

The Provision of Primary Health Care Services Under Band Control: The Montreal Lake Case

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Introduction

The Montreal Lake Band, with a membership of 1800, is located in northern Saskatchewan, Canada, with two reserves: one at Montreal Lake, one hundred kilometres from the nearest urban centre, and the other at Little Red River, forty kilometres from the same urban centre. Three-quarters of the Band members live on reserve, with 600 to 800 residing at Montreal Lake, a community located in an isolated area of the Canadian Shield with few amenities or community services. The Montreal Lake community is further characterized by having high levels of unemployment (less than 25% of the labour force is working in the wage economy), poverty, and having experienced considerable cultural loss, especially over the last fifty years.

In 1984, the Band conducted a community health needs assessment as the first step in its efforts to obtain a new health facility. The needs assessment determined that living conditions were poor. Only five houses had sewer and water, and most houses were small and overcrowded, with an average of five people living in eight hundred square feet. Most community families relied on welfare for at least part of the year. Alcohol and other drug abuse was widespread, affecting at least one family member in virtually every household on the reserve. Early deaths due to accidents and violence related to alcohol abuse were common in the community, with corresponding repeated and often unresolved grief cycles for the family and community. Family violence was common, and sexual abuse rates were estimated by outside professional agencies to be among the highest of any community in this area of northern Saskatchewan. Respiratory disease rates were higher than found in other Bands in the same area. Gastrointestinal diseases and skin infections were common. Fifteen children were found to be at high risk of developmental delay or were already diagnosed as delayed. Poverty, overcrowded poor living conditions, alcohol abuse, as well as lack of health knowledge, poor self-care and inaccessible treatment services were the primary causes of most disease and trauma in

the community. The social structure of the community was dysfunctional, both reflecting and contributing to its living conditions and disease.

Health services in the community were limited to a visiting public health nurse for twenty hours weekly, two full-time community health representatives, and three community staff working in addictions. There was little support and no supervision for community staff. All medical treatment for routine or emergency treatment was accessed in Prince Albert, the nearest urban community, located one hour's drive away in good weather. Costs for medical transportation in 1984 were \$236,000.

As a result of its needs assessment, the Band proposed that the Medical Services Branch of Health and Welfare Canada fund a primary health care centre on the Montreal Lake reserve operated under Band control. The Band's rationale was that it made more sense to move services to people, not people to services. Given the state of people's health and the level of overall expenditure on preventive services, acute care and medical travel, the Band was confident that its new approach could improve health status and maintain overall cost ceilings.

After three years of planning and negotiations, the Band opened its new William Charles Health Centre on the Montreal Lake Reserve in September 1988. The health centre provides a wide variety of services:

- school-based health education by nursing, alcohol and community health staff
- immunization promotion, and immunization and child assessment services
- alcohol education for community members, counselling, referral and follow-up
- monthly elders' luncheons
- weekly elders' visits and home support services
- health education for prenatal women
- sponsorship of chemically free community activities - e.g., Talent Show, Easter Egg Hunt, sober dances
- primary care nursing, including assessment, diagnosis and treatment of illness; and assessment and stabilization of emergency patients
- community health nursing services
- health promotion, education and follow-up support for chronic disease clients
- one day a week of physician services
- one day a month of dental services
- weekly early intervention child development support services.

The new service has been effective in creating improvements in health awareness, health maintenance behaviour and health status. These effects have resulted in part from the establishment of primary care on the

reserve, and in part from Band management and "ownership" of the health service.

Changes in Health Awareness

Among the most significant changes in health awareness is the residents' perception of being "safer." In a community with considerable distance to emergency services, high rates of violence during community drinking bouts and recent memories of being medically isolated, this feeling is important. Some emergencies handled during the first twelve months of operation include: a childbirth; three cardiac resuscitations; over fifteen victims of violence treated for open wounds; management of accident victims from two motor vehicle accidents; and early treatment and stabilization of two children suffering from drug overdoses. Feeling "safe" has also played a role in community members being more willing to try to manage illnesses at home. In particular, parents know if the child gets much worse, help is near at hand. This has contributed to reducing demand for early hospitalization and encouraging participation in home-based illness management.

Greater visibility of the Band-controlled health services, due to the greater range of services combined with the new facility, has created an awareness of the services available as well as raising the profile of health as an issue for both Chief and Council and community residents. The perception of staff and health committee members is that "health" has become an issue on the Band government's agenda due to the high-profile service that the Band manages, and the connections that can be and are made between the people having problems and the people able to effect solutions. One example is that treating a mid-summer outbreak of family violence coupled with three sexual assault cases within three weeks caused the health co-ordinator (who also sits as a member of Band council) to approach council on the need for more action on family violence. An outgrowth of this was an attempt to establish a community protocol and policy on dealing with victims and perpetrators of family violence.

Health education and health promotion activities in the community have increased due to the health centre. Provision of primary care offers consistent opportunity to teach better illness management skills, along with prevention. As people become and perceive themselves to be more competent to manage routine illnesses, they may become more inclined to make other changes in their health lifestyle. The health centre, due in part to better time management as well as more staff hours, is active in providing health education programs in the school and during community events.

Four special events for sober fun and social interaction have been designed to bring the community together and to have fun without alcohol and drugs. In celebration of its first anniversary, the health centre sponsored a week-long "Health Awareness Week," culminating in a talent

night and community feast. At the talent night, only four people were seen to be intoxicated - a first for the community in many years. Three successful dry dances have been held in the community. By contrast, when the health centre opening was being planned, the idea of a dry dance was rejected by the planning committee as being unrealistic.

Nursing staff now encounter parents asking more questions about the reasons for and effects of immunizations, knowing more often how to manage basic childhood illnesses, and asking more questions generally about health and treatment and medications. Both nurses and physicians report that more patients are coming into the treatment process with greater detail than "I'm sick," providing symptoms and a description of early efforts at management. Nurses report improving illness management, especially by parents of young children. This pattern is especially noticeable at night, when nurses are rarely disturbed except for real emergencies. Callouts after hours are very low compared to other primary care centres.

One of the more interesting perceptions of staff about changes in health awareness relates to the interaction between the current more structured and managed service and community residents. The belief is that people are taking their health more seriously because the staff and the system take residents' health seriously. Previously, there was no check in the system about why people were going to town to see the doctor, or why people were requesting medication. Now, with a more comprehensive service that can actively interact with members' needs, there is legitimacy in inquiring about what is wrong and how the staff can help. This interaction not only reduces abuse of the system, it also conveys a message that "we care and we are concerned." There is speculation that this approach encourages people to care in return - to respect their health and to take care of themselves.

Changes in Health Maintenance Behaviour

Changes in health maintenance behaviour have occurred in several different ways. Among these are people receiving health care who previously did not do so; community residents, especially parents of children, attempting to manage routine early illness at home; improved diabetic health compliance; and improved prenatal care compliance. Further, there are perceptions from staff and health committee members that alcohol abuse has declined in the community. Immunization rates are improving.

Prior to the opening of the health centre, people requiring medical attention or medication had to go by bus or medical taxi one hundred kilometres to Prince Albert. By bus, people left the community at 10:30 a.m. and returned at 7:00 p.m. By taxi, the return was by 5:00 p.m. Medical care was inconvenient and time-consuming, and often culturally inappropriate. Elders particularly felt alienated from the medical care system, and went to the doctor as little as possible. When the health

centre opened, a special point was made of reaching out to elders. One elder had not seen the doctor for five years, fearing that he would be committed to an old age home. Elders are now coming twice a year for medical check-ups, and as necessary for acute or chronic care. Better care for chronic diseases is reported by elders, especially those with arthritis, as medications can be monitored more closely and treatment staff are familiar with home and family circumstances. The feeling of being just a number in a "White" medical clinic where English is the only language has been replaced by being served by people who know the name, family members, customs and language of the elders. People living on a trapline with no washing facilities can come directly to the health centre knowing they are welcome and that staff are accustomed to seeing people in such circumstances. Instead of feeling a sense of shame and uncomfortable visibility, people feel at home. Translation is never a problem as all but three staff speak Cree, and many translators are available.

Health centre staff routinely ask whether people requiring medical treatment have done anything at home to manage the illness or accident. The staff report that having started with no more than one in ten people attempting any home-based management, they are now seeing approximately one in three who are trying something at home. The most common treatments include Tylenol for fevers, and clear fluids for diarrhoea.

Diabetics living at Montreal Lake are regularly visited by the community health representative and blood sugar levels are checked. A diabetic education and support group was developed by the health centre to provide education on the disease, eating and exercise tips, support and encouragement. The combination of check ups, visiting, and the education/support group appears to have been successful. There have been no hospitalizations due to diabetes from Montreal Lake in the first seventeen months since the health centre opened. In the 1987/88 year, there were eight hospital admissions from the whole Band.

Prenatal patients are appearing earlier in their pregnancies, with 80 percent of prenats in the last six months appearing prior to four months' gestation. The ease of service, lack of embarrassment and feeling of acceptance, combined with significantly improved follow-up service, are ensuring that the health centre will achieve its objective of 95 percent prenatal attendance by the fifth-month gestation.

As found in the 1985 needs assessment, immunization rates were routinely below 50 percent for the Montreal Lake reserve. Respiratory disease rates in the community were high, thus reducing immunization opportunities, and nursing services were provided only on a visiting basis, thus limiting the time available to do immunization follow-up. It appears that many parents did not understand the purpose of immunization, perceiving only that the needles tended to make the babies ill.

With resident nurses and primary care, the trend is toward improved

rates of immunization in all age groups. Considerable effort has been spent on notifying parents, and immunizing babies and children as they appear at the health centre - not waiting for the appropriate day for well baby clinics. This is one of the advantages of primary care. Immunization rates are:

<u>Category</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
Infants < 1			
DPT & OPV	43.5%	30.0%	81.25%
Preschool (1-4 years)			
DPT & OPV	67.0%	68.0%	97.0%
MMR	90.3%	84.8%	92.5%
School age			
DPT & OPV	69.0%	84.2%	82.5%
MMR	87.6%	100%	99.1%

The decreased rate among infants in 1989 was due to very cold weather and holidays during the month of December, when many infants were due for their immunizations. This factor affected the calculation of immunization rates. Many of these infants were immunized in January 1990. One indicator of improved immunization is the decline in numbers of children due for immunization. The average during 1989 was forty per month. During the first four months of 1990, this number fell to thirty per month, and during May 1990 the number due was only seventeen.

Health care staff - nurses and community health representatives - have tried various approaches to encourage parents to bring children to the health centre for immunization. Techniques used have included:

- notices to remind parents when immunization is due
- posters with lists of children who are due for immunization
- letters advising about the importance of immunization
- bulletin board displays indicating by name who has received immunization
- pictures of children receiving immunization
- a stuffed toy present for the first child in for immunization on a given day.

The bulletin board display and pictures have proven to be most successful.

An important additional area of health maintenance is the perception by the health staff, health committee members and some community members that alcohol abuse has diminished. Public drunkenness occurs less frequently and there have been only three alcohol-related deaths in seventeen months. Perceptions of the health committee members and staff are that people are drinking less often, fewer people are drinking and more people are sober.

Prior to the health centre, the addictions program was operated independently and service quality was very poor. The three members of the addictions staff now report to the centre's health co-ordinator, have work plans, and service quality has improved. One sign of this is that case loads for staff have increased more than five fold, twenty-five requests for in-patient treatment have been received in the past year, staff have organized four major sober community events for the community in fourteen months, and staff sponsor a monthly elders' luncheon and social time. One addiction worker recently reported that at an elders' supper and dance, not officially a "dry" event, no one was drinking or intoxicated. It is the first time the worker can remember such a gathering, as alcohol abuse among elders has been widespread in the last ten years. There are now twenty elders on the reserve who are sober.

Improvements can still be made in the referral patterns for people with addiction problems seeing the physicians. Referrals from nurses to addiction staff are more common, and a team-based assessment and treatment process is the approach used by health centre staff.

Changes in Health Status

Before the provision of primary and medical care at the health centre, many people, especially parents of small children, delayed seeking medical care until absolutely necessary, resulting in more serious illness. Higher acuity of care meant that hospitalization occurred more frequently, there were more cases of ruptured eardrums and pneumonia, and people's perception of their competence to manage illness was diminished.

The primary care services of the Band's health centre means that parents of small children can now come in to see the nurse and often have a means of treatment typically within one hour or less. Nurses know the living conditions and much of the family history of the person needing treatment, and can tailor treatment. People who are ill can be monitored, and needs for hospitalization can be reviewed regularly. Medication compliance can be checked.

The nursing staff recently attempted to assess the impact of the primary care model and expanded health teaching on the acuity of upper and lower respiratory diseases and otitis media. Patient charts were pulled and the first quarters of 1989 and 1990 audited for visits due to otitis media and upper and lower respiratory illness.

Since the Health Centre became fully operational in January 1989, there have been no hospitalizations from Montreal Lake due to ear infections, compared to fifteen admissions (11.2 per thousand) for the Band as a whole during the year prior to operation (87/88). There were four referrals to specialists for adult ear infections in the first quarter of 1989 and one referral during the first quarter of 1990. Comparing the first quarters of 1989 and 1990, eighty-three cases were seen in 1989; ninety cases in 1990. More children were seen on a repeat visit in 1990 than 1989, fewer adults

were seen on a repeat visit in 1990 than 1989. There was an 18.8 percent increase in repeat visits over all age groups comparing 1990 with 1989. No discernable difference in home based management of ear infections was discernable in the charts between the two years. Physicians were the least likely to have charted home based management efforts.

There were fourteen hospital admissions due to upper respiratory disease in 1987/88, a rate of 10.4 per thousand, while sixty-five admissions for pneumonia were recorded for a rate of 48.4 per thousand. Hospitalizations due to upper respiratory and lower respiratory disease have declined for children from Montreal Lake, according to paediatric nursing staff in the Holy Family Hospital, one of the two Prince Albert hospitals. The other hospital, the Victoria Union Hospital, has not noticed a decline but does note that children from Montreal Lake in hospital are in need of acute care, and that communication with people responsible for picking up children is much improved. No documented data on hospitalizations are available at this time; this will be reviewed in detail during an upcoming evaluation. Health centre nurses estimate the number of lower respiratory hospitalizations to be less than fifteen since the centre opened.

A review of upper and lower respiratory disease charted in the health centre during the first quarters of both 1989 and 1990 has been confounded by improper charting for a three-week period by one relief nurse. During the first quarter of 1989, there were thirty-two initial visits and two repeat visits of upper respiratory illness, and seventy-one initial visits and eight repeat visits for lower respiratory disease. In 1990, first quarter results were: seventy-one initial visits for upper respiratory disease, with eight repeats; forty-six visits for respiratory disease, and fifty-nine repeats. In 1990, seven initial visits were for ventolin treatment, with forty-three repeats, contrasted with two initial visits and twenty-two repeats in 1989.

On the whole, repeat visits were check-ups and not occasions where reinfection was noted or re-medication was required. Changes noted between the two years are that six upper respiratory repeat visitors had taken steps to deal with the illness at home, and that all lower respiratory repeat visitors had taken management steps prior to visiting. More ventolin is now being administered at the health centre. This latter point is especially important, as children on ventolin in previous years were admitted to hospital to receive ventolin therapy. The ability of the health centre to provide ventolin therapy will reduce the hospitalizations experienced by the Band. Nurses are doing more follow-up, partly due to administering ventolin to more people at the health centre.

Overall, statistics on acuity of care are not as expected, or as perceived by health centre staff. Staff, in both nursing and medicine, noticed that during the initial five months of operation (January 1989 - May 1989) they saw numerous patients with long-standing acute illness (i.e., ruptured ear drums due to ear infection). This apparent backlog of unattended illness

disappeared suddenly in May 1989, and staff began to see fewer patients. Patients are now seen in earlier stages of illness.

This perception is not verified by the limited audit of health centre records. Further work must be done on this issue. A significant check to be carried out in the future is to compare hospitalization records, adjusting for the residence of patient. It is expected that further work will show that hospitalization has declined, especially for lower respiratory diseases such as pneumonia.

Overall, the review conducted on acuity of care raises important questions about the limitations of statistical measures. Tests of statistical significance have not been run on these limited data, and if they were run they would likely indicate that statistical significance has not been achieved. One must weigh the statistics against the clinical perceptions of professional staff and the perceptions of community members that people are receiving care in earlier stages of illness. One can question whether charting of clinical diagnoses of these three measures provides an adequate basis on which to assess changes in acuity of care.

The primary care service model is perceived by Prince Albert hospital nursing staff to have affected hospitalization patterns in several ways:

- earlier discharges are possible for accident victims requiring just dressing changes and monitoring
- fewer children are admitted just for medication compliance monitoring
- fewer patients require admission for ventolin treatment
- children are promptly picked up by parents on discharge, as information on discharge plans is relayed more consistently and quickly.

Health centre physicians, as well as the partners in their medical practice, have also noted fewer emergency outpatient visits, estimating the decline to be in excess of 60 percent. Patients arriving at hospital for admission come with more complete medical histories and arrive more often in stable condition.

Communication between the hospital, the physician and the on-site health care staff has improved considerably, with health centre staff routinely notified of all hospital discharges and follow-up requirements. The result has been better co-ordinated services and tighter follow-up, resulting in an improved quality of care.

Perceptions of Community Members

For this review, ten community members were interviewed in depth. They were selected for representing a cross-section of the community, including five people originally opposed to the health centre and vocal about their feelings in the community. Perceptions include:

- people have a feeling of security; the reserve is a safer place to live
- people feel cared for and feel that they are "worth something"
- Band members are helping Band members, and people are helping each other in the community more
- the response time for emergency care is shorter, access to medicine is better, children are seen in earlier stages of illness
- the staff provide more time and care than the doctors in town
- confidentiality is being maintained, and people can trust the health centre and its staff
- the health centre is there for the benefit of the community
- the health centre is something to be proud of
- elders are more inclined to talk about how pleased they are about being cared for by staff and not being forgotten
- healthy changes in lifestyle are reported by interviewees, i.e., being friendlier with people, buying more fruit and vegetables
- services are better now
- feelings of "belonging."

Specific changes seen at the community level include:

- children are healthier and happier; are hospitalized less often
- more children are immunized
- fewer ambulances are seen on reserve, and are not seen on a weekly basis
- fewer people are sick
- people are more aware of health
- less violence is seen in the community
- there is less alcohol and more dry activities
- exercise programs have been introduced
- community health representatives spend more time in the community doing the job they were hired for.

Health centre staff were seen as role models, and expected to behave accordingly. Community residents commented that the staff are friendly and pleasant, the health co-ordinator knows his work, the head nurse is good and the health centre is always clean. The staff was seen as a team by community respondents.

Some criticism was also voiced:

- the amounts of some medicines are too small; there needs to be more selection of medications; the receptionist should have responsibility to dispense medications such as Tylenol
- some were concerned about not being able to get certain medications unless the nurse talks with the doctor first

- one person felt he/she was being discouraged from seeing his/her personal doctor
- more home visits should be made by nurses and alcohol staff, including visiting those who are sober.

Complaints about services were that a new dentist was needed, along with home care for elders and an alcohol rehabilitation centre on the reserve.

Summary

With the provision of primary care under Band control, change has occurred in several respects for the residents of Montreal Lake. The health service is more comprehensive and better able to deal with emergencies and acute care needs. Results have included better-managed trauma and the saving of some lives, likely to be three to four within seventeen months; provision of care earlier in the disease cycle, with subsequent fewer complications; and a projected reduction in hospitalization. Statistics to verify these widespread perceptions of staff, health committee and community members have proved difficult to obtain, and further work is required to develop a suitable method of confirming or denying perceptions.

Health care is better co-ordinated, connecting with hospitals and other urban-based health services as well as relating closely with the Band government and school and other community services. The health staff functions as a team, perceives itself to be a team and provides mutual support. This interdisciplinary approach contributes to providing more comprehensive services with fewer gaps, and the earlier identification of health needs of individuals as well as the community.

The health centre is a more appropriate form of health care activity, providing services under the control of those it serves, in the language of the people, and in a manner that respects the customs of the community.

Health care is easier to access, with subsequent improvements in provision of care to elders, prenatal women, and parents and others with young children with illnesses. The perceived effect is that care is provided earlier in the disease cycle, with consequent reductions in hospitalization.

Perhaps the greatest change that has occurred is very intangible and difficult to measure. Before the health centre, the community fabric was disintegrating. Residents lived in considerable fear, isolation and despair. The relations among health service providers and other community services reflected this isolation as well as contributed to it. The staff and to a lesser extent the health committee have begun to recreate the sense of community. They have discovered ways to support each other and work together, yet maintain separate identities. They care about themselves, and they care about each other. They provide a role model for the concept of community for the people whom they serve.

It is perhaps this element of the spirit that causes the health centre to be seen as a "community centre," where people come to have tea, to visit, to see what clothing is in the storeroom. As the old ladies of the reserve come to sit in the storeroom and sort through the spare clothes, they visit and think of which family could use this article of clothing. They are now taking some of those clothes to drop off, to visit and see how that family is doing. The sense of community is extended. People have a greater sense of "belonging" - an element that has been missing. The staff and health committee, along with a growing number of community residents, have begun to develop and work toward their dream - a healthy, sober community. Initially, some people conceived of the health centre as one way to help put the community back together. It has begun this process.