

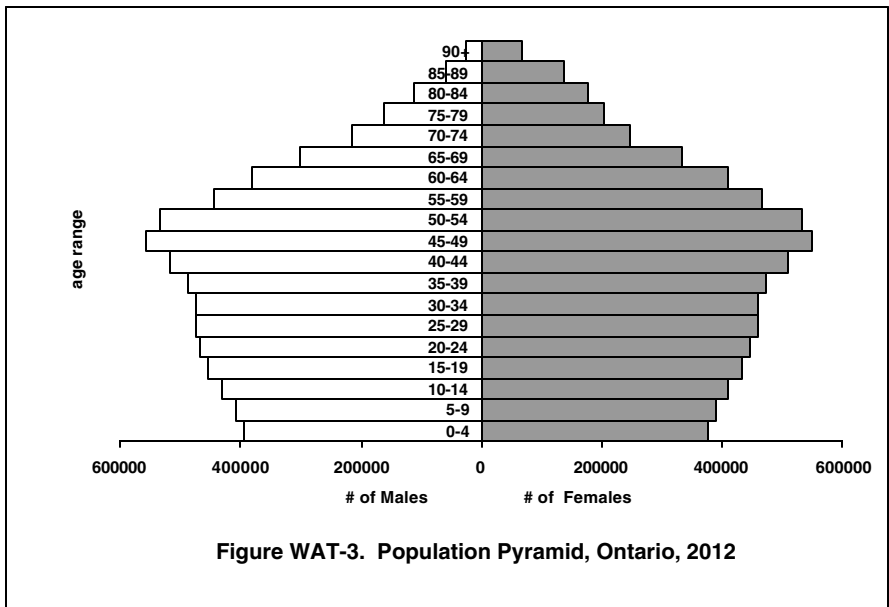
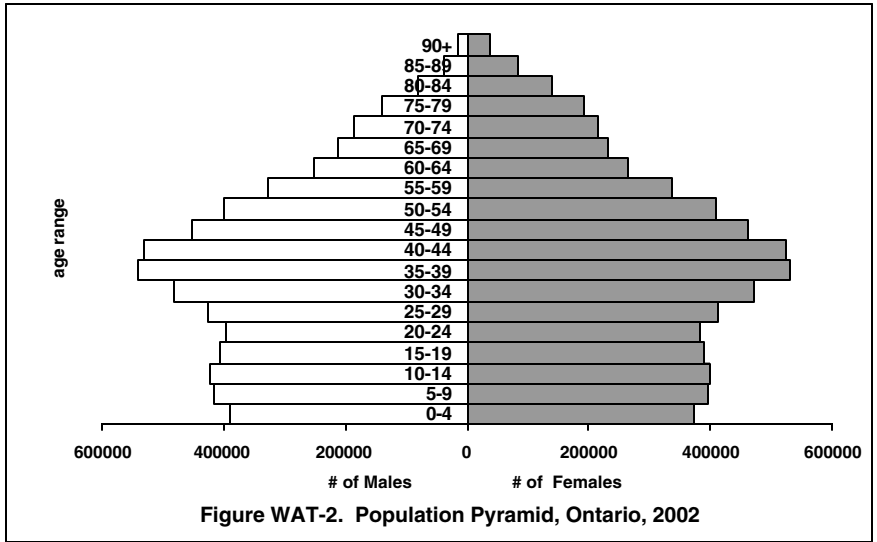
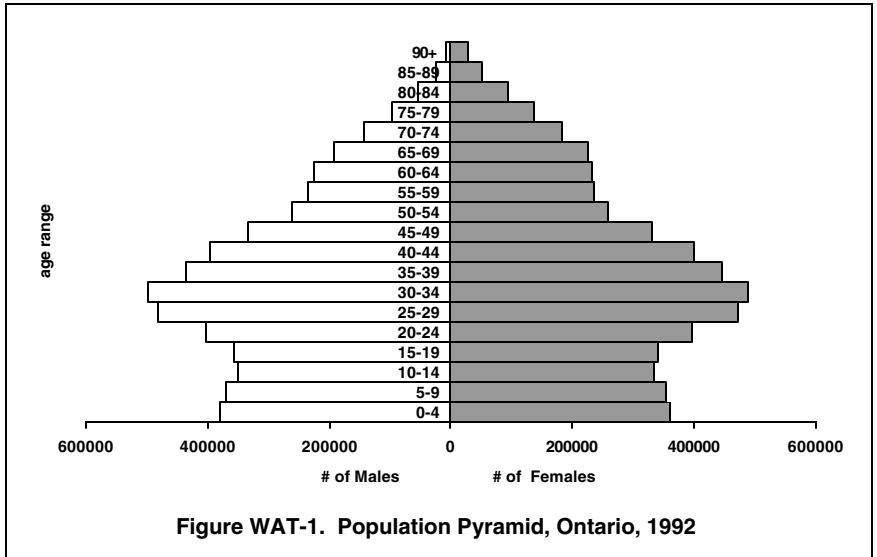
# Waterloo Region

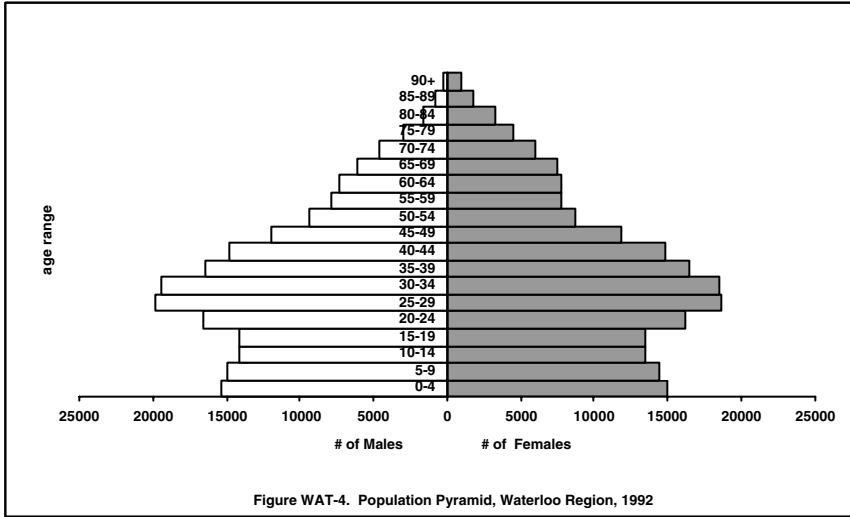
**Notes, Definitions & Formulas**

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

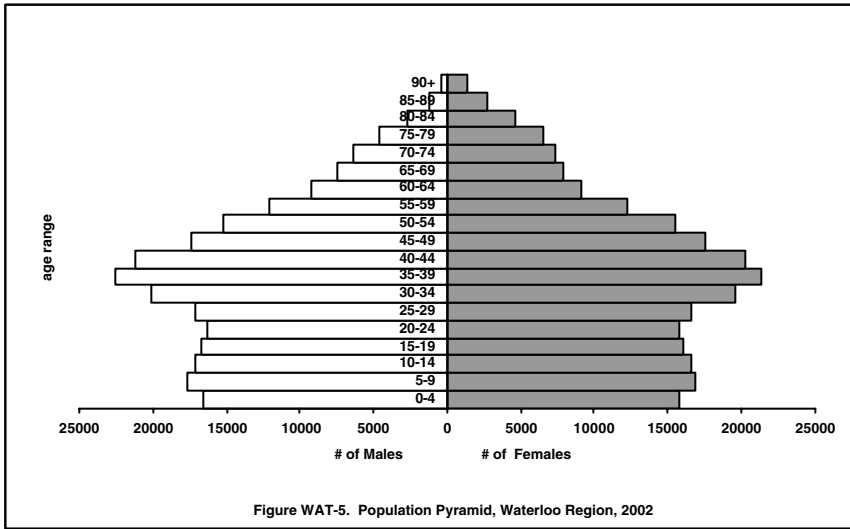
The age of an individual is taken to be the age as of their last birthday (as of census reference date, May 14<sup>th</sup>, 1996), and is derived from the date of birth.

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

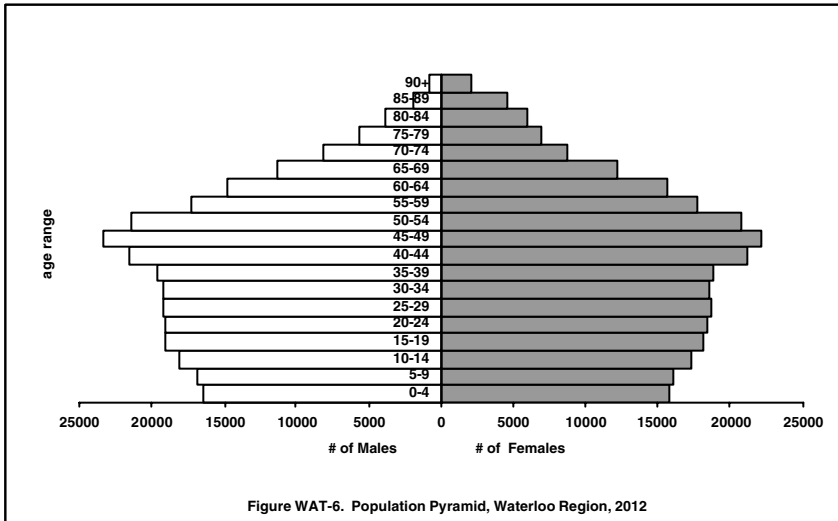




% of total population		
Age	Male	Female
0-4	3.85	3.73
5-9	3.74	3.60
10-14	3.54	3.38
15-19	3.53	3.37
20-24	4.16	4.06
25-29	4.96	4.66
30-34	4.85	4.63
35-39	4.10	4.13
40-44	3.70	3.72
45-49	3.01	2.96
50-54	2.33	2.19
55-59	1.97	1.93
60-64	1.83	1.92
65-69	1.54	1.87
70-74	1.14	1.51
75-79	0.74	1.14
80-84	0.42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

<b>Age Group</b>	<b>1992 Census</b>	<b>2002 (projection)</b>	<b>2012 (projection)</b>	<b>% change 92 - 12</b>
<b>Waterloo</b>				
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%
<b>Total</b>	<b>399915</b>	<b>485938</b>	<b>557808</b>	<b>39.48%</b>
<b>Ontario</b>				
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%
<b>Total</b>	<b>10615475</b>	<b>12366850</b>	<b>13819024</b>	<b>30.2%</b>

**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.

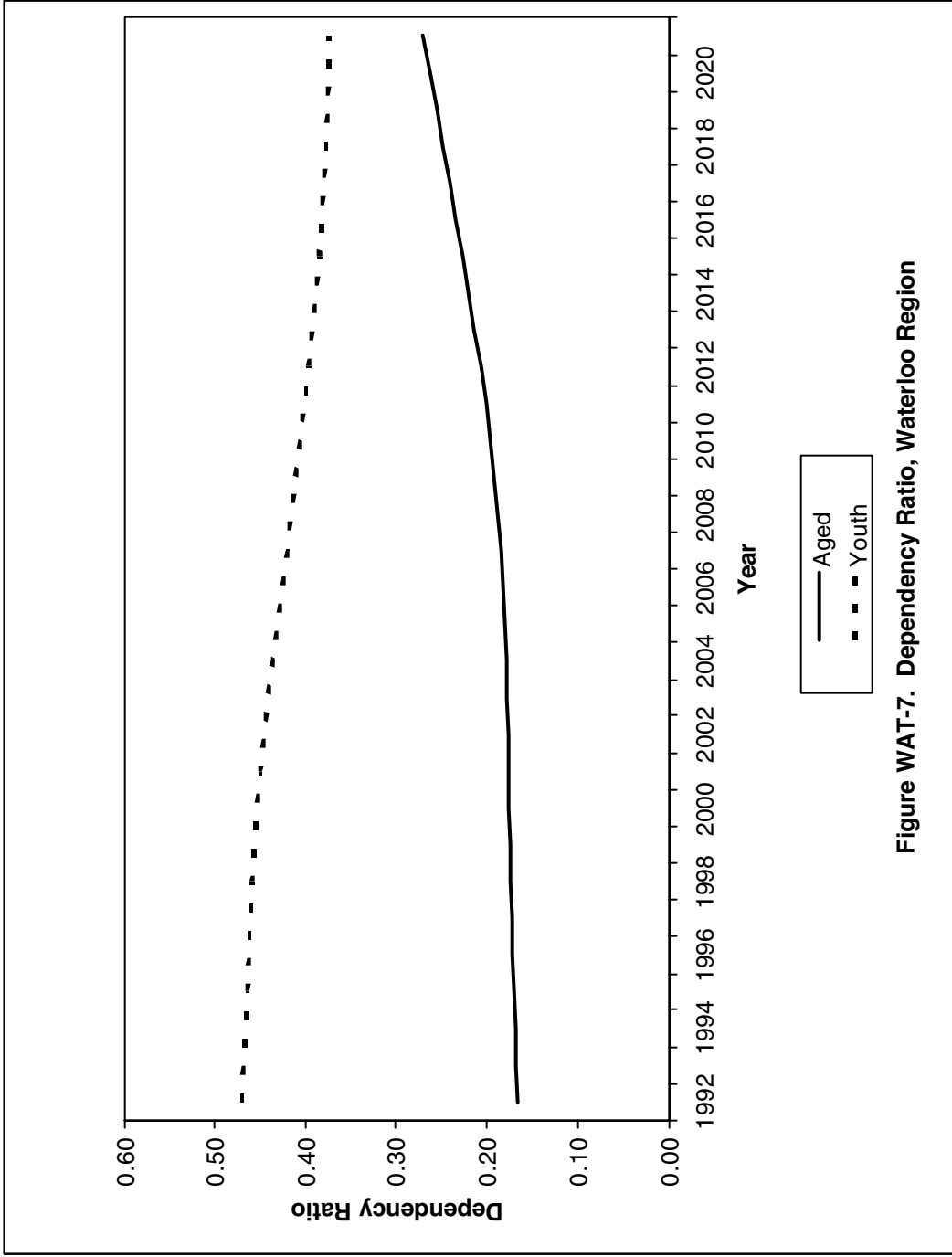
**Calculation**

**Youth dependency ratio**  

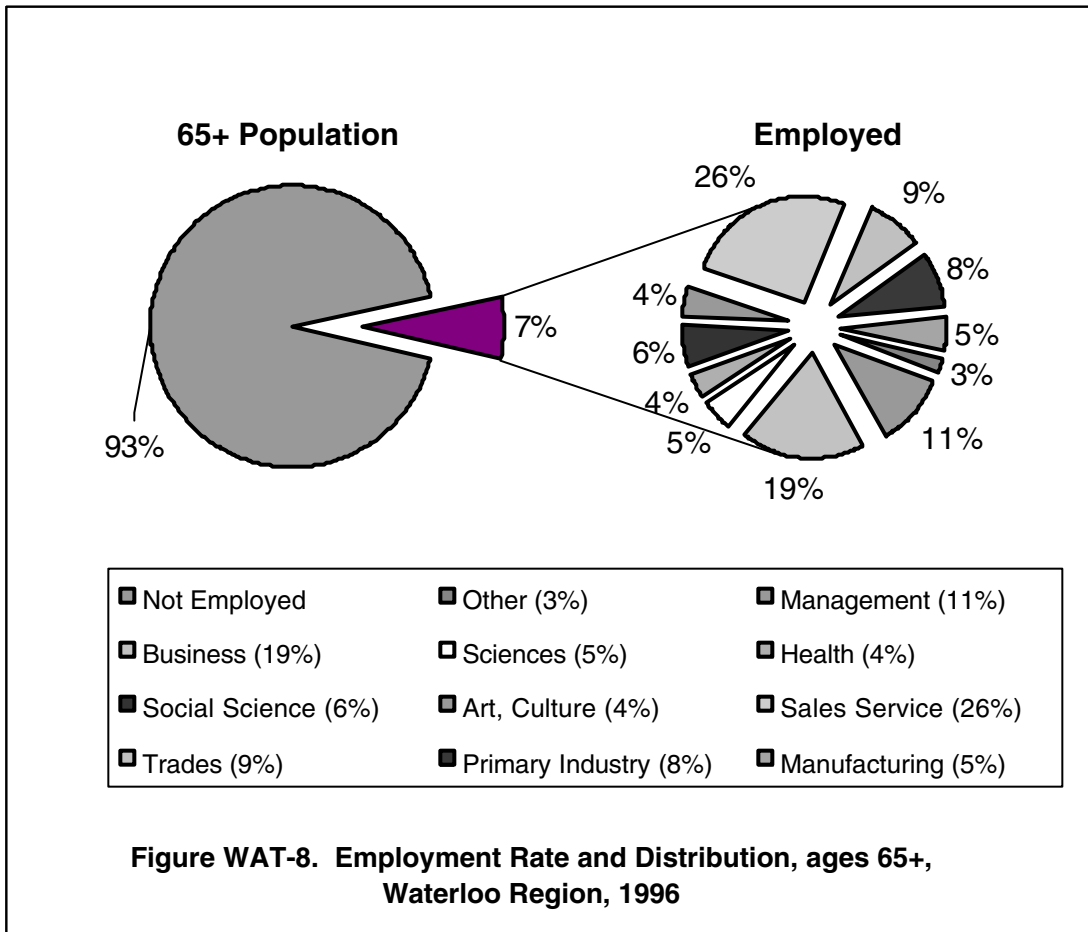
$$\left( \frac{P_{age\ 0-24}}{P_{age\ 25-64}} \right)$$

**Aged dependency ratio**  

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



**Figure 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)

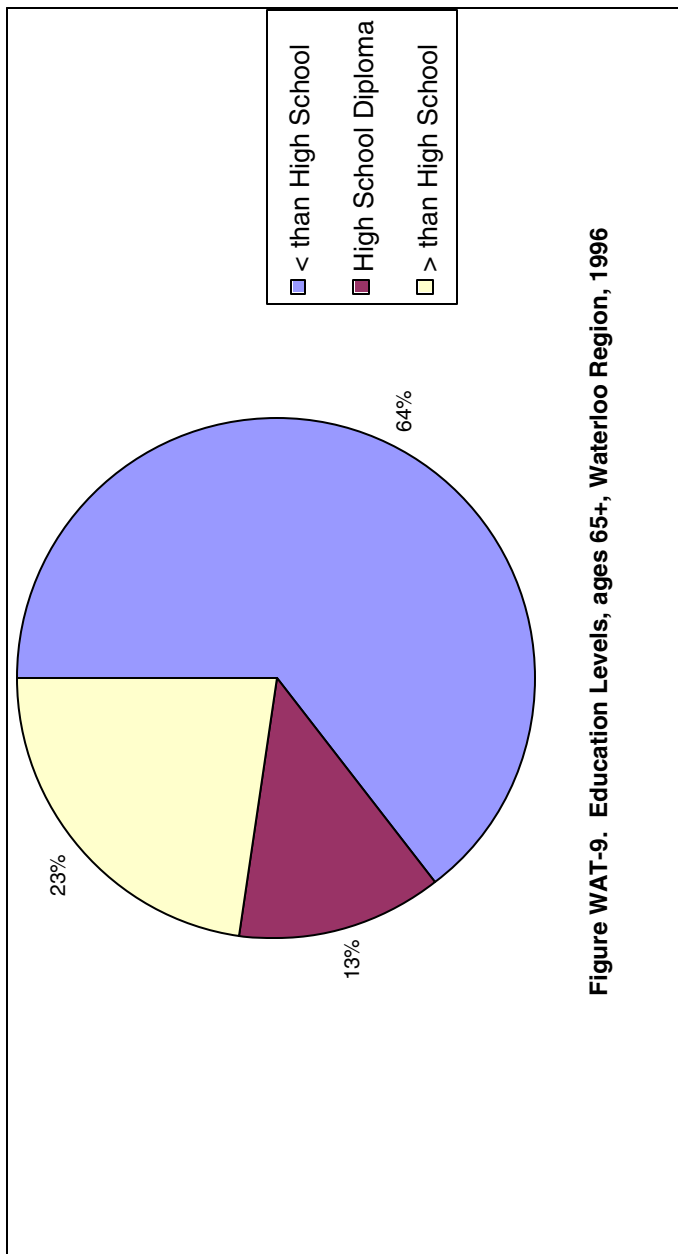


Figure WAT-9. Education Levels, ages 65+, Waterloo Region, 1996

**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)

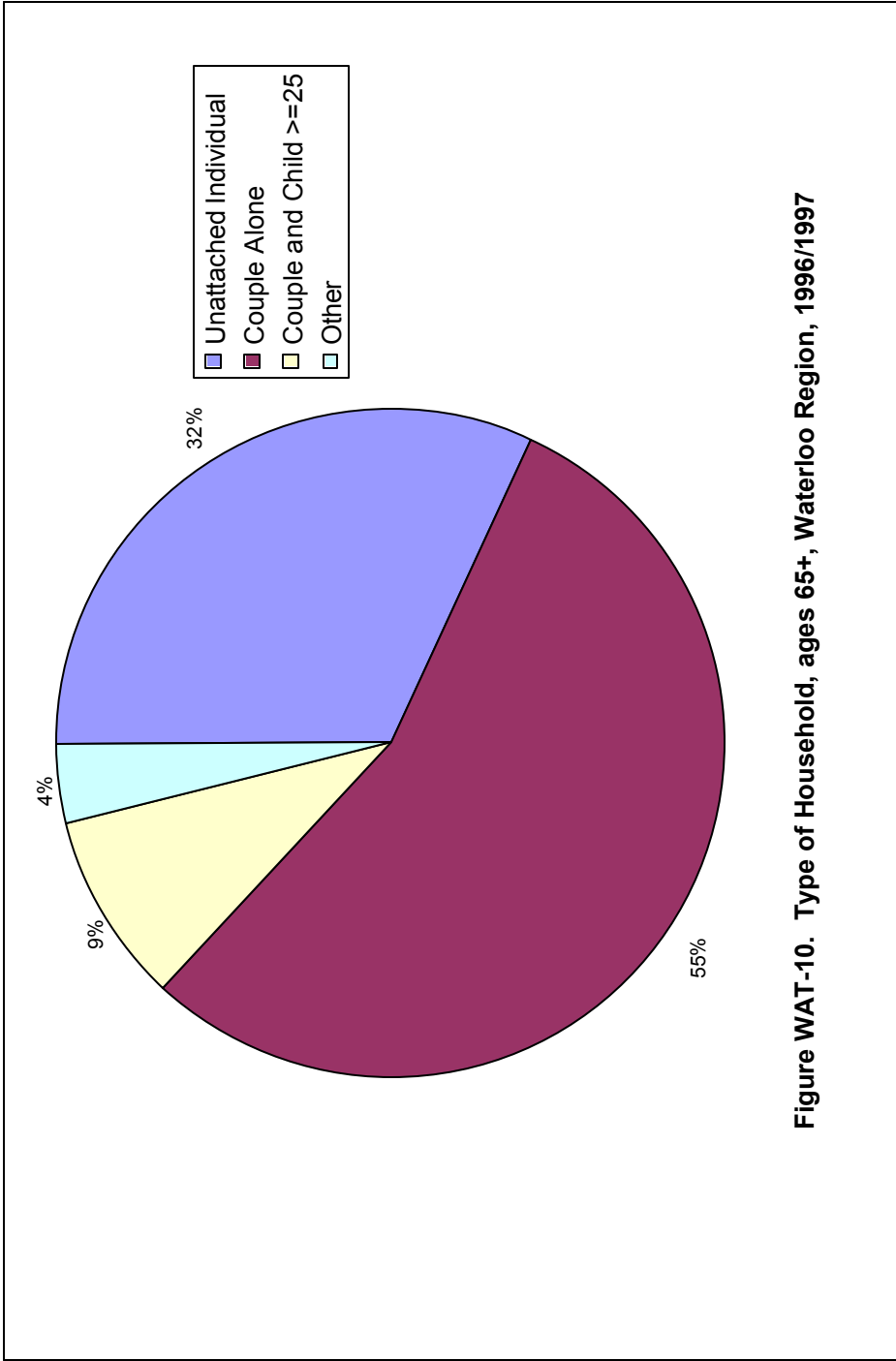
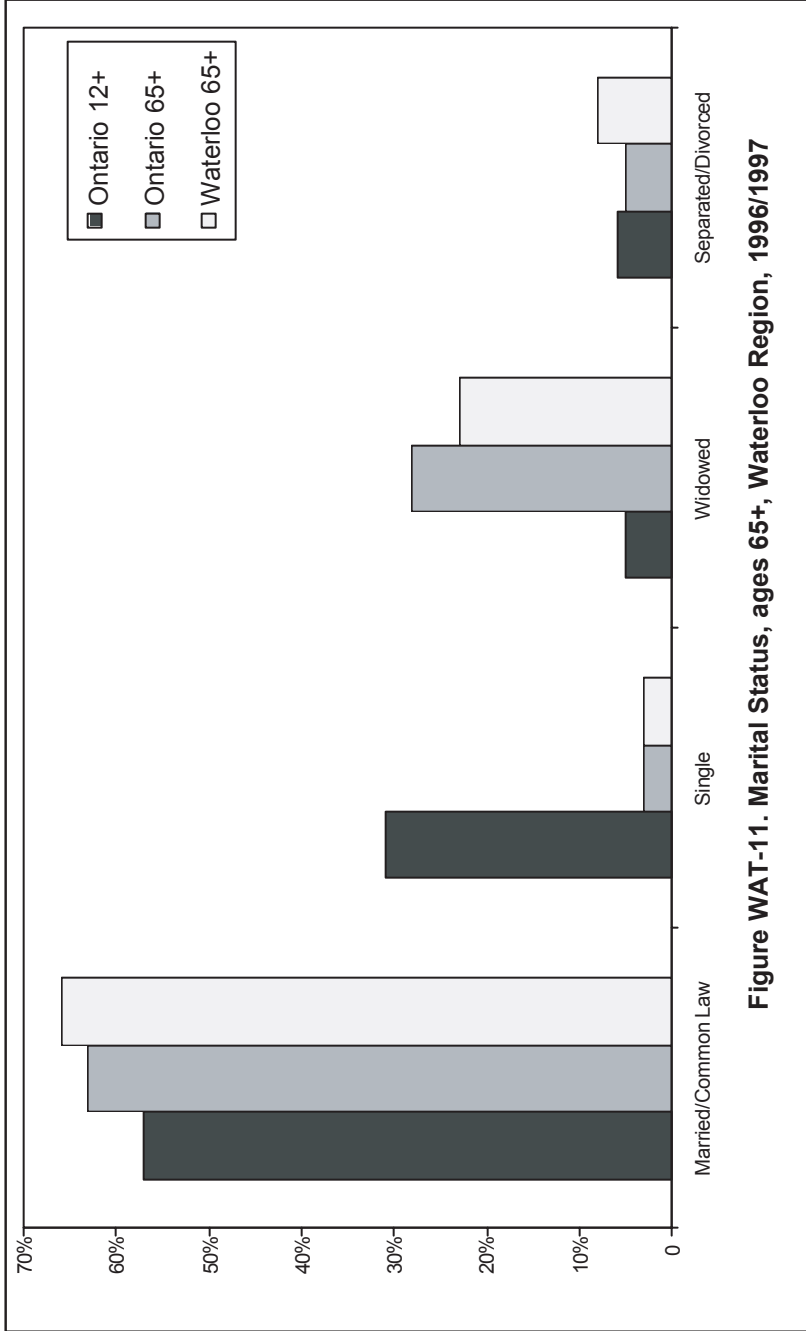


Figure WAT-10. Type of Household, ages 65+, Waterloo Region, 1996/1997

**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

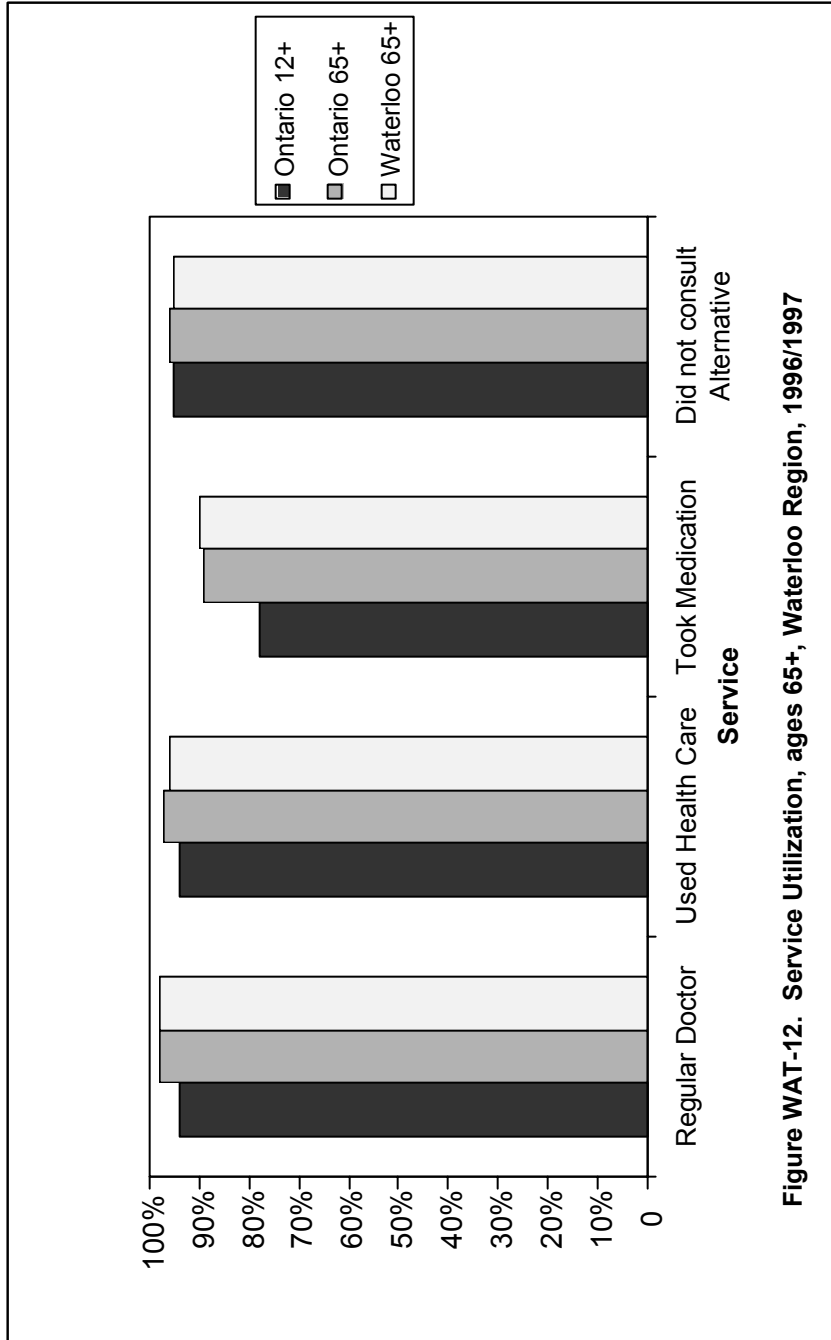


Figure WAT-12. Service Utilization, ages 65+, Waterloo Region, 1996/1997

**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

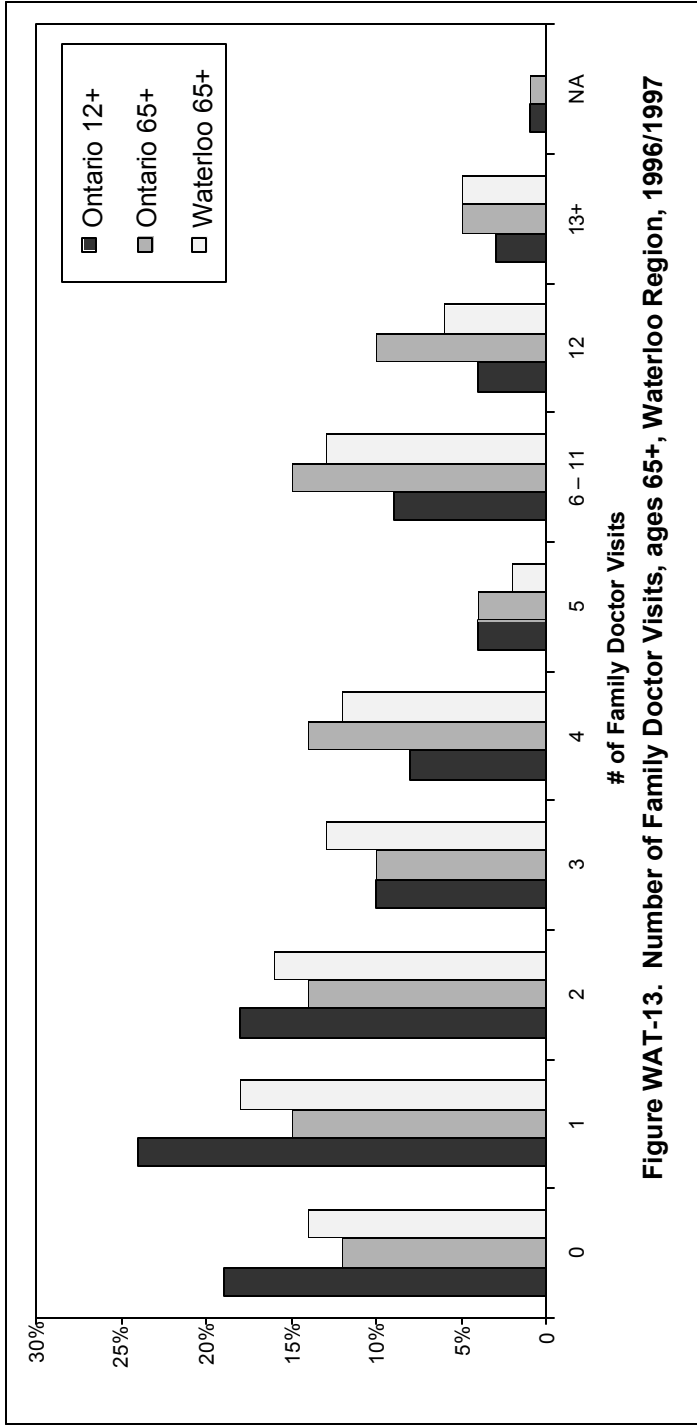


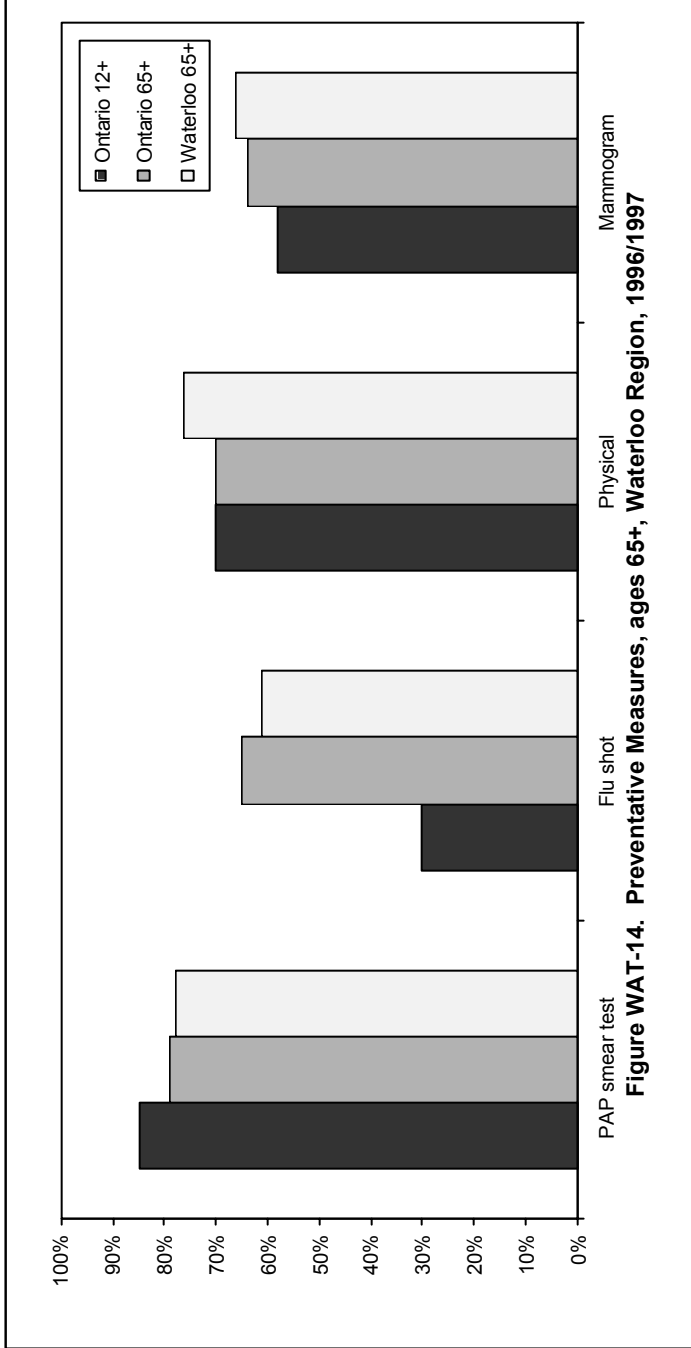
Figure WAT-13. Number of Family Doctor Visits, ages 65+, Waterloo Region, 1996/1997

**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



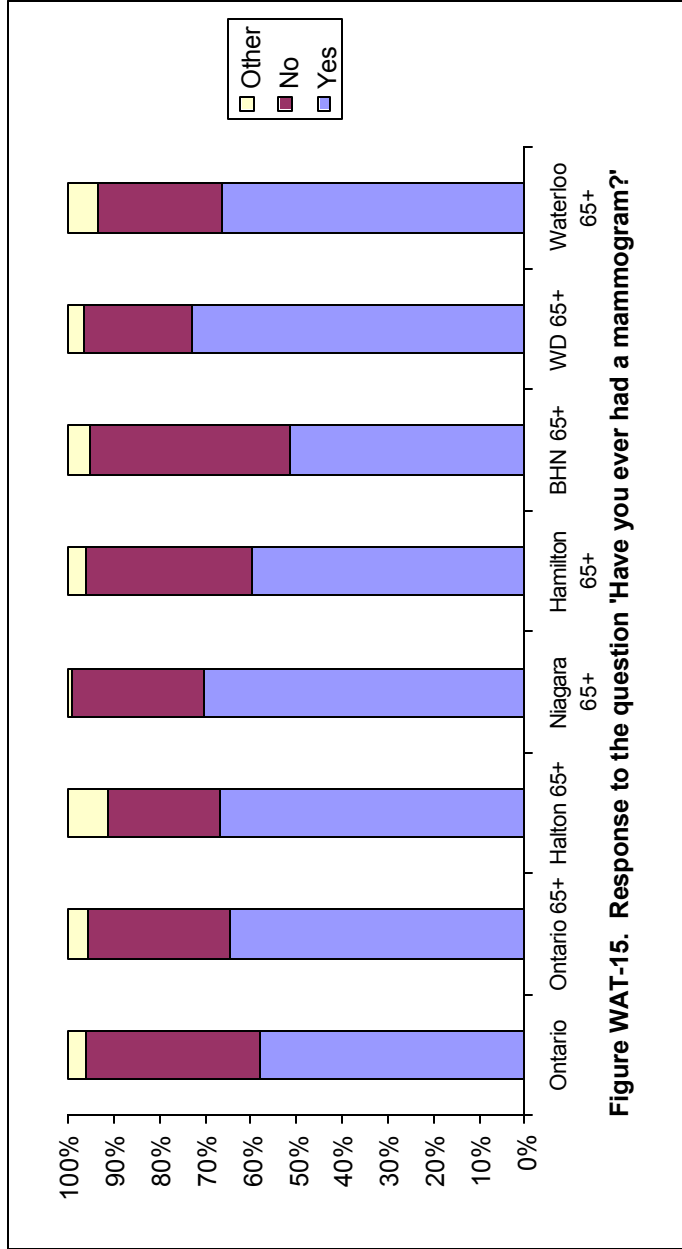
**Table WAT-8: Preventative Measures, Waterloo Region, 1996/1997**

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**

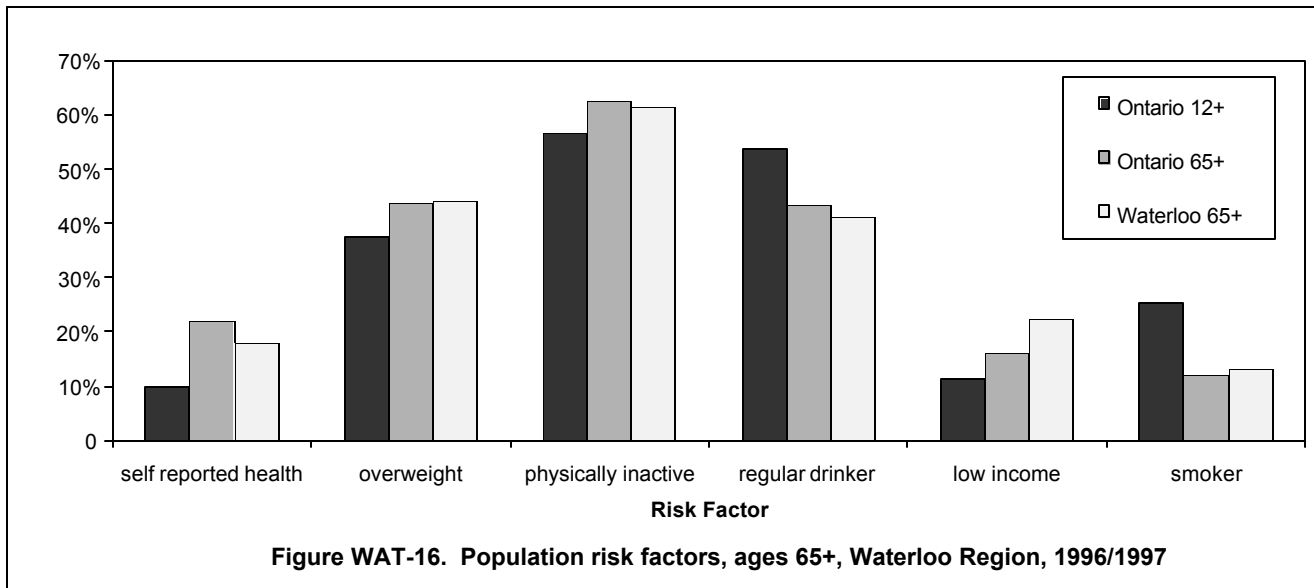
Mammogram data originates from the Ontario Health Survey. Applicable respondents are shown to have answered 'yes,' 'no,' or 'other' ('other' is a combination of numerous responses such as 'I don't know'). Those that have had a mammogram and are of an age between 65 and 72 were further questioned as to '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 <sup>1</sup>
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 <sup>2</sup>
Physically Inactive	Derived from many Questions.	Physically activity leads to a healthier lifestyle <sup>3</sup>
Regular Drinker	Derived from many Questions.	Research has shown alcohol can lead to many health problems <sup>4</sup>
Low Income	Derived from many Questions.	Research has linked low income to mortality <sup>5</sup>
Smoker	Derived from many Questions.	Research has shown smoking can lead to many health problems <sup>6</sup>

Source: The Ontario Health Survey, 1996/1997

\* Results subject to high sampling variability

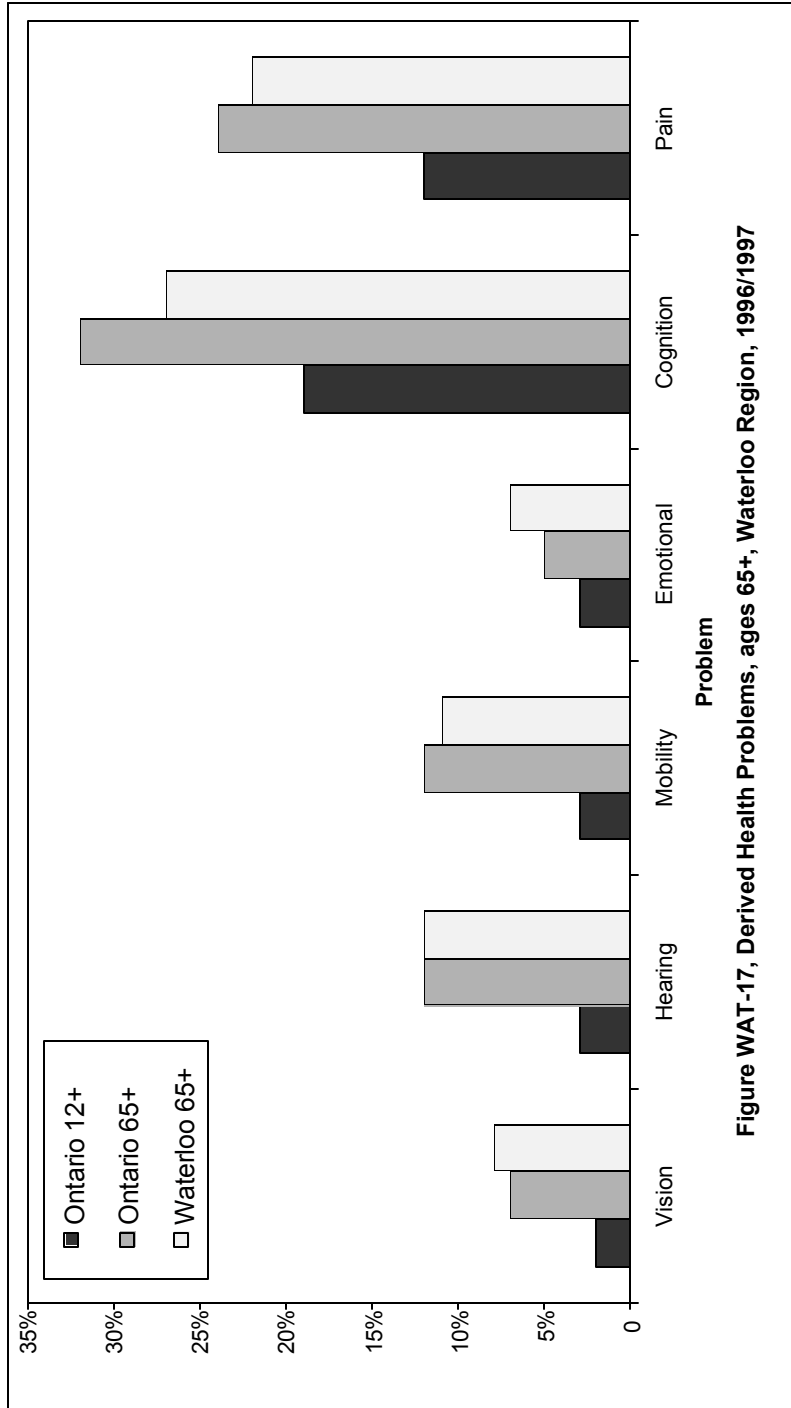
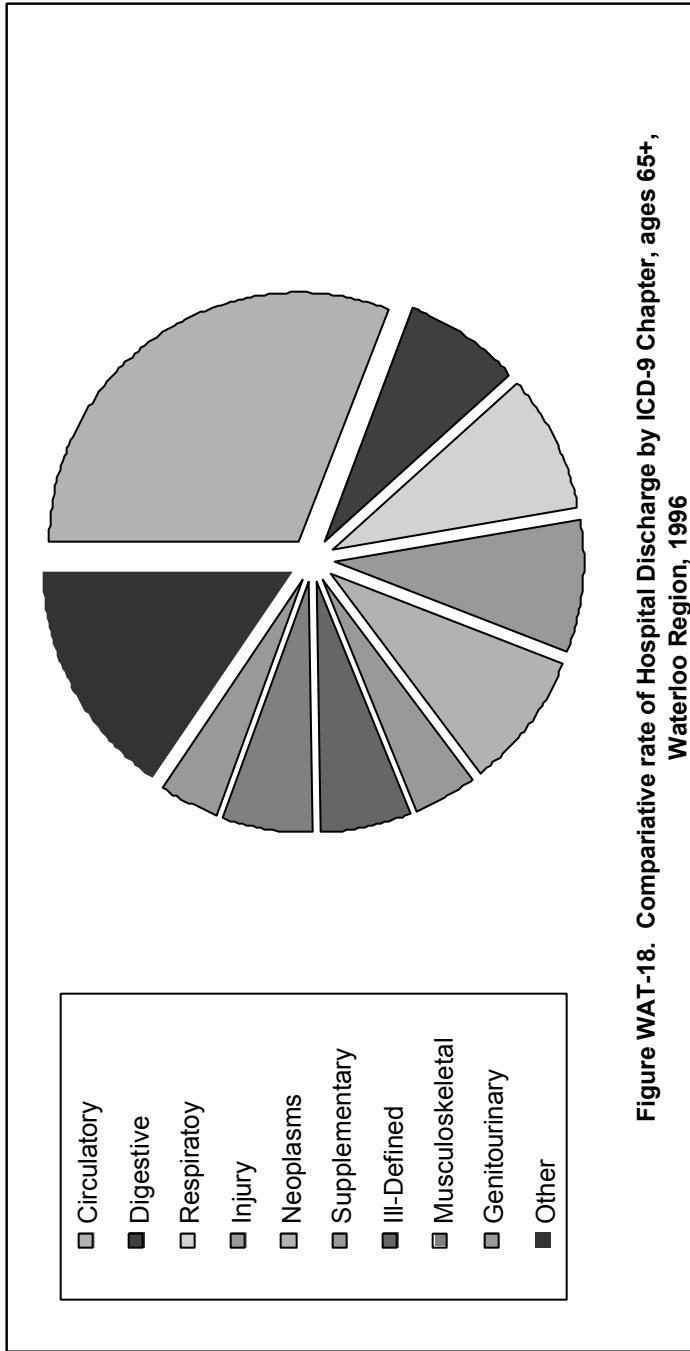


Figure WAT-17, Derived Health Problems, ages 65+, Waterloo Region, 1996/1997

**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%

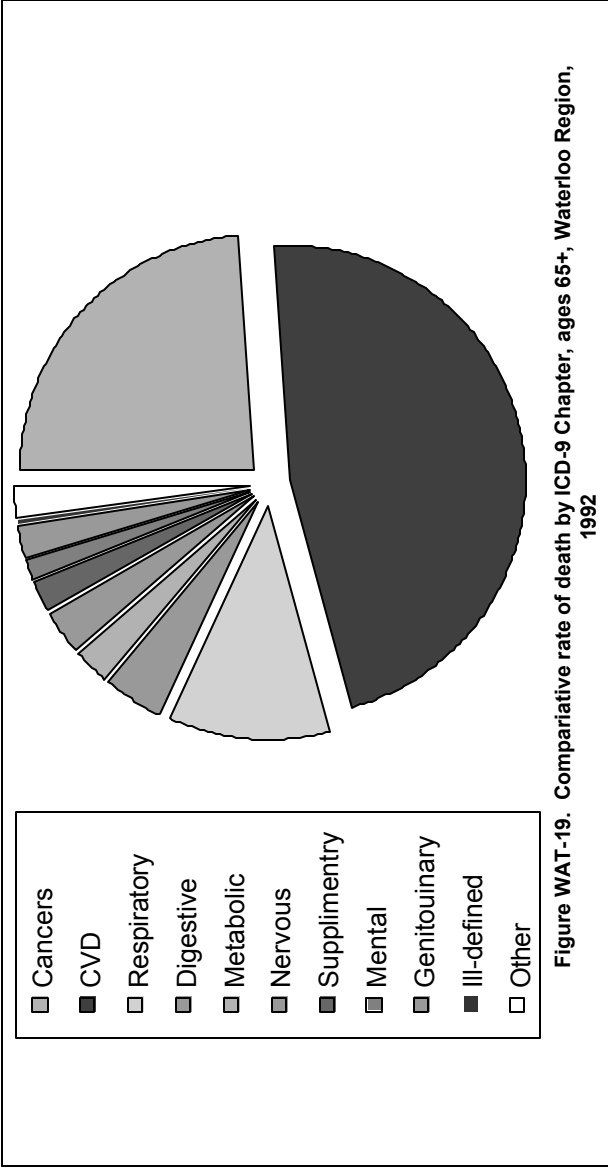
Source: The Ontario Health Survey, 1996/1997  
 \* Results subject to high sampling variability



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

ICD Chapter	Brant	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%

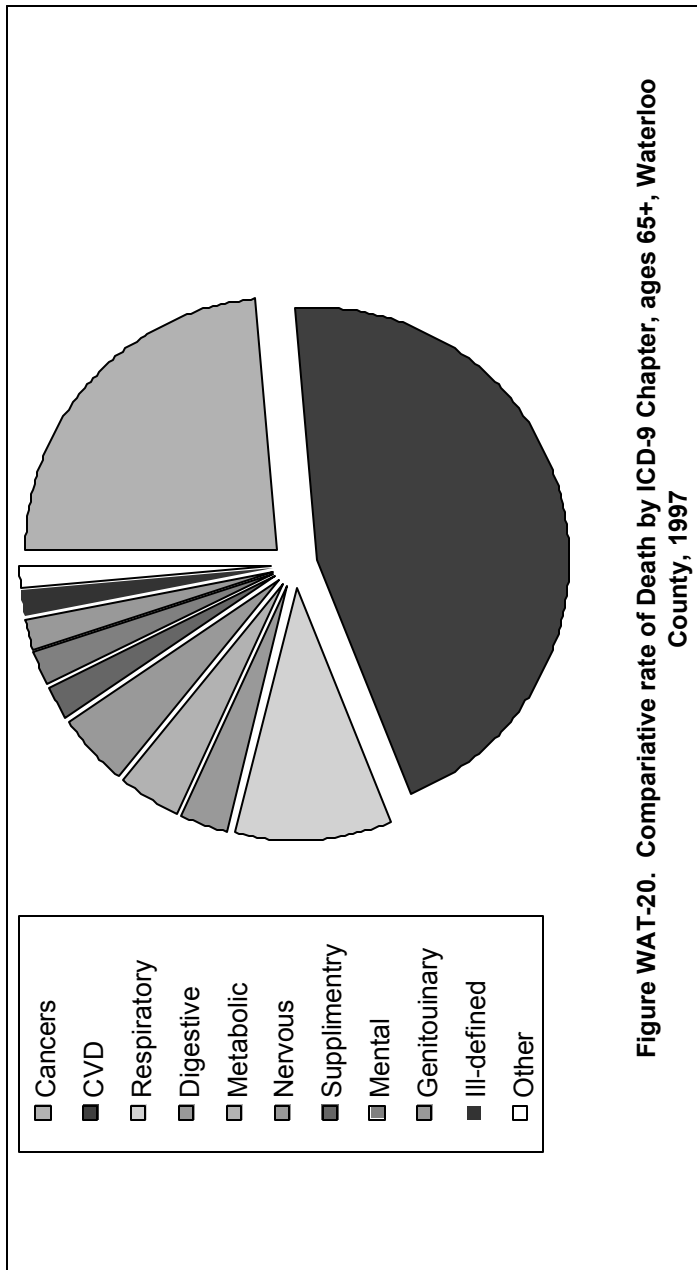
Source: Provincial Health Planning Database, 2002



**Table 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 Genitourinary 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



**Figure WAT-20. Comparative rate of Death by ICD-9 Chapter, ages 65+, Waterloo County, 1997**

**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

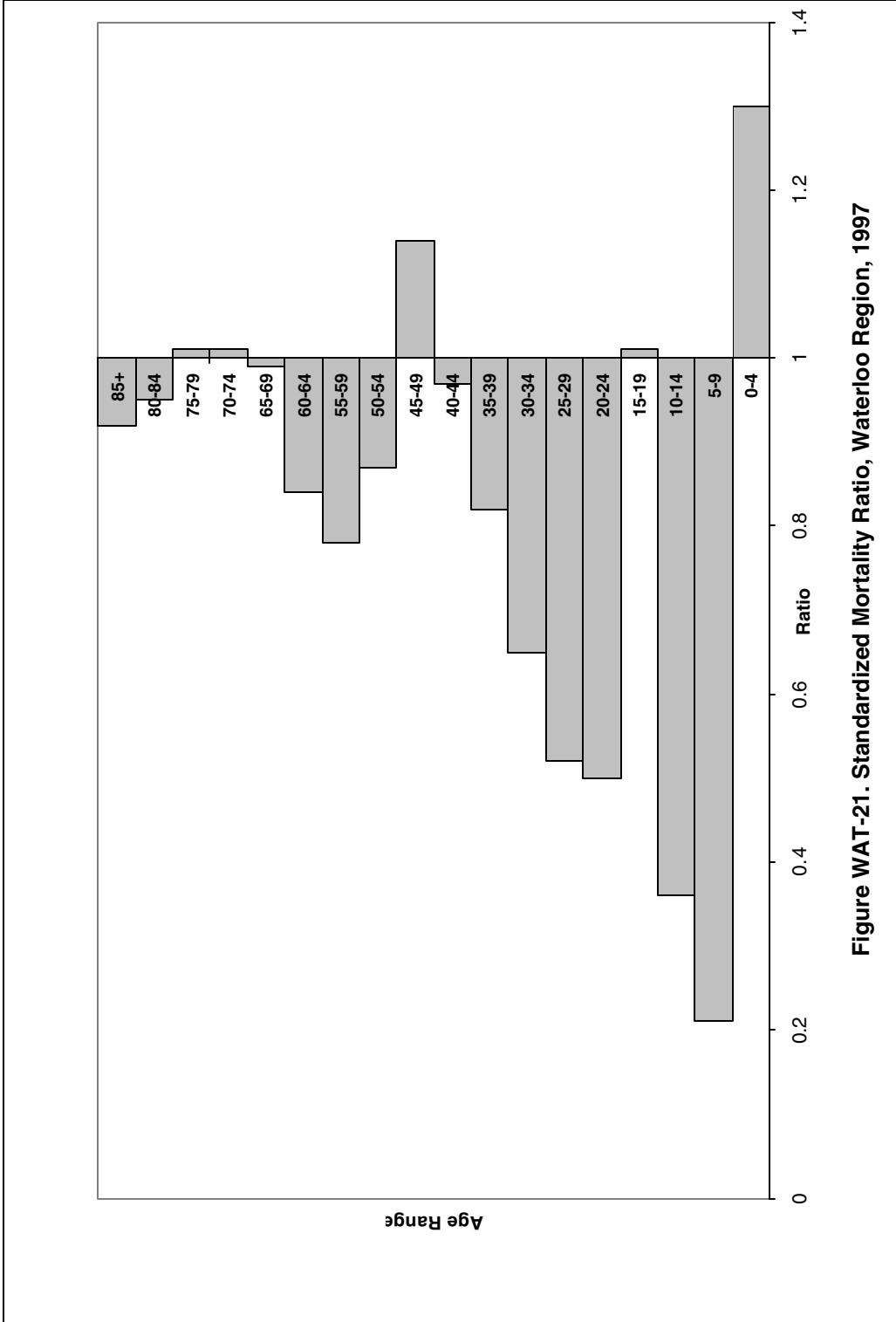
**Notes, Definitions & Formulas**

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**

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