Weeneebayko Area Health Integration Initiative (WAHII)

Master Service Plan

14 September 2004

Altus Planning Inc.

EXECUTIVE SUMMARY

1.0 Introduction

The **Weeneebayko Area Health Integration Initiative (WAHII)** represents an inclusive, novel and bold effort to create an integrated, unified First Nations Regional Health Authority charged with planning and delivering health services to Weeneebayko Area residents living in the western coastal area of the James and Hudson Bay. The WAHII is funded through the Federal Provincial Health Accord signed in 2003, which designated special funding to advance the integration of aboriginal health services. The prime objective of WAHII is to improve the health services and quality of life for residents of the Weeneebayko Area.

The **purpose** of the Master Service Plan is:

1) To update the assessment of health needs and health services deficiencies for the Weeneebayko Area; and,
2) To outline a framework for an integrated regional health services plan that will respond to these needs for the next 10-15 years by improving access to quality health care and services in the following local communities: Attawapiskat, Fort Albany, Kashechewan, Moose Factory, Moosonee, and Peawanuck.

2.0 Planning Process

The development of the Master Service Plan occurred in three phases:

- *Phase I:* Analysis of background information relevant to service planning for the Weeneebayko Area (i.e., Strategic Directions, Health Needs, Service Capacity, Utilization Analysis and Benchmarking) was undertaken. This began with the analysis of previously conducted needs assessments, which were then updated with subsequent data and stakeholder input.
- *Phase II:* A draft of the Master Service Plan was developed and presented for discussion to communities and other stakeholders in the Weeneebayko Area.
- *Phase III:* A final draft of the Master Service Plan was prepared, incorporating *Phase II* revisions, and reviewed with the WAHII Steering Committee.

Following approval in principle by the Steering Committee, the Master Service Plan will be submitted to the governments of Ontario and Canada for review and comment. This document will later be supplemented by a facilities review. Together these two documents will approximate the Weeneebayko Area Master Program as outlined in the Ontario Capital Planning Manual.

3.0 Understanding Health in the Weeneebayko Area - Key Findings

Understanding the current and future health context of residents living in the service area is crucial to planning for real improvement in health services. In the Weeneebayko Area, the master service plan framework must respond to a health context that includes complex health needs and major service gaps, compounded by significant socio-economic deficiencies.

3.1 Needs Assessment

Analysis of population characteristics and health status as well as current and future health services influences indicate that the health of Weeneebayko Area residents requires urgent attention.

Population

- The WAHII service population is experiencing a high rate of growth. The current (2004) regional population of approximately 10,700 residents is expected to double in size around 2020 (see Figure A).
- Births per population are high for Weeneebayko Area communities, with a crude birth rate of 19.0% (births per 1000 population) in 2003 relative to 10.5% for Canada in 2002/03.
- The population of the area is exceptionally young, with 57% aged less than 25 years as of 2004. This compares to 33% for the same age group within Ontario.

Figure A: Weeneebayko Area Population Estimates by Community, 2004-2020 (Scenario 1)

Weeneebayko Area Reserves / Communities	Estimated 2004 Population		Projected Population Scenario 1[3]			
	Community Consultation[1]	Service Pop. Total[2]	2005	2010	2015	2020
Attawapiskat	-	1935	2012	2448	2980	3625
Fort Albany	1245	1040	1083	1316	1601	1950
Kashechewan	1710	1705	1774	2157	2625	3195
Local Services (F)[5,7]	-	220	229	278	340	415
Local Services (P)[6,7]	-	665	692	841	1024	1245
MoCreebec[4,7]	-	(385)[4]	(400)[4]	(487)[4]	(593)[4]	(721)[4]
Moose Cree[7]	-	1770	1841	2240	2725	3315
Moosonee	3200	3080	3203	3897	4742	5770
Peawanuck	-	275	286	348	423	515
TOTAL SERVICE	NA	10690	11120	13525	16460	20030

Notes:
1. *Community Consultations* = 2004 total population estimates for three communities differed from the *Estimated Service Population* Total based on feedback from the community consultations. There is a material difference in the community population estimates for Fort Albany and a relatively smaller difference for Moosonee. The *Service Population Total* estimates of 1040 for Fort Albany and 3080 for Moosonee were used pending further assessment of the difference during the next stage of planning.
2. *Service Population Total* = the 2004 total WAHII service population for the study estimated from available data shown per Figure 2.4. This includes Status, Non-Status residents and Off-Reserve residents who periodically return to WA Reserves/Communities.
3. *Projected Population* = *Service Population Total* column increased by an average of 4% per year based on historical trends and the young population growth potential.
4. MoCreebec population is bracketed because those living in Moose Factory are included within the *Local Services (P)* area population.
5. *Local Services (F)* = Federal Compound.
6. *Local Services (P)* = Local Services Area – provincial land.
7. Moose Factory population includes Moose Cree, Local Services (F) and Local Services (P) populations, including MoCreebec First Nation population.

Health Status

- Incidence and prevalence of chronic disease (e.g., diabetes, cardiovascular disease, asthma, cancer) are substantially higher in the Weeneebayko Area compared to Ontario. The prevalence of diabetes among aboriginal people in Canada is three to five times higher relative to the general population. A 2003 survey of a WA community indicated 10% of the residents had diabetes.
- The mortality rate in Northern Ontario is 18% higher relative to Ontario as a whole (7.4 vs. 6.3 deaths per 1000). Life expectancy is lower.
- Suicides and overdoses among young people in their teens and twenties in Weeneebayko Area communities are high with overdoses accounting for 17% of medivacs.
- The number of dental restorations among the population compared to extractions is very low (i.e., 1.35 teeth restored for every tooth pulled), indicating a high level of dental decay.
- Incidence rates are high and resource issues are significant for: sexually transmitted diseases, injuries and poisonings, infant mortality and pregnancy complications, and teenage pregnancies.

Current Health Services Influences

- Health services are delivered to Weeneebayko Area residents by multiple providers with overlapping responsibilities and differing mandates, policies and programs. This results in a complex, often inefficient system with high levels of overlap as well as gaps in provision of health services.
- Geographic isolation makes the movement of people and supplies difficult and costly. None of the six communities has year round road access. Except for Moosonee (which has railway service), air travel is the only means of reaching these communities from outside the Weeneebayko Area. With stop over time, the air travel time from Timmins to Peawanuck, the most northerly community, is about four-five hours at a cost of almost $1700 (round trip).
- Deficiencies in the physical and social environment of communities directly impact health in the area. These include housing shortages, inadequate sewage, water and waste disposal, high levels of unemployment, erosion of culture, and low levels of education.
- Poor nutrition, low levels of physical activity, tobacco use and alcohol and substance abuse are widespread in the Weeneebayko Area.

Future Health Services Influences

The following trends are expected to have a significant impact on future health service delivery:

- Continuation of current demographic patterns (high birth rate and unusually young population)
- Increasing rate of obesity and chronic disease (e.g., diabetes, cardiovascular and respiratory disease)
- Continuing problems with recruitment and high turnover of health staff
- Emerging technology, especially telehealth

- New economic development (e.g., Victor Diamond Mine in Attawapiskat)
- Deficiencies in the physical environment and socio-economic health determinants of many WA residents will continue to have an adverse impact on health needs for at least the next 5-10 years
- Increasing need for culturally sensitive care (e.g., traditional healing)
- Increasing opportunities in population-based research and health education, such as piloting special initiatives to prevent chronic disease (e.g., diabetes and asthma prevention); and, building local capacity by piloting health personnel training programs for First Nations (e.g., Native Nurses Entry Program at Lakehead University) and participating in rural medical education programs (e.g., Queen's University, Northern Ontario School of Medicine)

3.2 Major Deficiencies in Health Services

Analysis of the current provision of health services reveals serious service gaps:

- Chronic and Long Term Care: no LTC beds in any Weeneebayko Area community; lack of designated chronic and respite beds; and, inconsistent and uncoordinated community care assessment/placement service
- Acute Care: poor access to local acute care inpatient services, particularly in outlying communities
- Clinical Transportation: first response and/or emergency ambulance services inconsistently available in Weeneebayko Area communities
- Mental Health Services: need for a strengthened and coordinated community mental health program; and, need for regional mental health and acute detoxification inpatient beds in the Weeneebayko Area to stabilize and treat mental health and substance abuse patients
- Public Health: need for improved coordination and expanded disease prevention, health promotion and environmental health safety monitoring (community) services; and, insufficient disease monitoring and intervention
- Human Resources: difficulties recruiting and retaining nurses/nurse practitioners, physicians and other health professionals; inadequate access to specialists on an urgent basis; and, insufficient and fragmented staff education activities
- Technology: inadequate information technology infrastructure, which adversely affects the capacity to provide telehealth, electronic health records, and diagnostic services
- Traditional Medicine: no formal program in the Weeneebayko Area to access traditional healing resources in support of the cultural heritage of First Nations residents

These service gaps are compounded by significant deficiencies in physical and social environmental health determinants. These include exceedingly high unemployment rates of 50-80%, sub-standard and over-crowded housing conditions, and the lingering impact of the residential school program that has compromised the transfer of cultural norms and traditions, shredding the social fabric of these communities.

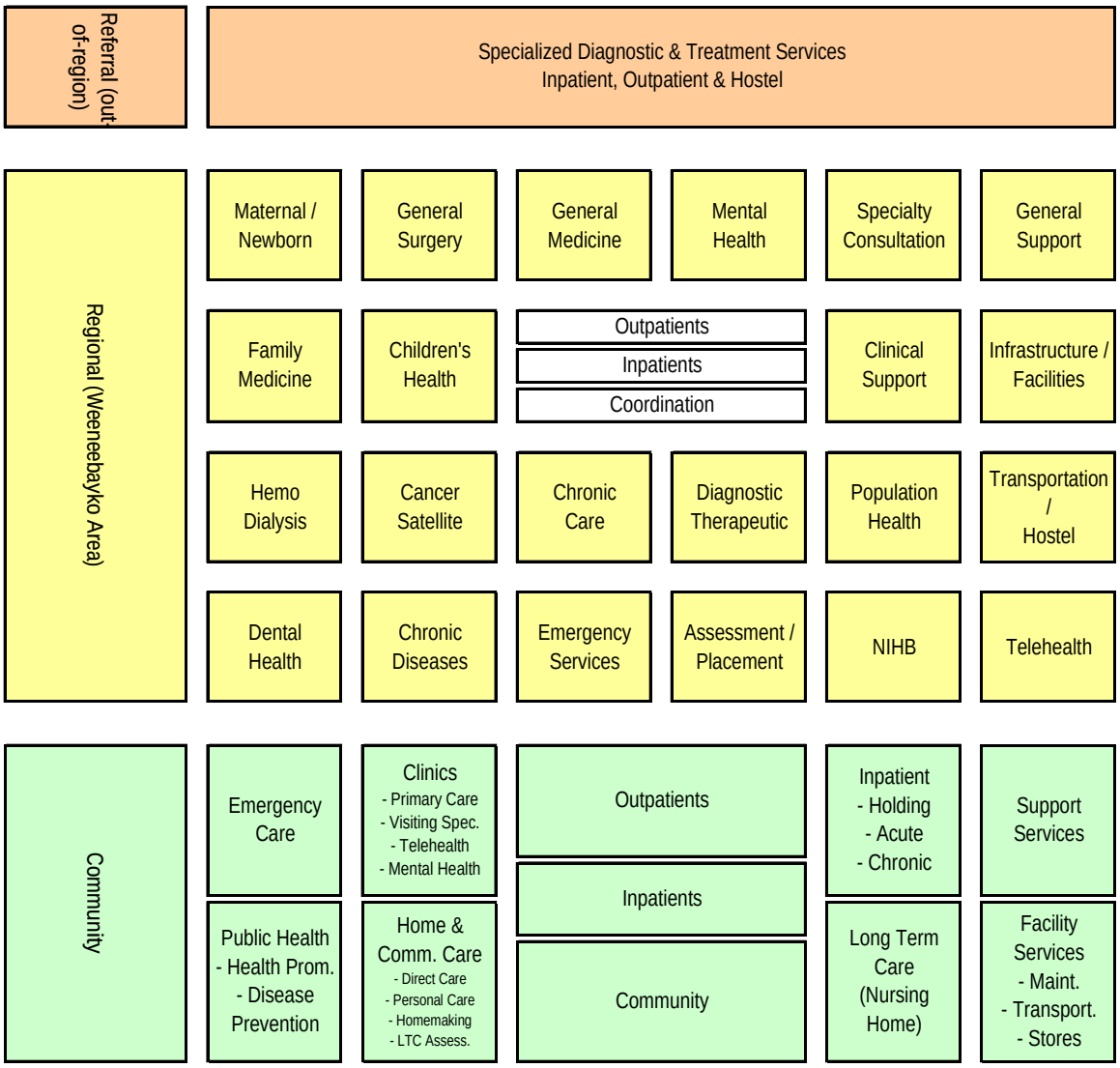
4.0 Proposed Approach

4.1 Key Principles

Health service planning principles were developed based on the assessment of the Weeneebayko Area health context, consultation with Weeneebayko stakeholders and accepted health planning standards and practices. The following key principles describe guidelines, planning assumptions and expected future realities that are central to the approach described in the Weeneebayko Area Master Service Plan.

1) The Master Service Plan will focus on improving the health status of WA residents and ensuring health services at least meet the standard of care available to other Canadians living in similar geographic circumstances.
2) First Nations Bands in the Weeneebayko Area will continue to offer their own health services. However, Bands are welcome to form partnerships with the new health authority to improve their services. Furthermore, the obligations of Canada to Treaty and Aboriginal Rights will be maintained.
3) A unified, integrated, locally governed Regional Health Authority reflective of the communities will be created with the responsibility to plan and deliver health services to Weeneebayko Area residents. The management structure of the organization and the health services it will provide are to be designed through an innovative, meaningful partnership among First Nations, Government of Canada, Ontario Government and other stakeholders.
4) The Master Service Plan will utilize a "Distributed Delivery Model" which will focus on providing as much service as possible (considering health needs as well as sustainability and economic feasibility) in local communities so that Weeneebayko Area residents will experience improved access to timely, high quality health care.
5) Health planning in the Weeneebayko Area must take into account the rapidly growing population, with an expected doubling by approximately the year 2020.
6) Technology such as telehealth, distance interpretation (diagnostic services) and point-of-care testing will play a central role in improving access to basic health care in local communities.
7) Improved data management is crucial to creating a coordinated health care system that can respond to the health needs of Weeneebayko residents. The creation of an electronic health record will be a high priority, to be implemented within five years.
8) Special health staff training programs and other initiatives for residents will be promoted to help build local capacity to implement and sustain the Master Service Plan.
9) The provision of health services will fall into an overall framework consisting of three sectors: community, regional and referral. This framework is depicted in **Figure B**. The general description of community services will be shaped to the needs and characteristics of each community in the WA. The services provided in each of these sectors are described in more detail in the Sector Service Plans in Section 4.0 of the Master Service Plan.

Figure B: WAHII Master Service Plan Proposed Framework



4.2 Master Service Plan

Figure C provides a summary of the current health services in the Weeneebayko Area as well as the future recommended changes. Current and future regional services are listed in the last column of **Figure C** pending a decision on their distribution. Refer to the Sector Service Plans (Section 4.0) of the main report for additional information on future services.

Proposed strategic service plan changes include:

- Distribution of Long Term, Acute and Chronic Care beds to each community to respond to local, primary needs

- Extending pre-hospital ambulance transportation and Primary Care Paramedic or Emergency First Response Team with a Volunteer Medical Attendant coverage to each community
- Improving access to primary and specialist care, counselling and education services in each community through strengthened point-of-care testing, diagnostic services and implementation of Telehealth services
- Strengthening regional services and treating more patients within region by adding a midwifery service, establishing a population health resource group, adding a satellite cancer clinic, expanding diagnostic services and expanding the outpatient surgery / procedures services
- Adding a small regional inpatient unit to stabilize and manage the acute detoxification phase (72 hours) for substance abuse patients and to care for mental health patients

4.3 Implications

Adopting the approach recommended in the Master Service Plan will have the following significant implications for the residents of the Weeneebayko Area:

- A health system tailored to the unique needs of the communities in the Weeneebayko Area
- Better, more efficient access to quality health care
- Improved and upgraded facilities with the most change in local communities
- A larger portion of health care spending used for direct patient care
- Better data and information management to help understand population health issues early and produce more successful prevention programs
- A coordinated system with a common voice that is better able to form partnerships to improve the level of care

Figure C: WAHII Health Service Overview by Community[1]

Dimensions	Attawapiskat(Att)		Fort Albany (FtA)		Kashechewan (Kash)		Peawanuck (Pea)		Moosonee (MSN)		Moose Factory (MF)		Regional Services	
	Current	Future	Current	Future	Current	Future	Current	Future	Current	Future	Current	Future	Current	Future
Population[2]	1935	3625	1040	1950	1705	3195	275	515	3080	5770	2655[3]	4975	10690	20030
Emergency Care														
- Ambulance (Local)	James Bay Ambulance Provincial Funding	Unchanged (UC)	FT. A Emergency First Response Team Limited Prov. Funding	James Bay Ambulance Provincial Funding[15]	No formal service	James Bay Ambulance Provincial Funding	No formal service	Emergency First Response Team Limited Prov. Funding	James Bay Ambulance Provincial Funding	UC	James Bay Ambulance Provincial Funding	UC	See MF	James Bay Ambulance Provincial Funding
- Prehospital Care	Primary Care Paramedics, 24/7	UC	Volunteer Emergency Medical Attendant	Primary Care Paramedics, 24/7[15]	None	Primary Care Paramedics, 24/7	None	Emergency Medical Attendant	Primary Care Paramedics, 24/7	UC	Primary Care Paramedics, 24/7	UC	See MF	Primary Care Paramedics, 24/7, TBD[4]
- Medivac (Prov.)	Fixed Wing or Helicopter	UC	Fixed Wing or Helicopter	UC	Fixed Wing or Helicopter	UC	Fixed Wing	UC	Fixed Wing or Helicopter	UC	Helicopter	UC	See MF	TBD
- Emergency Department (ER)	ER, nurse managed, 24/7; Remote, on-call MD, 24/7	UC plus Telehealth Support	ER, nurse managed, 24/7; Remote, on-call MD, 24/7	UC plus Telehealth Support	No ER, nurse on-call, 24/7; Remote, on-call MD, 24/7	ER, nurse managed, 24/7; Remote, on-call MD, 24/7; plus Telehealth Support	Ltd. ER, nurse on-call, 24/7 Remote, on-call MD, 24/7	ER, nurse on-call, 24/7; UC plus Telehealth support	ER, nurse managed 24/7; Remote on-call MD, 24/7	UC TBD[5]	ER, nurse coverage, 24/7; Onsite or on-call MD, 24/7	UC TBD[5]	See MF	ER, nurse managed, 24/7; On-site/on-call MD, 24/7; Telehealth/on-call MD support to other WA communities
Clinics														
- Primary Care	Nurse managed at JBGHW, 5 days/wk	5-6 days/wk, plus Telehealth support	Nurse managed at JBGHW, 5 days/week	5-6 days/wk plus Telehealth Support	Nurse managed at Nursing Station 5 days/wk	Nurse managed, 5-6 days/wk plus Telehealth support	Nurse managed at Health Centre; 5 days/wk	UC plus Telehealth support	Nurse or MD managed at JBGH, 5 days/wk	UC, 5-6 days/wk plus Telehealth support	Nurse or MD managed at WGH, 5-6 days/wk, plus on-call urgent (unscheduled) care	UC plus Telehealth support TBD[5]	See MF	Family Practice clinic for complex cases with NP/MD coverage 7 days/wk plus Telehealth support
- Visiting Specialists														
• *Family Practice MDs*	2-4 clinics/mo	10-16 clinics/mo	2-4 clinics/mo	8-12 clinics/mo	2-4 clinics/mo	8-14 clinics/mo	1-2 clinics/mo	3-4 clinics/mo plus Telehealth	3-5 days/wk	5 days/wk	5 days/wk plus urgent (see above)	at least 5 days/wk	See MF	See above
• *Specialist MDs*	Minimal	Regular via Telehealth	Minimal	Regular via Telehealth	Minimal	Regular via Telehealth	Minimal / none	Infrequently via Telehealth	Infrequent	Regular on-site or via Telehealth	On-site 4-12 clinics/yr for most specialities	Regular on-site clinics or via Telehealth Clinics	See MF	Increased distributed service delivery to communities with a focus on Telehealth
• *Dental*	About 4 days/mo	Expanded services	About 4 days/mo	Expanded services	About 4 days/mo	Expanded Services	Infrequent; 2 visits/yr	2 days/mo	None	Regular weekly clinics	Clinics 5 days/wk plus 2 days/wk surgery	Clinics UC; Surgery location TBD	See MF	Dental Surgery
• *Others*	Infrequent	Regular/Telehealth	Infrequent	Regular/Telehealth	Infrequent	Regular/Telehealth	Infrequent	Regular, periodic & Telehealth consults	Infrequent	TBD[5]	Usually avail. 5 days/wk plus on-call	TBD[5]	See MF	See Specialist MDs
- Telehealth	None	Scheduled wkly clinics & emerg. consults, edu., & counselling	None	Scheduled wkly clinics & emerg. consults, edu., & counselling	None	Scheduled wkly clinics & emerg. consults, edu., & counselling	None	Scheduled wkly clinics & emerg. consults, edu., & counselling	None	Scheduled wkly clinics & emerg. consults, edu., & counselling	None	Scheduled wkly clinics & emerg. consults, edu., & counselling	None	Regional Centre for Telehealth service support to communities
- Special Clinics (Renal, Cancer, etc.)	-	-	-	-	-	-	-	-	-	-	-	-	see MF; Visiting Specialists	Add Renal, Cancer, Day Procedures Unit, other diagnostic clinics
Inpatient Acute Care														
- Holding/Observation Beds[14]	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(1)	-	(3)	-	(3)	See MF	See DPU[10]
- Acute Care Beds	8	5-8	8	4-8	-	5-8	-	2	-	8-10	32-50[8]	7-9	32-50[8]	40-45[9]
- Chronic Care Beds	8	6-9	9	4-9	-	6-9	-	2	-	9-11	-	8-10	-	See Communities
TOTAL	16	11-17	17	8-17	0	11-17	0	4	0	17-21[6]	32-50[8]	15-19[7]	32-50[8]	40-45[9]
Long Term Care														
- Baseline (Beds)[11]	-	12	-	8	-	12	-	2	-	22	-	18	-	-[13]
- Potential Additional (Beds)[12]	-	(9)	-	(5)	-	(8)	-	(2)	-	(14)	-	(12)	-	-[13]
TOTAL	-	12	-	8	-	12	-	2	-	22	-	18	-	-
Home & Community Care	Partial, provided by Band/FNIHB	Expand	Partial, provided by Band/FNIHB	Expand	Limited, provided by Band/FNIHB	Expand	None	Add	Yes, provided by PHU/ Prov.	Strengthen	Partial, provided by Band/FNIHB	Expand	No regional coordination	Strengthen coordination & discharge planning
Public Health	Currently Federal, Provincial and Band managed services exist throughout the Weeneebayko Area (WA) and vary by community. All communities have Public Health programs, but there are no region-wide, consistent, basic service requirements or standards due to the multi-provider structure.				In future, it is proposed to establish minimum service requirements and outcome standards based on the Ontario mandatory public health requirements. For those communities with Band managed Public Health Services, the Band would have discretion over how it would participate in regional Public Health initiatives, which are supplementary to the mandatory Provincial requirements. The minimum service requirements are outlined in Section 4.0 Community Service Sector (A-3.0).						No regional program or coordination	Establish region-wide standards, monitoring & community Public Health support by creating a new regional Population Health Resource Group.
Support Services	Currently, Support Services vary by community depending on the scope of existing health facilities.				In future, Support Services are intended to include basic core services in Administration (local), Diagnostic Imaging, Health Records, Laboratory, Pharmacy, Pimatisiwi natohokohiwenwin (holistic health) and Telehealth for all communities. Technological developments are driving advances in telemedicine and point-of-care diagnostic testing that will help to increase the viability/feasibility of the distributed community service framework proposed for the integrated WA health service plan. Key new initiatives are: Telehealth; Expanded local diagnostic services building on point-of-care testing and remote interpretation; Electronic health record						Basic services	Expansion of basic D&T services (e.g., DI, Lab, Surgery) by employing Telehealth & remote interpretation to repatriate patients currently sent out-of-region for care.

Notes:
Definitions & Abbreviations: ER = Emergency; PHU = Porcupine Health Unit; Att = Attawapiskat; Ft. A = Fort Albany; Kash = Kashechewan; Pea = Peawanuck; MSN = Moosonee; MF = Moose Factory; WA = Weeneebayko Area; WGH = Weeneebayko General Hospital; 24/7 = 24 hours/7 days/week; MD = Physician/Medical Doctor; NP = Nurse Practitioner; Prov. = Provincial; Edu = education; wkly = weekly; UC = unchanged; TBD = to be determined; mo = month; Ltd = limited

1. Overview presented by Community with *Current* defined as 2004 and *Future* defined as approximately 2020 or when the Weeneebayko Area population is double its current size.
2. Population includes estimated total population (First Nations & Other) for 2004 and projected to 2020 (i.e., Future) using Scenario 1 projections/assumptions (see Figure 2.6).
3. Total current Moose Factory population includes Moose Cree (1770), Federal Compound (220) and Local Services Board (665). The LSB (665) includes MoCreebec First Nations population.
4. Regional health services/facilities location will be decided during future planning stages. This decision may affect Medivac landing facilities available.
5. The pending planning decisions on the future location of regional health facilities/services may impact the configuration of services for MSN and MF.
6. These beds include only local needs for Moosonee. Regional bed needs are outlined in the last column pending future decisions on the location of regional services.
7. These beds include only local needs for Moose Factory and exclude regional bed needs, pending future decisions on distribution of WA regional services.
8. WGH currently has 32 beds operating and capacity to operate 50. The 32 beds include: Pediatric (4), Obstetrics (6), Medical/Surgical (19) and Special Care (3); and, exclude bassinets (6) and Labour Delivery Rooms (2). Bassinets and LD rooms are not usually included in rated beds. These beds include local needs for Moose Factory and *Regional* needs for the WA in 2004.
9. The 40-45 future regional beds include: Pediatrics (6), Obstetrics (8-10), Medical/Surgical (13-16), Special Care (3) and a new Mental Health Detox Unit (8-10); and, excludes bassinets (8-10) and Labour & Delivery Recovery Rooms (3-4) which are not usually included in rated beds. These beds include only WA regional services and exclude local needs, pending future decisions on the distribution of regional services.
10. Regional holding/observation bed needs are included in the proposed new Day Procedures Unit, an outpatient service area.
11. In 2004, there were no Long Term Care beds located in the WA. "Future" *Baseline* or LTC minimum bed requirements by community are proposed, taking into account suggested initiatives to improve Home & Community Care, Primary Care and Public Health. Total baseline LTC beds are estimated at 74 beds.
12. If complementary initiatives to strengthen community health care do not proceed, extra LTC beds will be required by 2020 for a total of about 50 *Potential Additional* beds. These *Potential Additional* LTC beds are bracketed ( ) and not added into the total.
13. *Baseline* and *Potential Additional* LTC beds have been allocated by community. During subsequent planning, some LTC beds may be consolidated in the community nearest *Regional* hospital services to care for those WA LTC patients with special needs (e.g., chronic dialysis).
14. *Hold/Observation* beds are bracketed ( ) and not included in the bed *Total* by community. *Holding/Observation* beds are not routinely counted as inpatient beds.
15. Recently approved for implementation by October 2004.