

NIAGARA DISTRICT HEALTH COUNCIL

Key Findings from the Niagara District Health Council's Health System Monitoring Report

SERVING THE PEOPLE OF NIAGARA



PLANNING TO MEET LOCAL HEALTH CARE NEEDS

Overview

- Role of Niagara District Health Council
- Purpose of the Niagara District Health System Monitoring Report
- Indicators of Population Health Status
- Indicators of Access to Health Care
- Addressing Gaps in Services
- Next Steps

Role of Niagara DHC:

- NDHC formed in 1975 – 3rd DHC in Ontario

Key functions/responsibilities:

- Advise MOHLTC of Niagara's health care needs
- Recommend allocation of resources
- Strategic planning, monitoring and evaluation of health care system
- Facilitate & support collaborative, evidence-based planning among local organizations
- Support planning activities of local organizations through provision of information, data and planning expertise, as needed.

Purpose of the HSM Report

- Evaluate health care system performance and the impact of changes in the health care system on the health status of the community
- Inform District Health Council
 - Population health care needs, planning and service priorities
 - Baseline data for ongoing system monitoring
- Enhance awareness among MOHLTC of local health needs and system pressures
- Data and ‘key findings’ to inform local planning activities

Indicators of Health Care Needs:

- Population Health Status

- The determinants of health: demographic and socio-economic characteristics
- Health-related lifestyle behaviours
- Prevalence of chronic health conditions
- Leading causes of morbidity and mortality

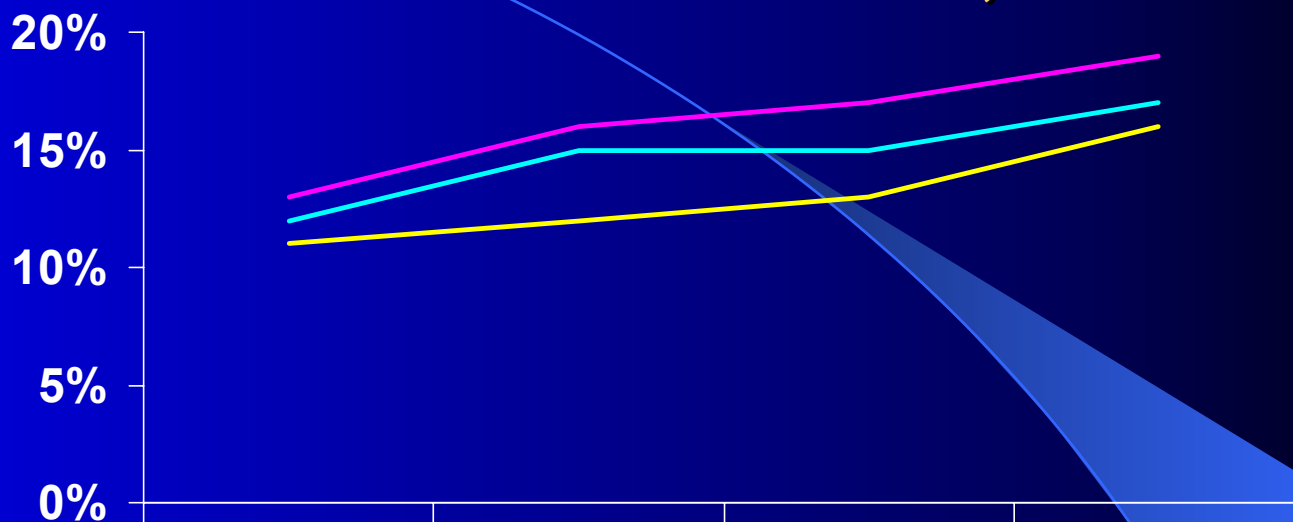
- Access to Health Care

- Service availability
- Family physician vacancies
- Hospital utilization: rates of ER use, inpatient hospitalization and LOS, proportion of ALC patients
- Waiting lists for LTC beds
- Service capacity of community agencies

Niagara's demographic characteristics affect health status:

- 17% of population aged 65+, Niagara has oldest age structure in Ontario; a preferred retirement destination
- Population Projections: 431,000 in 2004; lower rates of growth compared to provincial average, but higher in rural areas and among older age groups
- Because the rate of utilization of health care increases with age, Niagara displays higher crude rates of hospitalization compared to average
- ***But, Niagara's age-standardized rates of hospitalization are also higher than average***

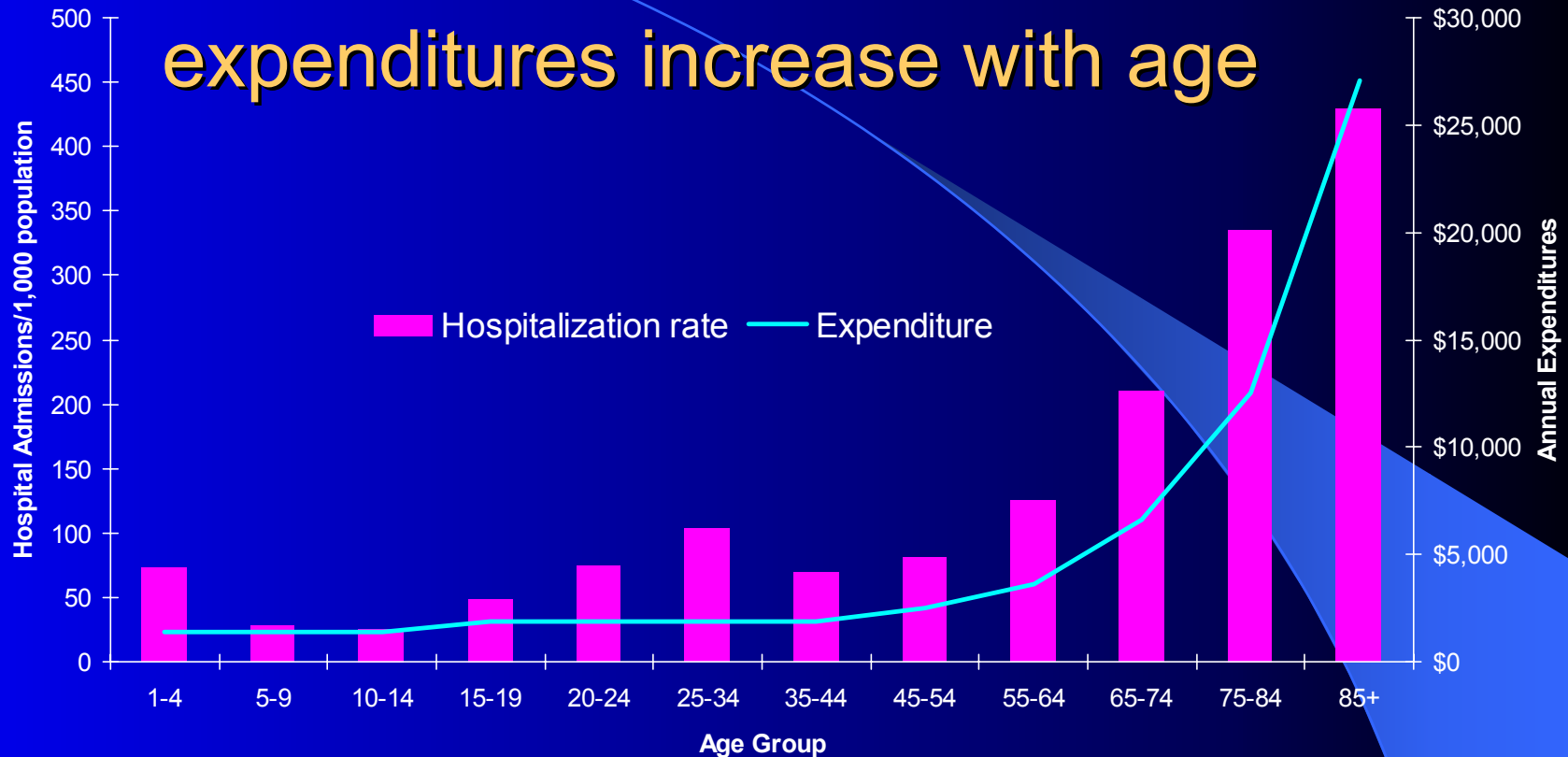
Percentage of Total Population Aged 65+, Niagara, Central South and Ontario, 1986-2016:



	1986	1996	2006	2016
Niagara	13%	16%	17%	19%
Central South	12%	15%	15%	17%
Ontario	11%	12%	13%	16%

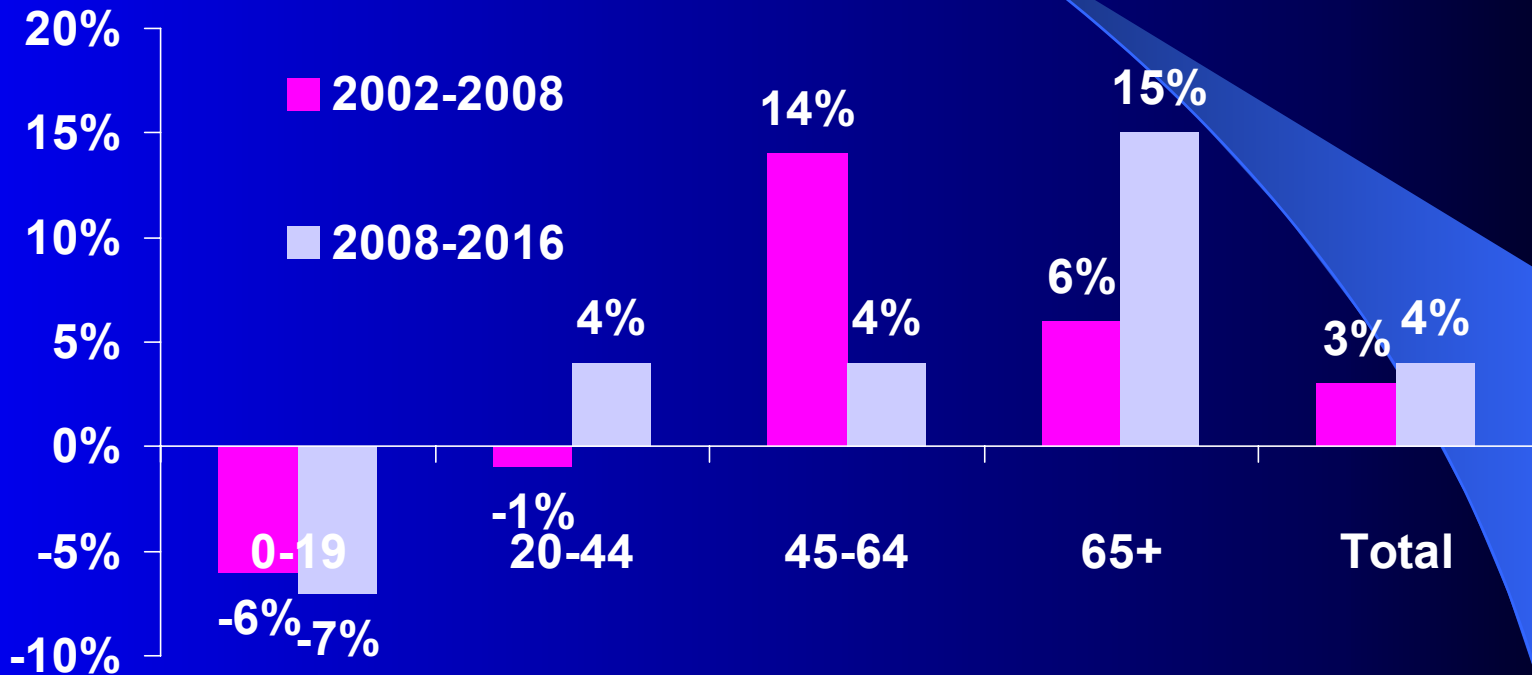
With 17% of the population aged 65+, Niagara is now experiencing the associated demand for health care that most other areas of the province will not see until 2019.

Rate of health care utilization and expenditures increase with age



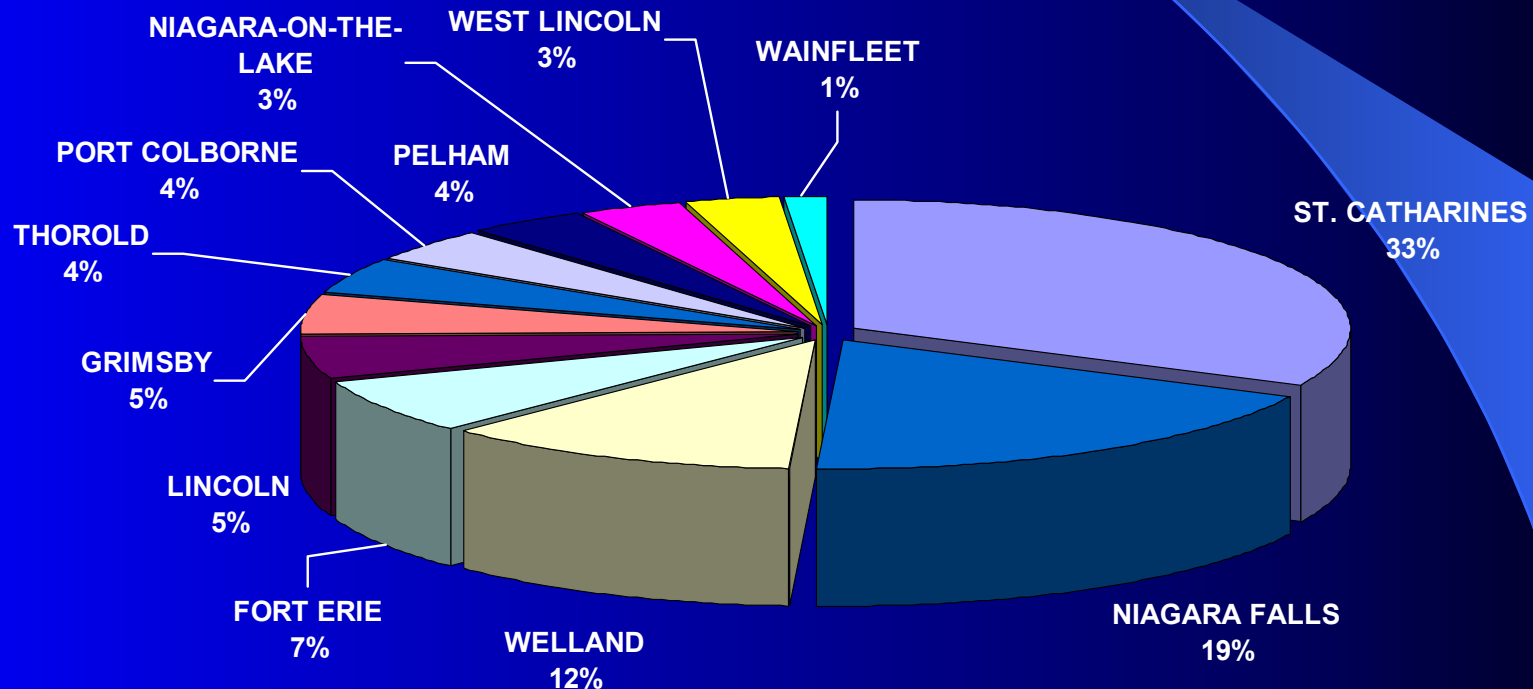
- The rate of hospitalization at age 40 is 70/1,000 population and rises to 430/1,000 by age 85, an increase of 514%.
- Similarly, total annual per capita expenditures for health care at age 40 are \$1,900/year and rise to \$27,100 by age 85, an increase of 133%.

Growth in Niagara's population by age group, 2002-2016:

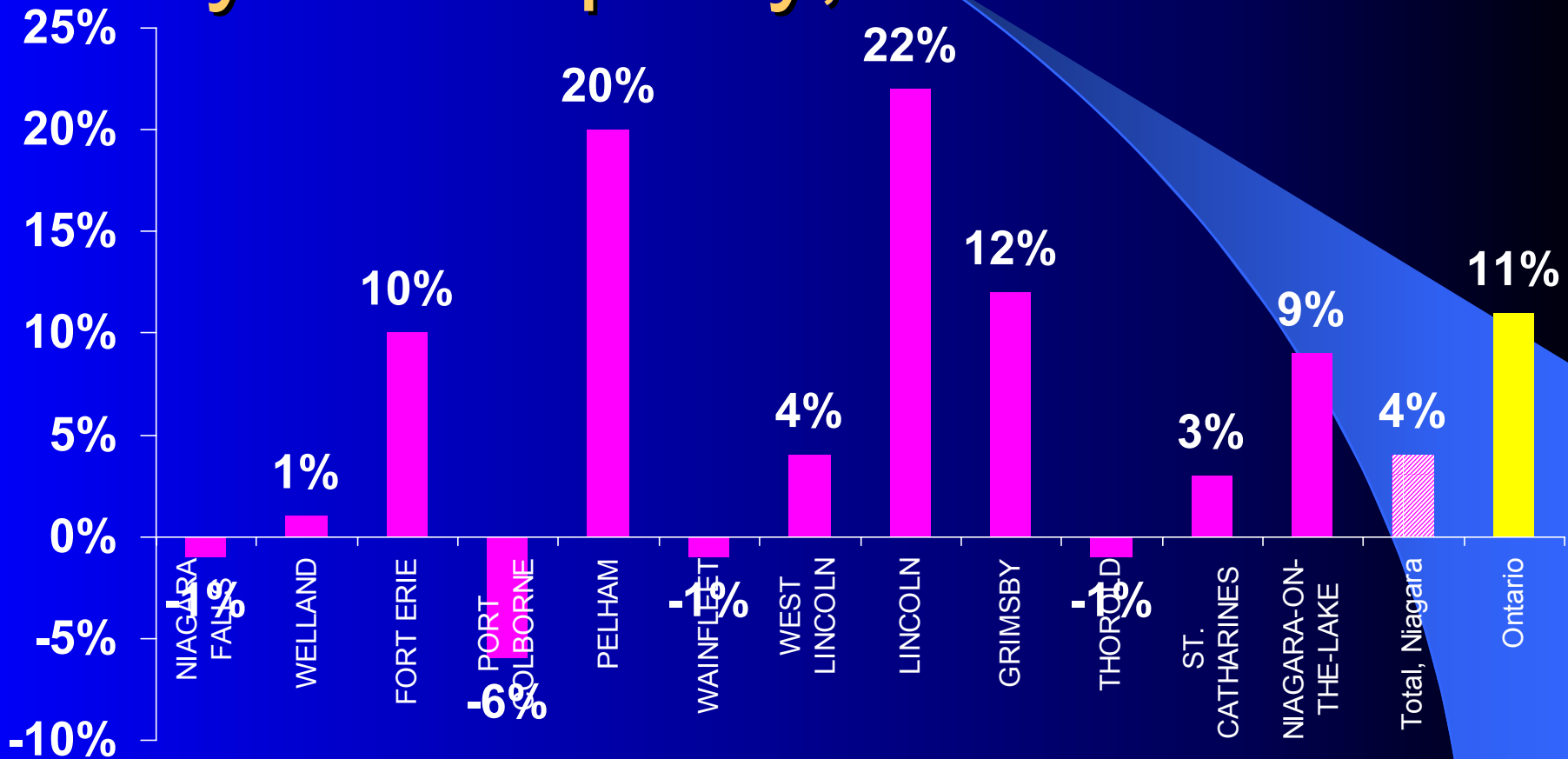


Niagara's health care system is challenged by the volume, range and complexity of needs associated with the growth in the elderly population

Distribution of Niagara's population, by municipality, 2003:



Projected Growth in Niagara, by municipality, 2003-2013:



Niagara's socio-economic characteristics affect health status:

- Lower incomes - affects access to housing and healthy food
- Higher proportion of seniors living alone – the lack of social support puts seniors at higher risk of poor health
- Lower proportion of university educated – affects income and independence which contribute to better health
- Lack of affordable and supportive housing – mental health and LTC
- Lack of public transportation in rural areas and linkages

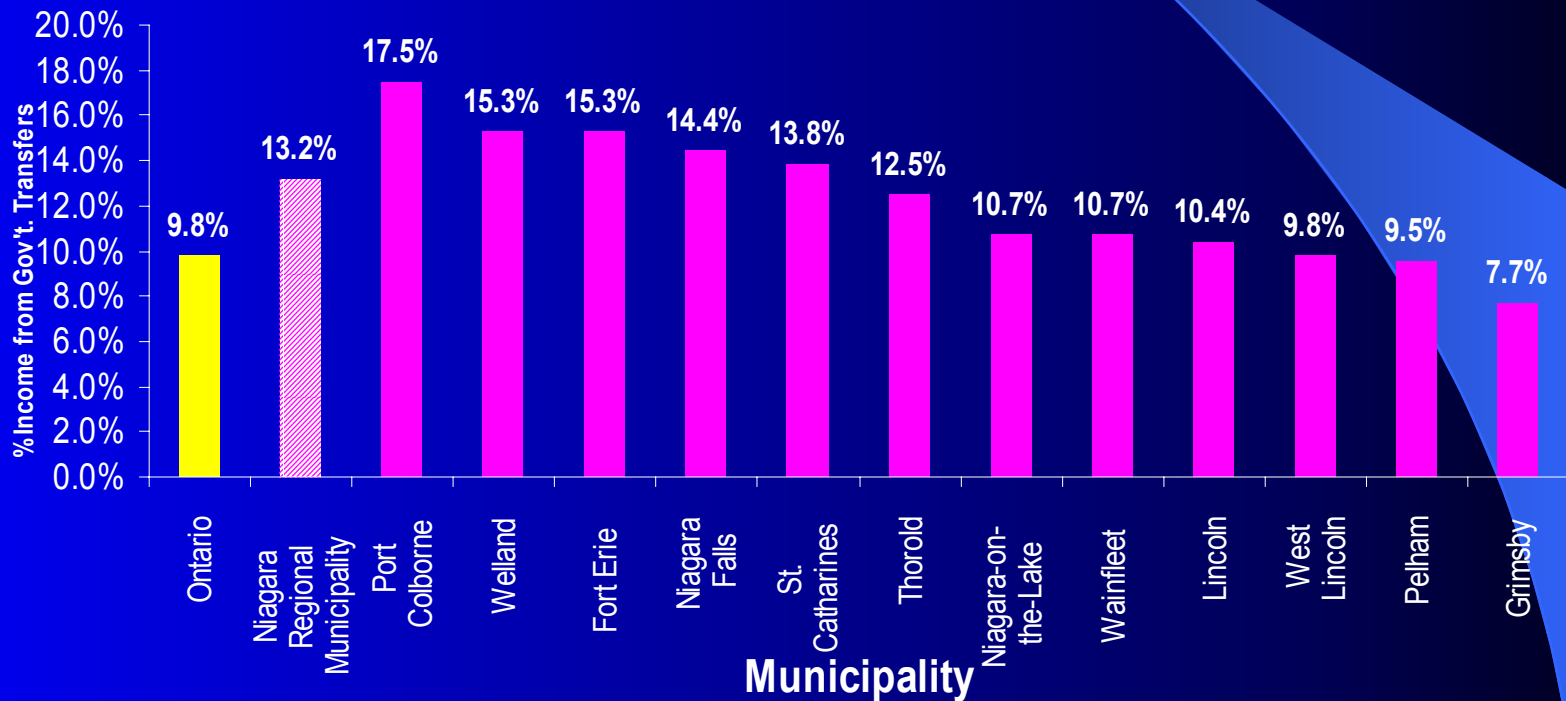
Prevalence of preventable health conditions, chronic illness and disability is higher among low income groups, the elderly and those with less education.

Median Household Income, Niagara and Ontario, 1996-2001:

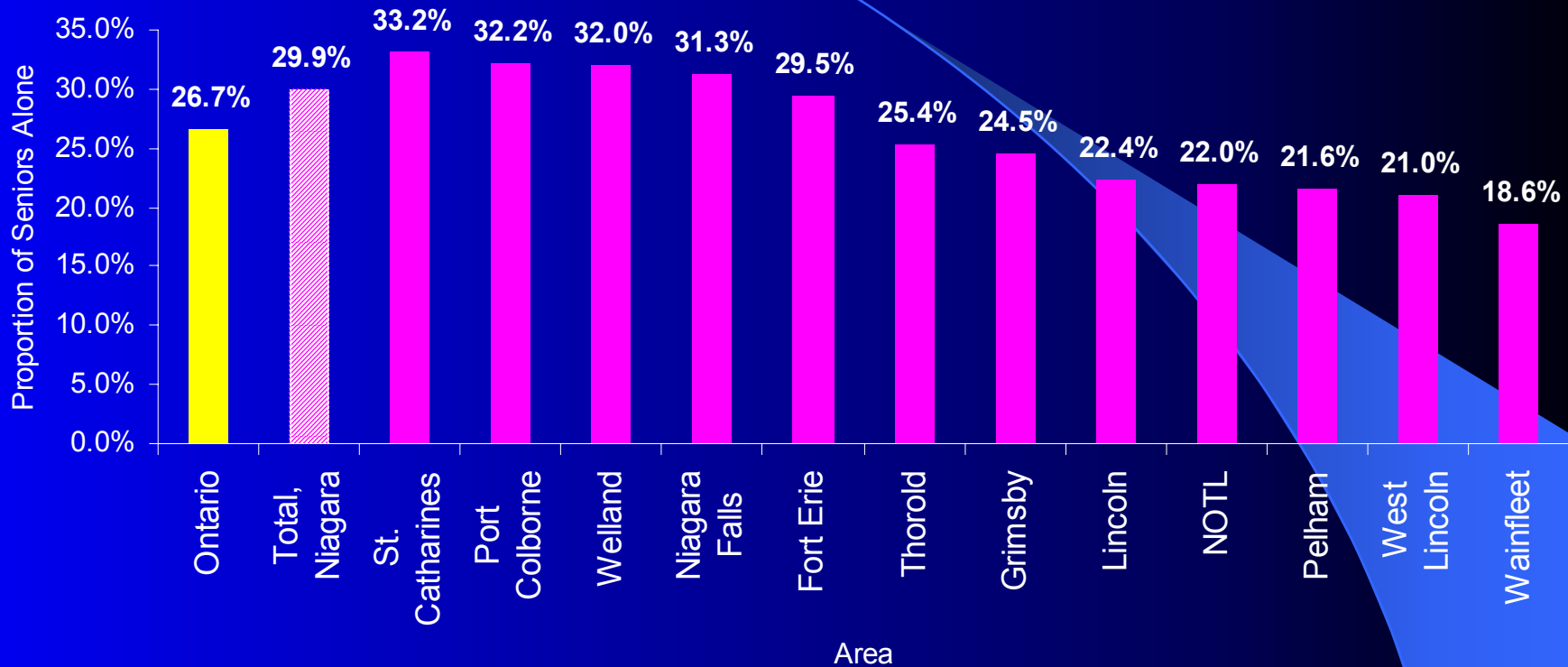
	Median Household Income 1996	Median Household Income 2001	<i>% change 1996-2001</i>
Niagara	\$41,063	\$47,224	15%
Ontario	\$45,155	\$53,626	18.7%

Source: 1996 Census Data; 2001 Census Data, Statistics Canada

% of Income from Government Transfers, Niagara and Ontario, 2001:



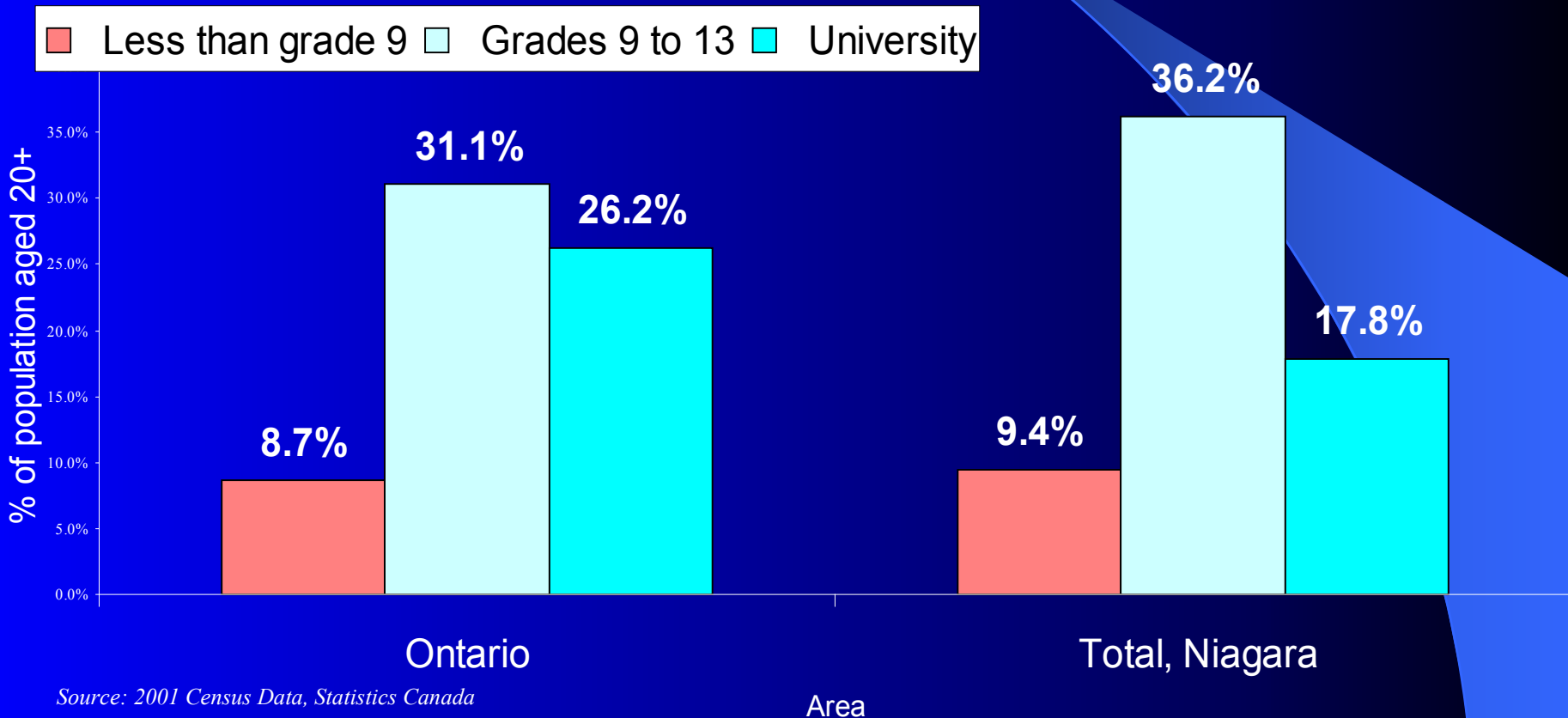
Proportion of Seniors Living Alone, Niagara and Ontario, 2001:



Incidence of low income is three times as high among seniors living alone, compared to the average family.

Source: 2001 Census Data, Statistics Canada

Niagara Residents' Years of Education, 2001:



Source: 2001 Census Data, Statistics Canada

Area

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Niagara's lifestyle behaviours affect health status:

- 21% daily smokers (Ont = 20%)
- 49% physically inactive (Ont = 49%)
- 64% consume fruits/veg. < 5x/day (Ont = 61%)
- 6% extremely stressful life (Ont = 4%)
- 8% probable risk of depression (Ont = 7%)

Smoking, physical inactivity, unhealthy diet and stress contribute to chronic disease

Niagara's health status indicators:

- High and increasing prevalence of chronic health conditions, (e.g., diabetes, obesity, hypertension)
- Higher than average rates of ER use
- High age-adjusted rates of hospitalization for '*ambulatory care sensitive conditions*', as well as heart disease, asthma, fractures/dislocations, renal failure.
- Age-adjusted rates of hip and knee replacements and dialysis higher than average
- High age-adjusted rates of premature death due to heart disease, stroke, cancer, respiratory diseases.

Prevalence of Chronic Health Conditions, Niagara and Peer Group Regions, 1996 and 2001:

	Arthritis	High Blood Pressure	Diabetes
Age Group	65+	65+	65+
Niagara, 1996	47.3%	35.6%	11.4%
Niagara, 2001	45.5%	41.9%	15.5%*
Health Region Peer Group, 2001	47.4%	38.6%	14.0%
Niagara, 2002	N/a	44.8%	17.2%

The prevalence of chronic health conditions is higher in the elderly, in populations with lower incomes and education, and in populations which have inadequate access to primary care.

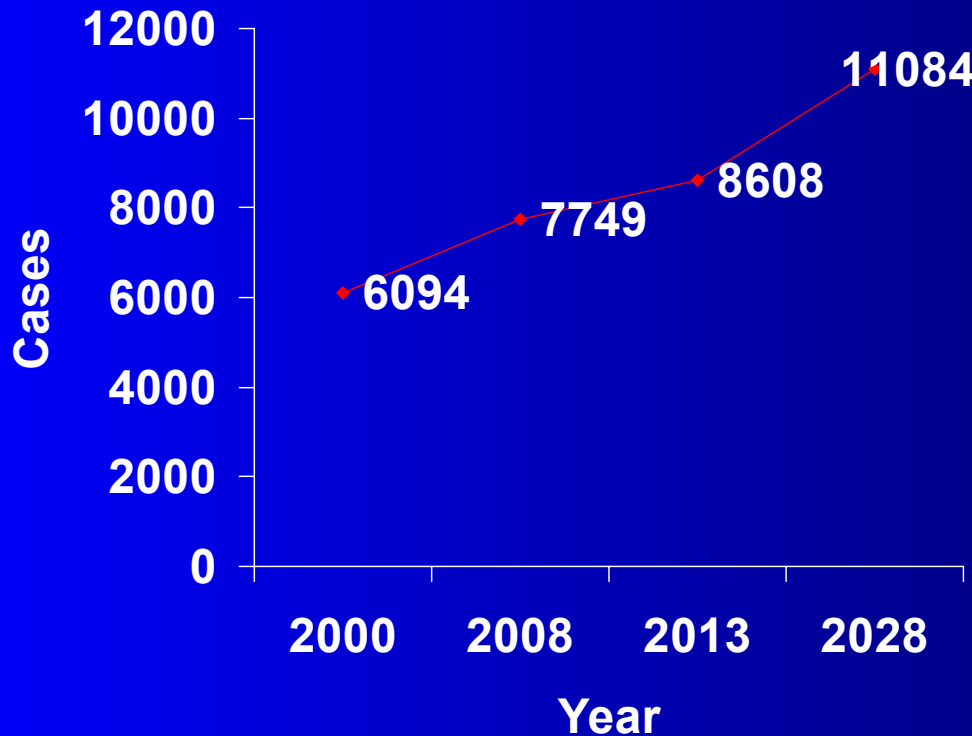
* Sampling variability, must be used with caution. Source: Ontario Health Survey, 1996; Canadian Community Health Survey, 2001, Statistics Canada; Rapid Risk Factor Survey, 2002.

Prevalence of End-Stage Renal Disease (ESRD) and Dialysis:

	ESRD prevalence	Hemodialysis prevalence	Peritoneal Dialysis prevalence	Age-standardized rates of Dialysis in the diabetes population aged 20+
Niagara	992/M	520/M	153/M	618/100,000*
Ontario	865.8/M	431/M	106/M	474/100,000

- *Niagara's rate of dialysis is 30% higher than provincial average and 4th highest in Ontario out of 15 DHC areas.
- Niagara has higher than average rates of diabetes, hypertension and cardiovascular disease, the leading risk factors for ESRD.
- Research shows that populations with poor socio-economic status and inadequate access to primary care display higher rates of ESRD.
- Niagara's hospital-based hemodialysis capacity must double by 2008 and increase a further 65% by 2013 in order to meet projected needs.

Prevalence of Dementia in Niagara, 2000-2028



- 75-85% of these cases are Alzheimers
- Individuals with dementia use health care services (I.e., physician, LTC services and drugs) in a similar pattern to patients without dementia, although at a higher level, subsequently affecting the need for health care resources. (Canadian Journal on Ageing, 2003)

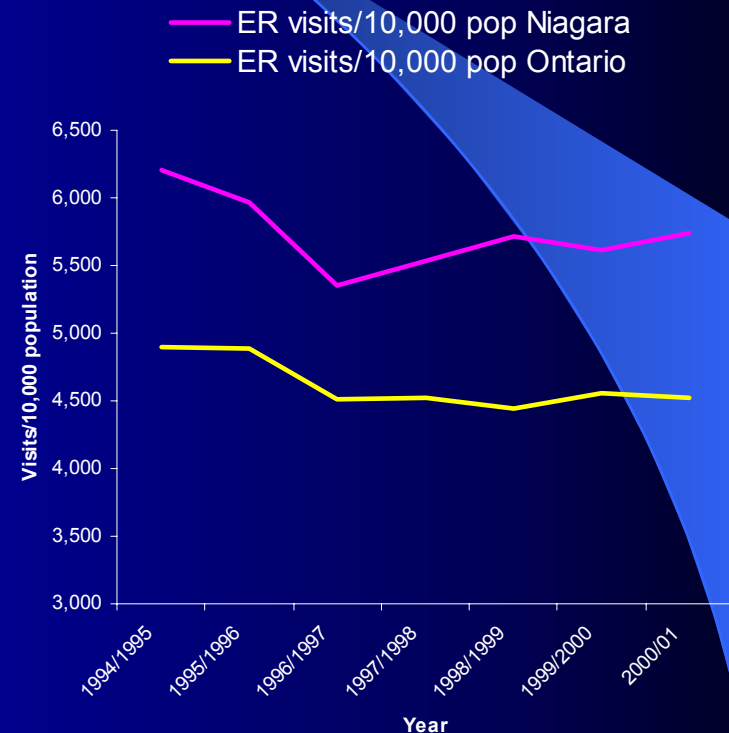
* Hopkins Study 2002

Access to Health Care:

- 127 family physicians and 35 psychiatrists needed
- Lower than targeted rates of screening for cancer
- 58 community MH case managers needed
- Community-based LTC agencies report unmet service needs, lengthy waits, lack of adequate and secure funding and staff/volunteer recruitment difficulties
- Local hospitals provide vast majority of inpatient and day procedures, but majority of tertiary care goes out
- Lower than targeted rates of cardiac catheterization, revascularization and rehabilitation
- Higher age-adjusted rates of alternate level of care (ALC) patients in hospital; lengthy wait for LTC bed

Rates of Emergency Department Use, Niagara and Ontario 1994/95-2000/01:

- Niagara rates 26% higher than provincial average; 52% higher among diabetes population.
- In 2002/03, while 19% of all patients visiting the EDs in Niagara hospitals were aged 65+, >50% of patients admitted via the ER were aged 65+



Source: MOHLTC Management Information System, Criticall

Age adjusted Rates of Hospitalization due to Ambulatory Care Sensitive Conditions/100,000 population, Niagara, Ontario and Canada, 2000/01:

<i>Rate per 100,000</i>	Niagara	Ontario	Canada
Hospitalizations for Ambulatory Care Sensitive Conditions <i>(i.e., conditions for which hospitalization may be unnecessary if primary care was available in the community, e.g., Diabetes, MH & depression, Alc/Drugs, High BP, COPD)</i>	481* <i>55% higher than provincial average</i>	311*	370

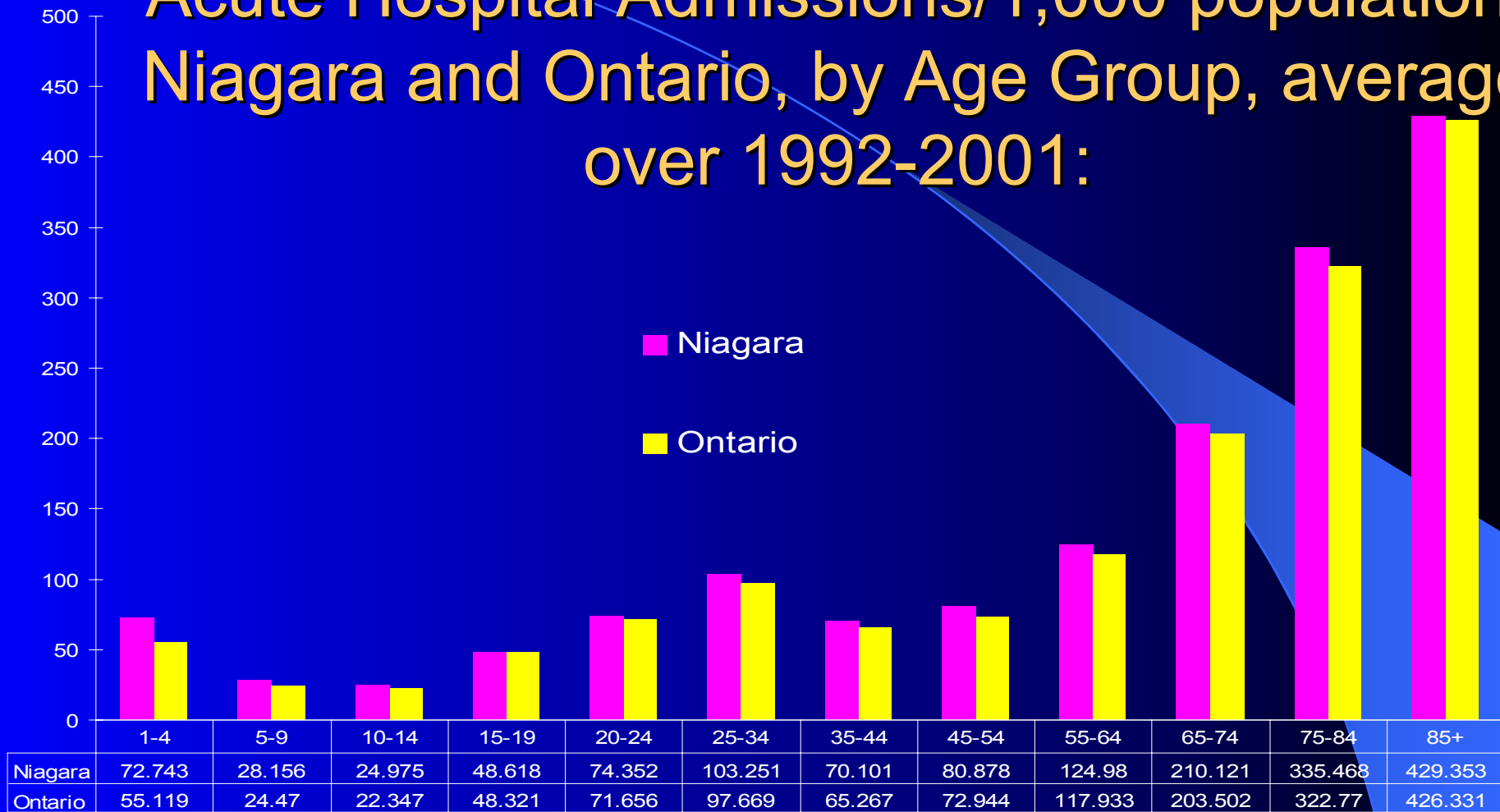
*** Indicates statistically different than the average.**

Source: Statistic Canada/CIHI Health Indicators Report., 2003..

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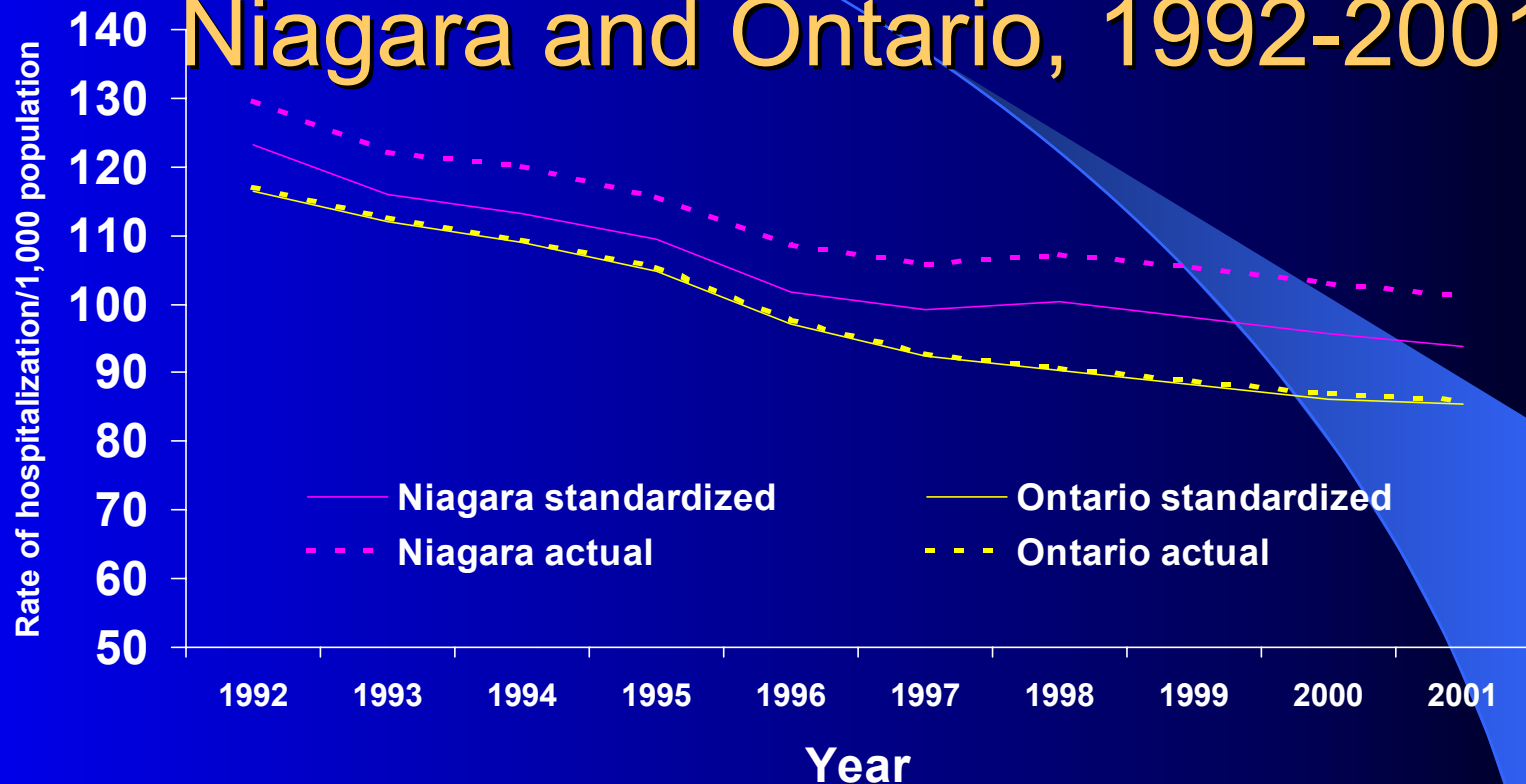
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Acute Hospital Admissions/1,000 population, Niagara and Ontario, by Age Group, average over 1992-2001:



Niagara's age-specific rates of hospitalization are higher than the provincial average for every age group.

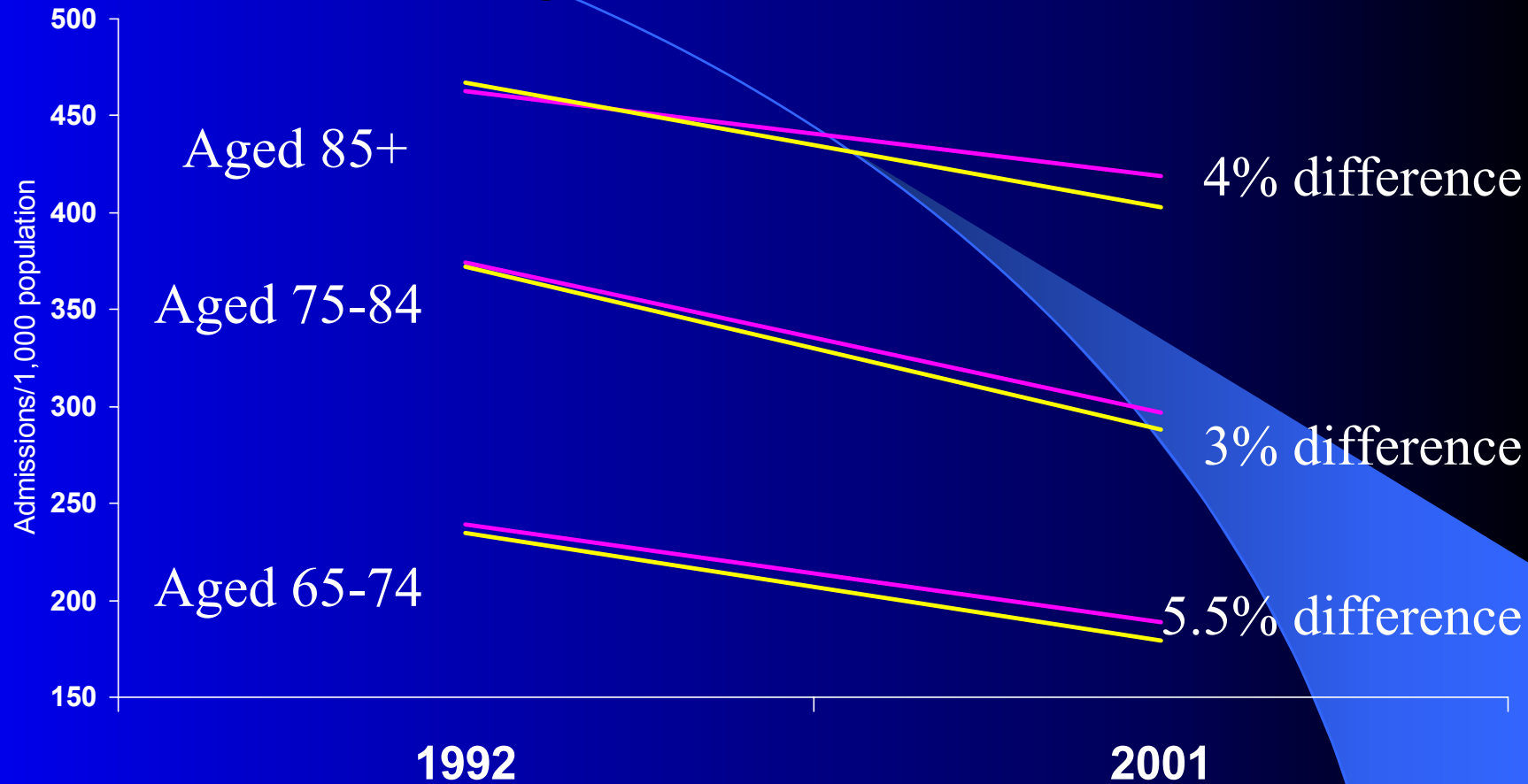
Actual and age-standardized rates of hospitalization/1,000 population, Niagara and Ontario, 1992-2001:



In 2001/02, Niagara residents' actual hospitalization rate was 17% higher, and the age-standardized hospitalization rate 10% higher, when compared to the provincial average.

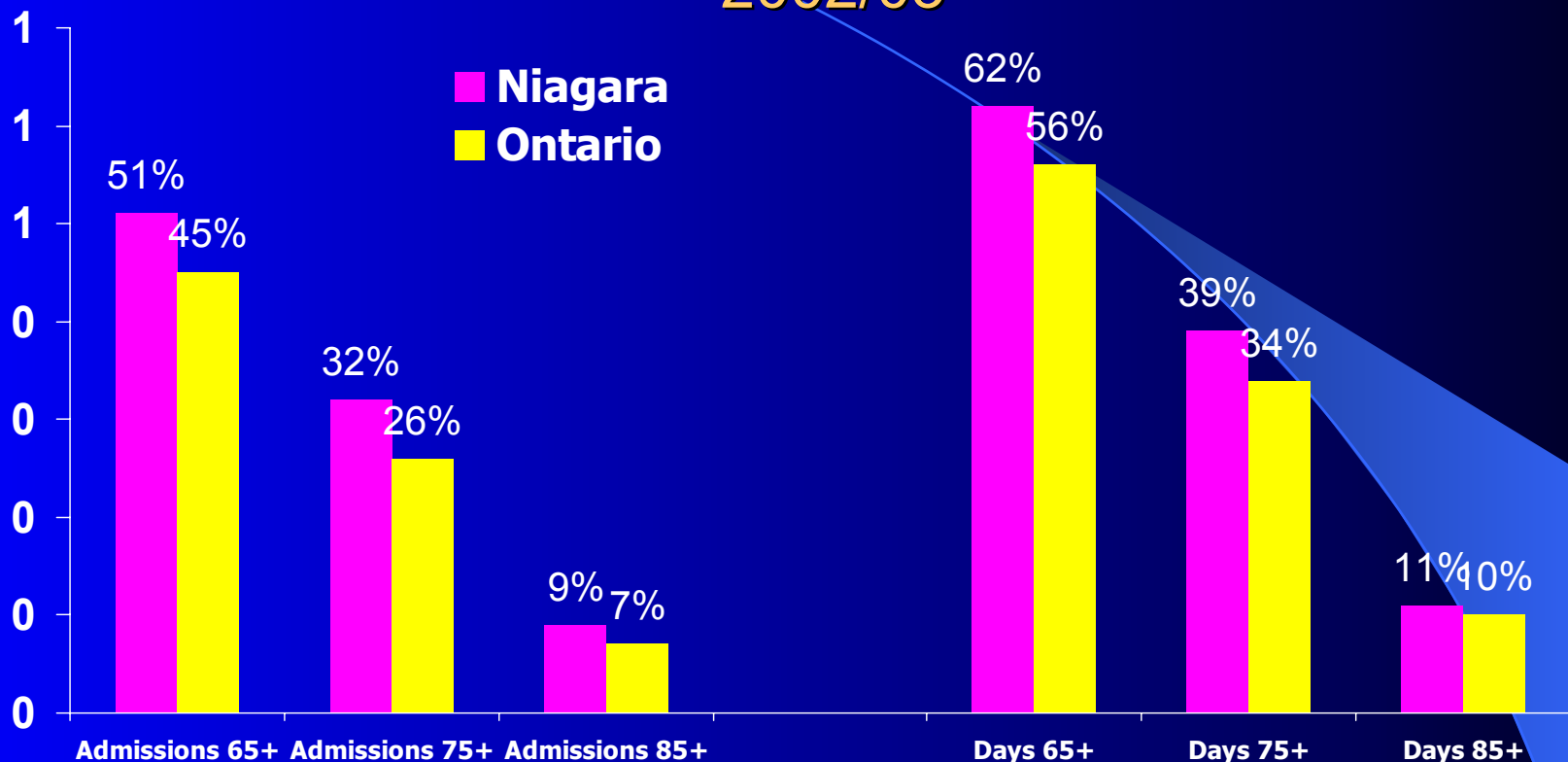
Source: CIHI Discharge Data, NHIP Database.

Age-specific hospital admission rates/1,000 population, residents of Niagara & Ontario, 1992-2001



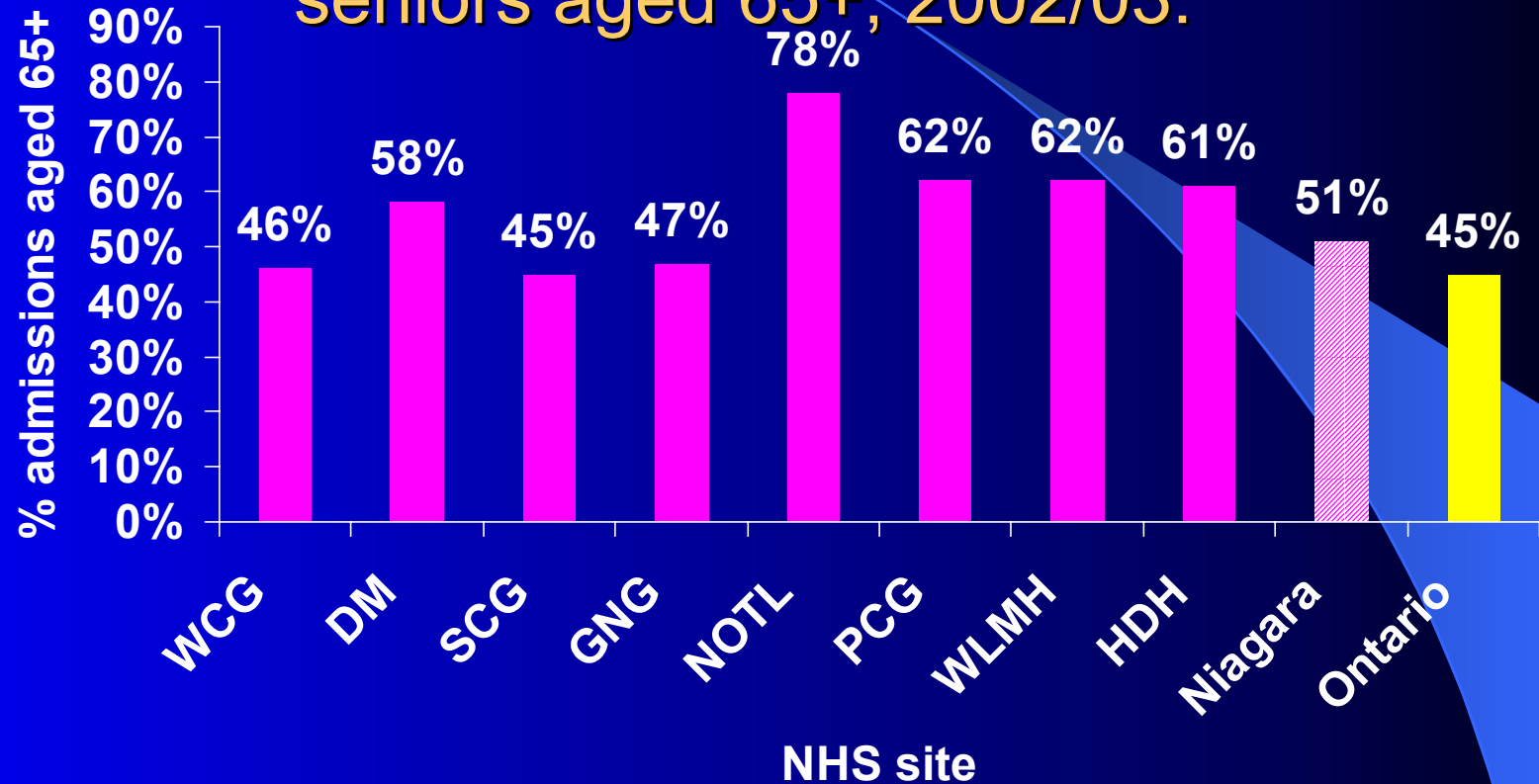
In 1992, Niagara residents' rates of hospitalization were almost exactly the same as the provincial average for those aged 65+. Since that time, while consistent with province-wide trends in declining inpatient admission rates, Niagara's rates are now higher than the provincial average.

Proportion of total Acute Admissions and Days attributed to seniors at Niagara and Ontario hospitals, 2002/03



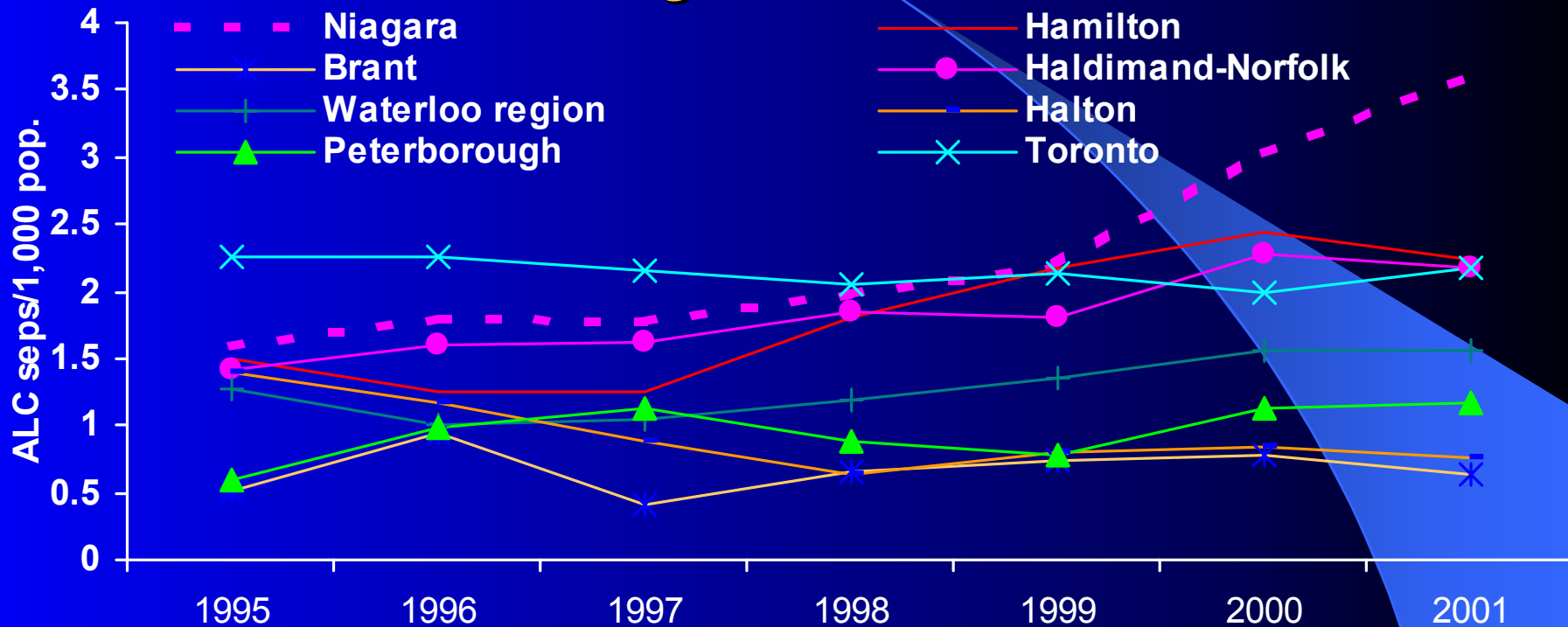
• In Niagara hospitals, seniors represent a higher proportion of total acute admissions and inpatient days compared to the average for Ontario hospitals.

Proportion of total acute inpatient admissions at Niagara and Ontario hospitals attributed to seniors aged 65+, 2002/03:



- A higher proportion of the inpatient admissions at Niagara's smaller hospitals are aged 65+.

Age-standardized rates of acute ALC separations/1,000 population, Niagara and other regions, 1995-2001:



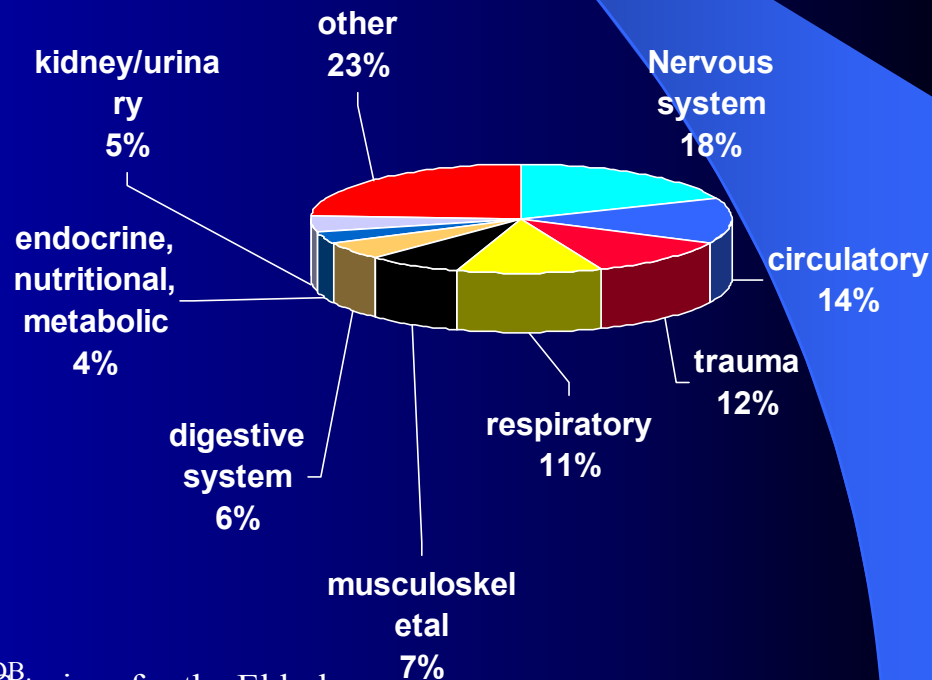
- *In 2001, Niagara's ALC rates >60% higher than provincial average.*
- *In Niagara, 90% of all ALC patients are aged 65+, compared to a provincial average of 85%.*

Source: CIHI Discharge Data, PHPDB, CEHIP.
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Leading causes of hospitalization among Niagara ALC patients, by major clinical category, 1996-2001:

- The leading causes of ALC days at Niagara acute hospitals are patients who have experienced the following: stroke, heart failure, fractures, hip/knee replacements, pneumonia/bronchitis, nutritional & digestive disorders, diabetes and rehabilitation.



Source: CIHI Discharge Data, Provincial Health Planning Database, PHPDB

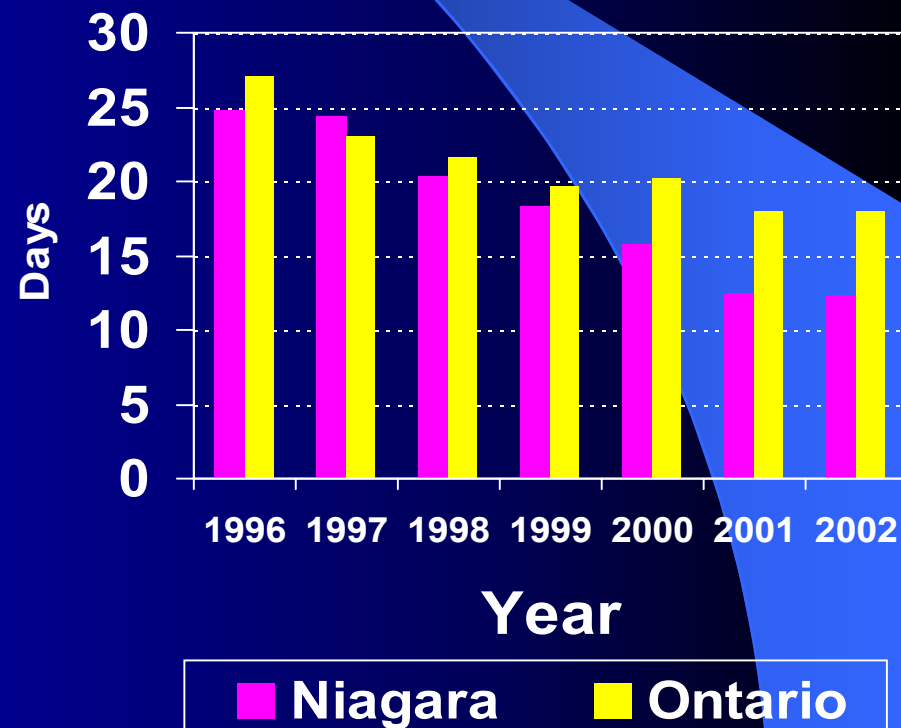
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Acute ALC ALOS, Niagara and Ontario hospitals, 1996/97-2001/02:

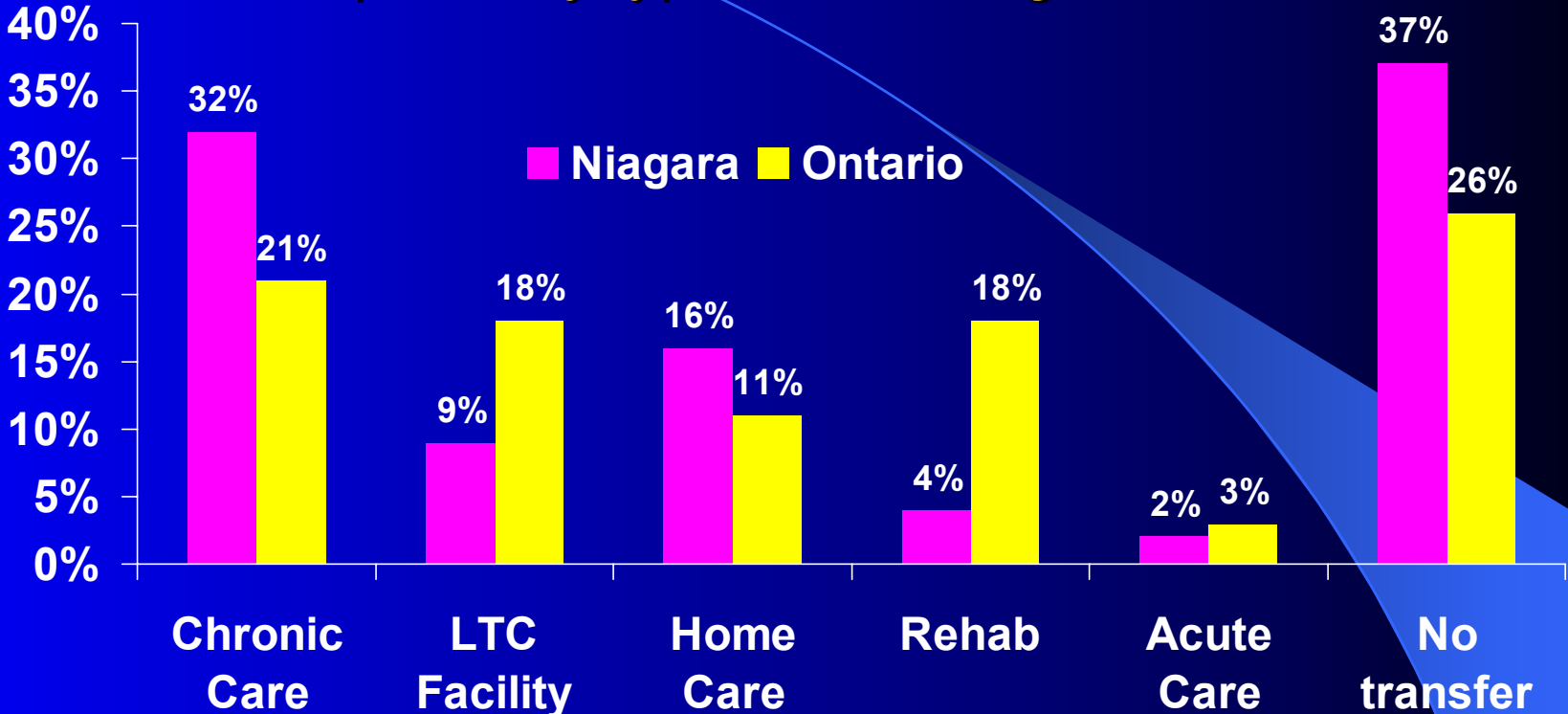
- **ALC ALOS in Niagara hospitals has decreased from 25 days in 1996 to 12 days in 2002, lower than the provincial average of 27 days in 1996 and 18 days in 2002.**

ALC ALOS, Niagara and Ontario, 1996-2001



Source: CIHI Discharge Data, Provincial Health Planning Database, PHPDB.

% of all ALC patients who are transferred from Niagara and Ontario acute hospitals, by type of receiving 'institution'*, 2002/03:



Source: CIHI Discharge Data, Provincial Health Planning Database, excluding psychiatric, neonatal, CMGs 851 & 910..

As of November, 2003, 40 acute care beds and 212 chronic care beds at NHS sites were occupied by ALC patients on a daily basis ~ 30% of all acute/CC beds available. The majority (57%) of these ALC patients were waiting for a long-term care bed, others were waiting for inpatient rehabilitation (active and slow-paced) and palliative care.

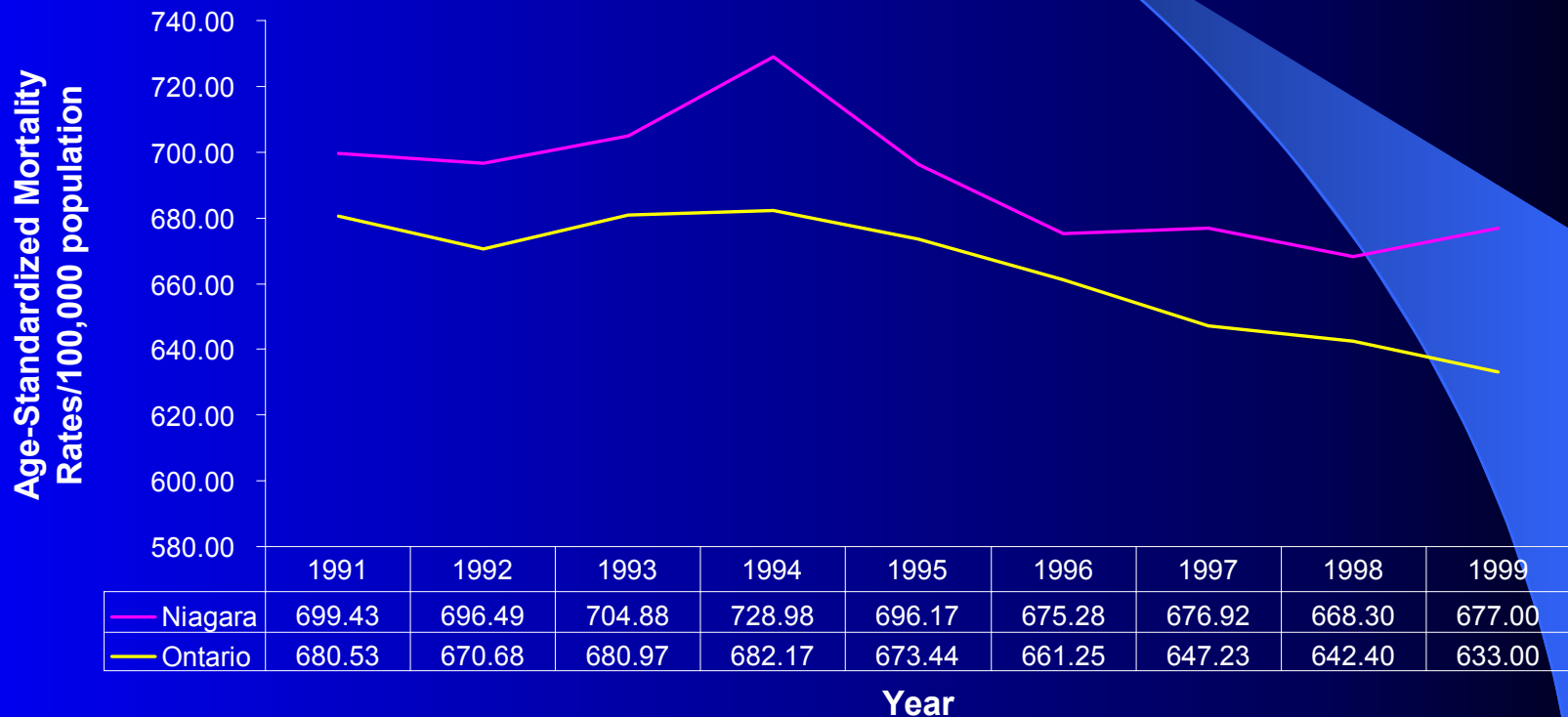
Indicators of Access to Long Term Care:

- 01/2004, ~1,200 individuals on active wait list for LTC bed.
- 3,282 permanent LTC beds in 30 facilities.
- With 624 new LTC beds, supply will be 96 less than expected. Bed/population ratio in 2004 projected 99.3/1,000 pop. aged 75+, less than provincial avg.
- 14% of new & existing LTC beds are for German or Dutch speaking residents, 3% of population reports mother tongue as German or Dutch.
- Consumers unable to afford private/semi.
- Consumer preferences for newer facilities.

Indicators of Access to Community-based Care:

- Between 2000-03, due to changes in eligibility criteria and the home-based technology (e.g., pain caseload declined by 4%.
- New admissions declined by 8%; the community declined by 22%; hospitals increased by 4% - mainly and EDs.
- Nursing visits declined by 13%; declined by 22% and Personal Support declined by 15%.

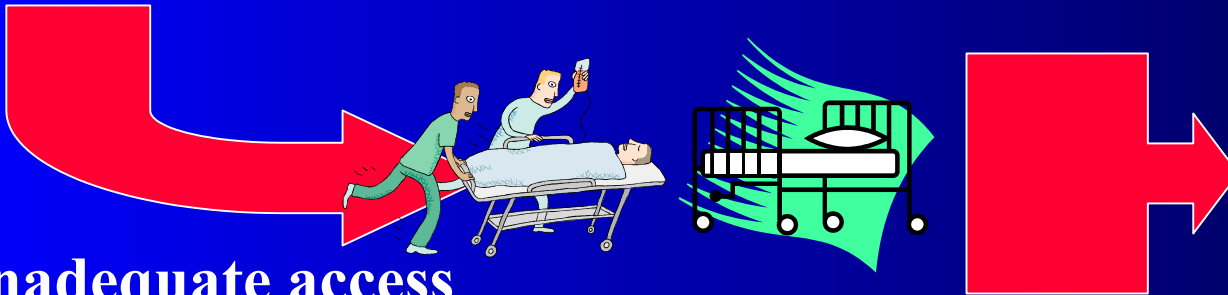
Age-standardized Mortality Rates, Niagara and Ontario, 1991-1999:



Summary of 'Key Findings':

Demand for Health Care:

Older population + socio-economic factors (education, income, housing, social isolation) + lifestyle factors (smoking, inactivity, diet) = *prevalence of chronic health conditions* (overweight, hypertension, diabetes, disability, stress and depression)



Inadequate access

to timely treatment:

Lack of FPs, MH, community support, transportation.

Outcomes:

High rates of morbidity and mortality compared to provincial average.

Inadequate access to LTC beds/ services, rehab., tertiary care:

LTC bed affordability, language, new vs. old beds; decline in in-home care; lack of community service capacity; underutilization of tertiary care.

Addressing service gaps:

- Health human resources: focus currently on Physician recruitment; need to address full range of HHR needs
- Mental Health: community needs identified, # of acute and specialized beds; implementation status?
- Addiction services: resources needed to reinstate capacity and enhance programs available
- Cardiac care: proposal for cath lab at NHS (under development), proposal for cardiac rehab at Heart Niagara; but more early diagnosis/treatment is needed: opportunities for integration of secondary prevention programs?

Addressing Service Gaps, *continued...*

- Long-Term Care:
 - DHC's Community-based LTC System Plan identified needs and recommendations for service planning and coordination, service enhancements and policy development.
 - LTC community agency proposals for service enhancement/expansion at MOHLTC

Planning Mechanisms & Processes:

- DHC support for strategic and program planning among local organizations
- Intersectoral Planning, e.g., DHC's *Integrated Planning Network* – a multi-sectoral approach to evidence-based planning to foster a better coordinated and more integrated system of services.
- Ongoing dialogue with MOHLTC to promote understanding of population health issues, health system pressures and priorities for new and expanded services.

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Questions or Comments?