The Taber Integrated Primary Care Project — Turning Vision into Reality

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Of primary importance is the willingness and openness of Taber residents and health care community to allow themselves to be analyzed, questioned, researched and exploited for the sake of understanding intricate details of primary health care renewal in their home. They have been patient, most understanding and fantastic research subjects.
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Key Implications for Decision Makers

In response to widespread calls for healthcare reform, integrated primary healthcare systems are quickly becoming the new model of choice for practitioners. Integration can do a lot to improve our healthcare system. This study outlines some of the tools and evidence that can be used to implement changes.

- Integrating services should not be done by imposing authoritarian solutions. Professionals should be brought together to work in teams and develop new ways to deliver healthcare services. Everyone involved in the change must develop relationships that allow for information sharing and building trust.

- Making improved patient care the primary value means healthcare professionals will be more supportive. However, distrust of management must still be addressed, and there must be incentives for professionals to accept the change. These incentives can be based on workload, lifestyle, finances, or professionalism.

- Change that gives power to non-physicians is more likely to succeed when physicians have a say in how much power will be shifted and how the shift will be done.

- Patient satisfaction does not suffer when doctors and other healthcare professionals present change in a positive fashion.

- Successful integration leads to increased job satisfaction among healthcare workers, improved patient service, improved population health, and less inefficient use of the healthcare system.
Executive Summary

Primary care reform has recently moved to the top of the healthcare policy agenda, highlighted by the recent first ministers’ accord that promised $16 billion over five years to study ways to reform and emphasize primary care. Yet there is only limited evidence showing the value of this reform. The Taber Integrated Primary Care Project provides an opportunity to better understand reform’s effects and benefits.

Mostly positive changes emerged from the three-year project, and there is strong support for the initiative and its continuing evolution. A positive self-assessment and recent resource commitments indicate a level of success that appears to justify expanding the project to other areas.

From a health-system perspective, the most important question of interest to the people who run the health system and make policy decisions is whether the project led to improved quality of care and better health outcomes. Our findings show that:

- healthcare workers reported that the quality of services in Taber is improving;
- use of physician, hospital, and laboratory services is becoming more efficient;
- residents are adopting healthier lifestyles and using fewer health services; and
- satisfaction with healthcare services tends to be high, and it remained high throughout the project’s changes.

From the perspective of healthcare providers, there are still opportunities to improve satisfaction with work styles and lifestyles through a primary-care renewal project. While
most workers said the primary healthcare system was improving and their satisfaction with professional practice had improved, they were also working harder than before without the anticipated lifestyle gains, and their expectations of how the changes would improve their jobs were not met.

During the project, some process issues were identified that provide critical lessons for jurisdictions that are considering similar changes: Taber had a strong health system to begin with, the town’s physicians were willing to change, there was broad support from other healthcare workers, there were clearly identified champions, and the health region was willing to innovate and be supportive.

Implementation was made easier by the shared value of enhancing patient care, structural changes such as having professionals work together at the same site, allowing physicians to retain control of the changes and their timing, incentives including short-term financial gains, careful attention to protecting business interests, good communications, and externally established deadlines.

It would have been easier to implement these changes if there were a clear process for negotiation, external stakeholders were committed to the primary value of improving patient care, there was clarity regarding local versus regional authority, trust was established with all affected workers, there was full agreement regarding expectations, values, and objectives, and all professionals gained equally.
By analysing the changes from an organizational perspective, the team identified changes in professional identity, leadership, power shifting, trust in the organization, stress in the workplace, organizational culture and structure, and integration. Healthcare managers are encouraged to apply organization theory when making system changes of this nature.

The rural nature of Taber means the project’s results may be applicable to similar settings where entire populations and the majority of healthcare services are included in such primary healthcare initiatives. Some elements may be applicable to larger urban settings where services may be offered in a competitive environment and populations are not defined based on their residence.

Some of the specific changes associated with the project, as well as the detailed research studies, can be accessed through the project’s web site at www.uleth.ca/man/tabерresearch/.

The research was done using a combination of research methods ranging from personal interviews and community surveys to large administrative database analysis. Research teams were based at the universities of Lethbridge and Alberta and within the Chinook Health Region.
In February 2003, the federal, provincial, and territorial governments signed the First Ministers Accord on Primary Health Care, which included a five-year, $16 billion commitment to improving primary care. The federal government had already provided $800 million over the previous two years through the Primary Health Care Transition Fund. As well, several provinces announced policies to start paying half of all physicians by alternative payment plans rather than fee-for-service. Numerous policy documents also stressed the need for primary care reforms as an important part of healthcare renewal. Nonetheless, the Canadian evidence for the effectiveness of primary-care reform is relatively weak and based primarily on government documents and experience.

The Taber Integrated Primary Health Care Project began in 1999, just as primary-care reform became a top priority. Policy makers needed a more comprehensive assessment of the value and effects of such initiatives. Despite all the reform being done, there have been few site-based research activities. Taber provides an ideal research environment — the health system is reasonably comprehensive, and it is an isolated, geographically distinct area of nearly 15,000 residents, one-third of whom lives outside the main community.

The reasons for health reforms may be one or more of the following:
- improvements in quality of care and population health;
- lifestyle benefits for healthcare providers; or
- reduced resource requirements for the healthcare system.

This research project set out to answer the following questions:
- Did the introduction of an integrated primary-care system in the Taber region lead to improved primary healthcare?
- Were the changes successfully put into practice, and what factors affected this?

Implications

Mostly positive changes came out of the three-year project. There is strong support for the initiative and its continuing evolution, and the positive self-assessment and recent
resource re-commitments appear to justify expanding the project to other areas. The radical changes made in Taber can be done in small, incremental steps.

As Bergman has suggested, when reforming the healthcare system it is perhaps better to work with the best that already exists. In comparing Taber with other communities in south-western Alberta, it was already providing high-quality, effective, and relatively efficient care.

From the perspective of decision makers and administrators, the most important question is whether the project resulted in improved quality of care and better health outcomes. Our findings show that:

- services in Taber are improving;
- use of services is becoming more efficient;
- residents are living healthier lifestyles and reducing healthcare use; and
- satisfaction with healthcare services remained high throughout the project.

From the perspective of healthcare providers, there are still opportunities to improve satisfaction with work styles and lifestyles. Although workers believed the primary-care system was improving and were more satisfied with their professional practice, they also said they were working harder without anticipated lifestyle gains, and some were dissatisfied with the effect the changes had on their jobs.

Although this research did not undertake a formal economic analysis it did capture some relevant economic information. The payment levels for the alternative payment plan were based upon the province’s average physician billings and resulted in a significant increase for the Taber physicians. The project also had the additional supports of a project co-ordinator, a nurse practitioner, and enhanced information systems. These were often cited as critical factors in the project’s successes. Added value was shown through reduced hospital use and a smaller increase in the amount of required support services compared to other communities. These changes were not enough to warrant major reallocation of healthcare resources within the project or change the relative allocation of resources.
compared to other communities. The project may have demonstrated that improvements in primary healthcare will come at an additional short-term cost; if the reductions in use are sustainable, there may be long-term benefits that justify the investment, but these are not adequately captured in this study.

The rural nature of Taber means the results may be applicable to other geographically distinct settings where entire populations and the majority of healthcare services are included in such primary healthcare initiatives. Caution should be taken in attempting to apply the findings to larger urban settings where services may be in a competitive environment and populations not defined based on their residence.

**Approach**

Our study was done with a series of analysis methods. Analysis of use data was provided by the Centre for Health Outcome Research and Utilization Studies at the University of Alberta. Analysis of how the health-system organization changed and behavioural aspects of the system were provided through the faculty of management and the Centre for Health Care Organizations at the University of Lethbridge, in conjunction with collaborators at the faculty of management at the University of Victoria and faculty of business at the University of Alberta. Employees of the Chinook Health Region facilitated and managed the project; they also did surveys for health status, satisfaction with health services, and healthcare worker satisfaction.

*Figure 1. Map of the Chinook Health Region*
Overall project co-ordination was done through a steering team made up of representatives from all the organizations that were key participants in the initiative. The research steering committee was accountable to the management committee. The project used expertise from the University of Calgary in health economics, where this project aligned with a university project on the use of program budget marginal analysis. The results of this analysis are reported separately. vii A joint research activity was done on the effects of the nurse practitioner; this was directed by the faculty of business at the University of Alberta. Research team members and contacts are listed in Appendix A, and the many supports are acknowledged in Appendix B.

Research ethics approval was obtained by researchers within their own institutions. All research ethics boards were provided with the full research proposal.

Information on Taber’s health-system organization was obtained through key documents, minutes, direct observation during meetings, personal interviews, and a written questionnaire administered. A third round of closing interviews will be done after the formal project completion in late 2003. The effects of the nurse practitioner were acquired through personal interviews done in 2002. Information on the alternative payment plan was obtained through interviews with key informants, physicians, and physicians’ spouses.

Data on healthcare use was obtained from Alberta Health and Wellness through the Alberta Centre for Health Services Utilization Research. Data on physician claims, the Ambulatory Care Classification System, hospitalization, and homecare were all accessed for the study. Data were standardized for age and sex for comparison purposes. Specific information on laboratory use, immunization, and other clinical data were supplied through the Chinook Health Region and the Taber Associated Medical Clinic. Population estimates were based upon the Alberta Health Care Registry. Geographic zones were established that represented the area covered by the alternative payment plan and three comparison areas within the Chinook Health Region which also have hospitals that provide at least some surgical and obstetrical services. Data were analysed annually over
a three-year period, beginning with the year immediately before the alternative payment plan began (Sept. 1, 1999- Aug. 30, 2000), and were adjusted according to reporting time frames.

Population and client information were obtained through a health-status telephone survey, a system-satisfaction telephone survey, and a written survey of all healthcare professionals in the Taber area. While many specific initiatives were done by the full project, only the first initiative was started quickly enough to attempt to measure its impact. Throughout the project, mothers of newborn babies who lived in the Taber area were contacted six months after delivery to complete a written questionnaire. Only the health-status survey was done in comparison areas.

Each of the separate sub-study interactions is described in the table with key information on the methods:

<table>
<thead>
<tr>
<th>Study Name</th>
<th>Methodology/Comparison group</th>
<th>Number of Persons Contacted</th>
<th>Number Of Respondents</th>
<th>Date</th>
<th>Analysis Methodology</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determinants of Health Survey Round One Round Two</td>
<td>Telephone/Rural areas within health region</td>
<td>Unknown 2,554 for all districts</td>
<td>426 from East district 380 from East district</td>
<td>1998 2003</td>
<td>Descriptives, Chi Square, Comparison of Proportions</td>
<td>SPSS</td>
</tr>
<tr>
<td>Taber Health System Survey Round One Round Two</td>
<td>Telephone</td>
<td>2,349 1,540</td>
<td>403 425</td>
<td>2000 2003</td>
<td>Descriptives, Chi Square, Comparison of Proportions</td>
<td>SPSS</td>
</tr>
<tr>
<td>Mothers’ Satisfaction With Childbirth Services Survey</td>
<td>Written (mail)</td>
<td>670</td>
<td>226</td>
<td>2000 - 2003</td>
<td>Descriptives, Chi Square</td>
<td>SPSS</td>
</tr>
<tr>
<td>Practitioner satisfaction Survey Round One Survey Round Two</td>
<td>Written (mail)</td>
<td>250</td>
<td>72</td>
<td>2000</td>
<td>Descriptives, (Paired) T-tests, Factor Analysis</td>
<td>SPSS</td>
</tr>
<tr>
<td>Alternative Payment Plans Facilitators and Barriers</td>
<td>Personal Interviews</td>
<td>8</td>
<td>6</td>
<td>2000-2001</td>
<td>Thematic Analysis</td>
<td>QSR Nudist</td>
</tr>
<tr>
<td>Alternative Payment Plans — Spouses</td>
<td>Personal Interviews</td>
<td>8</td>
<td>7</td>
<td>2003</td>
<td>Thematic Analysis</td>
<td>QSR Nudist</td>
</tr>
<tr>
<td>Organizational and System Interviews — Round One Round Two</td>
<td>Personal Interviews</td>
<td>42</td>
<td>42</td>
<td>2000</td>
<td>Thematic Analysis</td>
<td>Atlas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26</td>
<td>24</td>
<td>2002</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Analysing the data in a results matrix based upon the most important research areas proved challenging. Often, it took three or four tools to measure the data. While integrating these elements has the potential to make standardization more difficult, it also has the strength of combining information from multiple sources and thus providing a more complete picture. Ultimately, the project is a case study in a single community with some comparisons from three additional community areas. It is, however, a case study with many data elements contributing. Appendices D through S provide specific findings of the sub-studies.

The methods and findings have been presented to peers in a variety of ways (Appendix S). The project received scrutiny from other researchers, other projects, and policy makers interested in primary-care reform. The project has also received attention from governments and the media.

The research itself resulted in spin-off activities. It actively promoted alignment with other research projects and where possible contributed information to multi-site studies. Some results have already been made available to the evaluation committee for the Health Transition Fund’s projects at Alberta Health and Wellness to help decision-making, and project participants have shared their expertise and experience in policy-development processes with respect to primary healthcare.
The university-based researchers within the project have considerable professional incentive to ensure dissemination to the scientific community. The practice-based professionals have some incentive to ensure the information is placed into the hands of policy makers and people who may be affected by the reform process, so they can make informed decisions. The research team was sensitive to the variety of audiences throughout the project and will continue to be so as further dissemination proceeds.

Results: The burning question that everyone seems to want answered is “did the project work?” The answer of course is “it depends.”

“How would you evaluate success? If Christopher Columbus had sailed across the sea and landed in a foreign country, do you evaluate his success as the ability to get somewhere where you haven’t been before? Or do you evaluate success by looking at what the resources were in that new world he discovered?”  

The Journey

Success often depends on a solid foundation. Taber’s healthcare system worked well to begin with, and healthcare providers in the community built on their strengths. Before the project, the use of hospital resources and physician services in Taber was generally the lowest of the four jurisdictions studied. Implementing the project was enhanced by a group of physicians who encouraged the shift from a “provider driven model” towards a “population driven model.” Supporting the physicians were healthcare workers who subscribed to the philosophical belief that what was being proposed was something new and different and worth striving for. There were clearly identified champions for the project found in the physician group, in the project co-ordinator, within the region, and within government. The health region was repeatedly commended for its willingness to innovate and support the project, even though there was considerable pessimism within the region on the potential for success.

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1 The remaining quotes were collected from interviews done during the study; however, identifying information is not included to ensure confidentiality.
“I thought it’s a phenomenal opportunity the [Chinook Health Region] gave the Taber management group... Have you ever been in an organization that asks you to go tell me how you think it should work and to come back and present it to us...? Most bureaucratic organizations are not receptive to change and they do not run like that... To be given an opportunity to even explore these opportunities is wonderful.”

In short, there was more than just an idea; there was a fertile ground and lots of support to nurture the project from the beginning.

*Key Points: the foundation for change was enhanced by a strong health system before the change, willing and capable physicians, broad support from other healthcare workers, clearly identified champions, and a health region willing to innovate and be supportive.*

Several factors promoted the progress of the project. The project was framed as a patient care enhancing activity, something that healthcare professionals of all disciplines could support. Co-location of healthcare professionals with related functions supported integration. Most co-location activity centered on the physician’s clinic, reinforcing the concept that the physicians retained control of their power, and that the sharing of such power was to occur at their level of comfort. This was identified as a critical success factor and should not be ignored when promoting shifts to integrated primary healthcare.

*Key Points: implementation was facilitated by the shared value of enhancing patient care, structural changes such as co-location of professionals, allowing physicians to retain control of and pace the shifting of power, incentives including short-term financial gains, careful attention to protecting business interests, good communications, and externally established deadlines.*
Incentives encourage change, and while the major incentive was the improvement of patient care, a secondary incentive was physicians’ desire to improve their quality of life. This was made easier by ensuring that there was no short-term financial disincentive. In fact, a financial gain was incorporated within the alternative payment plan for the physician group. The tenacious attention to ensuring the business aspects of the relationship were appropriate was considered an important aspect of the project. Many projects suffer from a lack of communication, and while criticisms arose, the importance placed by the project on ensuring engagement and communication internally and externally helped the activities move forward. Deadlines imposed regarding funding and commitment kept participants focused on specific benchmarks.

As with most projects, the implementation was not without its problems. The alternative payment plan negotiation process was long and frustrating for all involved. As one participant in the negotiation process noted:

“Whenever you’re changing a structural issue there are all kinds of policy implications that are impacted... Changing those structural issues is always more complex than you think when you start out. The first projects to do them are the ones who are going to experience the most pain. [Though] Taber physicians] felt that it took way too long to get the [alternative payment plan] in place, when you look at it from the provincial perspective ... [Taber physicians] were the latest record setter.”

Various provincial organizations tried to ensure that their interests in primary healthcare and the effects on other professionals were addressed. The health region as a whole was supportive, but differences of opinion regarding operational issues at a regional and local level emerged which potentially hindered progress of the project. Trust levels were inconsistent among personnel affected by the project. In particular, front-line staff was distrusting of the motives and not sufficiently engaged in the initial phases of the project.
The reasons for participating differed between professionals and within the organizational structure. As a result, expectations were sometimes widely different. While the major values and objectives relating to improved patient care were the same, many organizational stakeholders and individual professionals had other values and objectives which sometimes conflicted. That one group (the physicians) appears to have benefited more than others could compromise trust in the process. On the other hand, the success of the project depended on the physician involvement and in their willingness to participate in the redistribution of power over the duration of the project. In many respects, the project proceeded because the champions wanted to overcome obstacles. In the end, the positive changes in many of the measures tracked through the project indicate that the project was a success. The fact that the project proceeded and continues to evolve and advance is in and of itself an indicator that the journey has been successful.

Key points: it would have been easier if there had been a clear process for negotiating the alternative payment plan, external stakeholders were as committed to the primary value of improving patient care, there was clarity regarding local versus regional authority for programming, trust was established with all affected workers, full agreement existed regarding expectations, values, and objectives, and all professionals gained equally.

The new land

There are many dimensions that can be assessed in determining the overall success of the project:

- Are healthcare practitioners more satisfied? Are their lifestyles improved?
- Are consumers of health services more satisfied?
- Are residents healthier?
- Is health-system use more appropriate?
- Is the system more efficient? Or more effective?
Textbooks on measurement can be written on each of the above dimensions, and interested readers can review important findings of the project in detail by accessing technical reports on the research project’s web site at www.uleth.ca/man/taberresearch/.

**The impact on professionals**

The impact on healthcare professionals is an important outcome in assessing what incentives can be used to encourage change. Data on healthcare professionals were obtained through two sets of personal interviews with selected participants, interviews with spouses of physicians, and through three written surveys conducted during the project.

Three perspectives must be used to answer this question: the physicians, healthcare professionals whose jobs were directly affected by the project, and other healthcare professionals in Taber. The three groups may be seen in terms of actual engagement in the project and the impact of the changes. Groups such as hospital and long-term care workers were aware of but rarely actively involved in primary healthcare change activities. Non-physician healthcare workers who were active in the project contrasted with the physician group regarding their expectations and effects.

Healthcare workers active in the project were almost unanimous in their belief that patient care had improved. Equally obvious, particularly for physicians, was the fact that the changes did not improve their personal lives; indeed, at times they were busier than before the project started. There was guarded optimism during interviews that the changes will result in reduced workload demands in the future, but these were not yet achieved. Both physicians and other affected healthcare workers notably increased their job satisfaction. Physicians reported that they had more flexibility to do other things. Their spouses reported, however, that they tended to substitute activities with other professional functions, and as such there was minimal change in their home lives. Both physicians and their spouses routinely commented that their financial situation had improved as a result of the project and that this was beneficial.
Burnout was measured among a wide variety of healthcare workers. The most notable finding was that while measures of significant burnout were in the 40 percent range, this was no different from other studies of healthcare workers in Canada.

In the survey of healthcare practitioners there were distinct differences between those who were part of the project and those who were not. Those who allowed their two surveys to be linked together routinely reported improvements in personal job satisfaction and the quality of service provided to patients. Those who responded to the surveys but refused to have their surveys linked tended to believe that their job situation and patient care was worse. This discrepancy raises questions about the differing opinions internal to Taber on the impact of the project on healthcare professionals. Those who were more involved or affected by the project were more likely to have been interviewed; hence there is potential to have not collected opposing opinions from less affected persons.

Concerns were raised during early interviews by some staff. These persons openly reflected in subsequent interviews that once they were invited to discuss their concerns and propose solutions their confidence and satisfaction in the project increased. This serves as a subtle reminder of the importance of inclusiveness in aiding the implementation of projects.

Key points: healthcare professionals tended to report improved job satisfaction; however, their personal lifestyles had not changed. Significant job burnout in healthcare professionals approaches 40 percent in Taber, no different from other healthcare settings. The importance of involvement in changing processes was rediscovered in Taber. Some staff may be dissatisfied who still feel excluded from the change process.

Are consumers more satisfied?

A community-wide survey performed before and towards the end of the project asked questions related to satisfaction and experience with the health system. This particular survey did not compare other communities. Respondents thought the system was high-
quality at the beginning and end of the project. Given the episodic nature of healthcare, evolving system improvements may not be noticeable to the public. There was a decrease in the proportion of post-respondents who had themselves or within their families used hospital services in the previous year. In addition, there was an increase in the proportion of patients who indicated that they had enough information to make an informed decision, with the increase occurring specifically among people who have at least a high school education. Such changes were consistent with the project objectives.

Specific research emphasis was placed on the development and acceptability of the nurse practitioner, and interviews confirmed the community willingness to adopt and use this individual. As importantly, all the physicians in the group reported that quality of patient care had improved as a result of her influence.

“They have valued [the nurse practitioner] approach, which is different than that of when they see their primary care physician. It seems to be more educational focused, self-care, more empowerment type of approach ... She took more time to spend with them, talking about their health issues. I think people really appreciate that, and I did hear that.”

A specific change to maternal-child care resulting from the project was tracked over the duration, which confirmed that high satisfaction existed initially and throughout the project. Targeted changes in the programming resulted in demonstrable improvements for certain particular items such as information sharing and collaborative decision-making.

Key point: Public confidence and satisfaction in the healthcare system may be rattled by reductions, but improvements are less likely to be appreciated.

Within Taber, there was no evidence of reduced satisfaction in the local healthcare system.

Specific programming components such as modifications to well baby care and the implementation of the nurse practitioner were well received.
Are residents healthier?

Several population-level health indicators changed significantly over the project duration, mostly for the better. For example, use of seat belts and sun protection both increased, while tobacco use and alcohol use decreased. The proportion of respondents indicating recent measurement of blood pressure and blood sugar also increased. For those persons with chronic diseases such as hypertension and hypercholesterolemia, there was a marked increase in the proportion of respondents indicating appropriate methods for managing these conditions. These indicators are suggestive of changes that would promote a healthier population. In contrast, the proportion reporting healthier weights decreased, consistent with the growing national epidemic of obesity.

Population health interventions were available in both Taber and the comparison communities. The changes in Taber were often found with similar changes in the comparison communities, suggesting that they may not be attributable to the initiative.

During the study time period, Taber grew at 1.9 percent per year, while the comparison communities actually decreased their populations by an average –0.6 percent per year. Community growth is an indicator of economic health, which in turn is a determinant of population health. Hence the conundrum: was the culture of innovation and creativity that spawned Taber’s economic prosperity a factor in initiating the project, or did the project in some way affect the economic wellbeing of the community? The former seems more plausible.

*Key Finding: the population in Taber appeared to be healthier, but so were the comparison communities.*

Is health-system use more appropriate?

Data on use from a variety of sources were examined for the period of the project. The delay in the release of use data hampers the necessary follow-up, and as these results become available the technical reports will be updated.
Using a variety of measures of physician services, Taber residents used physicians less often than before the project. These changes occurred for both services covered by the alternative payment plan and those services not covered by the plan. While services decreased in Taber, there was no change in Taber area residents seeking service outside of Taber over the three-year study period.

Hospital out-patient and emergency room services and day surgery were significantly lower in the Taber area prior to the project. During the project, day surgeries were reduced by 3.6 percent, while they increased by 6.7 percent in the comparison regions. Emergency/outpatient use increased by 1.9 percent, while the comparison communities increased 1.8 percent, 13.3 percent, and 14.6 percent. At the end of the second year of the project, the rate of use of emergency and outpatient services in Taber was only two-thirds that of the comparison communities.

Total separations from hospital were down 4.9 percent. Decreases of 12.2 percent, 3.5 percent, and 0.5 percent were noted in the comparison communities. As with emergency room use, the rate of hospital use in Taber was the lowest at the start of the project and remained the lowest at 84 percent of the comparison community average. In contrast, the community of Taber saw a substantive increase in hospital days (+11.5 percent) and average length of stay (+17.2 percent). Total hospital days were down in all three comparison communities and average lengths of stay were not appreciably different. None of the communities had structural changes to their number of beds or functional changes in the use of the beds that could explain the differences. There appeared to have been a very significant increase in the severity of the illness (relative intensity weight), particularly among Taber residents who were hospitalized outside of the region, which may account for some, but not all the difference. Preliminary data for an additional year is suggestive that hospital days decreased in the final year of the project. As is commonly found in rural regions, when compared with CIHI benchmarks, all communities including Taber had use rates that exceeded the CIHI expected values.
Laboratory testing could be measured throughout the time period, and while all communities showed increases, the growth in Taber was half the average of the comparison communities (5.4 percent vs. 10.6 percent). It is notable once again to reflect that the use rate in Taber was the lowest prior to the project, and was only 85 percent of the community average at the end of the project.

Key points: physician services, outpatient/emergency use, day surgery, hospital separations, and laboratory use all demonstrated improvement relative to comparison communities. In absolute terms, Taber use was lower before the project and was relatively lower afterwards.

**Is the system more efficient or more effective?**

Detailed economic analyses were not undertaken as part of the study; however some specific and some general points are worth noting. Physician claims data supported the finding that use in Taber was lower and less expensive than comparison communities. The cost of claims associated with services covered by the alternative payment plan increased 6.6 percent while the average increase in the comparison communities was 20.6 percent, with much of the increase being due to renegotiated fee schedules during the study period. At the end of the study, the Taber group was claiming two-thirds of the rate per 1,000 residents of their colleagues for services within the plan. In Taber the rate of non-plan services by physicians decreased by 13.3 percent, while it increased 3.7 percent, 5.5 percent, and 30.4 percent in the comparison communities. Taber was the second-highest claiming community at the start of the study, and it dropped to the lowest at 86 percent of two of the communities and only 45 percent of the fourth community, which had unusually high non-plan claims.

The cost of laboratory services could be determined from the available data, with Taber costing $6.61 per resident, while the comparison communities averaged $7.65. The rate of growth of costs in Taber averaged 1.1 percent per year, while it grew 3.6 percent per year in the comparison communities.
The relatively lower average claim amounts existing in Taber at the time of the start of the project provided an added incentive to the physicians to move to the alternative payment plan. The rate of payment was determined by the average age-sex standardized rate throughout the province. Hence, by being more efficient at the start of the project, the physicians were rewarded financially when they converted to the alternative payment plan. In addition, the community received special project funding for three years to support the project co-ordinator and a nurse practitioner. Capital and operational support was provided to modify the information systems required to support the project integration activities.

The fact that the community received incentives was noted during interviews as related to the sustainability of the project. Respondents generally noted that many of the changes in service delivery methods associated with the project would not cease if the project were discontinued. They suggested that many of the structural changes that had been implemented were not reversible. However, concerns about financial sustainability were raised, as were concerns about the ability to reproduce the initiative in other settings without incentives and external support.

**Summary of the Results**

The ultimate question as to whether the initiative worked or not is dependant upon the dimension that one wishes to measure. There were definite gains made in use rates. Most staff measures indicated that the project was successful in improving patient care and professional satisfaction. The community appears to have improved on several population health measures. Client satisfaction was high to begin with and was certainly no worse at
the end of the project. The economic impact of the project was not measured specifically; however, there were suggestive results that there were valuable benefits from the lower use rates.

As one participant eloquently summarized the importance of the project:

“Two-thirds of the costs incurred by a health region are incurred because of something a physician wrote down on a piece of paper... You can try to save money on the other one-third if you want, but until the physicians have an understanding that what they write down ... makes the difference... The only way to do it is to give them a role in those decisions and in the over all system.”

The two-year follow-up time frame was sufficient to demonstrate trends in the expected directions of improvement, some of which are clearly significant. Yet the dynamic process of evolution occurred at an increasing rate throughout the duration of the project. Further improvements in various measures should be expected if data collection were to continue into the future. Some of these gains are of sufficient value that attempts will be made to collect data for an additional time period and reported as they become available.

Just as important as the outcomes of the project, this study has captured some important information on the dynamics necessary to do a project of this nature. Issues of professional identity, leadership, power shifting, organizational trust, stress in the worksite, organizational culture, organizational structure, and integration were all noted during the project. Healthcare managers would benefit from understanding and embracing organizational theory as it applies to radical change within the healthcare system. Community-level initiatives present excellent opportunities for facilitating, supporting, and studying health reform processes. But such changes involve a number of players who must be approached in non-authoritarian ways. Most importantly, the success of any such initiative needs to be founded in the value and belief in improving healthcare — something that was an underlying pillar in Taber.
“I could have sat down and mapped out the perfect process. But even had we followed the perfect process, because everything’s new to people, other people need some nurturing … Other people need … a little kick and other people need a little pat on the back … [You] never follow that perfect process … because we're human and because it's a dynamic environment… We got from point A to point B, and we've learned a lot of lessons throughout the way, and we got the people there. We've learned a lot of things … We don't have to go through that learning curve for everybody each time... And I wouldn't change anything.”

Readers looking for more detail on any aspect of the project are invited to visit the research project website at www.uleth.ca/man/taberrresearch. A summary document is provided for each of the significant themes identified in the qualitative research. For each of the sub studies, a technical report on the findings is available.

In addition, readers are encouraged to review the policy syntheses on primary healthcare done by the University of Montreal and integrated health systems done by McMaster University for the Canadian Health Services Research Foundation and accessible through the documents and reports section of their web site at www.chsrf.ca/docs.

**Further research**

Health reform in Canada has a history of proceeding despite a relative lack of information on the benefits or risks. This study provides early evidence of the relative value of primary healthcare reform and some concrete suggestions on methods for success.

Preliminary attempts have been made through the Canadian Institutes of Health Information to determine the types of data that should be collected when evaluating primary-care reform projects. Governments have participated in the distribution of millions of dollars for primary-care reform, and yet clear information on the relative benefits and costs associated with such changes have not been clearly documented.
Minimal work on the processes necessary to shift towards this type of reform has been undertaken.

Taber represents a single attempt at primary-care renewal in a location with strong community assets and relatively good health at the start of the initiative. As is often the case, those who already have resources are willing to invest to become richer (or in this case healthier). The challenge from a research perspective is to determine how to reproduce this initiative in a variety of settings. The concrete work within Taber on professional integration, case management, information systems, and communications can be adopted as a basis for going forward (Appendix C). But, as is so clearly demonstrated throughout this project, managing the change process for success is as critical an endeavour as striving to achieve the outcomes.

Since this project began, primary-care reform has swept across the country, without a strong evidence basis and without a clear roadmap. Research should focus on issues of physical and organizational structure, successful incentives for change, change management of professional roles, impacts of information systems on improving health, and the impact of primary healthcare renewal on health. Primary healthcare renewal will proceed in the absence of this evidence, but for the sake of developing the most effective and efficient healthcare system, there is value in attempting to capture this information in advance.
Resources


