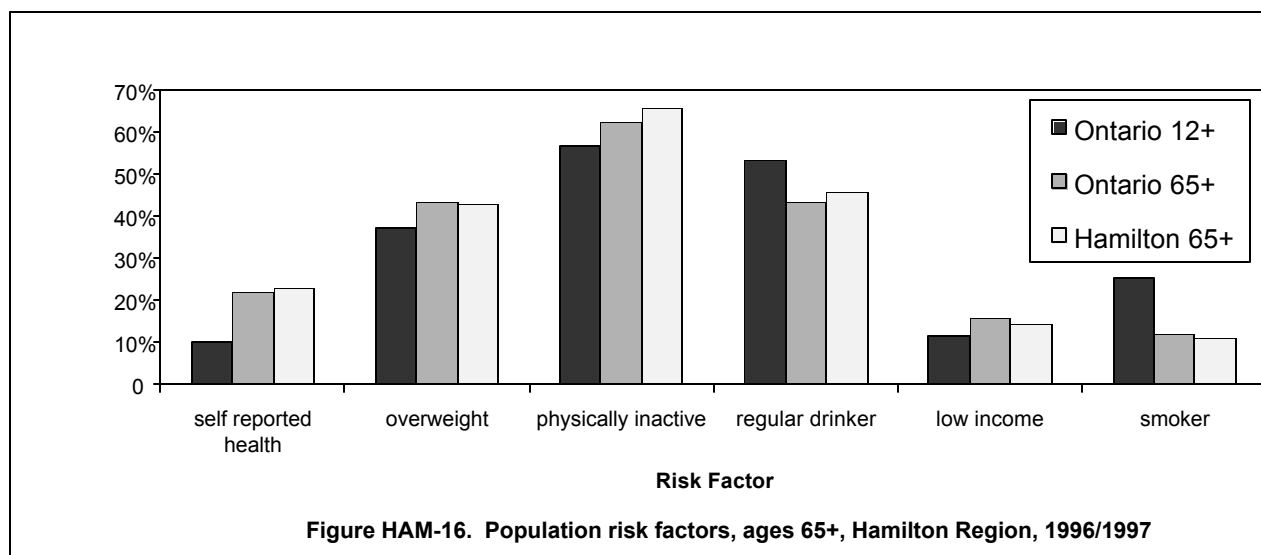


Table HAM-9:
When was last mammogram? Hamilton Region, 1996/1997

When last Mammogram?	Ontario 65+	Hamilton 65+
Less than 1 year ago	45%	50%
Between 1 and 2 Years	25%	25%
Over 2 years	30%	25%

Source: The Ontario Health Survey, 1996/1997



Risk Factor	Ontario 12+	Ontario 65+	Hamilton 65+
Self-reported health was 'fair' or 'poor'	10%*	22%	23%
Self-reported to be 'overweight'	38%	44%	43%
Physically inactive	57%	63%	66%
Regular drinker	54%	43%	46%
Low Income	11%*	16%	14%*
Smoker	25%	12%*	11%*

Risk Factor	Definition	Reasoning for Inclusion
Self-Reported Health	How would you rate your general Health?	Research shows self-reported health is related to morbidity and mortality, especially among the elderly ¹
Self-Reported weight	How would you rate your current weight?	BMI scores are not collected for the elderly. Obesity has been linked to numerous health problems ²
Physically Inactive	Derived from many Questions.	Physically activity leads to a healthier lifestyle ³
Regular Drinker	Derived from many Questions.	Research has shown alcohol can lead to many health problems ⁴
Low Income	Derived from many Questions.	Research has linked low income to mortality ⁵
Smoker	Derived from many Questions.	Research has shown smoking can lead to many health problems ⁶

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

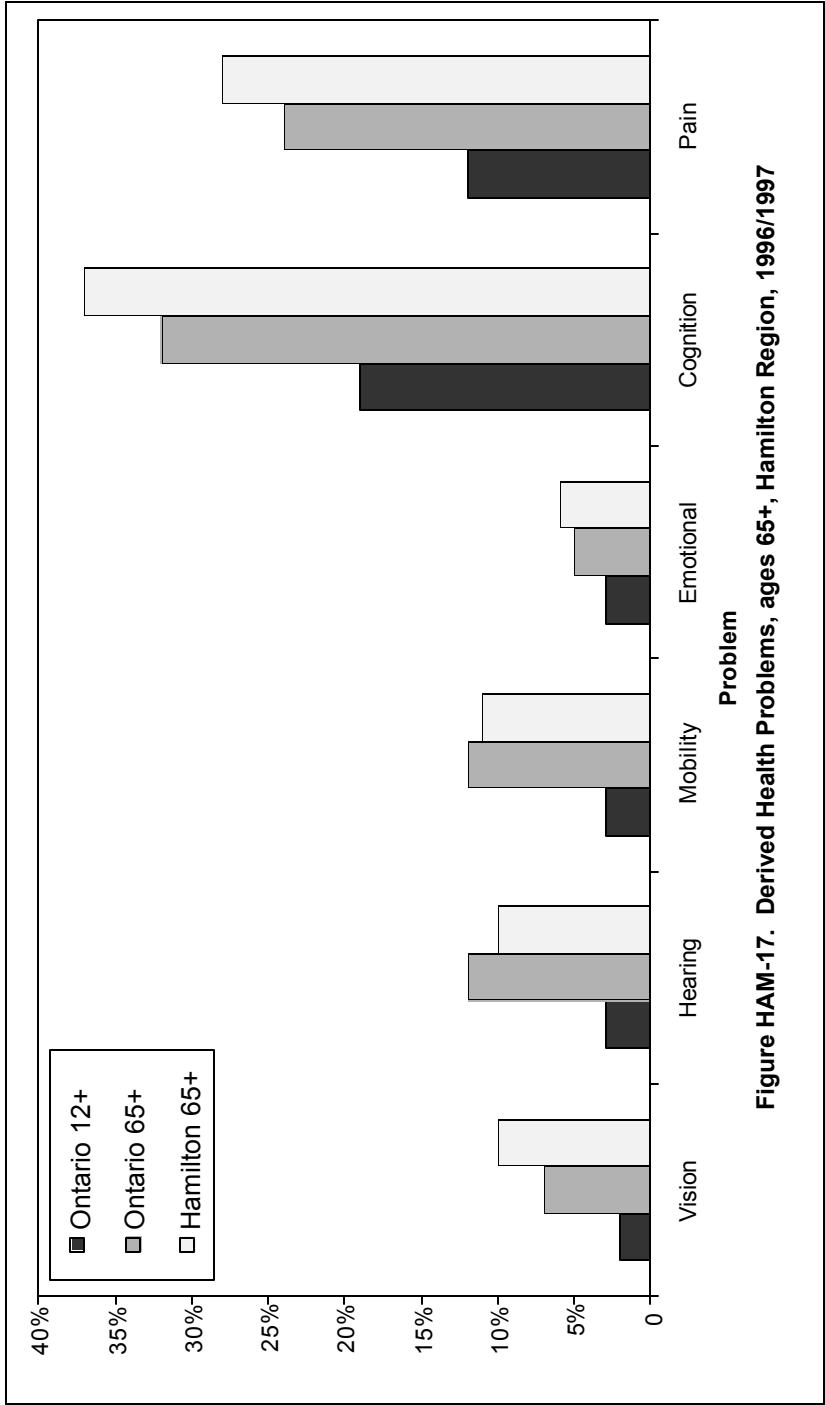


Figure HAM-17. Derived Health Problems, ages 65+, Hamilton Region, 1996/1997

**Table HAM-12:
Derived Physical/Emotional Problems, Hamilton Region, 1996/1997**

Type of problem derived from the OHS	Ontario 12+	Ontario 65+	Hamilton 65+
Has a vision problem beyond corrective lenses	---	7%*	10%*
Hearing	3%*	12%*	10%*
Mobility	3%*	12%*	11%*
Emotion – less than 'Somewhat Happy'	3%*	5%*	6%*
Cognition	19%	32%	37%
Is in some type of pain	12%*	24%	28%

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

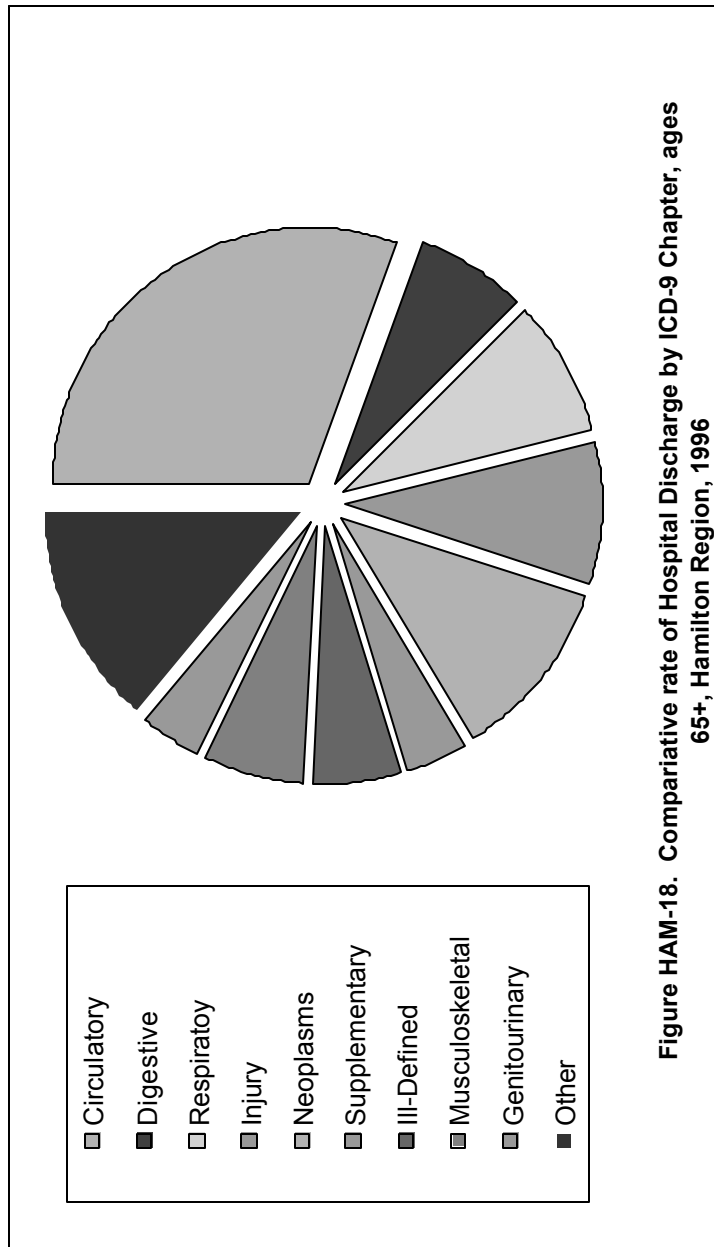


Figure HAM-18. Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, Hamilton Region, 1996

TABLE HAM-13: Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, 1996

ICD Chapter	Brant	HN	Halton	Hamilton	Niagara	Waterloo	WD
Diseases of the Circulatory System	30.61%	32.32%	30.17%	30.52%	30.83%	28.70%	27.10%
Disease of the Digestive System	9.59%	11.68%	9.12%	7.06%	7.43%	6.42%	7.79%
Disease of the Respiratory System	8.94%	8.78%	7.16%	8.61%	8.96%	9.38%	10.46%
Injuries and Poisoning	8.61%	8.65%	8.53%	8.68%	8.67%	8.28%	9.31%
Neoplasms	8.55%	10.78%	10.71%	11.39%	8.72%	11.12%	9.50%
Supplementary Classifications	6.94%	3.55%	4.45%	4.04%	4.20%	4.73%	4.99%
Symptoms, Signs, and Ill-Defined Conditions	6.18%	4.95%	7.32%	5.60%	5.93%	6.24%	6.37%
Musculoskeletal System and Connecting Tissue	5.30%	4.86%	6.00%	6.41%	5.96%	6.28%	5.88%
Diseases of the Genitourinary System	4.64%	5.21%	3.29%	3.67%	3.87%	3.63%	4.27%
Other	10.64%	9.21%	13.25%	14.03%	15.44%	15.22%	14.32%

Source: Provincial Health Planning Database, 2002

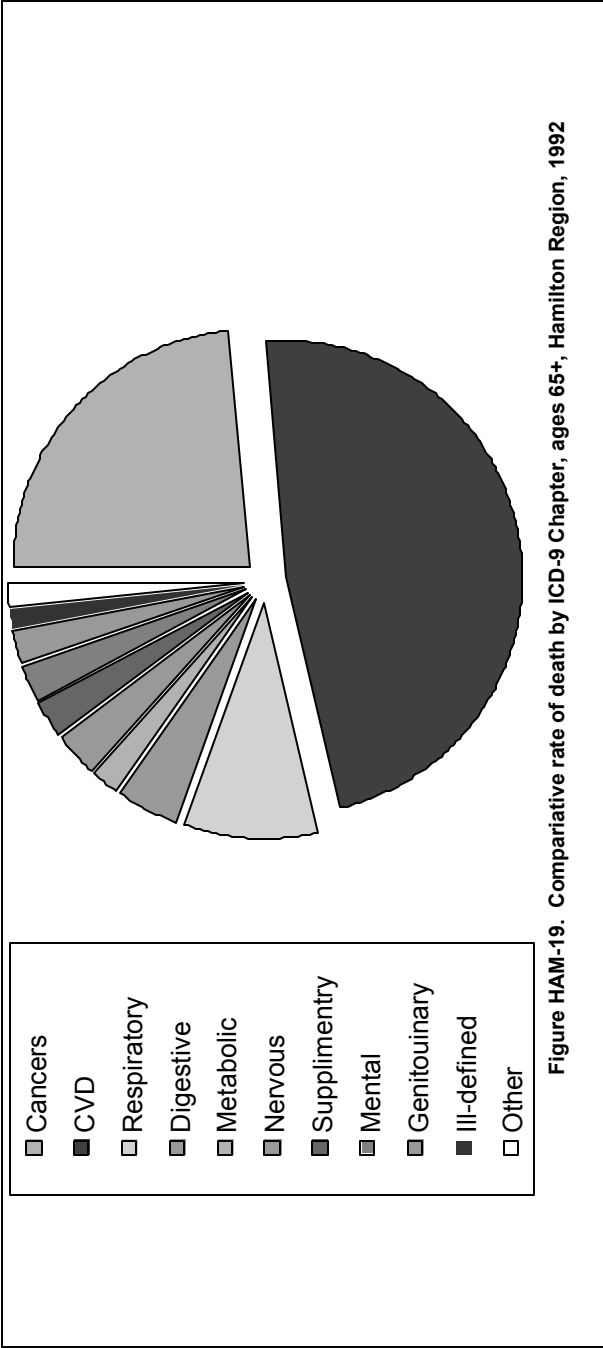


Table HAM-14: Comparative rate of death by ICD-9 Chapter, Hamilton Region, 1992

ICD CHAPTER	Ontario	Ontario 65+	Hamilton 65+
Neoplasms	27.90%	25.40%	23.60%
Diseases of the Circulatory System	39.70%	45.50%	47.70%
Diseases of the Respiratory System	8.10%	9.70%	9.20%
Diseases of the Digestive System	3.60%	3.40%	4.20%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.10%	3.20%	2.10%
Disease of the Nervous System	2.80%	3.00%	3.00%
Supplementary Classification	5.70%	2.50%	2.40%
Mental Disorders	1.90%	2.10%	2.50%
Diseases of the Genitourinary System	1.50%	1.70%	2.20%
Symptoms, Signs, and ill-defined conditions	2.30%	2.50%	1.30%
Other	3.40%	1.00%	1.80%

Source: Health Planning System Initiative, 2000

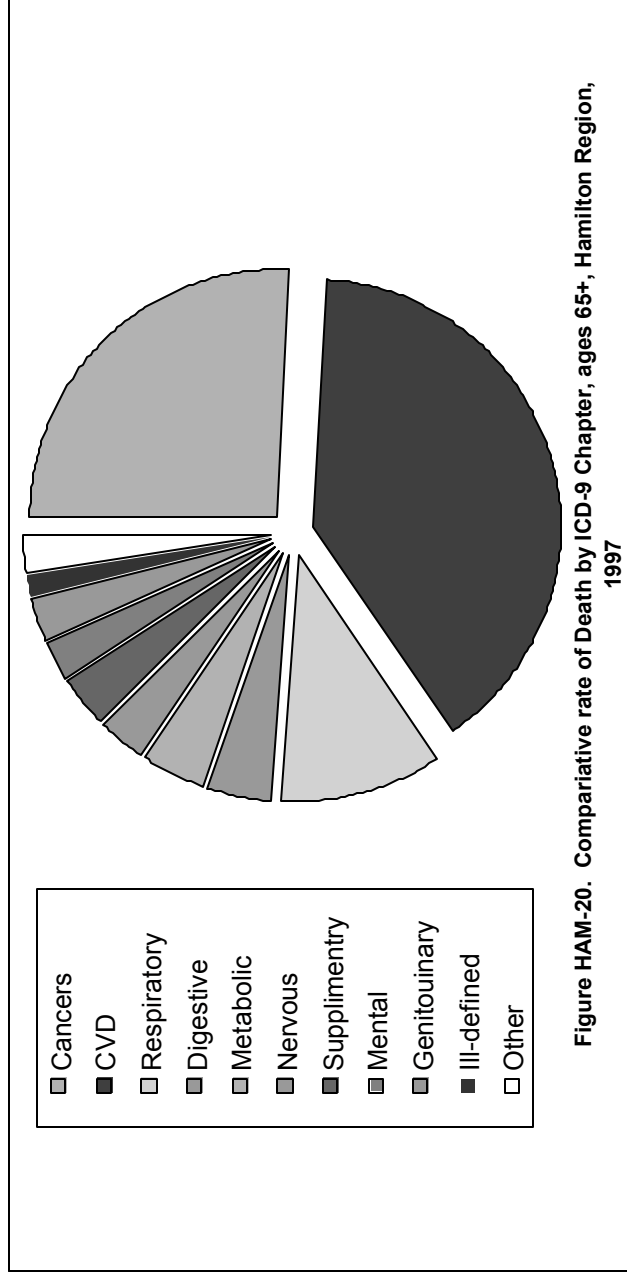


Table HAM-15. Compariative rate of death by ICD-9 Chapter, Hamilton Region, 1997

ICD CHAPTER	Ontario	Ontario 65+	Hamilton 65+
Neoplasms	27.98%	25.47%	25.70%
Diseases of the Circulatory System	38.04%	42.79%	39.80%
Diseases of the Respiratory System	8.68%	10.18%	10.70%
Diseases of the Digestive System	3.55%	3.46%	4.00%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.54%	3.75%	4.30%
Disease of the Nervous System	3.03%	3.27%	3.10%
Supplementary Classification	5.60%	2.84%	3.20%
Mental Disorders	2.47%	2.82%	2.60%
Diseases of the Genitourinary System	1.62%	1.89%	2.60%
Symptoms, Signs, and ill-defined conditions	1.93%	2.84%	1.40%
Other	3.57%	0.69%	2.60%

Source: Health Planning System Initiative, 2000

Table HAM-16: Age Specific Indirect Standardized Mortality Ratio, a 1992 County to Ontario Comparison							
Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.20	0.87	0.52	0.73	0.83	1.00	0.70
5-9	0	0.41	0.43	0.74	0.24	0.11	0.20
10-14	1.77	0.48	0.17	0.39	0.72	0.95	0.25
15-19	1.63	2.94	0.68	0.79	1.00	1.30	1.52
20-24	1.82	0.84	0.75	0.85	0.83	0.58	0.71
25-29	1.18	0.78	1.13	1.36	1.00	1.13	1.21
30-34	1.13	1.80	0.68	1.01	1.27	1.06	0.96
35-39	1.06	1.32	1.02	1.24	1.32	1.03	1.28
40-44	1.38	1.01	0.92	0.99	1.07	0.98	0.86
45-49	1.00	1.11	0.89	0.98	1.40	0.92	1.06
50-54	1.35	1.11	0.86	1.19	1.28	1.00	1.06
55-59	1.20	1.34	0.95	1.26	1.10	1.19	1.13
60-64	1.41	1.07	1.02	1.12	1.25	1.01	1.16
65-69	1.16	0.93	0.89	1.22	1.12	0.96	1.17
70-74	1.32	1.04	0.91	1.11	1.11	0.97	0.96
75-79	0.95	1.23	0.94	1.15	1.04	1.04	1.06
80-84	1.00	1.14	0.87	1.00	0.96	0.98	1.12
85+	1.15	0.96	0.94	0.94	1.02	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

**Table HAM-17:
Age Specific Indirect Standardized Mortality Ratio, a 1997 County to Ontario Comparison**

Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.61	0.81	0.64	1.47	1.23	1.30	1.44
5-9	0	0	0.13	0.67	0.35	0.21	0.20
10-14	0.81	0	0.44	0.34	0.66	0.36	1.10
15-19	0.46	0.50	1.04	0.52	0.73	1.01	1.27
20-24	0.87	1.74	0.61	0.88	0.90	0.50	0.97
25-29	0.88	1.07	0.55	1.07	0.65	0.52	0.64
30-34	1.90	1.33	0.59	0.88	1.26	0.65	0.71
35-39	1.39	0.91	0.67	1.08	1.13	0.82	0.90
40-44	1.04	0.78	0.80	1.04	1.03	0.97	0.78
45-49	1.35	0.89	0.55	1.22	0.99	1.14	0.98
50-54	1.42	0.87	0.76	1.17	1.06	0.87	0.88
55-59	0.98	1.13	0.68	1.08	0.99	0.78	0.91
60-64	1.21	1.17	0.82	1.18	1.23	0.84	0.84
65-69	1.17	1.22	0.73	1.11	1.00	0.99	1.17
70-74	0.84	1.03	0.87	0.98	1.06	1.01	0.96
75-79	1.02	0.89	0.93	0.94	0.96	1.01	1.06
80-84	0.99	1.06	0.96	0.99	0.98	0.95	1.12
85+	1.16	1.17	0.81	0.94	0.97	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

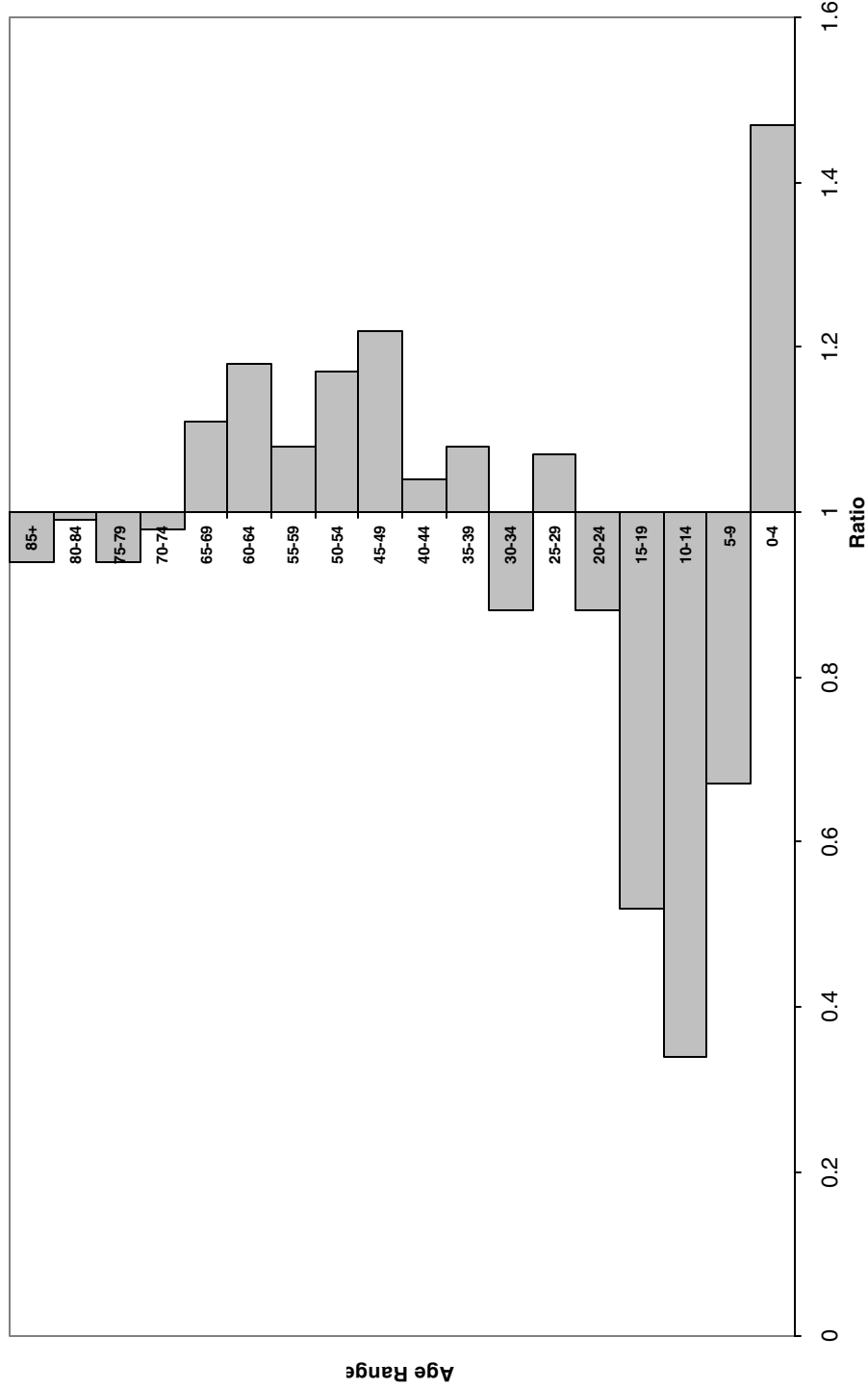


Figure HAM-21 . Standardized Mortality Ratio, Hamilton Region, 1997

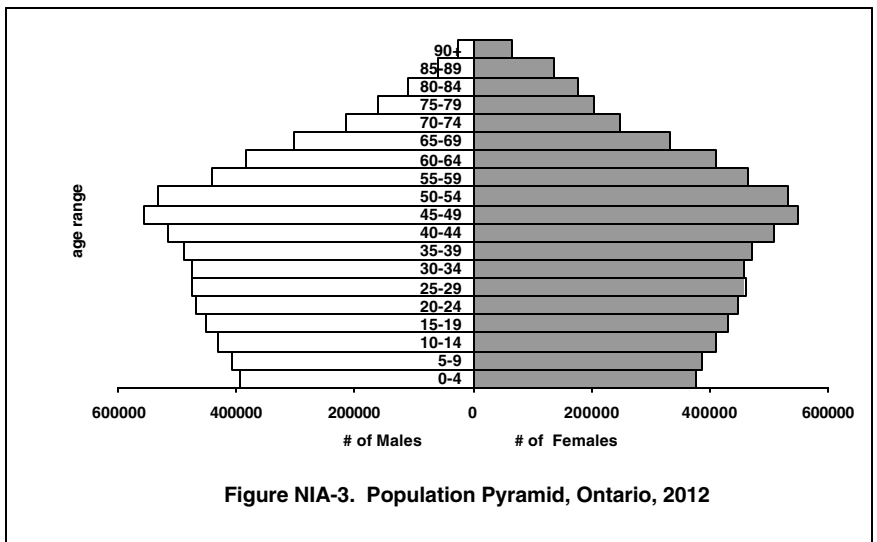
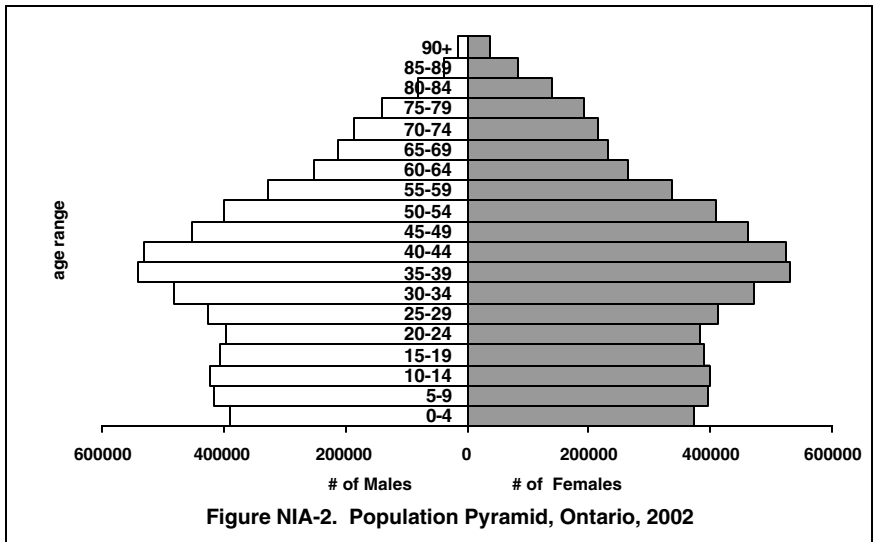
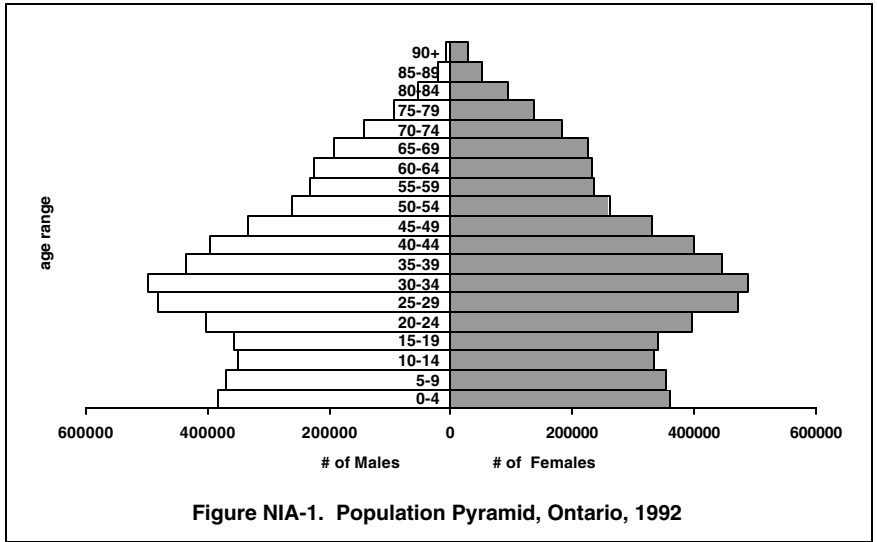
Niagara Region

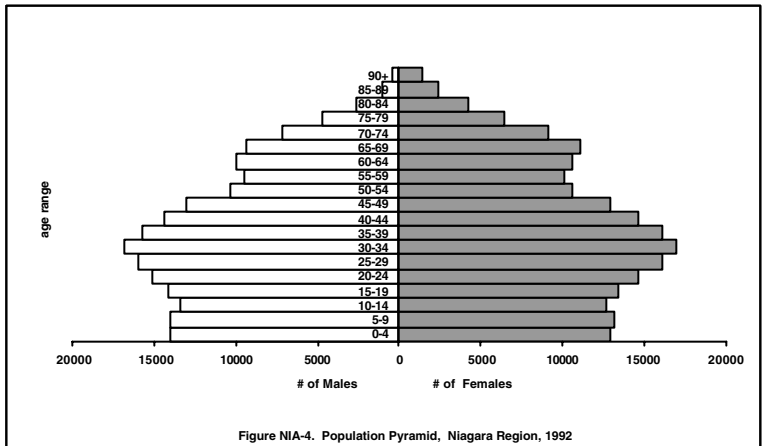
Notes, Definitions & Formulas

Population Pyramids present the age sex composition of a population. They may present either absolute numbers or percents.

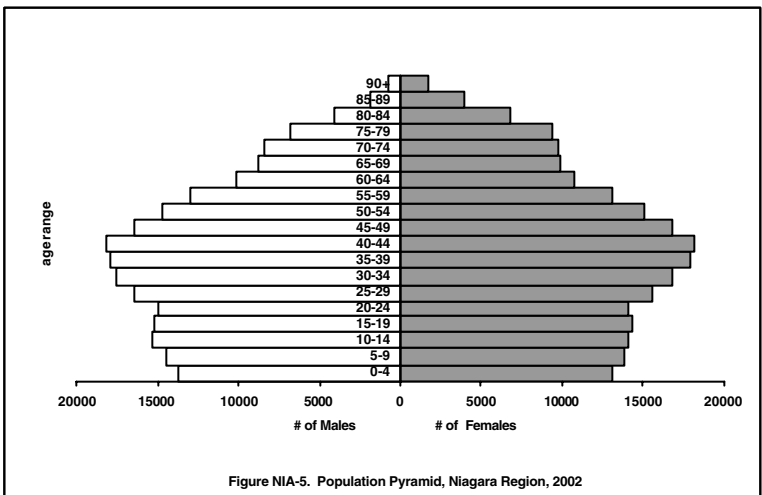
The age of an individual is taken to be the age as of their last birthday (as of census reference date, May 14th, 1996), and is derived from the date of birth.

The sources for the population data are the census and HELPS.

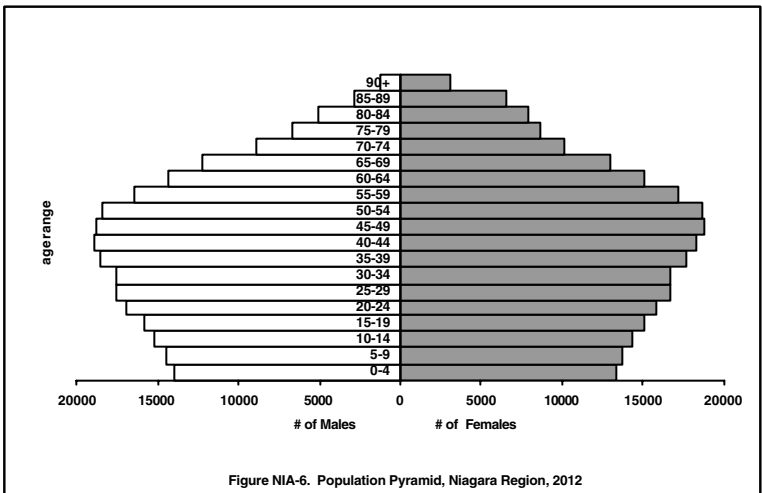




% of total population		
Age	Male	Female
0-4	3.40	3.15
5-9	3.40	3.20
10-14	3.26	3.06
15-19	3.45	3.27
20-24	3.68	3.54
25-29	3.89	3.92
30-34	4.10	4.12
35-39	3.82	3.92
40-44	3.49	3.56
45-49	3.18	3.14
50-54	2.52	2.57
55-59	2.31	2.44
60-64	2.41	2.57
65-69	2.29	2.69
70-74	1.74	2.21
75-79	1.15	1.58
80-84	0.63	1.04
85-89	0.27	0.59
90+	0.11	0.33



% of total population		
Age	Male	Female
0-4	2.96	2.83
5-9	1.13	2.98
10-14	3.29	3.05
15-19	3.28	3.08
20-24	3.23	3.05
25-29	3.53	3.37
30-34	3.78	3.64
35-39	3.86	3.87
40-44	3.91	3.93
45-49	3.54	3.64
50-54	3.16	3.24
55-59	2.81	2.83
60-64	2.18	2.31
65-69	1.89	2.12
70-74	1.81	2.10
75-79	1.48	2.02
80-84	0.89	1.48
85-89	0.39	0.84
90+	0.15	0.38



% of total population		
Age	Male	Female
0-4	2.72	2.59
5-9	2.80	2.67
10-14	2.94	2.80
15-19	3.07	2.92
20-24	3.29	3.07
25-29	3.42	2.23
30-34	3.41	3.23
35-39	3.59	3.43
40-44	3.69	3.55
45-49	3.65	3.66
50-54	3.59	3.64
55-59	3.19	3.33
60-64	2.78	2.95
65-69	2.37	2.53
70-74	1.73	1.97
75-79	1.31	1.69
80-84	0.97	1.54
85-89	0.54	1.27
90+	0.24	0.61

**Table NIA-1:
Population Projections by Age Group, Niagara Region, 1992-2012**

Age Group	1992 Census	2002 (projection)	2012 (projection)	% change 92 - 12
Niagara				
0-4	26991	26873	27359	1.4%
5-9	27218	28321	28168	3.5%
10-14	26059	29412	29539	13.4%
15-19	27673	29546	30871	11.6%
20-24	29792	29143	32766	17.9%
25-29	32187	32013	34260	6.4%
30-34	33901	34423	34239	1.0%
35-39	31897	35893	36171	13.4%
40-44	29053	36358	37280	28.3%
45-49	26015	33316	37636	44.7%
50-54	21000	29704	37210	77.2%
55-59	19564	26163	33569	71.6%
60-64	20539	20834	29496	43.6%
65-69	20497	18640	25226	23.1%
70-74	16266	18141	19034	17.0%
75-79	11245	16026	15437	37.3%
80-84	6093	10965	12921	112.1%
85-89	3542	5746	9327	163.3%
90+	1816	2457	4383	141.4%
Total	412167	464162	514900	24.9%
Ontario				
0-4	742471	764732	762254	2.7%
5-9	722556	812650	786305	8.8%
10-14	683755	819316	831546	21.6%
15-19	698690	796693	876496	25.4%
20-24	798841	781014	904407	13.2%
25-29	953484	839052	922849	-3.2%
30-34	987524	952608	921961	-6.6%
35-39	880560	1073145	949162	7.8%
40-44	797548	1056980	1015755	27.4%
45-49	665954	912130	1096884	64.7%
50-54	520678	806558	1055663	102.7%
55-59	467820	664124	898386	92.0%
60-64	456475	513262	783207	71.6%
65-69	419263	444065	627732	49.7%
70-74	327300	402385	459222	40.3%
75-79	231989	332089	361141	55.7%
80-84	147311	222321	284578	93.2%
85-89	75312	120019	191100	153.7%
90+	37508	53274	89947	139.8%
Total	10615475	12366850	13819024	30.2%

Notes, Definitions & Formulas

Age dependency ratios take into account the proportions of children, seniors and those of working age and are sometimes used as a measure of economic dependency (i.e. a ratio of the economically inactive population to the active or productive population).

The two dependency ratios presented here are an accepted standard.

Calculation

Youth dependency ratio

$$\frac{(P_{age\ 0-24})}{(P_{age\ 25-64})}$$

Aged dependency ratio

$$\frac{(P_{age\ 65+})}{(P_{age\ 25-64})}$$

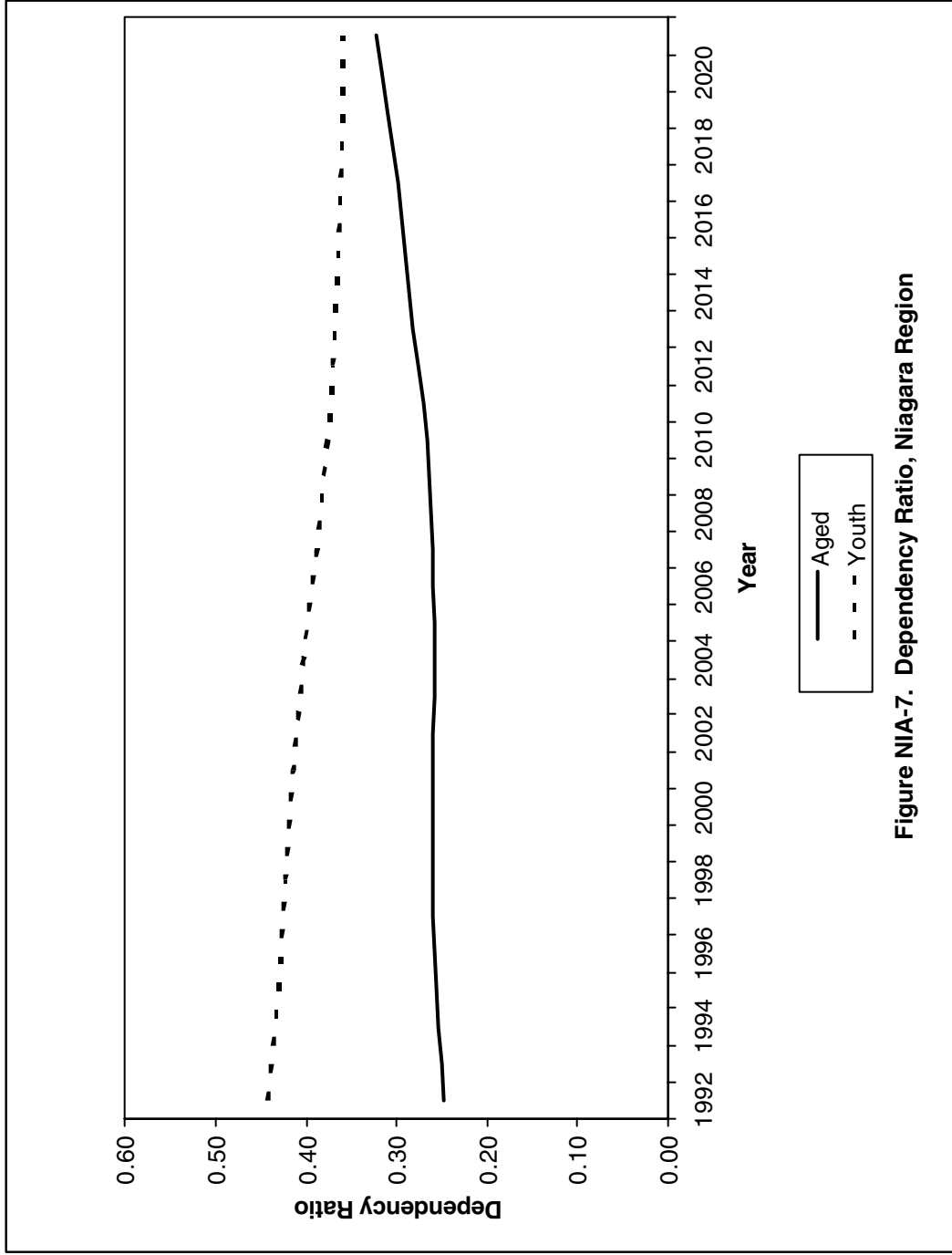
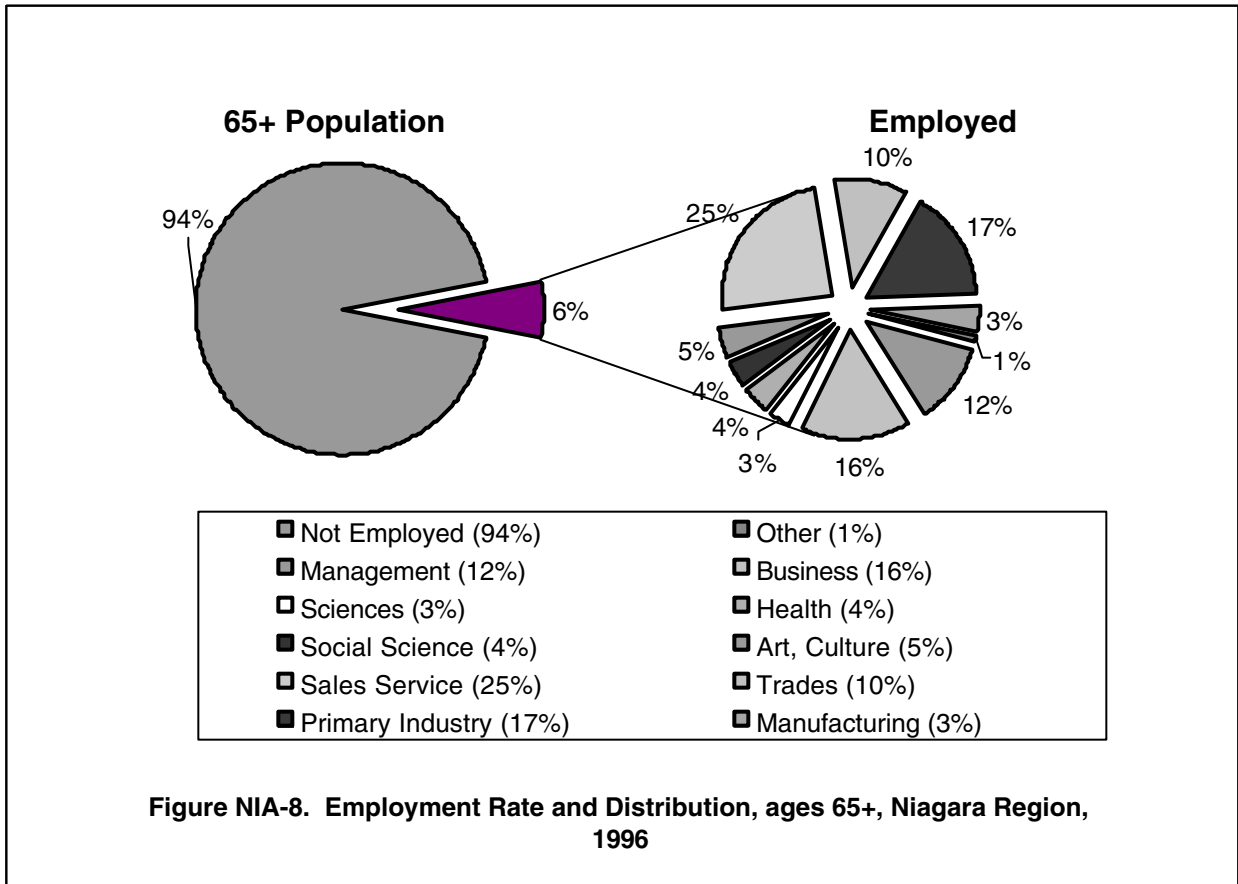


Figure NIA-7. Dependency Ratio, Niagara Region



**Table NIA-2:
Job Classification Distribution, Niagara Region, 1996**

	Ontario	Ontario 65+	Niagara 65+
Management	7.14%	0.18%	0.76%
Business	13.30%	0.30%	1.03%
Sciences	2.79%	0.07%	0.21%
Health	4.32%	0.07%	0.27%
Social Science	4.71%	0.10%	0.25%
Art, culture	1.47%	0.07%	0.29%
Sales Service	20.51%	0.42%	1.57%
Trades	17.65%	0.14%	0.66%
Primary Industry	14.43%	0.13%	1.06%
Manufacturing	11.61%	0.09%	0.22%
Other	2.81%	0.04%	0.07%

Source: The Canadian Census, 1996 (20% Sample)

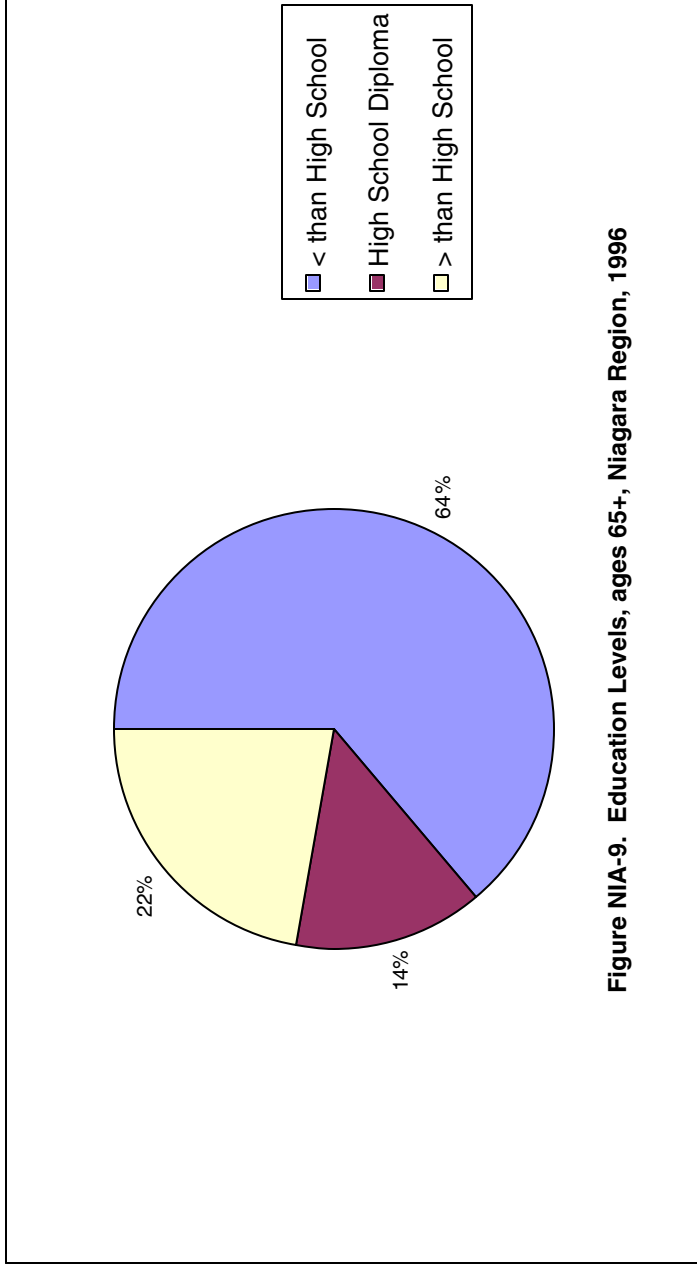


Figure NIA-9. Education Levels, ages 65+, Niagara Region, 1996

**Table NIA-3:
Highest Level of Education, Niagara Region, 1996**

Highest Education Achieved	Ontario	Ontario 65+	Niagara 65+
No degree, certificate or diploma	35.04%	60.58%	63.96%
Secondary (high) school graduation certificate	23.80%	14.69%	13.69%
Trades certificate or diploma	9.36%	8.52%	9.18%
Other non-university certificate or diploma	14.95%	7.59%	6.86%
University certificate or diploma below bachelor level	1.92%	1.96%	1.64%
Bachelor's degree	9.55%	3.71%	2.78%
University certificate or diploma above bachelor level	1.75%	0.88%	0.60%
Medical degree	0.50%	0.47%	0.37%
Master's degree	2.63%	1.18%	0.74%
Earned doctorate	0.51%	0.43%	0.18%

Source: The Canadian Census, 1996 (20% Sample)

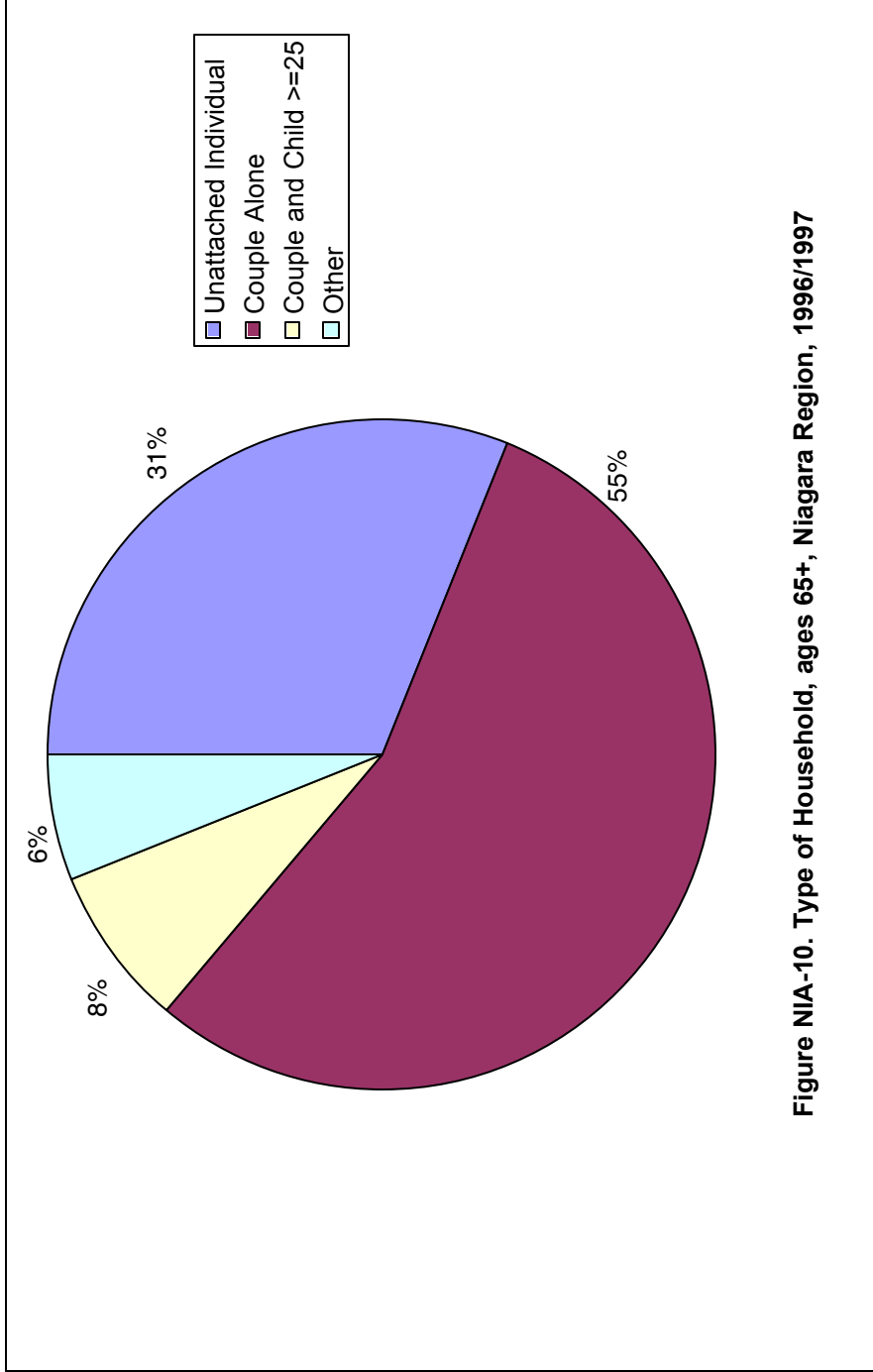


Figure NIA-10. Type of Household, ages 65+, Niagara Region, 1996/1997

Table NIA-4:
Type of Household, Niagara Region, 1996/1997

Household type	Ontario 12+	Ontario 65+	Niagara 12+
Unattached Individual	11%*	30%	31%
Couple Alone	22%	54%	55%
Couple and Child >=25	4%*	7%*	8%*
Other	63%	9%*	6%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

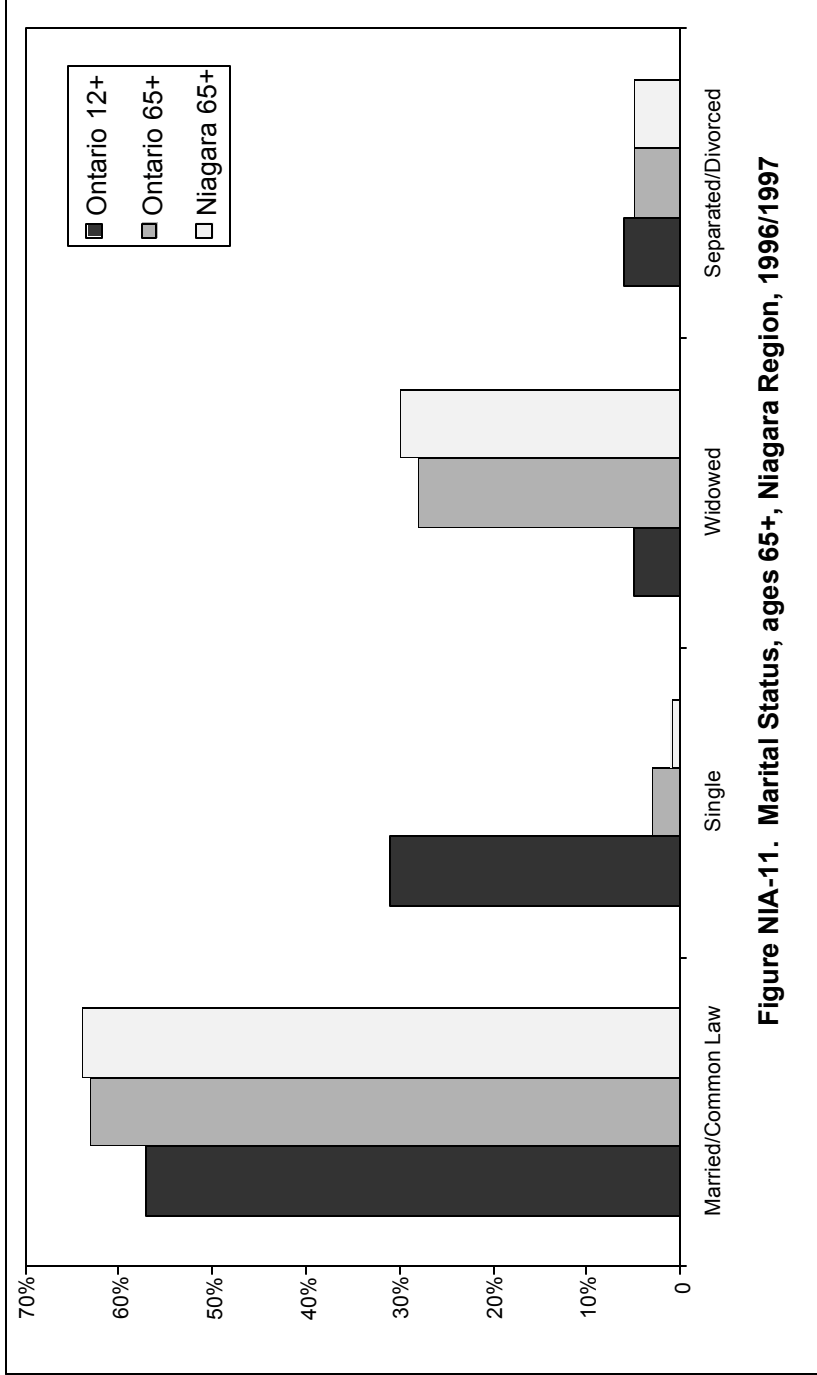


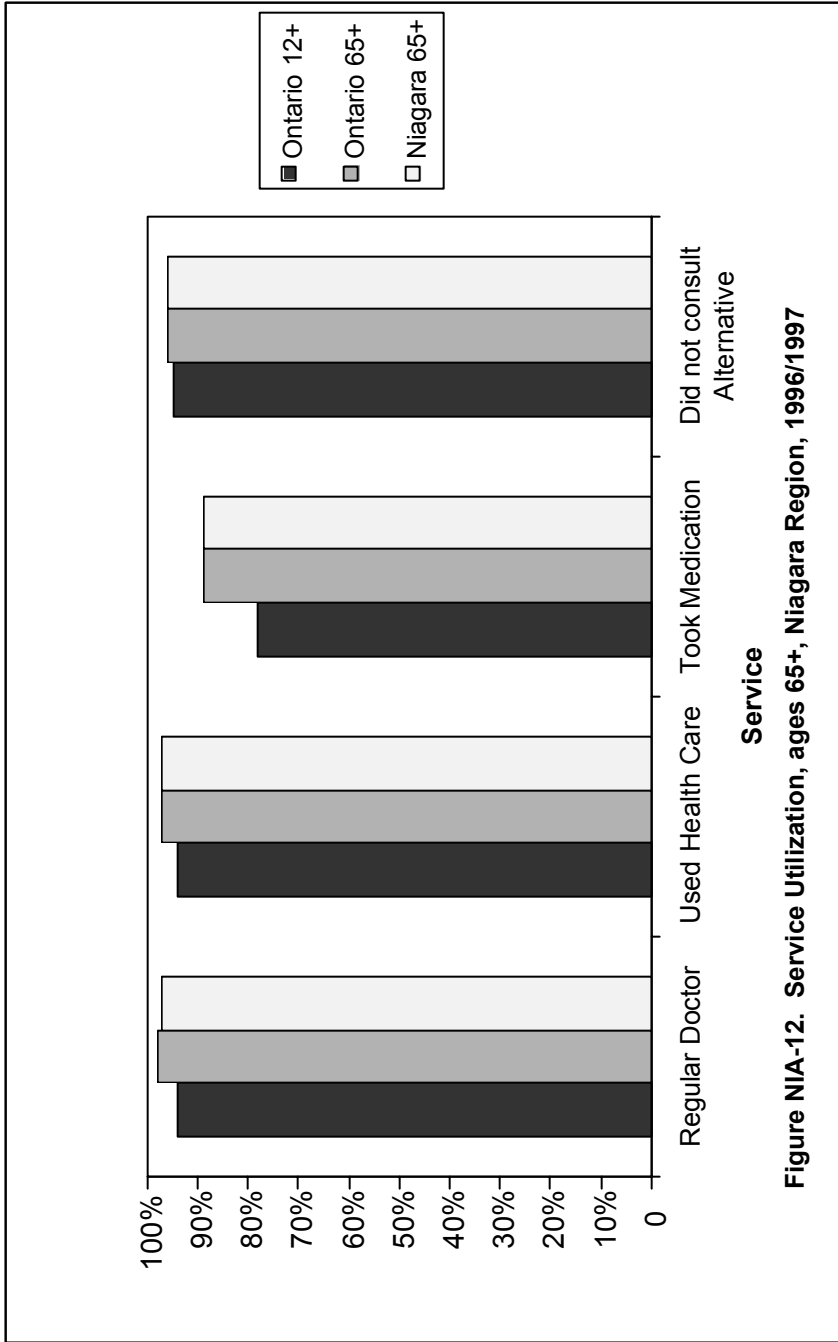
Figure NIA-11. Marital Status, ages 65+, Niagara Region, 1996/1997

**Table NIA-5:
Marital Status, Niagara Region, 1996/1997**

Marital Status	Ontario 12+	Ontario 65+	Niagara 65+
Married/Common Law	57%	63%	64%
Single	31%	3%*	----
Widowed	5%*	28%	30%
Separated/Divorced	6%*	5%*	5%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability



**Table NIA-6:
Service Utilization, Niagara Region, 1996/1997**

Utilization Criteria	Ontario 12+	Ontario 65+	Niagara 65+
Has a regular doctor	94%	98%	97%
Used health care in last year	94%	97%	97%
Took medication in last year	78%	89%	89%
Did not consult alternative medicine in last year	95%	96%	96%

Source: The Ontario Health Survey, 1996/1997

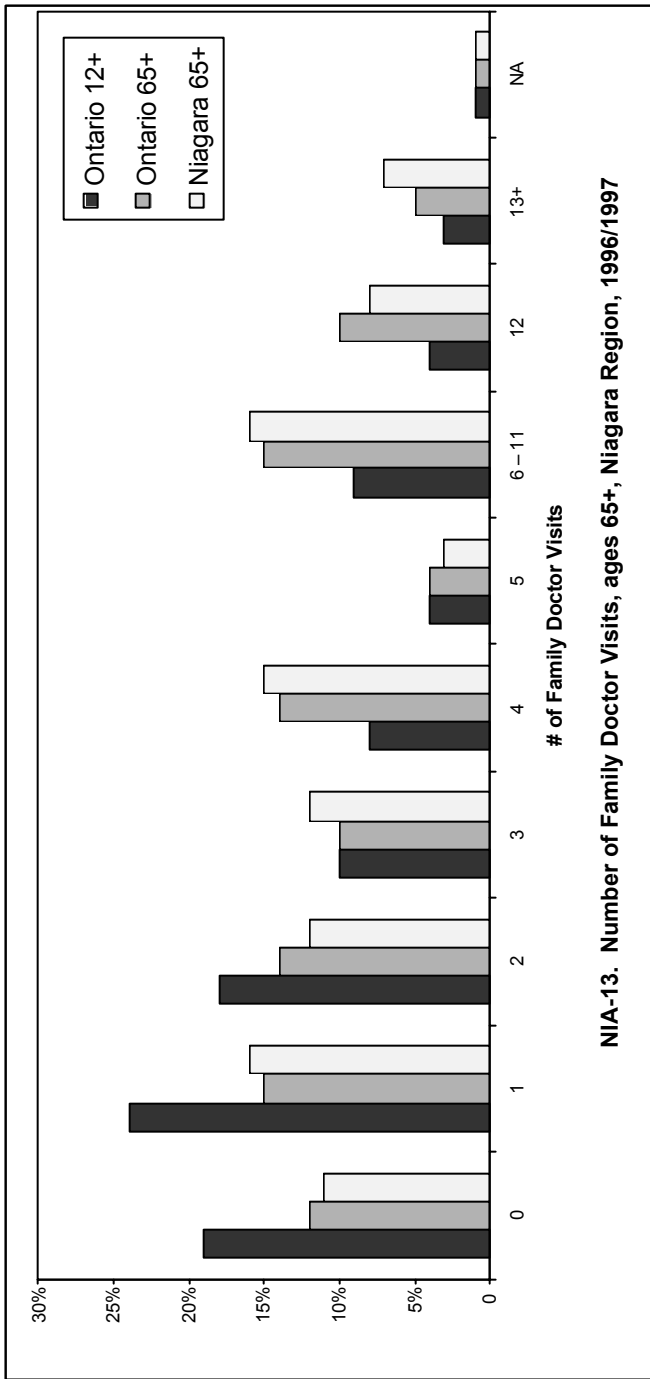


Table NIA-7:

Number of Family Doctor Visits, Niagara Region, 1996/1997		
Number of Family Doctor Visits	Ontario 12+	Niagara 65+
0	19%	11%*
1	24%	16%
2	18%	12%*
3	10%*	12%*
4	8%*	15%
5	4%*	---
6-11	9%*	16%
12	4%*	8%*
13+	3%*	7%*
NA	1%*	1%*

Source: The Ontario Health Survey, 1996/1997
 * Results subject to high sampling variability

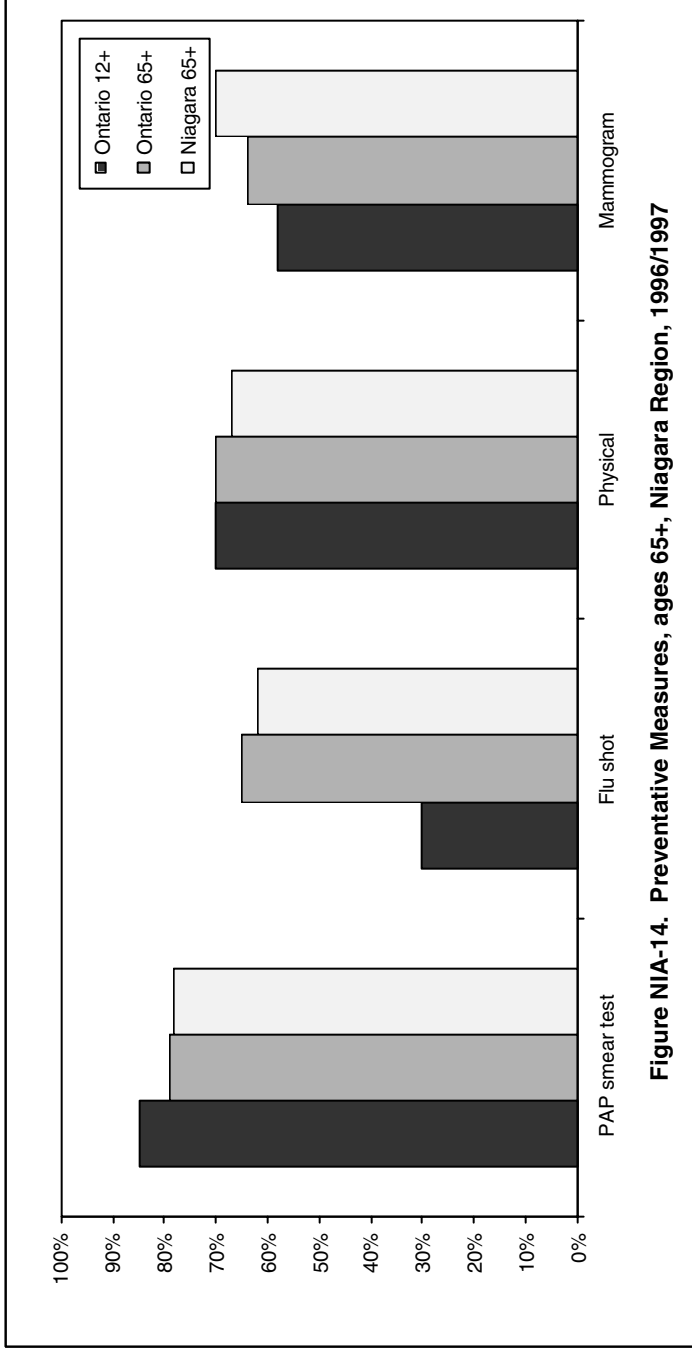


Table NIA-8: Preventative Measures, Niagara Region, 1996/1997

Preventative Measure	Ontario 12+	Ontario 65+	Niagara 65+
Ever had a PAP smear test? (Women only)	85%	79%	78%
Ever had a Flu shot?	30%	65%	62%
Had Physical within last year?	70%	70%	67%
Ever had a mammogram? (Women only)	58%	64%	70%

Source: The Ontario Health Survey, 1996/1997

Notes, Definitions & Formulas

Mammogram data originates from the Ontario Health Survey. Applicable respondents are shown to have answered 'yes,' 'no,' or 'other' ('other' is a combination of numerous responses such as 'I don't know'). Those that have had a mammogram and are of an age between 65 and 72 were further questioned as to 'Last time mammogram was done.'

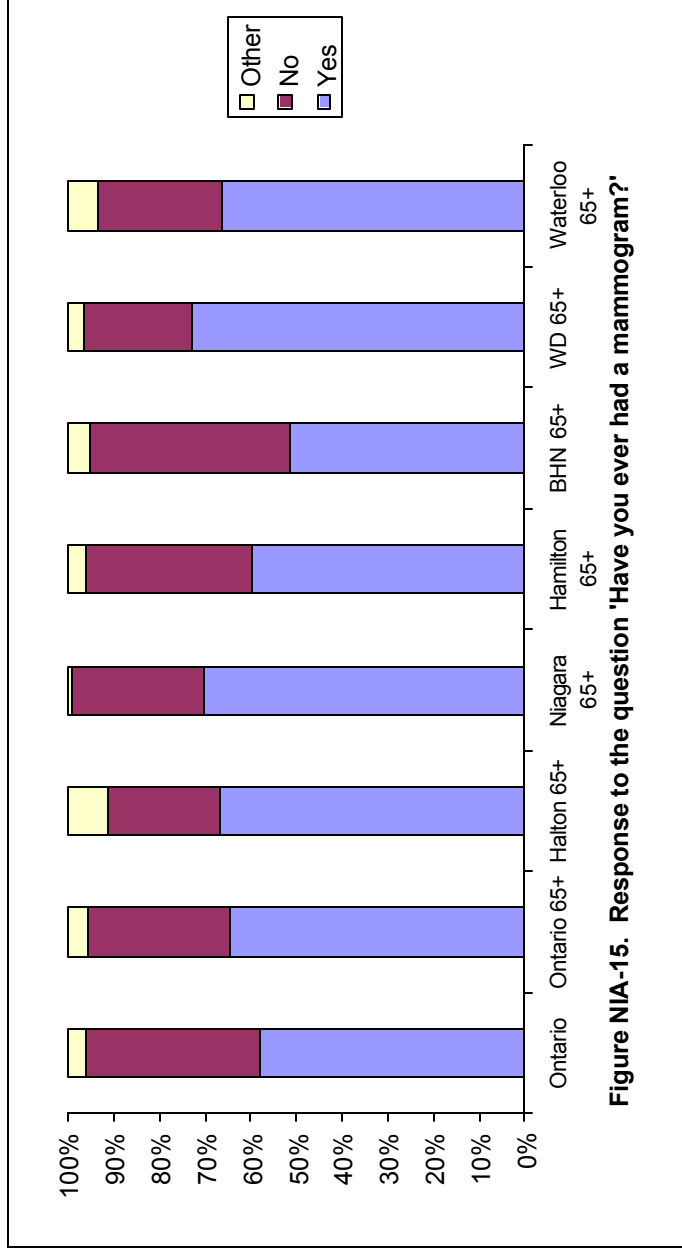


Figure NIA-15. Response to the question 'Have you ever had a mammogram?'

Table NIA-9: When was last mammogram? Niagara Region, 1996/1997

When last Mammogram?	Ontario 65+	Niagara 65+
Less than 1 year ago	45%	48%
Between 1 and 2 Years	24%	25%
Over 2 years	30%	27%

Source: The Ontario Health Survey, 1996/1997

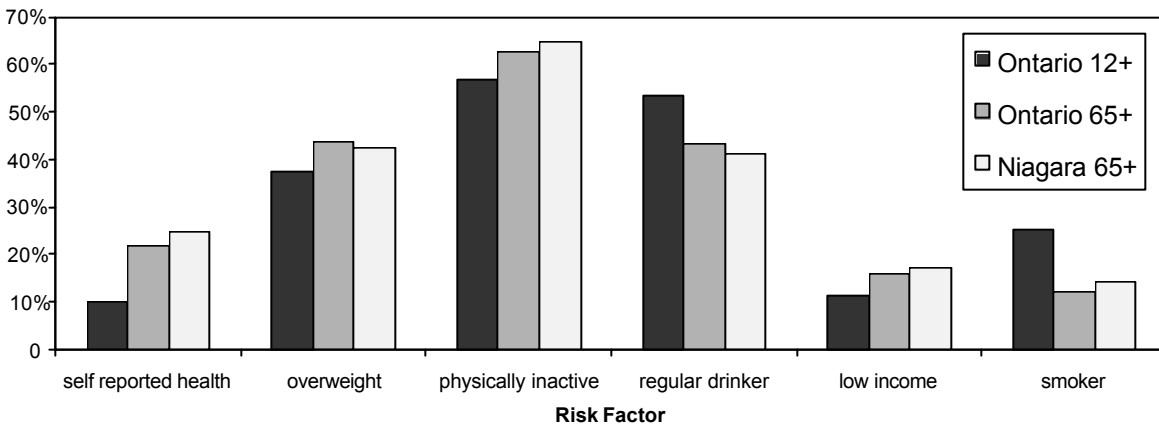


Figure NIA-16. Population risk factors, ages 65+, Niagara Region, 1996/1997

Risk Factor	Ontario 12+	Ontario 65+	Niagara 65+
Self-reported health was 'fair' or 'poor'	10%*	22%	25%
Self-reported to be 'overweight'	37%	44%	43%
Physically inactive	57%	63%	65%
Regular drinker	54%	43%	41%
Low Income	11%*	16%	17%
Smoker	25%	12%*	14%*

Risk Factor	Definition	Reasoning for Inclusion
Self-Reported Health	How would you rate your general Health?	Research shows self-reported health is related to morbidity and mortality, especially among the elderly ¹
Self-Reported weight	How would you rate your current weight?	BMI scores are not collected for the elderly. Obesity has been linked to numerous health problems ²
Physically Inactive	Derived from many Questions.	Physically activity leads to a healthier lifestyle ³
Regular Drinker	Derived from many Questions.	Research has shown alcohol can lead to many health problems ⁴
Low Income	Derived from many Questions.	Research has linked low income to mortality ⁵
Smoker	Derived from many Questions.	Research has shown smoking can lead to many health problems ⁶

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

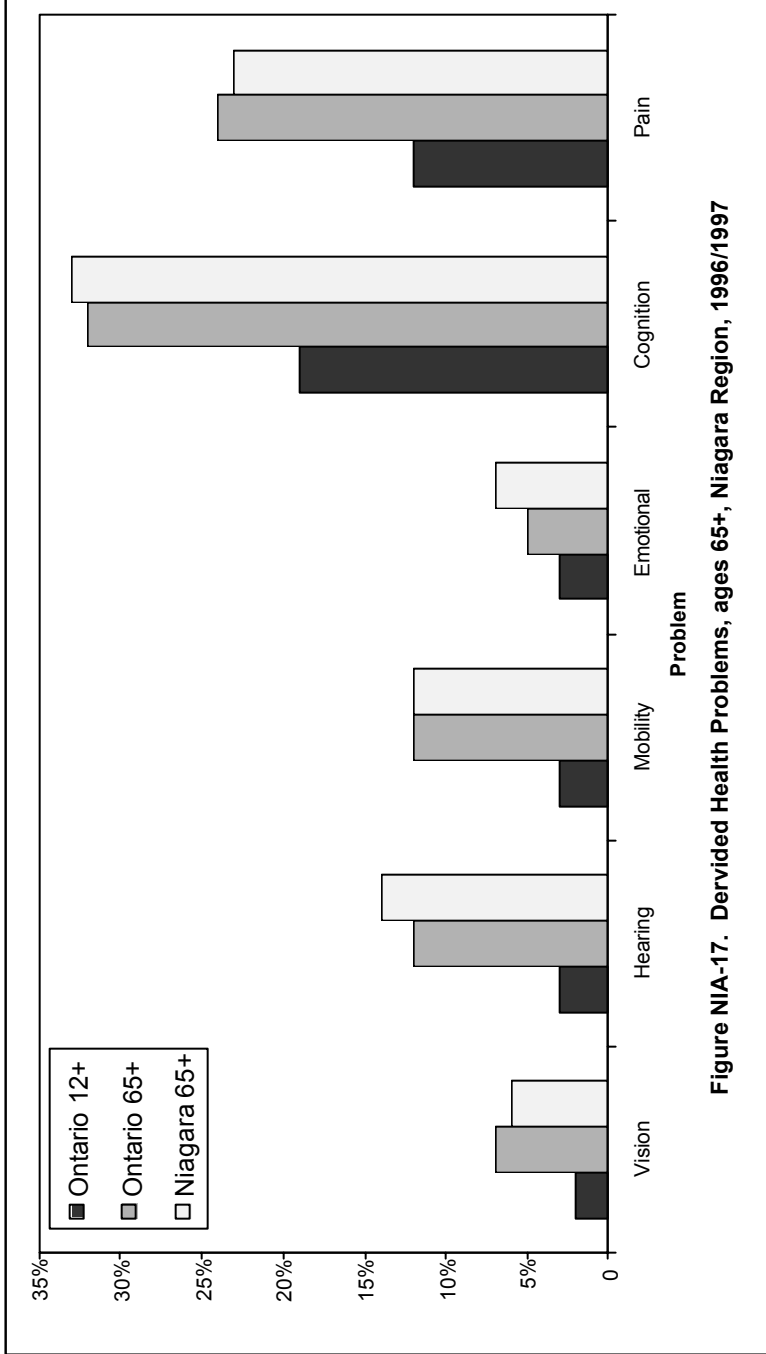


Figure NIA-17. Derived Health Problems, ages 65+, Niagara Region, 1996/1997

Table NIA-12: Derived Physical/Emotional Problems, Niagara Region, 1996/1997

Type of problem derived from the OHS	Ontario 12+	Ontario 65+	Niagara 65+
Has a vision problem beyond corrective lenses	----	7%*	6%*
Hearing	3%*	12%*	14%*
Mobility	3%*	12%*	12%*
Emotion – less than 'Somewhat Happy'	3%*	5%*	7%*
Cognition	19%	32%	33%
Is in some type of pain	12%*	24%	23%

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

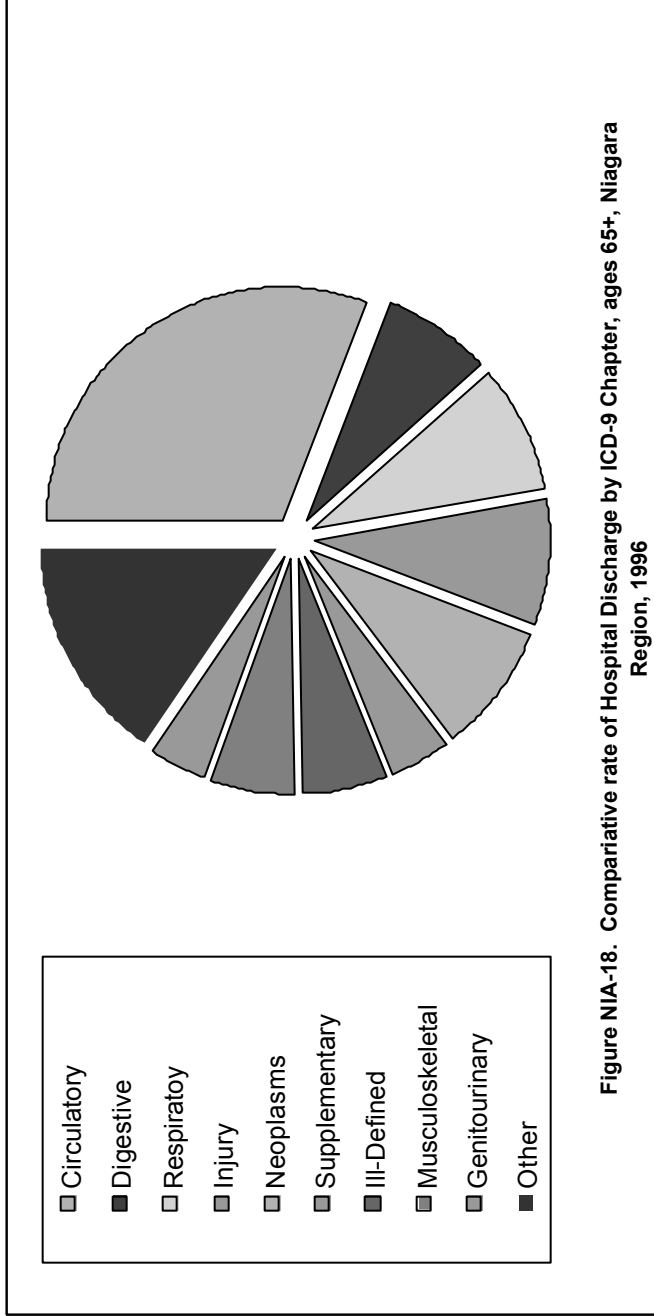


TABLE NIA-13: Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, 1996

ICD Chapter	Brant	HN	Halton	Hamilton	Niagara	Waterloo	WD
Diseases of the Circulatory System	30.61%	32.32%	30.17%	30.52%	30.83%	28.70%	27.10%
Disease of the Digestive System	9.59%	11.68%	9.12%	7.06%	7.43%	6.42%	7.79%
Disease of the Respiratory System	8.94%	8.78%	7.16%	8.61%	8.96%	9.38%	10.46%
Injuries and Poisoning	8.61%	8.65%	8.53%	8.68%	8.67%	8.28%	9.31%
Neoplasms	8.55%	10.78%	10.71%	11.39%	8.72%	11.12%	9.50%
Supplementary Classifications	6.94%	3.55%	4.45%	4.04%	4.20%	4.73%	4.99%
Symptoms, Signs, and Ill-Defined Conditions	6.18%	4.95%	7.32%	5.60%	5.93%	6.24%	6.37%
Musculoskeletal System and Connecting Tissue	5.30%	4.86%	6.00%	6.41%	5.96%	6.28%	5.88%
Diseases of the Genitourinary System	4.64%	5.21%	3.29%	3.67%	3.87%	3.63%	4.27%
Other	10.64%	9.21%	13.25%	14.03%	15.44%	15.22%	14.32%

Source: Provincial Health Planning Database, 2002

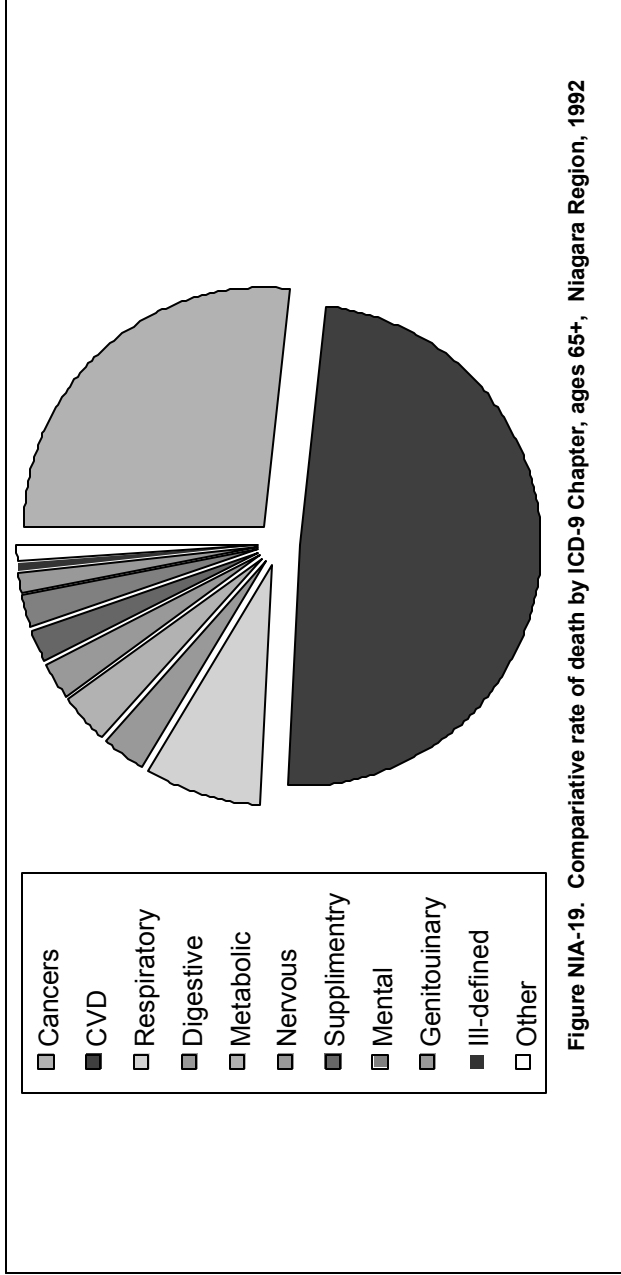


Table NIA-14: Comparative rate of death by ICD-9 Chapter, Niagara Region, 1992

ICD CHAPTER	Ontario	Ontario 65+	Niagara 65+
Neoplasms	27.90%	25.40%	26.80%
Diseases of the Circulatory System	39.70%	45.50%	49.00%
Diseases of the Respiratory System	8.10%	9.70%	7.90%
Diseases of the Digestive System	3.60%	3.40%	3.00%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.10%	3.20%	3.40%
Disease of the Nervous System	2.80%	3.00%	2.50%
Supplementary Classification	5.70%	2.50%	2.00%
Mental Disorders	1.90%	2.10%	2.40%
Diseases of the Genitourinary System	1.50%	1.70%	1.30%
Symptoms, Signs, and ill-defined conditions	2.30%	2.50%	0.60%
Other	3.40%	1.00%	1.10%

Source: Health Planning System Initiative, 2000

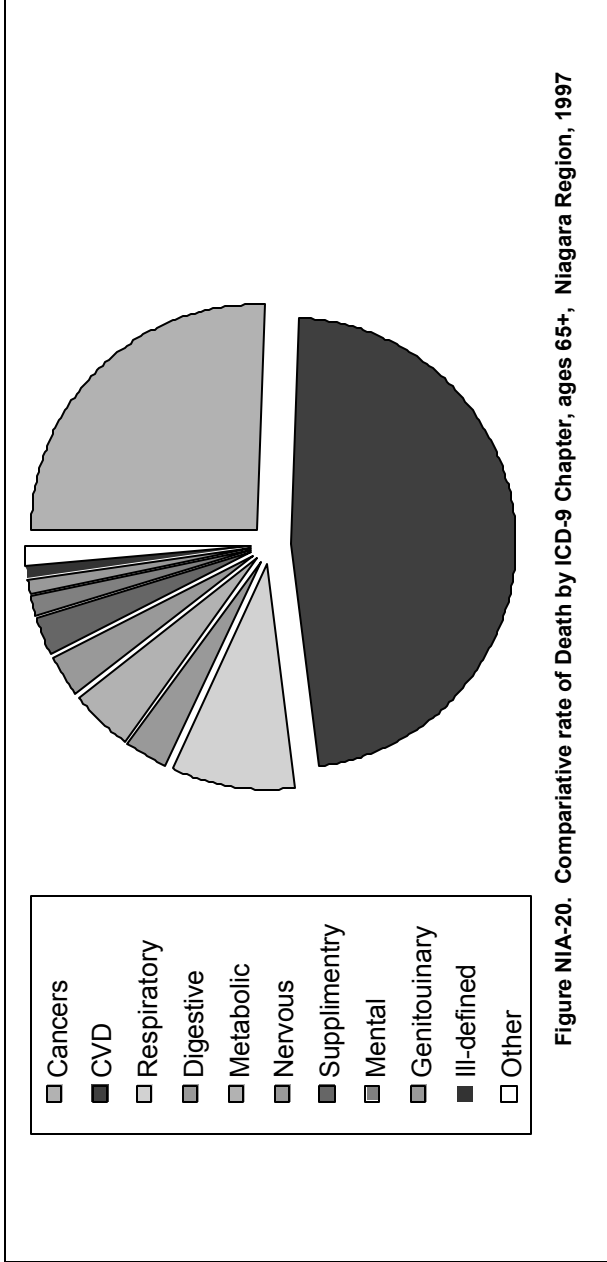


Table NIA-15: Comparative rate of death by ICD-9 Chapter, Niagara Region, 1997

ICD CHAPTER	Ontario	Ontario 65+	Niagara 65+
Neoplasms	27.98%	25.47%	25.60%
Diseases of the Circulatory System	38.04%	42.79%	47.55%
Diseases of the Respiratory System	8.68%	10.18%	8.79%
Diseases of the Digestive System	3.55%	3.46%	3.18%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.54%	3.75%	4.28%
Disease of the Nervous System	3.03%	3.27%	3.08%
Supplementary Classification	5.60%	2.84%	2.92%
Mental Disorders	2.47%	2.82%	1.26%
Diseases of the Genitourinary System	1.62%	1.89%	1.23%
Symptoms, Signs, and ill-defined conditions	1.93%	2.84%	0.70%
Other	3.57%	0.69%	1.43%

Source: Health Planning System Initiative, 2000

Table NIA - 16: Age Specific Indirect Standardized Mortality Ratio, a 1992 County to Ontario Comparison							
Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.20	0.87	0.52	0.73	0.83	1.00	0.70
5-9	0	0.41	0.43	0.74	0.24	0.11	0.20
10-14	1.77	0.48	0.17	0.39	0.72	0.95	0.25
15-19	1.63	2.94	0.68	0.79	1.00	1.30	1.52
20-24	1.82	0.84	0.75	0.85	0.83	0.58	0.71
25-29	1.18	0.78	1.13	1.36	1.00	1.13	1.21
30-34	1.13	1.80	0.68	1.01	1.27	1.06	0.96
35-39	1.06	1.32	1.02	1.24	1.32	1.03	1.28
40-44	1.38	1.01	0.92	0.99	1.07	0.98	0.86
45-49	1.00	1.11	0.89	0.98	1.40	0.92	1.06
50-54	1.35	1.11	0.86	1.19	1.28	1.00	1.06
55-59	1.20	1.34	0.95	1.26	1.10	1.19	1.13
60-64	1.41	1.07	1.02	1.12	1.25	1.01	1.16
65-69	1.16	0.93	0.89	1.22	1.12	0.96	1.17
70-74	1.32	1.04	0.91	1.11	1.11	0.97	0.96
75-79	0.95	1.23	0.94	1.15	1.04	1.04	1.06
80-84	1.00	1.14	0.87	1.00	0.96	0.98	1.12
85+	1.15	0.96	0.94	0.94	1.02	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

Table NIA - 17: Age Specific Indirect Standardized Mortality Ratio, a 1997 County to Ontario Comparison							
Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.61	0.81	0.64	1.47	1.23	1.30	1.44
5-9	0	0	0.13	0.67	0.35	0.21	0.20
10-14	0.81	0	0.44	0.34	0.66	0.36	1.10
15-19	0.46	0.50	1.04	0.52	0.73	1.01	1.27
20-24	0.87	1.74	0.61	0.88	0.90	0.50	0.97
25-29	0.88	1.07	0.55	1.07	0.65	0.52	0.64
30-34	1.90	1.33	0.59	0.88	1.26	0.65	0.71
35-39	1.39	0.91	0.67	1.08	1.13	0.82	0.90
40-44	1.04	0.78	0.80	1.04	1.03	0.97	0.78
45-49	1.35	0.89	0.55	1.22	0.99	1.14	0.98
50-54	1.42	0.87	0.76	1.17	1.06	0.87	0.88
55-59	0.98	1.13	0.68	1.08	0.99	0.78	0.91
60-64	1.21	1.17	0.82	1.18	1.23	0.84	0.84
65-69	1.17	1.22	0.73	1.11	1.00	0.99	1.17
70-74	0.84	1.03	0.87	0.98	1.06	1.01	0.96
75-79	1.02	0.89	0.93	0.94	0.96	1.01	1.06
80-84	0.99	1.06	0.96	0.99	0.98	0.95	1.12
85+	1.16	1.17	0.81	0.94	0.97	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

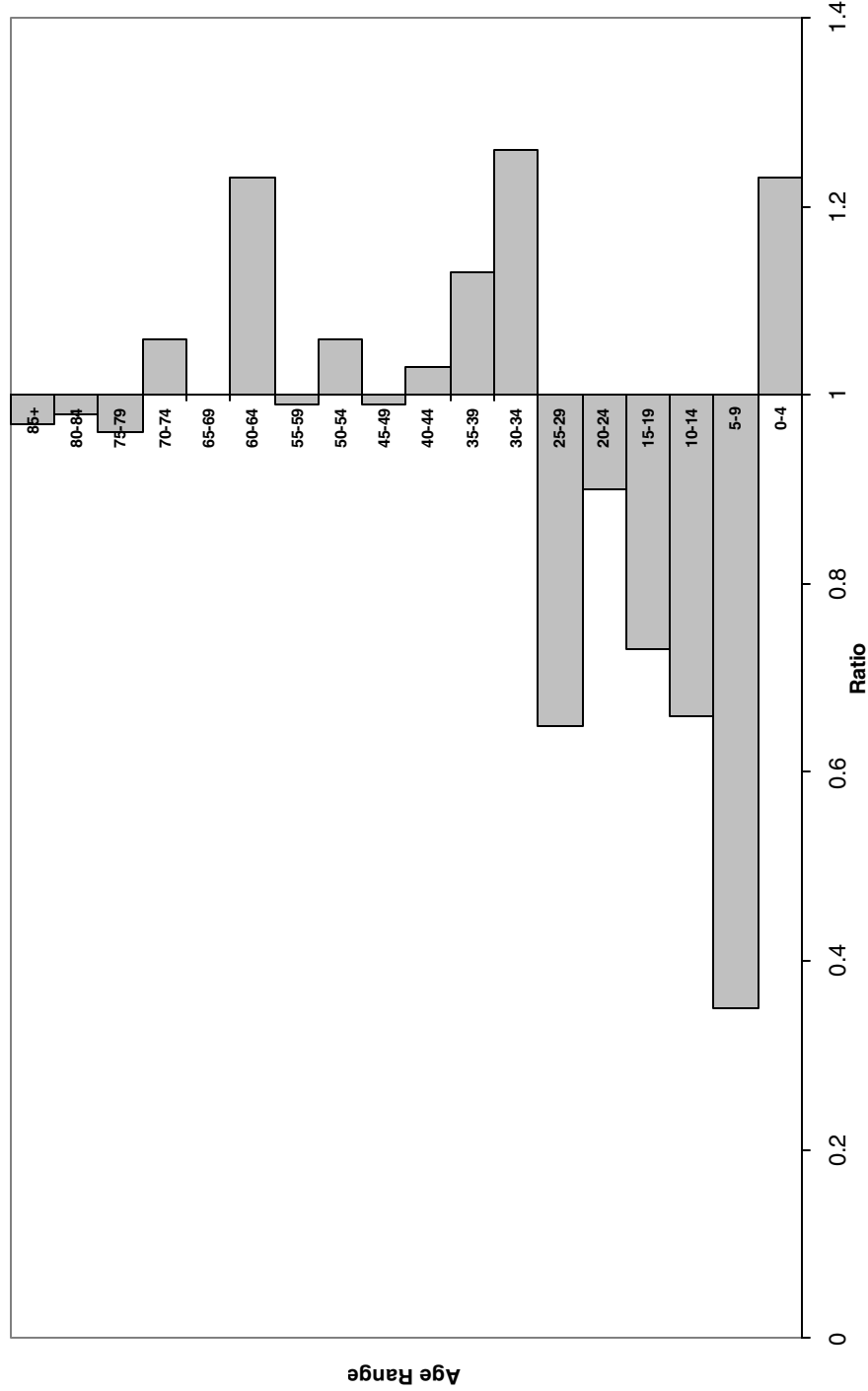


Figure NIA-21. Standardized Mortality Ratio, Niagara Region, 1997

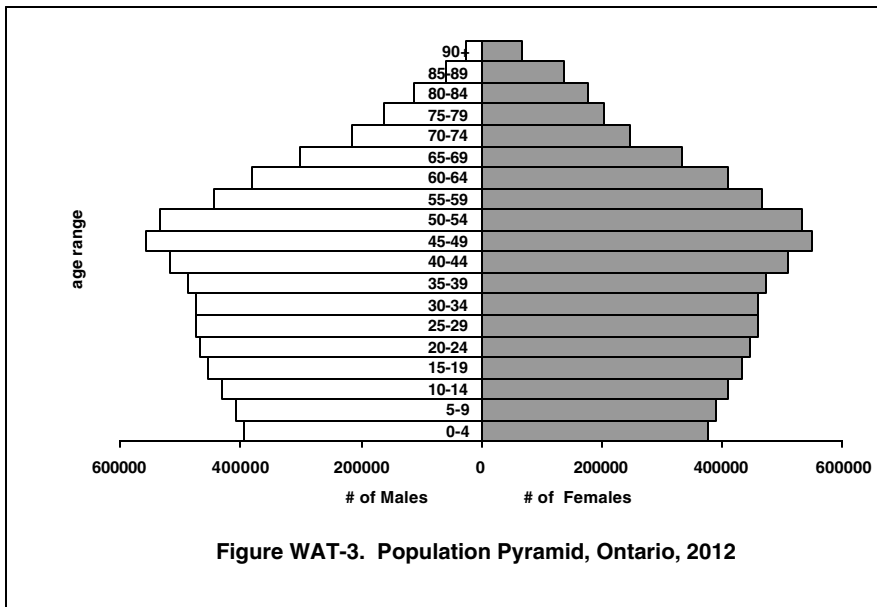
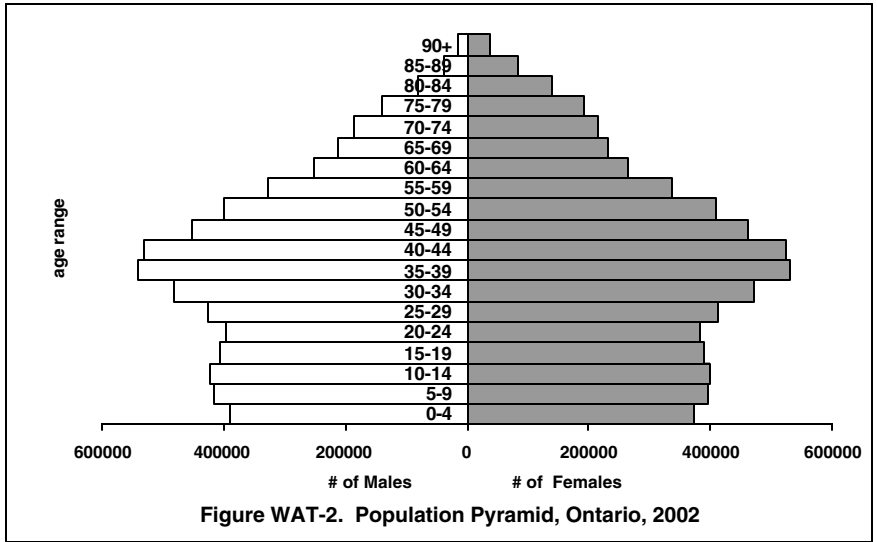
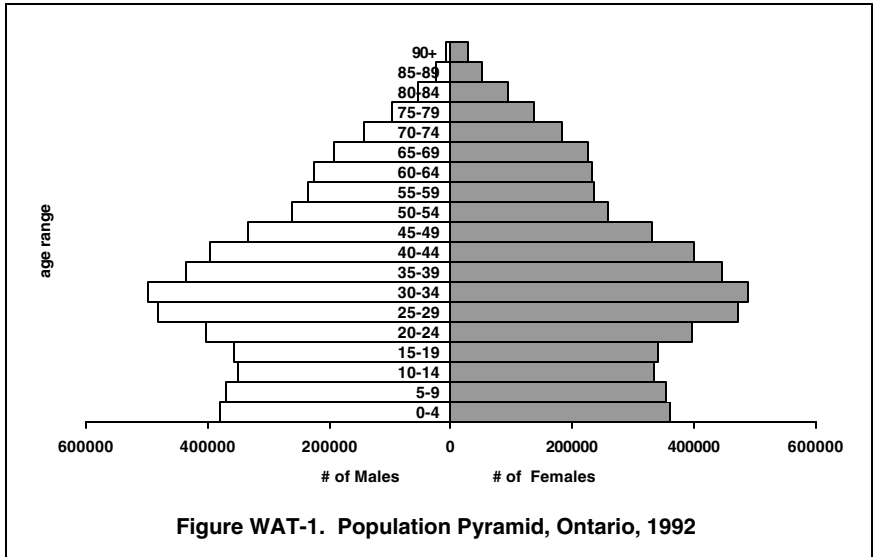
Waterloo Region

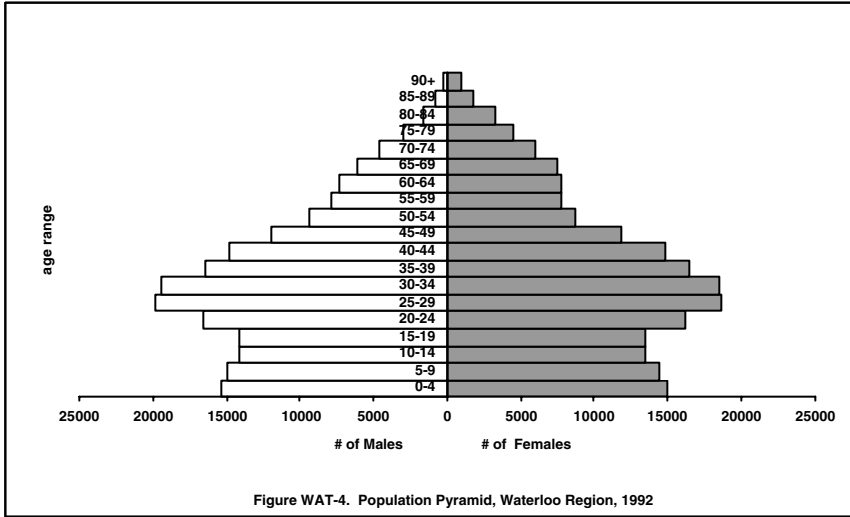
Notes, Definitions & Formulas

Population Pyramids present the age sex composition of a population. They may present either absolute numbers or percents.

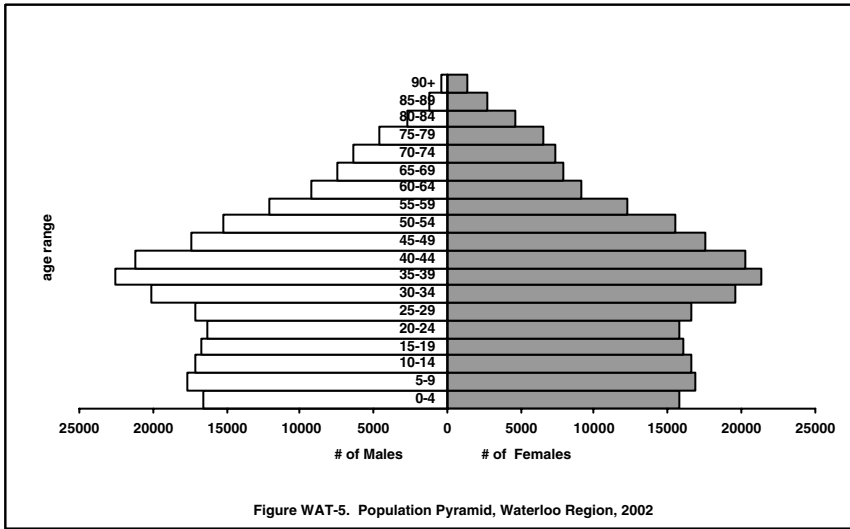
The age of an individual is taken to be the age as of their last birthday (as of census reference date, May 14th, 1996), and is derived from the date of birth.

The sources for the population data are the census and HELPS.

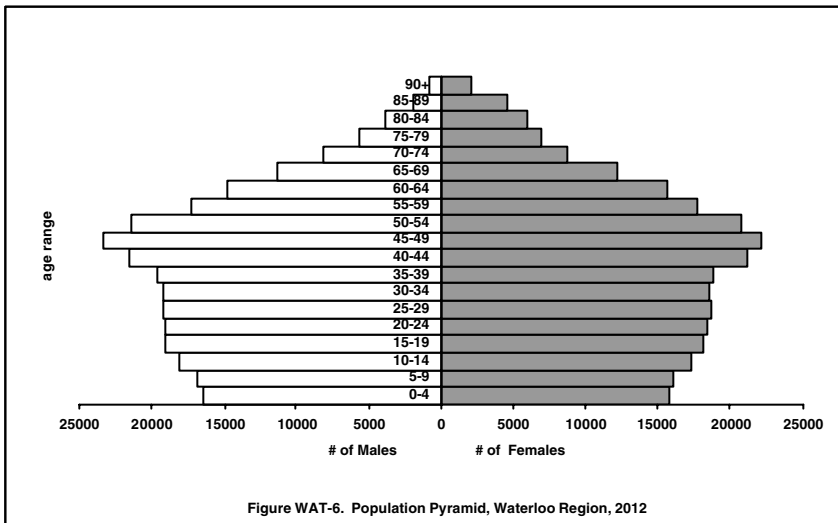




% of total population		
Age	Male	Female
0-4	3.85	3.73
5-9	3.74	3.60
10-14	3.54	3.38
15-19	3.53	3.37
20-24	4.16	4.06
25-29	4.96	4.66
30-34	4.85	4.63
35-39	4.10	4.13
40-44	3.70	3.72
45-49	3.01	2.96
50-54	2.33	2.19
55-59	1.97	1.93
60-64	1.83	1.92
65-69	1.54	1.87
70-74	1.14	1.51
75-79	0.74	1.14
80-84	0.42	0.82
85-89	0.20	0.45
90+	0.08	0.23



% of total population		
Age	Male	Female
0-4	3.42	3.26
5-9	3.64	3.46
10-14	3.54	3.41
15-19	3.43	3.30
20-24	3.36	3.23
25-29	3.54	3.41
30-34	4.14	4.03
35-39	4.66	4.39
40-44	4.36	4.18
45-49	3.59	3.61
50-54	3.14	3.19
55-59	2.49	2.52
60-64	1.90	1.88
65-69	1.53	1.62
70-74	1.30	1.50
75-79	0.95	1.33
80-84	0.55	0.96
85-89	0.24	0.57
90+	0.09	0.28



% of total population		
Age	Male	Female
0-4	2.95	2.82
5-9	3.03	2.89
10-14	3.26	3.10
15-19	3.43	3.26
20-24	3.41	3.31
25-29	3.45	3.35
30-34	3.45	3.33
35-39	3.51	3.39
40-44	3.88	3.78
45-49	4.20	3.98
50-54	3.84	3.72
55-59	3.10	3.19
60-64	2.65	2.80
65-69	2.03	2.18
70-74	1.45	1.56
75-79	1.02	1.25
80-84	0.68	1.07
85-89	0.34	0.82
90+	0.14	0.39

**Table WAT-1:
Population Projections by Age Group, Waterloo Region, 1992-2012**

Age Group	1992 Census	2002 (projection)	2012 (projection)	% change 92 - 12
Waterloo				
0-4	30300	32472	32212	6.31%
5-9	29359	34497	33025	12.49%
10-14	27687	33808	35433	27.98%
15-19	27589	32716	37331	35.31%
20-24	32888	32012	37472	13.94%
25-29	38484	33760	37934	-1.43%
30-34	37923	39676	37805	-0.31%
35-39	32913	43965	38485	16.93%
40-44	29700	41515	42708	43.80%
45-49	23860	34988	45600	91.11%
50-54	18090	30728	42184	133.19%
55-59	15598	24368	35096	125.00%
60-64	15007	18357	30397	102.55%
65-69	13657	15289	23484	71.96%
70-74	10573	13618	16757	58.49%
75-79	7501	11092	12679	69.03%
80-84	4957	7328	9776	97.22%
85-89	2602	3947	6467	148.54%
90+	1218	1795	2954	142.53%
Total	399915	485938	557808	39.48%
Ontario				
0-4	742471	764732	762254	2.7%
5-9	722556	812650	786305	8.8%
10-14	683755	819316	831546	21.6%
15-19	698690	796693	876496	25.4%
20-24	798841	781014	904407	13.2%
25-29	953484	839052	922849	-3.2%
30-34	987524	952608	921961	-6.6%
35-39	880560	1073145	949162	7.8%
40-44	797548	1056980	1015755	27.4%
45-49	665954	912130	1096884	64.7%
50-54	520678	806558	1055663	102.7%
55-59	467820	664124	898386	92.0%
60-64	456475	513262	783207	71.6%
65-69	419263	444065	627732	49.7%
70-74	327300	402385	459222	40.3%
75-79	231989	332089	361141	55.7%
80-84	147311	222321	284578	93.2%
85-89	75312	120019	191100	153.7%
90+	37508	53274	89947	139.8%
Total	10615475	12366850	13819024	30.2%

Notes, Definitions & Formulas

Age dependency ratios take into account the proportions of children, seniors and those of working age and are sometimes used as a measure of economic dependency (i.e. a ratio of the economically inactive population to the active or productive population).

The two dependency ratios presented here are an accepted standard.

Calculation

Youth dependency ratio
 $((P_{age\ 0-24}) / (P_{age\ 25-64}))$

Aged dependency ratio
 $((P_{age\ 65+}) / (P_{age\ 25-64}))$

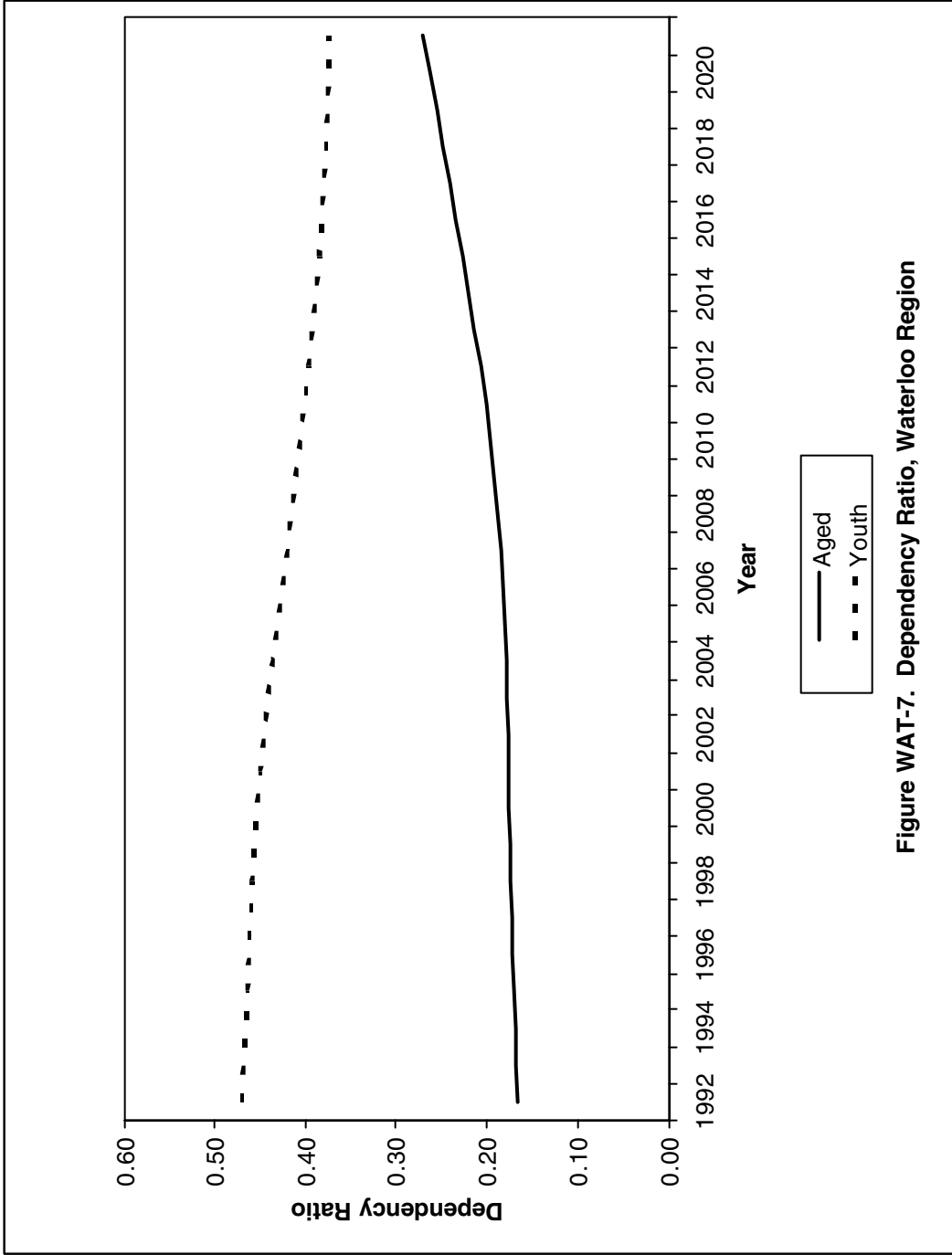
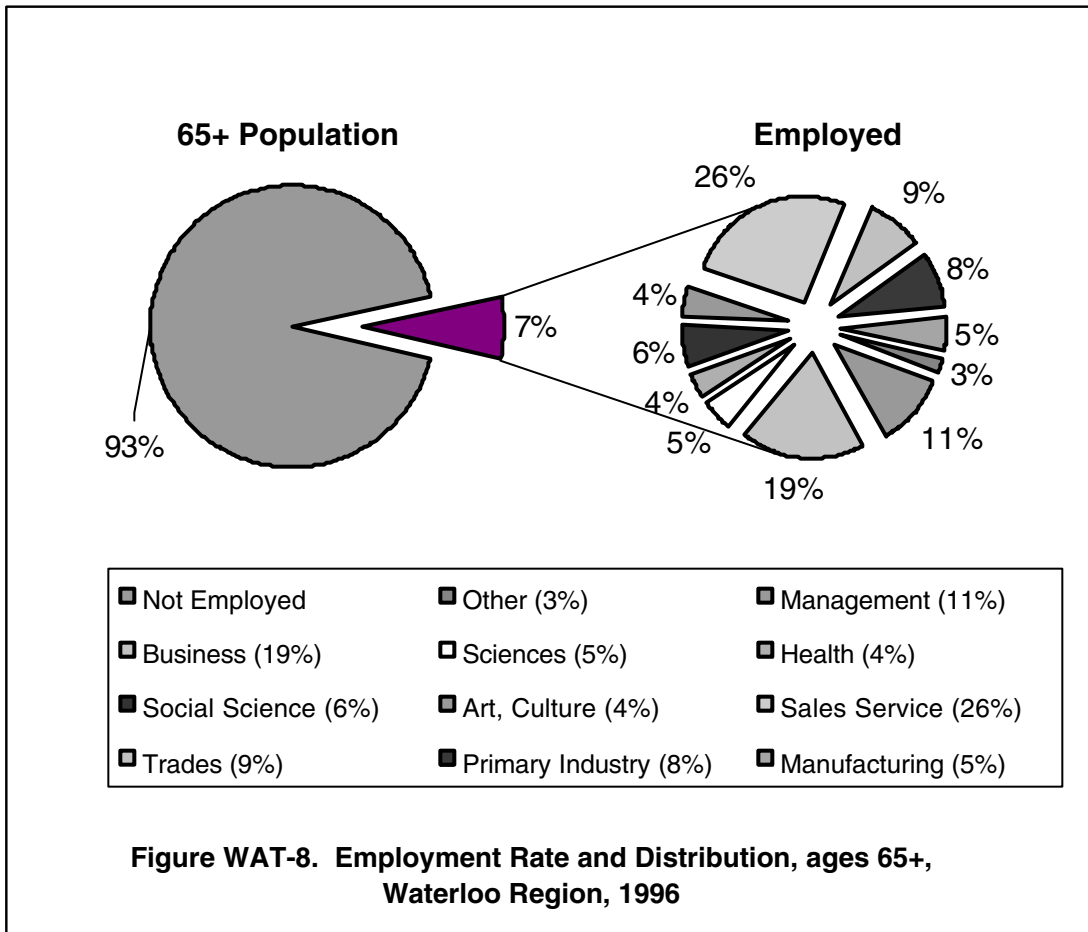


Figure WAT-7. Dependency Ratio, Waterloo Region



**Table WAT-2:
Job Classification Distribution, Waterloo Region, 1996**

	Ontario	Ontario 65+	Waterloo 65+
Management	7.14%	0.18%	0.83%
Business	13.30%	0.30%	1.43%
Sciences	2.79%	0.07%	0.35%
Health	4.32%	0.07%	0.31%
Social Science	4.71%	0.10%	0.48%
Art, culture	1.47%	0.07%	0.33%
Sales Service	20.51%	0.42%	1.97%
Trades	17.65%	0.14%	0.66%
Primary Industry	14.43%	0.13%	0.62%
Manufacturing	11.61%	0.09%	0.40%
Other	2.81%	0.04%	0.17%

Source: The Canadian Census, 1996 (20% Sample)

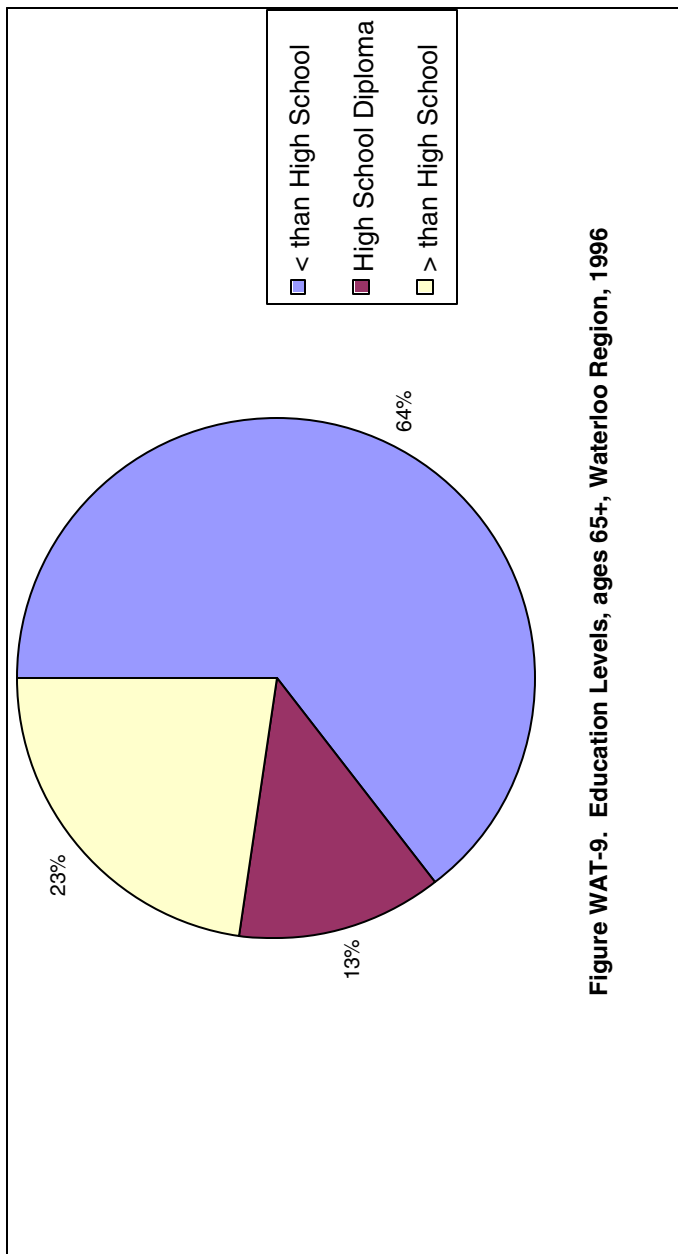


Figure WAT-9. Education Levels, ages 65+, Waterloo Region, 1996

**Table WAT-3:
Highest Level of Education, Waterloo Region, 1996**

Highest Education Achieved	Ontario	Ontario 65+	Waterloo 65+
No degree, certificate or diploma	35.04%	60.58%	64.34%
Secondary (high) school graduation certificate	23.80%	14.69%	12.84%
Trades certificate or diploma	9.36%	8.52%	8.77%
Other non-university certificate or diploma	14.95%	7.59%	7.48%
University certificate or diploma below bachelor level	1.92%	1.96%	1.59%
Bachelor's degree	9.55%	3.71%	2.50%
University certificate or diploma above bachelor level	1.75%	0.88%	0.81%
Medical degree	0.50%	0.47%	0.41%
Master's degree	2.63%	1.18%	0.71%
Earned doctorate	0.51%	0.43%	0.54%

Source: The Canadian Census, 1996 (20% Sample)

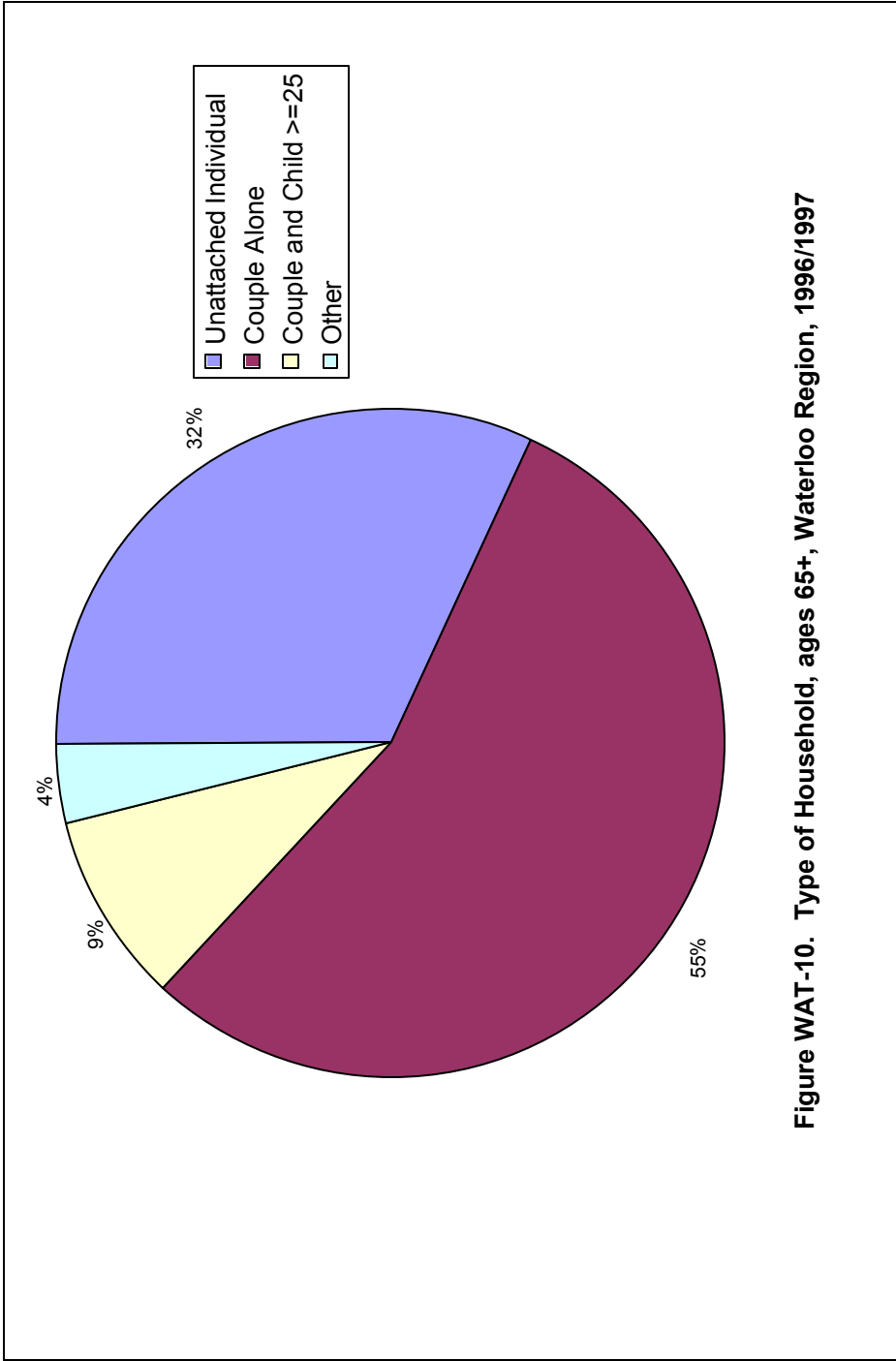


Figure WAT-10. Type of Household, ages 65+, Waterloo Region, 1996/1997

Table WAT-4:
Type of Household, Waterloo Region, 1996/1997

Household type	Ontario 12+	Ontario 65+	Waterloo 65+
Unattached Individual	11%	30%	32%
Couple Alone	22%	54%	55%
Couple and Child >=25	4%	7%*	9%*
Other	63%	9%*	4%*

Source: The Ontario Health Survey, 1996/1997
 * Results subject to high sampling variability

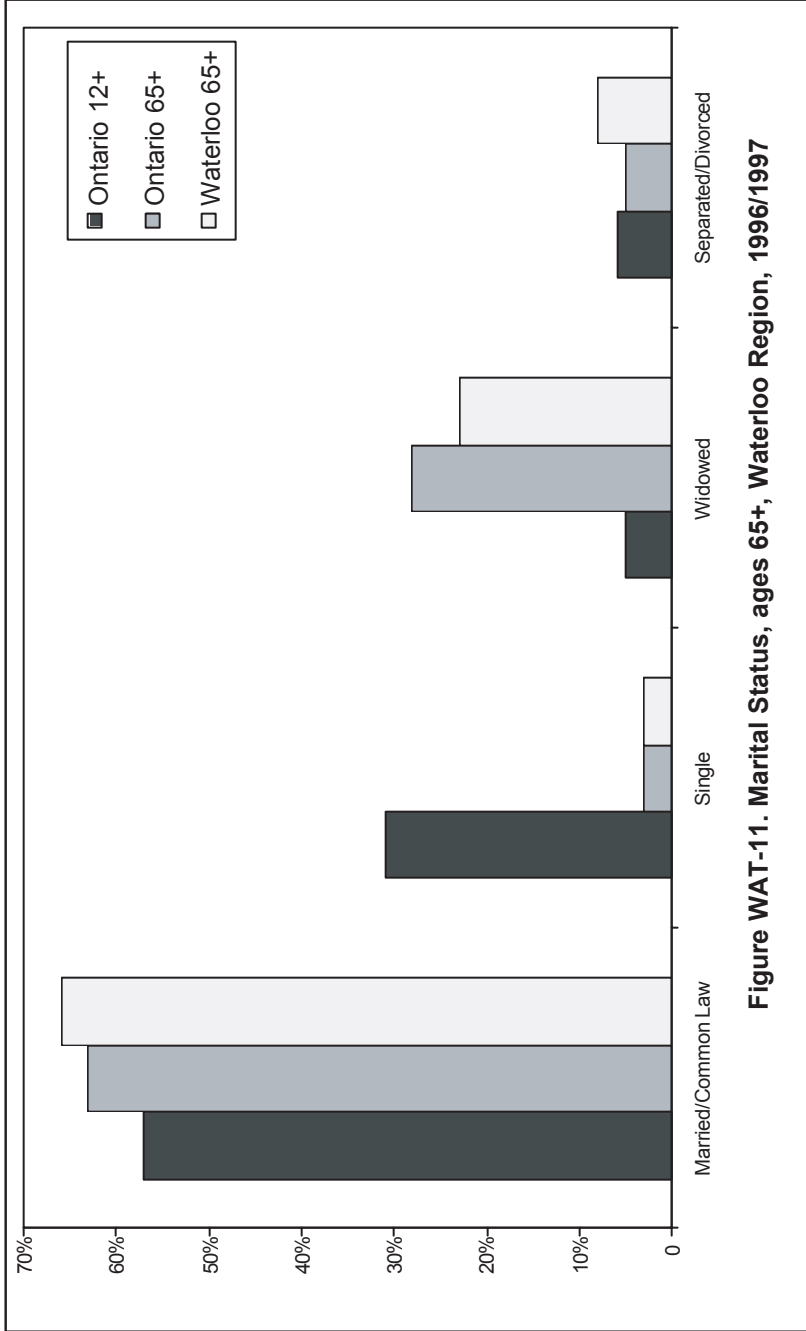


Table WAT-5: Marital Status, Waterloo Region, 1996/1997

Marital Status	Ontario 12+	Ontario 65+	Waterloo 65+
Married/Common Law	57%	63%	66%
Single	31%	3%*	---
Widowed	5%*	28%	23%
Separated/Divorced	6%*	5%*	8%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

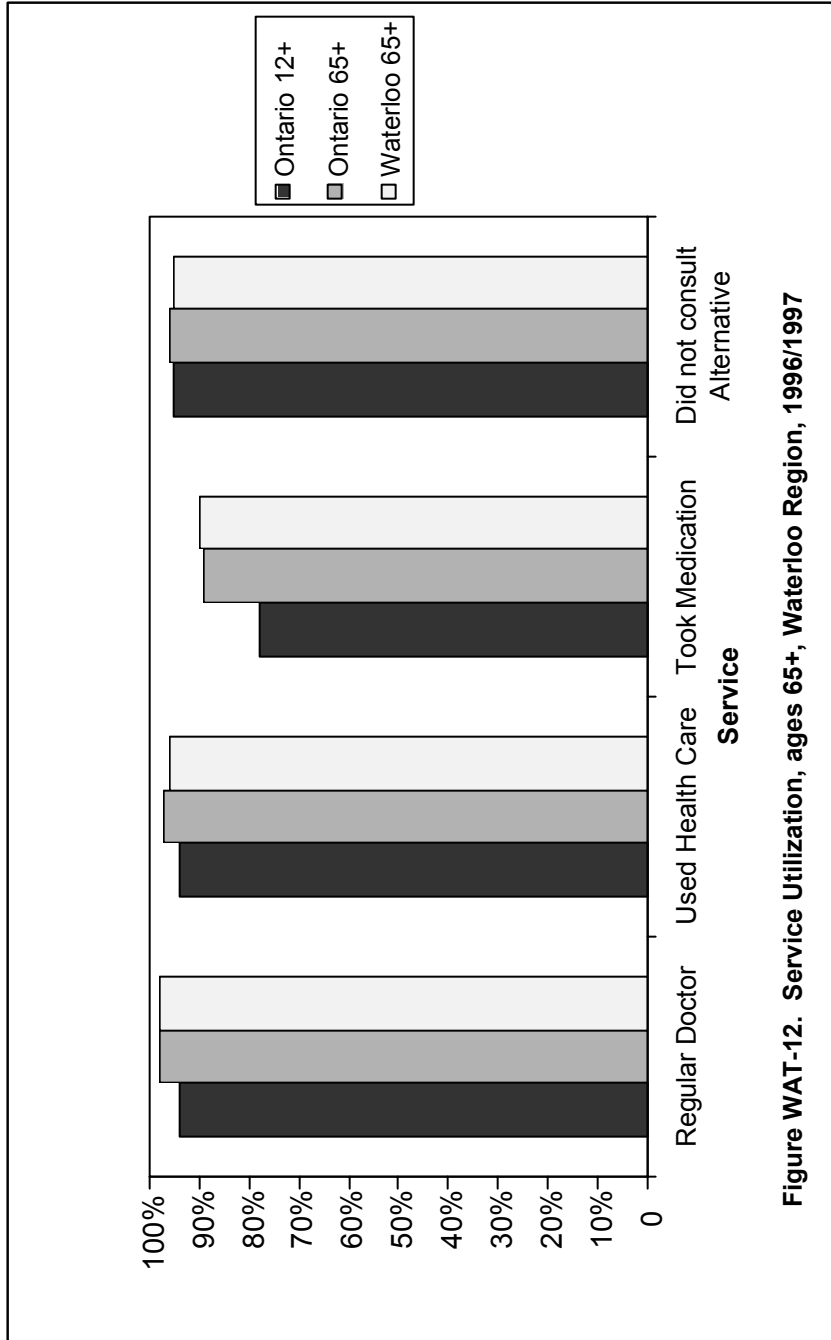


Figure WAT-12. Service Utilization, ages 65+, Waterloo Region, 1996/1997

Table WAT-6:
Service Utilization, Waterloo Region, 1996/1997

Utilization Criteria	Ontario 12+	Ontario 65+	Waterloo 65+
Has a regular doctor	94%	98%	98%
Used health care in last year	94%	97%	96%
Took medication in last year	78%	89%	90%
Did not consult alternative medicine in last year	95%	96%	95%

Source: The Ontario Health Survey, 1996/1997

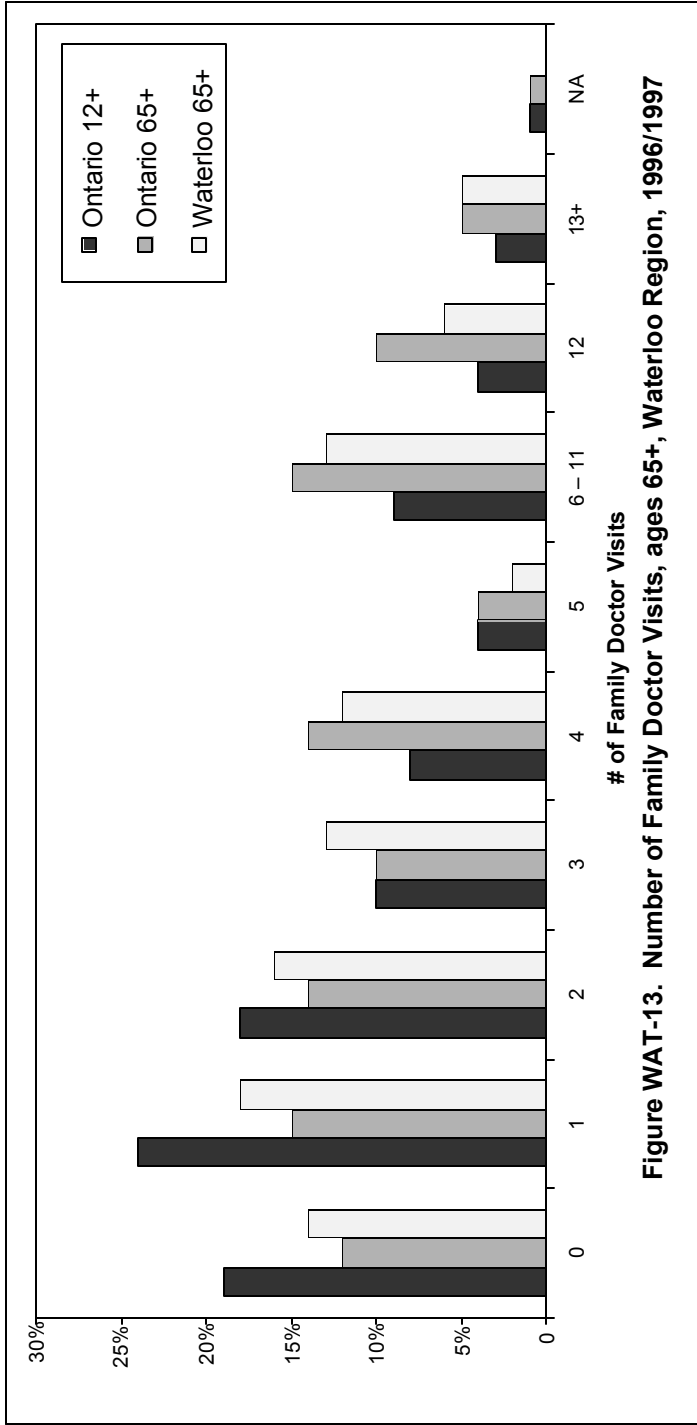


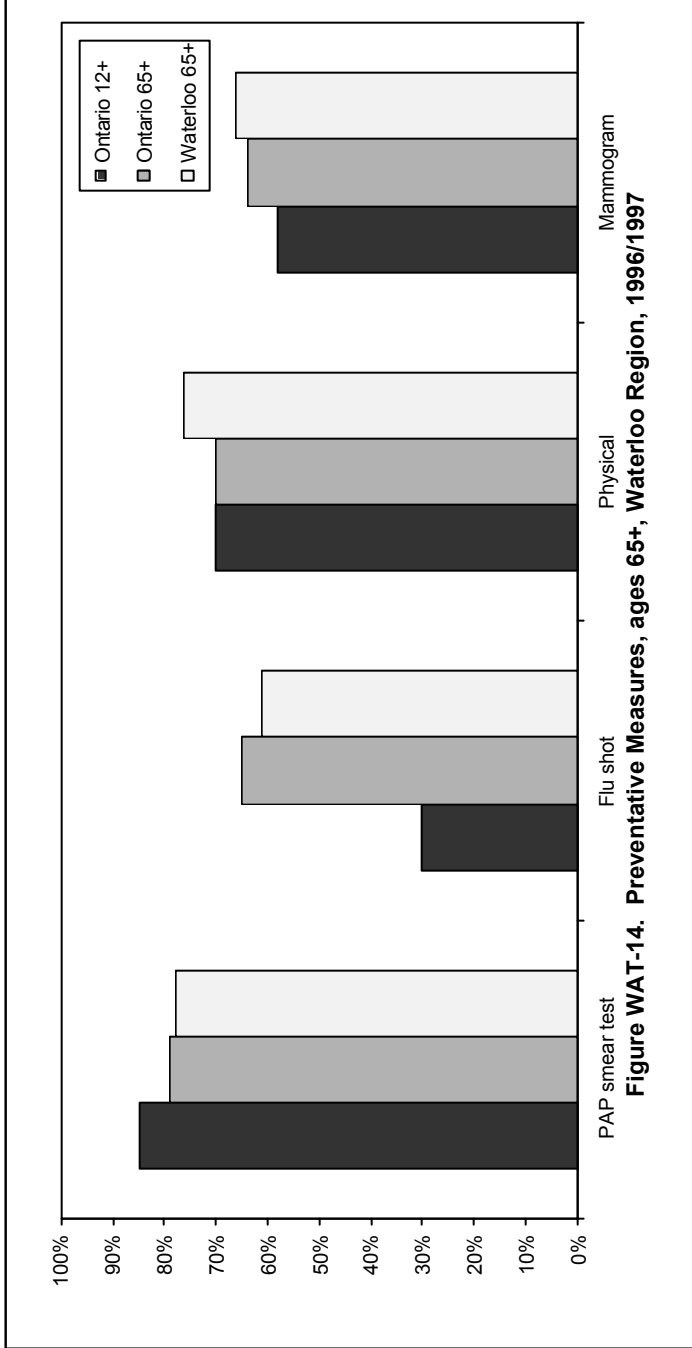
Figure WAT-13. Number of Family Doctor Visits, ages 65+, Waterloo Region, 1996/1997

Table WAT-7:
Number of Family Doctor Visits, Waterloo Region, 1996/1997

Number of Family Doctor Visits	Ontario 12+	Ontario 65+	Waterloo 65+
0	19%	12%*	14%*
1	24%	15%	18%
2	18%	14%*	16%
3	10%*	10%*	13%*
4	8%*	14%*	12%*
5	4%*	4%*	---
6-11	9%*	15%	13%*
12	4%*	10%*	6%*
13+	3%*	5%*	5%*
NA	1%*	1%*	0%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability



**Table WAT-8:
Preventative Measures, Waterloo Region, 1996/1997**

Preventative Measure	Ontario 12+	Ontario 65+	Waterloo 65+
Ever had a PAP smear test? (Women only)	85%	79%	78%
Ever had a Flu shot?	30%	65%	61%
Had Physical within last year?	70%	70%	76%
Ever had a mammogram? (Women only)	58%	64%	66%

Source: The Ontario Health Survey, 1996/1997

Notes, Definitions & Formulas

Mammogram data originates from the Ontario Health Survey. Applicable respondents are shown to have answered 'yes,' 'no,' or 'other' ('other' is a combination of numerous responses such as 'I don't know'). Those that have had a mammogram and are of an age between 65 and 72 were further questioned as to 'Last time mammogram was done.'

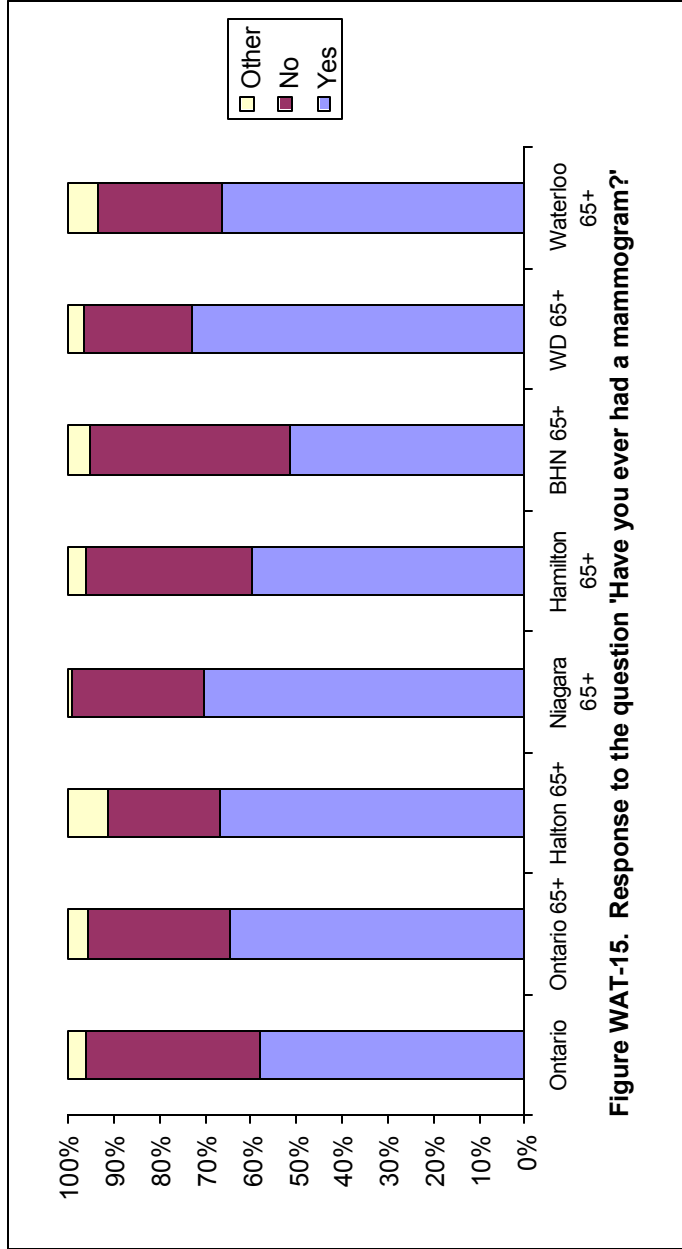
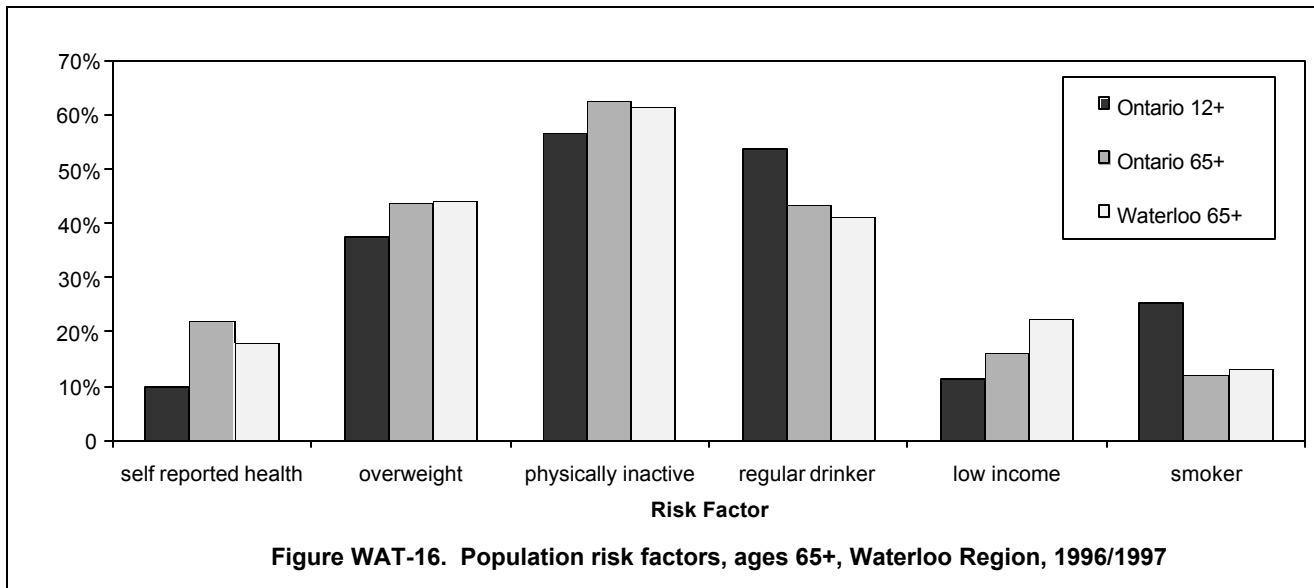


Table WAT-9:
When was last mammogram? Waterloo Region, 1996/1997

When last Mammogram?	Ontario 65+	Waterloo 65+
Less than 1 year ago	45%	51%
Between 1 and 2 Years	25%	30%
Over 2 years	30%	18%

Source: The Ontario Health Survey, 1996/1997



Risk Factor	Ontario 12+	Ontario 65+	Waterloo 65+
Self-reported health was 'fair' or 'poor'	10%*	22%	18%
Self-reported to be 'overweight'	37%	44%	44%
Physically inactive	57%	63%	61%
Regular drinker	54%	43%	41%
Low Income	11%*	16%	22%
Smoker	25%	12%*	13%*

Risk Factor	Definition	Reasoning for Inclusion
Self-Reported Health	How would you rate your general Health?	Research shows self-reported health is related to morbidity and mortality, especially among the elderly ¹
Self-Reported weight	How would you rate your current weight?	BMI scores are not collected for the elderly. Obesity has been linked to numerous health problems ²
Physically Inactive	Derived from many Questions.	Physically activity leads to a healthier lifestyle ³
Regular Drinker	Derived from many Questions.	Research has shown alcohol can lead to many health problems ⁴
Low Income	Derived from many Questions.	Research has linked low income to mortality ⁵
Smoker	Derived from many Questions.	Research has shown smoking can lead to many health problems ⁶

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

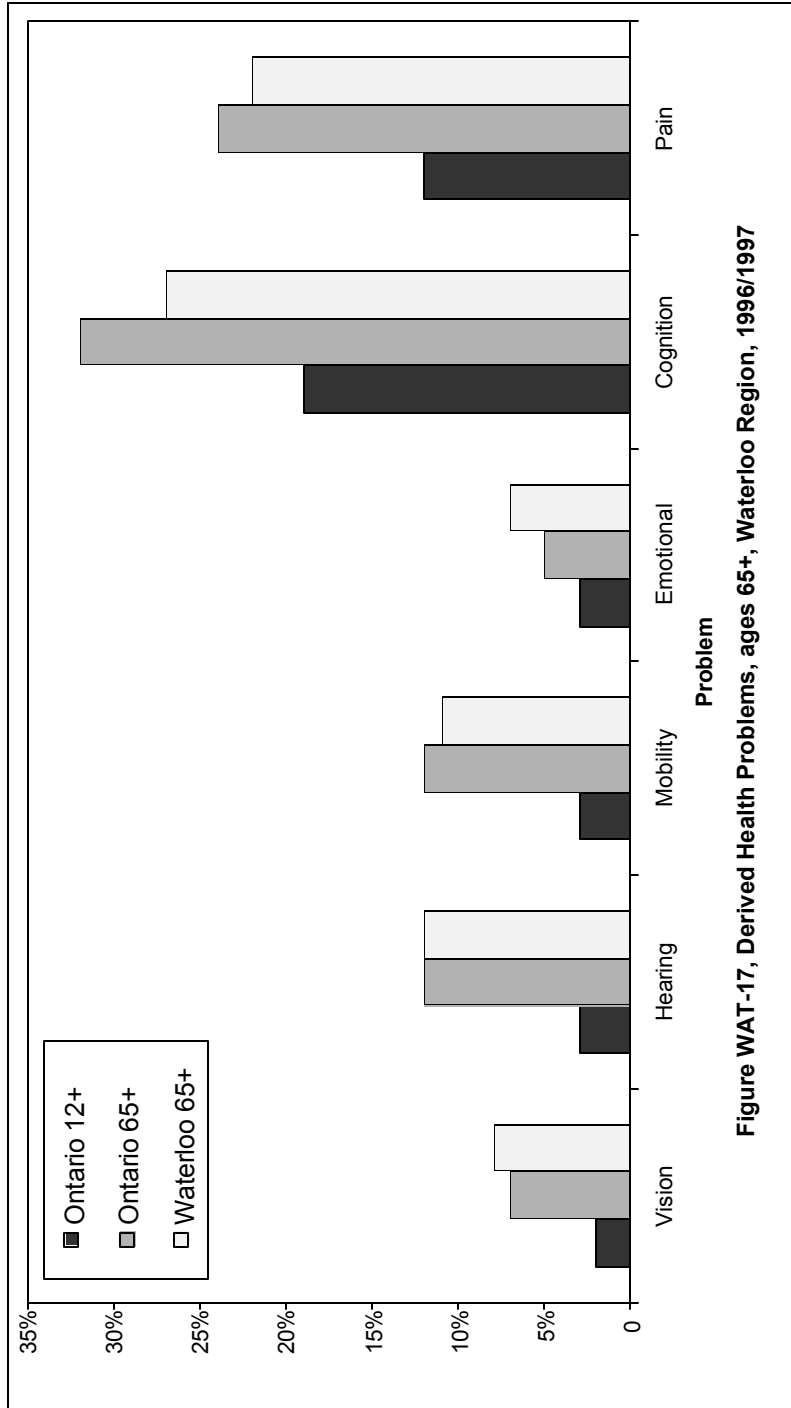


Figure WAT-17, Derived Health Problems, ages 65+, Waterloo Region, 1996/1997

Table WAT-12: Derived Physical/Emotional Problems, Waterloo Region, 1996/1997

Type of problem derived from the OHS	Ontario	Ontario 65+	Waterloo 65+
Has a vision problem beyond corrective lenses	----	7%*	8%*
Hearing	3%*	12%*	12%*
Mobility	3%*	12%*	11%*
Emotion – less than ‘Somewhat Happy’	3%*	5%*	7%*
Cognition	19%	32%	27%
Is in some type of pain	12%*	24%	22%

Source: The Ontario Health Survey, 1996/1997
 * Results subject to high sampling variability

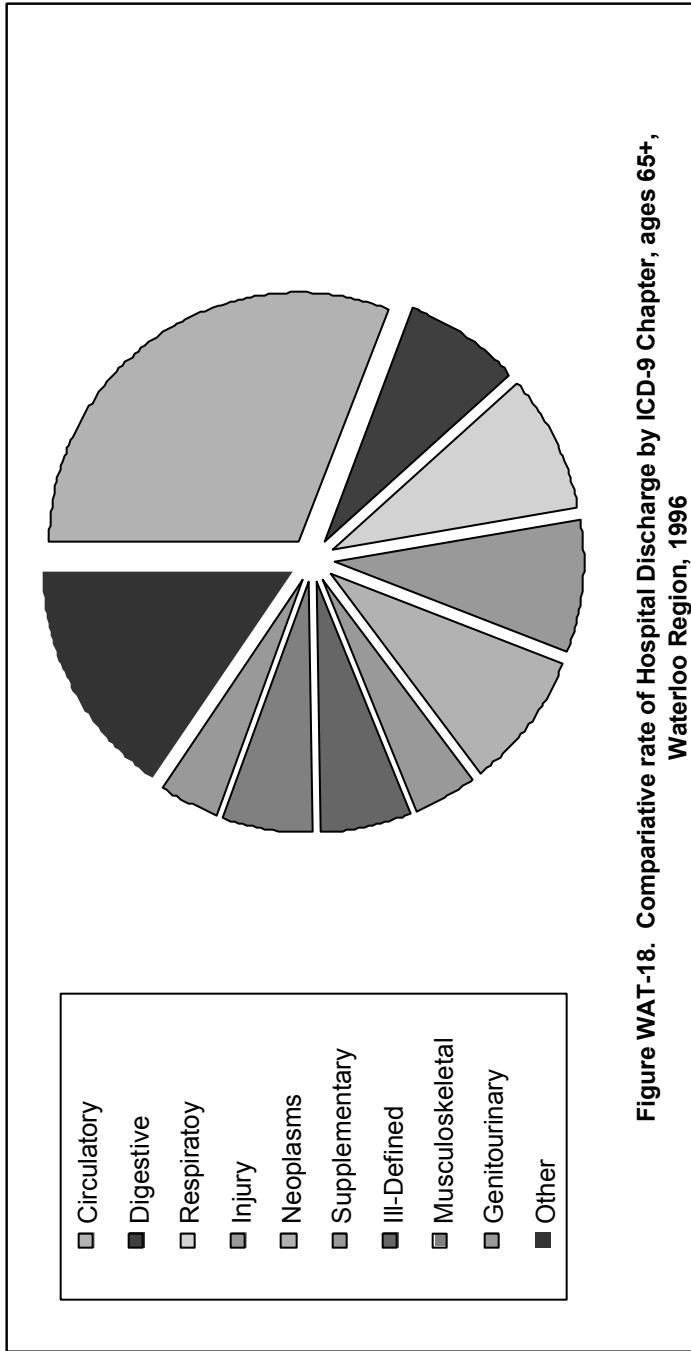


TABLE WAT-13:
Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, 1996

ICD Chapter	Brant	Halton	Hamilton	Niagara	Waterloo	WD
Diseases of the Circulatory System	30.61%	30.17%	30.52%	30.83%	28.70%	27.10%
Disease of the Digestive System	9.59%	9.12%	7.06%	7.43%	6.42%	7.79%
Disease of the Respiratory System	8.94%	7.16%	8.61%	8.96%	9.38%	10.46%
Injuries and Poisoning	8.61%	8.53%	8.68%	8.67%	8.28%	9.31%
Neoplasms	8.55%	10.71%	11.39%	8.72%	11.12%	9.50%
Supplementary Classifications	6.94%	4.45%	4.04%	4.20%	4.73%	4.99%
Symptoms, Signs, and Ill-Defined Conditions	6.18%	7.32%	5.60%	5.93%	6.24%	6.37%
Musculoskeletal System and Connecting Tissue	5.30%	6.00%	6.41%	5.96%	6.28%	5.88%
Diseases of the Genitourinary System	4.64%	3.29%	3.67%	3.87%	3.63%	4.27%
Other	10.64%	13.25%	14.03%	15.44%	15.22%	14.32%

Source: Provincial Health Planning Database, 2002

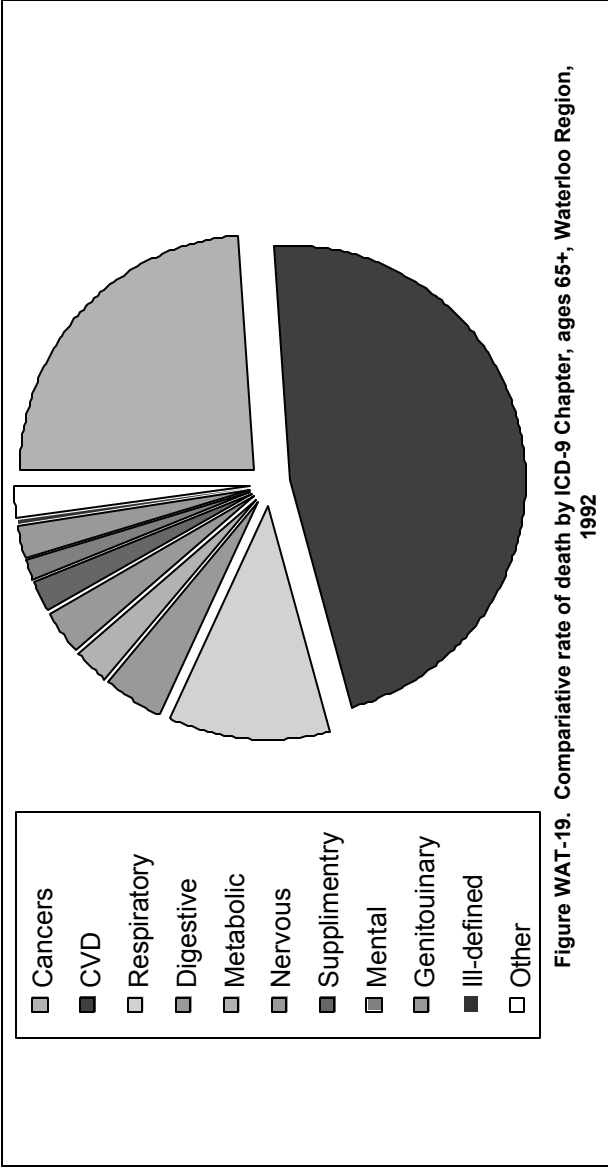


Table WAT-14. Comparative rate of death by ICD-9 Chapter: Waterloo Region, 1992

ICD CHAPTER	Ontario	Ontario 65+	Waterloo 65+
Neoplasms	27.90%	25.40%	24.00%
Diseases of the Circulatory System	39.70%	45.50%	46.90%
Diseases of the Respiratory System	8.10%	9.70%	11.00%
Diseases of the Digestive System	3.60%	3.40%	4.20%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.10%	3.20%	2.50%
Disease of the Nervous System	2.80%	3.00%	3.20%
Supplementary Classification	5.70%	2.50%	2.20%
Mental Disorders	1.90%	2.10%	1.40%
Diseases of the Genitounary System	1.50%	1.70%	2.00%
Symptoms, Signs, and ill-defined conditions	2.30%	2.50%	0.50%
Other	3.40%	1.00%	2.10%

Source: Health Planning System Initiative, 2000

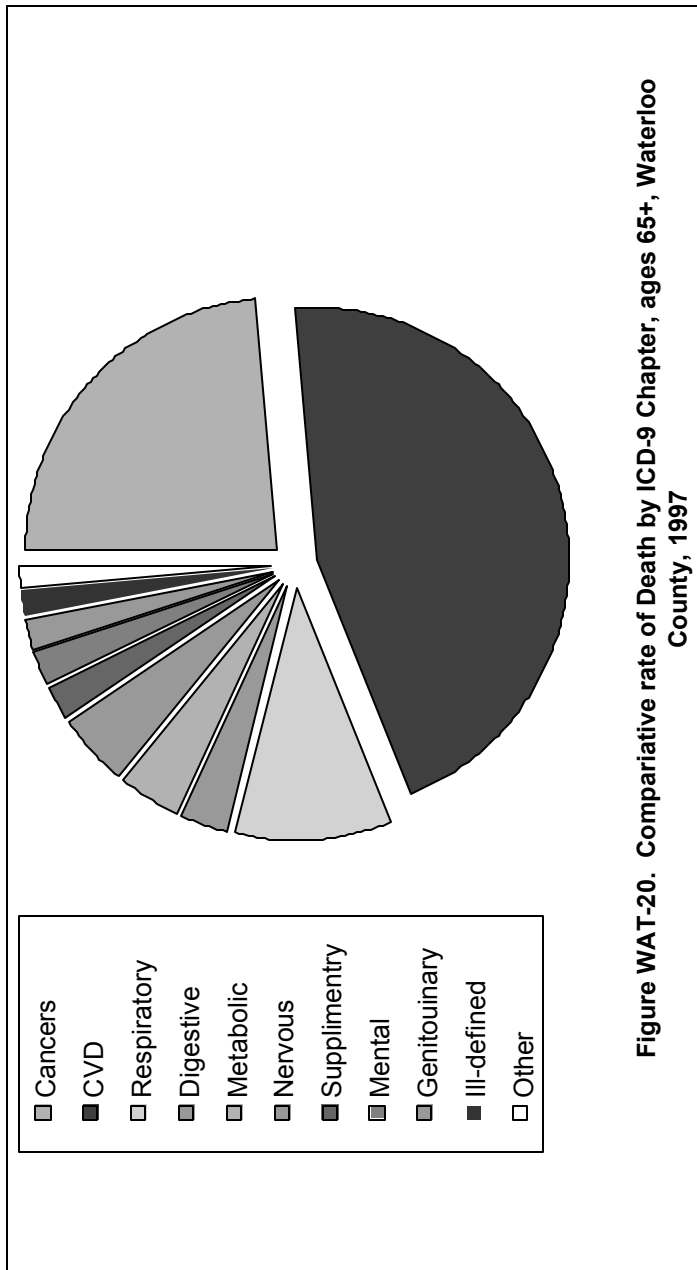


Table WAT-15: Comparative rate of death by ICD-9 Chapter, Waterloo Region, 1997

ICD CHAPTER	Ontario	Ontario 65+	Waterloo 65+
Neoplasms	27.98%	25.47%	23.68%
Diseases of the Circulatory System	38.04%	42.79%	45.09%
Diseases of the Respiratory System	8.68%	10.18%	10.01%
Diseases of the Digestive System	3.55%	3.46%	3.23%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.54%	3.75%	3.70%
Disease of the Nervous System	3.03%	3.27%	4.75%
Supplementary Classification	5.60%	2.84%	2.33%
Mental Disorders	2.47%	2.82%	2.28%
Diseases of the Genitourinary System	1.62%	1.89%	1.80%
Symptoms, Signs, and ill-defined conditions	1.93%	2.84%	1.66%
Other	3.57%	0.69%	1.47%

Source: Health Planning System Initiative, 2000

Table WAT-16: Age Specific Indirect Standardized Mortality Ratio, a 1992 County to Ontario Comparison							
Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.20	0.87	0.52	0.73	0.83	1.00	0.70
5-9	0	0.41	0.43	0.74	0.24	0.11	0.20
10-14	1.77	0.48	0.17	0.39	0.72	0.95	0.25
15-19	1.63	2.94	0.68	0.79	1.00	1.30	1.52
20-24	1.82	0.84	0.75	0.85	0.83	0.58	0.71
25-29	1.18	0.78	1.13	1.36	1.00	1.13	1.21
30-34	1.13	1.80	0.68	1.01	1.27	1.06	0.96
35-39	1.06	1.32	1.02	1.24	1.32	1.03	1.28
40-44	1.38	1.01	0.92	0.99	1.07	0.98	0.86
45-49	1.00	1.11	0.89	0.98	1.40	0.92	1.06
50-54	1.35	1.11	0.86	1.19	1.28	1.00	1.06
55-59	1.20	1.34	0.95	1.26	1.10	1.19	1.13
60-64	1.41	1.07	1.02	1.12	1.25	1.01	1.16
65-69	1.16	0.93	0.89	1.22	1.12	0.96	1.17
70-74	1.32	1.04	0.91	1.11	1.11	0.97	0.96
75-79	0.95	1.23	0.94	1.15	1.04	1.04	1.06
80-84	1.00	1.14	0.87	1.00	0.96	0.98	1.12
85+	1.15	0.96	0.94	0.94	1.02	0.92	1.12

**Notes,
Definitions &
Formulas**

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

Table WAT-17: Age Specific Indirect Standardized Mortality Ratio, a 1997 County to Ontario Comparison							
Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.61	0.81	0.64	1.47	1.23	1.30	1.44
5-9	0	0	0.13	0.67	0.35	0.21	0.20
10-14	0.81	0	0.44	0.34	0.66	0.36	1.10
15-19	0.46	0.50	1.04	0.52	0.73	1.01	1.27
20-24	0.87	1.74	0.61	0.88	0.90	0.50	0.97
25-29	0.88	1.07	0.55	1.07	0.65	0.52	0.64
30-34	1.90	1.33	0.59	0.88	1.26	0.65	0.71
35-39	1.39	0.91	0.67	1.08	1.13	0.82	0.90
40-44	1.04	0.78	0.80	1.04	1.03	0.97	0.78
45-49	1.35	0.89	0.55	1.22	0.99	1.14	0.98
50-54	1.42	0.87	0.76	1.17	1.06	0.87	0.88
55-59	0.98	1.13	0.68	1.08	0.99	0.78	0.91
60-64	1.21	1.17	0.82	1.18	1.23	0.84	0.84
65-69	1.17	1.22	0.73	1.11	1.00	0.99	1.17
70-74	0.84	1.03	0.87	0.98	1.06	1.01	0.96
75-79	1.02	0.89	0.93	0.94	0.96	1.01	1.06
80-84	0.99	1.06	0.96	0.99	0.98	0.95	1.12
85+	1.16	1.17	0.81	0.94	0.97	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

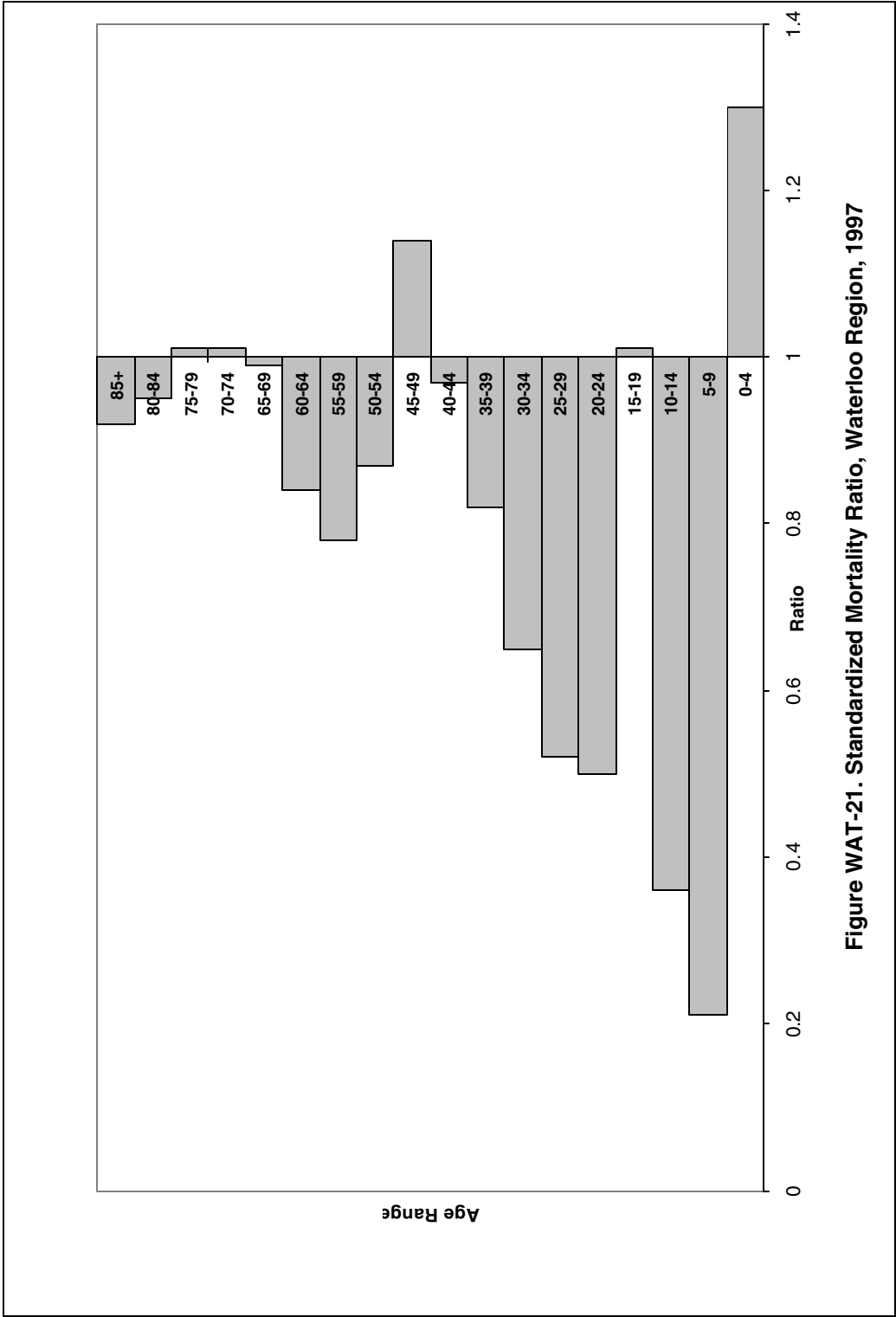


Figure WAT-21. Standardized Mortality Ratio, Waterloo Region, 1997

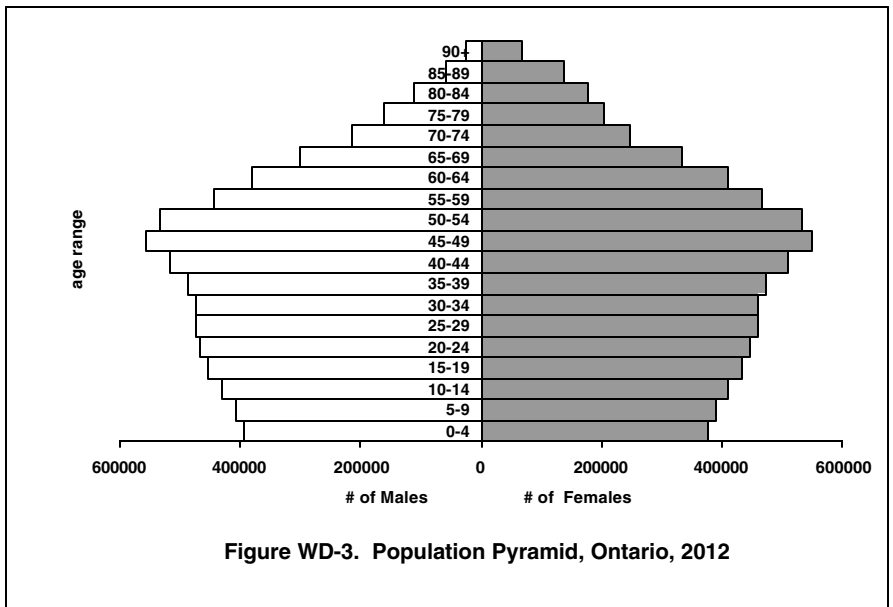
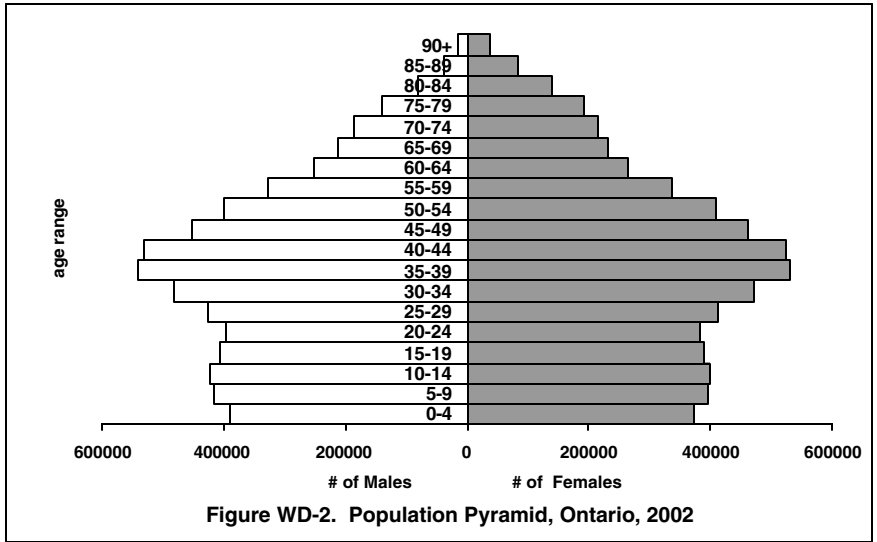
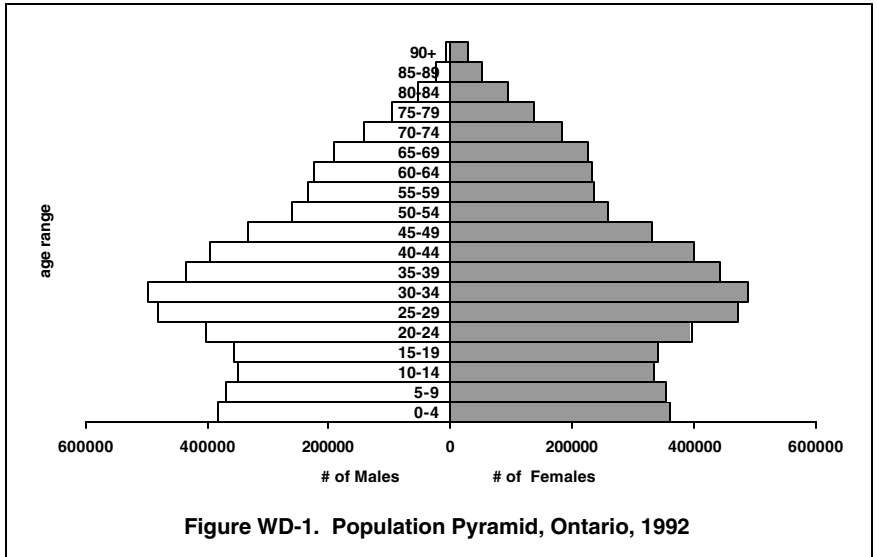
Wellington & Dufferin Counties

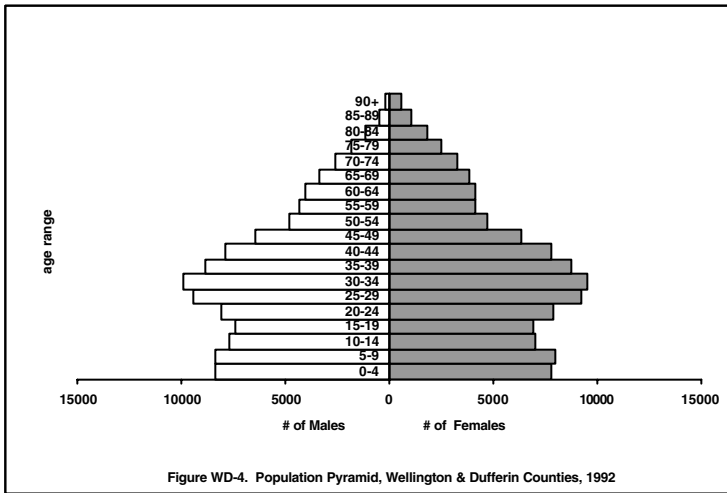
Notes, Definitions & Formulas

Population Pyramids present the age sex composition of a population. They may present either absolute numbers or percents.

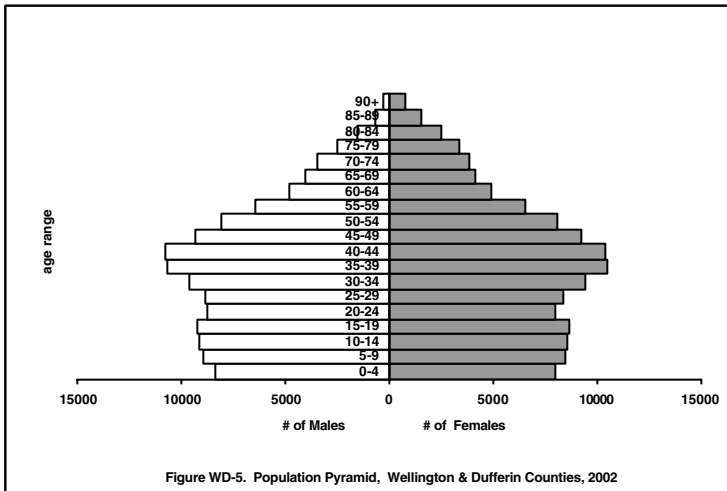
The age of an individual is taken to be the age as of their last birthday (as of census reference date, May 14th, 1996), and is derived from the date of birth.

The sources for the population data are the census and HELPS.

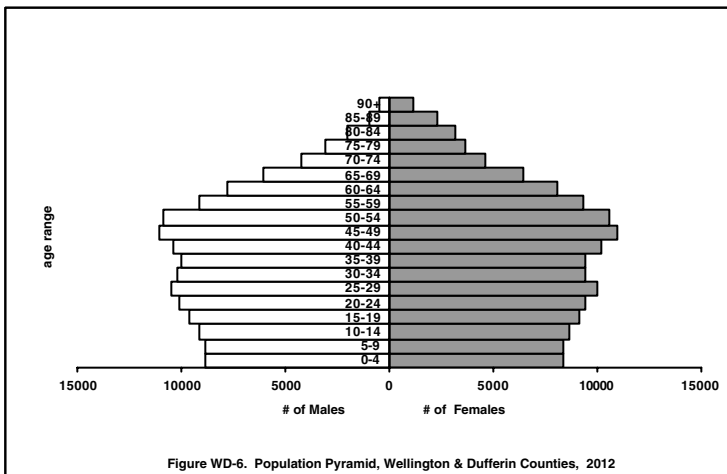




% of total population		
Age	Male	Female
0-4	3.95	3.69
5-9	3.98	3.77
10-14	3.67	3.33
15-19	3.53	3.27
20-24	3.83	3.75
25-29	4.47	4.40
30-34	4.72	4.52
35-39	4.18	4.14
40-44	3.77	3.69
45-49	3.08	3.01
50-54	2.31	2.24
55-59	2.03	1.94
60-64	1.91	1.95
65-69	1.61	1.85
70-74	1.23	1.57
75-79	0.87	1.19
80-84	0.54	0.85
85-89	0.24	0.52
90+	0.10	0.28



% of total population		
Age	Male	Female
0-4	3.34	3.19
5-9	3.56	3.39
10-14	3.66	3.41
15-19	3.67	3.47
20-24	3.49	3.20
25-29	3.54	3.32
30-34	3.85	3.75
35-39	4.26	4.19
40-44	4.29	4.13
45-49	3.70	3.69
50-54	3.24	3.22
55-59	2.59	2.61
60-64	1.91	1.94
65-69	1.60	1.65
70-74	1.38	1.54
75-79	1.00	1.33
80-84	0.60	1.01
85-89	0.28	0.61
90+	0.12	0.29



% of total population		
Age	Male	Female
0-4	3.07	2.93
5-9	3.07	2.92
10-14	3.19	3.03
15-19	3.36	3.20
20-24	3.51	3.31
25-29	3.65	3.48
30-34	3.54	3.28
35-39	3.49	3.30
40-44	3.62	3.55
45-49	3.86	3.82
50-54	3.79	3.70
55-59	3.20	3.26
60-64	2.73	2.83
65-69	2.10	2.26
70-74	1.46	1.61
75-79	1.07	1.28
80-84	0.72	1.10
85-89	0.35	0.82
90+	0.15	0.39

**Table WD-1:
Population Projections by Age Group, Wellington & Dufferin Counties, 1992-2012**

Age Group	1992 Census	2002 (projection)	2012 (projection)	% change 92 - 12
Wellington & Dufferin				
0-4	16119	16383	17216	6.37%
5-9	16345	17426	17216	5.06%
10-14	14755	17756	17846	17.32%
15-19	14356	17913	18826	23.74%
20-24	15982	16793	19581	18.38%
25-29	18712	17219	20469	8.58%
30-34	19488	19068	19571	0.42%
35-39	17552	21195	19480	9.90%
40-44	15720	21145	20576	23.60%
45-49	12840	18536	22057	41.79%
50-54	9579	16201	21501	55.45%
55-59	8378	13036	18555	54.85%
60-64	8137	9654	15970	49.05%
65-69	7295	8158	12541	41.83%
70-74	5902	7340	8824	33.11%
75-79	4344	5866	6740	35.55%
80-84	2949	4028	5215	43.45%
85-89	1594	2221	3356	52.50%
90+	798	1015	1567	49.07%
Total	210865	250968	287122	26.56%
Ontario				
0-4	742471	764732	762254	2.7%
5-9	722556	812650	786305	8.8%
10-14	683755	819316	831546	21.6%
15-19	698690	796693	876496	25.4%
20-24	798841	781014	904407	13.2%
25-29	953484	839052	922849	-3.2%
30-34	987524	952608	921961	-6.6%
35-39	880560	1073145	949162	7.8%
40-44	797548	1056980	1015755	27.4%
45-49	665954	912130	1096884	64.7%
50-54	520678	806558	1055663	102.7%
55-59	467820	664124	898386	92.0%
60-64	456475	513262	783207	71.6%
65-69	419263	444065	627732	49.7%
70-74	327300	402385	459222	40.3%
75-79	231989	332089	361141	55.7%
80-84	147311	222321	284578	93.2%
85-89	75312	120019	191100	153.7%
90+	37508	53274	89947	139.8%
Total	10615475	12366850	13819024	30.2%

Notes, Definitions & Formulas

Age dependency ratios take into account the proportions of children, seniors and those of working age and are sometimes used as a measure of economic dependency (i.e. a ratio of the economically inactive population to the active or productive population).

The two dependency ratios presented here are an accepted standard.

Calculation

Youth dependency ratio

$$\frac{(P_{age\ 0-24})}{(P_{age25-64})}$$

Aged dependency ratio

$$\frac{(P_{age\ 65+})}{(P_{age25-64})}$$

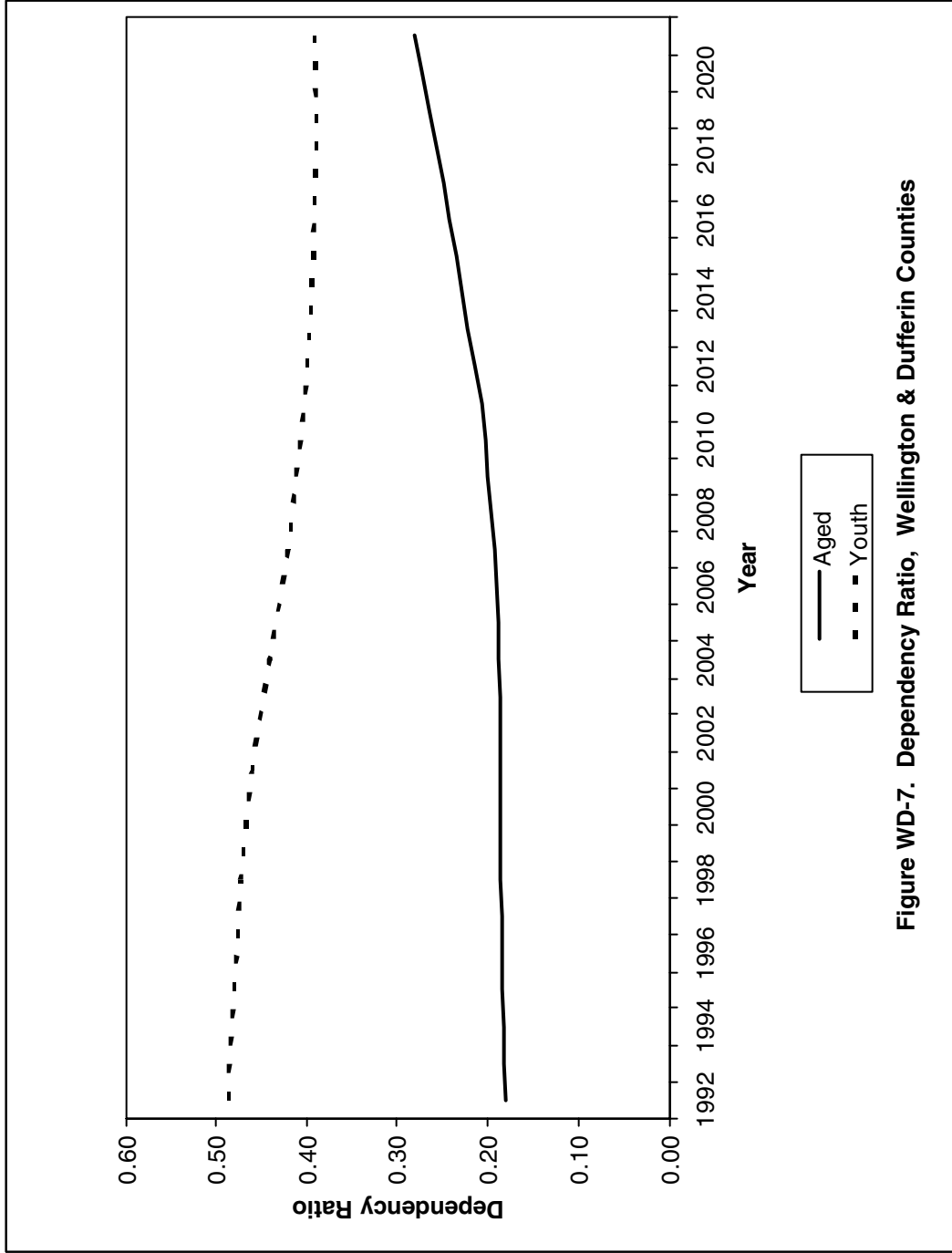
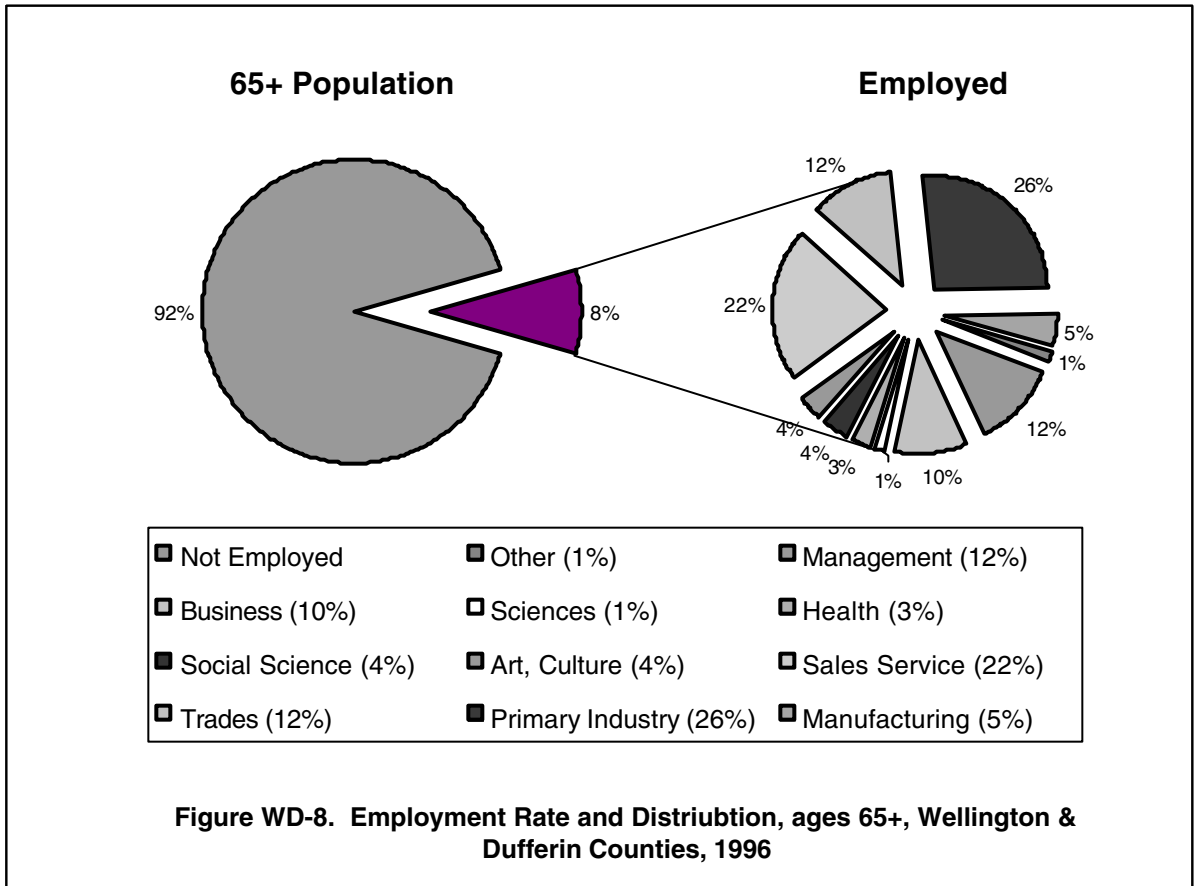


Figure WD-7. Dependency Ratio, Wellington & Dufferin Counties



**Table WD-2:
Job Classification Distribution, Wellington & Dufferin (WD) Counties,
1996**

	Ontario	Ontario 65+	WD 65+
Management	7.14%	0.18%	1.16%
Business	13.30%	0.30%	0.99%
Sciences	2.79%	0.07%	0.14%
Health	4.32%	0.07%	0.27%
Social Science	4.71%	0.10%	0.37%
Art, culture	1.47%	0.07%	0.35%
Sales Service	20.51%	0.42%	2.09%
Trades	17.65%	0.14%	1.12%
Primary Industry	14.43%	0.13%	2.54%
Manufacturing	11.61%	0.09%	0.45%
Other	2.81%	0.04%	0.14%

Source: The Canadian Census, 1996 (20% Sample)

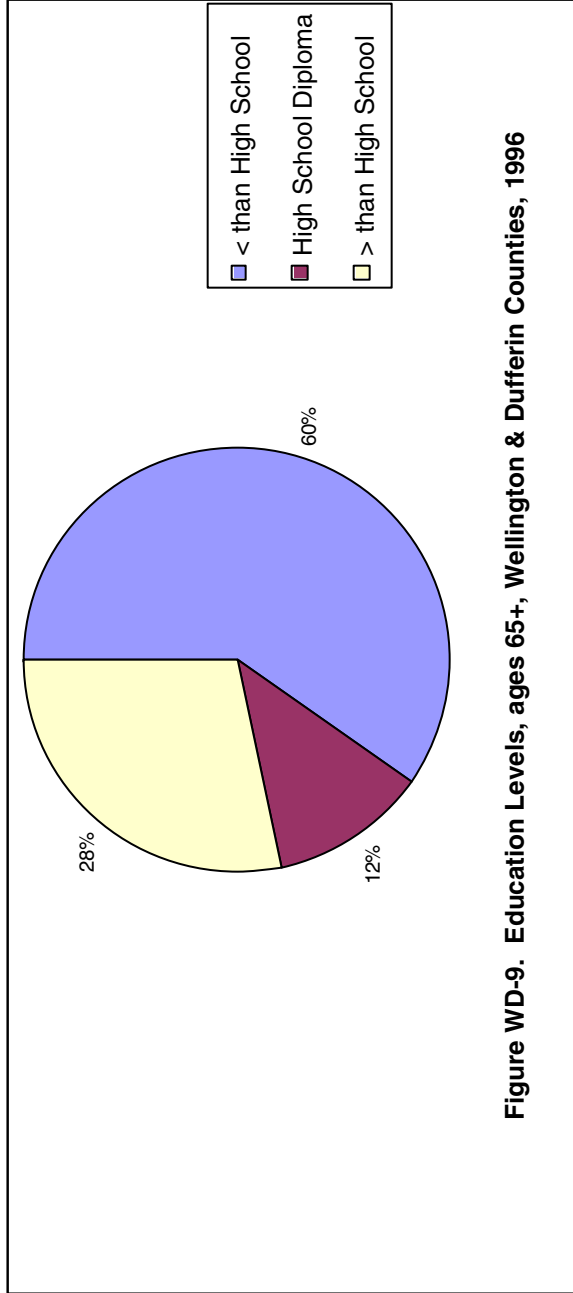


Table WD-3: Highest Level of Education, Wellington & Dufferin (WD) Counties, 1996

Highest Education Achieved	Ontario	Ontario 65+	WD 65+
No degree, certificate or diploma	35.04%	60.58%	61.54%
Secondary (high) school graduation certificate	23.80%	14.69%	12.16%
Trades certificate or diploma	9.36%	8.52%	9.16%
Other non-university certificate or diploma	14.95%	7.59%	8.28%
University certificate or diploma below bachelor level	1.92%	1.96%	4.88%
Bachelor's degree	9.55%	3.71%	3.53%
University certificate or diploma above bachelor level	1.75%	0.88%	0.89%
Medical degree	0.50%	0.47%	0.52%
Master's degree	2.63%	1.18%	1.29%
Earned doctorate	0.51%	0.43%	0.76%

Source: The Canadian Census, 1996 (20% Sample)

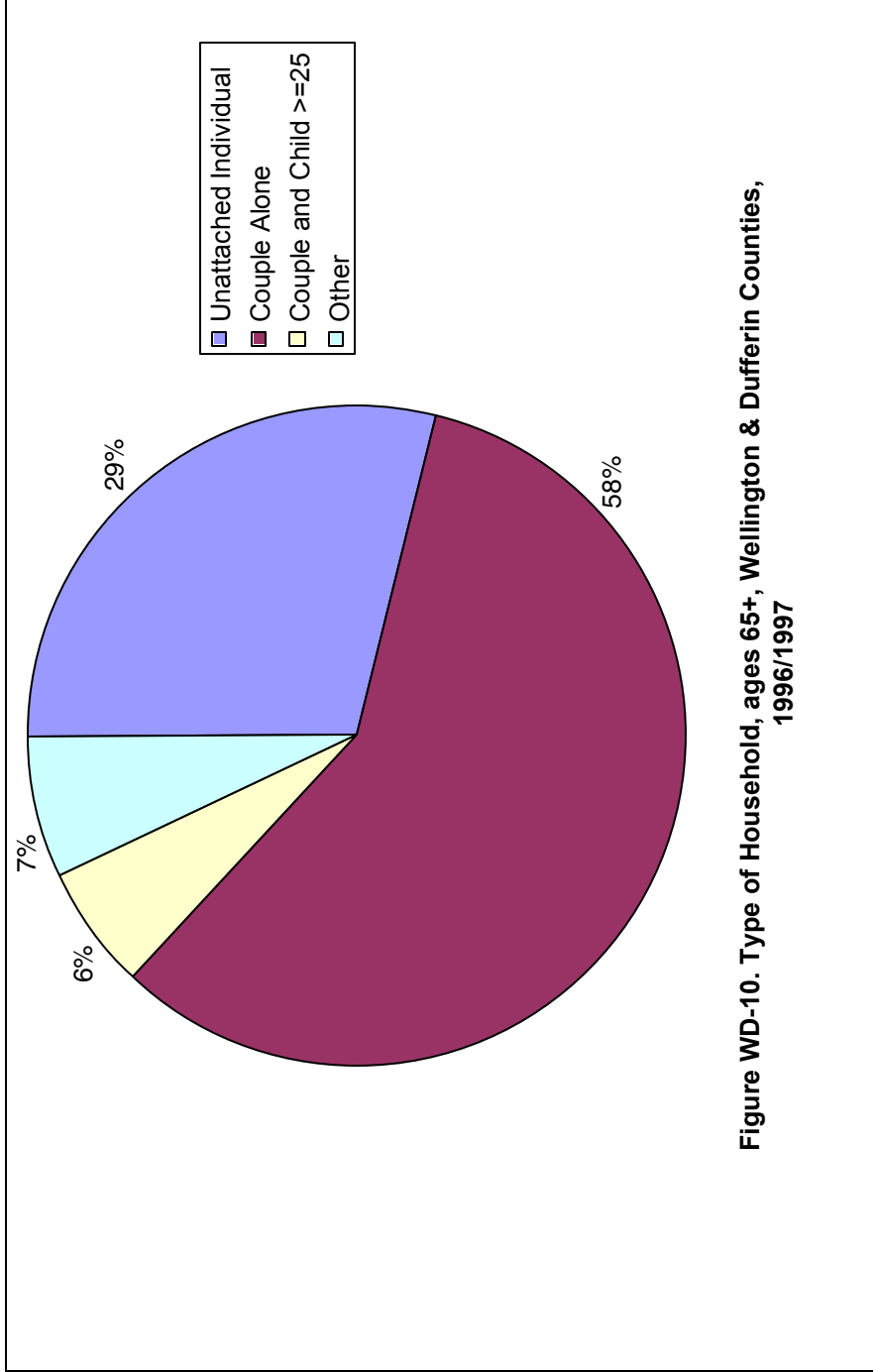


Table WD-4
Type of Household, Wellington & Dufferin (WD) Counties, 1996/1997

Household type	Ontario 12+	Ontario 65+	WD 65+
Unattached Individual	11%*	30%	29%
Couple Alone	22%	54%	58%
Couple and Child >=25	4%*	7%*	6%*
Other	63%	9%*	7%*

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

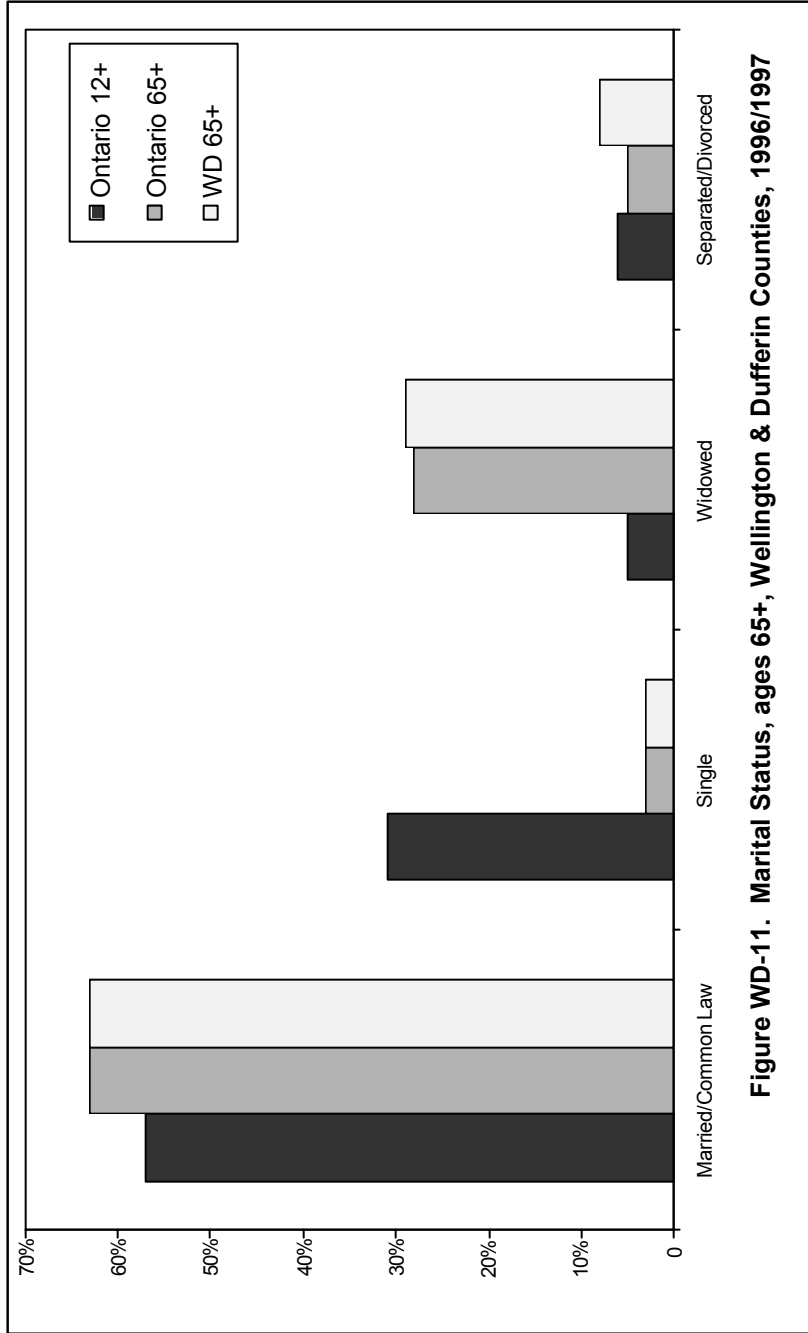


Table WD-5: Marital Status, Wellington & Dufferin (WD) Counties, 1996/1997

Marital Status	Ontario 12+	Ontario 65+	WD 65+
Married/Common Law	57%	63%	66%
Single	31%	3%*	---
Widowed	5%*	28%	23%
Separated/Divorced	6%*	5%*	8%*

Source: The Ontario Health Survey, 1996/1997
 * Results subject to high sampling variability

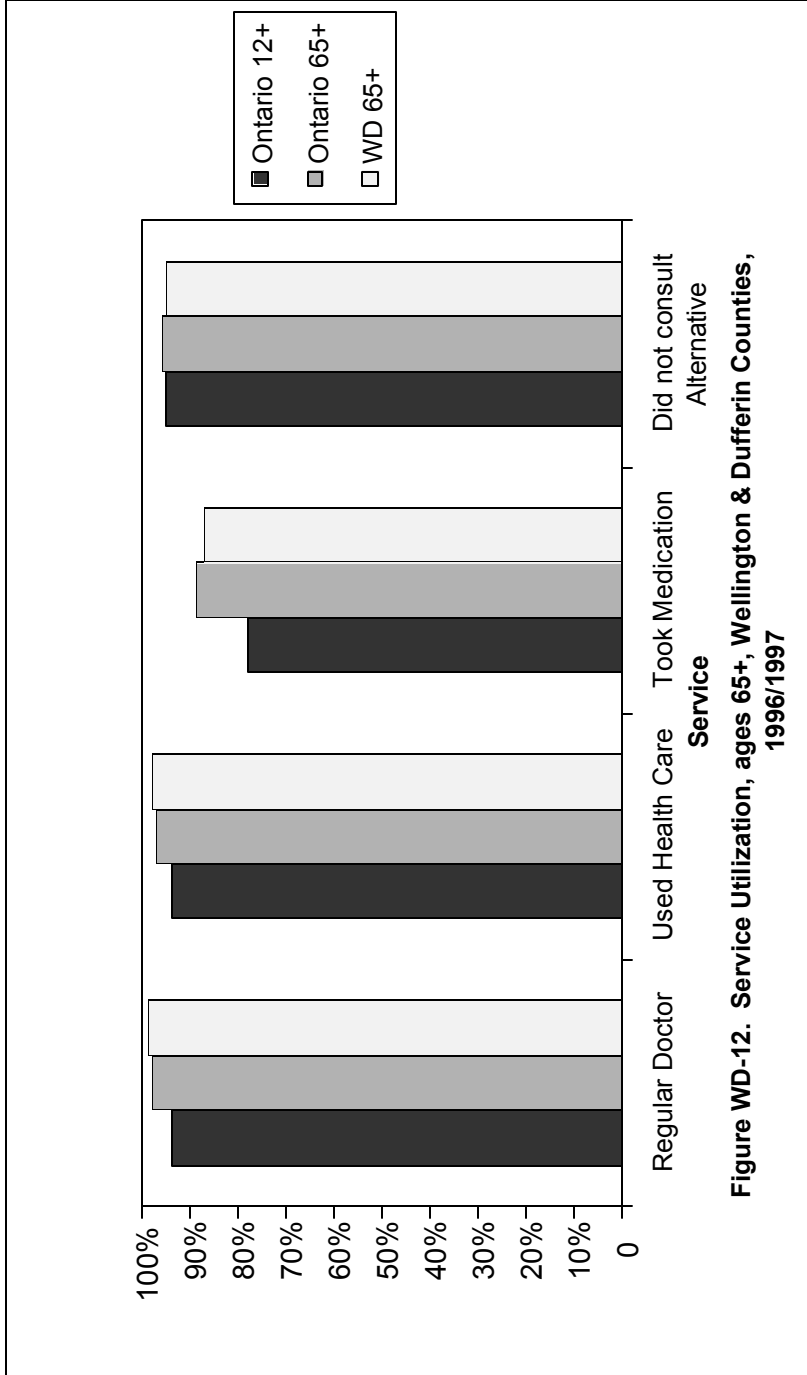


Figure WD-12. Service Utilization, ages 65+, Wellington & Dufferin Counties, 1996/1997

Utilization Criteria	Ontario 12+	Ontario 65+	WD 65+
Has a regular doctor	94%	98%	99%
Used health care in last year	94%	97%	98%
Took medication in last year	78%	89%	87%
Did not consult alternative medicine in last year	95%	96%	95%

Source: The Ontario Health Survey, 1996/1997

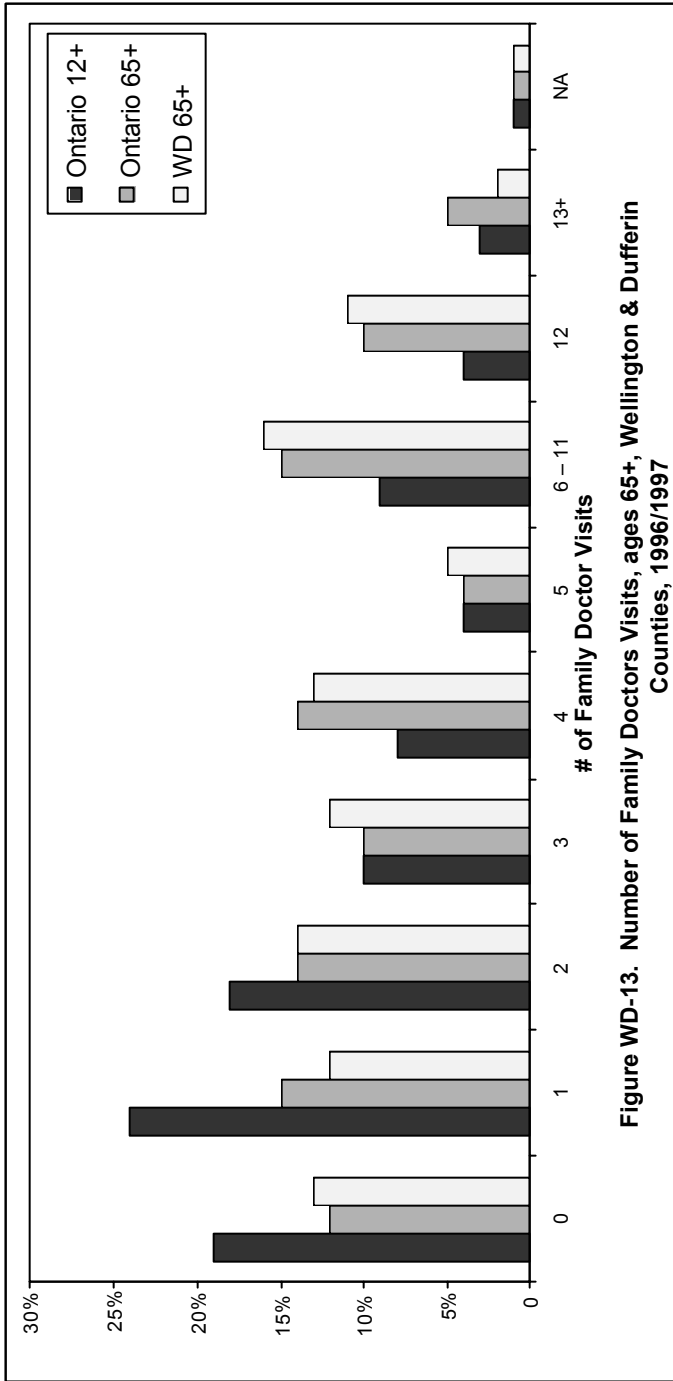
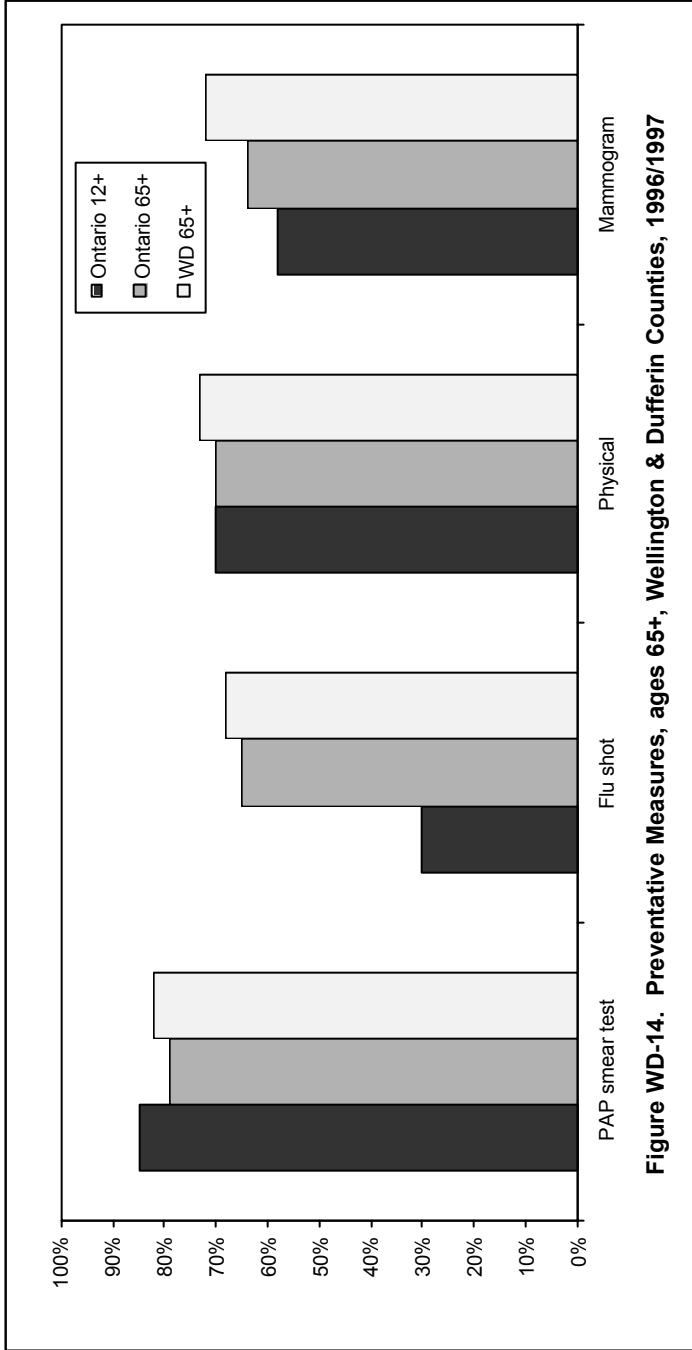


Table WD-7:
Number of Family Doctor Visits, Wellington & Dufferin (WD) Counties, 1996/1997

Number of Family Doctor Visits	Ontario 12+	Ontario 65+	WD 65+
0	19%	12%*	13%*
1	24%	15%	12%*
2	18%	14%*	14%*
3	10%	10%*	12%*
4	8%*	14%*	13%*
5	4%*	4%*	5%*
6-11	9%*	15%	16%*
12	4%*	10%*	11%*
13+	3%*	5%*	----
NA	1%*	1%*	1%*

Source: The Ontario Health Survey, 1996/1997
 * Results subject to high sampling variability



**Table WD-8:
Preventative Measures, Wellington & Dufferin (WD) Counties, 1996/1997**

Preventative Measure	Ontario 12+	Ontario 65+	WD 65+
Ever had a PAP smear test? (Women only)	85%	79%	78%
Ever had a Flu shot?	30%	65%	62%
Had Physical within last year?	70%	70%	67%
Ever had a mammogram? (Women only)	58%	64%	70%

Source: The Ontario Health Survey, 1996/1997

Notes, Definitions & Formulas

Mammogram data originates from the Ontario Health Survey. Applicable respondents are shown to have answered 'yes,' 'no,' or 'other' ('other' is a combination of numerous responses such as 'I don't know'). Those that have had a mammogram and are of an age between 65 and 72 were further questioned as to 'Last time mammogram was done.'

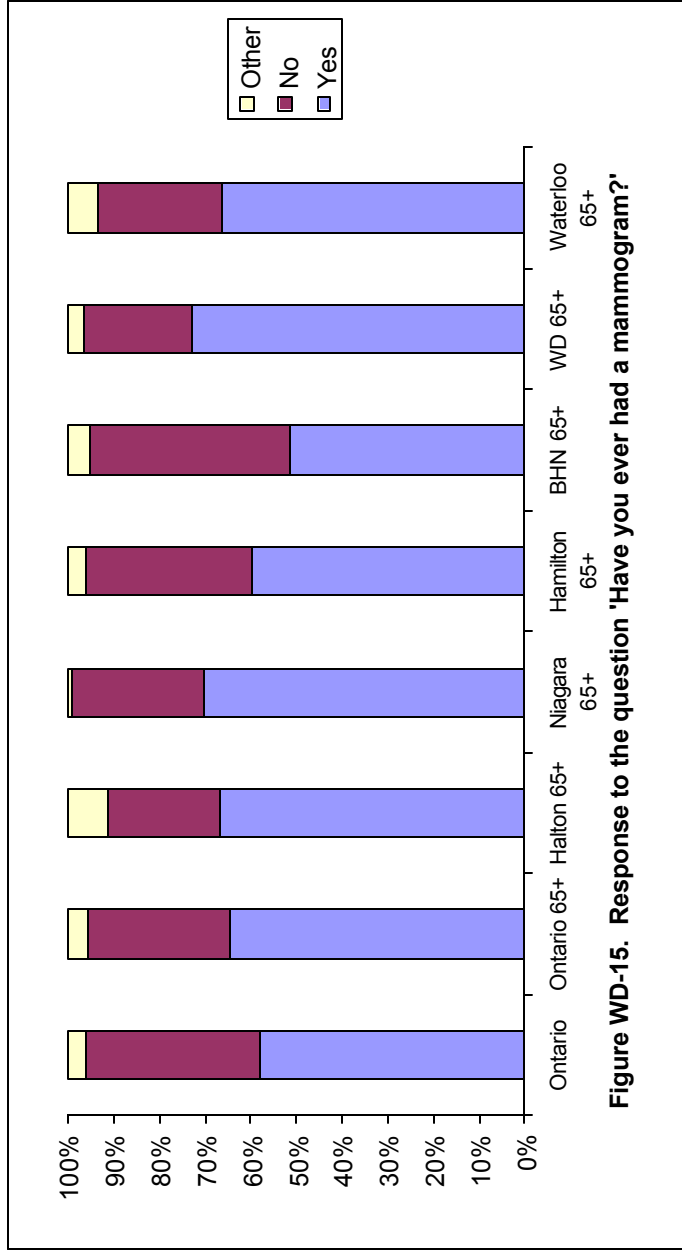
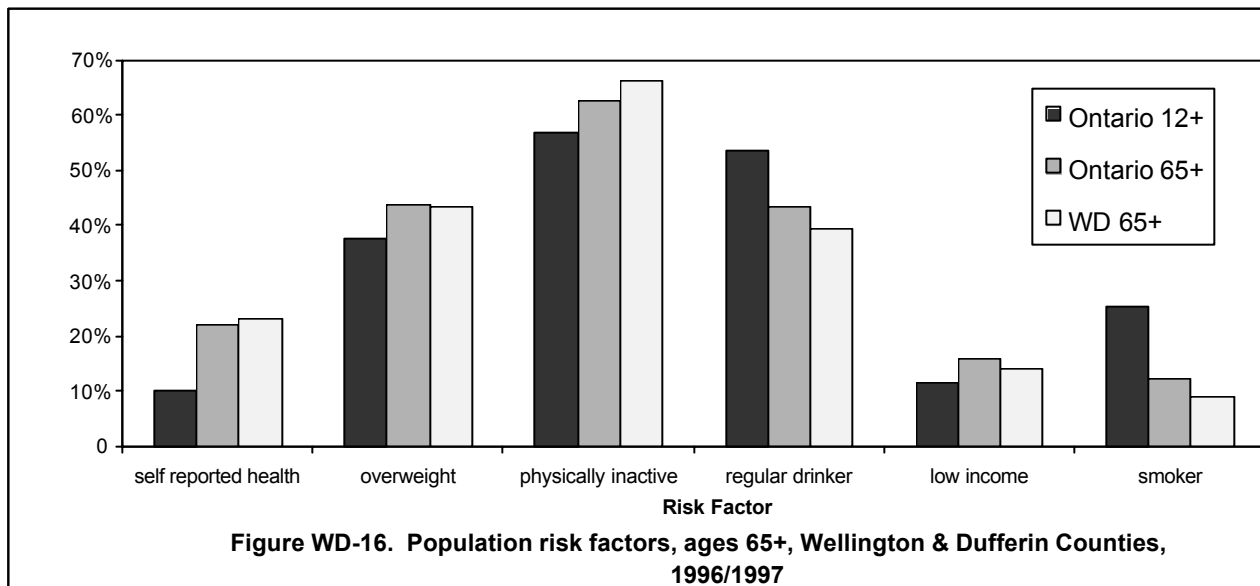


Table WD-9: When was last mammogram? Wellington & Dufferin (WD) Counties, 1996/1997

When last Mammogram?	Ontario 65+	WD 65+
Less than 1 year ago	45%	49%
Between 1 and 2 Years	25%	29%
Over 2 years	30%	22%

Source: The Ontario Health Survey, 1996/1997



Risk Factor	Ontario 12+	Ontario 65+	WD 65+
Self-reported health was 'fair' or 'poor'	10%*	22%	23%
Self-reported to be 'overweight'	37%	44%	43%
Physically inactive	57%	63%	66%
Regular drinker	54%	43%	39%
Low Income	11%*	16%	14%*
Smoker	25%*	12%*	9%*

Risk Factor	Definition	Reasoning for Inclusion
Self-Reported Health	How would you rate your general Health?	Research shows self-reported health is related to morbidity and mortality, especially among the elderly ¹
Self-Reported weight	How would you rate your current weight?	BMI scores are not collected for the elderly. Obesity has been linked to numerous health problems ²
Physically Inactive	Derived from many Questions.	Physically activity leads to a healthier lifestyle ³
Regular Drinker	Derived from many Questions.	Research has shown alcohol can lead to many health problems ⁴
Low Income	Derived from many Questions.	Research has linked low income to mortality ⁵
Smoker	Derived from many Questions.	Research has shown smoking can lead to many health problems ⁶

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

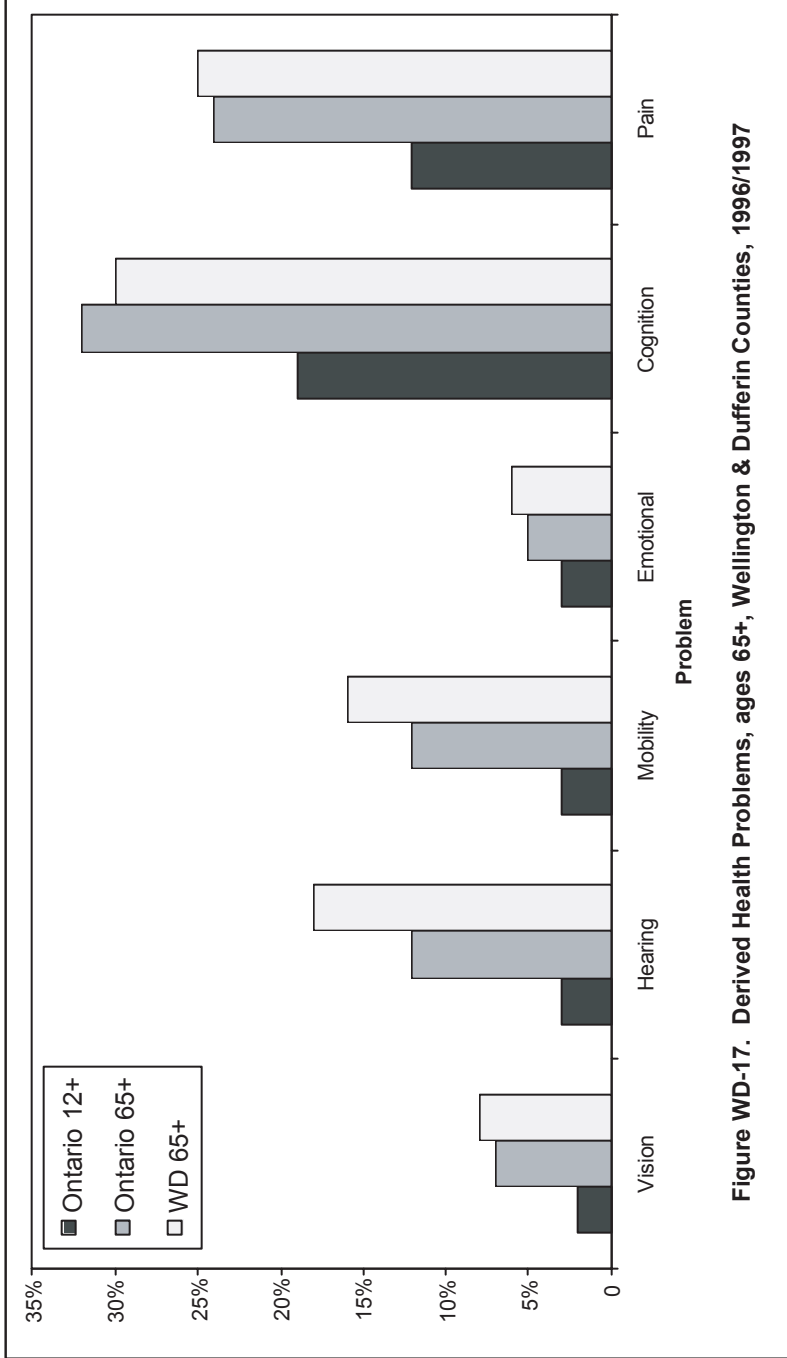


Figure WD-17. Derived Health Problems, ages 65+, Wellington & Dufferin Counties, 1996/1997

Table WD-12:
Derived Physical/Emotional Problems, Wellington & Dufferin (WD) Counties, 1996/1997

Type of problem derived from the OHS	Ontario 12+	Ontario 65+	WD 65+
Has a vision problem beyond corrective lenses	----	7%*	8%*
Hearing	3%*	12%*	12%*
Mobility	3%*	12%*	11%*
Emotion – less than 'Somewhat Happy'	3%*	5%*	7%*
Cognition	19%	32%	27%
Is in some type of pain	12%*	24%	22%

Source: The Ontario Health Survey, 1996/1997

* Results subject to high sampling variability

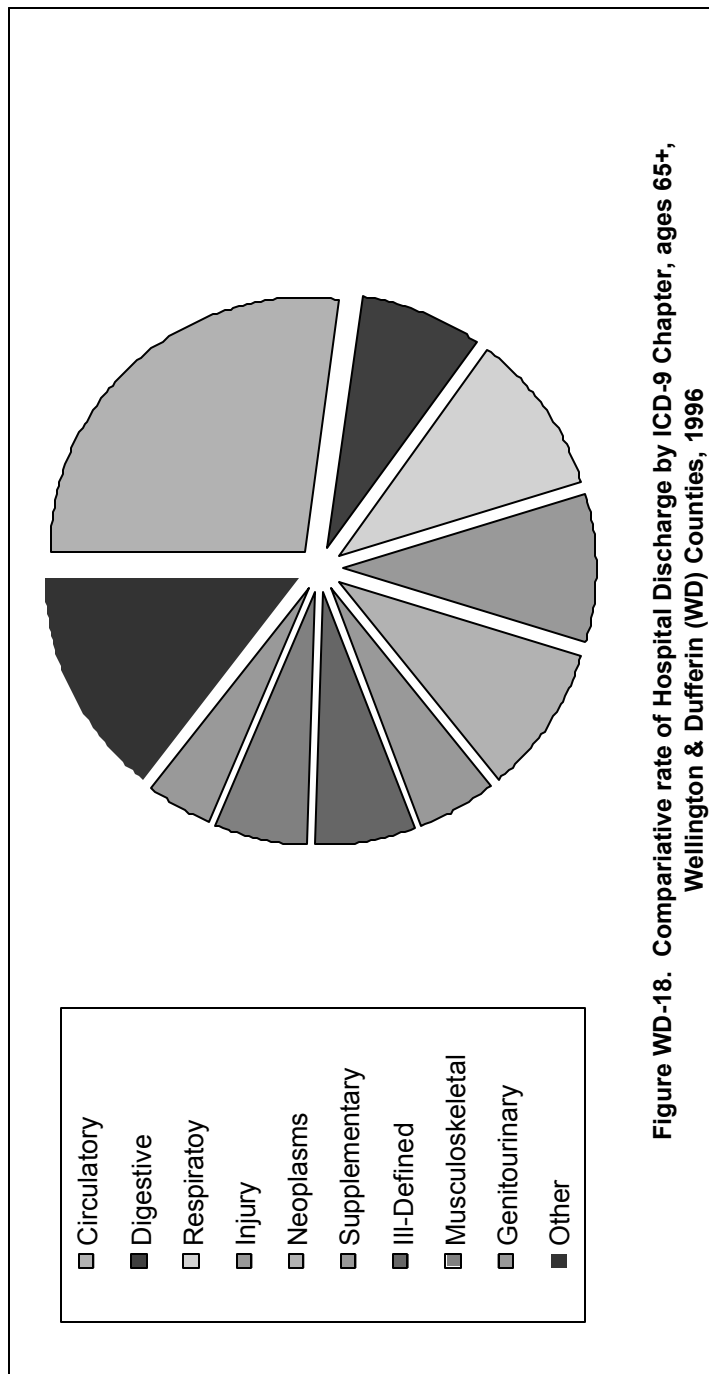


Figure WD-18. Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, Wellington & Dufferin (WD) Counties, 1996

TABLE WD-13: Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, 1996

ICD Chapter	Brant	HN	Halton	Hamilton	Niagara	Waterloo	WD
Diseases of the Circulatory System	30.61%	32.32%	30.17%	30.52%	30.83%	28.70%	27.10%
Disease of the Digestive System	9.59%	11.68%	9.12%	7.06%	7.43%	6.42%	7.79%
Disease of the Respiratory System	8.94%	8.78%	7.16%	8.61%	8.96%	9.38%	10.46%
Injuries and Poisoning	8.61%	8.65%	8.53%	8.68%	8.67%	8.28%	9.31%
Neoplasms	8.55%	10.78%	10.71%	11.39%	8.72%	11.12%	9.50%
Supplementary Classifications	6.94%	3.55%	4.45%	4.04%	4.20%	4.73%	4.99%
Symptoms, Signs, and Ill-Defined Conditions	6.18%	4.95%	7.32%	5.60%	5.93%	6.24%	6.37%
Musculoskeletal System and Connecting Tissue	5.30%	4.86%	6.00%	6.41%	5.96%	6.28%	5.88%
Diseases of the Genitourinary System	4.64%	5.21%	3.29%	3.67%	3.87%	3.63%	4.27%
Other	10.64%	9.21%	13.25%	14.03%	15.44%	15.22%	14.32%

Source: Provincial Health Planning Database, 2002

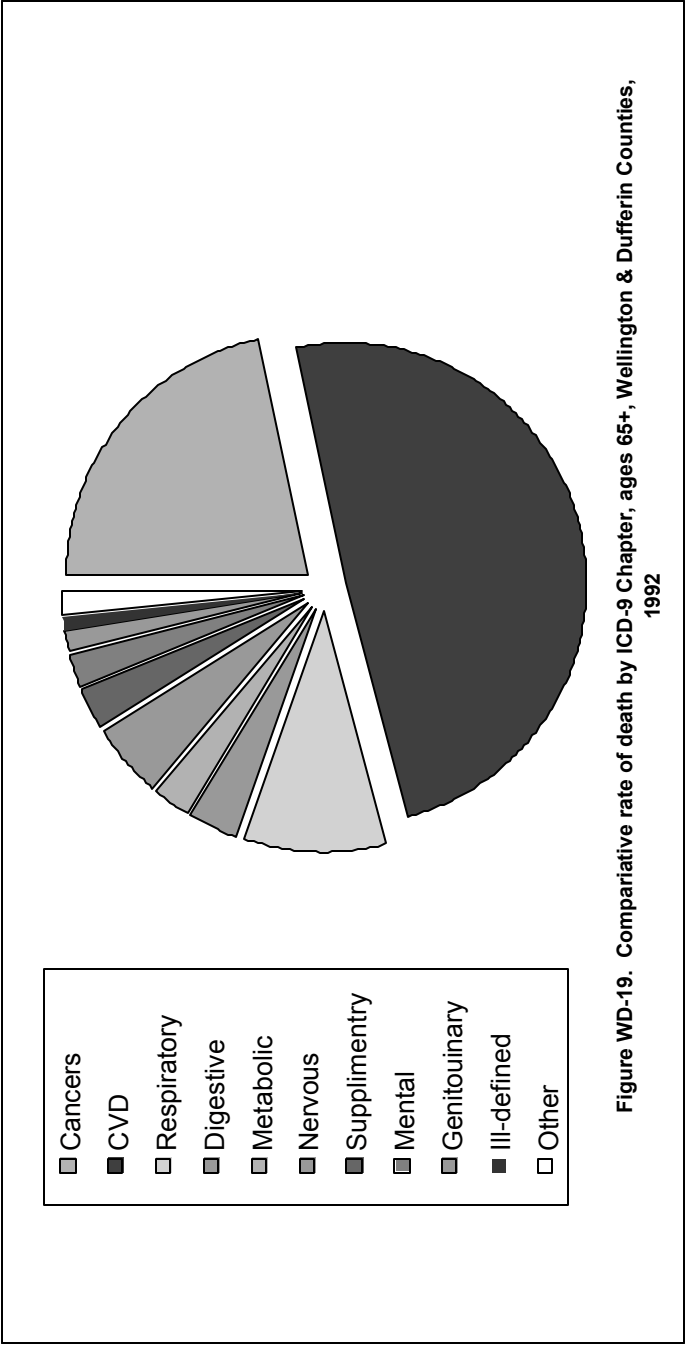


Table WD-14: Comparative rate of death by ICD-9 Chapter, Wellington & Dufferin (WD) Counties, 1992

ICD CHAPTER	Ontario	Ontario 65+	WD 65+
Neoplasms	27.98%	25.47%	23.72%
Diseases of the Circulatory System	38.04%	42.79%	44.27%
Diseases of the Respiratory System	8.68%	10.18%	13.28%
Diseases of the Digestive System	3.55%	3.46%	3.97%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.54%	3.75%	3.63%
Disease of the Nervous System	3.03%	3.27%	3.06%
Supplementary Classification	5.60%	2.84%	2.95%
Mental Disorders	2.47%	2.82%	1.36%
Diseases of the Genitourinary System	1.62%	1.89%	1.36%
Symptoms, Signs, and ill-defined conditions	1.93%	2.84%	1.14%
Other	3.57%	0.69%	1.25%

Source: Health Planning System Initiative, 2000

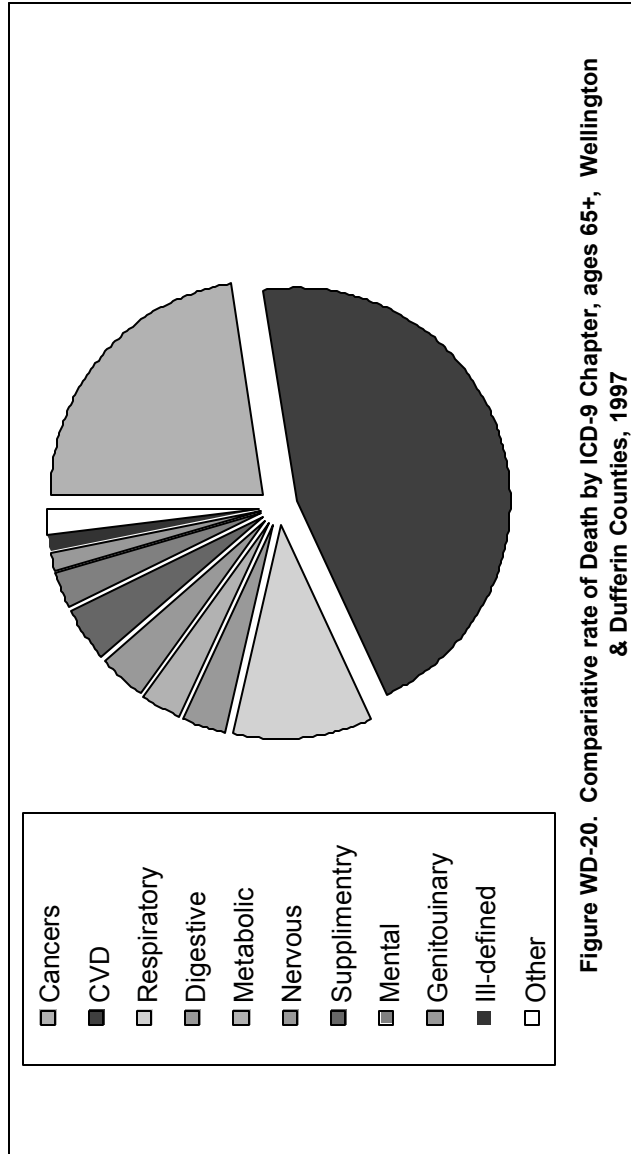


Table WD-15: Comparative rate of death by ICD-9 Chapter: Wellington & Dufferin (WD) Counties, 1997

ICD CHAPTER	Ontario	Ontario 65+	WD 65+
Neoplasms	27.98%	25.47%	22.53%
Diseases of the Circulatory System	38.04%	42.79%	45.82%
Diseases of the Respiratory System	8.68%	10.18%	10.46%
Diseases of the Digestive System	3.55%	3.46%	3.44%
Endocrine, Nutritional and Metabolic Disease and Immunity Disorders	3.54%	3.75%	3.02%
Disease of the Nervous System	3.03%	3.27%	3.58%
Supplementary Classification	5.60%	2.84%	4.28%
Mental Disorders	2.47%	2.82%	2.88%
Diseases of the Genitourinary System	1.62%	1.89%	1.33%
Symptoms, Signs, and ill-defined conditions	1.93%	2.84%	1.05%
Other	3.57%	0.69%	1.96%

Source: Health Planning System Initiative, 2000

**Table WD -16:
Age Specific Indirect Standardized Mortality Ratio, a 1992 County to Ontario Comparison**

Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.20	0.87	0.52	0.73	0.83	1.00	0.70
5-9	0	0.41	0.43	0.74	0.24	0.11	0.20
10-14	1.77	0.48	0.17	0.39	0.72	0.95	0.25
15-19	1.63	2.94	0.68	0.79	1.00	1.30	1.52
20-24	1.82	0.84	0.75	0.85	0.83	0.58	0.71
25-29	1.18	0.78	1.13	1.36	1.00	1.13	1.21
30-34	1.13	1.80	0.68	1.01	1.27	1.06	0.96
35-39	1.06	1.32	1.02	1.24	1.32	1.03	1.28
40-44	1.38	1.01	0.92	0.99	1.07	0.98	0.86
45-49	1.00	1.11	0.89	0.98	1.40	0.92	1.06
50-54	1.35	1.11	0.86	1.19	1.28	1.00	1.06
55-59	1.20	1.34	0.95	1.26	1.10	1.19	1.13
60-64	1.41	1.07	1.02	1.12	1.25	1.01	1.16
65-69	1.16	0.93	0.89	1.22	1.12	0.96	1.17
70-74	1.32	1.04	0.91	1.11	1.11	0.97	0.96
75-79	0.95	1.23	0.94	1.15	1.04	1.04	1.06
80-84	1.00	1.14	0.87	1.00	0.96	0.98	1.12
85+	1.15	0.96	0.94	0.94	1.02	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

**Table WD -17:
Age Specific Indirect Standardized Mortality Ratio, a 1997 County to Ontario Comparison**

Age	Brant	Hald-Nor	Halton	Hamilton	Niagara	Waterloo	Well-Duff
0-4	1.61	0.81	0.64	1.47	1.23	1.30	1.44
5-9	0	0	0.13	0.67	0.35	0.21	0.20
10-14	0.81	0	0.44	0.34	0.66	0.36	1.10
15-19	0.46	0.50	1.04	0.52	0.73	1.01	1.27
20-24	0.87	1.74	0.61	0.88	0.90	0.50	0.97
25-29	0.88	1.07	0.55	1.07	0.65	0.52	0.64
30-34	1.90	1.33	0.59	0.88	1.26	0.65	0.71
35-39	1.39	0.91	0.67	1.08	1.13	0.82	0.90
40-44	1.04	0.78	0.80	1.04	1.03	0.97	0.78
45-49	1.35	0.89	0.55	1.22	0.99	1.14	0.98
50-54	1.42	0.87	0.76	1.17	1.06	0.87	0.88
55-59	0.98	1.13	0.68	1.08	0.99	0.78	0.91
60-64	1.21	1.17	0.82	1.18	1.23	0.84	0.84
65-69	1.17	1.22	0.73	1.11	1.00	0.99	1.17
70-74	0.84	1.03	0.87	0.98	1.06	1.01	0.96
75-79	1.02	0.89	0.93	0.94	0.96	1.01	1.06
80-84	0.99	1.06	0.96	0.99	0.98	0.95	1.12
85+	1.16	1.17	0.81	0.94	0.97	0.92	1.12

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

Source: Health Planning System Initiative, 2000

Notes, Definitions & Formulas

Mortality Ratios present the ratio of expected deaths to actual deaths using Ontario as the standard. Any value greater than one represents a greater than expected death rate. For example if the death rate for those aged 85+ in Ontario is 1000/100,000 and in Waterloo it is 950/100,000 the mortality ratio would be 0.95.

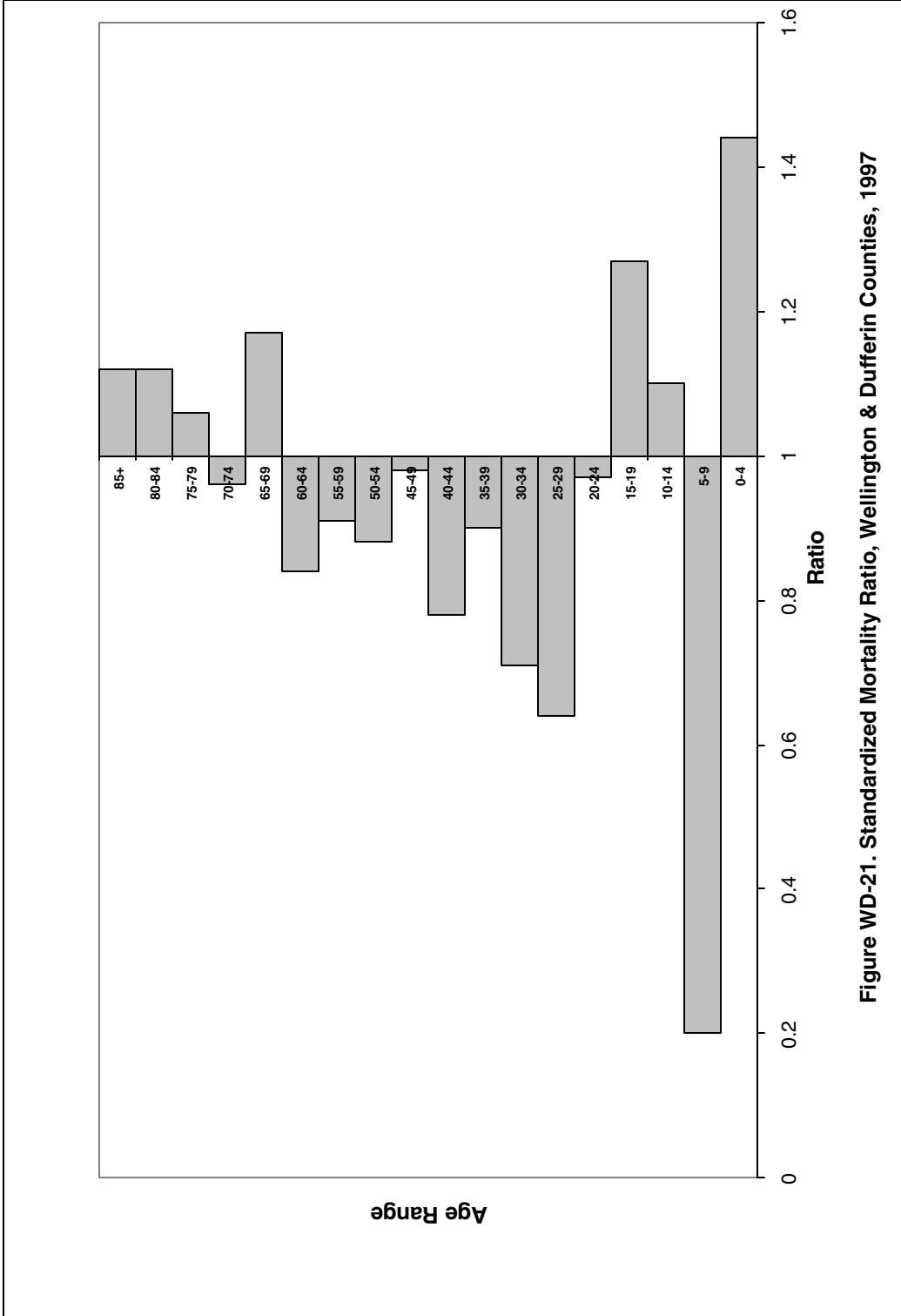


Figure WD-21. Standardized Mortality Ratio, Wellington & Dufferin Counties, 1997

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