



Case Study



IMPLEMENTING A PROVINCE- WIDE SOLUTION FOR SASKATCHEWAN HOME CARE

Challenges & Methodology

April 2006

Table of Contents

TABLE OF CONTENTS 2

EXECUTIVE SUMMARY 3

 Author..... 3

 Situation & Background 3

 Key Issue 3

 Solution..... 3

 Key Findings 4

SITUATION & BACKGROUND 5

 Home Care in Canada Today 5

 Organizational Overview 5

 Provincial Home Care Requirements 6

SOLUTION 7

 Ongoing Support & Maintenance 8

 Adopting a Standardized Data Set through RAI-HC Tool..... 8

 Current Status of Province-wide Implementations 10

KEY FINDINGS 11

 Increased Quality of Care 11

 Across the Continuum of Care 11

 Impact on National Home Care 11

Executive Summary

Author

Carol Gregoryk, BScN, Team Manager Prince Albert Parkland Home Care

Situation & Background

Over the last decade, Home Care in Saskatchewan has seen a dramatic increase in overall demand and a need for increased acute care at home while managing a Province-wide restructuring initiative from Districts to larger Regional Health Authorities. Along with this growth there has been an increased demand for information with which to assess and monitor Home Care, leading to increasing technological advancements in Home Care delivery.

Many Regions in Canada have embarked upon various solutions to respond to the changing landscape of Home Care including comprehensive health information systems that integrate client information across health regions. In particular, there has occurred a consensus around the value of standardized clinical assessment tools, such as the RAI-HC, to support front-line care planning and quality care indicators.¹ Working closely with Statistics Canada and Health Canada, Canadian Institute for Health Information (CIHI) has identified, and created the data standards for a set of priority home care indicators designed for national reporting. The CIHI *Home Care Roadmap Indicators* (HCRS) is a pan-Canadian resource of standardized clinical, demographic, administrative and resource information about Home Care.

Key Issue

Saskatchewan Home Care required a series of commonly configured, centrally hosted and supported departmental software systems for use by their Regional Health Authorities (RHAs) to enhance decision-making and health planning. They also required a standardized assessment tool. The method of collecting data on Home Care services was inconsistent, making it difficult to compare and evaluate the services provided in the RHAs.

Solution

Saskatchewan Home Care responded to the challenge of implementing common, shared Home Care information systems across the RHAs by providing:

- A standardized Province-wide Comprehensive Home Care solution using Procura
- A standardized assessment tool (InterRAI MDS-HC) Province-wide.²

¹ CIHI Update, October 2004.

² The InterRAI Home Care assessment system was developed to provide a common language for assessing the health status and care needs in the community. RAI-HC is an implementation of a series of standardized client assessment instruments that employ consistent terminology, have a uniform clinical emphasis and produce similar types of data and streamline collection.

Executive Summary

Key Findings

As the roll out of Procura continues to occur with RAI-HC across the Province, a solid Provincial picture of care with quality outcomes will enhance our Home Care clients' ability to stay as healthy as possible in their own homes. Improved quality of care for our clients has occurred using Procura's reports from the RAI-HC Assessments. Specific examples of this can be seen through the measurement of outcome indicators such as pain or depression.

The coordinated Provincial approach taken by Saskatchewan Health and particularly the Home Care programs has created a technological advancement in data collection and reporting second to none. It leads the way across Canada in keeping with the National initiatives towards the development and measurement of standard indicators that will allow regions and Provinces to compare their system's performance but more importantly their client populations. As Saskatchewan Home Care staff attend various workshops and conferences that include other Provinces, we have become aware that our Province is leading the way in Canada today with respect to Home Care delivery as many Provinces are struggling with fragmented Home Care programs and several points for delivery of care.

The achievement of Saskatchewan Home Care is an integral piece of Saskatchewan Health's overarching strategy to implement commonly configured (common data definitions, tables, processes etc.) components of the EHR in each of the Regional Health Authorities. Eventually this will create Electronic Patient Records (EPRs) which will be inter-connected through an interoperation provincial EHR infrastructure. Currently, Prince Albert Parklands Home Care has progressed to a primarily Electronic Patient Record (EPR) that is now accessible in rural areas and in the hospital by discharge planners.

Situation & Background

Home Care in Canada Today

Over the last decade there have been various challenges in Canadian health care starting with the introduction of 'Health Care Reform', decreased hospital beds and eventually cutbacks which have resulted in a massive growth in the field of Home Care.

As explained in the Development of National Indicators and Reports for Home Care Project Report, "Reform and restructuring of the health system has seen hospitals closed at a faster pace than the planning and organization of the infrastructure for home and community-based care. The need for home and community-based care is growing but the capacity to manage that need is still being developed. This has placed a significant burden of care..."³ Across Canada, Home Care organizations are providing a higher level of acuity than ever before, costing the system more money and requiring more resources along with new skills and training.

Many Regions in Canada have embarked upon various solutions to respond to the changing landscape of Home Care, including comprehensive health information systems to integrate client information across health regions. In particular, there is a consensus around the value of standardized clinical assessment tools, such as the RAI-HC, to support front-line care planning and quality indicators.⁴ Working closely with Statistics Canada and Health Canada, Canadian Institute for Health Information (CIHI) has identified, and created the data standards for a set of priority home care indicators designed for national reporting. The CIHI *Home Care Roadmap Indicators* (HCRS), is a pan-Canadian resource of standardized clinical, demographic, administrative and resource information about Home Care.

Organizational Overview

As a department within the Saskatchewan Government, Saskatchewan Health sets policy and standards for health services and administers the province's health budget of over \$2 billion. Across the Province, there are 12 Regional Health Authorities that assume responsibility for the delivery of Home Care across the Province.

Not unlike other newly formed RHAs, the Prince Albert Parkland Health Authority has been a region in transition since the Province-wide restructuring initiative. The proclamation of the Regional Health Service Act on August 1, 2002 resulted in bringing two Health Districts together to make the Prince Albert Parkland Health Region, which has presented challenges that put the region's mission to the test.⁵



3 http://www.cihi.ca/cihiweb/en/downloads/indicators_homecare_e_finalrepapr2001.pdf

4 CIHI Update, October 2004.

5 The Prince Albert Parkland Health Region encompasses the former Prince Albert and Parkland Health Districts and has a geographical area of 31,596 square kilometers and services a population of approximately 77,215.

Situation & Background

In the late 90's, the District-formation in the city of Prince Albert, created an approximate growth in Home Care of 200%. Utilizing a manual scheduling system and a locally contracted software system, Prince Albert Parklands' Home Care (PAPHC) limped along until the workload became overwhelming. Three managers and one full time scheduler could no longer keep up the pace.

In conjunction with PAPHC, a District project labeled District Process Innovation (DPI) was started in the region to examine the complex problem of staff scheduling. The goal was to find a system that provided a solution to everyone's needs. They marketed a Request-for-Pricing in collaboration with PAPHC with responses from many National and International software vendors.

As a result of this RFP, PAPHC selected Procura as their Scheduling system. In 1998, PAPHC implemented Procura Scheduling. Following its implementation, the full-time Scheduler along with another part-time scheduler managed our client needs well in advance of the care date, which was a dramatic reduction in staff requirement from the previously struggling three managers and fulltime scheduler.

As the Y2K bug began to rear its head shortly following our implementation of the Scheduling Module, the realization occurred that PAPHC's current billing software was about to succumb. We expanded our use of Procura to include their Timekeeping and Billing Modules.

Provincial Home Care Requirements

Across the Province of Saskatchewan, there was a recognized lack of provincially comparable data for Home Care services, which became a major obstacle to planning, implementing, management and evaluation of Home Care services. Since 2001, Health Information Solutions Centre (HISC) has been working with Saskatchewan's Health Regions to implement common, shared health care information systems through a program called *Integrated Clinical Systems (ICS)*.

The absence of common terminology or information collection across the agencies and communities in the different RHAs severely limited comparisons from one RHA to another as well as across programs within some Health Authorities.

The Saskatchewan Home Care directors identified that the legacy software system in the rural areas required an upgrade. ICS works with the Saskatchewan RHAs to implement common, shared patient care computer systems that support front-line delivery such as Home Care, with the objective of providing a series of commonly configured centrally hosted and supported departmental systems for use by the RHAs. Under the direction of the *Saskatchewan Health Information Network (SHIN)*, five districts represented by Home Care staff, sent out a Provincial RFP searching for a Provincial Home Care solution.⁶

⁶ Formerly known as SHIN, HISC is a branch of Saskatchewan Health. HISC facilitates the development, coordination and use of information and technology solutions in supporting continuing improvements in delivery of health care in Saskatchewan. HISC is leading the initiatives associated with the advancement of the electronic health record in the jurisdiction of Saskatchewan, in partnership with Canada Health Infoway, Inc. (Infoway).

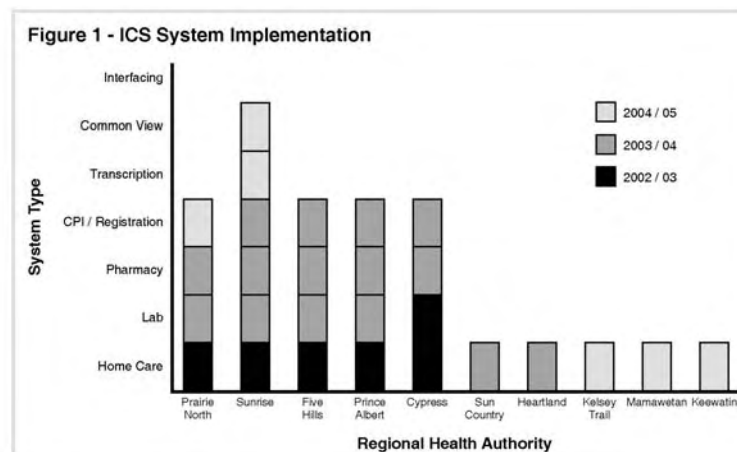
Solution

Procura was the Home Care software vendor that met all of the needs across Saskatchewan Home Care. The Province-wide implementation started with the original five RHAs in the project. The objective was provision of a series of commonly configured centrally hosted and supported departmental systems.

The project vision was a departmental system in participating regions where each system would enable the entry and viewing of timely and accurate information by authorized users within the department. The Delivery Phase of the project included:

1. **Pre-Implementation.** Pre-implementation work involved engaging all five Districts in discussions to agree on detailed processes and information flows. Specific activities included assessing current processes and systems; determining the future process and detailed data flows internally and externally; understanding the gap between the current and future states; and documenting the detailed requirements to guide the build, development, testing and implementation of software, hardware and new business practices.
2. **System Build.** This activity was primarily concerned with table definition, file structure build, and the design of necessary data conversions between legacy systems and Procura. Procura in conjunction with the pre-implementation team created the *Table Structures & Definition Standards*, which identified how the organization of the Procura software would occur as well as common Provincial tables outlining a method to standardize data. A Provincial rollout of Procura began which involved the first five districts initially included in the project.
3. **Testing.** This activity validated that the future processes, supporting application software and hardware functioned as expected.
4. **Deployment.** The deployment phase consisted of performing any necessary data conversion, implementing the application, end-user training (both formal sessions and ongoing support), enabling of users, and a post-live assessment.

Figure One below indicates the approximate timeline of the Home Care system implementation in the RHAs. In 2004/2005, Procura solution had been implemented in the Keewatin Yatthé, Kelsey Trail, and Mamawetan-Churchill River health regions.



Solution

Ongoing Support & Maintenance

The ICS Home Care Group under the direction of HISC currently meets on a monthly basis through teleconferencing to maintain the Provincial table structure, assist other Regions with resolution of any software concerns and coordinate upgrades to the project.

Under the direction of HISC, Saskatchewan Health has also created one Help Desk that supports Home Care, fielding calls across the Province regarding all software products including Procura. HISC funds all user license fees and coordinates calls to the software vendors in an effort to control costs and track solutions to common software concerns presented by users. As of March 31st, 2005, 9,400 health care staff across the provincial health sector had access to the HISC service desk.⁷

Adopting a Standardized Data Set through RAI-HC Tool

As time marched on during the implementation of the Procura Home Care solution, another aspect of Home Care service delivery was evolving. The assessment form Saskatchewan Home Care was using was a Provincial product called Saskatchewan Client Information Profile (SCIP-A). Although it was an important part of data collection, an electronic conversion of the data was required since it was a paper assessment. It was also not validated through research on the question content, which would examine the appropriateness of data collection required for Home Care clients.

Saskatchewan Health had mandated the use of the MDS 2.0 in all its long-term care facilities in each RHA and was interested in using the MDS-HC tool as the standardized provincial assessment and classification system for individuals accessing community based supportive services in all Regional Health Authorities. The MDS-HC tool would replace the Saskatchewan Client Information Profile (SCIP), the current provincial assessment tool.

In the Long-Term Care (LTC) sector in Saskatchewan, a Provincial implementation of one of the InterRAI family of products had already taken place. The data available from these electronic assessments was quite incredible and was able to be taken right down to the bedside in resolving issues around over-prescription of drugs, restraint use, depression rates in the elderly and so on. Another product in the family utilized by InterRAI was the RAI-HC tool (Resident Assessment Instrument – Home Care).

Saskatchewan Health's Continuing Care branch acknowledged the Provincial use of Procura and asked the vendor what capacity it would have to host the RAI-HC. Procura was interested already and had the RAI-HC on their radar screen. As a result, Continuing Care was involved in what would be the requirements for our Province in RAI-HC. They requested an integrated, centrally hosted Minimum Data Set for Home Care including RUGs, CAPs, QIs and Care Planning.

⁷ http://www.health.gov.sk.ca/mc_dp_shin_ar_2004-05.pdf

Solution

In the fall of 2003, Procura and Saskatchewan Home Care began planning the introduction of InterRAI's MDS-HC with two health regions – Saskatoon and Prince Albert Parkland. The first meeting was January 2004, where a Pre-implementation Committee with a Steering Committee was created, along with a project charter and plan. The Pre-Implementation Committee consisted of Saskatchewan Health, Assessors, IT, Project Coordinators and first line Managers from Saskatoon and Prince Albert Parkland Regions. The following project goals were established:

- To provide a provincial, standardized single point of entry process for individuals accessing community and long term care services.
- To ensure a seamless process of linking health information between the sectors with an integrated application.
- To provide Regional Health Authorities a clinically valid, reliable, standardized and automated methods for assessment, classification, care planning, and data collection.
- To ensure access to a provincial database of reliable, valid, quality information that will assist to ensure evidence-based decision-making, support continuity of services, allow standardization for best practices for utilization and program planning, and client health information management.
- To provide Regional Health Authorities with a database of the information that they require to effectively manage programs that provides information that can be used for program monitoring, evaluation, auditing and research, that aids in decision making from both care delivery and resource utilization perspectives, and that assists in meeting accountability requirements.
- To determine the additional information needs of Saskatchewan Health by receiving valid, credible data sets for research on which to base decisions about programs and services that will help monitor, measure and improve service delivery, and influence policy and program development.

Extensive software requirements for the assessment were created and approved by the Provincial RAI-Home Care Steering Committee. The Steering Committee also approved the recommendations of the working group on November 4, 2004. The Procura's InterRAI MDS-HC was finalized by early 2005 with a training plan to begin in May of 2005.

In March 2005, the Assessors in Prince Albert were trained in Procura. In May, there was initial training from Nova Scotia on InterRAI-HC to the pre-implementation committee. Ongoing communication included regular meetings with all Assessors and team managers followed up by a newsletter to all. The newsletter includes CIHI follow up to interpretation of questions and is also sent to Saskatchewan Health.

Two years following the initial meeting in 2003, the product was introduced as a pilot in the Prince Albert Health Region. The excitement and apprehension of change was tangible but once on the implementation road the Clinical Care Assessment Coordinators began to see the results of a fully electronic assessment. They were able to see useful information immediately as the Procura RAI-HC product displayed instant outcome measurement scales and client assessment protocols. As the Assessor Coordinators utilized laptops to interview clients they had a visual production of these important clues for care right at the Point of Care, as the RAI-HC is integrated into the electronic file already in the Procura solution.

Solution

Current Status of Province-wide Implementations

With the assistance of HISC once again, the product is being rolled out with the Continuing Care branch to the rest of the regions. As seen below, the rollout continues today and essentially includes the large urban areas that are facing retirement of a number of software systems and a combination of their output into one product.

Region	Description	2004-2005	2005-2006	2006-2007	2007-2008
Kelsey Trail	HISC Procura in Melfort and Tisdale	✓	✓		
	Regional roll-out		✓		
	Interface with Momentum AR		✓		
Prince Albert Parkland	<i>using HISC Procura in Prince Albert</i>	✓	✓		
	Implement HISC Procura MDS Home Care	✓	✓		
	Interface with Momentum Financials		✓		
	Regional roll-out out of HISC Procura and MDS Home Care		✓		
	Decommission CCS2		✓		
Prairie North	<i>using HISC Procura in North Battleford and Meadow Lake</i>	✓	✓		
	Implement HISC Procura in Lloydminster		✓		
	Implement HISC Procura in Twin Rivers			✓	
	Implement HISC Procura in all other sites		✓		
	Implement HISC Procura MDS Home Care		✓	✓	
Keewatin Yatthé	HISC Procura Implemented	✓	✓		
Mamawetan Churchill River	HISC Procura Implemented	✓	✓		
Sun Country	<i>using HISC Procura</i>	✓	✓		
	Implement HISC Procura MDS Home Care		✓	✓	
Five Hills	<i>using HISC Procura</i>	✓	✓		
	Implement HISC Procura MDS Home Care			✓	
Cypress	<i>using HISC Procura</i>	✓	✓		
	Implement HISC Procura MDS Home Care		✓		
	Regional roll-out of "Call Me" moduled			✓	✓
Regina Qu'Appelle	<i>using Procura, Masterfiles, CCS2</i>	✓	✓		
	HISC Solution		✓		
Sunrise	<i>using HISC Procura in Yorkton</i>	✓	✓		
	Expand to Canora, Kamsack, Esterhazy, Invermay, Melville, Norquay, Preeceville		✓		
Saskatoon	Investigate/ implement Procura as a replacement for the Garman system (HISC hosted solution)	✓	✓		
	MDS Home Care Pilot	✓	✓		
Heartland	<i>using HISC Procura</i>	✓	✓		
	Interface with Momentum		✓		

Overall, Procura is used by 387 staff in 10 health regions to better schedule and manage the care of 10,164 clients, recording information on nearly 900,000 home visits.⁸ Currently, PAPHR Home Care has progressed to the point of having a primarily Electronic Patient Record (EPR) that is now accessible in rural areas and in the hospital by discharge planners.

⁸ http://www.health.gov.sk.ca/ph_hisc_sol_homecare.html

Key Findings

Increased Quality of Care

No matter how excellent a Home Care service may seem, it can only really be measured in quality care client outcomes. Through the process of accreditation at the local level in Prince Albert, we have found that quality care continues to improve for our clients. Expansion of that quality will continue to occur with utilization of the reports offered through Procura in relation to the RAI-HC. Specifically, examples of this can be seen through the measurement of indicators like pain or depression.

- In the past, pain was considered primarily in palliative clients. The RAI-HC assessment measures pain in all clients. Through Procura reports we can obtain the percentage of an area, caseload, base office, or a regions measurement of pain amongst clients.
- Measurement of depression is another result of the RAI-HC assessment tool. Following an assessment, the Assessor Coordinator and the Manager identified a client with a very high score on the depression rating scale. Little else was wrong with him. The physician was notified, as the client was not on antidepressants. Minimal service was put in place and on review he had improved. There is little else that matters when it comes to this type of client care.

As the roll out of Procura continues to occur with RAI-HC across the Province, a solid Provincial picture of care with quality outcomes will enhance our Home Care clients' ability to stay as healthy as possible in their own homes.

Across the Continuum of Care

As the foundation of a common home care application and standardized assessment in Saskatchewan Home Care becomes established, the ICS goal of a common view application will enable other authorized health providers (e.g. Pharmacy, Lab etc) to view a summary of relevant information about their patients quickly and securely.

The implementation of Procura across the Province puts Saskatchewan Home Care one step closer to the future goal of having accurate and more complete patient information available to authorized care providers when and where they need it.

Impact on National Home Care

The Federal government of Canada is searching for a National Home Care program and looking to address the growing need across Canada for timely and accurate information on Home Care services.⁹

Working closely with Statistics Canada and Health Canada, CIHI has identified, and created the data standards for, a set of priority home care indicators designed for national reporting – The *CIHI Home Care Roadmap Indicators (HCRS)*. Feedback from stakeholders suggests that the

⁹ CIHI received funding from the Health Transition Fund (1999/2001) and the Roadmap Initiative2 (1999/2003) to develop national priority indicators and reports for home care. www.cihi.ca

Key Findings

HCRS represents a tremendous opportunity to develop a rich source of standardized data to support system planning, equitable resource allocation, and, most importantly, improved quality of care. The HCRS will be a modular system, using clinical assessment instruments as the foundation for clinical data and CIHI-defined elements to capture administrative and utilization data. The first clinical instrument to be incorporated in the HCRS will be the RAI-HC, which Saskatchewan Home Care has implemented in PA Parklands, with Cypress in 2005/2006 and Sun Country, Prairie North and Saskatoon Health Regions soon to follow.

The coordinated Provincial approach taken by Saskatchewan Health and particularly the Home Care programs has created a technological advancement in data collection and reporting second to none. It leads the way across Canada in keeping with the National initiatives towards the development and measurement of standard indicators that will allow regions and Provinces to compare their system's performance, but more importantly their client populations. As Saskatchewan Home Care staff attend various workshops and conferences that include other Provinces, we have become aware that our Province is leading the way in Canada today with respect to Home Care delivery, as many Provinces are struggling with fragmented Home Care programs and several points for delivery of care.

In partnership with Canada Health Infoway (Infoway), HISC has been leading several new Electronic Health Records (EHR) projects in Saskatchewan to accelerate the development of the EHR in Canada. The achievement of Saskatchewan Home Care is an integral piece of Saskatchewan Health's overarching strategy to implement commonly configured (common data definitions, tables, processes etc.) components of the EHR in each of the Regional Health Authorities, thereby creating Electronic Patient Records (EPRs), that will eventually be interconnected through an interoperation provincial EHR infrastructure. Currently, Prince Albert Parklands Home Care has progressed to the point of having a primarily Electronic Patient Record (EPR) that is now accessible in rural areas and in the hospital by discharge planners.