Six Nations Primary Care Needs Assessment Study





Prepared for: Six Nations of the Grand River Elected Council 1695 Chiefswood Rd. P. O. Box 5000 Ohsweken ON, NOA 1M0 Ph: (519) 445-2201

March 31, 2010







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Executive Summary

Introduction

This report was commissioned by Six Nations of the Grand River to assess the state of primary health care programs and services at Six Nations. The report will determine the best recommendations for improving access and meeting the primary care needs of the Six Nations community.

The report is intended to be a foundation for developing a strategic approach that is based on documented community needs, available data and previous studies and surveys and a framework for understanding the viability of proposed solutions. The first step in this overall process is to determine and understand the gaps in services.

Overview of Study

The study identifies gaps in primary health care services at Six Nations, through an extensive examination of primary health care services available on the reserve and the health status of the Six Nations community. Data for this study was obtained through existing studies and documentation, consultations, and anecdotal testimonies. The data was then synthesized into general observations and recommendations for improvement.

In this study, Primary Health Care is defined as:

- the main point of contact with the health care system for most people and consisting of those interventions that trained professionals perform to protect and promote the health of people;
- the basic, life-long care which includes prevention (immunizations and advice on healthy living) and identifying and treating health problems, starting from new symptoms to long-term conditions (i.e. chronic diseases); and
- a recognition that primary care health professionals are the gate keepers to the broader health system and are responsible for referrals and coordinating care.



APPROACH & DATA REQUESTS

A three-phased approach will be used to determine the primary health care needs of the Six Nations Community. The approach as a whole seeks to provide a comprehensive and holistic assessment of current programs and services. This includes a thorough look at current facilities, users, and community members to determine gaps in programming and space allocation. The final phase involves a look at recommendations and options for improvement.

Phase 1

Current State Assessment

Timeline / Completion: December 17 to January 15

- Population demographics
- Health care characteristics
- Available programs and services
- Current health care utilization rates
- Review of existing care facilities
- Identification of current service gaps
- Review of any previous studies

Phase 2

Consultation with Community and Health Professionals

Timeline / Completion: January 4 to January 22

- First Nations leaders
- Health professionals
- Community consultations

Phase 3

Options and Recommendations

Timeline / Completion: January 25 to February 5

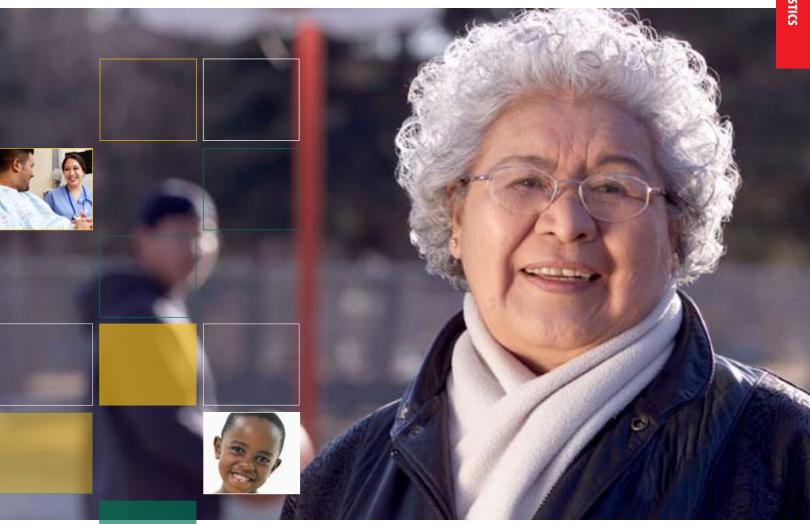
- Core and optional primary health care programs
- Potential partners for service delivery
- Future programs and services

Data required to complete Current State Assessment

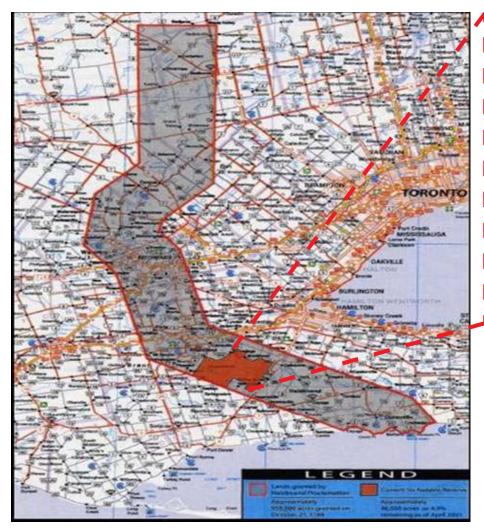
- Population demographic data (i.e. population statistics, age, sex, literacy rates, socioeconomic indicators, lifestyle and environment related indicators etc.)
- Health characteristic data (i.e. prevalence of chronic diseases and co-morbidities, health care trends such as health care access and utilization, hospital discharges, etc.)
- List of available programs and services in catchment area
- Information from any First or Six Nations health care related study

Data required to complete Community and Health Professionals Consultations

- From Six Nations leaders:
 - Six Nations strategic plan and long-term health care goals
 - Sources and schedule of funding
 - Funding allocations
- From Health Care Professionals:
 - Administrative challenges
 - Human resource challenges
 - Facility and space allocation challenges
 - Access to resources and equipment
- From Community Members:
 - Barriers of access to care
 - Challenges with currently available services
 - Awareness of available programs and services



The Six Nations of the Grand River, with a population of 23, 289 is the largest populated First Nations community in Canada.



The Six Nations currently has approximately 46, 500 acres of land. The Six Nations community is surrounded by three single tiered communities, Norfolk County, Brant County and Haldimand County, the Mississaugas of the New Credit First Nation and the City of Brantford. The Six Nations reserve is a short distance to major cities in Ontario and the US/Canadian border (see chart below). Only 0.1% (approximately 434 acres) of the currently available land is designated for community owned services (health centre, social services, tourism, public works, etc.).





Major Locations	Distance from Six Nations (in KM)
Hamilton, Ontario	48
London, Ontario	96
Niagara Falls, Ontario	96
Toronto, Ontario	112
US/Canadian Border	112

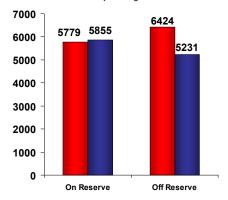
Population and Age Statistics

Age statistics serve to inform expectations of community health care needs, both in the present and in the future.

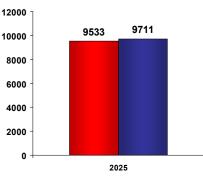
Currently, 50.05% of the Six Nations Community live off the reserve

- Average age of the on-reserve community member is 33.5 years old
- 40% of the on-reserve members are under the age of 25
- Females represent 52.4% of the Six Nations membership (includes those who live on and off the reserve)
- The average annual growth rate for the Six Nations community has been calculated at 2.60%
- In 1972 the on-reserve population was 4907 and the off-reserve population was 4148
- The projected on-reserve population is expected to grow to 19, 244 members by 2025
- This represents a 65.41% increase over the current on-reserve population







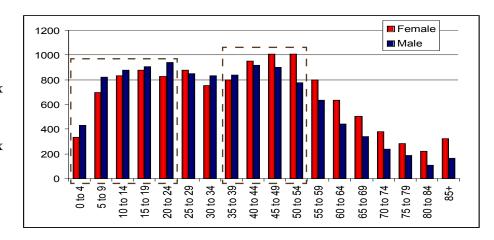


The Health Services Department provides health care related services to Six Nations community members that live on and off the reserve.

■ Female

■ Male

- The two highly populated age groups are:
 - 0 to 24 years of age (represents 32.35% of the total Six Nations population)
 - 35 to 54 year of age (represents 30.92% of the total Six Nations population)
- 11.74% of the population is age 65+
- Children and adolescents (0 to 14) represent 17.12% of the Six Nations population



Source: Six Nations Community Profile 2009, Six Nations Council

Previous Health Care Studies at Six Nations

Many studies, reviews and plans are available that highlight the health status, determinants of health, health care needs and offer opportunities for improvement.

The following documents were reviewed for the purposes of this health needs assessments:

- 1994 Health Needs Assessment
- Health Determinants Report for Six Nations Health Services, March 2002
- SHARE-AP Research Group Studies:
 - A Study of Health and Risk Evaluation in Aboriginal Peoples (SHARE-AP, July 17, 2000)
 - Cardiovascular Disease SHARE-AP Pamphlet
- Six Nations Health Services, "2023 in the Making", January 2003
- Comprehensive Community Questionnaire Results for the Health Services Accreditation Committee

The biggest challenge or limitation faced within many of the above methodologies, including the consultation process used in this process was engaging a significant portion of the Six Nations community, particularly, those individuals who currently do not access the health care system.

The following pages provide a summary look at these studies and their findings.

Six Nations of the Grand River Community Health Needs Assessment

Major Health Concerns at Six Nations:

- Heart Disease
- Diabetes
- Cancer
- Respiratory
- Dental
- Disorders of the Sense Organs (eyes, ears)
- Musculoskeletal (arthritis, back problems)
- Injuries (including car accidents)
- Impact of Lifestyle Issues

Mental Health including substance abuse, family violence

Impact of Lifestyle

Diabetes

Environmental Health

Other Issues:

- Needs of marginalized community members (i.e. children, developmentally delayed)
- · Pre and postnatal care
- Long Term Care

Primary Health Care Needs focused on healthy growth and development:

The assessment identified the following services and health care providers required to improve:

Accessibility to health services

- Walk-in clinic (emergency care, after hours care)
- More doctors
- Culturally sensitive doctors
- More native doctors
- Long-term "resident" doctor

Prevention and management of diabetes

- Dieticians services primary care, direct counseling, etc.
- Diabetic Education and Care (day care program) including additional staff, 5 to 6 day program utilizing services
 of nursing, dieticians, physiotherapists, chiropodist, public health nurse, social works, recreation therapist and
 pharmacist

Six Nations of the Grand River Community Health Needs Assessment (cont'd)

Specialist Services that are required for the Six Nations Community:

- Eye specialist (optomistrist, opthalmologist)
- Mental health specialist
- Dental health specialist
- Chiropractor
- Eye, ear, throat and nose specialist (allergist)
- Gynecologist
- Physiotherapist
- Speech Therapy
- Podiatrist, Chiropodist
- Occupations Therapy
- Nurse Practitioner
- Community Health Nurses
- School Nurses
- Community Health Representative
- Environmental Health Officer
- Health Promotion Advisor
- Drug Rehabilitation Counselors
- Youth Counselors
- Dental Assistants





Health Determinant Review

The Health Determinant Review was completed in 2002 to determine if the needs of the community were being addressed as effectively as possible.

In order to determine the overall needs, the review focused on two key areas:

- 1. Current health status of the community (through a review of external surveys completed by 229 households)
- Impact of all Health Services/Programs at Six Nations (through a review of internal surveys completed by 59 employees/staff)

The Health Determinant Review presented the following key findings:

- Three major areas of health problems were identified as diabetes, high blood pressure and high cholesterol.
- 79% of the respondents identified that they have a doctor off reserve.
- Six Nations Health services providers surveyed commented on their caseload:
 - 53% viewed their caseload as average;
 - 41% felt their caseload was excessive; and
 - 1% felt their caseload was impossible.
- Six Nations Health services providers were also surveyed on whether they felt the programs and services were meeting the clients/community members needs:
 - 37% thought they could be doing things differently or more in prevention; and
 - 46% thought they could be doing things differently or more in promotion.

Due to the limited number of household respondents, the Health Determinants Review did not adequately identify or quantify the magnitude of determinants of health for the marginalized Six Nations community members.

Example Suggestions of Improvement for various Health Services and Use of Services in this study were:

New Directions	More awareness of program to the community		
	More program plans for cessation of tobacco use and alcohol use		
	More education and awareness on alcohol and drugs in the school system, especially grades 6-8		
	Connections to other community services		
Gane Yohs	X-ray facility		
(primary care)	After hours and weekend walk-in clinic		
	More staff, including doctors, dentists and nurses (specifically Native/Traditional)		
	Should be open to everyone for minor emergencies		
Preventative medicine to enhance well-being			
	Less of a wait time for appointments		
	Need a larger facility to accommodate on-reserve residents who cannot afford to travel		
	Better advertising		
Mental Health	Needs own building (more space and more comfortable)		
	More patient to doctor counseling		
	More accessible		
	Interventions needed – counseling on site. Clients referred off reserve for treatments		
	More awareness in the community		

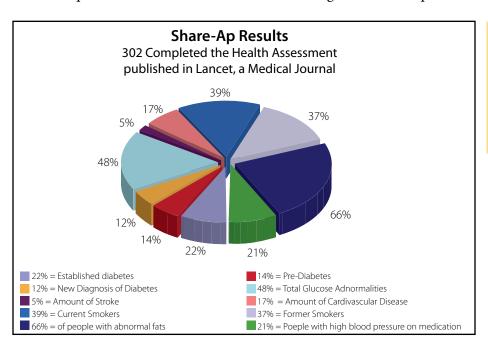
Source: Health Determinants Report for Six Nations Health Services, March 5, 2002

The Study of Health Assessment and Risk Evaluation in Aboriginal Peoples (SHARE-AP)

This study was a joint effort between the Six Nations Health Committee and McMaster University.

The aims of the study were to determine:

- 1. The prevalence of cardiovascular risk factors
- 2. The burden of sub-clinical atherosclerosis as measured by the B-mod Carotid Ultrasound
- 3. The prevalence of cardiovascular disease among a random sample of men and women from Six Nations



SHARE-AP Summary Findings

The rates of conventional cardiovascular risk factors including high blood pressure, elevated cholesterol, smoking, diabetes and obesity are higher than the rate among non-aboriginal Canadians.

SHARE-AP Detailed Findings

Cardiovascular disease at Six Nations is 2-3 times higher than national rates.

	SHARE- AP %	Canada %
Amount of coronary heart disease (CHD)	14	6
Amount of Stroke	5	2
Amount of cardiovascular disease (CVD)	17	8

Diabetes is approximately 5 times higher than national rates and Diabetes and pre-diabetes glucose abnormality rates at Six Nations are 48% which is more than double the national rate.

	SHARE- AP %	Canada %
Established Diabetes	22	3
Pre-Diabetes	14	12
New diagnosis of diabetes	12	6
Total glucose abnormalities	48	21

The Study of Health Assessment and Risk Evaluation in Aboriginal Peoples (SHARE-AP) (cont'd)

Smoking is two to three times higher at Six Nations compared to other Canadians.

	SHARE- AP %	Canada %
Current Smokers	39	16
Former Smokers	37	34
Have children who smoke?	69	NA
Other smokers in home	38	18
Participants whose parents smoked	78	74

High blood pressure is 7% higher at Six Nations than the national average.

	SHARE- AP %	Canada %
People with high blood pressure (BP) on medication	21	15
Average systolic BP	120 mm Hg	120 mm Hg
Average diastolic BP	67 mm Hg	73 mm Hg

Obesity rates at Six Nations are roughly 2 times higher than National rates.

	SHAF	RE-AP	Can	ada
	М	F	М	F
Average BMI (kg/m2)	32	31	28	27
Normal (=24.9)</td <td>9%</td> <td>17%</td> <td>18%</td> <td>40%</td>	9%	17%	18%	40%
Overweight (25-29.9)	29%	29%	50%	36%
Obese (>/=30)	62%	54%	32%	24%
Abdominal obesity (waist to hip ratio)	0.99	0.89	0.94	0.80
Normal (=0.79)</td <td>1%</td> <td>8%</td> <td>1%</td> <td>43%</td>	1%	8%	1%	43%
Moderate (0.80-0.89)	6%	49%	25%	49%
Abnormal (>/=0.90)	93%	42%	74%	8%

Additional findings from the SHARE-AP Study:

- Six Nations people have fewer sedentary jobs but spend less time doing physical activity in their leisure time than the general Canadian population.
- Fried food intake is high in SHARE-AP compared to the general Canadian population
- Six Nations tend to have lower good chlesterol (HDL) and higher triglycerides than the general Canadian population. This lipid abnormality is usually associated with blood sugar abnormalities.

Source: www.snhs.ca/Share.htm SHARE-AP Cardiovascular Disease Pamphlet

"2023 in the Making" Service Gaps and Utilization Rates

This study reviewed existing services, utilization rates and gaps and needs.

Existing Services	Gaps & Needs	Utilization Rates
Primary Care Medical Services (Gane Yohs Health Centre) • Family Physicians • Arthritis program biweekly • Cardiologist (half day weekly) • Asthma program (community presentations) • Mental Health Services • Adult psychiatrist (twice weekly) • Child psychiatrist (monthly)	 Accessibility Walk-in clinic and emergency services More doctors More Aboriginal doctors Lack of residential doctors Lack of specialist services Lack of Traditional healers Additional mental health services Mental health unit Community health centre large enough to accommodate community needs 	 55% or respondents or 18% of the total community 33% surveyed would like to have more after hours care 22.2% surveyed would like to have more appointment times 21% surveyed would like to have more doctors 17.8% surveyed would like to have more Native doctors 16.8% surveyed would like to have long-term resident doctors
Off-reserve Health Specialists – Surv	vey respondents reported the followi	ng utilization rates:
• Eye specialists 67.7%	Other medical Specialist 39.4%	• Chiropractor 27.8%
Mental Health 11.8%	• Dietician 17.1%	• Physiotherapist 22.5%
• Gynecologist 38.7%	• Podiatrist 13.6%	• Dermatologist 19.6%
Obstetrician 34.3%Dental Health Specialist 56.1%	Occupational Therapist 7.8%	• Speech Pathologist 9.7%

"2023 in the Making" Service Gaps and Utilization Rates (cont'd)

Existing Services	Gaps & Needs	Utilization Rates
Primary Care Medical Services (Gane Yohs Health Centre) Laboratory and X-ray Dental Services Dental Assistant Program Dental Hygienist	 X-ray services ECG / EKG Equipment Lack of nurse practitioner Improved blood work services Additional dentists – there is a back log for non-emergency adult treatment Acquire services of a dental health specialist for adult population Limited program administered Educational services to individuals and groups Implement an after hours care program Emergency care services for adults and children Dental transportation component for adults Dental hygienist for school program and community presentations 	 41.4% utilize nursing service 95.6% surveyed are familiar with the nursing service 41.5% surveyed utilize the laboratory services 45.5% surveyed utilize the dental services

"2023 in the Making" Service Gaps and Utilization Rates (cont'd)

 Six Nations Long Term Care & Home Community Care Manager Lack of public knowledge of services Lack of public knowledge of services Additional transportation services Specialized nurses (2) Speech Therapist Health Advocacy Officer Traditional Wellness Coordinator Physio/Occupational Therapists Dietician Personal Support (19) Adult Day Program (half) Additional staff for all programs Additional programs 49.1% of health service providers and key informants stated visiting homemakers are needed to improve the community's level of health 15% of those surveyed indicated they would need homemakers assistance for an elder in their family over the next five years 28.3% endorsed visiting homemakers as a service needed to improve the community's level of health Lack of focus groups, sharing circles, support groups, information sharing sessions Education to families who have 	Existing Services	Gaps & Needs	Utilization Rates
 Adult Day Program (nair) Community Support Workers (6) Cooks (1.5) Decrease stress overload for caregivers Need daycare for patients Additional funding and resources Exploitation of services Clients are under-serviced or not at all – program expansion greatly needed 	 Home Community Care Manager Case Managers (4) Specialized nurses (2) Speech Therapist Health Advocacy Officer Traditional Wellness Coordinator Physio/Occupational Therapists Dietician Personal Support (19) Supportive housing apartments Adult Day Program (half) Community Support Workers (6) 	 Lack of public knowledge of services Additional transportation services Lack of drivers who are capable of strenuous lifting Better communications Input from clients to finalize decisions Natives working with Natives Lack of focus groups, sharing circles, support groups, information sharing sessions Education to families who have members that are affected by Alzheimer's Decrease stress overload for caregivers Need daycare for patients Additional funding and resources Exploitation of services Clients are under-serviced or not at all – program expansion 	providers and key informants stated visiting homemakers are needed to improve the community's level of health • 15% of those surveyed indicated they would need homemakers assistance for an elder in their family over the next five years • 28.3% endorsed visiting homemakers as a service needed to improve the community's level

"2023 in the Making" Service Gaps and Utilization Rates (cont'd)

Existing Services	Gaps & Needs	Utilization Rates
 Maternal/Child Centre Supervisor Midwives (3) Graduate Midewife Housemother (.5) Maintenance (1) Coordinator of Aboriginal School of Midwifery Instructor FAS/E Coordinator 	 Additional physical space Additional operational dollars Overall program expansion Licenses for midwives to order bloodwork and ultrasounds Ability to issue OHIP numbers at birth of babe Ability to register place of birth as Six Nations of Grand River 	18% of health needs assessment respondents indicated they would use the centre if available
Pharmacy	 Private ownership, need community based Extended hours of operation to include evenings and weekends Home delivery services 	• unknown

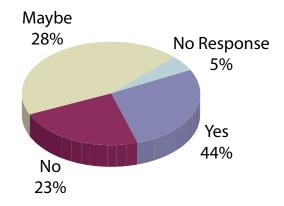
"2023 in the Making" identified 10 key strategies to guide the evolution from the current health care system to a long term, future health system at Six Nations:

- 1. Develop a position and health care concept model with respect to Six Nations members right to health care.
- 2. Achieve excellence in service delivery through accreditation by the Canadian Council on Health Service.
- 3. Adopt a community endorsed, holistic health plan.
- 4. Develop a long term capital and equity plan to acquire and maintain necessary community infrastructure, assets and service expansion.
- 5. Continue health studies as necessary to keep the community voice and health conditions known.
- 6. Construct a health facility at Six Nations that provides one-stop health referrals and provides access to daily necessary health treatments
- 7. Undertake a process to eliminate barriers to existing health services and ensures maximum utilization
- 8. Continue promotional strategies to ensure community awareness of available programs
- 9. Introduce public transit within the community in cooperation with other public service programs
- 10. Understand health concerns and difficulties experiences by off-reserve members.

Community Questionnaire

As part of the accreditation process, the Health Services Department conducted a community questionnaire in 2008.

Are the health care needs of the community being met?
51% of those surveyed were not sure or didn't think the health care needs of the community were being met.



Example responses of the types of health services that could be implemented included:

- 24 hour or after hours walk in clinic, more family doctor offices
- Care for the elderly
- Rehab services
- Medical transportation
- Improved screening for children e.g. sight, hearing, diabetes, obesity
- More space and improved funding for services
- Mental health and addiction in treatment services and community counseling
- More community awareness of the programs and services available and how to access them
- Pre-diabetes and diabetes programs
- X-ray and ultrasound
- Speech services for school aged children



The Six Nations Health Services Department plans and operates health services for the community.

Six Nations Health Services Vision

Six Nations Health Services, in partnership, envisions each community member will achieve and maintain their highest levels of health, functioning and independence. Six Nations Health Services will ensure each member is respected and treated as a valued human being by meeting the holistic health needs of the entire membership within Six Nations of the Grand River territory.

- The Six Nations Health Services Department is committed to building a healthy community that provides, promotes and protects culturally appropriate superior health programs and services for the Six Nations Community.
- Currently, the department delivers a range of services through 23 programs.
- The department operates the Six Nations Ambulance, Clinical Nurse Program, Community Health Clerks, Community Health Representatives, Dental Services, Animal Control, Healthy Babies/Healthy Children, Health Promotions, Iroquois Lodge, Long Term Care/Home Community Care, Maternal/Child Program, Medical Transportation, Mental Health, New Directions, School Nurse Program, SHARE-AP Research Program, Social Development and the new Six Nations Family Health Team.
- Funding for each program comes through different funding mechanisms:
 - Federal aboriginal health funding programs
 - Provincial health funding programs
 - Regional funding (primarily project-based, one-time funds)

		Stat	istics *
Services	Description/Key Activities	# of Clients Served	# of Appoint- ments
Ambulance Services	24 hour emergency health services to the Six Nations according to the Standards of Practice identified by the Ambulance Act of Ontario	1643 emergency calls	n/a
Birthing Centre – Maternal Child	Maternal & Child Services includes midwifery services, prenatal classes, women in all their season, mom programs, mom & tots, community prevention/promotion, culture based information	156	2904
Dental Services	Prevention/promotion, treatment, monitoring services to the school children and a limited adult population	722 children	4500 both children & adult & emergency patients
Early Childhood Development	Outreach/health promotion/prevention/intervention services to people suffering from the impacts on Fetal Alcohol Syndrome Disorder and promotes healthy child growth and development of children 0-6 years	4383	1408
Healthy Babies / Healthy Children	Prevention/promotion/intervention services to families in need of various specific support services to promote holistic family care	150	500 home visits
Clinic Nurses			
Sexual Health Nurse	Prevention/promotion activities, treatment, monitoring, case management activities in 3	631	166
Clinic Nurse	areas (schools, Gane Yohs Health Clinic and Public Health Office)	5878	6500
Family Health Team	 Primary health care services Providers include two family doctors/general practitioners, nurse practitioner, traditional healer, social worker nurse manager and other specialists 	3096	3096

		Stat	istics *
Services	Description/Key Activities	# of Clients Served	# of Appoint- ments
Iroquois Lodge	Residential Long Term Care lodging for the elderly Six Nations community	50 beds	n/a
Long Term Care / Home a	nd Community Care		
Professional Services	 Interventions/rehabilitative/supportive in home services to community members Long term care providers community support 	1432	8528
Adult Day Care	 and personal support services Home Community Care provides professional services to the community such as nursing, speech advocacy, traditional wellness, adult day care, etc. 	16	1092
Mental Health Services		•	•
Building Healthy Communities	Outreach, assessment, information, referral and supportive housing services	174	2768
Early Intervention in Psychosis, Intensive Case Management, Release from Custody, Urgent Case Management & Supportive Housing		104	2554
New Directions			
Alcohol/Drug/ Gambling/Youth	Prevention/promotion, counseling, case management, 24 hour crisis services for all ages	210	2068
Community Health Representatives	and specific community services on Saturdays, year round	330	110

^{*}Statistics based on 54th Elected Six Nations Council Annual Report 2008-2009 Source: Six Nations of the Grand River Health Needs Assessment, August 1994

The Six Nations Health Service Human Resource Plan (revised April 2006) identified key health professionals that would be required to meet future needs, for new services to be implemented at Six Nations by 2023:

- General medical practitioners
- Optometrists
- X-ray, MRI and laboratory technologists
- Chiropractors
- Nephrologists
- Registered nurses
- Nurse Practitioners
- Renal Social Workers
- Renal Dieticians
- Dialysis equipment technicians
- Paramedics

- Dentists and dental hygienists
- Personal Support Workers
- Physiotherapists/Occupational Therapists
- Speech Pathologists
- Psychologists
- Specialists
- Psychiatrists
- Midwives
- Obesity Specialists
- Endocrinologists
- Dermatologists

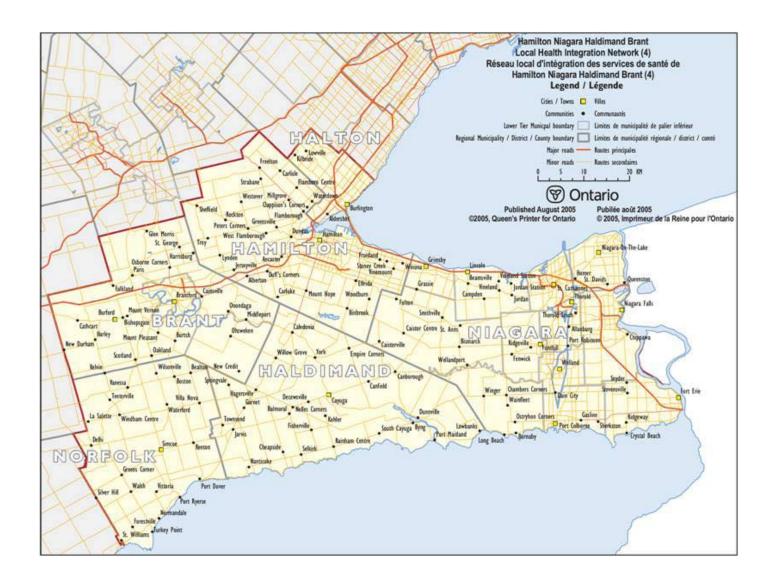
Source: Six Nations Health Services Human Resource Plan, Revised April 2006



Local Health Integration Network (LHIN)

Six Nations is part of the Hamilton Brant Niagara Halidmand (HBHN) Local Health Integration Network (LHIN) (regional health authority).

The HNHB LHIN is responsible to plan, integrate, and fund health care based on local needs. Currently, the LHIN is accountable for 199 health service providers that together provide more than 250 health programs and services for a total of over two and a half billion dollars. These programs and services include community support services, mental health and addictions services, community health centres, the community care access centre, long term care homes, and acute care hospitals. Currently, primary care is not within the jurisdiction of the LHIN.



Local Health Integration Network (LHIN) (cont'd)

The provider groups include:

- 88 Community Support Services (64 Community Support Services (CSS) Programs, 3 Acquired Brain Injury Programs, 21 Assisted Living Services Supportive Housing (ALSSH) Programs)
- 50 Community Mental Health and Addictions Programs (18 Addictions Programs, 32 Mental Health Programs)
- 8 Community Health Centres (including 10 sites) *
- 1 Community Care Access Centre
- 88 Long-Term Care Homes
- 10 Hospitals (including 23 hospital sites)
- The HNHB LHIN has a diverse population. For 18% of HNHB residents, English or French is not their first language. Francophones, First Nations, and urban and rural Aboriginal people are recognized populations in the HNHB LHIN. There are two reserves within the HNHB LHIN, Six Nations and Mississaugas of the New Credit. Approximately half of the First Nations population co-located in the HNHB LHIN live on reserve. The age structure of the on reserve population is younger than off reserve. According to data from Indian and Northern Affairs Canada, the age distribution of Aboriginal peoples who live on reserve is considerably younger. Seniors account for approximately 6.1% of the Aboriginal population who live on reserve in First Nations co-located in the HNHB LHIN compared to 12.7% for Off Reserve and 15.8% for LHIN as a whole.
- As of 2007, there were 965 family physicians in HNHB LHIN*
- Physician-to-population ratios vary across the HNHB LHIN area. As of 2007, there were 76 family physicians
 per 100,000 population in the HNHB LHIN, significantly lower than the provincial rate of 85 family physicians per 100,000 population. Within the HNHB LHIN, the lowest rates are seen in Haldimand, Norfolk, and
 Niagara.

Source: Hamilton Brant Haldimand Niagara LHIN website: http://www.hnhblhin.on.ca, except for *:

^{*} Source: Ontario Physician Human Resources Data Centre, Active Physician Registry, December 31, 2007, Report prepared August 25, 2008

MRI Wait Times

MRI Wait Times throughout Ontario, including the HNHB LHIN, are significantly longer than the provincial target that has been established by the Ontario Wait Times Strategy.

MRI Wait Times in Hamilton Niagara Haldimand Brant (HNHB)	Nov 2009 - Jan 2010
Diagnostic Scans	Wait time (days)
Magnetic Resonance Imaging (MRI) Provincial Target	28 days
Magnetic Resonance Imaging (MRI) Provincial Wait Time	117
Hamilton Niagara Haldimand Brant (HNHB) LHIN	103
Hospital Name	
Niagara Health System (Niagara)	84
Joseph Brant Memorial Hospital (Burlington)	97
Brantford General Hospital (Brantford)	101
Hamilton Health Sciences Corporation (Hamilton)	106
St. Joseph's Healthcare Hamilton (Hamilton)	125
Haldimand War Memorial Hospital (Dunnville)	NR/NS
St. Peter's Hospital (Hamilton)	NR/NS
West Haldimand General Hospital (Hagersville)	NR/NS
Willett Hospital (Paris)	NR/NS
West Lincoln Memorial Hospital (Grimsby)	NS
Religious Hospitallers of St. Joseph of the Hotel Dieu of St. Catharines (St. Catharines)	NS
Norfolk General Hospital (Simcoe)	NS

NR: Not required to report. The hospital provides this service, but did not receive extra funding to provide additional treatments this year, and therefore is not required to report wait times.

NS: No service information available. This means that the hospital does not offer this service during the period.

 $Source: Ministry \ of \ Health \ Wait \ Times \ website: \ \underline{www.waittimes.net/waittimes/en/wt_data_map.aspx?LHIN=4\&Mod=0}$

CT Wait Times

CT Wait Times in HNHB are longer than the provincial target.

CT Wait Times Hamilton Niagara Haldimand Brant (HNHB)	Nov 2009 - Jan 2010
Diagnostic Scans	Wait time (days)
Computerized Tomography (CT) Provincial Target	28 days
Computerized Tomography (CT) Provincial Wait Time	53
Hamilton Niagara Haldimand Brant (HNHB) LHIN	56
Hospital Name	
Norfolk General Hospital (Simcoe)	22
Brantford General Hospital (Brantford)	44
Niagara Health System ** Special note (Niagara)	54
Hamilton Health Sciences Corporation ** Special note (Hamilton)	58
St. Joseph's Healthcare Hamilton (Hamilton)	59
Joseph Brant Memorial Hospital (Burlington)	91
Haldimand War Memorial Hospital (Dunnville)	NR/NS
St. Peter's Hospital (Hamilton)	NR/NS
West Haldimand General Hospital (Hagersville)	NR/NS
Willett Hospital (Paris)	NR/NS
West Lincoln Memorial Hospital (Grimsby)	NS
Religious Hospitallers of St. Joseph of the Hotel Dieu of St. Catharine (St. Catharines)	s NS

NR: Not required to report. The hospital provides this service, but did not receive extra funding to provide additional treatments this year, and therefore is not required to report wait times.

NS: No service information available. This means that the hospital does not offer this service during the period.

Source: Ministry of Health Wait Times website: www.waittimes.net/waittimes/en/wt_data_map.aspx?LHIN=4&Mod=0

Building Audit

An audit of available services in terms of space planning and functional programming was conducted as part of this study. Anecdotal testimony was also gathered from health care providers to aid in understanding the shortcomings of the existing facilities.

The following pages reveal the findings of auditing existing facilities:

- White Pines Complex
- Jay Silverheels Complex
- Iroquois Lodge
- Ambulance Centre
- Birthing Centre









White Pines Complex

The new clinical building houses a wide range of services in a centrally located building.

Current Program

- Family Health Team
- Professional Services:
 - Mental Health Services
 - Health Promotion & Nutrition Services
 - Health Administration Offices
 - Childhood Development & Healthy Babies
 - Healthy Children Program
 - Social Services
 - Communicative Disorders
 - Speech Pathology
- Dialysis
- Physiotherapy
- Occupational Therapy

Gaps / Planning Problems

- Family Care original plan had called for 5 physicians. Currently there are 2, with room for only one additional physician (currently only 6 exam rooms).
- The waiting area for physicians is in the main atrium space, creating logistical problems for both patients and nurses.
- There is no on-site laboratory, pharmacy (or dispensary), or diagnostic imaging. There is a private pharmacy nearby with limited operating hours.
- Although the atrium space is architecturally impressive, the space could be used for expanded office and storage space which is badly needed, especially as new services and staff are acquired in the future.

Other notes

• New dialysis unit will be completed by late March of 2010. The unit includes 12 chairs and 1 isolation room. This unit will meet demand in the community.



Physiotheraphy / Occupational Therapy



Family Care waiting area



Atrium space



New Dialysis unit

Jay Silverheels Complex

The Jay Silverheels Complex is a Long-Term Care and Supportive Housing facility, with 24-hr Personal Support Workers on-site. The facility is at 100% occupancy, with a waiting list. The average stay is 6 years.

The building also houses a Community Care program, including a Meals on Wheels program.

Current Program

- 4 long-term beds
- 4 short-term beds
- shared, roll-in showers

Program Gaps

- Need 8 more beds to meet current community demand
- Hospice service is absent

Planning Gaps

- Additional office space needed for 4 additional case managers
- Separate soil and clean rooms needed
- Separate spaces for medication carts and equipment
- Separate boardroom needed
- Additional parking needed
- Accessibility standards need to be fully implemented
- Storage space problems
- Administrative offices should be in separate wing
- Exterior delivery space is inadequate
- Exterior greenspace/gazebo needs to be larger

Building Problems

- Cathedral ceilings are problematic for dropping tracks
- Staff have reported mould and pest problems



Shared roll-in shower



Medicine cabinet in office



Boardroom in office



Cathedral ceiling track

Iroquois Lodge

Iroquois Lodge is a 50-bed Long-Term Care facility for seniors and special needs patients. The facility is currently at capacity and there is a waiting list. There are 20 single rooms and 15 double rooms. Each room has its own private or semi-private washroom. Staff complement is 55. The building was constructed in 1983.

Current Program

• Long-Term Care

Planning Gaps & Problems

- Family Room needs to be larger.
- Activity Room doesn't have enough space for larger activities (e.g. exercise sessions).
- Staff room needs to be larger.
- Double rooms need to be larger to better accommodate lifts and other equipment.
- Storage space needs to be expanded.
- Nurse's Station needs to be larger.

Building Problems

- Kitchen needs better cooling and ventilation.
- The building is situated on very low ground, making site drainage a serious problem.



Iroquois Lodge



Family Room



Activity Room



Staff Room



Storage

Ambulance Centre

The Ambulance Centre is a 24/7 service facility built in 2001.

Current Program

- 2 ambulances
- one "first response" unit
- 4 paramedics
- 2-bay garage
- Paramedic lounge

Planning Problems

• There are program overlapping spaces, such as meeting room and office space in the same room, and storage space in the paramedic lounge.



Ambulance Centre



Boardroom / Office



Storage space in paramedic lounge

Birthing Centre

The Ona:grahsta (A Birthing Place) building is located on the outskirts of the Six Nations reserve. The building is a rather large house originally built in 1950, and renovated and opened as a birthing centre in 1996. Originally intended to accommodate under 10 births per year, the centre now manages an average of 90 births per year. There are no overnight stays.



Birthing Centre

Current Program

- 3 birthing rooms
- Family room
- Kitchen
- Resource Room
- Administration offices

Program Gaps

- Diagnostic imaging (ultrasound)
- Fetal monitor
- Midwife offices (need 4)
- Examination room
- Equipment cleaning room

Planning Problems

- Site location on the outskirts of the reserve has been cited as both a
 benefit and a problem. It is beneficial for the privacy of its patients in
 the rather small community. However, transportation becomes a major
 problem, as there is only one vehicle available, and costs (at \$15,000/
 year) are not billable to OHIP.
- An additional birthing room would be needed to meet community demand. As well, the existing birthing rooms are not soundproofed.



Typical Birthing Room

Birthing Centre

Planning Problems (cont'd)

- There is an ad-hoc approach to space usage, as patient space and administration space overlaps in many spaces. A separate birthing wing would allow greater privacy and "home-like" feel for patients.
- Birthing room tubs need to be larger.
- Water supply is ground water with high amount of sulphur septic tank.
- Electric base board heating creates varying temperatures in some rooms.
- Waiting area should be larger.
- Traditional medicine room needs better ventilation.
- Family Room needs to be larger.
- Resource centre is too small to hold public meetings, pre-natal exercise workshops, etc.
- Kitchen space is too small for pre-natal nutrition workshops.
- Hi-speed internet access "dead zone" means very limited access to e-mail and other online resources.
- Computer room was formerly an elevator shaft; needs a proper room with adequate cooling and ventilation.
- Additional storage / file space needed.
- Some rooms have inadequate or no ventilation.



Birthing room tub



Resrource centre



Kitchen



Consultation Objectives

The consultation process was used to acquire qualitative, experiential information and observations from key stake-holders in the Six Nations community. The objectives of the consultation process include:

- understanding the primary care programs and services that are currently available on the Six Nations reserve;
- understanding the current demand for primary care services;
- understand the challenges and needs of providers and the Six Nations community at large;
- identifying gaps in primary care; and
- identifying opportunities to improve primary care services for the Six Nations community.

Stakeholder Input

15 stakeholders ranging from health care staff and community leaders provided input in the consultation process.

Stakeholders represented many different areas of expertise and organization types, as reflected in the tables below. The stakeholders were able to provide insights into challenges they faced as professionals, through their different types of clinical and administrative roles and additionally, were able to share observations they had of the challenges faced by community members.

Stakeholder Area of Expertise	Organization Types Represented
Physician (MD)	Family Health Teams (FHTs)
Nursing	Community Care
Physiotherapist	Long Term Care / Home Care
Occupational Therapist	Birthing Centre
Health Administrator	
Speech Pathologist	
Community Leader	
Community Members	

Consultation results have been synthesized and placed in these three categories:

- Planning & Administrative, Provider & Community Member Challenges
- Current Primary Care Service Gaps
- Opportunities For Improvement

Planning and Administrative Challenges

- Six Nations Health Department receives funding from multiple government sources: federal, provincial and regional. The funding received can be operational/on-going funding or one-time funding. The variability and unpredictable nature of long-term funding creates challenges in adequately planning for programs and services which are truly based on community needs. Currently, funding does not meet the needs of the community.
- With certain funding programs or projects, restrictions enforce how the funds may be used. For example, some
 funding may be allocated specifically for establishing new programs or services, or restrict the types of cases or
 patients that can be seen.
- In general, funding is strictly monitored by the funding agency.
- Pay inequities between health care providers in the Six Nations community versus in health care agencies not on reserve make it difficult to recruit health care professionals to Six Nations programs and services.
- Programs and services are made available to Six Nations community members who live both on and off reserve, resulting in a strain on community services.
- In some cases, programs and services have stipulations that the patient does not have to live on the reserve to receive services (i.e. the Family Health Team)
- Physical space is not available to house the programs and services that are needed. Many providers are sharing available space, which has resulted in privacy issues for patients.
- There is a lack of after-hours programs and services such as urgent care and pharmacy.
- Dealing with historical trauma which includes a lack of trust in the government and new programs (which are funded through government agencies) being opened on the reserve.
- History of fragmented programs and services being available to the community, along with health care providers
 (i.e. physicians) who come in and out of the community.
- The Six Nations population does not receive equitable access to regionally available services because there is an inaccurate perception that these services are already available on the reserve.

Provider Challenges

- Many providers are working beyond their currently approved case load; that is, workforce demand is outweighing supply.
- Patients are presenting to providers with increasing levels of complexity; one provider is trying to support a patient beyond their true scope of practice.
- Some providers are limited to the types of patients that they can treat and/or support
- Educating community members on how to care for themselves, particularly for managing on-going, chronic diseases.
- Engaging community members early on before health conditions become acute and diagnosing conditions (i.e. chronic diseases) before they become more difficult to manage.
- Poor connections (information sharing, collaboration etc.) with regionally provided services off the reserve (e.g. poor relationship with the HBHN Community Care Access Centre).
- Providers travel in the community with their own personal vehicles.
- High turnover rate due to burn-out and significant demand placed on limited resources.
- Long waiting list for many specialized primary care providers.

The health care challenges faced by the Six Nations community go beyond the availability of primary care programs and services.



Community Member / Patient Challenges

- There is a significant elderly and aging population that currently do not have stay-at-home support.
- Due to turnover in health care providers, community members find it difficult to establish a trusting relationship with providers.
- Community members must understand that the primary health care team can include providers that are not physicians (i.e. nurses, physiotherapists, dieticians, etc).
- Transportation to services that are only available off reserve can be difficult, such as diagnostic imaging, referrals to different types of providers, etc.
- There is a lack of benefit plans to access certain care providers (e.g. dentists and physiotherapists).
- Many community members do not have a regular or consistent family physician.
- People who have been through addictions and rehabilitation programs have no support services once the program has completed. This generally results in relapse.



Program / Service Gaps

The following were identified as program/service gaps in primary health care on the Six Nations reserve.

- The availability of family physicians/general practitioners, case managers and other primary care providers including physiotherapists, occupational therapists, speech pathologists, dentists, etc., do not meet community demand.
- There is a lack of Diagnostic Imaging services, including x-ray, ultrasound, mammography and MRI.
- Pain management services
- Palliative care
- There is no hospice available on the Six Nations reserve.
- Home care, including occupational health services, physiotherapy, speech pathology and nursing.
- Foot care
- Additional lab services
- After hours clinic (similar to walk-in clinic and urgent care)
- Pharmacy
- Mental health (psychiatry) services
- Addictions and rehab services (e.g. drug, alcohol)
- Methadone Treatment Clinic





Opportunities for Improvement

The following were identified as opportunities for improving primary care services on the Six Nations reserve:

- The Six Nations Health Department must have the flexibility and freedom to plan, allocate funds and implement programs and services based on community needs over the long term, not sporadic planning based on current short-term available funding.
- Additional, available space is needed to appropriately house primary care programs and services.
- A wider availability of primary care health human resources (i.e. physiotherapists, physicians, nursing, traditional medicine practitioners, etc.) is needed.
- Six Nations run nursing agency
- Develop satellite clinics to make services more readily available to community members who face transportation challenges.
- Develop programs and services that blend both traditional and western approaches in order to draw and engage more community members in the continuity of care.
- Develop strategic partnerships with other Six Nations services (i.e. Child & Youth Services, Courts & Social Services) to fully engage and support more vulnerable community members.
- Additional administrative support can relieve the administrative burden that is placed on health professionals.
- Specialty Programs / Services
 - Chronic Disease Prevention and Management programs (including, but not limited to diabetes, heart disease, cancer and managing multiple chronic diseases)
 - Geriatric services, having a Six Nations Aging at Home strategy
 - Children and youth specific primary health care programs
 - Pain control clinic



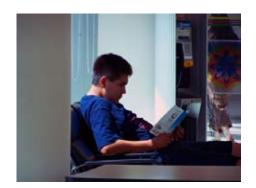


Findings and General Observations

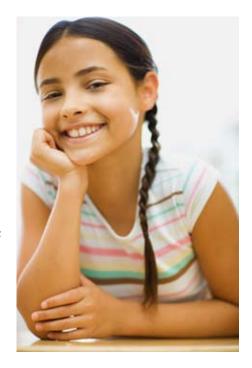
In general, findings reveal serious gaps in the medical services and their support systems available at Six Nations, as well as systemic problems arising from government policies and cultural and historical issues. These findings and observations can be summarized as follows:

- Six Nations Health Services Department has made significant advancements in the availability of primary care programs and services in the past decade. The addition of the new Family Health Team and soon to be operational dialysis unit will make significant impacts on the community.
- Current funding mechanisms (federal, provincial and regional funding streams) can be inconsistent making it difficult to adequately plan and deliver services for the community.
- Less dependency on external funding sources would allow the Health Services Department to have the flexibility to plan for the long term and implement services to meet the current needs of the community.
- The Health Services Department has a strong vision and plan in the "2023 in the Making" Long Term Strategic Plan, however, requires the commitment from the Counsel Leadership and funding to execute the plan.
- Limited information and data is available on the health status of children, adolescents and teenagers.
- Rates of chronic diseases (e.g. diabetes, cardiovascular disease, mental illness) and cancer rates for First Nations communities continue to be on the rise. A new study found that the incidence of diabetes is more than four times higher in First Nations women compared to non-First Nations women.*
- Basic clinical support services (i.e. diagnostic imaging services like x-rays and ultrasounds, extended hours for pharmacy and lab services) are not available on the Six Nations reserve.
- Pay inequities between health professionals who provide services on the reserve, compared to those who practice off the reserve create a recruitment and retention challenge for the Six Nations Health Services Department.





- Fragmentation and turnover of health service providers on the Six Nations reserve result in lack of trust and relationship building between the community and providers and increase the burden on the remaining providers.
- Recruitment of health care professionals with an aboriginal background could have a stronger impact on the Six Nations community.
- There is a lack of appropriate and available space house health care services.
- Transportation, to access services on the reserve and off, continues to be a barrier for many community members. This includes the lack of public transportation, limitations on the use of medical (volunteer) transportation and personal transportation (i.e. family owned vehicles, etc.).
- Studies are available that examine the determinants of health, health characteristics and utilization of health services. These reviews generally find the same challenges and limitations:
 - The reviews do not represent a significant portion of the Six Nations community.
 - Survey respondents and consultation participants generally represent those community members who are actively involved in the community, who are aware of health services and those who access health services on a regular basis.
 - Although these challenges and limitations exist, there is consistent
 findings on gaps in primary health care for Six Nations community
 members and opportunities to improve and expand services.
- Anecdotal evidence and data suggests that the current demand for primary health care services, home and community care exceeds the current supply.



Clinical Support Services

A critical aspect of health care is support services for the primary care elements. Support services include:

- Clinical Diagnostic Imaging
- Clinical Pharmacy
- Clinical Laboratory

While Six Nations Health Services has primary services in place for Family Care, Long-Term Care, and Birthing, many support services are only available off-reserve. A privately owned Pharmacy on the reserve has limited operating hours, and Lab and Diagnostic Imaging services are nonexistent.

The closest access to extended hours Pharmacy, Lab, and Diagnostic Imaging services for reserve members is in Brantford, 40 km away. For many residents, the lack of public transportation creates a serious barrier to accessing these services.

As well, anecdotal evidence strongly suggests that Six Nations members, both on and off-reserve, may be more conducive to accessing services in their own community, due to numerous historical and cultural issues of trust and government policy.



Clinical Support Services - Pharmacy

One of the most significant gaps in Primary Health Care services is the lack of a 24-hour or after-hours pharmacy on the reserve.

Problem #1

Current pharmacy operations are unable to comply with Ministry of Health requirements of dispensing prescriptions to elders in the seniors home. This gap may result in the loss of licensing and funding.

Problem #2

The existing pharmacy operation does not carry all of the required prescriptions. Patients and Health Services must go to off reserve pharmacies to ensure prescriptions are made available for patients. This causes disruption to patients to travel off reserve, and results in money flowing out of the community.

Problem #3

Patients requiring Methadone must travel to Brantford, as it is not available at the pharmacy. Council must carry the burden of transportation costs, and the practice puts patient treatment at risk.





Recommendations

Six Nations requires additional primary care services to meet the needs of the community, some services and programs being more immediate than others. The recommendations are grouped as immediate needs (primary recommendations), additional services that Six Nations should consider to be phased in (secondary recommendations) and additional recommendations that Six Nations can consider for improving engagement of community members in primary care and support providers.

Primary Recommendations & Immediate Needs:

Six Nations has made significant efforts to improve and expand the primary care services that are available to the Six Nations community. In order to further support the community and the primary care providers that provide care, the Six Nations reserve immediately requires additional clinical support services to ensure that continuity of care is received.

- Basic diagnostic imaging services:
 - General Radiography for producing images of the skull, chest, abdomen, spine, and extremities;
 - Ultrasound to support real-time images that can be used to examine internal organs, abdomen, pelvis, obstetrical and smalls parts, evaluate pregnancies and guide interventional procedures;
 - CT Scanner to obtain three dimensional images of the area of the body under examination;
 - Mammography, a low dose x-ray, to examine breasts;
 - Electrocardiography (ECG or EKG) to determine the activity of the heart over time captured;
- A facility or available space and multidisciplinary staff (i.e. technicians, sonographers, clerks, etc.) to operate the diagnostic imaging services.







MagneVU Portable MRI

Secondary Recommendations & Phased in Services

A new primary care, community-based health care facility, housed centrally on the Six Nations reserve, is required for the Six Nations community. This facility should be a multi-purpose primary care facility that could house clinic space, clinical support services and potentially grow to include social services, specialty services and clinics. The programs and services should be planned and administered by Six Nations Health Services Department.

- After hours urgent care clinic or at minimum, an after hours walk-in clinic
- Additional primary care (general practitioner/family) physicians who practice in a multi-disciplinary setting. The other primary care providers who are required to function in the multi-disciplinary setting are:
 - Nurse Practitioners
 - Nurses
 - Physiotherapists
 - Occupational Therapists
 - Speech Pathologists
 - Traditional Healers
 - Mental Health specialists (i.e. counselors, specialized nurses, etc.)
 - Addictions specialists (i.e. counselors, specialized nurses, etc.)
- Extended hours or 24-hour pharmacy
- Extended hour basic lab services (i.e. hematology, immunology, chemistry, microbiology)
- Specialty clinics (i.e. foot clinic, eye clinic, education on managing/ living with diabetes) to provide comprehensive care for those living with diabetes
- Similar to the Family Health Team, it would be beneficial for this new facility/programs to be partnered with and have access to the Ontario Telemedicine Program. This technology would help improve the community members access to specialty and specialists services off the reserve, while keeping their primary care providers informed of the care coordination and outcomes.





PharmaFirst pharmaceutical dispensaries connect patients with a live pharmacist via a private video conference link and dispense common drugs.

- Focused primary care programs are required for:
 - Children and adolescents;
 - Women, particularly those who are in their prime reproductive years and prone to having chronic diseases; and
 - People living with chronic diseases (one or many)
- The following should be considered as future opportunities to expand the programs and services available in the facility:
 - Adult dental services
 - Optometrists
 - Specialists (physician) offices/clinics (i.e. cardiologists, nephrologists, endocrinologists, etc.)
 - Psychologists and Psychiatrists
 - Pain Management
 - Palliative Care
 - Ophthalmologists



Additional Recommendations

- In order to engage those members of the community who have not been receiving regular primary care, the Health Services Department will need to develop awareness and engagement strategies.
 - One option for engaging marginalized members of the community is to include a Peer Outreach Worker, as a member of the multi-disciplinary team
 - This role would need to be filled by a Six Nations Community member, potentially someone who has faced similar challenges faced by other community members
 - This responsibilities for this role include:
 - Outreach services to high risk community members
 - Peer support and translation for identified populations/community member groups
 - Liaise and support patients/clients
 - Linking with essential community resources
 - Developing material and program supports that are culturally friendly
- The facility must be equipped with an electronic medical records system. Currently Practice Solutions is used by the Six Nations Family Health Team. One common application for all primary care services on the reserve will enable better communication, information access and the ability to collect health related data on the community that would support future planning efforts.





Next Steps

Once the need for a new diagnostic imaging facility is established, further study is needed in order to fully realize the endeavour. The data in this report can serve as the basis for studies in functional programming, staffing requirements, facility planning, conceptual design, and business planning. The comprehensive, evidence-based approach to needs assessment ensures that council can make informed decisions based on the actual needs of the community.

The first step in further study is to determine usage quantities for in-demand imaging services. A survey of on-reserve and off-reserve members, both those who are currently accessing services and those who are not, would be necessary to quantify current usage patterns, and project estimates for the demand placed upon an on-reserve facility.

A functional program outlines the functions, operations, activity, and staffing, major equipment, room and space requirements for each department or service in order to describe the components of a building.

It provides details of the facility's activities and resources and it provides an estimate of a facility's operating and capital funding requirements necessary to carry out the project.

The functional program describes the project in a narrative format and includes documentation which supports the capital project. The functional program contains pertinent information that an architect can translate into the design of a building.

The functional program consists of three major sections:

- 1. Summary
- Program
- 3. Project Budget





A Typical Imaging Centre

The following is intended as a starting point for further study in establishing a functional program and economic viability for a new facility.

A new Diagnostic Imaging Centre at Six Nations would serve to fill a number of gaps as per the findings in this report. For services such as Birthing and Family Care, a central diagnostic imaging unit is essential. As well, the same facility could potentially provide additional support services such as Laboratory and Pharmacy, with efficiencies such as sharing some administrative and/or reception spaces. The addition of a new centre would also reduce the frequency of patients having to obtain these services off-reserve, reducing transportation costs, garnering trust in the on-reserve system, and engaging community members who would otherwise not be able to access these services. The new centre would ideally be located very close to an urgent care and/or family practice unit to gain the fullest benefit in the community.



Services

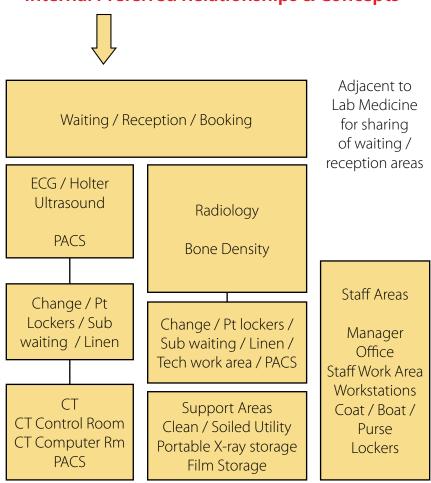
A typical Diagnostic Imaging Centre consists of basic imaging services to cover a variety of needs. These services may include:

- General Radiography for basic imaging of the skull, chest, abdomen, spine, and extremities. This unit would include fixed radiography units as well as Portable General Radiography for use in the Birthing Centre and Family Care Unit.
- Ultrasound uses high-frequency sound waves to produce real-time imaging of internal organs, abdomen, pelvis, obstetrical and small parts, and to evaluate pregnancies and guide interventional procedures. Small, hand-held ultrasound could also be employed in the Birthing Centre.
- Computed Tomography (CT) uses x-ray equipment to obtain threedimensional images of the area of the body under examination. CT examinations that use contrast enhancement require physicians to be on-site.
- Bone Densitometry
- MRI

Procedure Rooms

- Dedicated chest room
- General radiography inpatient
- Routine fluoroscopy
- Universal R/F
- Interventional cardiology / interventional radiography
- CT exam room
- Nuclear medicine with one full-body scanning camera
- MRI
- Mammography (upright unit)
- Mammography (prone unit)
- Ultrasound
- PET / CT

Internal Preferred Relationships & Concepts



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Buildings Audited

White Pines Complex

Jay Silverheels Complex

Iroquois Lodge

Ambulance Centre

Birthing Centre

