Northwestern Ontario
District Health Council
Conseil Régional de Santé
du Nord Ouest Ontario

Environmental Scan
2001/02

Prepared by:
Northwestern Ontario District Health Council
April 2002

Northwestern Ontario
District Health Council
Conseil Régional de Santé du Nord Ouest Ontario

May 17, 2002

Mr. Garry McKinnon
Executive Director
Atikokan Economic Development Corporation
115 Main St. Voyageur Mall, Lower Level Box 218,
Atikokan, ON. P0T 1C0

Dear Mr. ~~McKinnon~~ Garry:

RE: *ENVIRONMENTAL SCAN – April 2002 - NORTHWESTERN ONTARIO DISTRICT HEALTH COUNCIL*

The Northwestern Ontario District Health Council (NWODHC) undertook the *Environmental Scan – April 2002* project as part of its strategic planning process. The goals of this report are to increase knowledge about the health system, to communicate emerging local and global trends in health care, and to serve as a stimulus for future research, discussion, and planning. Attached please find a copy of the report.

The scan provides an overview of major political, economic, environmental, social, and technologic factors that have, and will continue to have, an impact on health and the health care system. The report differs from other environmental scans in that it attempts to highlight a Northwestern Ontario perspective.

The research for this scan was completed in a six-week period. We recognize that within this limited time frame an exhaustive review of all the factors which impact health and health care is not possible. Nonetheless, what is presented in the scan is a starting point for future dialogue and research in the field. Data sources for the scan include a literature review, an internet and web site review, and interviews with key informants in Northwestern Ontario.

If you have any questions or comments about this document, please contact Katie Heikkinen, Planning Coordinator, at kheikkinen@nwodhc.com or call the DHC office (623-6131 or toll free 1-888-227-3519).

Sincerely,

Gwen DuBois-Wing,
Executive Director

Encl.

ACKNOWLEDGEMENTS

The Northwestern Ontario District Health Council (NWODHC) wishes to acknowledge the support of a number of health care professionals and community leaders who took the time from their busy schedules to review the first draft of the *Northwestern Ontario District Health Council Environmental Scan: 2001- 2002.* They provided valuable insight into the content and format of the report. Perhaps more importantly, they provided wise counsel with respect to how the *Environmental Scan* could be used in the health and broader communities, as well as additional insights, which might be valuable to extend the scope of future scans.

We extend our thanks to the following individuals:

- Lesley Brown — Manager Educational Services, Lake of the Woods District Hospital
- Bruce Cunningham — Acting Executive Director, Sioux Lookout Meno Ya Win Health Centre
- Siobhan Farrell — Mental Health Consultant, Ministry of Health & Long -Term Care
- Mary Ellen Hill — Senior Researcher, Centre for Rural and Northern Health Research, Health Sciences North, Lakehead University
- Diane Hiscox — Physiotherapist, Rehabilitation Services, Thunder Bay Regional Hospital and Professional Council Member, College of Physiotherapists of Ontario.
- Kathie Kolisnyk — Director of Nursing Services, Geraldton District Hospital
- Ken McGeorge — CEO, Red Lake Margaret Cochenour Memorial Hospital
- Dr. Terry A. O'Driscoll — Family Physician, Sioux Lookout and Chief of Staff, Sioux Lookout Meno Ya Win Health Centre
- Susan Pilatzke — Director of Clinical Services, Northwestern Ontario Regional Cancer Centre
- Ron Saddington — President & CEO, Thunder Bay Regional Hospital
- Leni Untinen — Co-ordinator, Northwestern Ontario Women's Decade Council
- Linda Wiens — President & CEO, Quetico Centre
- Heather Woodbeck — Regional Administrator, Northwestern Ontario Breast Screening Program

EXECUTIVE SUMMARY

This environmental scan was undertaken by the Northwestern Ontario District Health Council (NWODHC) in accordance with Council's strategic planning process. With the aim of promoting Council development and supporting regional health systems planning, the NWODHC has committed to monitor, evaluate and communicate emerging trends in the environment, which could or will impact health and health care.

The purpose of the project was to conduct an overview of the main economic, environmental, social, technologic, and political factors that have an impact on health and the health care system in the NWODHC's planning area. Federal, provincial, and regional perspectives on the system were identified. In addition, emerging trends in health and health care, as well as sector influences on those trends, have been outlined. It should be noted, however, that time and resource constraints limit the findings contained in this report to a brief overview of the key, current issues and trends and their impact on health and the health system. To cover all of the aspects and issues at all levels in the system was simply not possible in the time frame available for the project, nor was that the project goal.

The scan was conducted by reviewing current documents that resulted from federal and provincial initiatives in the field. Regional perspectives were developed from a review of existing documents and from key informant interviews.

The scan suggests that factors either impacting, or having the potential to impact, health and health care in the Northwest region include:

- Degree of accountability within the system, decreased stakeholder satisfaction with the health care system, introduction and implementation of primary care reform, ongoing health-human resources shortages, concerns about access to services, and the importance of ongoing public dialogue about health care matters.

- Past performance of the economic environment, tax cuts and their impacts, regional industry dependence on natural resources, economic downturns, the more knowledgeable consumer with higher expectations of the health care system, and increases in health spending.

- Issues surrounding our increasing aging population making potentially higher and changing demands on the system.

- Emerging concerns that the younger population is just as likely to put increased demands on the health system as the aging population; such concerns stem from lifestyle, society and the activity level of the younger population.

- Issues related to child poverty, needs of the developmentally disabled, and the unique needs of First Nations communities.

- Challenges presented by the constant increase in knowledge about health, the emergence of new technologies, and by the rise of e-health and information technology.

- Environmental concerns with respect to air, food and water quality and their impact on health, as well as current initiatives to understand and address these concerns.

- With respect to important regional issues, some of the main themes include:
  - Family and specialist physician shortages, and related recruitment and retention issues
  - The current funding/financial "crunch"
  - Concerns about the quality of service delivery and shortages of service provision
  - Unique health system challenges and health care issues in Northwestern Ontario
  - Maintaining the strength of the people and of the communities in the region to deal with adversities
  - The persistent "sense" that more needs to be done, even though changes in the health care system are happening

It is hoped that this report will increase knowledge about factors impacting the health care system, communicate local and national emerging trends, and serve as a reference point for future research, discussion, and planning.

The information in this document is current as of March 2002, with the exception of Appendix F, Ontario's "Speech From The Throne: A New Era for Ontario", May 9, 2002.

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I INTRODUCTION

1 Project Overview

This environmental scan was undertaken by the Northwestern Ontario District Health Council (NWODHC) in accordance with Council's strategic planning process. In order to promote Council development and to support regional health system planning, the NWODHC has committed to "monitor, evaluate and communicate emerging trends"[1] in the health care environment in Canada, Ontario, and the region.

1.1 What is an Environmental Scan?

According to the American Society of Association Executives, an environmental scan is a "systematic and continuous effort to search for important cues about how the world is changing and how these changes are likely to affect your organization."[2] Among other things, scanning may include reviewing reports, web surfing, monitoring news releases, and talking with key informants. *"There is no right or wrong way to conduct an environmental scan."*[3] The context in which the scan is occurring and the availability of resources to complete it represent key factors in determining the specific nature of the scan to be completed.

1.2 Why do an Environmental Scan?

"Scanning helps organizations to be more flexible and to respond more quickly to emerging opportunities. Correctly done, environmental scanning is more than a research process. It is a learning process. Current information about emerging trends is essential for discovering tomorrow's opportunities."[4]

More specifically, environmental scans:

- Identify key issues and trends that pose opportunities or threats
- Analyze and interpret these issues in terms of their impact on an organization or a system
- Generate useful information for decision making

The overall aim of the project was to conduct an overview of some of the economic, environmental, social, technologic, and political factors that have, or could have, an impact on health and health care in the NWODHC's planning area (see map on page 4). Federal, provincial, and regional perspectives were reviewed for the purpose of identifying emerging global and local environmental trends. Where possible, potential responses to these trends in the health care system were identified.

The initial research for this project was completed in a six-week time frame in November and December of 2001. A first-draft report was presented to the NWODHC on

1 Northwestern Ontario District Health Council, "Vision and Strategic Directions", October 2001
2 American Society of Association Executives, "The Importance of Environmental Scanning" http://www.asaenet.org/environmental_scan/
3 Ibid.
4 Ibid.

December 8, 2001. In January 2002, a draft copy of the *NWODHC Environmental Scan: 2001/02* was sent to 14 key informants for review and comment. Their comments are reflected in this final report.

1.3 Purpose, Scope and Methodology

The report has three goals:

- to increase stakeholder knowledge of factors currently affecting the health care system in the Northwest region
- to communicate emerging trends in health and health care on a regional, provincial and national basis
- to present a "reference point" for future research, discussion, and planning with respect to health and health care in the Northwest region

An environmental scan on health is a potentially major undertaking. Volumes have been written on the factors driving health care and new books on the subject are emerging on a very frequent basis. To cover all aspects of the health care system and at all levels was simply not possible given the time frame that was available for the project, nor was it a project goal. Within these constraints, the report will attempt to provide a general overview of some of the key, current issues facing the Ontario health care system, and in particular, those facing the Northwest region.

Data used to develop the federal and provincial perspectives for the scan were extracted from government web sites and reports and documentation from consulting and research groups. Input into the development of the Northwestern Ontario regional perspective came from two main sources: reviews of existing documents and a limited number of telephone interviews with key informants across the northwestern region.

It should be noted that there are additional perspectives on a number of developments that have occurred in the environment. While this scan informs the reader of different events and trends, it does not present an analysis of that information. It is the NWODHC's intention to stimulate questions and encourage a rich discussion of factors that may impact the region's health care system, now and in the future.

2 Geography – Northwestern Ontario

The Northwest region is made up of the districts of Kenora, Rainy River, and Thunder Bay. Northwestern Ontario covers an area (523,252 sq. km.) which is approximately 60% of the landmass of the province with only 2.3% of its total population. The region has many small First Nation communities stretching from Fort Severn in the northwest to just west of White River in the southeast. The distance between the eastern and western boundaries is slightly over 1,000 kilometres. The region's population density is approximately 0.5 people per square kilometre. The Kenora District has the lowest density at 0.16 people per square kilometre while the Thunder Bay District has the highest population density at 1.44 people per square kilometre. The Northwest has approximately 1/25 the population density of the province. The provincial population density is 11.7 people per sq. km. [5]

Almost half of the region's population resides in or immediately around the City of Thunder Bay (Census Metropolitan Area (CMA) is 125,562) while roughly one third of the population is in small communities (1,000 to 10,000 people) and the remaining 15% of the population lives in First Nations or small remote communities.

Only 2% of the region's land is under municipal jurisdiction; the remaining is provincially owned Crown Land. The forestry, mining and tourism sectors generate 40% of the total employment in the region. The region is highly vulnerable to the fortunes of resource-based industries. [6]

The presence of small populations necessitates the development of innovative methods to achieve sustainable service delivery. In many communities in the region, there are not sufficient people to support the establishment of some health services. This was because either it is not economically viable, or the service volume is insufficient, to assure ongoing quality and competence in service delivery. Geographic isolation also presents a challenge to staff recruitment, retention and continuing professional development of health professionals.

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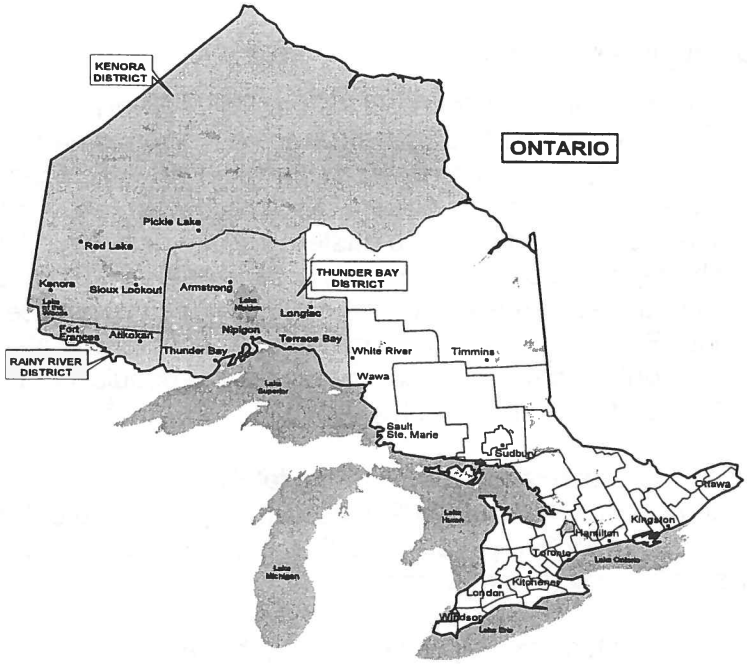
5 Northwestern Ontario District Health Council's, "Orientation and Reference Manual", January 2002

6 Northwestern Ontario Regional Conference Summary, "Premier's Conferences on Jobs and Prosperity", November 6, 1998, Thunder Bay


KENORA DISTRICT
ONTARIO
Pickle Lake
Red Lake
Kenora
Sioux Lookout
Armstrong
THUNDER BAY DISTRICT
Longlac
Nipigon
Terrace Bay
Fort Frances
Atikokan
Thunder Bay
RAINY RIVER DISTRICT
White River
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Wawa
Sault Ste. Marie
Sudbury
Ottawa
Kingston
Hamilton
Toronto
Kitchener
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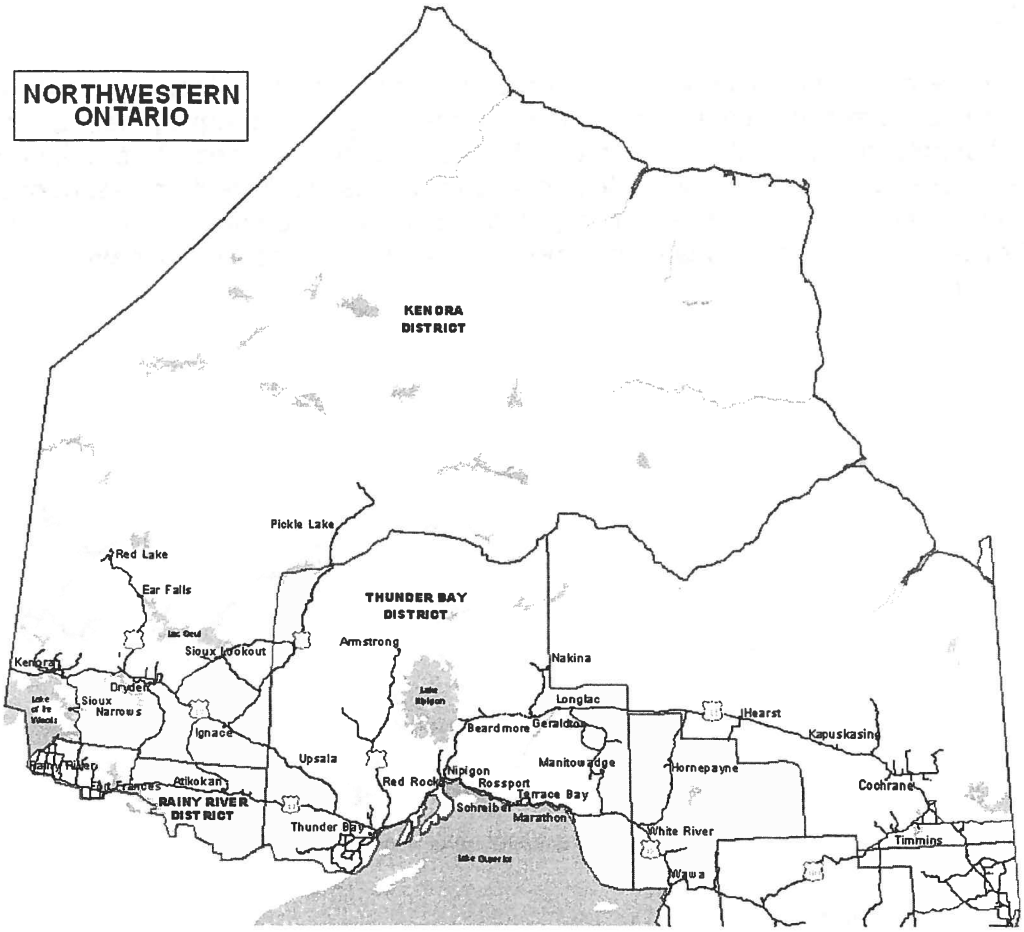
Windsor

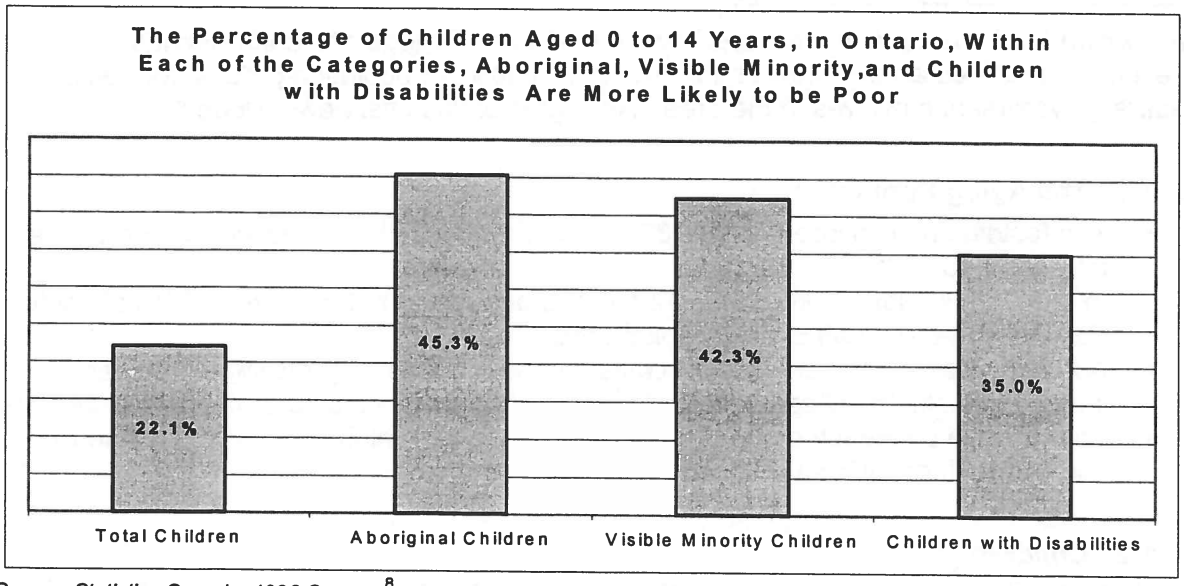

NORTHWESTERN ONTARIO
KENORA DISTRICT
Pickle Lake
Red Lake
Ear Falls
THUNDER BAY DISTRICT
Sioux Lookout
Armstrong
Nakina
Kenora
Dryden
Sioux Narrows
Ignace
Longlac
Beardmore
Geraldton
Hearst
Kapuskasing
Upsala
Manitouwadge
Hornepayne
Nipigon
Red Rock
Rossport
Terrace Bay
Cochrane
Fort Frances
Atikokan
RAINY RIVER DISTRICT
Schreiber
Marathon
Thunder Bay
White River
Timmins
Wawa

II "SOCIAL" OPERATING ENVIRONMENT

The following socio-demographic trends in Canada have been identified as important factors in driving change within the health care system:[7]

- An increase in the older population, with females greater than 85 years being the fastest growing segment
- An increase in the probability of acquiring a chronic disease due to aging
- An increase in the number of non-traditional families
- Emergence of an increasing multicultural population
- Greater attention being paid to the needs of the elderly, women and diverse cultures
- Greater focus on exercise and preventive care for the elderly
- A focus away from acute care to long-term care, though the demand for both will increase
- More user-friendly and integrated services
- A growing economic gap between rich and poor
- Increasing numbers of children living in poverty
- A developing trend in decreased unemployment and increased household incomes
- The correlation between income and health with a possible link between the gradients of income and health
- Increased attention being given to children's health
- Increasing demands by the aging population for improved quality of life

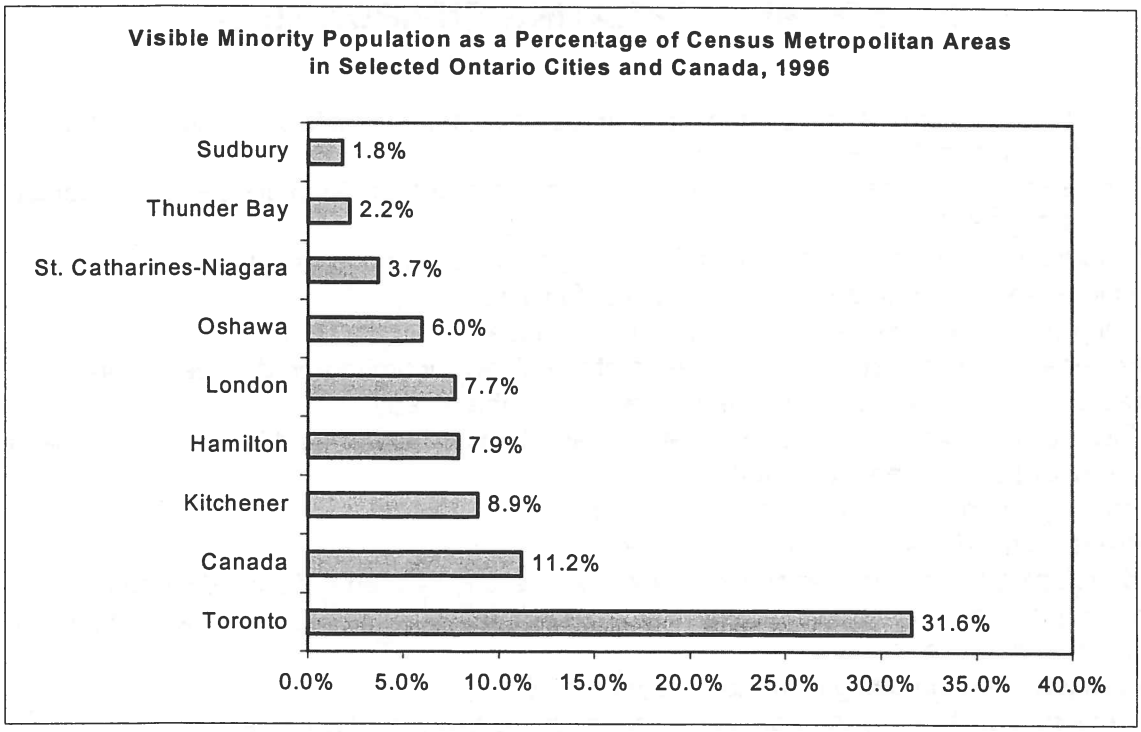
The above themes echo throughout current federal and provincial policy and are also evident in local identified needs.



Source: Statistics Canada, 1996 Census [8]
Aboriginals are those persons who identified themselves with being North American Indian, Metis or Inuit. Visible minority persons are defined under the Employment Equity Act (1986) as those (other than Aboriginal persons) who are non-Caucasian in race or non-white in colour.

7 Canadian Imperial Bank of Commerce, The Change Foundation, Arthur Andersen, "Making Restructuring Work: Alternative Paths for Ontario Hospitals Part Two", Toronto, 2000

8 Campaign 2000, "Child Poverty in Ontario: Report Card 2000" www.campaign2000.ca



Source: Statistics Canada, 1996 Census

1 Federal "Social" Environment

The Health Systems Update, produced by the Canadian College of Health Service Executives, provides an overview of some insights into key population groups, as well as Federal government initiatives in the area. Highlights of this overview include:[9]

1.1 The Aging Population

- The fastest growing age group is 80 years and above; this group will double in size from 2000 to 2026
- In 1997/98, seniors represented 12% of the population but consumed 31% of acute hospital stays and half of the hospital days
- A nation-wide evaluation showed costs can be reduced by providing home care instead of institutional care; what remains a challenge is the co-ordination of services
- The Institute on Health of the Elderly was formed in April 2000 with a mandate to complete education and research in elderly health care

1.2 Children

- In October 2000, five Centres of Excellence for Children's Well Being were established. Their role is to understand and enhance the physical and mental health of children and the critical factors in child development
- In 1998, the National Child Benefit Initiative was established

[9] Canadian College of Health Service Executives, "Health Systems Update 2000-2001" 8th Edition

- The Federal 2000 budget extended Employment Insurance benefits to 52 weeks for new parents
- In September 2000, the Federal government provided additional funding to the Canadian Health and Social Transfer program; it included funding for early childhood development

1.3 Aboriginal People

- Infant mortality rates in the Aboriginal population are double the national average; also, birth rates are higher than the general population
- Suicide rates are two to seven times the national average
- In 1999/2000, 202 projects were funded through the Aboriginal Head Start Program
- Chronic conditions such as diabetes and heart disease continue to rise in the Aboriginal population; the Aboriginal Diabetes Initiative was announced in 1999
- The Aboriginal Health Institute was created for the purpose of focusing on health information, research, traditional healing, health policy, and public education
- Funding to increase the enrolment of Aboriginal students in health-related academic programs was provided

1.4 Rural Health

- Health Canada is in year two of a three-year implementation phase of "Innovations in Rural and Community Health Initiatives"
- In June 2000, the Ministerial Advisory Council on Rural Health, was created

Additionally, key socio-cultural factors are identified in the *Health Systems Update* report and include the determinants of health, consumerism, sources of health information, the role of media and the current government in accountability management.

2 Provincial "Social" Environment

2.1 Background

The Ministry of Community and Social Services and Children's Secretariat (MCSS & CS) has three core businesses under its umbrella:

- Income and employment supports
- Children's services
- Social and community services

MCSS & CS is responsible for programs such as Ontario Works and the Ontario Disability Support Program. It provides funding for child welfare, young offender programs *, family intervention services, children's community support services, children's mental health services and childcare. It also funds services and supports for children and adults with developmental disabilities and community services for adults disadvantaged by victimization or sensory impairments. [10]

(Recently, the Young Offender program was transferred to the Ministry of Corrections)*

[10] "Ministry of Community and Social Services/Children's Secretariat, - Business Plan 2001-2002"

2.2 Some Highlights of the Ministry of Community and Social Services and Children's Secretariat Programs in 2000-2001

Since 1995, the Ministry has continued with ongoing reform of the provincial welfare system.

Reforms have included:

- Introduction of a zero-tolerance policy on welfare fraud and then introduction of a welfare fraud hotline
- Review of social assistance files
- Implementation of a new application process
- Child & Family Services Amendment Act became law on March 31, 2000 which provides "stronger tools for the courts, professionals and frontline workers to ensure that the best interests of children always come first"
- Children's Aid Societies and the Child and Family Services Act were strengthened through additional funding of $123 million
- The Early Years Challenge Fund, launched in December 2000, encourages a mix of government, business and community groups to invest in services and programs for parents and children
- Funding allocations to encourage this direction include:
  - $6 million was allocated over two years for community co-ordinators
  - $10 million was allocated for children's out-of-home respite care
  - $296 million was spent on children's mental health
  - An additional $50 million in funding was provided for community living focussed towards those with developmental disabilities
  - $10 million was allocated to municipalities through the Provincial Homelessness Initiatives Fund and $26 million was provided to increase the funding for homeless shelters
  - $10 million was announced to support abused women and their children
  - The budget for early intervention services for children with severe autism grew to $19 million annually
- The transfer of young offender services to the community providers section was completed

2.3 Some Highlights of the Ministry of Community and Social Services and Children's Secretariat 2001-2002 Commitments

In May 2001, the provincial government announced a five-point plan to make Ontario Works more responsive to the needs of welfare recipients. The essential elements of the plan included:

- Increases in placements
- Additional supports to those with barriers to gaining employment
- Mandatory literacy testing and training
- Caseworker training
- Mandatory drug treatment for those with addictions

Other MCSS & CS commitments include:

- $114 million has been invested in the Early Years Plan to enhance services which benefit parents and children up to age 6; this includes $30 million to establish Ontario Early Years Centres across the province
- An additional $8 million has been allocated to Children's Aid Societies

- Child Welfare Reform has been introduced including a plan to launch a provincial strategy for foster care recruitment
- The Ministry continues to implement a four-point plan for children's mental health services which includes funding for Mobile Crisis Response and Telepsychiatry
- There has also been an increase in funding for early intervention for children with severe autism
- $4.5 million has been allocated to provide school children with a daily, nutritious meal
- $700 million in child care supplements and initiatives has been budgeted
- $55 million has been provided to enhance services and supports for people with developmental disabilities
- $67 million has been made available for building community living programs
- $26 million over four years has been earmarked to add and refurbish shelter beds for women and children
- In 2001, $3 million has been directed to counselling, crisis services and other support programs; this is expected to grow to $9.0 million
- The emergency hostel per diem has been increased by 10%
- The 'Off the Street, Into Shelter' Fund was introduced in order to provide money to municipalities to help get people into shelters

The specific funding announcements and highlights of these programs are available on the MCSS & CS web site: www.gov.on.ca/CSS.

In Summary ...

Provincial budget priorities focus on:
- Reform of the welfare system
- Children's mental health
- Early intervention and early years support for families
- Support for child care, children's aid and foster care
- Support for community living for those with developmental disabilities
- Shelter beds for women, children and the homeless

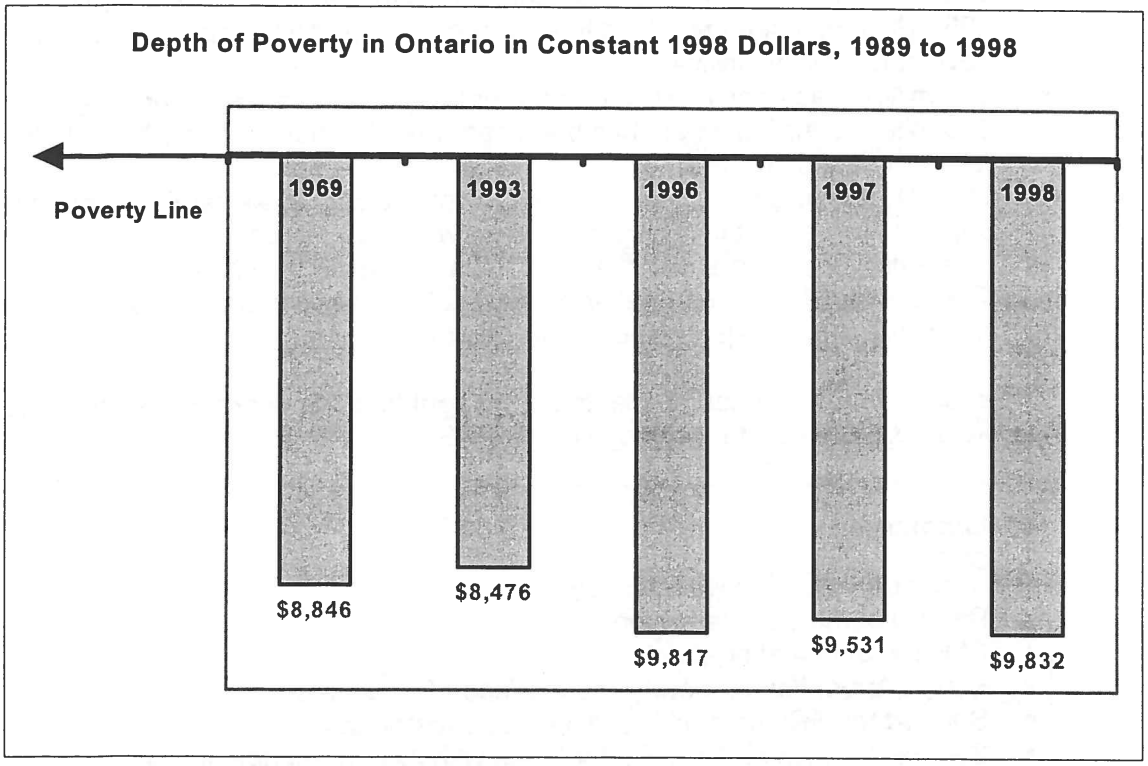
2.4 Continuing Social Issues

Despite the provincial government's recent budget commitments to community and social services, serious issues remain. The following graphs demonstrate the worsening picture of child poverty in Ontario.

According to Campaign 2000, a non-partisan coalition, since 1989:[11]
- The number of poor children in Ontario has almost doubled
- Ontario experienced the largest increase in the number of poor children among the provinces
- The poor are getting poorer; Ontario has had the largest increase in the average depth of poverty in the country

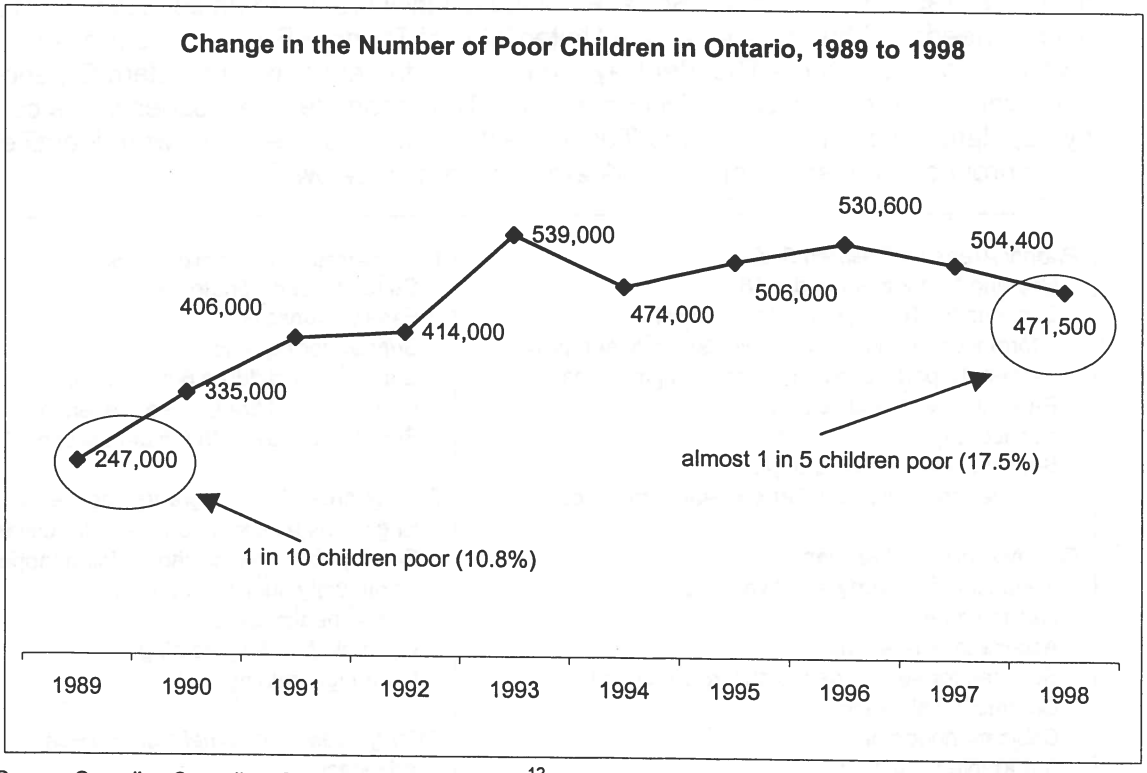
[11] Campaign 2000, "Child Poverty in Ontario: Report Card 2000" www.campaign2000.ca

Campaign 2000 maintains that low and modest income families are not benefiting from tax cuts, that early childhood development services and child care are not widely available, and that Ontario families face long lists for social housing.



Source: Canadian Council on Social Development, 2000

Note: The Depth of Poverty is the amount it would take to lift the average poor family to the poverty line.



Source: Canadian Council on Social Development, 2000[12]

Food for Thought...

- We know that socio-economic factors are determinants of health.
- We know that identified trends show increasing child poverty, a growing gap between the rich and the poor and much higher than average rates of certain diseases amongst Aboriginal people.
- We know that more needs to be done.
- How do we begin to address some of these needs in the context of a slowed federal, provincial and regional economy?

12 Ibid.

3 Regional "Social" Environment

In August 1999, the Lakehead Social Planning Council produced an assessment of human service needs in Thunder Bay for the United Way of Thunder Bay. The report is limited in that it deals only with the Thunder Bay area and not the entire Northwestern Ontario region. However, it provides much useful information. The report identifies issues in the community by population groupings. The priorities for each group presented here were identified by focus groups. The results of this work are summarized below. [13]

Priority Areas for Children & Youth
- Housing for mothers under 18
- Services for 16-18 year olds not in school
- Information sharing, communication between providers
- Barriers to participation in recreation programs
- Parenting skills and supports
- Service gaps in the system
- Services for high risk groups
- Services for children under six years are critical

Priority Areas for Families
- Reduction of poverty initiatives
- Respite care
- Access to counselling
- Services for special needs children in school
- Community planning
- Crisis management
- Affordable child care
- Affordable housing

Priority Areas for Women
- Advocacy for programs
- Education on violence
- Addressing poverty needs
- Supportive housing and affordable housing
- Support for incarceration of the spouse
- System co-ordination/planning
- Family respite and support

Priority Areas for Seniors
- Health promotion/prevention
- Supportive housing
- Respite care
- Mental health education for providers
- Access to geriatric specialists
- Substance abuse issues
- Availability of seniors centres

Priority Areas for Persons with Disabilities
- Access to meaningful activities
- Supportive housing
- Transportation
- Discrimination against people with disabilities
- Children's services

Priority Areas for First Nations Peoples
- Culturally appropriate services
- Family counselling
- Support for parents
- Services for children 6 and under
- Health promotion/disease prevention
- Services to deal with residential school issues

Priority Areas for Immigrants and Newcomers
- English as a second language for children
- Employment counselling, training, opportunities
- Community support services
- Mental health issues
- Cultural sensitivity training
- Language training

Priority Areas for Homelessness/Hungry
- Advocacy
- Access to food
- Outreach services
- Supportive housing
- Co-ordination of food usage services
- Food supply access
- Education on food preparation

Priority Areas for Crisis and Emergency Services
- Housing for adolescents in mental health crisis
- Education regarding available services
- Services for seniors with mental health issues
- Access to food for the needy
- Transportation
- Advocacy
- Increases in crisis staff
- Access to emergency mental health services
- Supportive housing
- Spouse abuse

Priority Areas in Public Safety/Crime
- Public education of determinants of violence
- Support systems after incarceration
- Violence prevention programs
- Public awareness of programs
- Mental health court support
- Support after leaving correctional system

[13] Lakehead Social Planning Council, "Assessment of Human Service Needs in Thunder Bay 1999"

In Summary...

The social needs identified for Thunder Bay include:

- Housing
- Child and youth supports
- Family supports
- Mental health
- Community planning/co-ordination of services
- Advocacy for education about the awareness of services
- Poverty and food initiatives
- Issues around prevention initiatives
- Age, gender and cultural sensitivity

3.1 Current Social Issues in Northwestern Ontario – Themes [14]

The following represents the main themes, identified by key informants. They are not presented in any order of priority. These comments do not necessarily represent the views of the NWODHC.

3.1a Government

- The provincial ministries need to work together to provide services
- There should be movement towards larger, consolidated government organizations such as district social service boards
- Difficulty with intergovernmental communication is a concern

3.1b Services for the Developmentally Disabled

- There is a growing need for services for individuals with complex care needs (e.g. dual diagnoses)
- Adults with disabilities are not able to care for aged parents
- There is a need for residential supports and community group homes
- Additional community services are required (e.g. recreation, employment, etc.)
- There is a lack of supports for developmentally disabled adults

3.1c First Nations

- First Nations' needs should be addressed across the province
- The remoteness of the First Nation population creates barriers to service delivery
- Child welfare, youth suicide, addictions are current issues
- Their economic situation is of concern
- Jurisdictional issues need to be resolved
- The recent and new (in the past 2-5 years) migration of Aboriginal people from the northern reserves of Northern Ontario into Red Lake, Dryden, Sioux Lookout and Thunder Bay is increasing the demand for services

[14] This information comes from an informal telephone survey of key informants

3.1d Youth

- Child poverty is a concern
- Substance abuse among youth is a problem
- Teen pregnancy is an issue
- Youth suicide, which has roots in poverty and substance abuse, is a concern

3.1e Community Issues

- Many communities suffer from a lack of tertiary level professionals
- Some communities are slowly becoming organized regarding planning for and addressing local issues through community forums, etc.

3.1f Economic

- There has been a slight growth in eligibility for and access to welfare; however, fewer applications have been received. This is seen as one of the impacts of welfare reform. However, it is expected that there will be an increase in applications with the current economic situation.
- Some feel that the problem with the welfare system is not a lack of funding but rather, how effectively the funds are being directed

3.1g Women's Issues

- It has been noted that alcohol use is high
- Lifestyle issues are a concern in small northern communities (e.g. lack of employment opportunities, childcare, etc.)
- Women in NWO have been identified as having a higher smoking rate than the rest of the province, which results in other health related problems

3.2 The Impact of Social Issues on Health and Health Care – Themes[15]

The aforementioned issues are impacting health and the health care system in a variety of ways. Some of the more significant impacts include:

3.2a Front Line Services Suffering

- Lack of family physicians means that many Northern Ontario residents are unable to access a physician in a timely fashion
- Re-alignment, amalgamation, or the centralization of services leads to loss of front line service provision
- Lack of nurses results in the temporary closure of services in the region (e.g. the closure of the Intensive Care Unit, Lake of the Woods District Hospital, June 2001)

3.2b Social Issues Directly Related to Health

- Social problems have a far-reaching impact by contributing to a drain on the system's resources
- Prevention of social problems could reduce the cost of the health care system
- There has been a "lost generation" of children with fetal alcohol syndrome

[15] This information comes from an informal telephone survey of key informants and is not necessarily the view of the NWODHC

- Children with complex care needs have a significant impact on the health system; the most specialized health care for children is primarily due to medical needs
- Medically fragile people in small communities need home care, support services and alternate forms of outreach; communities need to be able to respond to these complex cases and provide specialized services
- Remote First Nations communities have unique medical service needs such as first response to youth suicide and medical evacuation

3.3 Strengths Present to Help Address the Issues[16]

While there are a number of significant social issues in the region which impact health and the health care system, Northwestern Ontario communities and their residents have some capacity to address these challenges. Many of the community strengths noted by the "key informants" are highlighted in the following points:

3.3a People/Community Initiative

- Small communities are able to collaborate better and work in partnerships
- Communities are becoming organized with respect to health and social services
- There is understanding of the need and capacity for integrated solutions in NWO communities
- Northwestern Ontario communities are expressing an interest in achieving a common vision
- First Nation communities are addressing issues such as substance abuse, teen suicide, and teen pregnancy in their own communities. In addition, commitment to providing specially focussed programming to address Aboriginal issues has been identified by Lakehead University, Confederation College, the new Dennis Franklin Cromarty High School, etc.
- Northwestern Ontario communities are identifying innovative, cost-effective solutions
- Northerners have been recognized for their tenacity in addressing challenges presented to them
- Often, it is easier to get things done in smaller communities
- It is easier to reinforce social norms in smaller communities

3.3b Other

- The presence of women's shelters across Northwestern Ontario and in Thunder Bay assists women locally with issues such as abuse, family violence, etc.
- Although these programs provide valuable support mechanisms to women, they are vastly under-resourced (e.g. Kenora Women's Centre, etc.)
- The health care system is attempting to address the unique needs of smaller Northern Ontario communities (e.g. the idea for a detox centre "without walls" in Red Lake)

[16] Ibid.

3.4 Challenges to Addressing the Issues[17]

While communities are attempting to use their resources to address socially-related health care issues, a number of challenges remain. These include:

3.4a Funding

- Funding is an enormous challenge, not only with respect to capital development but also regarding the ongoing need for program operating funds and the access to providing the community funding share in many smaller regional communities
- There is a need for government investment, yet government doesn't appear to have the capacity at this time. The challenge will be to make do, in the meantime with the present infrastructure, which in many communities needs replacement or updating.
- The approach towards funding issues by the decision-makers in Toronto doesn't always fit the needs of Northwestern Ontario residents. For example, special consideration needs to be given to such factors as geography and a dispersed population when decisions affecting the region are being made.

3.4b Service Provision

- Service efforts need to be refocused to address important front-line service provision
- The interest to work on achieving a common vision needs to be developed
- Amalgamation and centralization of government decision making has created increased difficulty in responding to community needs
- There is an ongoing challenge in accessing support from the MCSS for non-traditional programs
- There is a need for adequate preventive services
- The speed of change is making it difficult to keep up with needed services

4 Trend #1: Aging Population

The growth of Canada's aging population is expected to have significant effects on the health care system. The exact nature of the impact is yet to be determined.

In Ontario, the population is expected to grow from approximately 11 million to 14 million by 2021, with half of that growth being accounted for by persons over age 60, despite their only making up 14% of the population.[18] At the same time, the per capita spending on health care in constant, 1996 dollars has been increasing steadily for the last two decades.[19]

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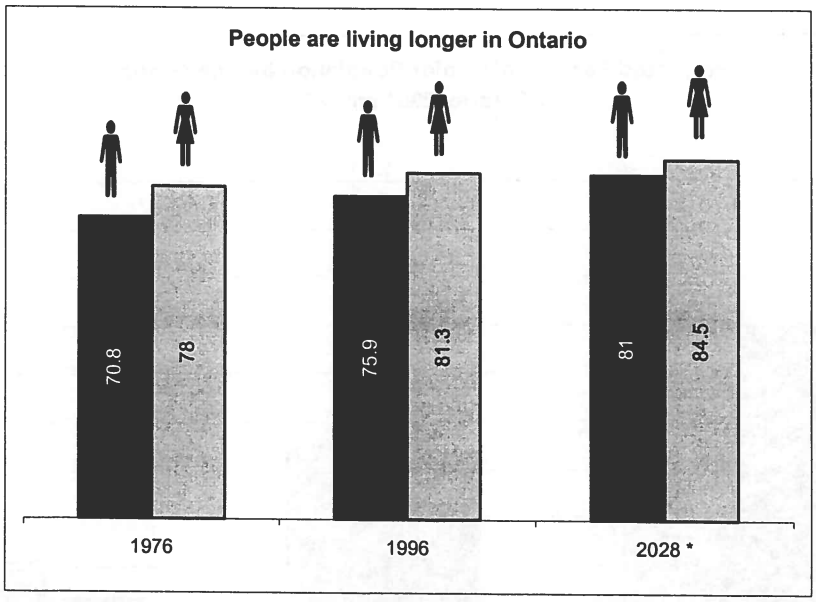
17 Ibid.

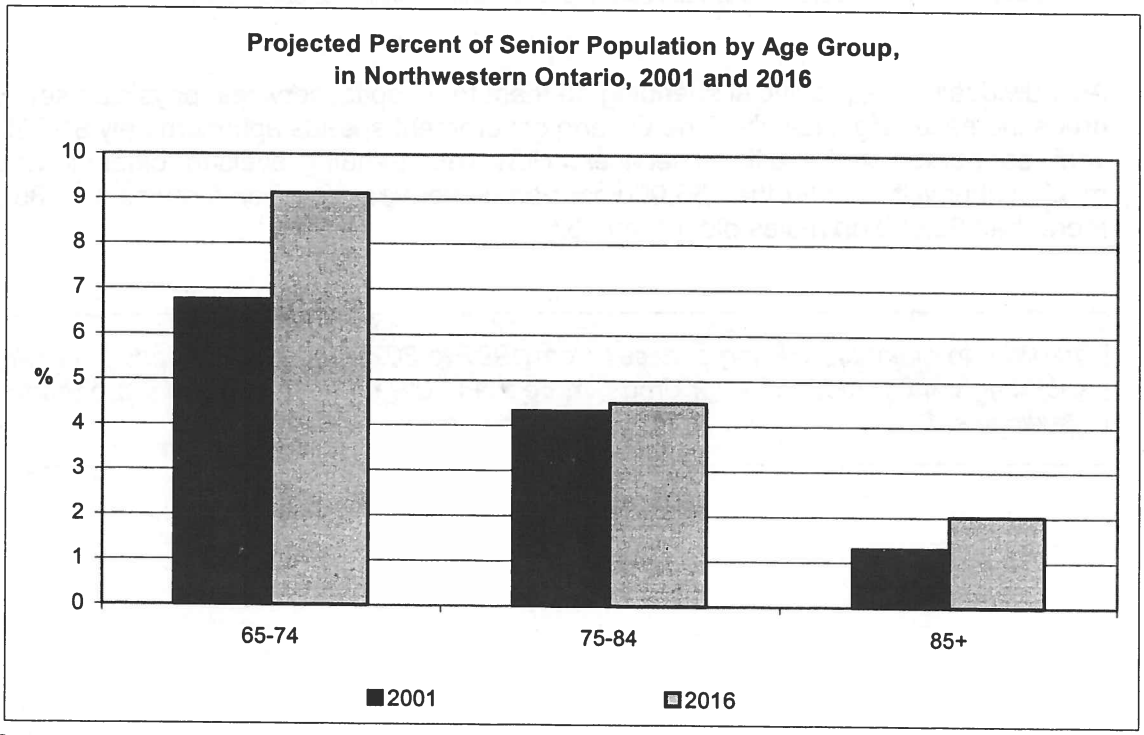
18 Thompson Gow & Associates, Strategic Projections Inc., "The Impact of Population Aging on Health Care Spending in Ontario", February 2000

19 Ibid.



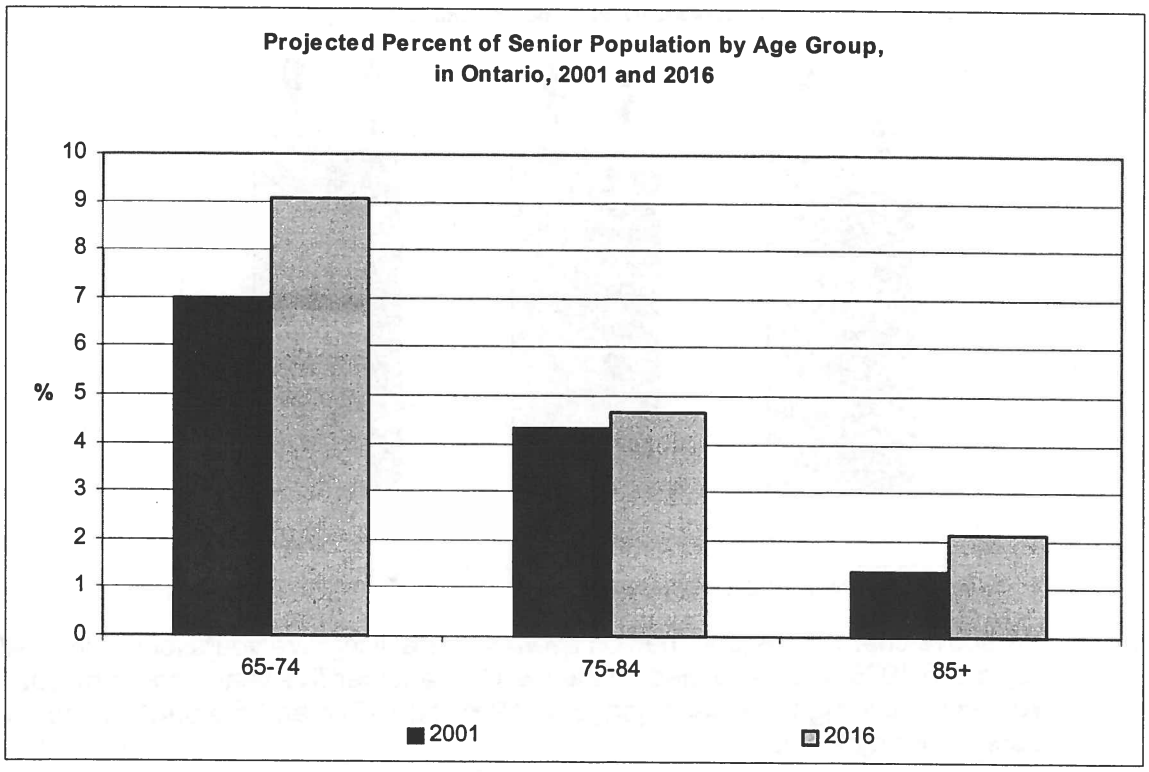
Source: Ministry of Health & Long-Term Care /Statistics Canada[20] ** Projection*

The above chart shows that men on average were living five years longer in 1996 than they did in 1976 and it is projected they will live another five years longer by 2028. Women were living three years longer in 1996 than 1976 and are predicted to live three years longer by 2028.



Source: Ministry of Health and Long-Term Care, Provincial Health Planning Database, 2001

20 Ministry of Health and Long-Term Care, "You and Your Health Care: Building Our System for the 21st Century" http://www.gov.on.ca/health/english/surveys/dialogue_0701/booklet_2.html



Source: Ministry of Health and Long-Term Care, Provincial Health Planning Database, 2001

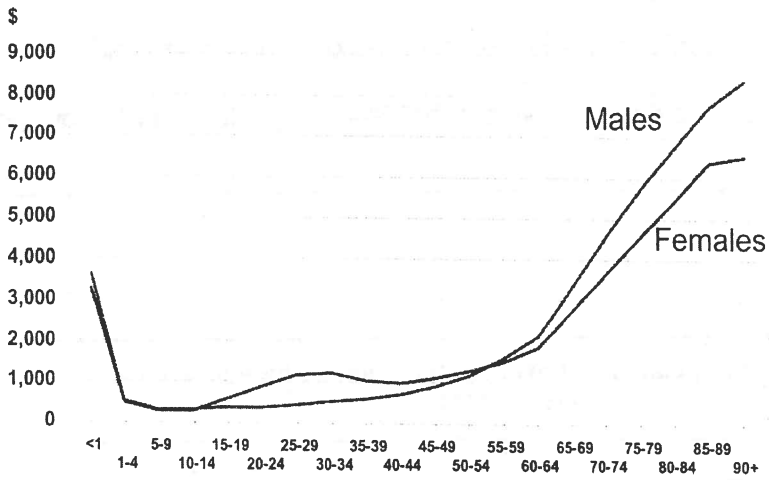
As individuals age, provincial spending on them for hospital services, physician services and drugs increases significantly. The Ontario government spends approximately $1,300 per year, per person on these three services. However, spending levels for older individuals is much higher with greater than $6,000 per person per year spent on females over 85 and more than $8,000 on males older than 85.[21]

> *"In order to maintain existing services from 1997 to 2021, the real increase in provincial spending will be about 60% for drugs, more than 50% for hospitals and more than 40% for physicians."*[22]

[21] Thompson Gow & Associates, Strategic Projections Inc., "The Impact of Population Aging on Health Care Spending in Ontario", February 2000

[22] Ibid.

Expenditure on Hospitals, Physicians and Drugs by Age and Gender, 1997



Source: Thompson Gow/Strategic Projections, Impact of Population Aging on Ontario Health Care Costs, Feb 2000. Current year dollars.

Collectively, hospital, physician and drug costs comprised 78% of all Ontario government health care spending in 1998. Spending climbs significantly with aging.

23

In the future, there will be more elderly to care for in the Ontario health care system. Further, not only will we be spending more on health care in general, but also older individuals will cost the health care system more than younger individuals. This will put added pressure on health care costs.

However, the issue may not be this simple. According to the Canadian Institute of Actuaries:

> *"An aging population is not the main reason for increasing health care costs. Aging is but one factor that is driving the rising cost of health care. There is also an underlying trend that is inflating costs for all age groups. This is driven largely by the development of new drugs, technology and procedures along with rising expectations on the part of Canadians who have come to view wide ranging health care as a "free" entitlement.[24]"*

To further illustrate the complexity of the matter, there is research that indicates that healthy individuals over sixty-five have relatively flat health care costs and that "between 30 and 50 per cent of total lifetime health care expenditures occur in the last six months of life."[25]

This information has important implications for planning. Rather than bemoaning the inability of the health care system to support an aging population, it suggests that planners

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23 Ontario Hospital Association, "Health System Facts and Figures: Measuring to Enhance Performance 2001"

24 Canadian Institute of Actuaries, Submission to the Standing Senate Committee on Social Affairs, Science and Technology, "Health Care in Canada: The Impact of Population Aging", 2001

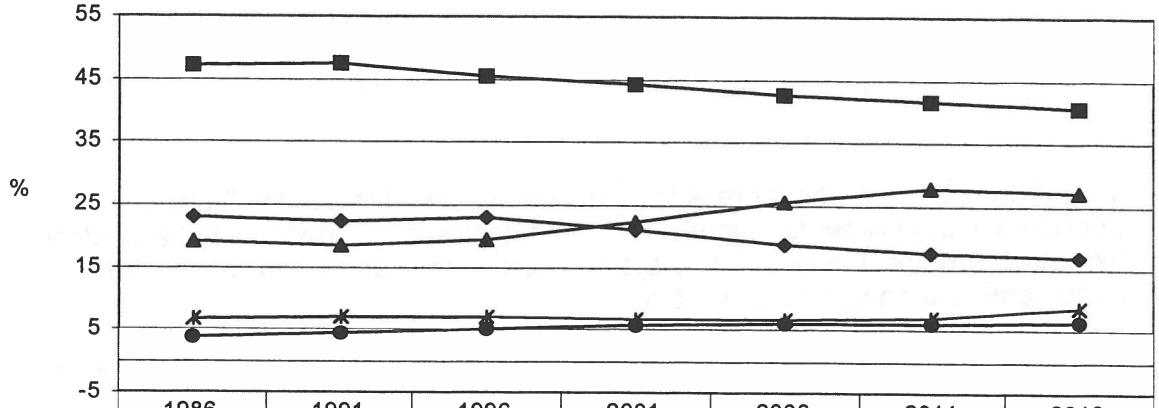
25 Ibid.

should direct their efforts at health promotion and prevention as well as comprehensive palliative care programs to reduce health care costs. It also highlights the need for critical examination of the perceived impact of certain trends on health care expenditures.

Food for Thought ...

- How do we best address quality of life issues and end of life issues for elderly Canadians?
- How do we best plan for a health care system that is sustainable in light of our aging population?

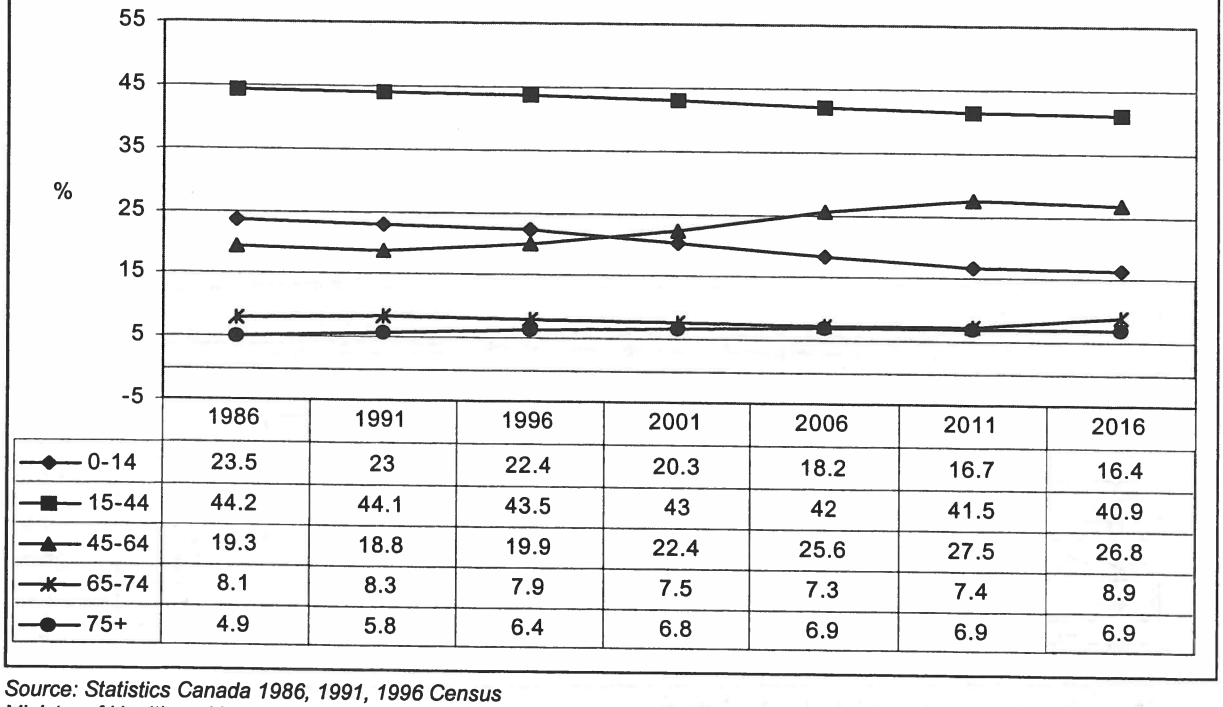
Proportion of Population in Northwestern Ontario by Age Group, 1986 to 2016



	1986	1991	1996	2001	2006	2011	2016
0-14	22.9	22.5	23.1	21	18.9	17.4	17
15-44	47.2	47.4	45.4	44.2	42.7	41.6	40.5
45-64	19	18.6	19.6	22.3	25.6	27.8	27.3
65-74	6.6	7.1	7	6.8	6.8	7.2	8.8
75+	3.8	4.5	5.1	5.7	6	6.2	6.3

Source: Statistics Canada 1986, 1991, 1996 Census
Ministry of Health and Long-Term Care, Provincial Health Planning Database, 2001

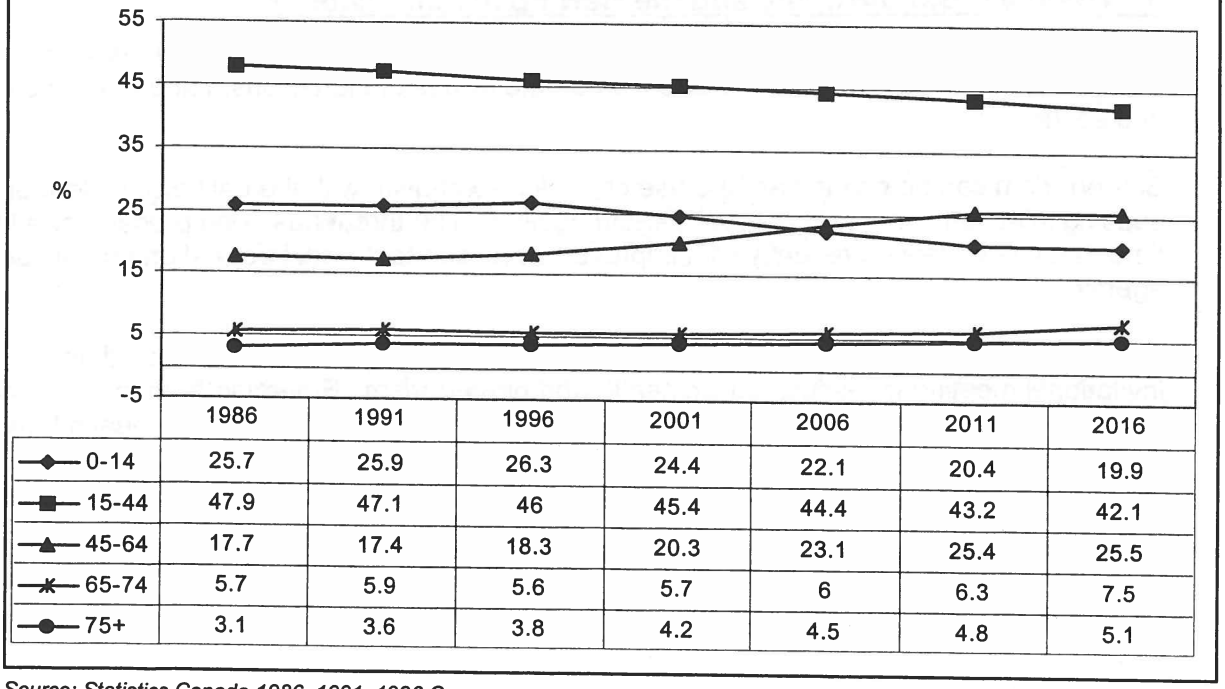
Proportion of Population in Rainy River District by Age Group, 1986 to 2016



	1986	1991	1996	2001	2006	2011	2016
0-14	23.5	23	22.4	20.3	18.2	16.7	16.4
15-44	44.2	44.1	43.5	43	42	41.5	40.9
45-64	19.3	18.8	19.9	22.4	25.6	27.5	26.8
65-74	8.1	8.3	7.9	7.5	7.3	7.4	8.9
75+	4.9	5.8	6.4	6.8	6.9	6.9	6.9

Source: Statistics Canada 1986, 1991, 1996 Census
Ministry of Health and Long-Term Care, Provincial Health Planning Database, 2001

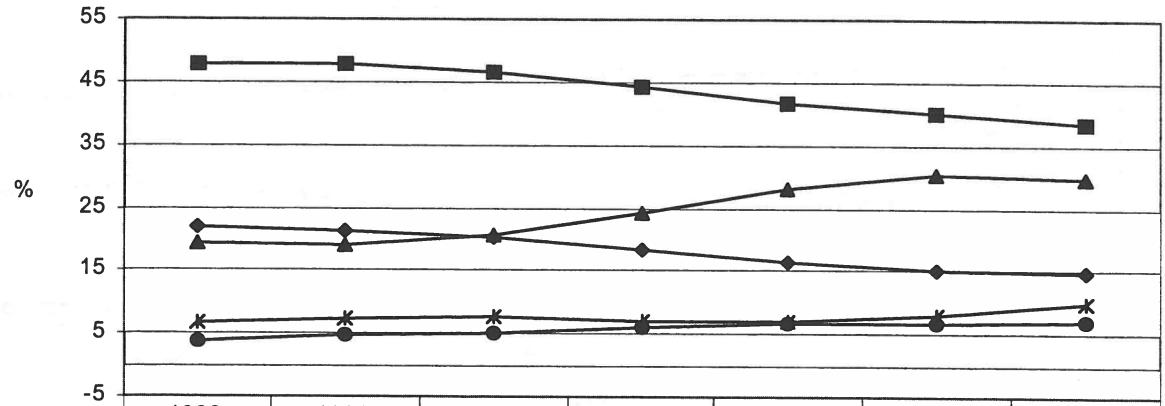
Proportion of Population in Kenora District by Age Group, 1986 to 2016



	1986	1991	1996	2001	2006	2011	2016
0-14	25.7	25.9	26.3	24.4	22.1	20.4	19.9
15-44	47.9	47.1	46	45.4	44.4	43.2	42.1
45-64	17.7	17.4	18.3	20.3	23.1	25.4	25.5
65-74	5.7	5.9	5.6	5.7	6	6.3	7.5
75+	3.1	3.6	3.8	4.2	4.5	4.8	5.1

Source: Statistics Canada 1986, 1991, 1996 Census
Ministry of Health and Long Term-Care, Provincial Health Planning Database, 2001

Proportion of Population in Thunder Bay District by Age Group, 1986 to 2016



	1986	1991	1996	2001	2006	2011	2016
0-14	21.9	21.2	20.2	18.3	16.5	15	14.8
15-44	48	48	46.5	44.3	41.8	40.1	38.5
45-64	19.4	18.9	20.7	24.2	28	30.3	29.7
65-74	6.7	7.3	7.5	7.1	7.1	7.9	10
75+	3.8	4.6	5.1	6.1	6.6	6.8	7

Source: Statistics Canada 1986, 1991, 1996 Census
Ministry of Health and Long-Term-Care, Provincial Health Planning Database, 2001

5 Trend #2: Bio-terrorism and the New Focus on Security

The shocking events of September 11th, 2001 and the subsequent anthrax cases in the United States have focused public attention on the issues of bio-terrorism and public health and security.

Bio-terrorism can be defined as "the use of a micro-organism with the deliberate intent of causing infection in order to achieve certain goals."[26] The threat has been present for a long time, but has increased recently with improved access to technical information and biologic agents.

In March of 2000, Health Canada's Laboratory Centre for Disease Control hosted an invitational meeting to discuss public health and bio-terrorism. Emerging from the meeting was recognition of six microorganisms considered to pose the greatest public health threat as of 1999:[27]

- Variola major (smallpox)
- Bacillus anthracis (anthrax)
- Yersinia pestis (plague)
- Botulinum toxin (botulism)
- Francisella tularensis (tularemia)

26 Health Canada. "Bioterrorism and Public Health" http://www.hc-sc.gc.ca/pphb-dgspsp/publicat/ccdr-rmtc/01vol27/dr2704ea.html

27 Ibid.

- Filovirus/arenavirus (hemorrhagic fevers)

It was also determined that, though the risk of an attack in Canada was low, the potential consequences could be great in terms of morbidity, mortality and cost. Adequate preparation is key to minimizing effects and controlling public panic.

As mentioned, recent events have highlighted these very issues.

Federal responsibility for bio-terrorism focuses on the criminal aspects of terrorist attacks, while the provinces are responsible for dealing with the management of the consequences of attacks. However, the National Counter-Terrorism Plan may aid in incident management if terrorist events outstrip provincial capabilities. Municipal responsibilities relate to security planning for special events and emergency response plans.[28]

Since September 11th, Health Canada has released information on Canada's capabilities as well as new actions undertaken to respond to the threat.[29]

Components necessary for an effective response include:
- Protocols for suspicious packages
- Command and control decision making, and information provision
- Training and public awareness
- Surveillance
- Laboratory detection
- Prophylaxis vaccination, antibiotics
- Preventing secondary infection through isolation, decontamination, and quarantine
- Stockpiling of antibiotics

Specific Federal responses included:
- Health Canada's Centre for Emergency Preparedness and Response activated its Emergency Response Centre on a 24/7 basis
- Additional antibiotics were purchased to augment the stockpile
- The National Microbiology Level 4 Laboratory was placed on high alert
- At the time, Health Minister Alan Rock and provincial colleagues committed to enhancing co-operation and co-ordination in preparing for emergencies
- The National Advisory Committee on Chemical, Biological, Radio-Nuclear Safety, Security and Research was created
- Ministers and Secretaries of Health from Canada, France, Germany, Italy, Japan, Mexico, United States, the European Union, and the United Kingdom met to discuss global responses to the threats of bio-terrorism. Canada agreed to serve as the co-ordinating partner for key future actions

Provincial governments have also taken action to address this new threat. There has been a new focus on security, as evidenced in *Ontario's Economic Outlook*, released November 6th, 2001.[30] This document outlines the appointment of two security advisors and states a commitment to a comprehensive review of Ontario's emergency readiness. New funding in the following areas has also been committed:

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28 Ibid.

29 Health Canada. Backgrounder: "Health Security Preparedness", various news releases http://www.hc-sc.gc.ca/english/media/releases/2001/2001_110ebk8.htm

30 Flaherty, J, Minister of Finance," 2001 Ontario Economic Outlook and Fiscal Review, Statement to the Legislature", November 6, 2001

- For the OPP's rapid response unit and anti-terrorism unit
- To enable Emergency Measures Ontario to offer municipalities more help with emergency planning
- To build an anti-terrorism training facility for local police services
- To build an emergency management training centre for fire fighters and ambulance personnel

On the local front, the Thunder Bay District Health Unit is counteracting the threat by providing public information on anthrax and response protocols. It notes that the last human case of anthrax in Ontario was in 1961.[31]

[31] Thunder Bay District Health Unit, "The Mysterious Powder Controversy" http://www.tbdhu.on.ca/

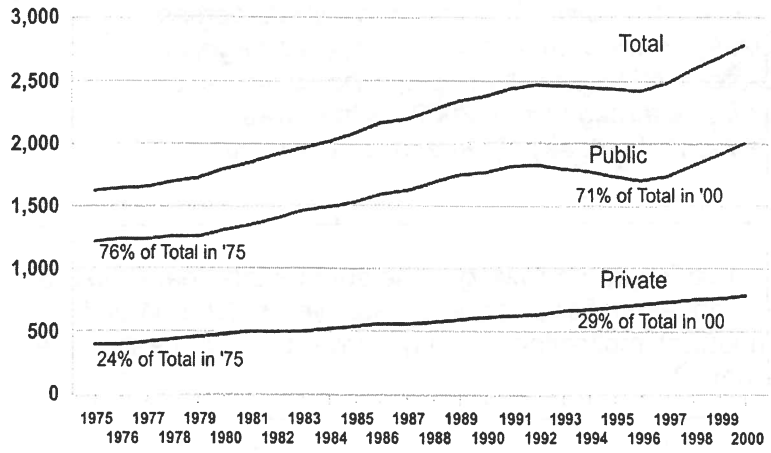
III "ECONOMIC" OPERATING ENVIRONMENT

It is known that socio-economic status is a determinant of health and, in a larger sense, there is a connection between the economy and health care. Economic shifts have the potential to bring significant pressure to bear on health and heath care systems. Thus, it is important to have an overview of relevant, current economic trends and their anticipated impact on the health system.

The Change Foundation has identified the following general economic trends:[32]

- While deficits are being reduced, more can be done to reduce government debt therefore freeing more dollars for spending
- Health care spending will increase
- Health care spending as a percentage of GDP will increase with the aging of the population

Total Expenditure on Health (Public and Private) per Capita, Canada



Source: National Health Expenditure Trends. 1975-2000. Canadian Institute for Health Information, 2000.
"Constant dollars": adjusted for inflation. Figures are forecast for 1999 and 2000.

Measured in constant 1992 dollars (taking out the effect of inflation) the average level of health care spending for each person in Canada has risen from over $1,600 in 1975 to over $2,700 in 2000. While more dollars are spent per person, the proportion of those dollars coming from the public sector has fallen from 76% in 1975 to 71% in 2000.

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- Fiscal constraint by government will continue
- Economic decline will cause health service cutbacks and possibly declines in health, in general
- Unemployment rates are decreasing and the inflation rate is low, but it is expected that these will fluctuate with the economy
- It is anticipated that there will be an increasing gap in wealth between the rich and the poor

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32 Canadian Imperial Bank of Commerce, The Change Foundation, Arthur Andersen, "Making Restructuring Work: Alternative Paths for Ontario Hospitals Part Two", Toronto, 2000

33 Ontario Hospital Association, "Health System Facts and Figures: Measuring to Enhance Performance 2001"

- Globalization has made all economies interdependent and thus vulnerable. To counter this, there will need to be an increase in potential markets for Canadian goods and services. Also, there will need to be rapid growth in research and development.

1 Federal "Economic" Environment

According to the TD Economics' *Report on Canadian Government Finances, 2001*, the year 2000 was a strong year for Canada's economy, producing a "combined federal-provincial budget surplus of $30 billion or 3% of GDP."[34] Growth was strong, and government spending on programs was up, with most increases in provincial spending targeted at health care. The report also notes that, in anticipation of a modest slowdown, 2001 budgets were cautious.

During 2000, Canada's equity market was among the best performing in the world, the economy grew 4.7%, and the full time job sector had a growth rate of 2.2%.[35]

However, the horrific events of September 11th, 2001 have had major impacts on the economy that could not have been foreseen. The terrorist attacks on the United States have resulted in severely shaken consumer confidence. What effect these events will have on health care spending remains to be seen.

> *"Since the 2001 budgets were brought down, the economic climate across Canada has deteriorated steadily, in line with that of the country's largest trading partner, the United States. All provinces appear to be looking at a substantially weaker growth picture through fiscal 2002-03 than was believed back in the spring, and most notably, in Ontario, Quebec and Saskatchewan.[36]"*

Overall, TD Economics forecasts a "sharp narrowing in the surplus this year (2001) and the next (2002), and a move into a modest deficit position in fiscal years 2003/04 and 2004/05."[37] Clearly this has important implications for any reinvestment in health care spending by the federal government.

> ***In Summary...***
>
> The Federal Economic Environment includes:
> - Strong growth in year 2000 producing a surplus and an increase in spending across the country
> - Steady downturn since September 11th, 2001, with an expected move into a modest deficit position

34 TD Economics, "Report on Canadian Government Finances", Oct.12, http://www.td.com/economics
35 Canadian College of Health Service Executives, "Health Systems Update 2000-2001, 8th Edition"
36 TD Economics op. cit.
37 Ibid.

2 Provincial "Economic" Environment

Some selected highlights of the 2001 Ontario Budget, brought down on May 9, 2001, which have implications for Ontario's health care system, are noted below. [38]

2.1 Ontario's 2001 Budget

The budget plans to:

- Continue tax cuts
- Pay down debt
- Introduce reforms for public sector accountability

2.1a Tax Cuts

- Elimination of the personal income surtax
- Completion the 20% personal income tax cut promised in 1999
- Announcement of "Ontario's Edge" incentives which include:
  - Introducing corporate income tax cuts legislation, scheduled between now and 2005
  - Beginning the elimination of capital tax with the introduction of legislation to raise the threshold at which capital tax is paid
  - Reviewing of tax incentives

2.1b SuperBuild Millennium Partnerships Initiative

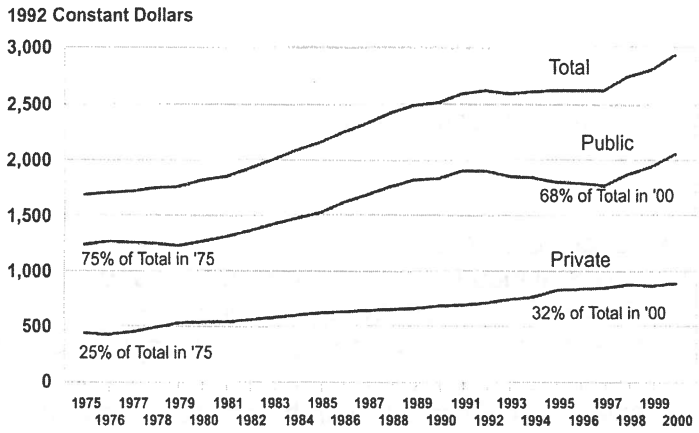
- $500 million was allotted to transportation and environment initiatives including an additional $25 million to ensure safe water and clean air

2.1c Health Care Funding

- An increase in health operating spending by $1.2 billion (5.4%)
- A challenge to the Federal government to "provide its fair share", that is 50% of all health care funding increases
- An appeal for community dialogue and health professional consultation on the future of health care and the delivery of quality services
- An exploration of issues concerning private versus public funding of health care

[38] Flaherty, J., Minister of Finance, "2001 Ontario Budget Speech: Responsible Choices", May 9, 2001

Total Expenditure on Health (Public and Private) per Capita, Ontario



Source: National Health Expenditure Trends, 1975-2000. Canadian Institute for Health Information, 2000.
"Constant dollars": adjusted for inflation. Figures are forecast for 1999 and 2000.

In constant 1992 dollars, almost $3,000 was spent on health care for each Ontarian in the year 2000, with over $2,000 of this spent by the public sector. Ontario's public share of health spending per capita has fallen to a level of 68%, below the Canadian average of 71%. Public expenditure on health care in Ontario has risen 65% since 1975 while private expenditure has risen over 100%.

39

2.1d Emphasis on Accountability

- Introduction of legislation requiring hospitals to balance budgets
- Introduction of the Public Sector Accountability Act
- Introduction of a "value-for-money" review of government spending

2.1e Social Services

- Relevant details were previously presented in this report. Please see "Some Highlights of the Ministry of Community and Social Services and Children's Secretarial 2001-2002 Commitments" on page 8 for new budget initiatives or the Ministry web site at www.gov.on.ca/css.

2.1f Safe Communities

- A $6 million allocation to further combat organized crime
- An additional $2 million allotment to electronically monitor adult offenders serving community sentences
- The provision of $3 million annually for "Project Turnaround"
- A $1 million annual allotment to double the number of "Youth Justice Committees"

[39] Ontario Hospital Association, "Health System Facts and Figures: Measuring to Enhance Performance 2001"

2.1g Education

- An increase in operating grants of $293 million by 2003-04 to colleges and universities
- Allotment of $1 billion, through *SuperBuild,* to expand and modernize post-secondary facilities
- The provision of $100 million to maintain colleges and universities
- The allocation of $60 million to start the Ontario Institute of Technology
- Assignment of $12 million over three years to help foreign trained professionals, including health professionals, upgrade skills

In Summary...

The Provincial government budget for 2001-02 focuses on:

- Tax cuts
- SuperBuild initiatives in transportation and environment
- Increased commitments in health spending while calling for federal government support
- Consultation on the future of health care in Ontario
- Emphasis on accountability
- New spending on safety, social services, and post-secondary education

The events of September 11th, 2001 have also had major impacts on the Ontario economy that could not have been foreseen. In his speech on May 9, 2001, the Minister of Finance, the Honourable James Flaherty, stated "the private sector consensus is that our economy continues to grow this year at 2.3 per cent and growth is expected to accelerate to 3.6 per cent in 2002."[40] However, a revised TD Economics forecast for the province of Ontario was much different after September 11, 2001. It forecasted real GDP growth of 0.8% for the remainder of 2001 and 1.5% in 2002. By 2003, growth is expected to return to 3.5 per cent.[41]

According to TD Economics this means:

"That although the government appears to be in good shape to deliver a surplus in the current fiscal year, it is next year that the big squeeze is likely to begin, with planning deficits projected through until fiscal 2005/06. Given that the government must adhere to balanced budget legislation, action to restrain spending in the months to come appears to be virtually guaranteed."[42]

Nevertheless, on November 6th, 2001, Ontario's Minister of Finance made a statement to the legislature concerning a revised economic outlook and fiscal review.[43] In the statement, he assured that the government of Ontario would remain on track for a balanced budget for 2001/02. To do so it will use $300 million of the $1 billion reserve included in the spring budget. In light of current economic uncertainty, the Minister announced accelerated tax

40 Flaherty, J., Minister of Finance, "2001 Ontario Budget Speech: Responsible Choices", May 9, 2001

41 TD Economics, "Report on Canadian Government Finances", Oct.12, 2001 http://www.td.com/economics

42 Ibid.

43 Flaherty, J., Minister of Finance," 2001 Ontario Economic Outlook and Fiscal Review, Statement to the Legislature", November 6, 2001

cuts and new spending in security, tourism and SuperBuild initiatives to bolster long term economic success.

However, a dilemma for health care spending was apparent in his statement. With revenue projections down and pressures to spend on health care up, the Minister acknowledged that the province could not continue to make up what he describes as a "federal shortfall."[44]

In Summary...

The Provincial Economic Environment includes:

- In the beginning of 2001, a relatively favourable economic outlook
- Presentation of a 3rd consecutive budget, with a focus on tax cuts, accountability, health, education, social services and SuperBuild spending
- The emergence of a worsening economic forecast, requiring the use of reserve funds to meet commitments
- A calling for a renewed federal investment in health spending in light of changes in the provincial economic outlook

3 Regional "Economic" Environment

A socio-economic review completed in 1998 by the Northern Ontario Development Network highlights the dependency of Northwestern Ontario on the primary industries of forestry and mining. According to the review:[45]

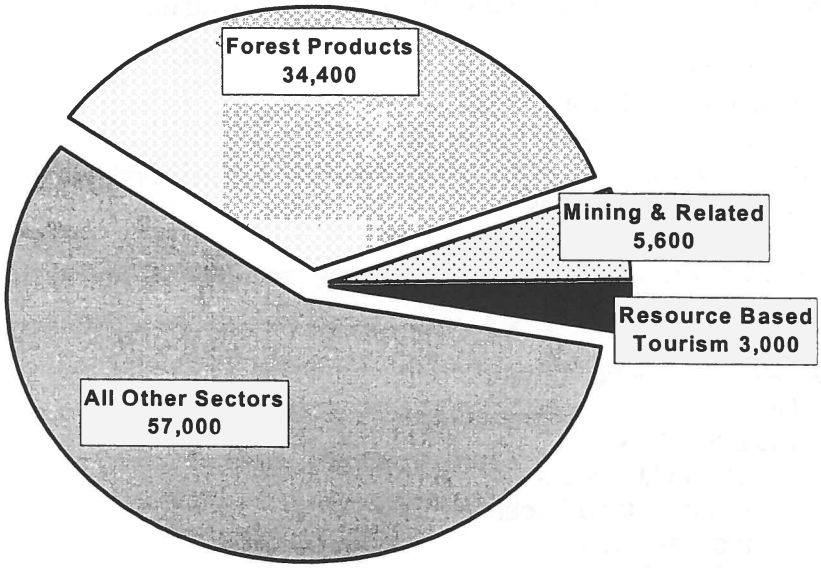
- The primary forest products industry mining and related industry, as well as the resource-based tourism industry generate over 40% of the total regional employment
- The level of job dependency on these industries in communities in the Northwest varies from 27% in Thunder Bay to over 90% in Terrace Bay and Schreiber
- The region is highly vulnerable to fluctuations in these industries
- All communities in the region, especially the smaller and remote ones, continue to be in need of a more diversified economic base
- Northern Ontario municipalities are not self-sufficient or self-sustainable
- Northwestern Ontario set record high unemployment levels in 1997

[44] Ibid.

[45] Northern Ontario Development Network, "Northwestern Ontario: A Socio-Economic Review, December 1998" http://www.nodn.com/publications.htm

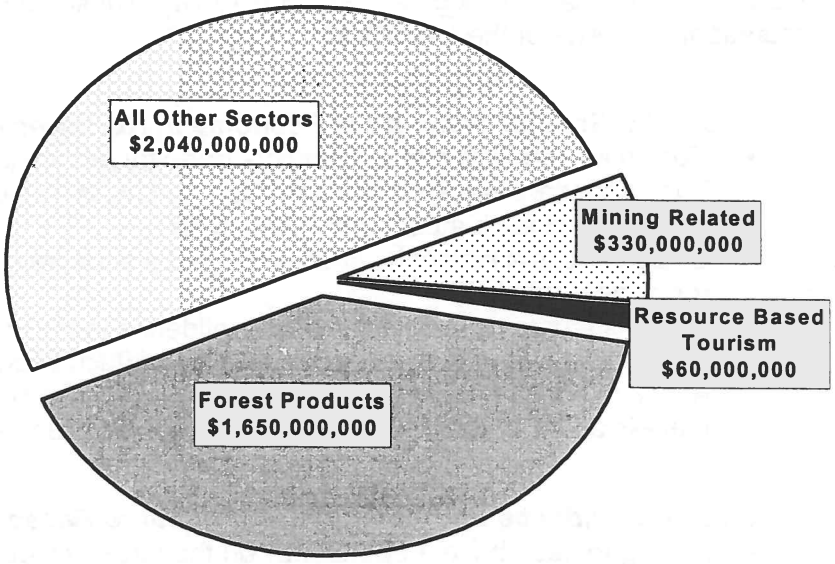
Northwestern Ontario Regional Dependency on Primary Forest Products, Mining and Resource-Based Tourism Industries

Fulltime Equivalent Jobs



William L. Lees & Associates, Conference Presentation, 2001

Over Half of Total Regional Employment Income is Generated by Forest Products, Mining and Resource-Based Tourism



William L. Lees & Associates, Conference Presentation, 2001

Another economic review, *The Great Rendezvous Conference – November, 2001,* was conducted at Old Fort William in Thunder Bay. This first annual conference on the state of the Northwest economy hosted more than 135 participants. The three top priorities for discussion were value-added, health care, and tourism. The discussion identified some key ties between health and economic development including:

- Jobs
- Infrastructure
- The business of health care
- Healthy people – healthy economy
- Health services encouraging economic development, attracting community leaders and investment opportunities

Conference participants also identified some key opportunities to strengthen these ties through:

- Telehealth
- Research and development
  - DNA
  - Biotechnology
  - Lakehead University
  - Northern Ontario Technology Centre
  - Cancer research
  - Manufacturing
- Education and a northern medical school.

3.1 Current Economic Issues in Northwestern Ontario – Themes [46]

In addition to the economic factors impacting on regional health and health care noted above, "key informants", presented the following insights into the economy of Northwestern Ontario through a telephone survey. These comments do not necessarily represent the views of the NWODHC.

3.1a The General State of the Economy in Northwestern Ontario

- Currently there is a primary industry (forestry and mining) downturn
- The secondary industry, tourism, can't replace the lost wages from the primary sector; nor does it attract other industries
- Since there is a lack of diversification in the economy, there is no flexibility or robustness within it
- There is a chronic lack of investor confidence in the economy of NWO because it is resource-based in nature and because of fluctuations in primary industry
- A lack of economic growth means there are no new businesses. Therefore, there is a lack of job and wealth producing opportunities.

3.1b Dependence on Commodities, Resource-Based Economy

- As suggested above, dependency on the forestry industry in the region is high. For example, 35% of the employment throughout region is in the forest industry with a high of 75% in Dryden.
- Currently, there is a slowdown or weakness in forestry with mills closing or downsizing

[46] This information comes from an informal telephone survey of key informants

- Some communities are suffering economically, for example, Ignace and Longlac
- There will be continued downsizing and layoffs in mining
- Softwood lumber taxes have a significant effect on regional forestry businesses which in turn affect retail business operations and their employees in the region

3.1c Casino in Thunder Bay

- The introduction of the Thunder Bay Charity Casino has hurt smaller communities in the region, in that people from the region are travelling to Thunder Bay to spend their money
- The casino is depleting economic resources and less money is going directly to local businesses
- The casino also diverts money from non-profit organizations. Instead, money is being given to the City of Thunder Bay.
- Non-profit organizations appear to be having more difficulty in receiving grants
- The casino is not having the positive economic ripple effect in the community that it was predicted to have
- Social problems are emerging with people who have less disposable incomes
- Gambling addiction levels are now recognized as increasing in Thunder Bay and the smaller Northwestern Ontario communities

3.1d Regional Demographics

- A regional disparity between women's and men's incomes determines whether women will stay in the communities to work or start new businesses
- The number of jobs in the region is decreasing
- Youth out-migration is increasing
- There has also been a recent decrease in housing starts
- There has been an out-migration of the 45-64 age group, those most economically secure to retire elsewhere
- These factors create difficulty in retaining the population and attracting people to start businesses which results in a decreased tax base in many communities

3.1e Positive Factors Related to the Economy and Northwestern Ontario

- Small businesses are increasing

3.2 The Impact of Economic Issues on Health and Health Care – Themes[47]

3.2a Economic Issues Create Health Related Problems

- Economic issues are related to the determinants of health (i.e. income, sense of self, etc.)
- Families and individuals can be invaded by panic, depression and other mental health difficulties from experiencing job loss, struggling to make budgets stretch, or caring for families, etc.
- Disparities in men's and women's incomes can lead to low self-esteem for women. A lower income can contribute to the perception that they are less important in the family structure. This can contribute to family dysfunction and to increases in chronic depression, fibromyalgia, chronic fatigue, etc.

[47] This information comes from an informal telephone survey of key informants and is not necessarily the view of the NWODHC

- Workplace and work force changes such as contract work, part-time work, self-employment, and loss of job security are leading to physical and mental health issues
- Because of economic problems, there have been closures of community pools and hockey rinks; such closures contribute to less healthy lifestyles
- The need for two income families creates added stress

3.2b Family Physician/Health Care Professional Shortages

- The availability of health care professionals and physicians are important issues for those considering employment and investment in the region; shortages in these areas may hamper the region's ability to attract new business and development
- The family physician is the first point of contact when people are stressed; a physician shortage may create the potential for mental health issues to escalate to crisis levels
- Injured workers who are unable to see the family physician are delayed in returning to work; this, in turn, may impact business

3.2c Health Service Provision Problems

- There has been a transfer of service provision to communities, yet out-migration and decreased tax bases have resulted in a decrease of funds available to communities; this raises questions of how communities will be able to care for their aging populations
- The need to travel for health services results in employees taking time off work; this costs businesses money; thus, travel for services has economic implications for businesses and small communities not only in operating costs but also in their potential for growth.

3.3 Strengths Present to Help Address the Issues[48]

3.3a Change is Happening

- Awareness of systemic economic issues and challenges is growing in the region
- Local municipal councils and the Northwestern Ontario Municipal Association are becoming involved in health care matters
- Both the provincial and federal governments have invested in improvements in service provision to small communities and hospitals in the region. For example, such additional funding programs as the Northern Ontario Heritage Fund Corporation Small Hospital Health Grant, the Federal Government and Provincial Governments Infrastructure Grants, were available to the Sioux Lookout Zone Hospital and other Northern Ontario rural and remote health care facilities

3.3b Regional Opportunities

- The presence of natural resources in the region could encourage resource processing in the region, for example, Bowater's investment in the Fort William First Nations' Industrial Park
- There are opportunities for growth in the tourism industry

[48] Ibid.

- The growth of the Information Technology (IT) sector has created opportunities for the attraction of new business investment (e.g. call centres). This is augmented by increased health and education opportunities from IT (e.g. telemedicine, telehealth, NORTH Network, etc.).

3.3c Strengths of People and Community

- People in the region provide a stable and productive workforce
- People have positive attitudes about wanting to work together and to find creative ways to help
- Tenacious, loyal, Northern Ontario residents share a sense of identity to the region
- The beauty of the region encourages people to stay in the area for the outdoors lifestyle (e.g. skiing, fishing, hunting, boating, etc.), and pleasant environment
- Recently, new health services came on-line in the region (e.g. 50 new mental health workers west of Thunder Bay were hired in the last year), and health research and research links have grown
- There is a highly developed, community, human resource base (e.g. active volunteers - Thunder Bay Community Mentoring Project to strengthen businesses, the volunteer-driving program in region, fund-raising for capital health projects, etc.)

3.4 Challenges to Addressing the Issues[49]

3.4a Addressing Political Issues

- The provincial government needs to make strengthening of the economy of the North a political priority
- Increased technology allows production to continue while jobs are lost; Ontario still gets "economic rent" without having to ensure jobs or strengthen the economy
- Northwestern Ontario lacks political clout
- For many in the region, there has been a loss of faith in government
- There is a need to improve support for each other within the region and to decrease internal squabbling
- Many decisions are made outside of the region but affect the region, for example, decisions by a head office to build a Wal-Mart in Thunder Bay
- There are difficulties addressing the lack of jobs
- There is a need for all levels of government to develop a framework for industry and business in Northwestern Ontario
- Increased recognition of the uniqueness of region is required at federal and provincials level (e.g. providing investment tax credits in NWO)
- There needs to be an increase in government interest in regional, community economic initiatives

3.4b Dealing With Financial Shortages

- The region's dependency on government money is a challenge when government funds decrease

[49] Ibid.

- In struggling for funds, local organizations with financial difficulties must network nationally to get core funding and this takes time and energy away from service delivery

3.4c Getting to the Root of Health Issues

- There is a need for a new approach to health promotion; trying to increase awareness of health and health care alone is not enough
- We must address the root of mental health issues, not just apply band-aid solutions
- We must address the physician and health professional shortages, including the lack of Aboriginal physicians and health professionals

3.4d Health Care Professionals

- The shortage of health care professionals, as previously noted, is closely linked to opportunities for economic development
- The North must compete with Southern Ontario and the rest of Canada for health care professionals
- There is a need for a Northern Ontario Rural Medical School (NORMS)
- The need for funding for professional education and upgrading linkages, is clear

3.4e Other

- The challenge of net out-migration needs to be addressed
- The region's geography and climate, along with southward migration trends and decreasing population density present difficult barriers to overcome
- There is a need to have a telecommunication network in place
- Inter-connectivity is critical, so there is a need to link communities within and outside the region via technology
- The casino, and the related impacts of gambling in the region present economic challenges that need to be addressed

4 Trend #1: Economic Environment Trends: Consumerism in Health Care

> *"The emergence of consumer behaviour in health care is nothing short of a revolution. These emerging e-health consumers in Ontario know more, expect more and demand more – all along the health care continuum."*[50]

Past models of health care were built around paternalism. The patient was told what to do by the provider who owned the health knowledge and dispensed orders with varying amounts of explanation. This model has been steadily changing. Patients, now often termed "clients" or "consumers", are increasingly empowered by higher education, greater personal wealth and Internet access to health information.[51] They are assuming, and even demanding, greater responsibility for their own health.

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50 The Change Foundation, "Consumerism and Healthcare in Ontario: Are Patients Becoming Consumers", November 2001

51 Ibid.

A population-based telephone survey of 550 Ontarians, conducted by the Change Foundation, revealed that about one half of the respondents felt that, in general, they had as much medical knowledge as physicians, and 66% agreed that when diagnosed with a health problem, they try to get as much information as possible from sources other than their physician. The foundation concluded that there is a "growing trend among individuals to take control of their health and be responsible for much of the decision making."[52]

This change in attitude and expectations will have consequences in terms of how health care services are provided and who is responsible for them.

The following trends and impacts of consumer attitudes on health care have been identified:[53]

- Consumers will be better informed about their choices and the ability to influence their own health
- Expectations for a better lifestyle will increase
- Interest in state-of-the-art technology is growing
- Less tolerance of poor quality service means that:
  - Satisfaction with health care has been declining
  - Desire for "one-stop shopping" in health care is increasing in order to better integrate services
  - Consumers believe that quality is being compromised in the interest of budget cuts
  - Hospitals will place more emphasis on customer service and partnerships
- Less trust for traditional authorities and hierarchy means that:
  - Additional health care focus on prevention will be needed
  - An increasing tendency for patients to challenge physicians' recommendations and to seek a second or third opinion
- More interest in individual choice and decision-making suggests an acceleration of increased spending on alternative treatment and medicine
- Public concern over quality of life matters is growing

Food for Thought –

- How will these trends shape the health care system within the confines of a publicly funded system with limited resources?
- There may be an increased demand for state-of-the-art technology and consumer-driven decision-making, but are there the resources to support this type of system?
- What choices exist for the health care consuming public?
- Do all services or programs need to be offered in each area?
- Consumers may expect evidence-based, health care practices, which could impact the availability of health care dollars.
- What will be the impact of informed consent on stakeholders?

52 Ibid.

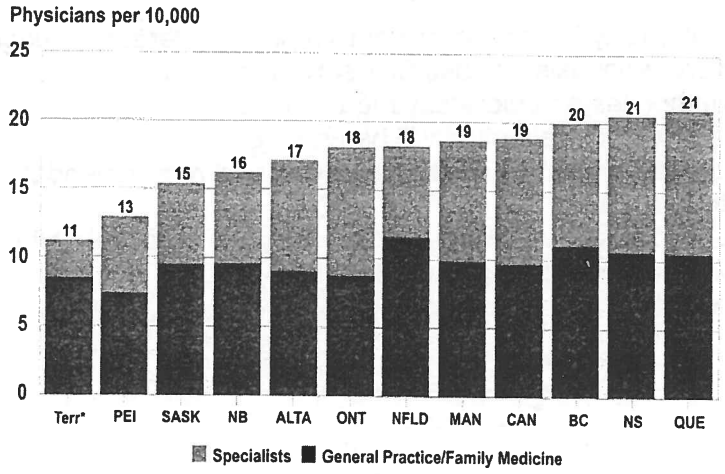
53 Canadian Imperial Bank of Commerce, The Change Foundation, Arthur Andersen, "Making Restructuring Work: Alternative Paths for Ontario Hospitals Part Two", Toronto: 2000

5 Trend #2: Health Human Resources and Institutional Reform

Central to any discussion on the future of health care is the issue of health human resources. An in-depth discussion of this complex issue is not possible within the context of this scan. However, some highlights of the elements of its complexities should be noted.

In Canada there is currently a shortage of registered nurses, which is expected to grow. A study by the Canadian Nurses Association in 2000 predicts a shortage of 60,000 nurses by 2011.[54] As well, there are physician shortages across the country. In Ontario, the *McKendry Report* noted that, as of October 1999, 99 Ontario communities had been designated as underserviced, needing 534 physicians in total.[55] Unfortunately, there is inadequate data on the working patterns and statistics of other health providers besides nurses and physicians.[56]

Number of Physicians in Canada, 2001



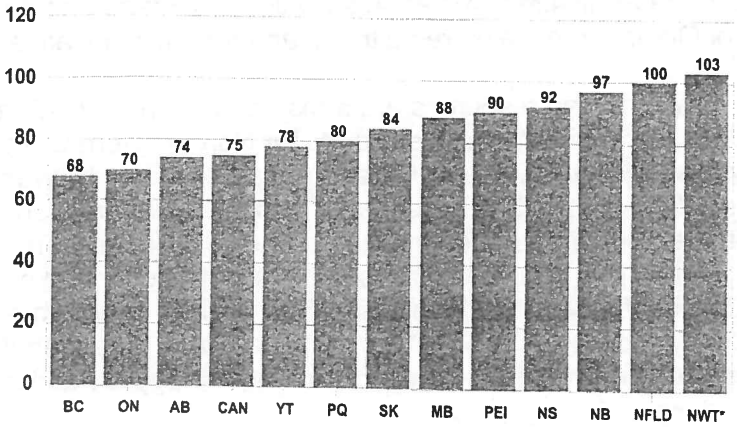
Source: Canadian Medical Association. *YT, NWT and Nunavut.

Ontario ranks just below the Canadian average in the number of physicians per capita. Just over half of all Ontario physicians are General Practitioners or Family Physicians.

[57]

[54] Canadian College of Health Service Executives, "Health Systems Update 2000-2001, 8th Edition"
[55] McKendry, R, "Physicians for Ontario: Too many? Too few? For 2000 and beyond", December 1999
[56] Canadian Institute of Health Information, "Health Care in Canada 2001" www.cihi.ca/HealthReport2001/toc.shtml
[57] Ontario Hospital Association, "Health System Facts and Figures: Measuring to Enhance Performance 2001"

Registered Nurses Employed in Nursing, Canada, 2001



*Excludes Nunavut.

Source: Registered Nurses Database, Canadian Institute for Health Information. Rates are per 10,000 population.

In 2001, Ontario had fewer registered nurses employed in nursing than every province except British Columbia, when measured on a per capita basis.

[58]

Some strategies have been recommended to combat these issues. With respect to physician shortages in particular, these strategies include:[59]

- Measuring and understanding societal health care needs
- Developing planning capacities to improve available data
- Increasing supply through increasing:
  - Medical school enrollment
  - The numbers of international medical graduates eligible for work
- Encouraging more effective distribution of physicians by:
  - Considering the development of a school of rural medicine
  - Making recruitment and retention programs more effective
  - Strengthening underserviced area programs
- Adjusting the mix of physicians available by:
  - Developing more postgraduate opportunities
  - Providing more appropriate incentives
- Making effective use of other health practitioners such as integrating nurse practitioners into the health care system
- Making effective use of technology by expanding telemedicine and tele-triage services

However, these strategies alone cannot solve the problem. There are no easy answers. Workload, working conditions, job dissatisfaction, wages, retirement of practitioners, and decreases in entry into the clinical professions all play a role in the crisis. Past errors in planning, the changing health care system, funding issues, out-migration, and the changing

58 Ibid.

59 McKendry, R., "Physicians for Ontario: Too many? Too few? For 2000 and Beyond", December 1999

values and composition of the workforce are also factors influencing the status of health human resources in Canada.

In the spring of 2000, the MOHLTC and the Ontario Medical Association reached a $217 million, four-year agreement to improve access to physician services across Ontario.[60] As well, the Ministry is working with the Joint Provincial Nursing Committee to monitor and report on the implementation of recommendations made by the *Nursing Task Force Report*. Funding was made available to the Registered Nurses Association of Ontario and the Registered Practical Nurses of Ontario to develop recruitment and retention initiatives.[61]

From a regional perspective, health human resources are a major concern. A conference was held in April of 2000 to discuss physician resource needs for Northwestern Ontario. Although the numbers of physicians in Northwestern Ontario remained stable between 1995 and 2000, many communities still have significant vacancies.[62] There have been some notable successes in physician recruitment and retention in the region. These were accomplished by means of alternate pay arrangements, community efforts, and exposure of physicians to northern and rural life through the Northern Ontario Medical Program and the Family Medicine North Residency Program. The conference participants agreed that while all stakeholders held responsibility, an overall regional recruitment strategy is needed.

Planning for other health care providers is also a regional issue. At present, the NWODHC is participating in a Health Human Resources Study. The study is a joint initiative between the NWODHC, the Northwest Health Network, and Human Resources Development Canada. The broad-based study involves a wide range of health care workers and will provide information to enhance the recruitment and retention of health care workers across Northwestern Ontario.

6 Trend #3: Primary Care Reform

Primary care reform continues to be a hot topic across the country and across Ontario. In September of 2000, First Ministers agreed that primary care improvements were a cornerstone of the renewal of health services. The federal government announced an $800 million fund for primary care initiatives. By December 2000, the Health Transition Fund had announced funding for 38 provincial and national, primary care pilots projects.[63]

In May 1998, a new model of care was launched in five pilot sites in Ontario. After positive feedback, the number of sites grew to 13.[64] The model is "based on a Primary Care Network (PCN) of physicians and other health care providers, who enroll patients for the provision and co-ordination of primary care services."[65] Participation is voluntary and funding is population based.

60 Canadian College of Health Service Executives," Health Systems Update 2000-2001, 8th Edition"

61 Ibid.

62 Conference Proceedings, "Restoring the Balance: Strategizing for Northwestern Ontario's Physician Resource Needs", April 2000

63 Canadian College of Health Service Executives, op. cit.

64 Ontario Family Health Network, "About the Ontario Family Health Network" http://www.ontariofamilyhealthnetwork.gov.on.ca/english/about.html

65 Ontario Ministry of Health and Long-Term Care, "Evaluation of Primary Care Reform Pilots in Ontario, Phase I Final Report. Executive Summary", March 2001

In March 2001, the Ontario Family Health Network (OFHN) was established to oversee expansion of the program across the province. Funding from the Ontario government included:[66]

- $100 million in incentive funding
- $150 million for information technology support for the networks

The phase I evaluation report of the pilot sites reveals that over 70% of patients and physicians involved in the pilot projects were "satisfied." However, the patient enrollment process, physician contracts and information technology integration remain the greatest challenges.[67]

One author has identified six features as being essential to the implementation of Primary Healthcare Reform:[68]

- Primary care must offer a range of truly comprehensive health care services
- Primary healthcare services must be available 24/7, close to home
- Group practices must be developed
- People should enroll/register/roster within a primary care group
- Primary care groups must be organized as interprofessional teams
- Supporting mechanisms must be put in place by government

Although initial evaluation of the pilot projects is favourable, the above list highlights how much work still needs to be done.

Food for Thought...

- Are physicians and other health professionals in Northwestern Ontario "buying in" to Primary Care Reform?
- What issues may prevent "buy in" in general?
- Are there issues specific to the region?

7 Trend #4: Changes to Community Care Access Centres (CCACs)

Community Care Access Centres (CCACs) have recently been the targets of institutional reform. Currently there are 43 CCACs across the province, some of which began in 1996, with the rest being operational by January 1, 1998.[69]

CCACs operate by purchasing services from local providers. These services include:

- Nursing
- Physiotherapy
- Occupational therapy
- Speech language pathology
- Dietary

66 Ontario Family Health Network, "About the Ontario Family Health Network" http://www.ontariofamilyhealthnetwork.gov.on.ca/english/about.html

67 Ontario Ministry of Health and Long-Term Care, "Evaluation of Primary Care Reform Pilots in Ontario, Phase I Final Report, Executive Summary", March 2001. and Ontario Family Health Network website op. cit.

68 Sinclair, D., "Primary Healthcare Reform: Ideas for Renewal", Hospital Quarterly, Fall 2001, Vol. 5, No 1

69 Ministry of Health and Long-Term Care, "Community Care Access Centres" http://www.gov.on.ca/health/english/news/media/ccac/ccac.html

- Social work
- Personal support and housekeeping

At present, the Ontario Government provides $1.17 billion in funding to CCACs, which is an increase of more than 70% in home care services funding since 1995.[70]

On November 7, 2001 the Community Care Access Corporations Act, 2001 was announced. This legislation will allow the government to convert CCACs into statutory corporations with CEOs and board members appointed by the Lieutenant Governor-in-Council. The Ministry sees this move as a way to introduce accountability and ensure consistency across all CCACs. A province-wide review had found there was room for improvement in accountability, fiscal practices and quality management procedures.[71]

Food for Thought...

Some questions remain:

- Will the proposed changes in CCACs have the intended effects on the health care system in Northwestern Ontario?
- Will these changes solve what appears to be a real problem in service provision, especially in Northwestern Ontario?
- What effects will the changes in CCACs have in terms of meeting the health care needs of residents in Northwestern Ontario?
- Will the changes to CCACs reduce the health care service gaps in the region?

70 Ibid.
71 Ibid.

IV "TECHNOLOGIC" OPERATING ENVIRONMENT

One of the factors most profoundly shaping change in health and health care is growth and development technology. It is therefore helpful to understand current trends in the field in order to understand the anticipated impact technology will have on the health system. The following represent some important considerations:[72]

- Increase in knowledge and access to that knowledge could result in better health care. The information supply doubles every five years. The rate of information creation will continue exponentially.
- Increased measurement and accounting for knowledge will occur
- The biotechnology industry will grow, as will its role in disease prevention and diagnostics
- Genetic disorders will be prevented or improved
- High-tech diagnostics will result in early detection of disease
- Less invasive procedures and surgeries will become more available
- Improved access to health information will bring about increasingly "commercialized" relationships between provider and patient. Consumers will be more responsible for their own health.
- Increased demand for new technologies will mean there will be a need for an initial heavy investment by hospitals and service providers
- Health care delivery will be more non-traditional by way of Telemedicine, the Internet, and the maintenance of electronic medical records on information highways
- Ethical issues will become more complex with new technologies

1 Federal "Technologic" Environment

The federal government commitment to health technology is relatively new, with budgetary spending commencing in 1997 after recommendations by the National Forum on Health.

In April 1994, the Information Highway Advisory Council established a study on the best ways to develop and use the information highway. Events such as national forums, workshops on tele-homecare, and pilot project funding have led to research projects and significant program funding such as the Canada Health Infostructure Partnerships Program (CHIPP) introduced in June 2000. Greater detail of federal government's developing interest in health technology can be found in Appendix D of this report.

In Summary...

Key factors in the federal health technology environment include:

- Commitment of funding commenced in 1997
- Infostructure initiatives co-ordinated by Health Canada include the Office of Health and the Information Highway, the Canadian Health Network, the National Health Surveillance Infostructure and the First Nations Health Information System

72 Modified from: Canadian Imperial Bank of Commerce, The Change Foundation, Arthur Andersen, "Making Restructuring Work: Alternative Paths for Ontario Hospitals Part Two", Toronto: 2000

2 Provincial "Technologic" Environment

> *"Ontario hospitals are well-positioned to build on successes in information and communications technologies (ICT) initiatives and to address system deficiencies through new investment. However they must be prepared to work collectively to maximize the ICT potential."*[73]

The current provincial environment of health technology is one of growth. Health networks and technologies already in place will only serve as building blocks for what is sure to be future development of information, communication and biomedical technologies.

E-health is a model of care where providers and patients can collaborate, collect and share patient information. The potential benefits of e-health are significant as patients, health professionals, health care facilities and agencies are connected through a real time and a secure network for information-sharing and care delivery.

The following is a listing of current provincial health ICT initiatives,[74] some are still in the 'strategic plans and priorities' stage:

2.1 Ministry of Health And Long-Term Care

2.1a Smart Systems for Health (SSH)

- This will be the Ontario Government's health information network, when it's operational
- The SSH is a secure e-health information network to provide secure real-time transmission of confidential data
- Work is underway to develop health privacy legislation to protect both patients and providers against unauthorized and inappropriate disclosure of confidential information
- The system will have six components:
  - Data and technology standards
  - Virtual private network for health service providers
  - Security infrastructure
  - E-mail service and on-line directories
  - Voluntary Emergency Health Record
  - Health knowledge and education resources

2.1b Telehealth Ontario

- By calling 1-866-797-0000, callers are connected to a registered nurse who offers free, confidential health advice and information based upon a description of symptoms provided by the caller
- This service is available 24 hours per day, seven days a week

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73 Ontario Hospital Association, "Building the Foundation for E-Health in Ontario: A Pathway to Improve Health Outcomes", May 2001

74 Modified from, Ontario Hospital Association, "Building the Foundation for E-Health in Ontario: A Pathway to Improved Health Outcomes", May 2001, and Health Canada: Office of Health and the Information Highway, "Canadian Health Infostructure: Chronology of Events" http://www.hc-sc.gc.ca/ohih-bsi/chi_ics/chronol_e.html

- The nurse helps callers decide whether to administer self-care, provides phone numbers of community agencies, recommends a visit to a doctor or hospital emergency department, or links the call to 911, poison information centres, a medication information line, or the audio tape library for information on over 500 health topics

2.1c Ontario Family Health Network (Initiated August 2000):

- The purpose is to direct expansion of Family Health Networks over the next three years to ensure access to convenient, quality primary care closer to home
- Physicians work in teams with other health care professionals to provide 24-hour, seven-days-a-week care to their patients
- The network will facilitate the "ePhysician Project" (ePP), an electronic exchange of patient information with consent from patients
- $150 million has been allocated for Information Technology to support new Family Health Networks (examples include connectivity with labs and hospitals, a clinical management system, a core data set, etc.)

2.1d Community Care Connects! (C3):

- C3 is a project whose goal is to develop an information management system to support the 43 provincial Community Care Access Centres (CCACs) in the delivery of their service
- The secure network will support an integrated computer system for CCAC operations which will encompass the provision of a core information system, commercial desktop software, etc.
- Subsequent phases of the project will enable linkages with other health service providers, agencies and facilities

2.1e Ontario Laboratory Information System (OLIS):

- A province-wide, electronic distribution channel will be provided
- The system will enable electronic transmission of lab test results
- Planned enhancements to the system include support for on-line validations, billing, and access to special databases (i.e. Cancer Care Ontario)

2.1f Integrated Services for Children Information System (ISCIS):

- The system is intended to support the Office of Integrated Services for Children
- It will be a multi-staged project which will ultimately support programs such as Healthy Babies Healthy Children, Pre-school Speech and Language, as well as provide autism support, and other related services for children

2.1g Health Network System (HNS):

- Formerly, the program was known as the Ontario Drug Benefit Program
- When fully operational, the result will be a province-wide, computerized, on-line claims network

2.1h HIV Information Infrastructure Project (HIIP):

- This will provide access to information, clinical data, and treatment protocols for those with HIV/AIDS

- On-line access to current research, linkages to medication and laboratory information will be available

2.1i Voluntary Emergency Health Record (EmHR):

- Access to a repository of critical, patient-specific information for health service providers will be available
- It will be implemented through voluntary patient participation

2.1j Canada Health Infostructure Partnerships Program (CHIPP): Projects Funded in Ontario:

Funding was announced for the following five provincial projects:

- NORTH (Northern Ontario Remote Telecommunications Health) Network
  - Working with more than 70 partners, NORTH Network will expand to 47 sites
  - The Network provides communities with access to medical services, including teleconsultations, distance education and educational programming
  - The Network creates a practical framework for the delivery of telemedicine to First Nations communities
- Project Outreach
  - Telepsychiatry services will be provided between four psychiatric centres and 40 remote municipal and First Nations sites
- Southwestern Ontario Telehealth Network
- Eastern Ontario Telehealth Network
- Regionally Accessible Secure Cardiac Health Records
  - The University of Ottawa Heart Institute is developing a web-based, secure, regionally-accessible, cardiac health record system

2.2 Ministry of Energy, Science and Technology 2001-2002 Business Plan

2.2a Background

The Ministry has two core businesses: Energy, and Science and Technology. For the purposes of this Environmental Scan, only the information pertaining to Science and Technology was reviewed. The relevant work in this Ministry is to "encourage and support science technology and innovation [by] creating an innovation culture, building infrastructure and creating incentives to further enhance the province's capabilities to achieve economic growth and environmental sustainability."[75]

2.2b Some Highlights of Work in 2000-2001

- $20 million was allocated for the Biotechnology Commercialization Fund to establish centres in London, Ottawa and Toronto
- $50 million was invested to establish the Ontario Cancer Research Network in order to:
  - Support the discovery of new cancer treatments
  - Electronically link researchers, physicians and patients by a virtual network
  - Support laboratory research on cancer cells

75 "Ministry of Energy, Science and Technology– Business Plan 2001-2002"

- $117 million was provided through the Ontario Research and Development Challenge Fund to support research at universities, colleges, research institutes and hospitals
- $24.8 million was provided through Ontario's Centres of Excellence, and $11.3 million through the Premier's Research Excellence Awards, to support research in the field
- The Research Performance Fund was implemented
- $5 million over five years was allocated to the Youth Science and Technology Initiative
- Announcement was made of the Ontario Research and Innovation Optical Network whose purpose is to connect colleges, universities and research institutes through a globally linking network
- The Connect Ontario/GeoSmart joint initiative was implemented

2.2c Some Highlights of 2001-2002 Commitments

- The ministry's commitments were built around:
  - Enhancing community awareness and support
  - Building science and technology infrastructure
  - Creating incentives for commercialization and growth
- $10 million over six years will be provided for the Premier's Awards to senior researchers
- Continued support will be provided for the creation of community-based, biotechnology commercialization centres
- The Ontario Cancer Research Network will be delivered by an outside service provider
- Implementation of the Ontario Research and Innovation Optical Network will commence
- Continued support will be provided for Connect Ontario, and Youth Science and Technology

In Summary...

- The provincial government has supported the development of major health networks
- Smart Systems for Health (SSH), Telehealth, Community Care Connects, Ontario Family Health Networks are already underway
- Canada Health Infostructure Partnerships Program (CHIPP) supports programs such as NORTH Network in Ontario

Trends in provincial government priorities have been and continue to be:

- Biotechnology commercialization
- Ontario Cancer Research Network
- Post-secondary and institutional research
- Community and Youth Technology initiatives
- However, the 2001-2002 Business Plan contains more support for current programs than new spending

3 Regional "Technologic" Environment

The current status of technology in the region was outlined in a recent report entitled *Information Technology in Thunder Bay and Northwestern Ontario: A Status Report.*[76] With the permission of the author, this assessment of the current technologic environment forms the basis of the regional technologic scan.

In preparation of the report, the author conducted 25 interviews. Interviewees were from a variety of public and private sector enterprises throughout the City of Thunder Bay and the region. The interviewees were asked the following four questions:

- As you think of what has happened in the last two years regarding IT in Northwestern Ontario, what do you consider to be the bright spots?
- What are the dark spots?
- From your perspective, how do Thunder Bay and Northwestern Ontario compare with other northern cities and regions?
- What issues, opportunities and next steps are important to the continuing development of IT and an IT-enabled economy in Northwestern Ontario?

For health purposes, the report is somewhat limited in that the interviewees were not asked to approach the questions from a health technology perspective. However, the number of persons contacted in the field and the comments they bring with respect to new regional initiatives and challenges is very applicable to the more specific issue of health technology. As well, the status of technology in general has important implications for other health care issues. For example, a lack of high speed Internet services in certain communities may have significant implications for recruitment and retention of health professionals.

A summary of the interviews follows.

3.1 Bright Spots in the Last Two Years

- Highway 11-17 cellular service by fall, 2002 with plans for continuous service
- High-speed Internet connectivity in Thunder Bay, Kenora and Dryden (but still very little access for small businesses and consumers in other communities)
- Formation of Northwestern Ontario Technology Association to foster development of a technology cluster and to support members (20 members currently)
- Introduction of Telemedicine into Northwestern Ontario with NORTH Network thus connecting community hospitals (more than 40) and five First Nations communities with Thunder Bay using high-speed Integrated Services Digital Network (ISDN); a Teleradiology system is in the planning stages
- Kuh-ke-nah Network of Smart First Nations – Keewatinook Okimakinak First Nations Council was selected for the Aboriginal Smart Community demonstration project
- There has been participation in NORTH Network, Internet high school grades 8 and 9, the development of a variety of learning tools and the e-centres concept
- Northernsupplier.com and e-business study, a marketplace for Northwestern Ontario businesses
- IT business growth from 20 IT companies in 1998 to 57 companies in 2001
- Learning events are being offered
- Governments are valuing connectivity

[76] Wanlin, Margaret and Thunder Bay Ventures, "Information Technology in Thunder Bay and Northwestern Ontario: A Status Report", November 8, 2001

- Progress is being made through understanding business needs
- Availability of advanced computing power and technology at Lakehead University; the advanced Technology and Academic Centre is under construction; a new SGI Cray Origin 200 Computer is available
- 807 roll out
- Northwestern Ontario Technology Centre provides a virtual incubator concept
- Reduction in the cost of bandwidth and long distance
- Northern Genesis project
- City services are available on-line
- There are locally owned telephone companies in Thunder Bay, Dryden and Kenora
- There are champions and collaborators in the city and region
- Locally trained students are getting jobs
- Public internet access through 27 community access sites in Thunder Bay
- Smart Home builder recognized for work
- Substantial investment in Northwestern Ontario system development

3.2 Dark Spots

- Cost of bandwidth is still high compared to other regions and the rest of the country
- There is a long implementation phase
- There are gaps in connectivity (e.g. Emo and Rainy River; rotary dial telephones still exist in Northwestern Ontario)
- Lack of belief on the part of some that Northwestern Ontario can be a leader in IT
- There appears to be a lack of working together to achieve a co-ordinated vision for connectivity
- The recent downturn in the economy
- Students are leaving the area, more specifically, 80% of computer science students leave the region
- Some technologies don't work here
- Shift in the direction of FedNor which indicated it was not able to support the 807 roll out
- The technology sector is too small
- Locally owned telephone companies have some drawbacks
- Rotary dial telephones in some communities present a barrier to advancement by e-mail and speed connection, and accessing government information by telephone

In summary, most interviewees felt that Thunder Bay is on the verge of being in a fully competitive position with other northern cities. Some important next steps were suggested:

- Municipal government support is required
- There is a need to foster innovation and business growth
- A unified lobby for a co-ordinated vision must be developed
- There is a need to work together for co-ordinated implementation
- Growth needs to be based on pilot projects
- Private/public co-ordination is necessary
- Opportunities provided by government must be used
- System development should occur on a local and regional basis
- There is a need to make the best use of existing assets

In Summary...

Regional Technology Status:

- Shows many bright spots in the last two years including increased sector growth, implementation of telehealth, improved Internet access and connectivity and novel projects
- Cost, implementation, co-ordination and the need for continued growth remain as challenges
- Next steps need to be based on unified, co-ordinated support among all players for growth and implementation built on regional perspectives and assets

4 Trend #1: Biotechnology and Genomics

Recently, there has been much focus on development in the fields of biotechnology and human genomics. Yet one must ask, what is our understanding of the issues? What will be the impact, on our society and on our health, of increased knowledge and technology in these areas?

Biotechnology can be broadly defined as the use of living organisms (plants, animals and microorganisms) to develop and improve products. Traditionally, this has included such processes as breeding, fermentation, and the use of enzymes/yeast in bread and cheese making. [77]

The biotechnology sector is growing within the Canadian economy, with Canadian companies totaling more than $2 billion in sales annually.[78]

While biotechnology encompasses genetically modified foods and other products, it also takes in many health care products such as drugs, vaccines, and medical devices and diagnostics. Products in use in Canada include among others: insulin, a breast cancer diagnostic kit, smallpox vaccinations and treatments for burns and ulcers.[79]

Current regulation of the biotechnology sector occurs through the Canadian Food Inspection Agency and Health Canada. Health Canada assesses the health safety of products including foods, drugs, cosmetics, medical devices and pest control products. [80]

A recent Canadian study[81] presented to the Biotechnology Assistant Deputy Minister Co-ordinating Committee showed that Canadian awareness of biotechnology is growing, but the depth of knowledge remains relatively low. There is also growing concern, especially with regards to resultant biotechnological health issues, although health gains remain as the greatest perceived benefit of development. As well, the study showed a growing demand for regulation and caution.

77 BIOTECanada, "What is Biotechnology?" http://www.biotech.ca/EN/whatisbiotec_set.html

78 Ibid.

79 Ibid.

80 Canadian Food Inspection Agency: Office of Biotechnology, "Regulation of Biotechnology in Canada" http://www.inspection.gc.ca/english/ppc/biotech/bioteche.shtml

81 Pollara Research, Earnscliffe Research. and Communications, "Executive Summary Public Opinion Research Program", July 2000 http://biotech.gc.ca/docs/engdoc/2Wavexec-e.html

The perceived benefits of biotechnology and genomics are great indeed especially in light of the Human Genome Project. Full sequencing gives rise to the idea of "personalized medicine." Major diseases have a genetic component and, therefore, genetic information holds major clues to individualization of health care.[82]

One author suggests that what is hoped for is:[83]

- The treatment and monitoring of disease can begin at an earlier stage
- The integration of therapeutics and diagnostics will increase
- Blood will be sufficient to diagnose organ/ tissue disease
- Adverse toxic events will be predicted
- Pharmacogenomics, molecular diagnostics, and personalized medicine will identify patients predisposed to risk and more rapidly translate research advances to the clinical setting

Others offer a more reserved picture, noting that, as of yet, genetic practice in primary care has undergone little change. In an article entitled *The Impact of Genetic Testing on Primary Care: Where's the Beef?*[84], Wulfsberg notes that despite genetic advances, lack of effective interventions and public resistance suggests slow assimilation into practice. It does not necessarily follow that once a gene is mapped and sequenced, as in the Human Genome Project, treatment is immediately following. The author further points out that the genetic alteration causing sickle cell anaemia has been known for 50 years, yet this has not translated into any therapies. Other studies referenced in the article suggest that, of people eligible for available genetic testing (e.g. for hereditary nonpolyposis colon cancer), low numbers are actually interested in screening. Not knowing means not being "different" and not having to face difficult issues.

The ethical, legal and social implications of biotechnology and genomics advances are still unknown and may need as much, if not more, attention than the potential medical advances. Additional challenges include the development of regulations, practice guidelines and educational materials.

5 Trend #2: E-Health

E-health can be defined as "the use of information and communications technologies in the delivery of health care and health promotion."[85] Some examples of these communications technologies include:[86]

- Virtual databases
- Electronic medical records
- Biomedical technologies such as implantable cardiac rhythm monitors
- Telemedicine consultations
- Long distance robotic surgeries

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82 Ogilvie, M, "What's Next? Personalized Medicine in a Post-Genome Era", e-Health Summit Conference website http://www.chmonline.ca/eHealthSummit/presentations.asp

83 Ibid.

84 Wulfsberg, E, "The Impact of Genetic Testing on Primary Care: Where's the Beef?", American Family Physician, 2000, Vol. 61:4

85 Ontario Hospital Association, "Building the Foundation for e-Health in Ontario: A Pathway to Improved Health Outcomes", May 2001

86 Ibid.

- Online continuing education and decision-support tools

These innovations have the potential to change the face of health care, as we know it. There are many proposed benefits to the use of information and communications technologies including:[87]

- Reduction in medication errors
- Faster treatment in emergencies due to electronic records
- Less duplication with information sharing
- Greater accountability with tracking
- Long distance access to specialists

However, although there is some research to support these conclusions, there is more work to be done in documenting actual health care system improvement.

As well, currently there are many barriers to the ideal use of e-health technologies. The report produced at the first annual e-*Health Summit*, held in June 2001, identified "financial constraints, privacy and ethical concerns, fragmentation within the system, and resistance to technology"[88] as challenges to overcome.

With respect to e-health in Ontario, there is also much work to be done. The Ontario Hospital Association's report on e-health states that "ICT in Ontario hospitals is characterized by insufficient funding, a shortage of skilled personnel, the absence of a co-ordinated system-wide approach, varying technological standards and limited strategic planning." For example, ICT investment by the health sector seems to lag behind other sectors. Banks invest approximately 8.6% of overall expenditures in ICT, the insurance industry about 9.4% and health only about 2%.[89] "As a result, a patch quilt of locally engineered ICT solutions has evolved."[90]

Key factors that the Ontario Hospital Association (OHA) identified for future success with respect to ICT include the following:

- Funding with increased private sector involvement
- The presence of skilled human resources
- Leadership
- A shared vision
- Co-ordination among various levels in the system
- Security and privacy controls
- Secure, electronic patient records
- Basic ICT capabilities across the board

The report authors seem to feel that progress to date has been limited, but that current initiatives are just moving into the action phase. Certainly, this perspective supports the idea that e-health is a crucial issue from a health planning perspective today and in the immediate future.

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87 Ibid.

88 Bisch, D, K. Dorrell, "E-Health Summit Report" http://www.chmonline.ca/eHealthSummit/index.asp

89 Ibid.

90 Ontario Hospital Association, "Building the Foundation for e-Health in Ontario: A Pathway to Improved Health Outcomes", May 2001

In Summary...

- Information and communication technologies have the potential to revolutionize health care delivery and improve health outcomes
- Barriers exist to implementation including funding, co-ordination, personnel and privacy issues
- These barriers are real issues to be overcome in Ontario as the move is made from vision to action.

V ISSUES IN HEALTH POLICY AND POLITICS

As a part of its review of Ontario hospital restructuring, The Change Foundation completed an overview of the "drivers of change" and their potential impact on health and the healthcare system.

The Change Foundation concluded that the trend in government policy towards fiscal responsibility, accountability and streamlining[91] is echoed throughout health policy and new health program requirements. Furthermore, the Foundation concluded that trends in government, such as those that follow, have impacts on health care and health care systems:[92]

- The movement to reduce the role of government in the administration of health care although government is not likely to devolve authority for health care in Ontario
- Political parties are less tied to ideology and are seeking to accommodate more interests
- The private sector is far more advanced in technical expertise than the public sector
- Responsibility shifts from the state to the individual, in general, but from provincial to municipal more specifically, and from federal to provincial
- The government's ability to attract managerial talent is decreasing
- The government is putting into place greater fiscal responsibility, accountability and streamlining (for example, published health goals and health status statements; Federal government statements about the quality of the health care system; hospitals being held accountable for quality and financial management)

1 Federal "Political" Environment

As previously suggested, health policy is driven by many factors including the current health environment. The Canadian Institute of Health Information and Statistics Canada have produced a report entitled "*Health Care in Canada 2001*." This report identifies both what is currently known and not known about the status of health care in our country. Further, it examines issues, which will shape the future federal health policy. What follows are some of the report's highlights.[93]

1.1 What We Know About Health Care in our Country

1.1a Increased Life Expectancy

- There has been, and will continue to be, an increase in life expectancy. Along with this, there has been, and will continue to be a better quality of life for older adults.
- In 1996/97, statistics indicated that nearly 185,000 seniors and 35,000 younger people lived in nursing homes or other institutions in Canada.

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91 Canadian Imperial Bank of Commerce, The Change Foundation, Arthur Andersen, "Making Restructuring Work: Alternative Paths for Ontario Hospitals Part Two", Toronto, 2000

92 Ibid.

93 Canadian Institute of Health Information, "Health Care in Canada 2001" http://www.cihi.ca/HealthReport2001/toc.shtml

1.1b Hospitals

- In Canada, the number of inpatient beds is decreasing, admissions are shorter, and there have been increases in day surgery programs.
- In the last five years, 275 plus hospitals were closed, merged, or converted. Research on the impact of these changes is ongoing.

1.1c Perceptions of Health Care

- The Canadian perspective on the importance of health care as a national priority has changed. In 1988 polls, the issue did not register. Now more than 50% of the Canadian population say health care should be a top priority.
- There is a public impression that more care is provided by individuals and the family than by the health care system in general
- One in ten employed Canadians work in health care
- Mental health is an issue in Canada and many people with depressive symptoms are not being treated

1.1d Changing Health Services

- Health promotion/prevention (e.g. new and expanding influenza programs) are now central functions of our system
- Telephone triage services are spreading across the country
- In September 2000, Canada's First Ministers agreed to make primary care reform a high priority
- The use of complementary and alternative therapies is increasing
- The concept of the health care team continues to evolve
- The centralization of care (e.g. surgeries) reduces complications and morbidity. However, the extent of centralization varies across the country.
- Telehealth care offers new solutions to the delivery of health care

1.1e Health Care Funding

- Estimates of health care spending (both private and public) are up 4.1% from 1999 to 2000 after adjusting for inflation and population growth
- Hospitals represent the largest category of health expenditure in the government's budget
- The percent growth in drug spending from 1985-1998 is more than twice as high as the growth in overall health care expenditures
- Seven out of every ten dollars spent on health care is publicly funded

1.1f Health Care Providers

- Home care services delivered by publicly funded programs vary across the country
- The number of RNs employed in 1999 was about the same as in 1998, but this is 2.5% less than five years earlier
- Overall, the number of physicians in Canada is the same as 10 years ago, but there are fewer family doctors relative to specialists
- While the number of family physicians has remained the same, there has been an increase in the percentage of female physicians
- Physician practice patterns are changing

1.2 What We Don't Know About Health Care in Our Country

While much is known about health care in Canada, there are a number of areas that require further investigation. For example, answers to some of the following questions remain elusive.

1.2a With Regard to Changing Health Care Services:

- How has the overall performance of the system changed since health care reform was introduced?
- How have access, costs, outcomes and impacts on families changed with the introduction of health care reform?
- What is the safety/efficacy of some alternative/complementary medicines?
- What is the most effective way to use e-technology in health care?
- How have employment/practice patterns of physicians changed over time?

1.2b Concerning Health Care Providers

- Do outcomes differ depending on who provides services?
- What are the numbers and working patterns of other health care providers besides nurses/physicians?
- What are the most effective recruitment and retention strategies for health care professionals?

1.2c On The Matter Of Health Care Funding

- What are the impacts of primary care reform on costs, outcomes, and access to services?
- Who is paying for, providing, and monitoring both public and private mental health care, as well as continuing care and home care?
- How will changes in health expenditures affect health care?

1.2d Regarding Hospitals

- Is the changing mix of hospital services effectively meeting community needs?

1.2e With Respect To The Impact Of Health Care

- What is the significance of differences in wait times across country?
- What is the physical, psychological, and emotional impact on those waiting for health care services?

1.3 Some Highlights of Federal Funding Commitments[94]

An additional $23.4 billion has been provided to support provincial and territorial health care services and early childhood development. More specifically:

- $18.9 billion has been earmarked over five years, starting in 2001/2002, toward Canada Health & Social Transfers (CHST)
- $2.2 billion through CHST has been allocated over five years for Early Childhood Development

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94 Canadian College of Health Service Executives, "Health Systems Update 2000-2001, 8th Edition"

- $1 billion has been directed towards the medical equipment fund starting in 2000/2001
- $500 million has been provided for Health Information Technology in 2000/2001
- $800 million over four years, starting in 2001/2002, has been directed to the Primary Health Care Transition Fund

In Summary...

Nationally, the following issues are shaping health and health care:

- Canadians are less satisfied with health care and consider it a national priority
- Health promotion and prevention are central to our system
- Primary care reform is a high priority for government
- The hospital sector is shrinking
- Mental health, institutional and home care services are common issues but vary in significance across country
- While it is known that the number of RNs is decreasing and the physician mix is changing, limited data on other health providers is available
- Service centralization can improve some outcomes. Furthermore, the level of centralization varies across country however; it results in differing impacts for care "closer to home".
- Health care spending is increasing, most rapidly on drugs
- There are MANY unknowns in the system which need to be addressed including the impact of reforms, the nature and extent of health outcome gaps and the best ways to address health human resource and funding issues

Federal funding provided an additional $23.4 billion targeted to support provincial and territorial health including early childhood development, health technology and equipment acquisition and primary care transition.

1.4 Health Care Studies

An increasing number of studies are currently exploring these health care issues on both a national and/or a provincial basis. Understanding our current federal context is part of deciding what the future of health care in Canada will look like. A number of important groups are currently examining these national issues.

1.4a Commission on the Future of Health Care in Canada, Chair: Roy Romanow, Commissioner, appointed April 4, 2001 by the Prime Minister[95]

The mandate of the Commission is to:

- Recommend policies and measures to ensure the long-term sustainability of a high-quality, universally accessible, publicly administered and funded health system -- a health system which offers quality services to Canadians, and strikes a balance between investments in prevention and health maintenance, and investments directed to care and treatment.[96]

95 Commission on the Future of Health Care in Canada, "Commission Mandate" http://www.healthcarecommission.ca/

96 Commission on the Future of Health Care in Canada, "Commission Research Program FAQ's" http://www.healthcarecommission.ca

The inquiry will occur in three stages:

- Fact-finding; an interim report was released in January 2002
- Dialogue with the Canadian public and stakeholders through "A Dialogue with Citizens" research project and public consultation commencing in March 2002 and covering 17 cities
- The development and presentation of a final report scheduled for November 2002
- Policy Forums: up to 6 televised programs are planned and scheduled to address the following:
  - Commission's research themes
  - Health Reform in Organization for Economic Co-operation and Development (OECD) Countries
  - What Canadians Expect of their Health Care
  - Constructive Collaboration: Governance, Roles and Responsibilities
  - Best Practices: Making the System Work
  - Rural Health: Defining Access
  - First Nations and the Health Care System
  - Ethical Issues and Resource Allocation in Health Care

For further information please access the following web site http://www.parl.gc.ca/37/1/parlbus/commbus/senate/com-e/soci-e/rep-e/repintmar01-e.htm

1.4b Standing Senate Committee on Social Affairs, Science and Technology, Chair: Senator Michael Kirby

On March 1st, 2001, the Standing Senate Committee on Social Affairs, Science and Technology, was authorized to examine and report upon the state of the health care system in Canada. In particular, the Committee will examine:

- The fundamental principles on which Canada's publicly funded health care system is based
- The historical development of Canada's health care system
- Health care systems in foreign jurisdictions
- The pressures on and constraints of Canada's health care system
- The role of the federal government in Canada's health care system[97]

The final report is due June 30, 2002. Public hearings were held across the country in the fall of 2001. Interim reports outline the role of the federal government in health and health care and focus on identifying all possible options for addressing these roles. The table that follows presents some of the preliminary findings.[98]

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97 Parliament of Canada, "Extract from the *Journals of the Senate* of March 1, 2001" http://www.parl.gc.ca/37/1/parlbus/commbus/senate/com-e/soci-e/rep-e/repintmar01-e.htm

98 The Standing Senate Committee on Social Affairs, Science and Technology, "The Health of Canadians – The Federal Role, Interim Report, Volume Four – Issues and Options, September 2001", Parliament of Canada http://www.parl.gc.ca/37/1/parlbus/commbus/senate/com-E/SOCI-E/rep-e/repintmar01-e.htm

Five Distinct Federal Roles In Health And Health Care	
Financing Role:	The transfer of funds for the provision of health services administered by other jurisdictions
Research And Evaluation Role:	Funding innovative health research and evaluation of innovative pilot projects
Infrastructure Role:	Support for the health care infrastructure and the health infostructure, including human resources
Population Health Role:	Health protection, health and wellness promotion, illness prevention, and population health
Service Delivery Role:	The direct provision of health services to specific population groups

For further information please access the following web site:
http://www.parl.gc.ca

1.4c "Framework for Reform, Report of the Premier's Advisory Council on Health in Alberta", Chair: the Right Honourable Don Masankowsky

On January 8, 2002, the Premier's Advisory Council on Health released its report on how to put Alberta's health care system on a sustainable foundation. The report focuses on people and makes recommendations on:

- Building wellness
- Collaboration
- Accountability
- Innovation

The report is a culmination of listening to presentations, reviewing reports, and examining trends and ideas from other places around the world. It is noted that Alberta's health care system is not sustainable unless there are major changes in how health services are funded and delivered.

Recommendations focus on staying healthy and making healthier choices and taking action around the broader determinants of health such as education, income, and lifestyle.

For further information please access the following web site:
http://www.premiersadvisory.com

1.4d The Saskatchewan Commission on Medicare, April 2001, Caring for Medicare: Sustaining a Quality System, Chair: Kenneth Fyke

Mr. Fyke, former Deputy Minister of Health, led the Saskatchewan Commission on Medicare, which undertook a comprehensive review and public dialogue to examine the ways to ensure a health care system for the future. The Commission stressed that the health care system must focus on quality, be more accountable, recognize the benefits of integrated teams of health care providers and the need to balance investments in treatment and investments in prevention.

> *"In a publicly-funded, single-payer system such as ours, we agree that those of us who are wealthy cannot buy more or better health services than those of us who are not. This means that Medicare must strike a balance between what is best for all and what is best for any one individual. Medicare is designed to ensure that everyone will be treated equally - and this means that we have to decide together which services to make available, and how much of our collective wealth to devote to health care."*

Commission on Medicare, Oct. 2000 Kenneth Fyke, "Caring for Medicare, The Challenges Ahead" [99]

Some of the recommendations include:

- The reduction of acute health care facilities to 20 in the province
- Smaller hospitals should be converted to "Primary Health Centres", open 8 to 12 hours per day or 24 hour "Community Care Centres" offering respite care or palliative care services

For further information please access the following web site:
http://www.health.gov.sk.ca/commission

1.4e The Clair Commission

Established by the Quebec government and reporting in the spring 2001, it suggested creation of a universal insurance system to pay for non-medical services for aging baby boomers. So called "old age insurance" would be financed by taxpayers and would provide funds for home-care services and old age homes. The scheme would help insure Quebecers don't loose their autonomy as they get older.

For further information please access the following web site:
http://www.iedm.org

2 Provincial "Political" and Policy Environment

2.1 Ministry of Health and Long-Term Care 2001 – 2002 Business Plan

In Ontario, the MOHLTC is responsible for overseeing and funding "an enormous and complex system of health services."[100] From an organizational perspective, the Ministry is divided into five core businesses:

- Public Health, Health Promotion and Wellness
- Ontario Health Insurance Program
- Integrated Health Care Programs
- Health Policy and Research
- Internal Administration

2.1a Highlights of Some Initiatives Announced in 2000 – 2001

- $186.2 million for development in regional cancer centres
- $27.2 million to increase access to new chemotherapy drugs
- The establishment of three new advanced cardiac centres

99 Ministry of Health and Long-Term Care, "You and Your Health Care: Building Our System for the 21st Century" http://www.gov.on.ca/health/english/surveys/dialogue_0701/booklet_2.html

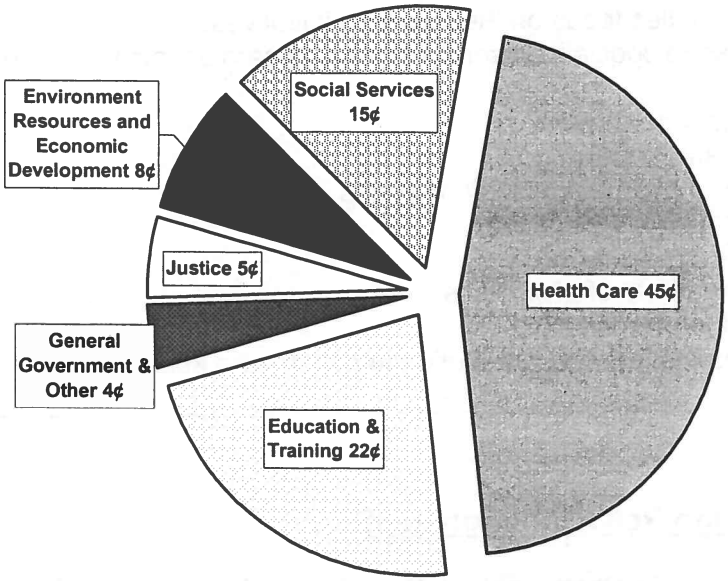
100 "Ministry of Health and Long-Term Care – Business Plan 2001-2002"

- $22.5 million to create 12 and expand 5 dialysis units
- Development of a strategy and legislation for organ and tissue donation
- Investments of over $1 billion in hospital funding for new beds, chronic care and rehabilitation facilities
- Funding of $10 million for a patient's charter and hospital report cards
- Expansion of the Ontario Breast Screening Program
- Approval of 42 MRI machines
- Launching of a province-wide screening program for certain genetic cancers
- Launching province-wide telehealth initiatives
- Ontario Medical Association (OMA) and MOHLTC Agreement to expand Primary Care networks in 6 communities; the provision of $100 million in incentive funding for physicians and $150 million for information technology
- The commencement of Laboratory Reform planning in three regions
- Establishing the Long-term Redevelopment Project
- Providing new funding to increase medical school enrollment, medical training programs and the participation of foreign doctors
- Allotting $2.5 billion for mental health and homelessness initiatives
- Introducing Brian's Law (amending the Mental Health Act and Health Care Consent Act)
- Establishing 9 Mental Health Implementation Task Forces
- Allocating $38 million for free flu shots
- Providing $17 million over five years for the Heart Health program
- Funding anti-tobacco initiatives, expanding diabetes education programs, establishing regional stroke centres

2.1b Some Highlights of 2001 – 2002 Commitments

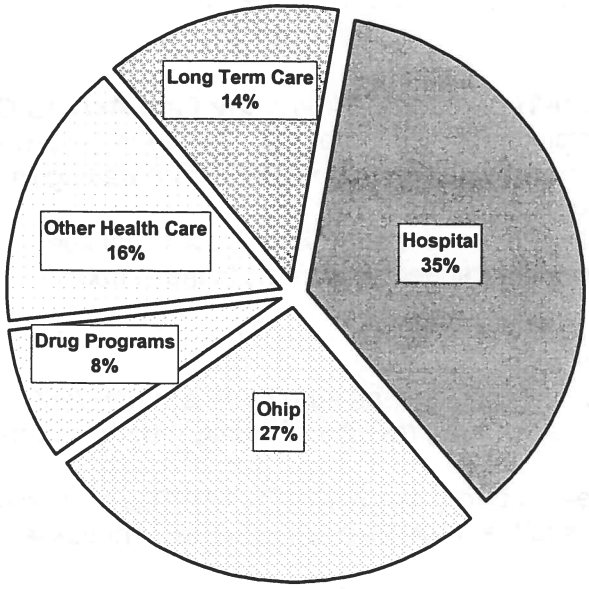
- The creation of public dialogue to discuss the future of Ontario's health care system initiated by the Ontario Health Survey
- Increasing health programs/services spending to 45 cents of every dollar
- Continuing to call on federal government to provide for 50% of all health care funding increases
- Strengthening accountability in the health care system by means of annual hospital reports, the requirement for balanced budgets and the linking of funding to performance
- Developing integrated and co-ordinated networks through rural and northern hospital programming, regional emergency service networking and the implementation of the Ontario Stroke Strategy
- Continuing a zero-tolerance policy for fraud
- Continuing primary health care system reform with a goal for 2003-2004 of having 80% of eligible family doctors voluntarily practicing in more than 600 Family Health Networks
- Making telehealth available province-wide by end of 2001
- Creating a Smart Systems for Health
- Continuing to develop long-term care beds across the province
- Working to increase the number of family physicians by committing to a Northern Medical School, increasing medical school enrollment as well as the number of post-graduate positions
- Allocating $26.4 million over 3 years to improve facilities for community mental health organizations
- Continuing to focus on public health promotion including free flu shots.

Budget Dollar Program Expenditure 2001 -2002



Source: Ontario Budget 2001, Responsible Choices Excludes major one-time health care spending

Budget Dollar Program Expenditure 2001 -2002



Source: Ontario Budget 2001, Responsible Choices Excludes major one-time health care spending[101]

[101] Ministry of Health and Long-Term Care, "You and Your Health Care: Building Our System for the 21st Century" http://www.gov.on.ca/health/english/surveys/dialogue_0701/booklet_6.html

In Summary...

Provincial budget priorities focus on the following initiatives:

- Improving access to specialized services such as cardiac, dialysis, stroke, and cancer
- Continuing primary care reform
- Promoting laboratory reform
- Establishing information technology networks
- Improving mental health services
- Increasing long-term care beds
- Increasing the numbers of physicians
- Supporting health promotion
- Calling for increased federal contribution to health care spending

3 Regional "Political" and Policy Environment

3.1 Current Health Issues in Northwestern Ontario Politics – Themes[102]

In order to develop a sense of the current health issues in the Northwestern Ontario regional, political environmental, "key informants" were contacted by means of a telephone survey. The following represents the main themes in their responses. They are not presented in any order of priority. These comments do not necessarily represent the views of the NWODHC.

3.1a Long-Term Care/Home Care/Community Care Access Centres(CCACs)

- People in the region are feeling desperate due to the perceived inadequacy of home care services, the size of the long-term care waiting lists and the quality of long-term care services
- Smaller towns have less and less ability to access services
- CCACs may discontinue speech programs in the schools

3.1b Seniors Services

- Currently, the number of long-term care beds is insufficient
- As the population ages, the provision of quality long-term care will be a challenge
- The lack of same-day transportation to Thunder Bay from many of the smaller communities adds to the stresses and expenses of necessary health care services
- Additional health care resources for seniors are needed

3.1c Human Resource Shortages

- In the region, there is a limited supply of professional staff, for example, pharmacists, clinical dieticians, radiation therapists, physicists, nurses, occupational therapists, physiotherapists, pathologists, and radiologists

[102] Information based on informal telephone survey of key informants

- There is a need for a strong, co-ordinated, regional plan for health human services and resources

3.1d Physician Shortage

- A large percentage of people in Thunder Bay do not have a family physician
- There is a lack of specialists (e.g. gastroenterologists, radiologists, etc.) which results in a decrease in diagnostic services
- Specialist shortages require people to travel long distances for care
- There is a lack of provincial funding for incentives to attract medical specialists to the area
- Some success has occurred in the smaller regional communities regarding family physician recruitment and retention

3.1e Nursing Shortage

- The nursing shortage impacts on regional service delivery (e.g. Lake of the Woods District Hospital closure of ICU in the summer of 2001)
- Midwives and nurse practitioners need to be more effectively integrated into medical practices and health care services

3.1f Allied Health Care Professionals.

- Audiologist services have been a problem but a change in OHIP coverage may improve this situation
- A lack of therapists and other health care professionals is adding to the problem of service delivery
- Recruitment and retention of health care professionals continues to be an issue

3.1g Mental Health

- Mental health is a major health care issue in the region
- Many with mental health needs do not receive treatment
- Many mental health services are not available, especially for the difficult-to-serve children, teens, and the elderly
- Additional human resources are needed in the mental health system in the region
- More advocacy is required in mental health services

3.1h Disease Status/Lifestyle Choices in the Region

- Diabetes and its complications have increased among the general population
- Greater incidence of kidney disease has resulted in an increased need for dialysis equipment and services
- A major issue for Aboriginal people is the higher incidence of certain diseases in NWO than in the province as a whole
- The per capita incidence of violence is one of the highest in Ontario
- There are increased incidences of cancer, with a 3% growth per year, along with a 7 to 10 % increase in demand for cancer services in the region
- There is a need for residents to receive dialysis care close to home

3.1i Northern Ontario Rural Medical School (NORMS)

- Without a full Northwestern medical school campus in Thunder Bay, there is a reduced opportunity for the recruitment and retention of medical professionals
- A medical school campus in Northwestern Ontario would increase health-issues research
- A full medical school, and its related businesses, could also provide and expand economic return to the region

3.1j Other

- Patients must leave the smaller regional communities to receive care; residents must travel to Thunder Bay to receive services
- There are public policy problems in that most programs appear to be ad hoc

3.2 Strengths Present to Help Address the Issues[103]

The "key informants" identified a number of elements in the region, which provide help in addressing regional health care issues. The themes represented in their responses are noted below. Again, these comments do not necessarily represent the views of the NWODHC.

3.2a Local Recruitment/Retention Work

- In some of the smaller communities, some success has been realized in recruitment and retention by employing new strategies. These included group practices, building new facilities, ensuring human resources personnel understand health human resources needs, retention done by the whole community through active welcoming and the inclusion of new physicians in municipal functions.
- Support for recruitment by local physicians has been increased
- Strong successful recruitment and retention committees have been developed in Atikokan, for example
- Some good local models to build upon have been developed in Marathon, Fort Frances, and Sioux Lookout
- Alternate Payment Plans (APPs) are working for small communities and should be expanded
- Improved working conditions have been successfully utilized (e.g. group practices, the inclusion of physicians and their families in the regional communities)
- Local recruitment efforts still need to address all health care professionals
- Lakehead University and Confederation College offer nursing programs
- The Native Nurses Entry Program at Lakehead University provides a mechanism for Aboriginal students to qualify for entry into the four year nursing program

[103] Ibid.

3.2b People and Communities

- There is a lot of goodwill within the communities of the region; people do care about the issues and want what is best
- There is a lot of concern regarding recruitment and retention issues
- The communities in the region are composed of self-sufficient and determined people

3.2c Presence of Regional Advocates

- The Home Community Cancer Care Program, Northwestern Ontario Regional Cancer Centre (NWORCC), is especially beneficial to seniors and their families who cannot manage the costs or anxieties associated with travel for cancer care
- Organizations such as the Northwestern Health Unit, NWORCC, and the NWODHC have been cited as regional advocates

3.2d Institutions

- The new regional hospital will be state-of-the-art
- The new hospital potentially will help to address the concerns about physician shortage across the region
- The Family Medicine North Residency Program has been expanded to include speciality medical services
- There is widespread support for the NORMS to be located at Lakehead University
- The Ontario College of Physicians has shown increased flexibility in granting restricted licenses to international medical graduates
- Lakehead University and Confederation College have developed a collaborative nursing program commencing in the fall of 2002
- Clinical placements for rehab students are co-ordinated throughout NWO by Health Sciences North at Lakehead University

3.2e Other

- The region has much to offer (e.g. Quetico Centre, small towns with amenities, clean air, etc.)
- The implementation of Telemedicine will improve patient access to physician assessment, health care education, and it will decrease the intellectual isolation of health care professionals
- Telemedicine will assist in providing more services closer to home

3.3 Challenges to Addressing the Issues[104]

While there are many regional strengths to help confront health care issues, a number of challenges remain. Key informants suggested the following as regional issues. They are not listed in order of priority and they do not necessarily represent the views of the NWODHC.

[104] Ibid.

3.3a Addressing Recruitment and Retention Issues

- Some competition among communities is emerging. Some municipalities and hospitals may be offering higher incentives than others in an effort to attract health care professionals.
- A Northwest regional co-ordinating committee needs to be established
- More provincial support for recruitment and retention is required
- Some medical staff are unhappy due to how medical staff perceive recruitment and retention efforts as opposed to how everyone else does
- There is a lack of medical professionals located in Northwestern Ontario, including family physicians, specialists, and other health care professionals. In some cases, medical staff may be below the critical mass for the retention of physicians.
- Recruitment needs to address work, environment, and lifestyle issues
- In recruiting health care professionals to Northwestern Ontario, spouses' needs should be addressed

3.3b Overcoming Geography and Demographics of the Region

- Geographical location creates recruitment issues because of the isolation of some communities
- Due to a small population base, many communities can't become totally self-sufficient
- Some respondents thought that the health issues in an aging population are a greater problem in the North

3.3c Funding

- There is a lack of funding to support recruitment and retention efforts
- There is a widely-held perception that the lack of funding is hindering new initiatives; that is, if you think you can't afford it, you won't even try
- There is a shortage of resources for home care, seniors services and LTC beds

3.3d Overcoming Fragmentation

- Silos exist in health care and, as a result, it is difficult for stakeholders to work together and develop integrated public policy that works; silos do not facilitate communication and teamwork.
- The MOHLTC needs to increase its awareness of issues outside of the big cities
- It is important for regional communities to "work together" on health care issues

3.3e Addressing Difficult Health Concerns

- Lifestyle related illnesses in the north (e.g. smoking, drinking, diabetes, dietary issues) add to the complexity of addressing health and health care in the region
- Addressing mental health issues in the region is more difficult
- There is a real challenge to achieving a balance in providing long-term care and maintaining quality of life in institutions and the quality of life people have living at home

VI CURRENT PHYSICAL-GEOGRAPHIC ENVIRONMENTAL ISSUES

A greater understanding of environmental health issues is emerging. Occupational health awareness, increasing diagnoses of environmental illnesses and recent tragedies due to unsafe water all highlight the importance of the environment as a determinant of health. The following issues[105] can be expected to have a large impact on health and health care.

- Global warming and ozone depletion which will result in:
  - Increased asthma
  - Rising prevalence of skin cancer
  - Emergence of environmental medicine
  - Mandatory monitoring and reporting
- Declining fish stocks
- Rain forest depletion
- Increasing use of genetically engineered crops
- Losses of species
- A need to ensure clean water
- Air and water quality
- Regulations regarding safe drinking water
- New standards to improve and protect quality of drinking water

1 Federal "Physical-Geographic Environmental" Issues

Over 90% of Canadians surveyed by Health Canada believe that our air, water and land are more contaminated now than ever before.

In 1997, Health Canada released a report entitled *Health and the Environment: Partners for Life.*[106] The following information and discussion is based on this report's executive summary.

From a global perspective, Canada's environment is relatively healthy. However, greater than "90% of Canadians surveyed by Health Canada believe that our air, water and land are more contaminated now than ever before."[107] What information do we have on our current environmental and health status?

1.1 Air

- Quality is improving
- Since the 1970's, there have been significant reductions in air pollution in some urban areas

105 Modified from Canadian Imperial Bank of Commerce, The Change Foundation, Arthur Andersen, "Making Restructuring Work: Alternative Paths for Ontario Hospitals Part Two", Toronto: 2000

106 Health Canada, "Health and the Environment: Partners for Life, Executive Summary", 1997 http://www.hc-sc.gc.ca/ehp/ehd/catalogue/general/97ehd215.htm

107 Ibid.

- Asthma affects more than 1 million Canadians, costing an estimated $500 million plus in health care in 1990; asthma has increased by 27% in boys and 18% in girls in the last decade
- Tobacco smoking has been banned publicly in many places since the 1980's
- A significant decline in the most common air pollutants has occurred between 1979 and 1993, although average ground-level ozone levels have climbed
- Studies show a strong association between the number of hospital admissions for respiratory symptoms and air pollutant levels of the previous day
- The incidence of malignant melanoma doubled, likely due to suntanning practices and ozone depletion
- Since 1895, the average global temperature has risen by 0.5°C and is estimated to continue at a rate of 0.3°C per decade over the next 100 years

1.1a Key Initiatives to Address Air Quality Include:

- National Air Pollution Surveillance Network
- National Ambient Air Quality Objectives
- No Volatile Organic Compounds (NO/VOCs) Management Plan
- Accelerated Reduction and Elimination of Toxins Program
- Canadian Environmental Protection Act
- Canada-U.S. Air Quality Agreement

1.2 Water

- Accessible water often contains small amounts of environmental contaminants, but they represent a minor source of contaminants compared to food and water
- The estimated health care cost related to water pollution in Canada is $300 million/year
- A 1993 study found approximately 40% of 1300 rural wells in Ontario had unacceptable levels of at least one chemical or microbiological contaminant
- Chlorine destroys microorganisms, but results in some potential by-products linked to certain cancers. However, the benefits outweigh risks.

1.2a Key Initiatives to Address Water Quality Include:

- Guidelines for Canadian Drinking Water Quality
- Guidelines for Canadian Recreational Water Quality
- The Drinking Water Materials Safety Act

1.3 Food

- Food accounts for 80 to 95% of our daily intake of persistent organic pollutants
- Microbial food-borne diseases cost an estimated $1 billion/year in health care
- The leading causes of food-borne illnesses are *salmonella, campylobacter* and *e-coli*
- PCB concentrations in Great Lakes fish are currently approximately 10 times lower than in the 1960's
- Mercury levels in blood and hair of First Nations peoples has dropped significantly since the 1970's

1.3a Key Initiatives to Address Food Safety Include:

- The Food and Drugs Act and Regulations
- The Pest Control Products Act and Regulations
- Health Canada's Market Basket surveys
- Great Lakes Environment Project for Aboriginals

1.4 Soil

- The extent of contamination varies widely
- 10,000 plus public waste disposal sites have been identified and 10% of these pose potential risk to human/environmental health
- There were 1500 leaks from fuel and oil storage tanks in the 1970's and 1980's
- Older homes are a source of lead-based paint contamination. Elevated blood levels are associated with behavioural and developmental issues in children and reproductive problems in adults.

1.4a Key Initiatives to Address Soil Safety Include:

- The National Contaminated Sites Remediation Program

1.5 Built Environment (Buildings, Spaces, Products Created or Significantly Modified by Humans)

- We are just beginning to understand the relationship between built environments and health
- Generally, they are cleaner/healthier than 100 years ago
- Noise pollution is an issue
- City spread encourages dependency on vehicles
- Limited access to affordable housing is a common problem in First Nations communities. Crowding promotes the spread of communicable disease.
- Injury is the leading cause of death in children under 14. Motor vehicle accidents lead the way.
- Some workplace environments are unhealthy
- The impact of low-level exposure to electromagnetic fields is unknown
- 32 million plus tonnes of solid wastes are generated each year in Canada

Currently, the federal government is involved in addressing these issues through "Health and the Environment." This program, under the jurisdiction of Health Canada, focuses on reducing health impacts of environmental origin and discovering and managing emerging issues.

In Summary...

- The environment has a significant impact on the health of Canadians in terms of morbidity, mortality and cost
- Generally, the state of Canada's environment is improving
- The federal government has initiatives in place to improve air, water, food and soil quality, although the greatest attention seems to be on air quality

2 Provincial "Physical-Geographic Environmental" Issues

2.1 Ministry of the Environment 2001 – 2002 Business Plan

The Ministry has two core businesses under its umbrella:

- Environmental protection
- Conservation and stewardship

As such, the Ministry is "working to ensure cleaner air, water and land, and healthier ecosystems for the health and welfare of all Ontarians and encouraging and providing guidance on environmentally sustainable use of water, land and resources."[108]

2.2 Some Highlights of Work in 2000 – 2001

- Progress has been made on the Anti-Smog Action Plan:
  - A moratorium has been placed on the sale of coal-fired electricity plants while environmental protection measures were reviewed
  - A framework for strict emission limits on Ontario Power Generation plants was applied
- The Ministry implemented regulations for monitoring and reporting by the electricity and industrial sectors
- Operation Clean Water was launched, including drinking water protection regulation
- There was inspection of water treatment plants, municipal sewage treatment plants and wastewater facilities
- The implementation began a three year, $6 million Provincial Groundwater Monitoring Project
- The toughest Environmental Penalties Act is in effect
- The launch of a new environmental SWAT team occurred
- The Ministry announced the toughest hazardous waste regulations

2.3 Some Highlights of 2001 – 2002 Commitments

- Continuance of Operation Clean Water and Groundwater Protection
- There were vehicle inspections by Ontario Smog Patrol
- Reduction measures related to sulphur dioxide
- Preparation of draft legislation to promote cleanup and development of "brownfields"
- Proposed legislation to create a corporation to address waste diversion
- Continued development of an information system
- Continued development/implementation of Canada-wide standards for certain chemicals

In Summary...

The provincial government is:

- Working to reduce emissions
- Working to create cleaner air and water
- Working to include building partnerships, inspections, monitoring
- Working to introduce legislation and penalties
- Committing minimal new money to environmental protection initiatives

[108] "Ministry of the Environment – Business Plan 2001-2002"

3 Regional "Physical-Geographic Environmental" Issues

The following environmental issues in NWO are the results of a "cursory" scan of the physical-geographical environmental issues in the region.[109] They represent limited discussion with "key informants" and they are not listed in any priority order. These comments do not necessarily represent the views of the NWODHC. They include:

3.1 Water Quality

- There has been a huge improvement in Great Lakes water quality through the elimination of toxins and zero discharge practices, however, 70-75% of toxins come from air pollution
- There is an international issue since a large amount of pollution is coming from United States
- The colder climate results in a slower breakdown of contaminants

3.2 Wildlife Contamination

- People are very tied to the environment in Northwestern Ontario
- The contamination of wildlife has a greater impact in Northwestern Ontario where many people depend on the environment for food sources (e.g. moose, fish, etc.)
- Mercury deposits in fish present contaminants in the food chain
- Mercury also affects drinking water

3.3 The Impact of Physical – Geographic Environmental Issues on Health and Health Care

- Food, air and water quality have physical health impacts
- More work needs to be done on the health effects of environmental issues in Northwestern Ontario

3.4 Strengths Present to Help Address the Issues

- Pulp and paper mills have made many improvements in the past 10 years
- Because of the use of different chemicals, there has been improved wastewater, with fewer suspended solids and less toxicity
- Lake Superior Bi-national Forum provides a vehicle for provincial, state, and federal governments to work together

3.5 Challenges to Addressing the Issues

- Getting international co-operation and agreements across North America may be difficult
- The area's colder climate and the cold temperature and depth of Lake Superior result in a slower breakdown of contaminants in the lake
- Increasing people's awareness of their respect on the environment (e.g. the use of individual vehicles, the day-to-day activities that affect environment, etc.)
- Decreasing people's consumption of energy

[109] Information based on informal telephone survey of key informants

VII CONCLUSION

As mentioned in the introduction, this environmental scan is intended to increase reader knowledge by highlighting certain political, economic, environmental, social and technologic factors and their relationship to health and health care.

In examining regional issues, certain overreaching themes appear across several categories. These themes include:

- Health human resource shortages, recruitment and retention issues on health and health care delivery in the region are widely felt
- There are issues of service provision and service shortages within communities, by CCACs, in long-term care, in mental health, and in other areas related to health professionals and front-line services
- The uniqueness of the region, its demographics, economic indicators, health problems, lifestyle choices, and First Nations issues present challenges to health and the delivery of health care
- There is strength of people and communities in the region. People are committed, hard working, and willing to take on new initiatives.
- Though some change is happening, more needs to be done.

Hopefully this *Environmental Scan – 2001/02* will serve as a starting point for future research, discussion and planning. In the process of conducting the scan, many opportunities for these activities were discovered.

VIII REVIEWERS' INSIGHTS

1 Where Do We Go From Here?

A draft of this report was provided to a number of health care stakeholders for critical review. In addition to specific content and format improvements, the reviewers also provided suggestions on how the report could be used and for future work on the topic. These suggestions are presented in this section.

- Before anything further is done with the report, it might be useful to get some additional feedback from selected key informants on their priorities, on how they might use the information, and on their interpretation of trends.

- It would be very helpful for hospital CEOs to use the *Environmental Scan* for trustee and staff development. It really helps to paint the backdrop against which hospitals are operating in the health system.

  The costs of running hospitals continues to spiral and the combined impacts of new drugs/technologies, the aging population, and labour contractual issues are continuing to create monumental problems for government.

- Portions of the report might be used by other agencies in their planning activities. Many of the socio-economic factors outlined impact all residents of NWO, although in different ways. Other groups don't need to re-do the research and analysis; you have already done the general environment. The report could also be used for regional and/or community workshops, media events, "call to action" sessions, and more.

- The report will be useful to administrators/managers who can benefit from an encapsulated review of the current trends/issues. In terms of planning, it does identify constraints for NWO as well as opportunities to unite as a community to address the issues.

- Once approved by council, it would be helpful to access this information whether it is through contacting the NWODHC or a complimentary copy being distributed.

- Challenge recipients to take 2 or 3 action steps and make public what they are. A group should brainstorm and then decide on the best uses for the report.

- This is an excellent report. A round table should be held to capture the women's perspective on the information, which could add valuable data.

- The report should be widely circulated to external stakeholders to stimulate their thinking and discussion in planning for the future. It is an excellent document.

- This is an excellent report for students (university, college, all levels) seeking a quick reference on the environment in NWO. The report should be circulated to regional hospitals, schools, and healthcare agencies.

2 Reviewers' Recommendations for Future Work

Reviewers suggested the following areas for future, more in depth consideration:

- Trends in drugs and new technologies
- Primary Care Reform
- Scope of Practice
- Health human resources
- Trends in medicine and care
- Lifestyle issues

IX APPENDICES

Appendix A: Northwestern Ontario District Health Council as of April 2002

▪ Eiji Tsubouchi, Chair	Thunder Bay – Provider
▪ Andrew Skene, Vice-Chair	Dryden – Provider
▪ Paulina Chow, Treasurer	Thunder Bay – Provider
▪ Trevor Giertuga	Thunder Bay City – Municipal
▪ Tammy McEachern Hughes	Thunder Bay – Provider
▪ Emile Blouin	Kenora – Consumer
▪ Joanne Ranger	Longlac – Consumer
▪ Clifford Bowles	Thunder Bay – Consumer
▪ Eric Rutherford	Beardmore – Municipal
▪ Janice Lessy	Thunder Bay – Provider
▪ Louise Sawchuk	Atikokan – Consumer
▪ Derek Mills	Sioux Lookout – Municipal
▪ Nancy Greaves	Sioux Lookout – Provider
▪ William Martin	Fort Frances – Municipal
▪ Frances White	Ignace – Consumer
▪ Walter Flasza	Thunder Bay – Consumer

Appendix B: Definition of Terms

Key Informant Interviews	They are qualitative, in-depth interviews of 15 to 35 people selected for their first-hand knowledge about a topic of interest. The interviews are loosely structured, relying on a list of issues to be discussed. Interviews resemble a conversation among acquaintances, allowing a free flow of ideas and information. Interviewers frame questions spontaneously and probe for information. Knowledgeable people provide information directly from their perspective and experience.
Primary Care Network	To improve the delivery of health care services in the province of Ontario, the Ministry of Health and Long-Term Care with the assistance of health care physicians introduced the Primary Care Networks Program. This initiative focused on shifting from an acute care, hospital service model to patient-centred and service co-ordinated approach. It emphasizes illness prevention, health promotion and community-based care. A planned system of care will: ▪ improve the quality and continuity of primary health care ▪ improve access to primary health care ▪ increase patient and physician satisfaction with the health care system
Primary Care Reform	Primary Care Reform was introduced by the Ministry of Health and Long-Term Care in 1998 when it adopted the recommendations from the Primary Care Reform Steering Committee. In Ontario, seven sites were initially selected to pilot a new model of primary care service delivery. The model currently being evaluated in Ontario is based on a Primary Care Network (PCN) of physicians and other health care providers, who enroll patients for the provision and co-ordination of primary care services. After hours assistance is provided through a telephone triage service. There are financial incentives for PCNs to provide preventative interventions. It is expected that information technology will be integrated into practice. Two physician remuneration mechanisms are being tested in the Ontario pilot. Most of the pilots are using a "capitation" model where physicians are funded based on the number of patients enrolled with them and not on the amount of service that they provide to each patient.

Telehealth	The use of communications and information technology in delivering health-care services and information over distances. The umbrella term "telehealth" was coined to include teletriage offered by phone, telenursing provided by allied health professionals as well as telemedicine.
Telemedicine Consultation	Telemedicine consultations "electronically" transport a health professional to a patient at a distant health care facility. By using video communications and medical instrumentation, a consulting physician can assess a patient in a distant location as if the patient were in the physician's office. The important benefits include increased access to medical specialty consultations, reduced travel time for patients and cost savings for patients and the health care system.
Telepsychiatry	Telepsychiatry is an innovative way to provide quality psychiatric assessments to underserviced areas. Psychiatrists deliver psychiatric services via interactive video teleconference facilities.

Appendix C: Acronyms

APPs	Alternate Payment Plans
C3	Community Care Connects
CCAC	Community Care Access Centres
CCHSA	Canadian Council on Health Services Accreditation
CEO	Chief Executive Officer
CHIPP	Canada Health Infostructure Partnerships Program
CHST	Canada Health and Social Transfers
CMA	Census Metropolitan Area
EmHR	Voluntary Emergency Health Record
ePP	ePhysician Project
FTE	Full Time Equivalent
GDP	Gross Domestic Product
HIIP	HIV Information Infrastructure Project.
HIV	Human Immunodeficiency Virus
HNS	Health Network System (formerly, Ontario Drug Benefit)
ICT	Information and Communication Technologies
ISCIS	Integrated Services For Children Information System
ISDN	Integrated Services Digital Network
IT	Information Technology
LTC	Long-Term Care

MCSS & CS	Ministry of Community and Social Services and Children's Secretariat
MOHLTC	Ministry of Health and Long-Term Care
NORMS	Northern Ontario Rural Medical School
NORTH	Northern Ontario Remote Telecommunications Health
NO/VOCs	No Volatile Organic Compounds
NWO	Northwestern Ontario
NWODHC	Northwestern Ontario District Health Council
NWORCC	Northwestern Ontario Regional Cancer Centre
OECD	Organization for Economic Co-operation and Development
OFHN	Ontario Family Health Network
OHA	Ontario Hospital Association
OLIS	Ontario Laboratory Information System
OMA	Ontario Medical Association
OPP	Ontario Provincial Police
PAIRO	Professional Association of Interns and Residents of Ontario
PCN	Primary Care Networks
RN	Registered Nurse
SSH	Smart Systems for Health

Appendix D: Chronology of the Development of the Federal Government in Health Technology

The following chronology of the development of the Federal Government's interest in health technology is provided by the Office of Health and the Information Highway (of Health Canada) website.[110]

April 1994 to 1997	**Information Highway Advisory Council** established to study how best to develop and use the information highway for the economic, cultural and social advantage of all Canadians
October 1994 to 1997	**National Forum on Health** established to advise the federal government on innovative ways to improve Canada's health system and the health of Canadians
September 1995	**Information Highway Advisory Council** final report identifies health as one of four key areas for the strategic application of information technologies to enhance the quality of life in Canada and envisions many potential benefits of a national health information infrastructure
February 1997	**National Forum on Health** final report "Canada Health Action: Building on the Legacy" recommends the rapid development of an evidence-based health system as well as the creation of a nation-wide population health information system
February 1997	**Budget 1997** provides $50 million over three years for a Canada Health Information System
August 1997 to February 1999	**Advisory Council on Health Infostructure** established to provide advice and recommendations on the development of a comprehensive Canadian health infostructure
Summer 1997	**Office of Health and the Information Highway** established to address new and evolving issues and to develop a long-term strategy regarding Canada's Health Infostructure
September 1997	**Canadian Network for the Advancement of Research, Industry and Education (CANARIE)** vision paper "Towards a Canadian Health Iway" envisions a virtual information centre providing health information to both professionals and public
February 1998	**National Conference on Health Info-Structure** co-hosted by federal and Alberta Ministers of Health emphasizes the importance of a health infostructure in modernizing the health system
February 1998 to June 1999	**Federal/Provincial/Territorial Chief Information Officers Forum** recognizes benefits of intergovernmental collaboration on information management and information technology within Canada's health system
March 1998 to December 2000	**Health Infostructure Support Program (HISP)** established to provide funding to innovative health information technologies and applications projects developed by communities across Canada
August 1998	**Tele-homecare Consultation Workshop** co-hosted by Health Canada and CANARIE calls for a national home care program that is networked, integrated, flexible and client-centered
September 1998	**Advisory Council on Health Infostructure (ACHI)** interim report "Connecting for Better Health: Strategic Issues" outlines Council's progress and calls for feedback on its interim conclusions
October 1998	**Workshop on Citizen Engagement and Accessibility in Relation to a National Health Infostructure** organized by Health Canada's Office of Health and the Information Highway to consider how to empower health consumers and the general public
October 1998	**Federal/Provincial/Territorial Workshop on Privacy** hosted by Health Canada in order to develop a strategic security framework to allow the transfer of personal health information across Canada
November 1998	**Information Technologies Serving Health: Consultation Workshop with Emergency Room Staff in Quebec Region** to consider how to better utilize information technologies in managing and organization care in emergency departments
February 1999	**Budget 1999** provides $328 million to further develop health information systems in Canada and $190 million to address the health care needs of First Nations and Inuit

[110] Health Canada: Office of Health and the Information Highway, "Canadian Health Infostructure: Chronology of Events" http://www.hc-sc.gc.ca/ohih-bsi/chi_ics/chronol_e.html

February 1999	**Advisory Council on Health Infostructure (ACHI)** final report "Canada Health Info*way*: Paths to Better Health" affirms the significant potential benefits of establishing a nation-wide health information highway
June 1999	Proposal to Develop a **Network of Health Surveillance** in Canada was endorsed by the Conference of Deputy Ministers of Health.
June 1999	Federal/Provincial/Territorial Chief Information Officers Forum evolves into **Advisory Committee on Health Infostructure** to develop national strategies to enhance the utility and use of information, and information technologies, in the health sector
November 1999	**Canadian Health Network** launched to provide Canadians with easy, online access to trustworthy information on health promotion, disease prevention, self-care and the performance of the health system
1999	**National Health Surveillance Infostructure** series of projects launched that promote access to, and the transfer of, health information using the Internet enabling health surveillance professionals to do their jobs more efficiently
1999	**First Nations Health Information System** created to provide timely access to health information for improved case management, program planning and health surveillance on First Nations reserves
January 2000	**Vision 2020 Workshop on Children's Health Care** organized by Health Canada's Office of Health and the Information Highway to explore the role of information and communications technologies in children's health care
February 2000	**Budget 2000** provides $366 million over four years for health information and information technologies
March 2000	**Vision 2020 Workshop on Information and Communications Technologies in Health Care from the Perspective of the Nursing Profession** organized by Health Canada's Office of Health and the Information Highway to explore the role of information and communications technologies in nursing
March 2000	**Vision 2020 Workshop on Information and Communications Technologies in Health Care from the Perspective of Health Care Administrators** organized by Health Canada's Office of Health and the Information Highway to explore the role of information and communications technologies in health care administration
May 2000	**Vision 2020 Workshop on Information and Communications Technologies in Health Care from the Perspective of Physicians** organized by Health Canada's Office of Health and the Information Highway to explore the role of information and communications technologies in medicine
June 2000 to 2002	**Canada Health Infostructure Partnership Program (CHIPP)** is a 2-year, $80 million funding program to support national implementation of information and communications technologies in health care delivery, particularly in telehealth for rural and remote residents, and in electronic health records.
September 2000	First Ministers reach agreement on a vision of health, principles, an 8-point action plan including health information and communications technologies, and accountability. The Canadian federal government announces investment of $500 million in an independent corporation mandated to accelerate the development and adoption of modern systems of information technology in health care.
October 2000	Over 400 health care professionals and representatives of stakeholder organizations participate in **Canada E-Health 2000: From Vision to Action conference**, October 22-24, 2000, sponsored by the Office of Health and the Information Highway.
May 2001	**Request for Proposals for Knowledge Development and Exchange**, with up to $1 million to support applied research to address the policy issues related to the implementation of information and communications technologies (ICTs) in health and health care in Canada.

Appendix E: Additional Resources

Helpful Resources

American Society of Association Executives	www.asaenet.org/environmental_scan/
Association of Municipalities of Ontario	www.yourlocalgovernment.com
Campaign 2000	www.campaign2000.ca
Canadian College of Health Service Executives	www.cchse.org
Canadian Council on Health Services Accreditation	www.cchsa.ca
Canadian Health Network	www.canadian-health-network.ca
Canadian Institute for Health Information	www.cihi.ca
Canadian Institutes of Health Research	www.cihr.org
Government of Ontario Websites	www.gov.on.ca
Health Canada	www.hc-sc.gc.ca
Lakehead Social Planning Council	www.lspc-circ.on.ca
Ministry of Community and Social Services	www.gov.on.ca/CSS/
Ministry of Energy, Science & Technology	www.est.gov.on.ca/
Ministry of Finance	www.gov.on.ca/FIN/english/neweng.htm
Ministry of Health and Long-Term Care	www.gov.on.ca/health/index.html
Northern Health Information Partnership	www.nhip.org
Northwestern Ontario Development Network	www.nodn.ca
Northwestern Ontario District Health Council	www.nwodhc.com
Northwestern Ontario Municipal Association	www.noma.com
Northwestern Ontario Technology Centre	www.notc.on.ca
Ontario Hospital Association	www.oha.com
TD Economics	www.td.com/economics
The Change Foundation	www.changefoundation.com

Appendix F: Ontario's "Speech From The Throne: A New Era for Ontario", May 9, 2002

The Ontario Government's *Speech from the Throne of May 9, 2002* included a number of items relevant to health and health care provincially and regionally. Highlights include:

1. ***Access to Health Care Today and Tomorrow***
   - The government's health-care strategy will be guided by the goal of improving access in a sustainable way for people in the province no matter where they live
   - A concentrated effort to combat breast and prostate cancer will be launched through the Ontario Research and Development Challenge Fund
   - The scope of the Ontario Cancer Research Network Fund will be expanded to make research on all forms of cancer eligible for funding
   - The Province, in addition to the Kirby and Mazankowski reports, and the upcoming Romanow Commission report, has undertaken its own consultation with health care stakeholders across the province with the following conclusions. Ontarians want:
     - A system that encourages wellness and healthy living
     - Quick and accurate diagnosis
     - Access to timely treatment
     - To be able to find nurses and a family doctor in their own communities
   - The province has begun to address these concerns by:
     - Immediately, continuing to add to the number of MRI diagnostic machines in the province to ease wait times
     - Immediately, increasing the OHIP-funded hours of operation of MRIs by 90%
     - Finding more innovative ways to deliver and expand other diagnostic and treatment procedures and services so they are more accessible to all Ontarians
     - Addressing the concerns about health care close to home through starting to help pay the tuition of doctors who choose to locate in areas that need doctors
     - Proceeding with a new northern medical school with full campuses in Sudbury and Thunder Bay in order to train more doctors and encourage them to practice in the north
     - Working with the health-care community in Ontario to encourage more foreign-trained doctors to locate in under-serviced areas and increase the certification rate of these individuals
     - Establishing a target of 80% of eligible, family physicians practising in Family Health Networks in order to increase access to service
     - More than doubling the number of nurse practitioners and expanding their role to include long-term care facilities, community health centres and emergency rooms
     - Announcing on May 8, 2002, $3 million in projects that will see 12 communities, previously without a family physician for an extended period of time, cared for by nurse practitioners
     - Committing to finding new ways to foster innovation, based on partnerships with the private sector, while preserving universally accessible health care
     - Moving forward with multi-year base funding for hospitals (giving hospitals three-year funding to enable better long-term planning)
     - Seeking the federal government's partnership in health care and support of the health care system
     - Providing greater emphasis on wellness and healthy living

2. ***Keeping Communities Safe***
   - The government will continue to help children who are trapped in violent family situations by continuing its zero tolerance for violence against women and by continuing to build on relationships with shelters, educators, legal-advocacy programs and child-care centres on ways to support front-line workers
   - The Province will create a task force to help reform correctional services in Ontario in consultation with stakeholders, front-line staff and management

3. ***Economic Growth and Innovation***
   - The newly created Ministry of Public Safety and Security will help maintain the physical and economic security of Ontario through bridging with all provincial ministries
   - The Province will promote research and innovation through its Research and Development Challenge Fund (since 1997, the fund has announced more than $377 million of public-sector funding and leveraged nearly $1 billion in private-sector investments for 88 projects in universities, colleges, hospitals and research institutions around the province
   - The Province will also expand its investment in the knowledge economy by supporting universities and research institutions in creative ways (e.g. a partnership to help create Medical and Related Services Discovery District in downtown Toronto, which will help move medical research forward)

4. ***Planning to Meet the Diverse Needs of All Regions***
   - For the first time, Ontario has 2 associate ministries to address the specific needs of urban and rural Ontario
   - Ontario's Smart Growth plan will promote and manage growth in ways that sustain a strong economy, build strong communities and promote a healthy environment
   - Planning for the future will mean allowing smaller and more remote regions of the province to take advantage of the economic growth seen in larger urban centres by introducing legislation to create tax-incentive zones in order to encourage both large and small business to invest, relocate or expand in rural and northern communities
   - The Province will introduce legislation to allow municipalities to offer Opportunity Bonds tax-free to investors, allowing for more infrastructure development and giving municipalities more control at the local level

5. ***Planning Strong Communities Through Environmental Action***
   - The government will move forward with its clean-water strategy to ensure a clean supply of water for future generations
   - Ontario's Clean Water Legacy Trust will focus the government's actions, policies, reporting and enforcement efforts towards the best and toughest clean-water policy in the world

Sources:
The Honourable James K. Bartleman, Lieutenant Governor of Ontario, "Speech from the Throne, A New Era for Ontario", May 9, 2002, pages 5, 8, 10-17
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Mackie, Richard, "Eves Promises Better Method of Financing Hospitals, Schools", The Globe and Mail, Friday May 10, 2002, pages 1 and A8.

May 10, 2002