

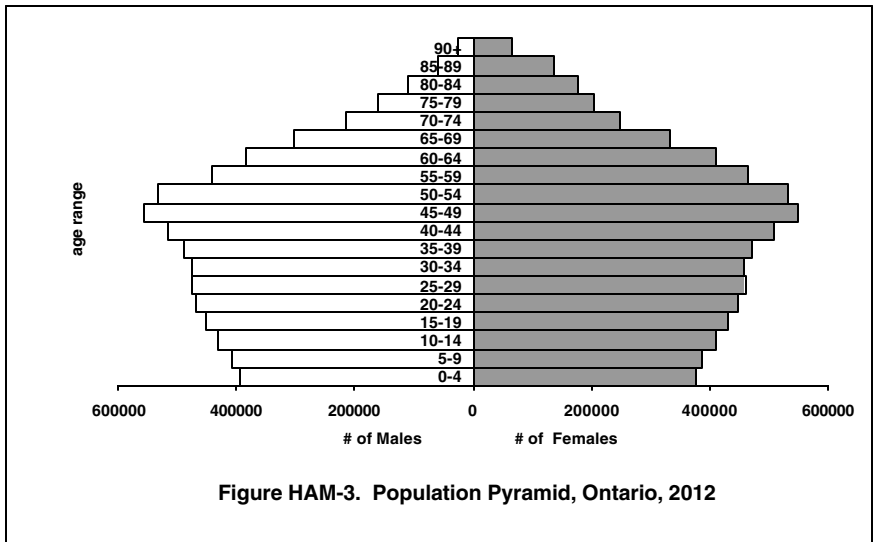
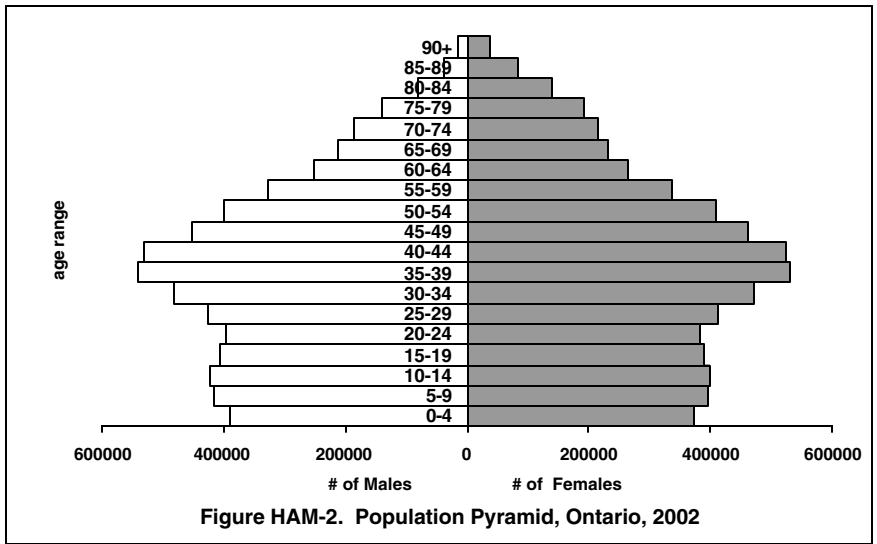
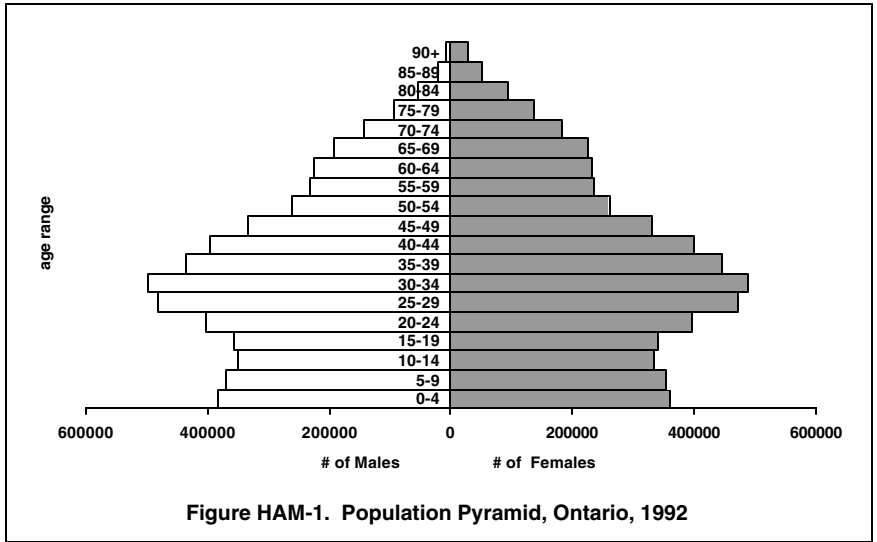
Hamilton Region

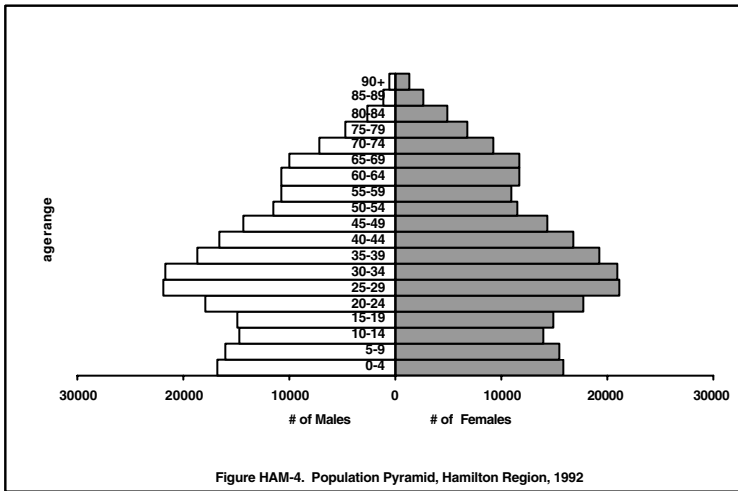
Notes, Definitions & Formulas

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

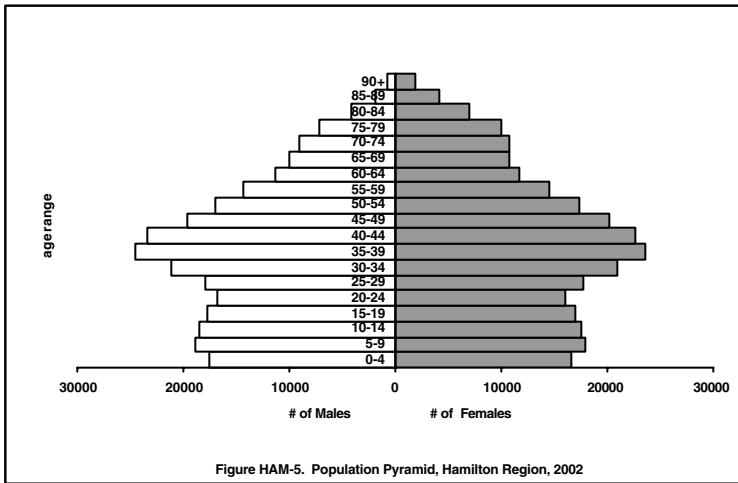
The age of an individual is taken to be the age as of their last birthday (as of census reference date, May 14th, 1996), and is derived from the date of birth.

The sources for the population data are the census HELPS.

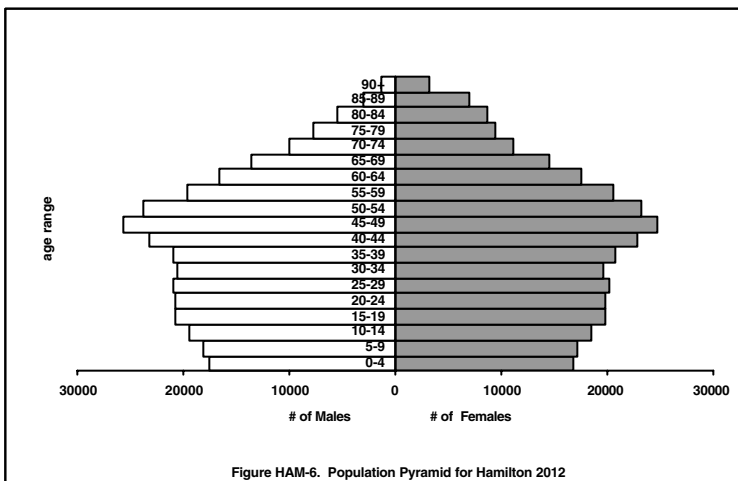




% of total population		
Age	Male	Female
0-4	3.54	3.36
5-9	3.38	3.26
10-14	3.11	2.95
15-19	3.16	3.14
20-24	3.77	3.74
25-29	4.60	4.44
30-34	4.58	4.41
35-39	3.92	4.07
40-44	3.51	3.56
45-49	3.03	3.01
50-54	2.43	2.41
55-59	2.27	2.30
60-64	2.27	2.46
65-69	2.10	2.48
70-74	1.54	1.97
75-79	1.02	1.44
80-84	0.55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

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

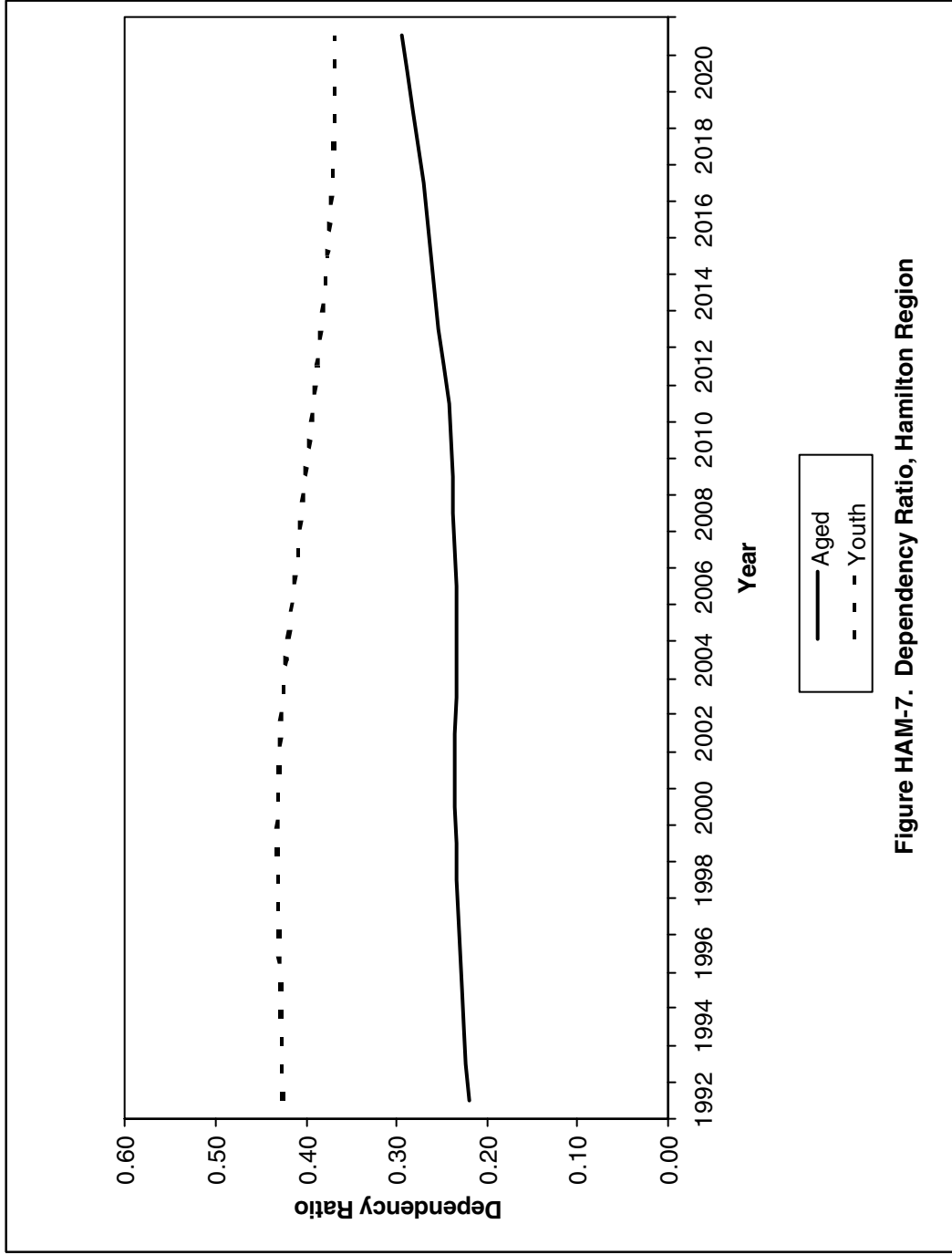


Figure HAM-7. Dependency Ratio, Hamilton Region

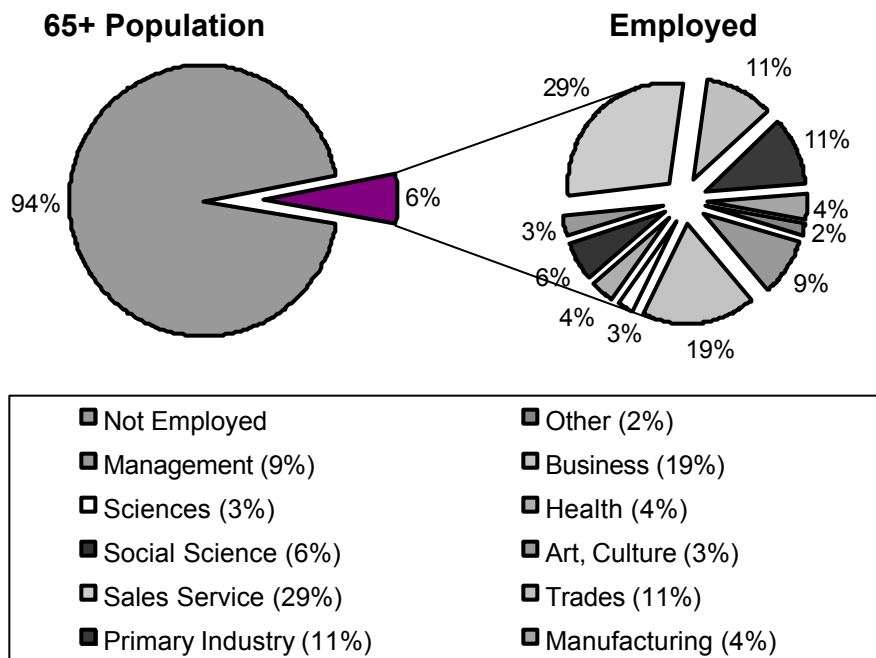


Figure HAM-8. Employment Rate and Distribution, ages 65+, Hamilton Region, 1996

**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)

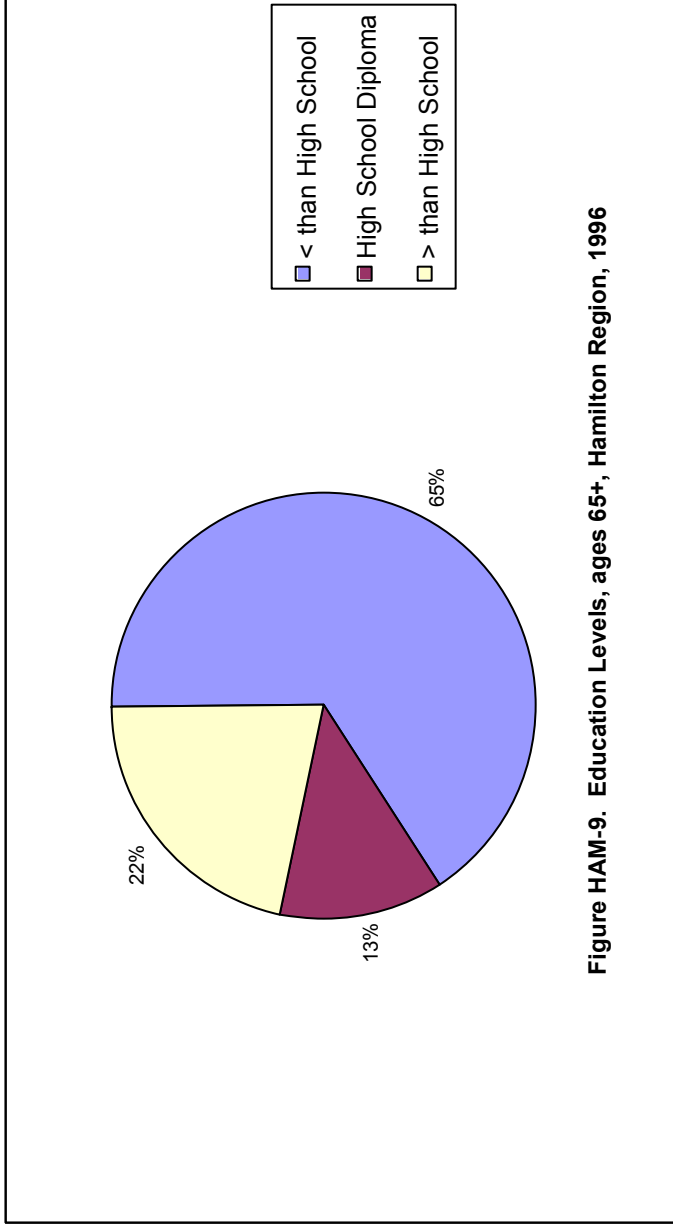


Figure HAM-9. Education Levels, ages 65+, Hamilton Region, 1996

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)

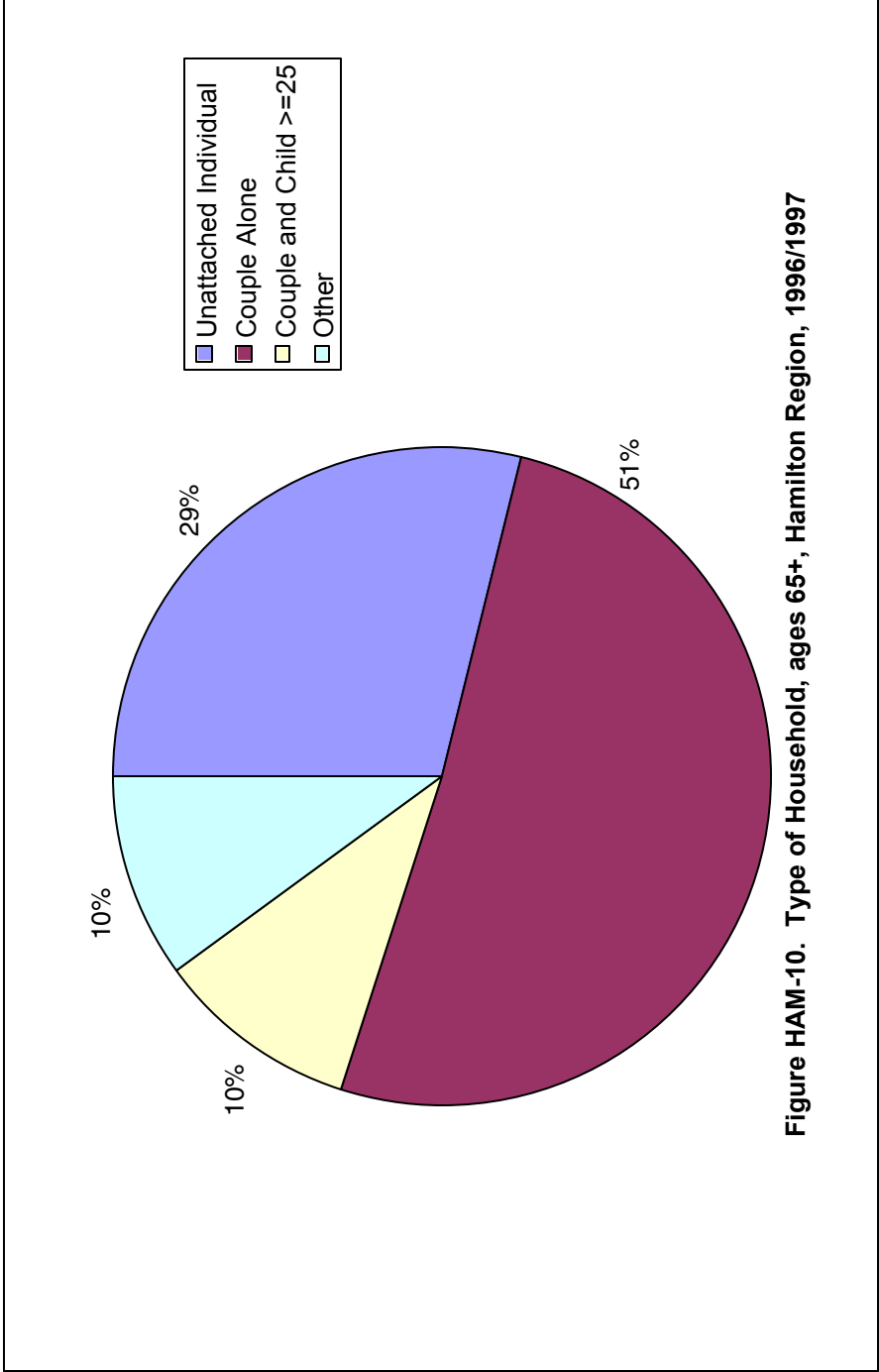


Figure HAM-10. Type of Household, ages 65+, Hamilton Region, 1996/1997

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

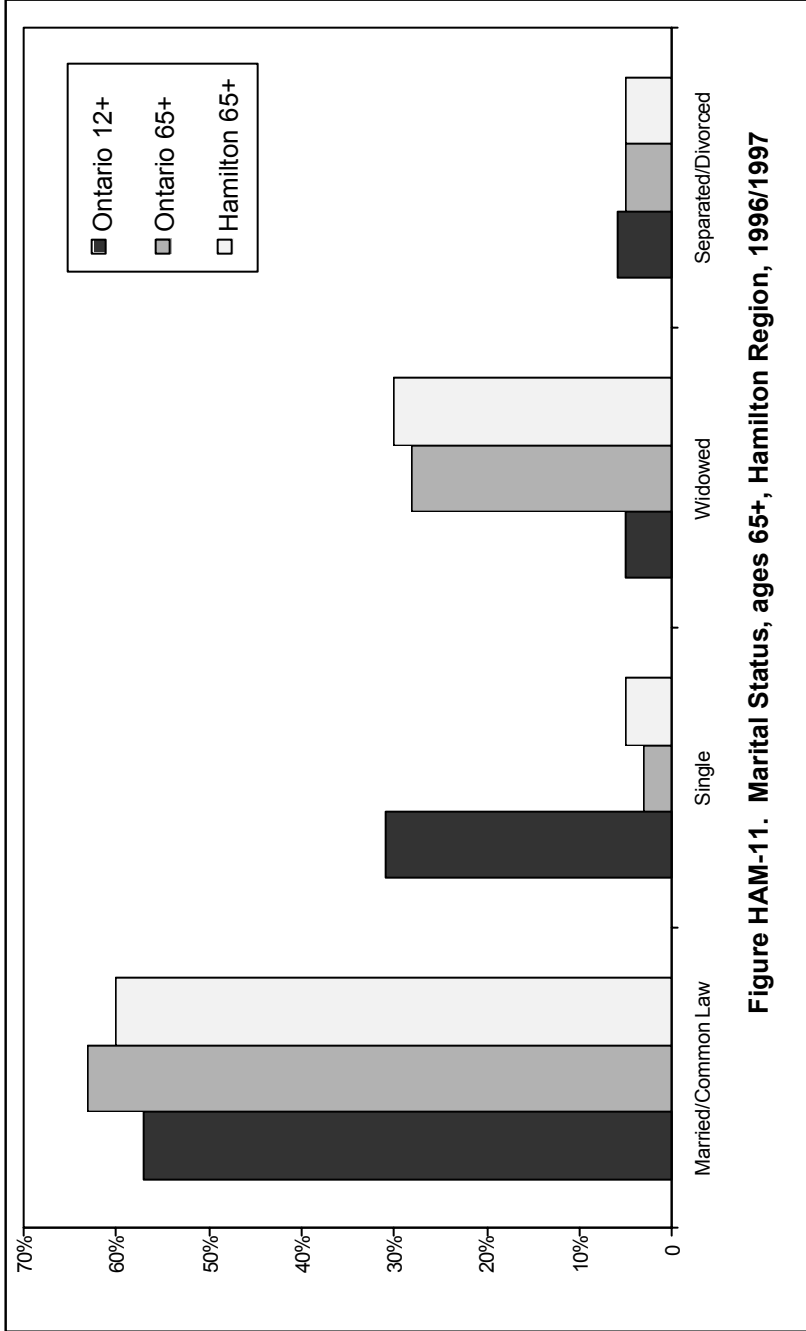


Figure HAM-11. Marital Status, ages 65+, Hamilton Region, 1996/1997

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

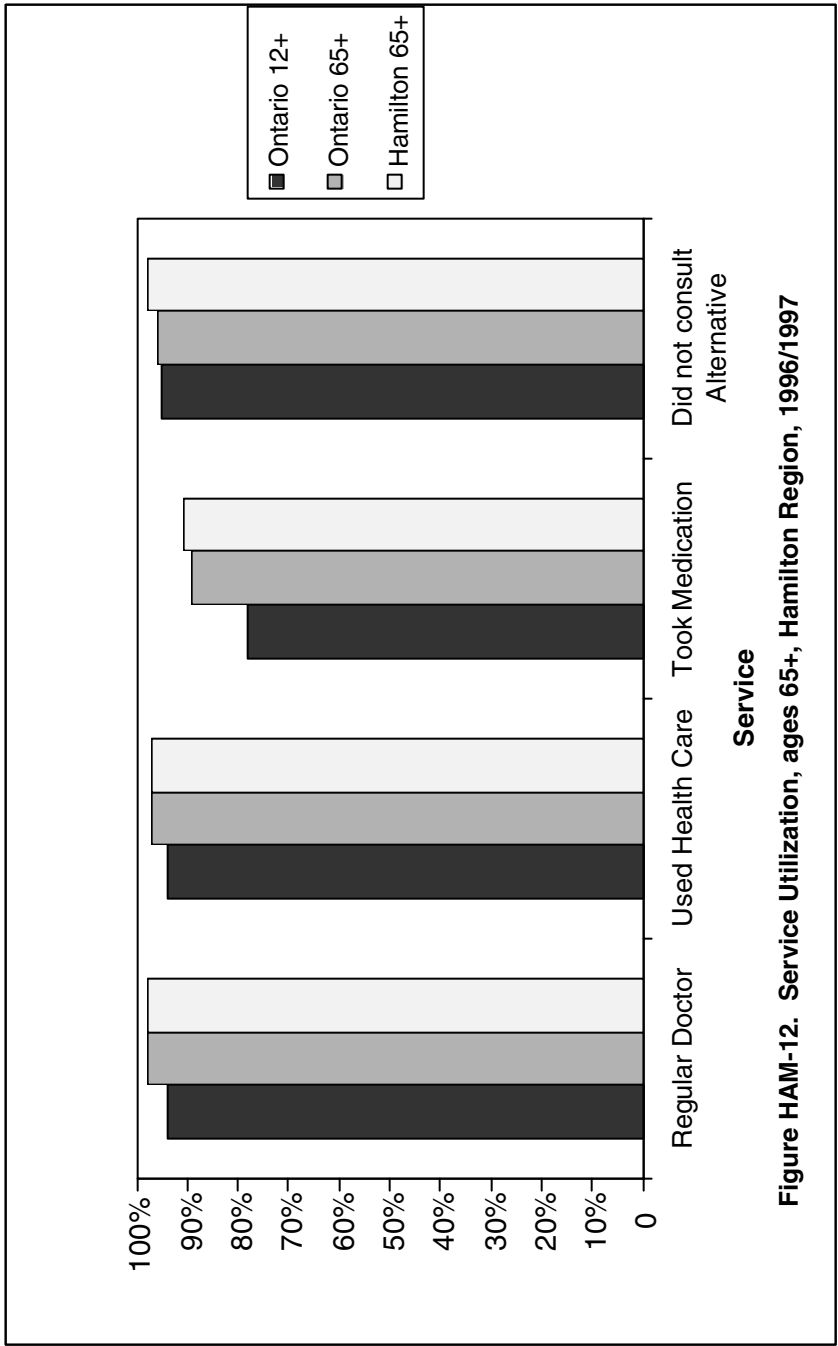
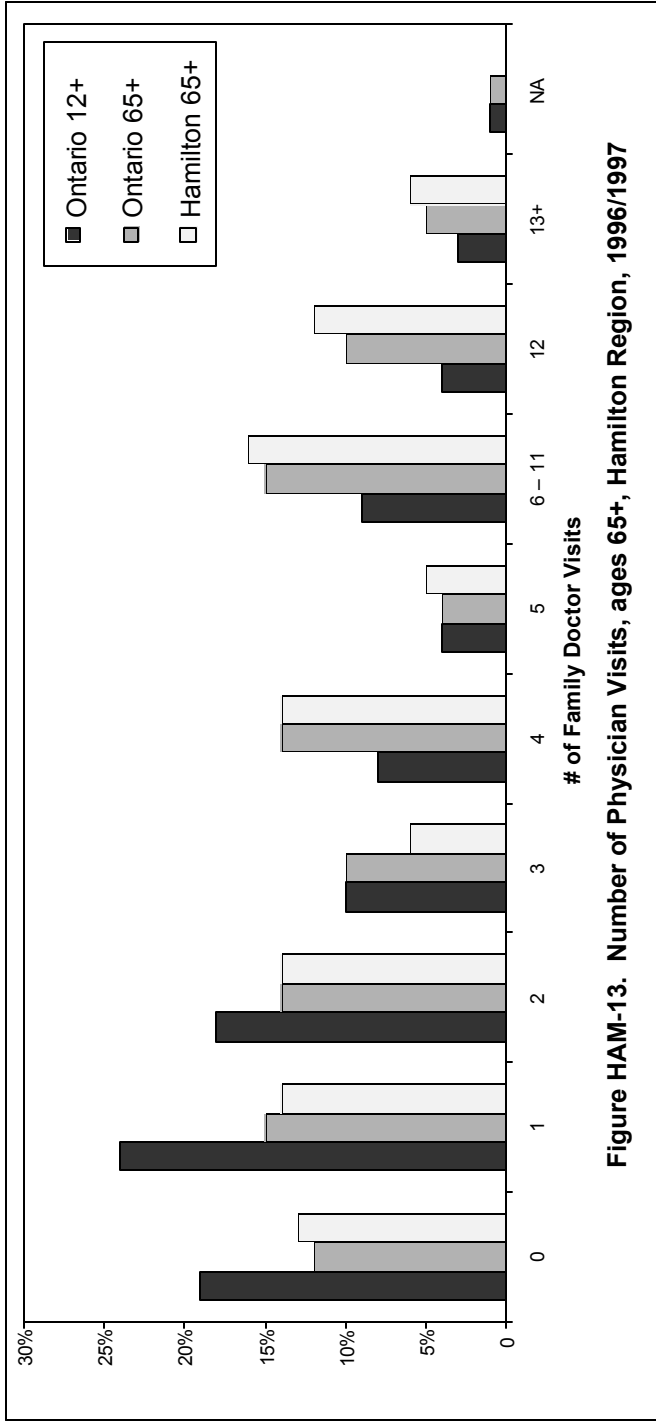


Figure HAM-12. Service Utilization, ages 65+, Hamilton Region, 1996/1997

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



**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

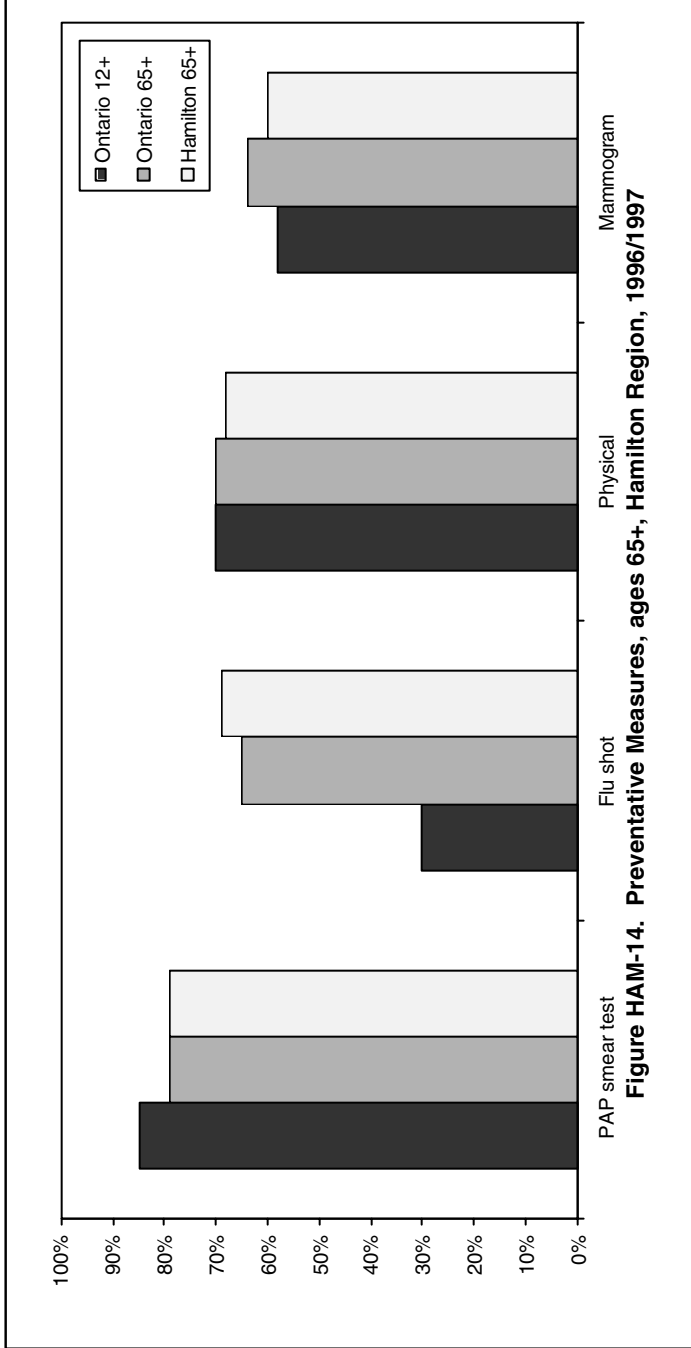


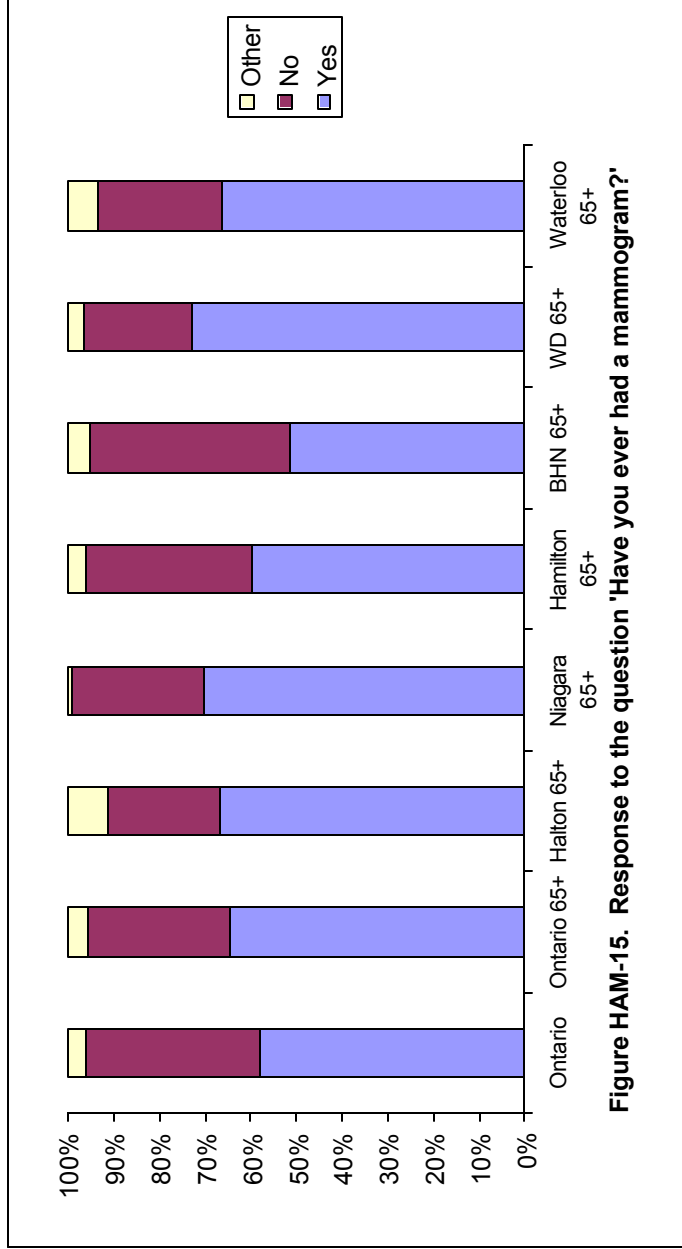
Table HAM-8: Preventative Measures, Hamilton Region, 1996/1997

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

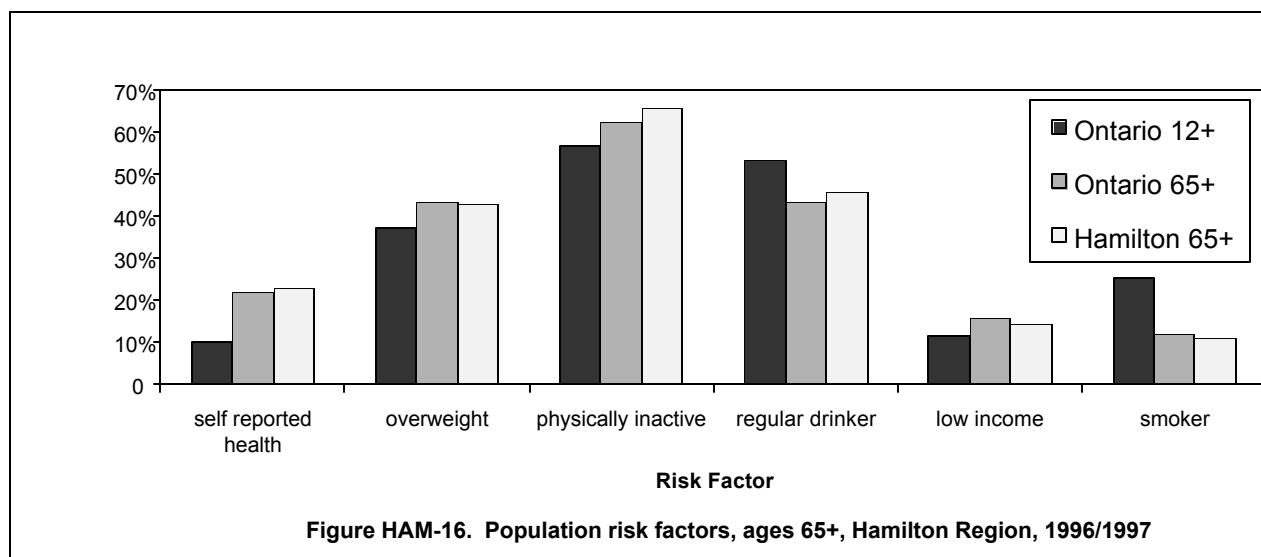
Mammogram data originates from the Ontario Health Survey. Applicable respondents are shown to have answered 'yes,' 'no,' or 'other' ('other' is a combination of numerous responses such as 'I don't know'). Those that have had a mammogram and are of an age between 65 and 72 were further questioned as to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

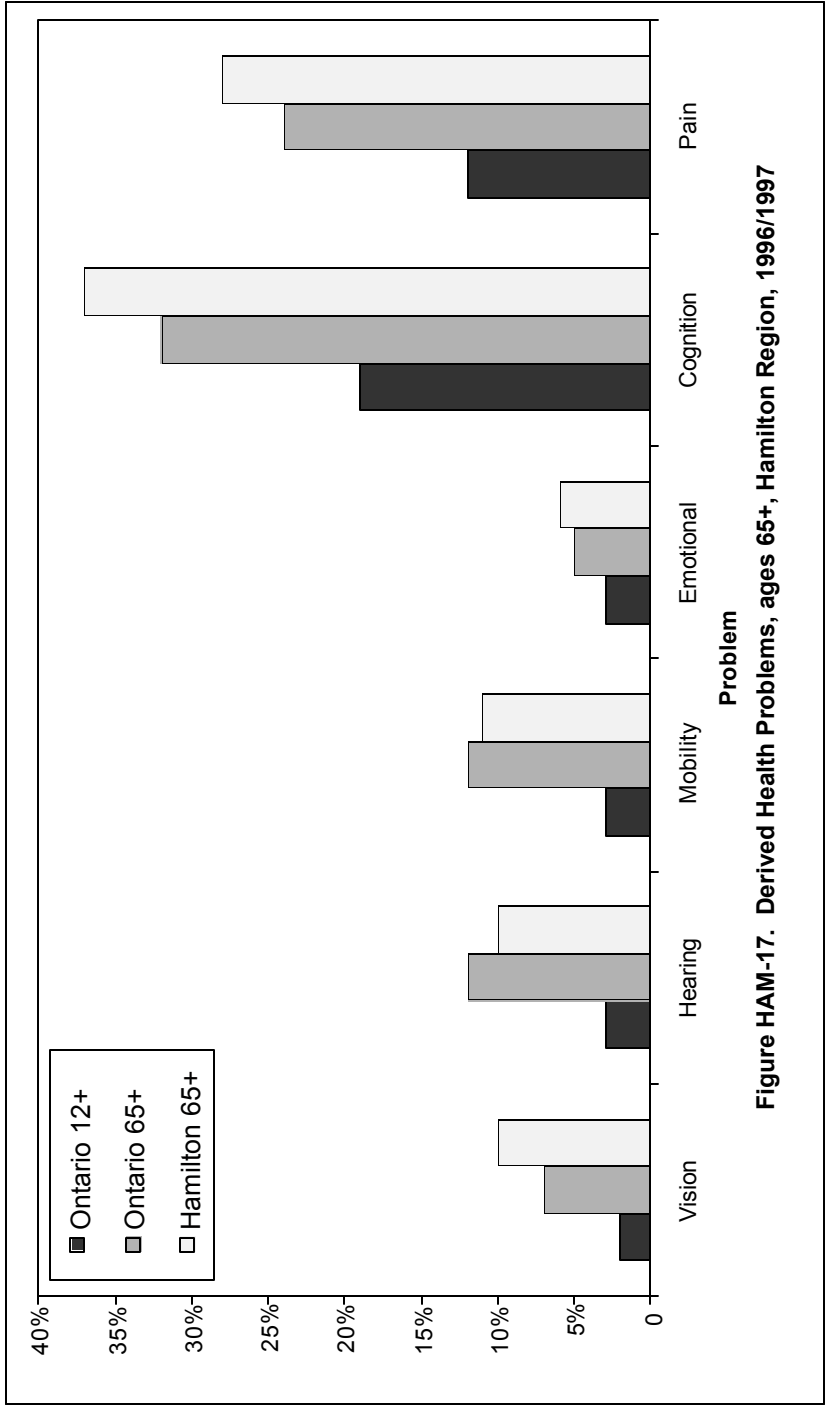


Figure HAM-17. Derived Health Problems, ages 65+, Hamilton Region, 1996/1997

**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

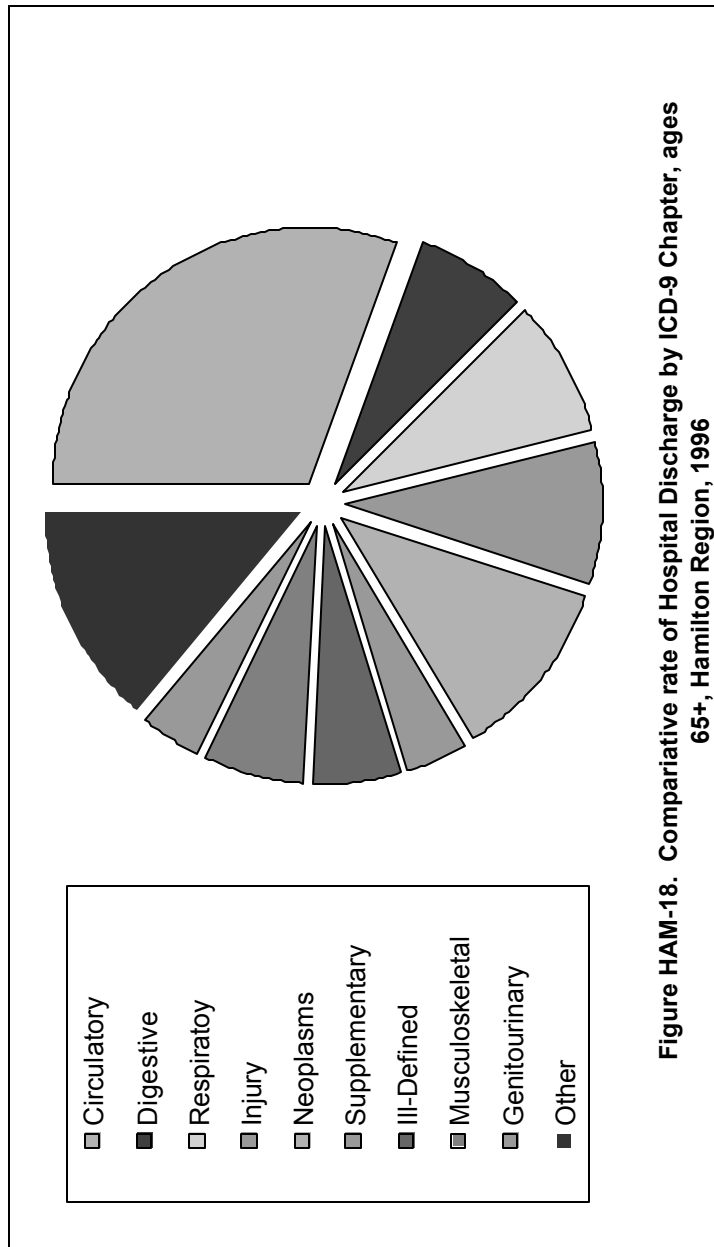


Figure HAM-18. Comparative rate of Hospital Discharge by ICD-9 Chapter, ages 65+, Hamilton Region, 1996

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

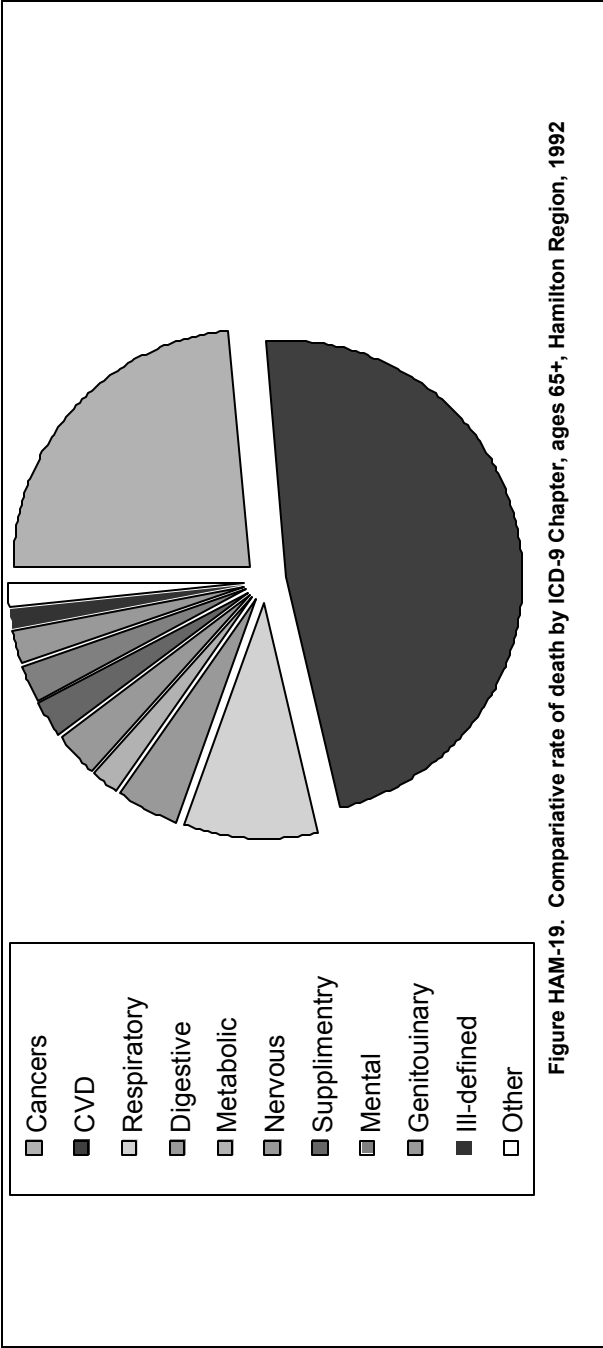


Table HAM-14: Comparative rate of death by ICD-9 Chapter, Hamilton Region, 1992

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

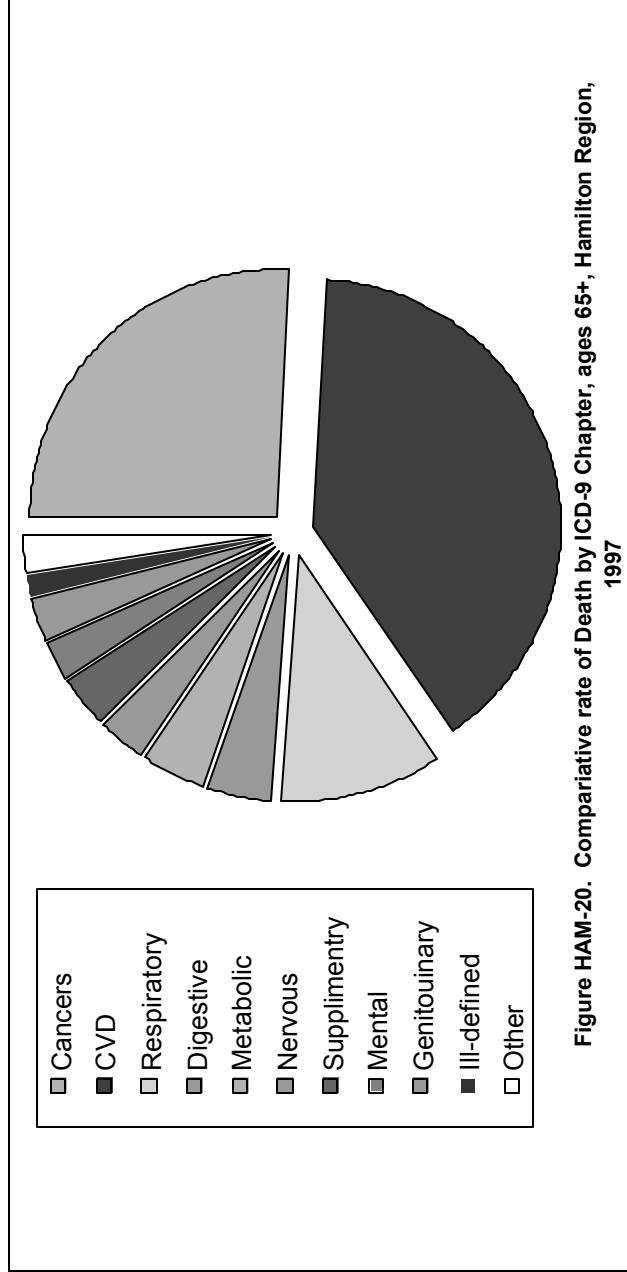


Table HAM-15. Compariative rate of death by ICD-9 Chapter, Hamilton Region, 1997

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

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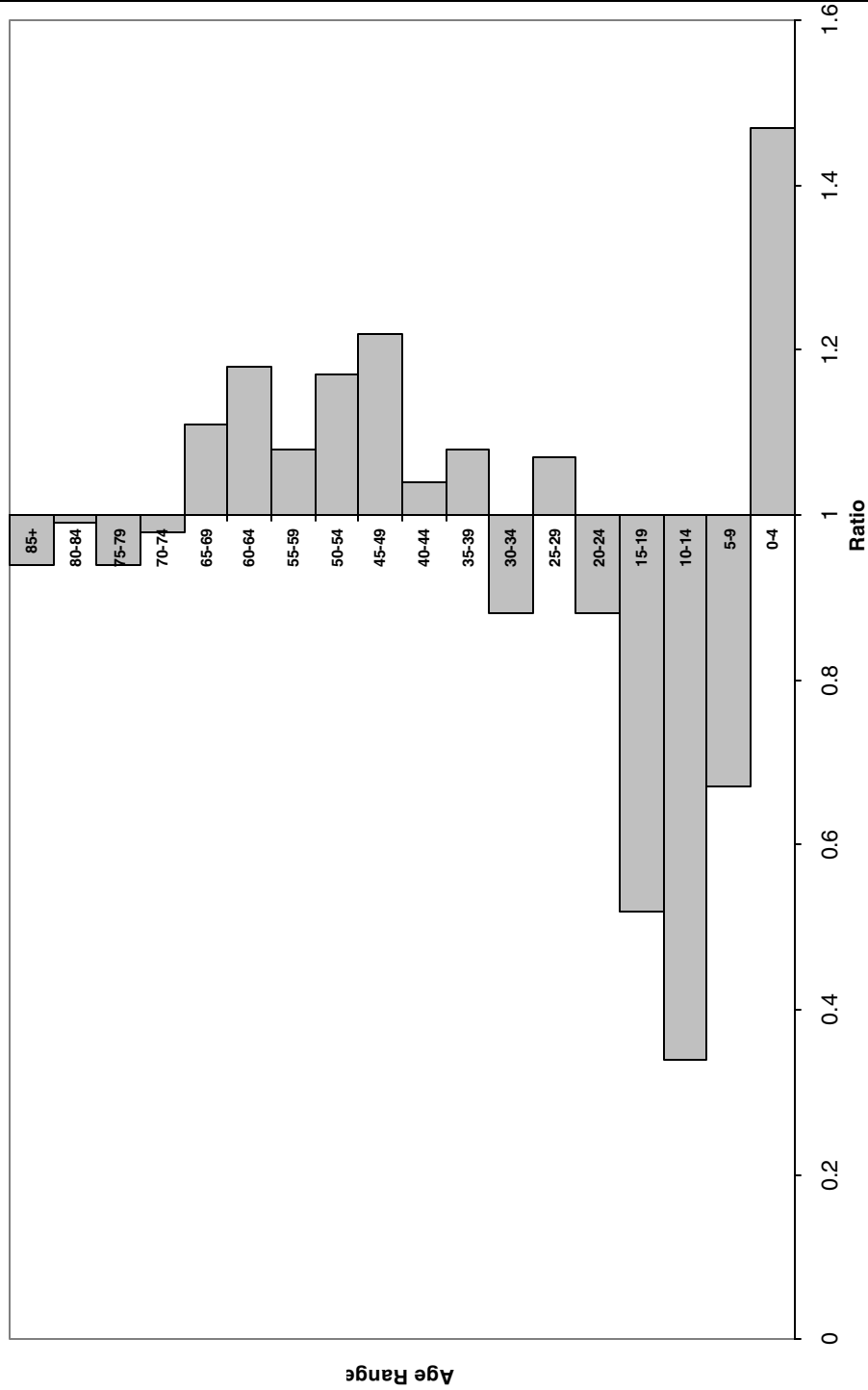


Figure HAM-21 . Standardized Mortality Ratio, Hamilton Region, 1997