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1 EXECUTIVE SUMMARY

The Canadian Health Outcomes for Better Information and Care (C-HOBIC) initiative is a first step in providing nurses with the information needed to continue to deliver high quality patient care in the increasingly complex environment of modern health care. Nurses and other care providers collect C-HOBIC information via admission and discharge assessments in Acute Care and Home Care, and admission and quarterly resident assessments in Long Term Care.

C-HOBIC introduces a systematic structured process and terminology to patient assessments. C-HOBIC information supports care planning by nurses at the patient care level, quality improvement initiatives at the organizational level, and the establishment of benchmarks for performance at the provincial level.

\[\text{C-HOBIC User}\]

\[\text{\"C-HOBIC allows the nurse to understand patient\'s \textquoteleft ways of knowing\' with regards to medical history and medications. It is a quick way for the nurse to assess the patient\'s educational needs and lets the nurse know about family/friends the patient relies on.\"}\]

C-HOBIC assessment data highlights the impact made by nurses that may not have previously been measured.

\[\text{C-HOBIC User}\]

\[\text{\"C-HOBIC can elicit information not normally attained. It keeps the nursing unit updated regarding recent treatments, etc. prior to pts admission.\"}\]

C-HOBIC is being implemented in Ontario Long Term care, Ontario Acute Care, Manitoba Long Term Care, Manitoba Home Care and Saskatchewan Long Term Care. At the time of data collection, the implementation of the C-HOBIC information processes had been completed in Ontario for at least 1 year. In Manitoba, the initial implementation was completed a few weeks after the start of the evaluation data collection. Implementation in Saskatchewan was still in progress while evaluation data collection was taking place. Development of new nursing processes, integration into local nursing workflows and collection of sufficient data to enable aggregate analysis and reporting and take advantage of C-HOBIC information was in its early stages at all sites.

The key finding from this evaluation is that clinicians require time and resources to adopt information intensive initiatives such as C-HOBIC and successfully incorporate them into their clinical practices. Evaluation findings are most positive in care sectors which have both been involved in the initiative the longest and which have focused resources on assisting clinicians to use the C-HOBIC information to improve their practice. User feedback illustrates that adoption is not complete, but incorporation of C-HOBIC data and reports is beneficial and will foster adoption among non-users:
“Have a meeting where you’ve actually seen a result and then everybody believes it; you use a report at a meeting and the family says ‘wow,’ they’ve seen the progress made. [The Nurses say] this is great.”

C-HOBIC User

Through a stakeholder driven prioritization process, this evaluation set out to answer three main questions:

1. Do Nurses use C-HOBIC information?
2. Are Nurses satisfied with C-HOBIC information?
3. In what ways has practice changed as a result of C-HOBIC information?

Data collection occurred via a 25 question C-HOBIC User Satisfaction Survey (76 responses), 5 focus group sessions and one key stakeholder interview. Difficulties in data collection were encountered due to insufficient infrastructure, such as lack of internet access at nursing stations, to use the electronic survey tool. This was especially true in Saskatchewan where nurses were dealing with a number of initiatives in addition to C-HOBIC and its evaluation; there were only 2 survey responses received from a total of 30 sites. Many respondents also indicated they had not had time to sufficiently integrate C-HOBIC into their practice, and that the evaluation took place too soon after implementation. The timeline of the data collection for this evaluation was constrained by the requirement to table a final report in July 2009. The survey response rate should be kept in mind when considering the evaluation findings.

Survey responses indicate that at the time of data collection, 20 out of 76 (27%) of users overall were satisfied with C-HOBIC. Satisfaction was highest in LTC where it has been used the longest; overall satisfaction in Ontario LTC was 50% while overall satisfaction in Manitoba LTC was 28%. The graph shown below is one example of higher satisfaction in Ontario LTC, clearly illustrating that respondents who have used C-HOBIC the longest were most likely to say they would recommend it, increase future use, and also had the highest intention to use.

Differences in the types of care facilities using C-HOBIC led to differences in user satisfaction data. For example, LTC patients have a longer length of stay than patients in Acute Care, allowing for a demonstration of positive trends over a longer period of time. Repeated review of C-HOBIC data and reports during care conferences allows for multiple positive encounters with the information for any one patient.
Reasons for satisfaction with C-HOBIC included opportunities for information sharing, increased productivity, and increased quality of care. Seventy percent of respondents from Ontario LTC would recommend using C-HOBIC data and processes to other providers and 6 out of 10 (60%) of respondents from Ontario LTC expect to increase their future usage. While most respondents were using the system for less than 10% of their patients, feedback from both Acute Care and LTC indicated there was a desire among new users to increase use and incorporate C-HOBIC reports into care planning, continuous quality initiatives (CQI), and the prevention of readmissions. Focus group feedback provided rich data on reasons for user satisfaction and quotes have been incorporated throughout the document, for example:

“[C-HOBIC] is validating your visual and professional judgment from a program perspective. From a data collection point of view it works well. From a case management perspective you are usually right on with those tools.”

C-HOBIC User

Access to C-HOBIC influences satisfaction. When C-HOBIC was integrated into existing systems, workflow and nursing processes, satisfaction was highest. Satisfaction was lower where completion of the C-HOBIC assessments was not integrated. Satisfaction was the lowest in the Home Care sector and data indicated that a major hurdle is in accessing web-based information during visits to patient homes. The lack of integration of C-HOBIC assessments with other information systems and with existing nursing processes represents the main barrier to nurse satisfaction with C-HOBIC.

In summary Early indications are that C-HOBIC has a positive impact on professional practice by enabling Nurses to share information and focus on patient outcomes as this participant noted:

“[For us to use reports in that way will require] our staff need to get used to taking these reports and really looking at the value of seeing what they have in them… Actually seeing it work. Having success stories come out of it, see results, progress. Have a meeting where you’ve actually seen a result and then everybody believes it; you use a report at a meeting and the family says wow, they’ve seen the progress made. [The Nurses say] this is great. We have to bring this back. Once they [the
Nurses] have seen this then they’ll look at these reports and share them again at every meeting. Then they’ll use these reports over and over again.”

C-HOBIC User

However, as with other efforts to improve evidence based care, it takes time for users to incorporate the C-HOBIC processes and use of the information into professional practice. The lessons learned in C-HOBIC will be valuable to other EHR initiatives that will face similar challenges as more clinical repositories become structured and mature enough to provide a basis for aggregate data analysis and the creation of new evidence based practices.

Based on these findings, we recommend that the C-HOBIC initiative continue with a focus on enabling the integration of C-HOBIC information within local nursing practice. In facilities where C-HOBIC information has been effectively integrated into the nursing workflow (even to small extents such as attaching a C-HOBIC report to the patient kardex) the feedback received from the participants has been clearly positive and the benefits for patient care were easily articulated. The need to address technical workflow issues causing access barriers and preventing integration with existing data collection systems is critical for future success at new and existing facilities.
2 INTRODUCTION

The Canadian Health Outcomes for Better Information and Care (C-HOBIC) initiative introduces a systematic structured process and terminology to patient assessments. C-HOBIC measures the impact that nurses have on patient outcomes through the collection of standardized evidence-based information at key times during the patient’s care.

C-HOBIC information is collected via admission and discharge assessments in Acute Care and Home Care, and admission and quarterly resident assessments in Long Term Care. Nurses and Care Coordinators assess patients using standardized questions that are integrated into existing assessments. Nurses and Nurse Managers use the C-HOBIC reports created from C-HOBIC data. The goal is to build a comprehensive and reliable knowledge base that clinicians, planners and researchers can access.

C-HOBIC information will be invaluable at the unit level to support patient care by nurses, the organizational level for quality improvement initiatives, and the provincial level for establishing benchmarks for performance. C-HOBIC information can be abstracted into jurisdictional EHRs or provincial databases and analyzed to provide feedback to nurses about patient outcomes. It is a first step in providing nurses with the tools and information needed at the point of care to continue to deliver high quality patient care in the increasingly complex environment of modern health care.

C-HOBIC is being implemented in Ontario Long Term care, Ontario Acute care, Manitoba Long Term Care, Manitoba Homecare and Saskatchewan Long Term Care.

2.1 PURPOSE OF THIS REPORT

The purpose of this report is to report on evaluation results focusing on the 3 study questions that address current use of C-HOBIC, satisfaction and resulting changes in practice for nursing staff across Acute Care, Home Care, and Long Term Care sectors in Ontario, Manitoba, and Saskatchewan.
3 EVALUATION AND ANALYSIS METHODOLOGY

3.1 FORMULATION OF STUDY QUESTIONS

On April 3, 2008, the Praxia consultant team facilitated a workshop of the C-HOBIC Benefits Evaluation Steering Committee. Workshop participants described and prioritized the questions of interest in this assessment. The key questions for this assessment identified by this group were:

1. Do Nurses use C-HOBIC information?
2. How satisfied are Nurses with C-HOBIC information?
3. In what ways has practice changed as a result of C-HOBIC information?

3.1.1 Study Questions

<table>
<thead>
<tr>
<th>Sub-Category</th>
<th>Study Question</th>
<th>Indicator</th>
<th>Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use</td>
<td>Do Nurses use C-HOBIC information?</td>
<td>Proportion of facilities and Nurses and clinicians accessing and using information</td>
<td>- User survey&lt;br&gt;- C-HOBIC System data – (see below for more details)</td>
</tr>
<tr>
<td>User Satisfaction</td>
<td>How satisfied are Nurses with C-HOBIC information?</td>
<td>User satisfaction e.g. with respect to the information that is available, training in the use of C-HOBIC information or instrument</td>
<td>- User survey&lt;br&gt;- Focus Groups (see below for more details)</td>
</tr>
<tr>
<td>Change in provider effectiveness/appropriateness of care</td>
<td>In what ways has your practice changed as a result of C-HOBIC information?</td>
<td>Changes in individual and organizational practices</td>
<td>- Focus Groups&lt;br&gt;- User survey (see below for more details)</td>
</tr>
</tbody>
</table>

3.2 USER SATISFACTION SURVEY

The Praxia team used an existing Canada Health Infoway health information system user satisfaction tool as a basis to customize a C-HOBIC user satisfaction survey tool. Questions were designed to capture information that would answer the study questions developed in the C-HOBIC evaluation workshop.

The survey was administered electronically and hosted on the Canada Health Infoway website. Survey respondents were contacted via Project Managers in each province, who in turn contacted a site representative at each facility. Survey response rate was affected by a lack of convenient internet access at the place of work for the majority of C-HOBIC users. For that reason, the Project Team sent printable electronic copies of the survey via email to the C-HOBIC Project Managers at...

1 Please see Appendix E for a list of responding facilities.
each site. They worked with site representatives and Nurse Managers to provide a paper copy of the survey to respondents as needed.

Survey data were analysed to identify key messages via quantitative analysis.

3.3 FOCUS GROUPS

Focus groups were conducted to provide further understanding to the evaluation questions.

The scope of this study included soliciting feedback from both managers and care providers in three health sector groups across three provinces. A targeted approach was used to recruit participants representing each of these groups in areas where C-HOBIC had been implemented.

All data collection sessions were conducted via telephone and recorded to assist in transcribing the responses. Participants gave their verbal permission to record the session under the condition that no names would be included in the report.

Focus group data were analyzed for themes using content analysis. Although the primary evaluation questions were use and user satisfaction, the Canada Health Infoway framework indicates a number of factors were expected to influence these, including: System Quality (functionality, performance, security), Information Quality (content, availability), and Service Quality (responsiveness). Focus group participants identified factors in each of these areas that influenced their use of the C-HOBIC processes and information.

3.4 KEY INFORMANT INTERVIEW

One key informant interview was held with a C-HOBIC aggregate data user in Ontario Acute Care sector. The informant was recruited via the project team’s ad hoc request to conduct a site visit at an example facility.
4 C-HOBIC USAGE SURVEY DESCRIPTIVE STATISTICS

Seventy-six (76) survey responses were received from clinician end users and aggregate data users in the sectors of Acute Care, Home Care, and Long Term Care in the provinces of Ontario, Manitoba, and Saskatchewan.

4.1 BREAKDOWN OF RESPONDING SECTORS

Below is a break down of users who completed the survey showing their sector, province, and length of time spent using C-HOBIC.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of Users</th>
<th>Length of time as users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute (Ontario only)</td>
<td>26</td>
<td>85% using for 7-24 months</td>
</tr>
<tr>
<td>Long Term Care (Ontario)</td>
<td>10</td>
<td>78% using for 7 months – 5 years</td>
</tr>
<tr>
<td>Long Term Care (Manitoba)</td>
<td>23</td>
<td>90% using less than 3 months</td>
</tr>
<tr>
<td>Long Term Care (Saskatchewan)</td>
<td>2</td>
<td>100% using 7 months – 5 years</td>
</tr>
<tr>
<td>Home Care (Manitoba only)</td>
<td>11</td>
<td>100% using for less than 6 months</td>
</tr>
<tr>
<td>Sector not indicated</td>
<td>4</td>
<td>Time spent using C-HOBIC not indicated</td>
</tr>
<tr>
<td>TOTAL</td>
<td>76*</td>
<td></td>
</tr>
</tbody>
</table>

*The survey response rate is low – 76 respondents from a total of approximately 3000 trained users from 57 sites where C-HOBIC has been implemented and that were invited to participate. Readers should take into consideration the low number of respondents when considering the survey findings, especially the sector breakdown statistics.

In sections 5, 6, and 7 we address the key questions of interest to the Evaluation Steering Committee about the current state of C-HOBIC usage based on responses to the survey, focus groups and key informant interview.

---

2 4 respondents did not indicate the sector in which they work

3 C-HOBIC has been implemented for less than 3 years in all locations and sectors. Users possibly answered incorrectly due to C-HOBIC integration with other systems

4 There were 2 respondents from Saskatchewan

5 Same as 3
5 DO NURSES USE C-HOBIC INFORMATION?

Survey questions to answer this study question included:

- On average, for what percent of your patients do you use C-HOBIC information?
- Do you have any experiences with the C-HOBIC system where it has supported the provision of care by you or others?
- In a typical week, please indicate the number of days you use C-HOBIC information.
- On average how many times per day do you use the C-HOBIC information?
- If you have not had the opportunity to use C-HOBIC information, do you intend to use it?  
- How likely are you to recommend the C-HOBIC system to other healthcare providers?
- Given a choice, would you change your future use of C-HOBIC?
- How long have you been using the C-HOBIC information?

5.1 ANALYSIS

Overall survey respondents’ use was determined using the question “On average, for what percent of your patients do you use C-HOBIC information?” The vast majority of respondents cite use of C-HOBIC for less than 10% of their patients. A small proportion of Acute Care users indicate use of C-HOBIC for a larger portion of their patients. Notably, 100% of Home Care respondents indicate they use C-HOBIC on less than 10% of their patients.

6 Although this question asks for responses from people who have never used C-HOBIC, it was answered by the majority of respondents, who also indicate current use of the system. Responses for this question have been included in this report as they provide a rich set of data on intention to use C-HOBIC.
The graph below shows a comparison of users who have been using C-HOBIC for 1 or more years and 1 or more days per week (dark blue diamonds), by sector, and those who have been using C-HOBIC for 1 or more years and 1 or more times per day (orange squares). Saskatchewan is not included due to insufficient data.

Key messages:
- Ontario LTC are the biggest weekly users of C-HOBIC, with 56% (5 out of 9) using for 1 or more years and 56% (5 out of 9) using at least once per week.
- 42% (11 out of 26) of Acute Care users have been using C-HOBIC for at least one year, with 35% (9 out of 26) using at least once a week and 36% (9 out of 25) using at least once a day.
- While C-HOBIC was implemented in Manitoba LTC less than 6 months ago, 42% (8 out of 19) use it more than once a day, and 26% (6 out of 23) use it at least once a week.

All Home Care users have spent less than one year using C-HOBIC, with no users accessing it more than once per day or more than once per week.

The graph below compares the percentage of users who intend to use C-HOBIC, would recommend C-HOBIC, and plan to increase future use. Responses are shown for all user types. Saskatchewan is not shown separately due to insufficient data.
Key messages:
- The highest number of users likely to recommend C-HOBIC (60% - 6 out of 10), increase future use (70% - 7 out of 10), and intend to use C-HOBIC (75% - 3 out of 4) are all in Ontario Long Term Care.
- There is a similar intent to use C-HOBIC in Acute Care (30% or 3 of 10) and Manitoba LTC (28% or 4 of 14), but, Acute Care is less likely to recommend
- Home Care respondents do not recommend C-HOBIC (0 out of 9), will not increase future use (0 out of 11), nor do they intend to use it (0 out of 10)

5.2 INTERPRETATION

Survey responses and focus group feedback show that despite reports of low usage, there is intent to use C-HOBIC in Acute Care and Long Term Care. This is supported by the following user survey feedback:

“We are working into implementing it into care conferences and care planning. It is too early to tell.”

“Change in planning and care delivery has occurred, a little bit but not a lot. We’re pretty early in the implementation.”

Acute Care focus group feedback indicated that ongoing usage is supported and augmented by having a C-HOBIC resource person on site to help users understand why and how to incorporate the assessments reports into practice. Feedback from users in Acute Care also included a desire to do more with the C-HOBIC data such as increasing the number of assessments completed and incorporating reports into internal Continuous Quality Improvement initiatives. A key informant aggregate data user added that C-HOBIC reports have proven to be valuable in hospital accreditation, though usage must increase to ensure that aggregate data is meaningful.

Focus group respondents further described the need for support in integrating C-HOBIC into practice:

“If we can keep our C-HOBIC Resource Person I truly believe this is something that organizations need to look at. That person can look at the different gaps, reliability of the system, the different reports, sit down with managers, apply it to report cards and translate for clinicians. There’s so much we can do, but we’re just not there yet. [We see that resource person as seeing how to bridge using [the technology] with using the information.] She’ll translate the C-HOBIC for the clinicians, the Nurses, the managers and educators.”

“I don’t know what kind of resources are available – but perhaps the actual project would be able to allocate...resources to helping Homes to pull their stats, look at what their trends have been. If you’ve seen a big increase in [patients’] mobility in your Home, does that mean that you’ve got [fewer] falls and better skin outcomes? Helping Homes start to see what this information means so that they start to bring it into their practice”

The overall key message is that while training was reported to be very successful and participants reported feeling confident they could use the C-HOBIC information, it takes time for users to adopt
C-HOBIC for all patients. This is evidenced by the increased use in areas that have used C-HOBIC the longest.
6 HOW SATISFIED ARE NURSES WITH C-HOBIC INFORMATION?

Survey questions used to answer the question of how satisfied Nurses were with C-HOBIC information included:

- In general, how satisfied are you with C-HOBIC information that you are currently working with?
- Please indicate your level of agreement or disagreement with each of the following statements:
  - The information improves my productivity
  - The information improves the quality of care I can provide
  - The information makes my job easier
  - The information enhances our ability to coordinate the continuity of care
  - The information facilitates our sharing of patient information among providers in order to plan and evaluate care
- Are there aspects of the C-HOBIC system that you would change? If so, which ones would they be?
- How likely are you to recommend the C-HOBIC system to other healthcare providers at other Hospitals or Centres?
- Given a choice, would you change your future use of the C-HOBIC system?

Satisfaction was measured by way of: overall satisfaction, agreement with value proposition statements, intent to increase future use, and likelihood to recommend C-HOBIC.

6.1 ANALYSIS

Satisfaction responses for both types of users have been grouped and segmented by province in the following graph.
- 27% (19 out of 69) of all respondents were highly or moderately satisfied
- 38% (13 out of 34) of respondents from Long Term Care were highly or moderately satisfied
- The majority of Home Care respondents (73% or 8 out of 11) were neither dissatisfied nor satisfied. No users in Home Care (0 out of 11) were satisfied or highly satisfied.

One common theme observed in survey responses and focus group feedback from users in Home Care was that workflow issues around C-HOBIC mitigate against entering assessment data. This was due to C-HOBIC being web-based and therefore not available to access at the point of care during in-home patient visits.

Responses by all users with the exception of Nurse Managers were grouped into End User categories. Roles other than Nurse included: Registered Practical Nurse, Clinical Nurse Specialist, Coordinator, and Social Worker. Forty-seven percent (36 out of 76) of survey respondents did not indicate their role.

The graph below shows overall end user satisfaction by sector.

Key messages:
- End user satisfaction was highest in Long Term Care with 70% (7 out of 10) users moderately to highly satisfied
- End users in Acute Care were evenly distributed across 3 categories of satisfaction: not at all satisfied (31% or 5 out of 16), neither satisfied nor dissatisfied (31% or 5 out of 16), and moderately/highly satisfied (31% or 14 out of 16)

Reasons for satisfaction by all user types have been grouped and are shown in the following graph with strongly and moderately agree shown in blue and moderately disagree and strongly disagree shown in red:
Key messages are that among survey respondents, the value of C-HOBIC to nurses has not yet been realised. Information sharing is the value proposition as it is the most accepted of Question 2 value proposal statements, over quality of care, making one’s job easier, coordinating care, or improving productivity. The following feedback was received on a survey from Acute Care:

“With respect to pain management, when they came in on a scale of 1 to 10 their pain was 9. When they are discharged that pain is now 2. That nurse has made a difference. There are so many obvious things we can pull out of this C-HOBIC measurement.”

6.1.1 Satisfaction in Long Term Care

Overall satisfaction for all user types has been grouped and segmented to show satisfaction in Long Term Care. Saskatchewan is not shown separately due to insufficient data.
Key messages:
- 50% (5 out of 10) of respondents in Ontario LTC are either moderately or highly satisfied
- 28% (6 out of 22) of respondents in Manitoba LTC are either moderately or highly satisfied
- 0% of Ontario LTC respondents are moderately dissatisfied or not at all satisfied

“We use C-HOBIC and RA12.0 when assessing residents or clients - you can see the changes in LTC residents and change your care - but for convalescent clients it just shows how much they were coming in and how much they have improved on discharge.”

6.2 INTERPRETATION

Reasons for satisfaction by users in Long Term Care were grouped and are shown in the graph below, with satisfied users in Ontario LTC shown in purple and satisfied users in Manitoba LTC shown in orange. Saskatchewan was not included due to insufficient data.

- 70% (7 out of 10) of users in Ontario LTC agree that C-HOBIC improves the coordination of the continuity of care, as compared to 30% (3 out of 10) in Manitoba LTC
- 60% (6 out of 10) of users in Ontario LTC agree that C-HOBIC improves productivity, as compared to 21% (5 out of 23) in Manitoba LTC.

C-HOBIC was more recently implemented in Manitoba than in Ontario. The graph suggests that as providers spent time entering and using assessment data, the value proposition shifted from information sharing to coordination of care. This made the user’s job easier as well as improved quality of care, and productivity. The exception of a higher valuation of C-HOBIC facilitation of information sharing between providers in Manitoba may be an “early win”; where patient assessments were previously done on paper or not at all, implementation of C-HOBIC enables providers to share information quickly and across care givers.
Possible interpretations of a positive impact on productivity are that as C-HOBIC assessment and reporting was incorporated into the provision of care the information can be used to support care planning. This was informed by responses to the free-text survey question: “In what ways has your practice changed as a result of using C-HOBIC information?”:

“During Annual Care Conferences[with families of LTC patients], I use it to compare information to the previous year. C-HOBIC can elicit information not normally attained. Keeps the floor updated regarding recent treatments, etc. prior to patients admission.”

Focus group feedback provided further support to the idea that C-HOBIC supports care planning:

“[C-HOBIC provides] a picture of the past 12 months if the resident has been there that long and 4 assessments are completed. No other MDS report gives you that picture – they are just moments in time, but don’t give you the trend over the past year.”

6.2.1 Benefits evaluation timeframe

As this evaluation project was taking place, implementation of C-HOBIC was ongoing in Saskatchewan, and only recently completed in Manitoba. Implementations in Ontario have been ongoing over the past several years.

In the survey, users suggested aspects of C-HOBIC they would change. Several responses indicated they could not answer the question due to a limited period of use since implementation; this aligns with responses indicating recent C-HOBIC implementations in many of the responding jurisdictions. Analysis of survey responses suggests that where C-HOBIC has not been established in nursing workflow, full benefits have not been realised.

“Maybe with more time [C-HOBIC] will have more of an impact, we’ve only had 2 weeks with this.”

Answers reflecting recent implementations such as “Too new for me to know,” or “Don't know yet,” or “Don't know enough to make specific comment,” indicate that more time spent entering assessment data and using reports is required for a full understanding of its benefits. Survey responses do suggest that users see potential benefits of C-HOBIC and will continue to use it: “I am just starting to take advantage of all that C-HOBIC has to offer. I am now accessing information and utilizing to improve resident care.”

6.2.2 Responses related to C-HOBIC workflow

The most frequently reported reasons for not using C-HOBIC were related to barriers in accessing C-HOBIC assessment screens. Access barriers were especially evident in Home Care, where end users reported that the web-based nature of C-HOBIC data entry prevented documenting assessments during a home visit. C-HOBIC could not be accessed without an internet connection. In contrast, the MDS application could be accessed and accept data during a home visit by Nurses downloading the required MDS documents prior to the visit, entering data while completing a home visit and then uploading the revised version when they returned to the office. In Home Care, these access barriers exacerbated the reported lack of valuation placed on C-HOBIC information by current and potential users.
“I see this as much more of an acute care type of an assessment”

“To be honest it’s a great computerized tool; but when you’re a really seasoned case coordinator or case manager in home care, when you walk into someone’s home, [you use your] professional skills. You know if someone is at risk for falls, you know if their medications are an issue with regards to their compliance; you know what their IADL and ADL functions are; you know they are an institutional risk for planning.”

“I can’t tell you how much of a barrier that is, to go into another site. That alone made it another step to not wanting… our staff just doesn’t want to go there. It’s another task – anything that you can make – a desktop shortcut, an icon right into where they need to be means Nurses are more likely to use it.”

Responses to the question of which aspects of C-HOBIC should be changed included a perception that the additions to nursing workload are not worth the potential benefits of entering assessments. Statements illustrating this include:

“We do not see anything come from this; it just seems like more work for the nurses.”

“I will not be using it. It is purely a report tool for upper management and is even of dubious value except to be able to compare workloads.”

“If you had some kind of framework for the administrative staff to decide when to look at [the C-HOBIC report], to use it at management meetings and decide we’re seeing trends or changes. So the people that make the decisions need to have some kind of framework. Right now there is no process involved and I think that’s why we’re not off and running with it. At least at that level.”

Technical challenges in accessing and using C-HOBIC were noted as a particularly important barrier in not entering assessments, as is illustrated by the following user statements:

“The difficulty I find is that to use C-HOBIC you have to get off the MDS and go on to the internet. It takes a while to load up. I go do a little filing, come back and then log in, go do a little more filing, then put in my name and password. Then I can access it. It’s not right there and accessible. Reports built into MDS are that much more accessible. Unfortunately because of that I don’t find I’m using C-HOBIC at all.”

“C-HOBIC is an internet based program that we have to access and we don’t have wireless internet so we can’t access it in the home like we can the MDS assessment; we load it on our computers. And if you’re doing work at home, which a lot of us do, [you] can’t access it.”

“C-HOBIC admission assessment must be completed within 24 hours. We are exploring why this is not happening. Sometimes it is because the patient has been in ER for 20 hours waiting for a bed (no way to signify this in the system). Even though the nurse completes the admission C-HOBIC it is considered no good and therefore the data is missing.”
The Minimum Data Set (MDS) is used in Long Term Care and Home Care settings, and analysis of survey responses and focus group sessions showed there is a strong link between use of MDS and nurse satisfaction with C-HOBIC. This link exists along different aspects of nursing workflow.

Differences between users who input data versus aggregate data use were explored. Where MDS exists, data entered into it feeds into C-HOBIC, which meant nurses avoided duplicating their data entry. With this workflow, from the end user provider perspective, C-HOBIC was felt to be redundant. However, since the MDS data feeds into C-HOBIC and therefore the C-HOBIC reports, this workflow provides value for Nurse Managers and other aggregate data users.

A key informant interview indicated that use of the C-HOBIC reports was extremely valuable for accreditation and Continuous Quality Improvement. Survey data also included the following supportive statement:

“I use the C-HOBIC information for quality indicators. This helps me to understand them in a better way than our MDS program currently does. It has led me to understanding the MDS QI better though.”
7 IN WHAT WAYS HAS PRACTICE CHANGED AS A RESULT OF C-HOBIC INFORMATION?

Survey questions used to answer this study question were:
- Do you have any experiences with the C-HOBIC system that you would change?
- Do you feel that C-HOBIC information has changed your assessment and reporting practices?
- Does C-HOBIC help you to plan and evaluate patient care?
- In what ways has your practice changed as a result of using C-HOBIC information?
- Do you have any other comments you would like to make regarding the C-HOBIC system?

Data acquired via the user satisfaction survey and focus groups suggested that C-HOBIC has had an impact on nursing practice by facilitating information sharing, helping to focus the care planning, and enabling use of aggregate data by way of the C-HOBIC reports.

7.1 ANALYSIS

In the survey users were asked if C-HOBIC has changed their assessment and reporting practices and if C-HOBIC helps to plan and evaluate patient care. User responses of definitely and probably to each of these questions were grouped and shown as a coloured bar for overall responses, each responding sector (LTC is divided by province), and roles. Saskatchewan is not shown separately due to insufficient data.

Key messages:
- 50% (3 out of 6) of respondents in Ontario LTC said that C-HOBIC changed their assessment and reporting practices
- 31% (8 out of 26) of respondents in Acute Care said that C-HOBIC helps to plan and evaluate care
- 0% (0 out of 11) of respondents in Home Care have changed assessment and reporting due to C-HOBIC
- 0% (0 out of 11) of respondents in Home Care use C-HOBIC data to plan and evaluate care

7.2 INTERPRETATION

Results suggest that over time, C-HOBIC facilitates assessments and use of aggregate data while in the short term, use of the system helps with care planning.

“Interpreting assessment results and evaluation has improved outcomes.”

“When completing a kardex on admission, I don't usually think of asking about nausea or falls until I think of the C-HOBIC questions. These questions are fine, quick, and somewhat relevant.”

Where C-HOBIC has been successfully implemented, information sharing is an immediate gain. Through the user survey and focus groups, users provided details on how this information sharing has changed their practice.

“Can use C-HOBIC to prevent re-admissions by zeroing in on specific problems and sharing information at shift report. In chronic conditions can concentrate more on teaching, e.g. a gentleman was re-admitted with no C-HOBIC on previous admission. He didn’t understand his medications and we assumed he knew them. [C-HOBIC] helps focus on a plan of care, i.e. more on specific patient needs.”

As was reported in the user survey, C-HOBIC enabled sharing of information between clinicians and providers. Yet user feedback described how completing the C-HOBIC assessments and reviewing the report enabled information sharing directly between the patient and the provider which supported a higher quality of care.

“[C-HOBIC] allows the nurse to understand patient’s ‘ways of knowing’ with regards to medical history and medications. It is a quick way for the nurse to assess the patient’s educational needs and lets the nurse know about family/friends the patient relies on.”

“C-HOBIC can elicit information not normally attained. Keeps the floor updated regarding recent treatments, etc. prior to pts admission.”

As C-HOBIC usage continues aggregate data will be accumulated and accessible in the C-HOBIC reports. Participant responses suggested these reports were useful in a host of processes including accreditation and CQI projects.

“We propose to use C-HOBIC within CQI team; get reports out and share information, e.g. if more skin breakdowns why is this happening and use this information in local CQI efforts.”

“I use the C-HOBIC information for quality indicators. This helps me to understand them in a better way than our MDS program currently does. It has led me to understanding the MDS QI better though.”

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Focus group participants described an especially important impact of using C-HOBIC reports was using them as the basis for patient care protocols. Users suggested that as patterns in patient needs and care are seen over time, this information could be used to help Nurses provide more streamlined and effective care.

“C-HOBIC reports show us we’ve done better in that category, e.g. ADLs, pain – she’s not on as may pain pills, she’s able to walk; she’s able to climb stairs at home...You can actually show [the patients’ families] the graph from 6 months ago and this is how she’s improving or how she’s deteriorated.”

“[After] years and years of entering workload data that measured tasks that Nurses did, [but were not connected to] patient outcomes, now want to measure how Nurses make a difference. Assessment at admission and discharge [helps identify] what made the difference. Complex continuing care patients stay longer. You can see where you’ve made a difference.”

7.2.1 Immediate gains from C-HOBIC implementation

C-HOBIC user survey and focus group responses suggested that Information Sharing is an immediate short-term gain after implementation. Especially in clinical settings where assessment documentation was paper based, the availability of C-HOBIC assessments as well as the nature of the data they contain is new and useful. Patient assessment information is available to multiple users via multiple access points.

As previously shown in section 5.2.2, overall satisfaction is highest in Long Term Care; however, C-HOBIC implementation was much more recent in Manitoba than in Ontario. The acceptance of the value proposition statements is higher in Ontario LTC for all but “The information facilitates sharing of patient information among providers in order to plan and evaluate care,” for which agreement was higher in Manitoba LTC. These results suggest that an immediate gain of using the C-HOBIC data and processes is the ability to disseminate patient information quickly and accurately among providers. Over time, the value proposition shifts to C-HOBIC enabling coordination of the continuity of care, improving the quality of care, improving productivity, and making the user’s job easier.

7.2.2 Long term gains from C-HOBIC implementation

Where C-HOBIC has been implemented and used to capture admission and discharge assessments, apparently significant benefits were realised over time. Survey and focus group responses suggested that adoption of C-HOBIC enabled proactive care planning.

C-HOBIC assessment completion and review of the reports over an extended period of time may also be required to see how patient care has benefited, e.g. a patient as length of stay can last several weeks or months. This is especially true in Long Term Care, and is supported by the focus group comments below about a success story:

“–A resident is being discharged. She was admitted over a year ago bedridden and with debilitating pain. She couldn’t move. Now she’s up and walking with her walker and she’ll be
leaving in a couple of weeks…. We use those reports in the care conference to show numbers to residents and families – numbers say whether they are improving or deteriorating. We can say, ‘Your father is better than before,’ but we can also show the ADL numbers. That’s a good thing.”

In both Acute Care and Long Term Care, completion of C-HOBIC discharge assessments can play a role in preventing readmissions.

“Can use C-HOBIC to prevent re-admissions by zeroing in on specific problems and sharing information at shift report. In chronic conditions can concentrate more on teaching e.g. gentleman was re-admitted – no C-HOBIC on previous admission. He didn’t understand his medications and we assumed he knew them.”

In a key informant interview, an aggregate data user explained that going through the discharge assessment with the patient forces the provider to make sure the patient understands their medications, pain management, any wound care, how to care for their feeding tube, etc. In the acute setting, aggregate C-HOBIC data may be compared to readmission rates to show how care improves over time.

“The Therapeutic Self-Care section is extremely helpful. The nurse needs to use it to assess what education needs to be provided about medications, feeding tube, etc.”

Further long-term benefits come from use of aggregate data over time. During both the focus groups and the key informant interview, Nursing Leadership indicated that aggregate C-HOBIC information is valuable over time and should be used in Continuous Quality Initiatives and accreditation.

“When assessments are done, the quality of information is good and useful. We have just done accreditation so we know this will be useful.”

A final factor that has been shown to increase satisfaction over time is when C-HOBIC is integrated with an existing EMR system, and admission and discharge assessments are accessed via the same sign-on.

“Person hired 2 years ago to implement an electronic documentation and bedside medication verification system. C-HOBIC project was just underway in Ontario and we agreed to take on the C-HOBIC project implementation within the electronic document management system because we felt it was a really good fit.”

7.2.3 Impact of C-HOBIC on nursing workload

Feedback around increases to nursing workload was common throughout user surveys, particularly with respect to frustration around increases to workload with little perceived benefit.

“We already ask patients ++++questions. Frustrating to ask more when I don’t see the benefit of doing it. Our time is short enough as is.”

“I have less time to complete my admission.”
Responses from Nurse Manager focus groups further described that a major hurdle in adoption was that end user providers did not fully understand or appreciate the value of entering C-HOBIC assessments.

“As far as Nurses’ understanding it I don’t think we’re there yet. They are still asking, ‘What’s in it for me?’ ”

“Nursing staff are not completing completely as they are being asked to complete several tools on admission.”

Whereas Nurse Managers see value in completing the assessments through using aggregate data, Nurses are still uncertain:

“Nurses are just not that interested. Managers and families see the value; it’s such a great tool. It’s very clear to the families [the graphs; fewer elements] how the residents are changing between quarters; regular staff people don’t get it.”

“When I left the [training] session I understood how to use the program. I didn’t feel it would be all that useful for care planning for myself and my clients because I was already using very similar information in MDS – outcome analysis, CAPS, the ‘maple’ score, trend analysis. Those were tools I was already using. It seemed like a replication of information I already had available to me. I didn’t see this as useful for me.”
8 RECOMMENDATIONS

Based on limited participant responses, the first and foremost recommendation to the C-HOBIC Steering Committee is to continue efforts to complete implementations and foster user adoption. Survey analysis suggests that satisfaction might grow over time; as information availability generated more use, this in turn would generate more valuable aggregate data which could be used in ongoing planning. Related to this recommendation is a suggestion to focus on encouraging use of C-HOBIC by more users and for more patients at the existing sites. As was shown in Section 5, the vast majority of C-HOBIC users complete assessments on less than 10% of their patients.

A second recommendation is to expand implementation to sites with the ideal criteria for implementation including:
- Willing site champions to encourage use for all patients,
- A current state paper assessment documentation process or an existing EMR with which the C-HOBIC assessments can be integrated, and
- A strategy to quickly show results of consistent use such as use of unit ward metrics, review of readmission rates, and linkage with community care teams to share information.

Analysis showed that users were most satisfied in LTC and Ontario LTC in particular. Feedback from Manitoba LTC showed potential for another group of satisfied users, and could provide a quick win for future successful implementations. Lessons learned or case studies from Ontario LTC could be particularly valuable in this process. A success strategy may be to work in reverse, i.e., rather than asking users for success stories of changing practice, create those stories by deliberately helping managers and nurses to use C-HOBIC reports, make changes and share results with other sites. Another technique for increasing adoption is to allocate resource people dedicated to making this happen.

A further strategy to share success stories among existing and potential users would be to document instances where C-HOBIC assessment completion and report review has been of value using a critical incident methodology, and share these frequently across the C-HOBIC user base.

“What it would really take is using them and seeing the good that comes out of it. Once they [the nurses] have seen this then they’ll at these reports and share them again at every meeting. Then they’ll use these reports over and over again. It means something to people and they can make positive changes in the home. If you see a trend or stats on something in the home, then you can make a positive change.”

“For our Home and some of the other Homes we partner up with from time to time the reporting ability in C-HOBIC has been really underused because so many of us are dealing with MDS realities at the same time. If the project could allocate some resources to helping someone understand how this could clinically drive QM [Quality Management] and celebrate successes and identify risks, then that would put us a little further ahead with the components of C-HOBIC.”

A third and key recommendation is to address issues around workflow and integration into nursing practice. Analysis also suggests that where users see a positive impact on practice there is an increase in satisfaction; where there is a negative impact on care, user satisfaction is lowest. Issues included...
technical access, perceived duplication of effort, strategies for broader information sharing outside the unit and changes to the assessment tool to make it more useful. Perhaps most importantly in the adoption and use of C-HOBIC reports was the suggestion by participants to develop a framework for integrating use of this information in practice.

In the Home Care setting, technical workflow issues were especially pressing including barriers to the web-based system where C-HOBIC assessments were located were inaccessible from the patient’s home.

Issues with integration into practice were exacerbated by perceived duplicative documentation when MDS had already been implemented. The most pressing practice integration issue in Acute Care is the need to integrate and embed the C-HOBIC assessment questions with existing online documentation such as pre-existing admission and discharge assessments, already online in commercial hospital information system software.

Information sharing need not be limited to within the unit or facility. One user indicated that C-HOBIC could also enable valuable information sharing between facilities:

“Have the hospital send a C-HOBIC [assessment] with residents/clients when being admitted to LTC facility especially if going to convalescent program.”

Users also suggested a variety of potential improvements for the assessments:

“Better tracking of bladder infections”
“Better tracking of how often a resident falls”

“Too redundant...many of the questions are near the same”

“Too many questions - 10 max will suffice”

“Have more open ended questions which will allow the interviewer to gauge responses more thoroughly”

Develop a framework for how C-HOBIC information is integrated into other sources of reports and how C-HOBIC information can be used:

“I’m just wondering if the reports could be built into the MDS Outcome Scales. We already have a tab to get to Outcomes Scales where it provides us with information about the Centre as a whole.”

“Helping people understand whether we can improve outcomes or not and how this information can help us do that [is required].”

“To be responsible to your Home you want to look at these stats. [You need to identify] which report gives you the best information because there are so many quality initiatives you want to put in your Home. Which will give you the best result, like [information on] pressure ulcers or fall stats from all these entities we are reporting to?”
9 FINAL IMPRESSIONS

The evaluation finds that while the C-HOBIC survey response rate was relatively small, there is a certain amount of user satisfaction amongst providers and aggregate data users. Implementation is ongoing across Acute Care, Home Care, and Long Term Care in Saskatchewan, Manitoba, and Ontario and is at various stages of implementation. The evaluation found that out of a relatively small number of respondents only a small percentage of users at facilities where C-HOBIC had been implemented were completing assessments and reviewing the reports.

While C-HOBIC had been implemented in three provinces across three sectors of care, use has not been integrated into practice as much as possible given C-HOBIC use is relatively new for most facilities.

C-HOBIC has had an impact on care, notably enabling Nurses to focus on patients and benefit from sharing information. Long term impacts to care will come from the improvement of processes through use of aggregate data contained in the C-HOBIC reports.

Recommendations are to continue implementation and adoption efforts with a focus on Manitoba Long Term Care as well as consider ways to support continued integration into practice. The need to address workflow issues around access barriers and integration with existing online documentation and EMR systems is critical for future success.
APPENDIX A: USER SATISFACTION SURVEY

Welcome,

The Canadian Health Outcomes for Better Information and Care (C-HOBIC) initiative is implementing the collection of patient outcome information related to nursing care into jurisdictional EHRs or provincial databases in Ontario, Manitoba and Saskatchewan. In Ontario, the C-HOBIC initiative is known as HOBIC.

The leadership team of the C-HOBIC initiative would like to gain more insight and knowledge about the impact of C-HOBIC information on your practice, how you use it and your level of satisfaction. The responses collected through this survey will help the C-HOBIC initiative evaluate the benefits of C-HOBIC information as a first step in providing Nurses with the tools and information needed to continue to deliver high quality patient care in the increasingly complex environment of modern health care.

Thank you in advance for your participation.

SECTION 1: OVERALL USER SATISFACTION

1. In general, how satisfied are you with C-HOBIC information that you are currently working with?

2. Please indicate your level of agreement or disagreement with each of the following statements below.

<table>
<thead>
<tr>
<th>AGREE</th>
<th>DISAGREE</th>
<th>Not sure</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>Moderately Agree</td>
<td>Moderately Disagree</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

a.) The information improves my productivity

b.) The information improves the quality of care I can provide

c.) The information makes my job easier

d.) The information enhances our ability to coordinate the continuity of care

e.) The information facilitates our sharing of patient information among providers in order to plan and evaluate care
3. Are there aspects of the C-HOBIC system that you would change? If so, which ones would they be? Please describe below.

4. Do you have any experiences with the C-HOBIC system where it has supported the provision of care by you or others? Please describe below.

**SECTION 2: INFORMATION QUALITY**

5. Please indicate your level of agreement or disagreement with each of the following statements about information quality below.

<table>
<thead>
<tr>
<th>AGREE</th>
<th>DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Moderately</td>
</tr>
</tbody>
</table>

- a.) The information is complete [ ] [ ] [ ] [ ] [ ]
- b.) The information is provided quickly. [ ] [ ] [ ] [ ] [ ]
- c.) The information provided is accurate [ ] [ ] [ ] [ ] [ ]
- d.) The information provided is relevant [ ] [ ] [ ] [ ] [ ]
- e.) The information is available when I need it [ ] [ ] [ ] [ ] [ ]
- f.) The format and layout of the information is acceptable [ ] [ ] [ ] [ ] [ ]

6. In general, how acceptable is the information quality (as described by the characteristics above)?

<table>
<thead>
<tr>
<th>Highly acceptable</th>
<th>Moderately acceptable</th>
<th>Neither acceptable nor unacceptable</th>
<th>Moderately unacceptable</th>
<th>Not at all acceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
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<td>[ ]</td>
<td>[ ]</td>
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</tbody>
</table>

**SECTION 3: SERVICE QUALITY**

7. In general, how acceptable is quality of the services (i.e. technical support and training services) provided for C-HOBIC?

<table>
<thead>
<tr>
<th>Highly acceptable</th>
<th>Moderately acceptable</th>
<th>Neither acceptable nor unacceptable</th>
<th>Moderately unacceptable</th>
<th>Not at all acceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
8. Please indicate your level of agreement or disagreement with each of the following statements below related to specific aspects of service quality:

<table>
<thead>
<tr>
<th>DISAGREE</th>
<th>Not Sure</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>Moderately Agree</td>
<td>Moderately Disagree</td>
</tr>
</tbody>
</table>

The implementation process at my site was acceptable

Training to use C-HOBIC information is acceptable

The level of on-going support for C-HOBIC use is acceptable

SECTION 4: INFORMATION USAGE

9. Do you have access to the internet within your work setting?

   Yes ........... ☐   No ............ ☐   Don’t know……. ☐

10. In a typical week, please indicate the number of days you use C-HOBIC information.

    0 days____   1-2 days ____   3-4 days____5 days____

11. On average how many times per day do you use the C-HOBIC information?

    1-2 times___   3-4 times____   5-6 times____   7 or more times____

12. On average, for what percent of your patients do you use C-HOBIC information?

    less than 10%____   25%____   50%___   75%____100%____   don’t know____

13. Who do you share the C-HOBIC information with? (Check all that apply):

    Family ☐
    Nurses ☐
    Other interdisciplinary team members ☐
    Staff ☐
    Physicians ☐
    Use it myself ☐
    Other (please specify below) ☐

14. If you have used C-HOBIC information at least once, skip this question.
    If you have not had an opportunity to use C-HOBIC information, do you intend to use it?

    Definitely ☐   Probably ☐   May or may not ☐   Probably Not ☐   Definitely not ☐
15. How likely are you to recommend the C-HOBIC system to other healthcare providers at other Hospitals or Centres?

<table>
<thead>
<tr>
<th>Definitely</th>
<th>Probably</th>
<th>May or may not</th>
<th>Probably Not</th>
<th>Definitely not</th>
</tr>
</thead>
</table>

16. Given a choice, would you change your future use of the C-HOBIC?

<table>
<thead>
<tr>
<th>Significantly Increase</th>
<th>Moderately Increase</th>
<th>Remain the same</th>
<th>Moderately decrease</th>
<th>Significantly decrease</th>
</tr>
</thead>
</table>

**SECTION 5 – C-HOBIC USER INFORMATION AND COMMENTS**

17. How long have you been using C-HOBIC information?

<table>
<thead>
<tr>
<th>Less than a month</th>
<th>1-3 months</th>
<th>4-6 months</th>
<th>7-12 months</th>
<th>1-2 years</th>
<th>3-5 years</th>
</tr>
</thead>
</table>

18. Do you feel that C-HOBIC information has changed your assessment and reporting practices?

<table>
<thead>
<tr>
<th>Definitely</th>
<th>Probably</th>
<th>May or may not</th>
<th>Probably Not</th>
<th>Definitely not</th>
</tr>
</thead>
</table>

19. Does C-HOBIC help you to plan and evaluate patient care?

<table>
<thead>
<tr>
<th>Definitely</th>
<th>Probably</th>
<th>Neutral</th>
<th>Probably Not</th>
<th>Definitely not</th>
</tr>
</thead>
</table>

20. In what ways has your practice changed as a result of using C-HOBIC information? Please explain:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

21. Do you have any other comments you would like to make regarding the C-HOBIC System?

________________________________________________________________________

________________________________________________________________________

**SECTION 7: DEMOGRAPHIC INFORMATION**
22. What is your role within your organization?

- Nurse Manager
- Registered Practical Nurse
- Registered Nurse
- Nurse
- Pharmacist
- Family physician
- Specialist physician (please specify below)
- Other (please specify below)

23. How would you rate your computer proficiency?

<table>
<thead>
<tr>
<th>None</th>
<th>Basic</th>
<th>Average</th>
<th>Advanced</th>
<th>Expert</th>
</tr>
</thead>
</table>

24. Please circle the response(s) that best describe the settings where you work.

- Long Term Care Facility
- Complex Continuing Care Facility
- Acute Care Facility
- Home Care Facility

25. Please select the facility at which you work from only one of the list below that corresponds to your province:

**Saskatchewan:**

1. Bethany (Middle Lake)
2. Central Haven
3. Central Parkland (Lanigan)
4. Circle Drive
5. Convalescent Home
6. Cudworth
7. Extendicare
8. Goodwill Manor (Duck Lake)
9. Lakeview (Wakaw)
10. Langham
11. Last Mountain (Strasbourg)
12. LutherCare
13. Manitou Lodge (Watrous)
14. Mennonite (Rosthern)
15. Nokomis
16. Oliver Lodge
17. Parkridge Centre
18. Pleasant View (Wadena)
19. Porteous Lodge
20. Quill Plains (Watson)
21. Sherbrooke
22. Spruce Manor (Dalmeny)
23. St. Ann’s
24. St. Joseph’s
<table>
<thead>
<tr>
<th>Number</th>
<th>Facility Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.</td>
<td>St. Mary's Villa (Humboldt)</td>
</tr>
<tr>
<td>26.</td>
<td>Stensrud Lodge</td>
</tr>
<tr>
<td>27.</td>
<td>Sunnyside</td>
</tr>
<tr>
<td>28.</td>
<td>Veterans</td>
</tr>
<tr>
<td>29.</td>
<td>Warman Mennonite</td>
</tr>
<tr>
<td>30.</td>
<td>Wynyard Integrated</td>
</tr>
<tr>
<td>31.</td>
<td>Other Facility:</td>
</tr>
</tbody>
</table>

**Manitoba:**

<table>
<thead>
<tr>
<th>Number</th>
<th>Facility Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bethania</td>
</tr>
<tr>
<td>2.</td>
<td>Deer Lodge Centre</td>
</tr>
<tr>
<td>3.</td>
<td>Misericordia</td>
</tr>
<tr>
<td>4.</td>
<td>River Park Gardens</td>
</tr>
<tr>
<td>5.</td>
<td>Riverview Health Centre</td>
</tr>
<tr>
<td>6.</td>
<td>Simkin Centre</td>
</tr>
<tr>
<td>7.</td>
<td>Home Care Setting</td>
</tr>
<tr>
<td>8.</td>
<td>Other Facility</td>
</tr>
</tbody>
</table>

**Ontario:**

<table>
<thead>
<tr>
<th>Number</th>
<th>Facility Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bonnechere Manor</td>
</tr>
<tr>
<td>2.</td>
<td>Collingwood General and Marine Hospital</td>
</tr>
<tr>
<td>3.</td>
<td>Extendicare Coburg</td>
</tr>
<tr>
<td>4.</td>
<td>Extendicare Kawartha</td>
</tr>
<tr>
<td>5.</td>
<td>Headwaters Care – Shelbourne</td>
</tr>
<tr>
<td>6.</td>
<td>Headwaters Health Care – Orangeville</td>
</tr>
<tr>
<td>7.</td>
<td>John Noble Home</td>
</tr>
<tr>
<td>8.</td>
<td>Lakeridge Health</td>
</tr>
<tr>
<td>9.</td>
<td>Niagara Health System – Douglas site</td>
</tr>
<tr>
<td>10.</td>
<td>Niagara Health System – Niagara on the Lake</td>
</tr>
<tr>
<td>11.</td>
<td>Norfolk General Hospital</td>
</tr>
<tr>
<td>12.</td>
<td>North Simcoe Health Alliance – Midland</td>
</tr>
<tr>
<td>13.</td>
<td>North Simcoe Health Alliance – Penetang</td>
</tr>
<tr>
<td>14.</td>
<td>Northumberland Hills</td>
</tr>
<tr>
<td>15.</td>
<td>Southlake Regional Hospital</td>
</tr>
<tr>
<td>16.</td>
<td>Versa-Care Cornwall</td>
</tr>
<tr>
<td>17.</td>
<td>Victoria Village</td>
</tr>
<tr>
<td>18.</td>
<td>Woods Park</td>
</tr>
<tr>
<td>19.</td>
<td>Other Facility:</td>
</tr>
</tbody>
</table>

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11 APPENDIX B: METHODOLOGY

11.1 SURVEY ADMINISTRATION METHODOLOGY

Completed paper surveys were mailed via Canada Post to the project team at the offices of Praxia Information Intelligence, Inc. in Toronto. Partial manual transcription of the survey responses was completed by the Praxia team; full transcription of the paper responses was completed by staff at the Toronto offices of Canada Health Infoway.

11.2 FOCUS GROUP METHODOLOGY

11.2.1 Focus Group schedule

<table>
<thead>
<tr>
<th>Health Care Sector</th>
<th>Saskatchewan*</th>
<th>Manitoba</th>
<th>Ontario</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>care provider</td>
<td>manager</td>
<td>care provider</td>
</tr>
<tr>
<td>LTC</td>
<td>FG1</td>
<td>FG2</td>
<td>FG1</td>
</tr>
<tr>
<td>Home Care</td>
<td></td>
<td>FG3</td>
<td>FG4</td>
</tr>
<tr>
<td>Acute Care</td>
<td></td>
<td></td>
<td>FG5</td>
</tr>
</tbody>
</table>

Table 1 — Recruitment Strategy for Six Focus Groups

*Type of Data User* — individual patient care provider or aggregated data for unit management in participating provinces

11.2.2 Focus Groups recruitment and data collection

Project partners assisted with participant recruitment. An invitation letter\(^7\) was sent to 3 of these partners, outlining the focus group process and asking for their assistance.

Four focus groups and one interview were conducted the week of May 25-29/09 with the number of participants in each (18 total)

**Manager/Aggregate Data Users:**
- FG6. Monday, May 25 @ 8:00am MDT with Managers - Acute Care (Ontario) – 4 participants

\(^7\) Please see Appendix C
- FG2. Monday, May 25 @ 10:00am (MDT) with Managers – LTC (Saskatchewan, Manitoba, Ontario invited – only Manitoba and Ontario represented) – 5 participants
- FG4. Mon, May 25 @ 12 noon (MDT) with Managers – Home Care (Manitoba) CANCELLED (Rationale: Managers not using C-HOBIC: already have fully implemented MDS application in Home Care that provides real-time and sufficient information)

Care Provider Data Users:
- FG3. Tuesday, May 26 @ 10:00am MDT with Care Providers in Home Care (Manitoba) – 5 participants (Client Manager or Case Coordinator)
- FG5. Tuesday, May 26 @ 11:45am (MDT) with Care Providers in Acute Care (Ontario) – 1 participant
- FG1. Wednesday, May 27 @ 12 noon (MDT) with Care Providers in LTC (Saskatchewan, Manitoba, Ontario invited – only Ontario represented) – 3 participants
APPENDIX C: SAMPLE FOCUS GROUP

INVITATION LETTER

Group #6: Focus Group Preparation
Managers and Aggregate Information Users
Acute Care – Monday, May 25 (8:00am MDT)

<table>
<thead>
<tr>
<th>10:00am Ontario (EDT)</th>
<th>Participants’ Names and Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

Experience Using C-HOBIC

Invitation to Participate in a Focus Group with
Acute Care Aggregate Information Users

Teleconference focus groups are being held with participants in the three types of care facilities where C-HOBIC is being used.

We’d like to hear about your experience using aggregated C-HOBIC information to assess and plan for care for groups of patients.

- **Who:** Managers, Application Specialists, Coordinators in Acute Care who have used C-HOBIC at least once
- **Date:** May 25/09
- **Time:** 10:00 am EDT
- **Conference Call information:** 1800 808 0861 / participant code 177242
- **May 20/09** – deadline to contact Peggy White to indicate your willingness to participate
  - Phone: 416-327-8321
  - Email: peggy.white@ontario.ca
- **NOTE:** no participants will be identified by name in the final report
- **Preference** will be given to participants who did not complete the survey
Welcome to the C-HOBIC Focus Group

We have been hired by the C-HOBIC Initiative to lead an evaluation. I am Marilynne Hebert and these are my colleagues Julia Claridge and Francois Legare.

The purpose of this focus group is to bring together C-HOBIC users to better understand the impacts and value of using the C-HOBIC from your perspective.

We have booked one-hour for our discussion that includes 5 questions. We will audio-record the session and take notes to ensure we don’t miss any of your ideas. You will not be identified by name in any of the results.

Before we begin we want to ensure we have your permission to record the session.

Focus Group Questions

1) Please comment on your satisfaction with the implementation and training experience.
   a) Did you feel well prepared?
   b) Can you suggest changes to this process?

2) We’d like to hear about your experience with using the C-HOBIC system where it has supported or changed practice. Specific examples comparing previous and current practice will be helpful.
   a) Changes in assessment and reporting practices
   b) Changes in planning and delivering care practices
   c) Changes in practice due to availability of C-HOBIC information over time (longitudinal)
   d) Changes in practice due to availability of outcomes information

3) How much would you like to use the C-HOBIC system in the future – more, less or about the same?
   a) Significantly or moderately more? Why?
   b) Significantly or moderately less? Why?
   c) Stay the same? Why?

4) Are there aspects of the system you would change? If so, which ones would they be?

5) Are there any other topics related to C-HOBIC you’d like to comment on?

**Thank-you very much for taking the time to share your ideas.**
### APPENDIX E: LIST OF SITES INVITED TO RESPOND

**Ontario**  
Bonnechere Manor  
Collingwood General and Marine Hospital  
Extendicare Coburg  
Extendicare Kawartha  
Headwaters Care – Shelbourne  
Headwaters Health Care – Orangeville  
John Noble Home  
Lakeridge Health  
Niagara Health System – Douglas site  
Niagara Health System – Niagara on the Lake  
Norfolk General Hospital  
North Simcoe Health Alliance – Midland  
North Simcoe Health Alliance – Penetang  
Northumberland Hills  
Southlake Regional Hospital  
Versa-Care Cornwall  
Victoria Village  
Woods Park  

**Manitoba**  
Bethania  
Deer Lodge Centre  
Misericordia  
River Park Gardens  
Riverview Health Centre  
Simkin Centre  
Home Care Setting  

**Saskatchewan**  
Bethany (Middle Lake)  
Central Haven  
Central Parkland (Lanigan)  
Circle Drive  
Convalescent Home  
Cudworth  
Extendicare  
Goodwill Manor (Duck Lake)  
Lakeview (Wakaw)  
Langham  
Last Mountain (Strasbour)  
LutherCare  
Manitou Lodge (Watrous)  
Mennonite (Rosthern)  
Nokomis  
Oliver Lodge  
Parkridge Centre  
Pleasant View (Wadena)  
Porteous Lodge  
Quill Plains (Watson)  
Sherbrooke  
Spruce Manor (Dalmeny)  
St. Ann’s  
St. Joseph’s  
St. Mary’s Villa (Humboldt)  
Stensrud Lodge  
Sunnyside  
Veterans  
Warman Mennonite  
Wynyard Integrated