Evaluation of the City of Lakes Family Health Team Patient Portal Pilot Project

Final Report

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December 6, 2012

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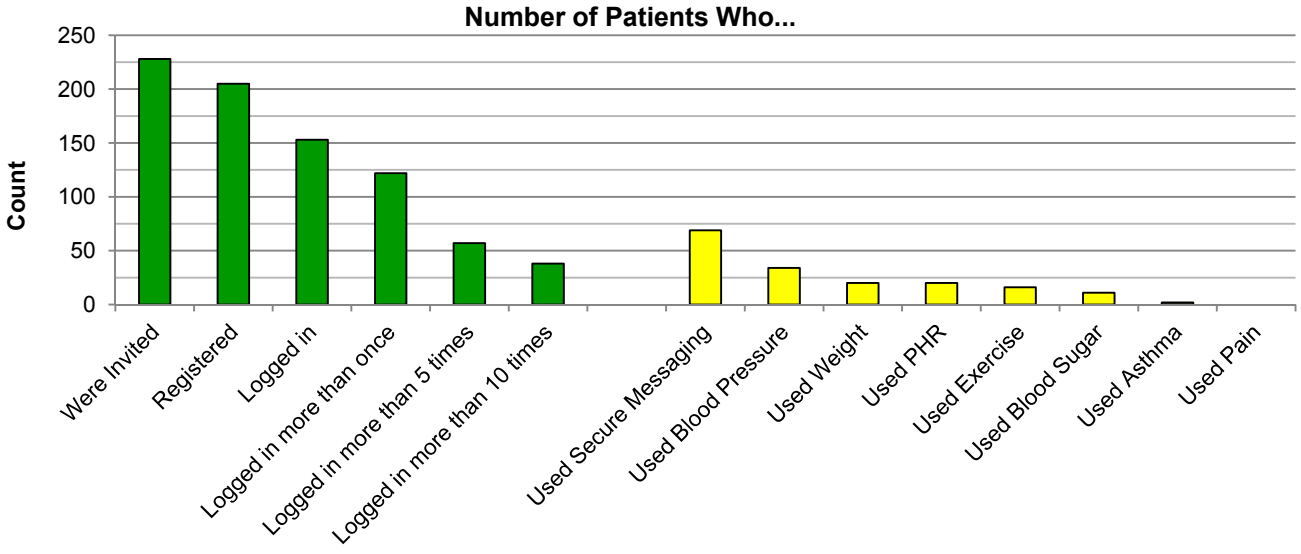
Executive Summary

Rationale: The use of electronic patient portal systems in Canada is still in the early stages. The City of Lakes Family Health Team (CoL FHT) in Sudbury, Ontario participated in a pilot test of the mydoctor.ca Health Portal, which promises to provide patients with the ability to track and share health information and communicate with their care team. Researchers at the Centre for Rural and Northern Health Research (CRaNHR)-Laurentian University conducted a formative evaluation of the pilot project to help determine if the project was meeting requirements, such as ease of use and functionality, so as to help the CoL FHT determine whether participants were making use of and benefiting from available services.

Methodology: The evaluation framework was based on the Benefits Evaluation Model developed by the Consumer eHealth Program, eHealth Ontario, derived from Canada Health Infoway's Benefits Evaluation Indicators framework. The study framework was developed in collaboration with the CoL FHT and researchers evaluating similar pilot projects in Ontario. The evaluation used a combination of quantitative and qualitative methods to explore the experience of physicians, clerical staff and patients. We assessed patient interaction with the portal through anonymous utilization data from system activity logs and an anonymous online survey of patients who registered with the portal. We also asked participating physicians to estimate the potential impact on patient health behaviours and outcomes. Finally, we interviewed 3 physicians and 2 clerical staff who participated in the pilot to gain their perspectives on implementation and early use of the portal.

Results: Overall, 228 patients were invited to participate between January and September, 2012. Of those invited, 205 patients (90%) registered, with an average duration of 6 months. The Figure below illustrates the number and type of use.



Adjusting for varying registration dates, the average number of logins per week was 0.54 at the seventh month of the pilot. Over the next two months the average number of logins per week fell to 0.27, or approximately once a month. However, 15 patients (7%) have been logging in at least once a week

since July 2012, 7 of whom (3%) have consistently logged in an average of at least once per week since registering.

Although patients had positive reviews of the initial training and assistance received, the portal had a number of technical issues. Some patients said that they "lost interest" in the portal after lab results were no longer updated. And only 43% of patients who responded to the online survey strongly agreed that the portal was useful to them. Nonetheless, 70% of patients surveyed indicated that using the portal increased their ability to monitor their health. And approximately one-third reported that the using the portal had decreased their use of other health care service (e.g., emergency department, specialists, walk-in clinics). Overall, patients surveyed reported that they were likely to recommend the portal to friends and family and to continue using the portal. However, fewer respondents indicated that they were likely to pay an annual fee to continue using the portal after the pilot project ends. All of the participating physicians and clerical staff recognized benefits to the patient and to the FHT. Furthermore, none of the physicians found that using the Health Portal greatly increased their workload, though physicians recognized that the portal added a great deal to clerical staff workload, particularly during patient recruitment. However, lack or loss of compatibility between the EMR and the portal, lack of promised features and poor ease of use were common complaints.

Conclusions: Up to this point, the full potential of the portal has not been realized and this was reflected in low patient activity. This low utilization may be due to a number of factors including the finding that only 43% of patients reported that the portal was useful to them (strongly agree)—other researchers have found that portals with limited value to users will not be adopted. In addition, all three study populations (physicians, clerical staff and patients) were extremely dissatisfied that available features were not functioning at full capacity or not at all. The current underperformance of the portal has lessened enthusiasm for this particular product and has dampened the still largely positive expectations for future adoption of patient health portals in general.

1. Preamble

The City of Lakes Family Health Team (CoL FHT) is an interdisciplinary team of health care professionals that works collaboratively to provide comprehensive primary health care services (City of Lakes Family Health Team, 2012). This family health team participated in a pilot test of the mydoctor.ca Health Portal. The portal is endorsed by the Canadian Medical Association and was advertised as a way to provide patients with the ability to track and share health information and communicate with their care team (MD Physician Services, 2012). MD Physician Services Inc., the developer of the mydoctor.ca Health Portal, anticipated that the portal would save physician and clerical staff time, improve patient outcomes and minimize follow-up visits (MD Physician Services, 2012).

The Centre for Rural and Northern Health Research (CRaNHR) conducted a formative evaluation of the pilot project to help determine if the project was meeting requirements, such as ease of use and functionality, as the project was being implemented. The formative evaluation provided an opportunity to identify issues and determine how to resolve them (Canada Health Infoway, 2011), and allowed the CoL FHT to determine whether participants were making use of the available services.

2. Health Portal Impact: Selected Findings from the Literature

Patient-focused interventions can encourage patients to play a more active role in their healthcare, which can improve quality, efficiency and health outcomes (Coulter & Ellins, 2007). Patients who take a more active role are often better able to maintain their health (Health Council of Canada, 2011). These patients are also better prepared to discuss issues and options with their provider and to share in decision making (Health Council of Canada, 2011).

Previous research has found that self-management interventions encourage patients to take responsibility for their health and achieve better outcomes (Parker, 2006). Similarly, a recent study found patients with a chronic condition who were given access to their electronic health record had improved blood pressures and were significantly more likely to meet the optimal diabetes care measure, which reflects HbA1c, LDL and blood pressures within range, aspirin use and a non-smoking status, than patients without access to this service (Herrin et al., 2012).

However, these benefits can only be realized if patients and providers adopt and utilize electronic health records with some frequency (Patel et al., 2011; Yamin et al., 2011). Products with limited value to users will not be adopted (Kahn et al., 2009). Kaelber and colleagues (2008) performed a review of literature finding 16 articles addressing adoption and attitudes towards personal electronic health records. In general, these studies report low use among patients with access to a personal health record where less than 10% of patients tend to use a personal health record on a monthly basis (Kaelber et al., 2008). Potential disparities in access and utilization (Ancker et al., 2011; Kahn et al., 2009; Patel et al., 2011; Yamin et al., 2011) suggest that not all patients will benefit from such an intervention. Furthermore, a review of 86 articles found that implementation can hinder physician office performance in the short-term, as “it takes time to learn how to use it” (Ludwick & Doucette, 2009). As with any new service, the benefits and costs very much depend on what service options are chosen, on the quality and availability of technical support, as well as the characteristics of service users.

3. Study Rationale and Objectives

The current study was a formative evaluation of selected aspects of the mydoctor.ca Health Portal as implemented by the CoL FHT. The evaluation team, in consultation with CoL FHT personnel, developed a broader evaluation framework, research tools and established a baseline to evaluate the implementation and utility of the portal. The evaluation focused on selected elements of portal quality and usage as well as concerns and expectations that arose from its implementation and usage.

The evaluation framework comprised three dimensions. The formative evaluation focused on the bolded components:

Dimension 1. Study population:

- **(a) Patients**
- **(b) Physicians**
- **(c) Clerical staff**

Dimension 2. Time period:

- **(a) Early implementation** of the patient portal pilot project
- **(b) End of pilot project**
- (c) Follow-up: after one or more years [NOT INCLUDED IN THIS STUDY, BUT MENTIONED HERE FOR COMPLETENESS]

Dimension 3. Data categories (tailored to each participant group):

- **(a) Delivery: capacity and quality of services**
- **(b) Adoption: acceptance and use of services**
- **(c) Practice and Behaviour: changes in physician practice and patient behaviour** [CHANGE IN HEALTH SERVICE UTILIZATION IS NOT INCLUDED IN THIS STUDY]
- (d) Health Outcomes: changes in health status [NOT INCLUDED IN THIS STUDY]

4. Methods

4.1 Evaluation Design & Methodological Approach

The evaluation used a combination of quantitative and qualitative methods to explore the experience of physicians, clerical staff and patients. Our approach, shown in Appendix 1, was based on the Benefits Evaluation Model, developed by the Consumer eHealth Program, eHealth Ontario. This model was itself based on the Benefits Evaluation Indicators framework developed by Canada Health Infoway (2006), which was developed from other evaluation frameworks. The research framework for this study was developed in collaboration with the City of Lakes Family Health Team and researchers evaluating similar pilot projects in Ontario. This study was reviewed and approved by the Research Ethics Board at Laurentian University.

In addition to the consultations with physicians and clerical staff, for this final report we analyzed patient activity data up to September 26th, 2012 as well as online survey responses from patients and physicians.

Sample size and power calculations conducted a priori suggest that a study with ~200 participants would be able to detect differences between 2 groups of 20 percentage points or more.

4.1 Early Adoption & Utilization by Patients

We obtained patient utilization data from the system activity logs. These anonymous data depicted early utilization including the number of logins and the features used, such as the personal health record, secure electronic messaging and health metrics. While the frequency of logins was recorded, frequency of use of the other services and functions was not available—we know whether a patient used these services but not how often. The system logs were unable to provide information on whether patients accessed the validated, searchable health information in the Health Library. Clerical staff at the CoL FHT extracted data from the system activity logs and shared these anonymized data with the evaluation team. These extracted data were analyzed as provided using SPSS with a concentration on descriptive statistics.

4.2 Patient Survey

All patients who registered with the portal were invited September 27, 2012 to participate in the evaluation of the mydoctor.ca Health Portal. Invitations were sent out as a message through the portal and reminders were sent in the same fashion at one week and two weeks following the initial invitation. Those who volunteered to participate answered a 28 question online survey taking approximately 15-20 minutes to complete. The Survey asked for their opinion on ease of use, usefulness, pros and cons and so forth. Analysis of survey responses was conducted in a descriptive manner and, where appropriate, Fisher's exact test was used. The patient survey questions can be found in Appendix 2 and response frequencies in Appendix 5.

4.3 Chart Extraction

To further evaluate the mydoctor.ca Health Portal the three participating physicians were asked to complete a chart extraction tool for 10 of their patients using the portal. The purpose of the chart extraction tool was to identify the possible positive and negative consequences that have come about as a result of using the portal, specific to the selected patients. Patients were selected by the research team based on their total number of logins. For each of the three physicians, the top 5 patients with the greatest number of logins were selected followed by 5 others equally distributed between the 6th top user and the last patient with at least 3 logins. For example if a physician had 30 patients with at least 3 logins, the top 5 would be chosen, the 6th patient and then every 5th patient after that (1,2,3,4,5,6,11,16, 21, 26). A copy of the chart extraction tool is located in Appendix 3. These data were analyzed using SPSS with a concentration on descriptive statistics. Fisher's exact test was used to test for differences between portal user groups.

4.4 Physician & Clerical Staff Consultations

All three physicians and both clerical staff involved with the pilot project were consulted to gain their perspectives regarding implementation and early use of the mydoctor.ca Health Portal. Interviews were conducted with physicians at their convenience, in a meeting room at their place of employment. Clerical

staff opted to respond in writing to questions and researchers followed up with an email exchange to clarify responses.

Two separate, but similar, question guides (Appendix 4) were developed: one for the physicians and the other for the clerical staff. Questions focused on functionality, performance, reliability and changes in behavior. Question guides were shared with participants prior to their interview and interviews were conducted by a two person team.

Interviews were recorded with permission of the participants and transcribed. Transcripts were analyzed to find common statements that emerged from the text (Pope et al., 2000; Bradley et al., 2007). Care was taken to distinguish between researchers' interpretation and key informants' statements by checking against the transcripts and recordings (Mays & Pope, 1995). Qualitative analyses identified a number of themes around system use, performance and the trade-off between benefit and workload.

5. Results

The portal had a number of technical issues regarding the integration with the electronic medical record (EMR) such that the ability to share lab and test results with patients was not operational when patients were first recruited in early 2012. Selected lab and test results could be uploaded to the portal and shared with patients by mid April, but an upgrade to the EMR on May 22nd severed the link to the portal once more. The Health Metrics tools allowed patients to input, track and share health data related to asthma, blood pressure, blood sugar, exercise, pain and weight with their family physician. Clinical staff reported that patients had problems entering/saving data into the pain module. In addition, patients and their physician could communicate by secure email and patients did have access to validated, searchable health information in the Health Library.

5.1 Early Adoption & Utilization

Overall, 228 patients (average age 55 years; 60% female) were invited to participate in the mydoctor.ca Health Portal pilot between January and September, 2012. Of those invited, 205 patients (90%) decided to register (Figure 1) and have been registered for an average of 6 months.

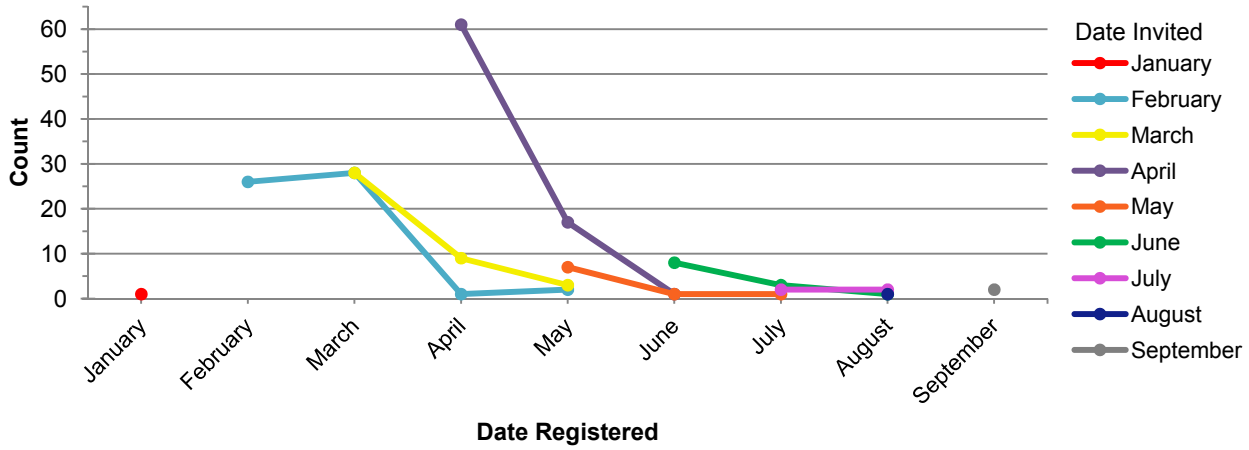


Figure 1: Number of Patients Registered shown by Month Invited

Utilization data were collected twice; T_1: July 24th, 2012 and T_2: September 26th, 2012. Eighteen new patients were invited since T_1, 15 of which had registered before the second data collection date. Since the beginning of the pilot, a total of 122 patients logged in more than once following the registration process (Figure 2). Thirty-eight patients logged in more than 10 times over the course of the pilot.

Adjusting for varying registration dates, at T_1 the average number of logins per week was 0.54. Since T_1 the average number of logins per week has fallen off to 0.27, or an average of about once a month. However, there are 15 patients who have been logging in at least once a week since T_1, 7 of whom have been consistently logging in an average of at least once per week since registering.

When logged in, patients were able to access a variety of features to monitor their health and communicate with their physician. The secure messaging feature was used by the greatest number of patients (n=69), followed by blood pressure, weight, the personal health record (PHR) where patients can enter information regarding their medical and family histories, exercise and blood sugar. The asthma Health Metric module was used by very few patients (n=2), while the pain Health Metric module had no recorded use. We were unable to capture patient use of the Health Library or viewing of test results imported from the EMR.

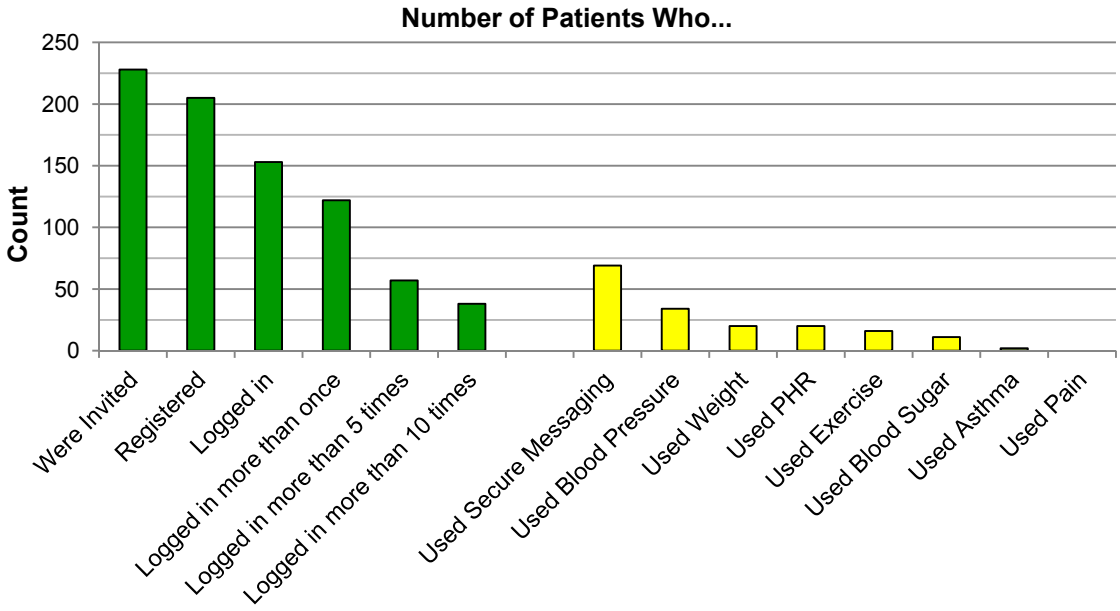


Figure 2: Patient Activity on the Health Portal

5.2 Patient Survey

A total of 61 patients (average age 54 years; 72% female) who registered with the portal completed the online survey yielding a response rate of 30% for registered users.

Comfort Using Computers and the Internet: There was no significant difference in internet use and comfort with the portal between age groups (≤49, 50-59, ≥60), sex or educational attainment (High

school, College/Trade, Undergraduate/Graduate/Professional), however our sample is heavily skewed towards individuals who are comfortable using computers and the internet. For patients to have completed our survey they were invited into the pilot project with the requirement of having an email address, navigated the internet to register for the Health Portal and were able to open a message in the portal, follow a link by copy and pasting the survey URL and completing our survey online. These computer skills may not be generalizable to the entire patient population. On a 7-point scale where 1 was strongly disagree and 7 was strongly agree, 83% of respondents reported a 6 or 7 regarding the statement *I am comfortable using computers* (Q 17)[1] and nearly the same amount, 80%, use the internet at least once a day (Q 1), 38% spending at least 10 hours/week on the internet (Q 2). Furthermore, only 10% of respondents had not used the internet to search for medical or health related information (Q 3). With respect to the mydoctor.ca Health Portal, 98% of respondents accessed the portal from home (Q 4). Other locations or modalities for accessing the portal included work, smart phone, iPad, relative's home and on vacation. Again, considering responses of 6 or 7, where 7 corresponded to strongly agree, 75% of respondents reported being comfortable logging on to the portal and being confident in their ability to use the portal, while 83% reported being comfortable sending and receiving messages with their doctor, 80% for checking information in the EMR and 68% of patients who completed the survey reported being comfortable entering information into the PHR (Q 17).

Training and Assistance: Patients were also asked about the training they were offered in getting started using the portal. Overall, the majority of respondents found the training or information they received to be very helpful. On a 7-point scale where 1 was not at all helpful and 7 corresponded to extremely helpful, 50% of respondents who attended an information session, 57% of respondents who received an information package and 77% of respondents who spoke with City of Lakes staff reported it's helpfulness as a 6 or 7 (Q 5). Additionally, respondents reported the type of help available to them if they had questions about using the portal (Q 7) and what type of help they would like to have available (Q 8). Their responses are depicted in Figure 3. The greatest discrepancies occurred for use of an online help tool (e.g., FAQ, help button), City of Lakes staff via email and in person.

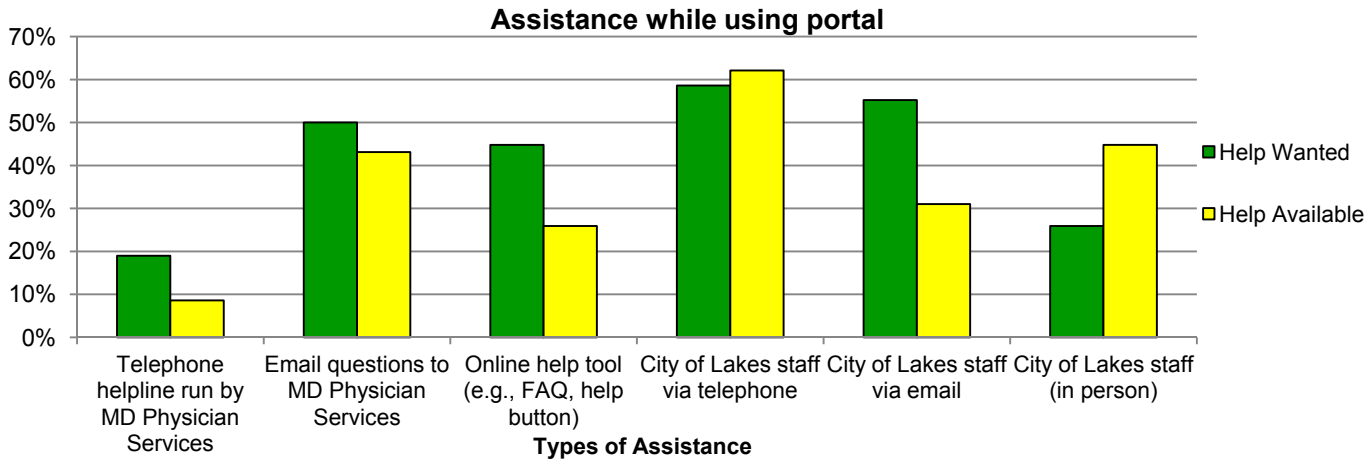


Figure 3: Assistance Wanted and Received while using the Health Portal

[1] Q 17 and similar notations refer to questions in the Patient Survey (Appendix 2)

Benefits of the Health Portal: Overall, 43% strongly agreed that the Health Portal was useful to them (Q 18). Prior to using the portal, nearly two-thirds (66%) of respondents were already keeping records of their asthma, blood pressure, blood sugar, exercise, pain and/or weight (Q 15). Nonetheless, 64% of respondents agreed that using the portal made it easy to manage their health, while 70% reported that it had increased their ability to monitor their health (Q 18). Responses to other potential benefits of the portal are displayed in Figure 4. Respondents also indicated that the portal improved the quality of care (54%) and increased their satisfaction with the health care received from the City of Lakes Family Health Team (70%) (Q 19). Approximately one-third reported that using the portal decreased their use of other health care services (e.g., emergency department, specialists, walk-in clinics) (Q 19).

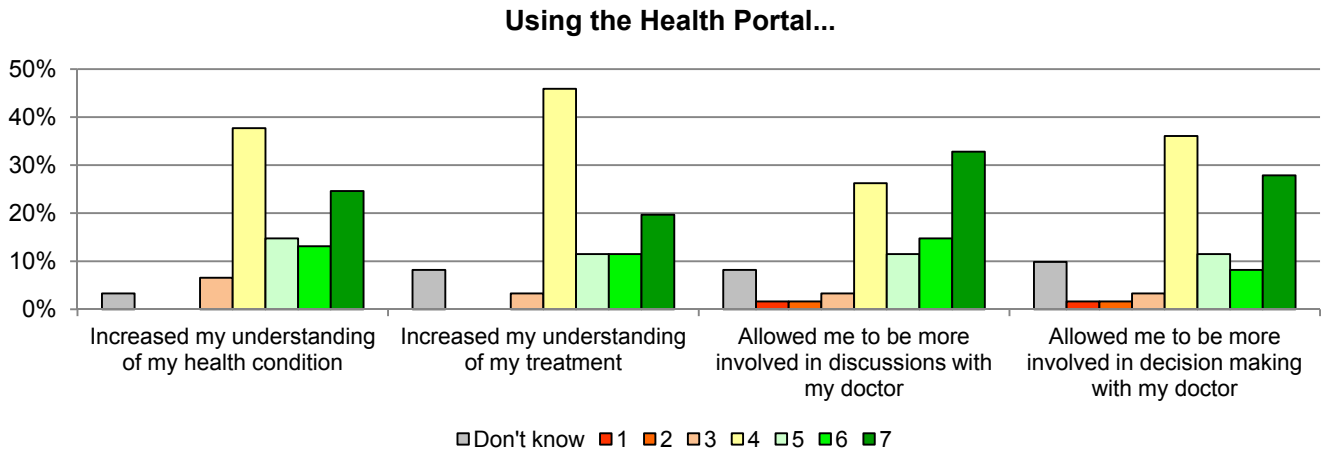


Figure 4: Benefits Gained by Using the Health Portal
Note: 1 = Strongly disagree, 4 = Neither agree nor disagree, 7 = Strongly agree

Issues with the Health Portal: However, use of the portal is not without issue. Through two open ended questions, *what could be changed to increase your use of the portal?* (Q 10) and *have you come across any major problems in the mydoctor.ca Health Portal?* (Q 14) we found that some patients had trouble logging in or entering their data either because the portal wouldn't recognize the username as valid despite multiple attempts, issues with the password, being kicked out of the portal when attempting to input data or a lack of customizability. Others were using the portal but "lost interest" or stopped using the portal after lab results were no longer updated. The lack of availability of test results (e.g., lab work & imaging) was brought up frequently as an issue by respondents. Patients also wanted to receive notification as new information or data become available, the ability to schedule appointments and have automatic appointment reminders sent as well as bulletins regarding any upcoming seminars or information sessions pertaining to their health conditions. Other suggestions included making the portal easier to navigate and creating a more central way of recording and tracking health, the ability to include sub-accounts for children and the inclusion of the patient's full medical history as well as receiving more information on what the portal can be used for and when the secure messaging feature should be used.

Intended Utilization: Currently, 38% of the 61 respondents intend to use the portal less than once a month (Q 9). However, when the portal becomes fully functional respondents expect to use all of the available features (Q 12), though to various degrees (Figure 5). Their expectations for each feature's helpfulness once the portal is working (Q 13) are reported in Figure 6. Overall, respondents are likely to recommend the portal to friends and family (Q 18) and continue using the portal (Q 21) (Figure 7). However, fewer respondents indicated that they are likely to pay MD Physician Services $19.95 per year to continue using the Health Portal after the pilot project ends (Q 22).

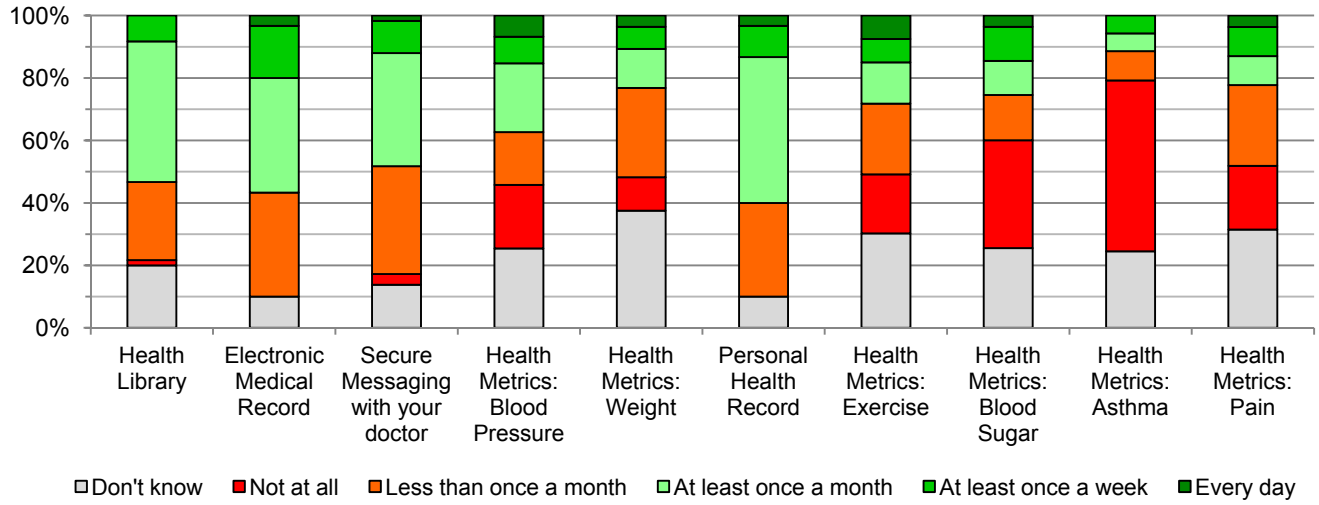


Figure 5: Expected Frequency of Use when the Portal becomes Fully Functional

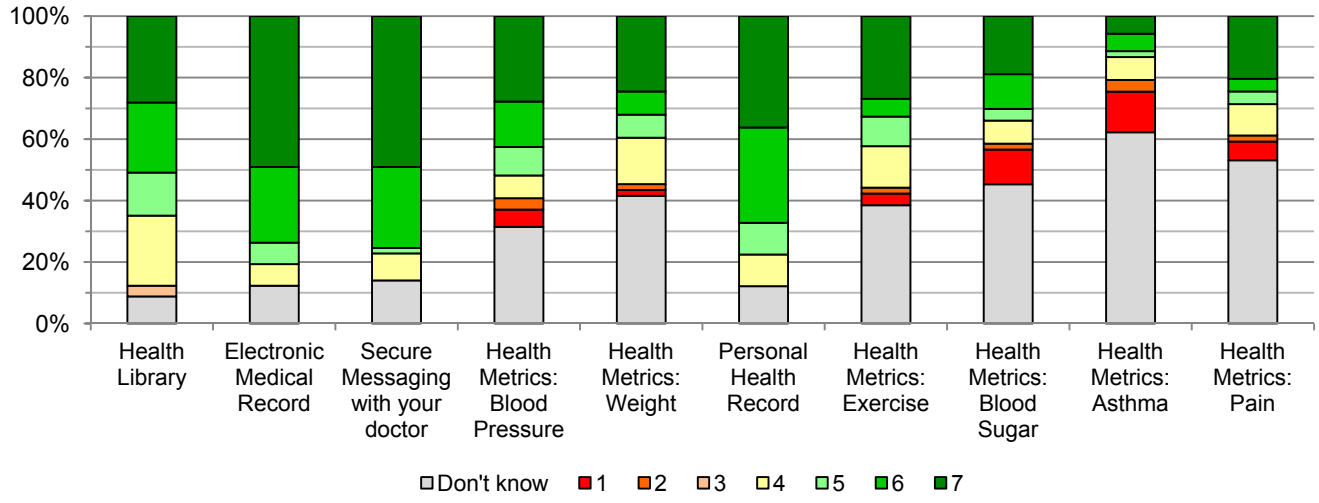


Figure 6: Expected Helpfulness of Portal Features when Working Properly
Note: 1 = Not at all helpful, 4 = Average, 7 = Extremely helpful

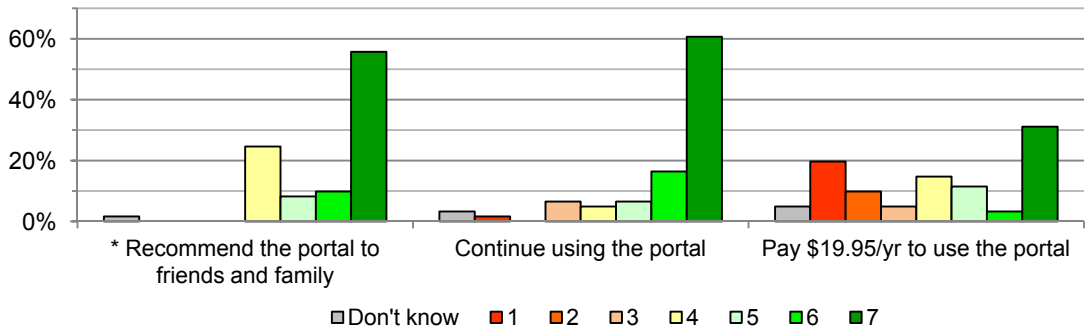
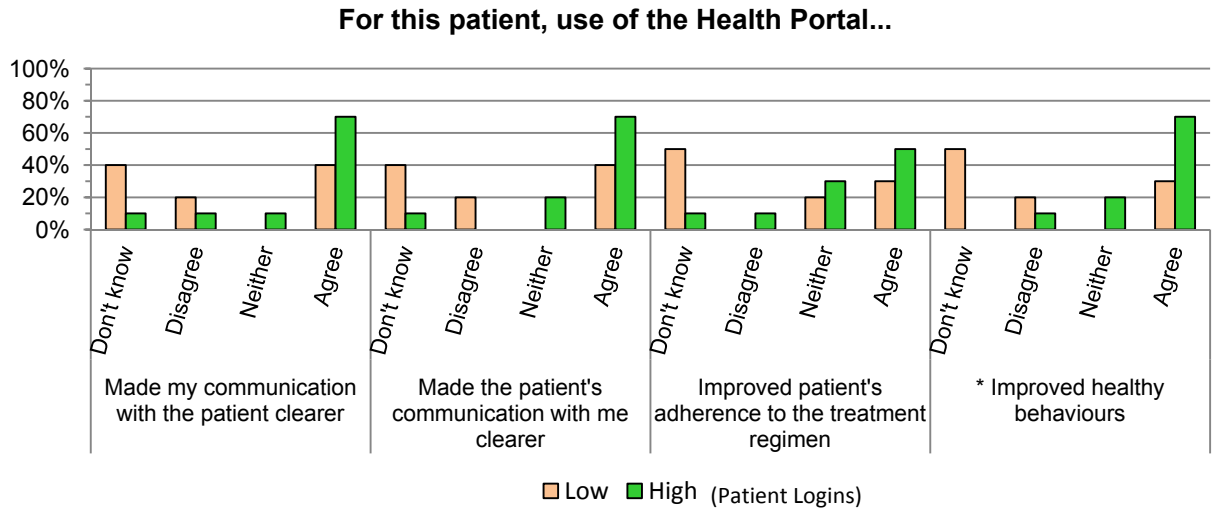
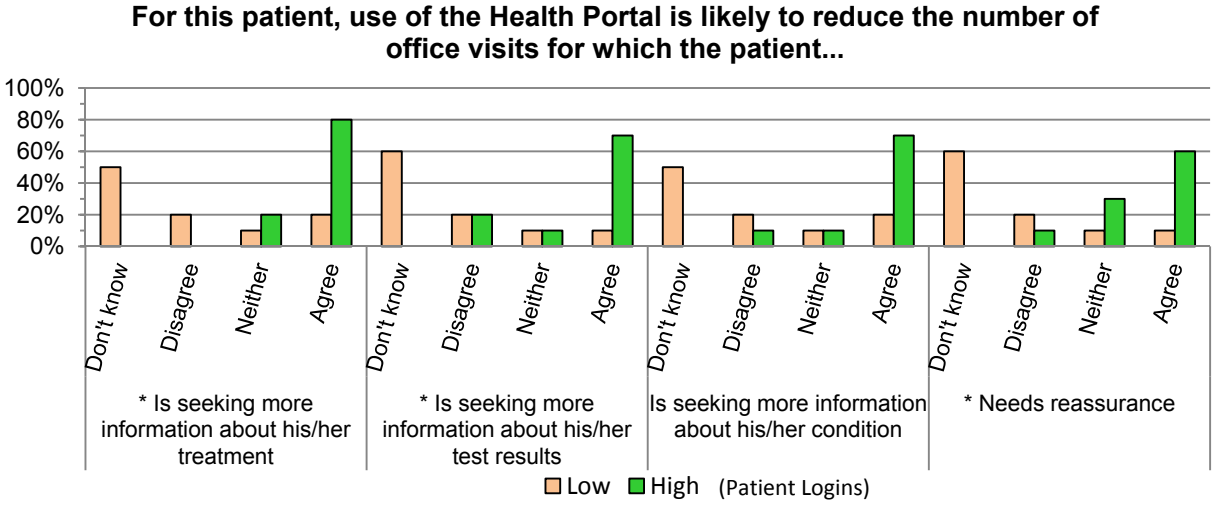


Figure 7: Endorsement and Willingness to Use or Pay for the Health Portal
Note: 1 = Not at all likely, 4 = Somewhat likely, 7 = Very likely
*** Scale for Recommend to friends and family: 1 = Strongly disagree, 4 = Neither agree nor disagree, 7 = Strongly agree**

5.3 Chart Extraction

We received evaluations for 20 patients (average age 59 years; 70% female with 1 patient unidentified). Their total number of logins ranged from 3 to 77. Almost all of these patients, 90%, have a chronic condition (1 patient unidentified) for which 89% would benefit from regular monitoring. Physicians indicated their level of agreement with 9 statements regarding current and likely outcomes of using the portal. Physician responses did not differ between patient age groups (≤49, 50-59, ≥60) or between male and female patients, however a significant difference was found between high (≥10 logins, n=10) and low (<10 logins, n=10) portal users for certain outcomes. The physician's evaluations, separated by high and low portal users, are displayed in Figure 8. The physicians did not report any negative consequences for patients using the portal.





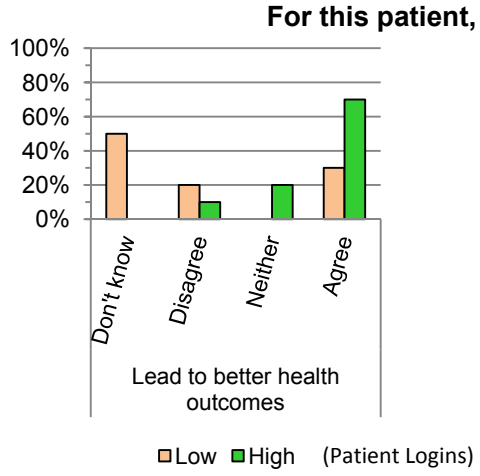


Figure 8: Potential Benefits of Health Portal Utilization

*** Significant difference between high (≥10 logins) and low (<10 logins) users (p<0.05)**

5.4 Physician & Clerical Staff Consultations

Overall Impressions and Workload: Overall, all of the participating physicians and clerical staff recognized the general importance and benefits of using an electronic portal. Furthermore, none of the physicians found that using the Health Portal greatly increase their workload. Rather, they described incorporating the Health Portal into their practice as either "neutral" or as a slight increase in workload. One physician pointed out, however, that the workload for the clerical staff had greatly increased, due to their role in assisting patients with the portal, trouble-shooting and communicating with technical support.

Issues with the Health Portal: Problems with technology was a common complaint that arose among all physicians and clerical staff. They commented on the lack of consistency in the portal's ability to function properly, including synchronization issues and discontinuity with the EMR, problems with the health metric tools, the amount of time that clerical staff spent trying to get the portal working properly, dissatisfaction with technical support and apparent lack of commitment by the vender in fixing the issues identified by CoL FHT personnel.

Inconsistent and poor integration between the portal and EMR was a "major issue" and a "huge disappointment". All physicians mentioned that the portal was very useful when lab or diagnostic test results were able to be uploaded from the EMR to the portal. The difficulty in getting this functionality established and loss of this functionality when the EMR system was upgraded was an irritant to the physicians. In addition, physicians thought that the portal and EMR could be better integrated overall, given that the software is sold by the same vendor. Physicians explained that currently they are not able to look at the EMR and see the data that the patients added to the portal. To examine patient inputted data, physicians had to enter the PHR through their physician's portal, open the patient's health record and then examine the values. In addition, patient inputted values have to be cut and pasted or re-typed into the EMR. Simply put, they found the portal cumbersome.

Potential Improvements: Physicians had a number of suggestions to address the limitations so as to bring out the portal's full potential. For instance, physicians suggested incorporating the ability to analyze and trend patient entered data (e.g., blood sugars). Another suggestion was to improve the integration between the portal and the EMR such that patient entered data could be more easily incorporated into the EMR with the press of a button. At the patient's end, one suggestion to facilitate home data collection would be to have the ability to "upload the data to the portal directly from [the] meter". Other suggestions for improvement emphasized the need to build automatic features for activities that currently took the physician two or three additional steps. This would mean that the computer would do the work for the physician of collating information on the patient from emails, health portal and the EMR.

Another improvement involves the secure messaging feature and the potential to allow communication between the patient and other health professionals within the FHT. For example, one physician spoke of the possibility of dietitians being able to use information from the exercise and weight portal features along with the ability to communicate with patients about their diet. Furthermore it was suggested that secure messaging would be made much easier for the physician if it could be initiated directly from a patient's chart in the EMR rather than having to enter the portal, select the specific patient and then

select secure messaging. This relates again to synchronization and integration of the portal with the EMR.

One further suggestion was with respect to the ability for patients to book appointments online. This feature was seen potentially as a "huge time saver" and a "great patient convenience" that would be a great benefit to the clinic and the patients. This feature is not currently available as part of the Health Portal.

Who is Best Suited: In considering which patients would be best suited to use the mydoctor.ca Heath Portal, physicians and clerical staff agreed that patients with some knowledge of computers would more easily be able to navigate the Health Portal. Patients invited to use the portal were selected for various reasons as determined separately by each physician, though there were common reasons. Patients may have been selected as a good candidate for the pilot project because they: (1) had a chronic condition, such as hypertension or diabetes; (2) had initiated a treatment that could be followed using the Health Portal to better understand the patient's early response to treatment; (3) would benefit from using the Health Library feature to gain information about conditions, symptoms, etc.; and (4) regularly request copies of their lab work who could instead view their lab results on the portal. Other patients who might benefit would include those who need regular reassurance as to their treatment or prognosis as well as patients who required prescription refills to tide them over to their next scheduled appointment.

Some physicians and clerical staff were cautious when asked whether or not the portal should be made available to all patients in the future, stating that some patients may take advantage of the secure messaging feature. Others did not expect any substantial issues relating to abuse of this service. However, all physicians strongly suggested a need for rules to be established when inviting patients to use the Health Portal in order for the patients to understand the purpose of the portal and accompanying expectations. Common rules would include that the e-mail communication should never be used by patients for emergency situations (e.g., 911) and that physician monitoring and response to e-mails may not be on a regular basis.

Benefits for Patients: The physicians believe the patients who were using the portal regularly are in general "very happy", followed their treatment plans well and were more engaged. While all physicians acknowledged the largely positive potential of the portal, some would <u>not</u> offer the Health Portal to other patients until the functionality problems are fixed and "it is working well again".

6. Limitations

There are some limitations to the study that must be noted. The 228 patients who were invited to participate in the Health Portal pilot project comprise a select group. Patients were invited to use the Health Portal according to criteria discussed above, including having an email address. Physicians and clerical staff reported that they had invited many patients to participate, not all of whom agreed. No records were kept of the number or characteristics of patients who declined. The 23 patients who agreed to participate but did not register were not able to complete our patient survey as invitations were sent through the portal email system. Patients also had to have some level of comfort with computers and the internet in order to access and complete the online patient survey.

Proportionally more females completed the survey (72%) or were chosen for chart extraction (74%) compared to patients who registered on the portal (60%), but these differences were not statistically significant (Chi-squared tests, $p>0.11$). Mean age ranged from 54 to 59 years in these three groups, but these differences were also not statistically significant (t-tests, $p>0.07$). It is worthwhile noting that 20 of the 30 chart extractions were completed as planned and this led to greater uncertainty in results from the extractions. The lack of statistically significant differences suggests that the 61 survey respondents and 20 chart extraction patients are reasonably similar in age and gender to all 228 patients who were invited to participate in the study. However, we were unable to ascertain if the three groups were similar with respect to other factors that might influence portal use, such as presence or absence of a chronic disease requiring regular monitoring. The bottom line is that survey respondents and chart extraction patients may not be fully representative of the patients invited to participate in the study and it is unknown whether they are reflective of all CoL patients.

Another possible limitation is that the three physicians self-selected into the Health Portal pilot project such that recruitment of their patients, physician use of the portal and physician responses to interview and chart extraction questions may reflect a priori assumptions and expectations. However, results of interviews with physicians showed that there was a range of expectations and enthusiasm for the project and this suggests that the impact on final results was lessened.

Lastly, the surveys and consultations rely on self-reported data and therefore may be subject to bias. In particular, there may be social desirability bias in patient responses as patients may respond in a way that will they feel will be viewed favourably. The net effects of selection and social desirability biases are unknown.

7. Discussion

Overall patients had positive reviews of the initial training and assistance received. Speaking with City of Lakes staff was found to be helpful by the greatest number of patients. When patients had questions about using the portal they most frequently relied on City of Lakes staff either by telephone or in person. However, when asked what type of help they would like to have available fewer patients would like to rely on these modalities of assistance. There is a greater demand for contacting MD Physician Services by telephone or email and using an online help tool (e.g., FAQ, help button), which may reduce the demand on clerical staff time.

While 90% registered and 67% had logged in, only 7% were using the portal on a weekly basis. And the average number of logins each week decreased as time went on. This low activity may be due to a number of factors which were elucidated from different portions of the evaluation. Only 43% of patients surveyed had reported that the portal was useful to them (strongly agree). The lack of availability of test results was mentioned frequently and some reported losing interest in the portal after results were no longer updated. The physicians and clerical staff also noted that available features were not functioning at full capacity or not at all.

It may also be the case that the Health Portal features were not useful to patients—previous research has found that products with limited value to users will not be adopted (Kahn et al., 2009). Even when

working properly, less than 30% of patients expected any of the Health Metric features to be extremely helpful.

However, all three study populations acknowledged that the Health Portal had potential benefits. Seventy percent of patients reported that using the Health Portal increased their ability to monitor their health at home. Physicians indicated through chart extrapolations that patients with high use of the portal had improved healthy behaviours in comparison to low users (<10 logins) and that greater use of the Health Portal was likely to reduce the number of office visits for patients seeking more information about treatments, test results or when needing reassurance. In fact during our consultations there was some anecdotal evidence that e-mail communications had saved perhaps three or four phone calls to the clerical staff and the subsequent involvement of the physician in responding to the phone call. These findings are promising as previous research has found that patients who take a more active role are often better able to maintain their health (Health Council of Canada, 2011).

The physicians and clerical staff all agreed that the benefits had not been fully realized up to this point. Physicians had differing opinions as to whether their efforts, the aforementioned small increase in workload, was worth the benefits that would accrue to them, their patients or to the clerical staff. It must be acknowledged that there was considerable effort by clerical staff throughout the project. Their work in learning how to navigate the system, providing orientation sessions to the patients, registering patients, troubleshooting the software, responding to patient and physician inquiries as well as dealing with the vendor represents a considerable upfront investment of time and resources. It seems reasonable to assume that clerical staff will be asked to continue their efforts if more patients and physicians are added or if there are any future difficulties with the portal.

Up to this point, the full potential of the portal has not been realized and so it remains to be seen whether the promise of potential benefits will be sufficient to extend patients', physicians' and clerks' support of this pilot project initiative or whether the current underperformance of the Health Portal will spell its demise in this particular initiative.

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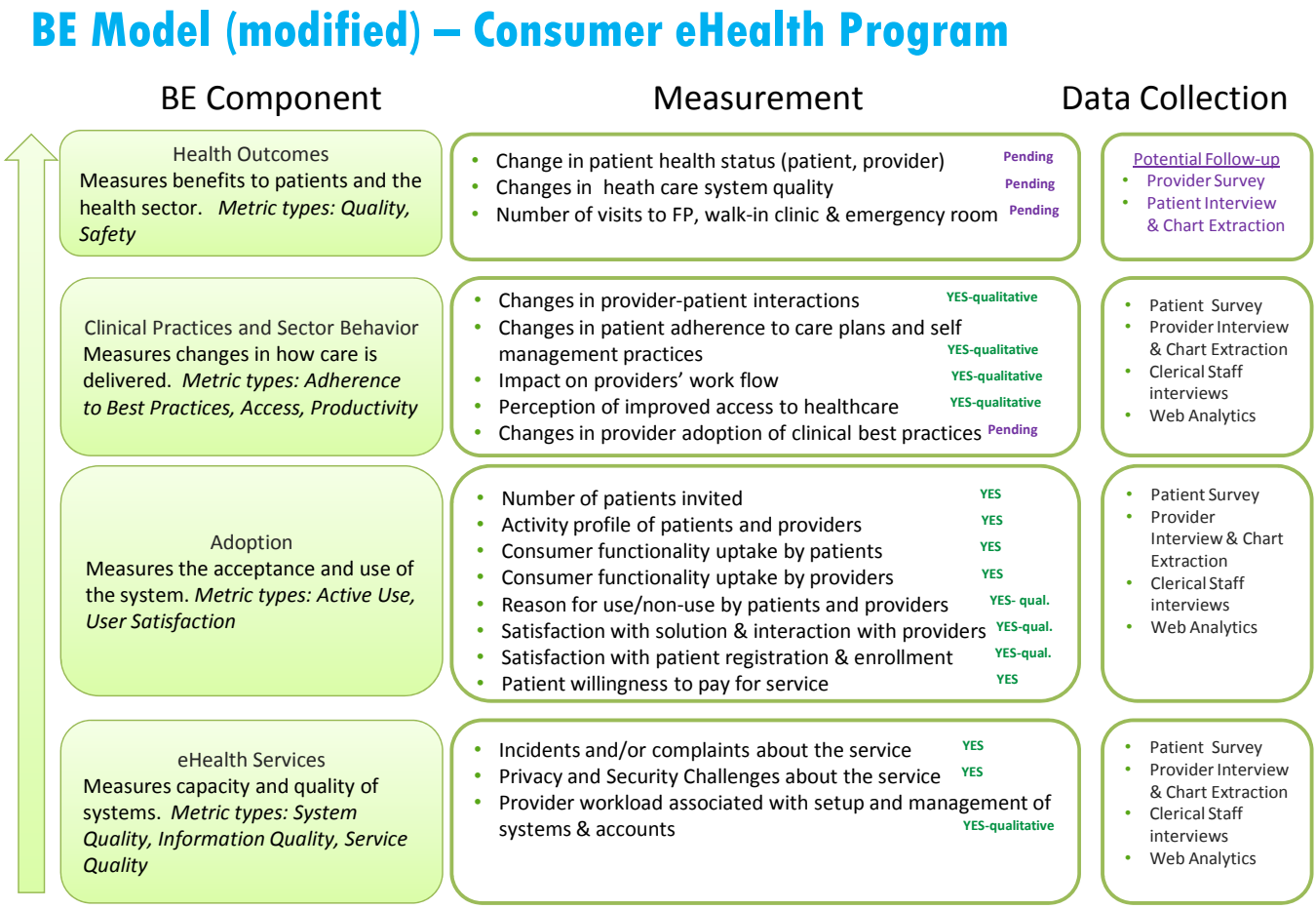
Appendix 1: CRaNHR's adaptation of the Benefits Model



Note: The Benefits Evaluation (BE) Model was developed by the Consumer eHealth Program, eHealth Ontario and based on the Benefits Evaluation Indicators framework developed by Canada Health Infoway (2006)

Appendix 2: Patient Survey Questions

Section 1: Internet Usage

1. How often do you use the Internet in a typical month?

- ☐ Less than once a month
- ☐ At least once a month
- ☐ At least once a week
- ☐ At least once a day

2. In a typical week, on average, how many hours do you spend on the Internet?

- ☐ Less than 5 hours
- ☐ 5 - 9 hours
- ☐ 10 - 19 hours
- ☐ 20 - 29 hours
- ☐ 30 hours or more

3. If you searched for medical or health information during the past 12 months, for what kind of information did you search? Please check all that apply.

- ☐ Lifestyle (e.g., diet, nutrition, exercise, health promotion, illness prevention)
- ☐ Alternative therapy (e.g., naturopathy, aromatherapy, acupuncture)
- ☐ Health care system or delivery (e.g., structure, physicians)
- ☐ Drugs or medications (e.g., aspirin, corticosteroids, viagra)
- ☐ Surgeries (e.g., hernia, appendectomy)
- ☐ Information about specific symptoms (e.g., rash, fever, mole)
- ☐ Other, please specify
- ☐ I did not use the Internet to search for medical or health related information

4. Where do you access the mydoctor.ca Health Portal? Please check all that apply.

- ☐ From home
- ☐ From work
- ☐ From my smart phone
- ☐ Other, please specify
- ☐ Other, please specify

Section 2: The mydoctor.ca Health Portal

5. How helpful were each of the following types of information or training in getting started with the mydoctor.ca Health Portal?

	Not at all helpful			Average			Extremely helpful	Not Applicable
	1	2	3	4	5	6	7	
Information session	☐	☐	☐	☐	☐	☐	☐	☐
Information package	☐	☐	☐	☐	☐	☐	☐	☐
Speaking with City of Lakes staff	☐	☐	☐	☐	☐	☐	☐	☐
Other, please specify	☐	☐	☐	☐	☐	☐	☐	☐

6. How long ago did you:

	Jan	Feb	Mar	Apr	May	Jun
register for the portal?	☐	☐	☐	☐	☐	☐
begin using the portal?	☐	☐	☐	☐	☐	☐

7. What type of help was available to you if you had questions about using the portal? Please check all that apply.

- ☐ Telephone helpline run by MD Physician Services
- ☐ Email questions to MD Physician Services
- ☐ Online help tool (e.g., FAQ, help button)
- ☐ City of Lakes staff via telephone
- ☐ City of Lakes staff via email
- ☐ City of Lakes staff (in person)
- ☐ Other, please specify

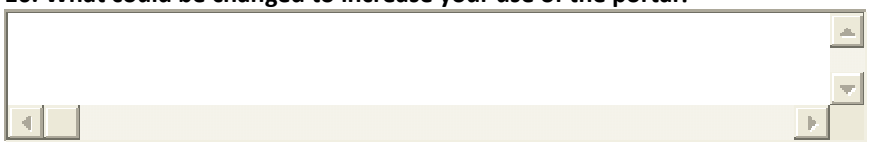
8. What type of help would you like to have available while using the portal? Please check all that apply.

- ☐ Telephone helpline run by MD Physician Services
- ☐ Email questions to MD Physician Services
- ☐ Online help tool (e.g., FAQ, help button)
- ☐ City of Lakes staff via telephone
- ☐ City of Lakes staff via email
- ☐ City of Lakes staff (in person)
- ☐ Other, please specify

9. Over the next month, how often do you intend to use the mydoctor.ca Health Portal?

- ☐ Every Day
- ☐ At least once a week
- ☐ At least once a month
- ☐ Less than once a month
- ☐ Not at all

10. What could be changed to increase your use of the portal?



11. What is your current level of satisfaction with:

	Very dissatisfied 1	2	3	Neither satisfied nor dissatisfied 4	5	6	Very satisfied 7	Not Applicable
The mydoctor.ca Health Portal	☐	☐	☐	☐	☐	☐	☐	☐
sharing information about your health with your doctor	☐	☐	☐	☐	☐	☐	☐	☐
receiving information from your doctor	☐	☐	☐	☐	☐	☐	☐	☐
finding answers to your health concerns	☐	☐	☐	☐	☐	☐	☐	☐
keeping your doctor up to data about your conditions	☐	☐	☐	☐	☐	☐	☐	☐
the health care received from the City of Lakes Family Health Team	☐	☐	☐	☐	☐	☐	☐	☐

12. When the portal becomes fully functional, how often do you expect to use the following features?

	Every day	At least once a week	At least once a month	Less than once a month	Not at all	Don't know
Health Library	☐	☐	☐	☐	☐	☐
Personal Health Record (e.g., Medical History, Medication)	☐	☐	☐	☐	☐	☐
Electronic Medical Record (EMR) information from your doctor	☐	☐	☐	☐	☐	☐
Secure Messaging with your doctor	☐	☐	☐	☐	☐	☐
Health Metrics: Asthma	☐	☐	☐	☐	☐	☐
Health Metrics: Blood Pressure	☐	☐	☐	☐	☐	☐
Health Metrics: Blood Sugar	☐	☐	☐	☐	☐	☐
Health Metrics: Exercise	☐	☐	☐	☐	☐	☐
Health Metrics: Pain	☐	☐	☐	☐	☐	☐
Health Metrics: Weight	☐	☐	☐	☐	☐	☐
Other, please specify	☐	☐	☐	☐	☐	☐

13. When the portal is working, how helpful do you expect the following features will be for you?

	Not at all helpful 1	2	3	Average 4	5	6	Extremely helpful 7	Don't know
Health Library	☐	☐	☐	☐	☐	☐	☐	☐
Personal Health Record (e.g., Medical History, Medication)	☐	☐	☐	☐	☐	☐	☐	☐
Electronic Medical Record (EMR) information from your doctor	☐	☐	☐	☐	☐	☐	☐	☐
Secure Messaging with your doctor	☐	☐	☐	☐	☐	☐	☐	☐
Health Metrics: Asthma	☐	☐	☐	☐	☐	☐	☐	☐
Health Metrics: Blood Pressure	☐	☐	☐	☐	☐	☐	☐	☐
Health Metrics: Blood Sugar	☐	☐	☐	☐	☐	☐	☐	☐
Health Metrics: Exercise	☐	☐	☐	☐	☐	☐	☐	☐
Health Metrics: Pain	☐	☐	☐	☐	☐	☐	☐	☐
Health Metrics: Weight	☐	☐	☐	☐	☐	☐	☐	☐
Other, please specify	☐	☐	☐	☐	☐	☐	☐	☐

14. Have you come across any major problems in the mydoctor.ca Health Portal?

15. Before using the mydoctor.ca Health Portal, had you been keeping records of your:

	Yes	No	Not Applicable
Asthma	☐	☐	☐
Blood Pressure	☐	☐	☐
Blood Sugar	☐	☐	☐
Exercise	☐	☐	☐
Pain	☐	☐	☐
Weight	☐	☐	☐
Other, please specify	☐	☐	☐

16. Were you taught to use at home monitoring equiptment for:

	Yes	No	Not Applicable
Asthma	☐	☐	☐
Blood Pressure	☐	☐	☐
Blood Sugar	☐	☐	☐
Exercise	☐	☐	☐
Pain	☐	☐	☐
Weight	☐	☐	☐
Other, please specify	☐	☐	☐

17. Please rate your agreement with the following statements about using the Health Portal.

	Strongly disagree 1	2	3	Neither agree nor disagree 4	5	6	Strongly agree 7	Don't know
I am comfortable using computers	☐	☐	☐	☐	☐	☐	☐	☐
Overall, registering for the mydoctor.ca Health Portal was easy	☐	☐	☐	☐	☐	☐	☐	☐
Overall, the Health Portal is easy to use	☐	☐	☐	☐	☐	☐	☐	☐
I am comfortable logging on to the mydoctor.ca Health Portal	☐	☐	☐	☐	☐	☐	☐	☐
I feel confident in my ability to use the portal	☐	☐	☐	☐	☐	☐	☐	☐
I am comfortable entering information into my Personal Health Record	☐	☐	☐	☐	☐	☐	☐	☐
I am comfortable sending and receiving messages with my doctor	☐	☐	☐	☐	☐	☐	☐	☐
I am comfortable checking information in my EMR from my doctor	☐	☐	☐	☐	☐	☐	☐	☐
I am not concerned about privacy on the Internet	☐	☐	☐	☐	☐	☐	☐	☐
I am not concerned about the privacy or security of putting my health information on the Internet	☐	☐	☐	☐	☐	☐	☐	☐

18. Please rate your agreement with the following statements about potential Health Portal benefits.

	Strongly disagree 1	2	3	Neither agree nor disagree 4	5	6	Strongly agree 7	Don't know
The Health Portal was useful to me	☐	☐	☐	☐	☐	☐	☐	☐
Using the Health Portal increased my understanding of my health condition	☐	☐	☐	☐	☐	☐	☐	☐
Using the Health Portal increased my understanding of my treatment	☐	☐	☐	☐	☐	☐	☐	☐
Using the Health Portal improved my ability to manage my own health	☐	☐	☐	☐	☐	☐	☐	☐
Using the Health Portal allowed me to be more involved in discussions with my doctor	☐	☐	☐	☐	☐	☐	☐	☐
Using the Health Portal allowed me to be more involved in decision making with my doctor	☐	☐	☐	☐	☐	☐	☐	☐
The Health Portal makes it easy to monitor and track my health at home	☐	☐	☐	☐	☐	☐	☐	☐
I would recommend the portal to friends and family	☐	☐	☐	☐	☐	☐	☐	☐

19. Has the portal...

	Yes	No	Don't know
helped you communicate with your health care providers?	☐	☐	☐
increased your ability to monitor your health?	☐	☐	☐
increased satisfaction with health care received from the City of Lakes Family Health Team?	☐	☐	☐
improved the quality of your care?	☐	☐	☐
made it easier to manage your health?	☐	☐	☐
decreased your use of other health care services? (e.g., emergency department, specialists, walk-in clinics)	☐	☐	☐

20. What part of the portal do you think your <u>doctor</u> used the most?

- ☐ Health Library
- ☐ Personal Health Record (e.g., Medical History, Medication)
- ☐ Electronic Medical Record (EMR)
- ☐ Secure Messaging
- ☐ Health Metrics
- ☐ Other, please specify

21. Given the opportunity, how likely are you to continue to use the portal?

Not at all likely			Somewhat likely			Very likely	Don't know
1	2	3	4	5	6	7	
☐	☐	☐	☐	☐	☐	☐	☐

22. After the pilot project ends, how likely are you to pay MD Physician Services, the markers of the mydoctor.ca Health Portal, $19.95 per year to use the Health Portal?

Not at all likely			Somewhat likely			Very likely	Don't know
1	2	3	4	5	6	7	
☐	☐	☐	☐	☐	☐	☐	☐

<u>Section 3: About You</u>

23. What is your age?

☐ years

24: What is your sex?

- ☐ Male
- ☐ Female

26. What language do you speak most often:

	English	French	Other, please specify
at home	☐	☐	☐
with your doctor	☐	☐	☐

25. What is the highest level of education that you have completed?

- ☐ Elementary school
- ☐ High school
- ☐ College/Trade
- ☐ Undergraduate University degree
- ☐ Master's degree
- ☐ Doctoral or professional designation

27. Did you use the mydoctor.ca Health Portal in French?

- ☐ Yes
- ☐ No
- ☐ Don't know

28. In general, would you say your health is:

- ☐ poor
- ☐ fair
- ☐ good
- ☐ very good
- ☐ excellent

Appendix 3: Chart Extraction Tool for Physicians

Physician:

Patient's Total # Logins:

Patient Age (yrs):

Patient Sex:
☐ M ☐ F

Does this patient have a chronic condition?
☐ Yes ☐ No

If yes, would this condition benefit from regular monitoring?
☐ Yes ☐ No ☐ Not Applicable

Please indicate your level of agreement with the following questions.

A) For this patient, use of the Health Portal...

	Strongly disagree 1	2	3	Neither agree nor disagree 4	5	6	Strongly agree 7	Don't know
made my communication with the patient clearer	☐	☐	☐	☐	☐	☐	☐	☐
made the patient's communication with me clearer	☐	☐	☐	☐	☐	☐	☐	☐
improved patient's adherence to treatment regimen	☐	☐	☐	☐	☐	☐	☐	☐
improved healthy behaviours (e.g., more exercise, less smoking, better nutrition)	☐	☐	☐	☐	☐	☐	☐	☐

B) For this patient, use of the Health Portal is <u>likely</u> to reduce the number of office visits for which the patient...

	Strongly disagree 1	2	3	Neither agree nor disagree 4	5	6	Strongly agree 7	Don't know
is seeking more information about his/her treatment	☐	☐	☐	☐	☐	☐	☐	☐
is seeking more information about his/her test results	☐	☐	☐	☐	☐	☐	☐	☐
is seeking more information about his/her condition	☐	☐	☐	☐	☐	☐	☐	☐
needs reassurance	☐	☐	☐	☐	☐	☐	☐	☐

C) For this patient, use of the Health Portal is <u>likely</u> to...

	Strongly disagree 1	2	3	Neither agree nor disagree 4	5	6	Strongly agree 7	Don't know
lead to better health outcomes	☐	☐	☐	☐	☐	☐	☐	☐

D) Is the patient likely to experience any other benefits now or in the next year or so?

Is the patient likely to experience any negative consequences now or in the next year or so?

Appendix 4: Consultation Question Guides

2A: Question Guide for Physicians

Evaluation of the City of Lakes' Patient Portal Pilot Project

Research Team: John Hogenbirk MSc & Sarah Barnett MSc, Centre for Rural and Northern Health Research

1. What criteria did you use in selecting patients to participate in the pilot?
   a. What do you think about offering every patient in the clinic a mydoctor.ca Health Portal account?
2. Has this technology affected your:
   a. Workload?
   b. Work routine?
   c. The way in which you deliver care?
3. What are the disadvantages to this type of technology?
4. Ideally what features or information should the mydoctor.ca Health Portal have?
5. Do you think the Health Portal has affected physician-patient relationships and interactions? In what way?
6. Do you have any additional comments or concerns that have not been addressed?

2B: Question Guide for Clerical Staff

Evaluation of the City of Lakes' Patient Portal Pilot Project

Research Team: John Hogenbirk MSc & Sarah Barnett MSc, Centre for Rural and Northern Health Research

1. What was your greatest concern about implementing the Health Portal?
2. What could have been done differently at start-up?
3. Ideally what features or information should the mydoctor.ca Health Portal have?
4. Do you think patients were comfortable using the Health Portal?
5. How did the Health Portal benefit the following groups of people? For each group indicate whether you think these benefits will occur over a few months (short term) or a few years or more (long term).
    a. Yourself?
    b. Patients?
    c. Physicians?
    d. Overall operation of the clinic?
6. What are the disadvantages to this type of technology?
7. How has this technology affected your:
    a. Workload?
    b. Work routine?
8. Do you think the Health Portal has affected physician-patient relationships? In what way?
9. What do you think about offering every patient in the clinic a mydoctor.ca Health Portal account?
10. Do you have any additional comments or concerns that have not been addressed?

Appendix 5: Patient Survey Response Frequencies

1. How often do you use the Internet in a typical month?

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than once a month	3	4.9	4.9	4.9
At least once a month	2	3.3	3.3	8.2
At least once a week	7	11.5	11.5	19.7
At least once a day	49	80.3	80.3	100.0
Total	61	100.0	100.0	

2. In a typical week, on average, how many hours do you spend on the Internet?

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 5 hours	24	39.3	39.3	39.3
5 - 9 hours	14	23.0	23.0	62.3
10 - 19 hours	7	11.5	11.5	73.8
20 - 29 hours	8	13.1	13.1	86.9
30 hours or more	8	13.1	13.1	100.0
Total	61	100.0	100.0	

3. If you searched for medical or health information during the past 12 months, for what kind of information did you search? Please check all that apply.

	Responses		Percent of Cases
	N	Percent	
Lifestyle (e.g., diet, nutrition, exercise, health promotion, illness prevention)	38	26.2%	62.3%
Alternative therapy (e.g., naturopathy, aromatherapy, acupuncture)	12	8.3%	19.7%
Health care system or delivery (e.g., structure, physicians)	5	3.4%	8.2%
Drugs or medications (e.g., aspirin, corticosteroids, Viagra)	36	24.8%	59.0%
Surgeries (e.g., hernia, appendectomy)	11	7.6%	18.0%
Information about specific symptoms (e.g., rash, fever, mole)	31	21.4%	50.8%
Other	6	4.1%	9.8%
I did not use the Internet to search for medical or health related information	6	4.1%	9.8%
Total	145	100.0%	

a. Dichotomy group tabulated at value 1.

4. Where do you access the mydoctor.ca Health Portal? Please check all that apply.

	Responses		Percent of Cases
	N	Percent	
From home	60	77.9%	98.4%
From work	10	13.0%	16.4%
From my smart phone	3	3.9%	4.9%
Other	4	5.2%	6.6%
Total	77	100.0%	

a. Dichotomy group tabulated at value 1.

5. How helpful were each of the following types of information or training in getting started with the mydoctor.ca Health Portal?

Information session

		Frequency	Percent	Valid Percent	Cumulative Percent
Not Applicable		19	31.1	34.5	34.5
Not at all helpful:	1	1	1.6	1.8	36.4
	2	2	3.3	3.6	40.0
	3	0	0.0	0.0	40.0
Average:	4	7	11.5	12.7	52.7
	5	8	13.1	14.5	67.3
	6	7	11.5	12.7	80.0
Extremely helpful:	7	11	18.0	20.0	100.0
Total		55	90.2	100.0	
No Response		6	9.8		
Total		61	100.0		

Information package

		Frequency	Percent	Valid Percent	Cumulative Percent
Not Applicable		5	8.2	8.5	8.5
Not at all helpful:	1	0	0.0	0.0	8.5
	2	2	3.3	3.4	11.9
	3	1	1.6	1.7	13.6
Average:	4	10	16.4	16.9	30.5
	5	10	16.4	16.9	47.5
	6	14	23.0	23.7	71.2
Extremely helpful:	7	17	27.9	28.8	100.0
Total		59	96.7	100.0	
No Response		2	3.3		
Total		61	100.0		

Speaking with City of Lakes staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Not Applicable		6	9.8	10.3	10.3
Not at all helpful:	1	0	0.0	0.0	10.3
	2	1	1.6	1.7	12.1
	3	2	3.3	3.4	15.5
Average:	4	7	11.5	12.1	27.6
	5	2	3.3	3.4	31.0
	6	15	24.6	25.9	56.9
Extremely helpful:	7	25	41.0	43.1	100.0
Total		58	95.1	100.0	
No Response		3	4.9		
Total		61	100.0		

6. a) How long ago did you:

register for the portal?

	Frequency	Percent	Valid Percent	Cumulative Percent
Jan	6	9.8	10.2	10.2
Feb	19	31.1	32.2	42.4
Mar	12	19.7	20.3	62.7
Apr	6	9.8	10.2	72.9
May	7	11.5	11.9	84.7
Jun	9	14.8	15.3	100.0
Total	59	96.7	100.0	
No Response	2	3.3		
Total	61	100.0		

begin using the portal?

	Frequency	Percent	Valid Percent	Cumulative Percent
Jan	5	8.2	10.4	10.4
Feb	16	26.2	33.3	43.8
Mar	6	9.8	12.5	56.3
Apr	7	11.5	14.6	70.8
May	5	8.2	10.4	81.3
Jun	9	14.8	18.8	100.0
Total	48	78.7	100.0	
No Response	13	21.3		
Total	61	100.0		

Crosstabulation: month registered 'by' month the patient began using the portal

		begin using the portal?						Total
		Jan	Feb	Mar	Apr	May	Jun	
register for the portal?	Jan	5	1	0	0	0	0	6
	Feb	0	15	0	1	0	0	16
	Mar	0	0	6	3	0	2	11
	Apr	0	0	0	3	0	1	4
	May	0	0	0	0	5	1	6
	Jun	0	0	0	0	0	5	5
Total		5	16	6	7	5	9	48

7. What type of help was available to you if you had questions about using the portal? Please check all that apply.

	Responses		Percent of Cases
	N	Percent	
Telephone helpline run by MD Physician Services	5	4.0%	8.6%
Email questions to MD Physician Services	25	20.0%	43.1%
Online help tool (e.g., FAQ, help button)	15	12.0%	25.9%
City of Lakes staff via telephone	36	28.8%	62.1%
City of Lakes staff via email	18	14.4%	31.0%
City of Lakes staff (in person)	26	20.8%	44.8%
Total	125	100.0%	

a. Dichotomy group tabulated at value 1.

8. What type of help would you like to have avalable while using the portal? Please check all that apply.

	Responses		Percent of Cases
	N	Percent	
Telephone helpline run by MD Physician Services	11	7.5%	19.0%
Email questions to MD Physician Services	29	19.7%	50.0%
Online help tool (e.g., FAQ, help button)	26	17.7%	44.8%
City of Lakes staff via telephone	34	23.1%	58.6%
City of Lakes staff via email	32	21.8%	55.2%
City of Lakes staff (in person)	15	10.2%	25.9%
Total	147	100.0%	

a. Dichotomy group tabulated at value 1.

9. Over the next month, how often do you intend to use the mydoctor.ca Health Portal?

	Frequency	Percent	Valid Percent	Cumulative Percent
Every Day	0	0.0	0.0	0.0
At least once a week	16	26.2	26.7	26.7
At least once a month	21	34.4	35.0	61.7
Less than once a month	18	29.5	30.0	91.7
Not at all	5	8.2	8.3	100.0
Total	60	98.4	100.0	
No Response	1	1.6		
Total	61	100.0		

11. What is your current level of satisfaction with:

the mydoctor.ca Health Portal

		Frequency	Percent	Valid Percent	Cumulative Percent
Not Applicable		1	1.6	1.7	1.7
Very dissatisfied:	1	0	0.0	0.0	1.7
	2	0	0.0	0.0	1.7
	3	2	3.3	3.3	5.0
Neither satisfied nor dissatisfied:	4	17	27.9	28.3	33.3
	5	11	18.0	18.3	51.7
	6	11	18.0	18.3	70.0
Very satisfied:	7	18	29.5	30.0	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

sharing information about your health with your doctor

		Frequency	Percent	Valid Percent	Cumulative Percent
Not Applicable		1	1.6	1.6	1.6
Very dissatisfied:	1	1	1.6	1.6	3.3
	2	1	1.6	1.6	4.9
	3	0	0.0	0.0	4.9
Neither satisfied nor dissatisfied:	4	13	21.3	21.3	26.2
	5	5	8.2	8.2	34.4
	6	7	11.5	11.5	45.9
Very satisfied:	7	33	54.1	54.1	100.0
Total		61	100.0	100.0	

receiving information from your doctor

		Frequency	Percent	Valid Percent	Cumulative Percent
Not Applicable		2	3.3	3.3	3.3
Very dissatisfied:	1	0	0.0	0.0	3.3
	2	2	3.3	3.3	6.6
	3	1	1.6	1.6	8.2
Neither satisfied nor dissatisfied:	4	12	19.7	19.7	27.9
	5	5	8.2	8.2	36.1
	6	10	16.4	16.4	52.5
Very satisfied:	7	29	47.5	47.5	100.0
Total		61	100.0	100.0	

finding answers to your health concerns

		Frequency	Percent	Valid Percent	Cumulative Percent
Not Applicable		7	11.5	11.5	11.5
Very dissatisfied:	1	0	0.0	0.0	11.5
	2	0	0.0	0.0	11.5
	3	2	3.3	3.3	14.8
Neither satisfied nor dissatisfied:	4	14	23.0	23.0	37.7
	5	7	11.5	11.5	49.2
	6	13	21.3	21.3	70.5
Very satisfied:	7	18	29.5	29.5	100.0
Total		61	100.0	100.0	

keeping your doctor up to date about your conditions

		Frequency	Percent	Valid Percent	Cumulative Percent
Not Applicable		5	8.2	8.3	8.3
Very dissatisfied:	1	0	0.0	0.0	8.3
	2	1	1.6	1.7	10.0
	3	2	3.3	3.3	13.3
Neither satisfied nor dissatisfied:	4	12	19.7	20.0	33.3
	5	5	8.2	8.3	41.7
	6	11	18.0	18.3	60.0
Very satisfied:	7	24	39.3	40.0	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

the health care received from the City of Lakes Family Health Team

		Frequency	Percent	Valid Percent	Cumulative Percent
Not Applicable		1	1.6	1.6	1.6
Very dissatisfied:	1	0	0.0	0.0	1.6
	2	0	0.0	0.0	1.6
	3	0	0.0	0.0	1.6
Neither satisfied nor dissatisfied:	4	4	6.6	6.6	8.2
	5	2	3.3	3.3	11.5
	6	11	18.0	18.0	29.5
Very satisfied:	7	43	70.5	70.5	100.0
Total		61	100.0	100.0	

12. When the portal becomes fully functional, how often do you expect to use the following features?

Health Library

	Frequency	Percent	Valid Percent	Cumulative Percent
Every day	0	0.0	0.0	0.0
At least once a week	5	8.2	8.3	8.3
At least once a month	27	44.3	45.0	53.3
Less than once a month	15	24.6	25.0	78.3
Not at all	1	1.6	1.7	80.0
Don't know	12	19.7	20.0	100.0
Total	60	98.4	100.0	
No Response	1	1.6		
Total	61	100.0		

Personal Health Record (e.g., Medical History, Medication)

	Frequency	Percent	Valid Percent	Cumulative Percent
Every day	2	3.3	3.3	3.3
At least once a week	6	9.8	10.0	13.3
At least once a month	28	45.9	46.7	60.0
Less than once a month	18	29.5	30.0	90.0
Not at all	0	0.0	0.0	90.0
Don't know	6	9.8	10.0	100.0
Total	60	98.4	100.0	
No Response	1	1.6		
Total	61	100.0		

Electronic Medical Record (EMR) information from your doctor

	Frequency	Percent	Valid Percent	Cumulative Percent
Every day	2	3.3	3.3	3.3
At least once a week	10	16.4	16.7	20.0
At least once a month	22	36.1	36.7	56.7
Less than once a month	20	32.8	33.3	90.0
Not at all	0	0.0	0.0	90.0
Don't know	6	9.8	10.0	100.0
Total	60	98.4	100.0	
No Response	1	1.6		
Total	61	100.0		

Secure Messaging with your doctor

	Frequency	Percent	Valid Percent	Cumulative Percent
Every day	1	1.6	1.7	1.7
At least once a week	6	9.8	10.3	12.1
At least once a month	21	34.4	36.2	48.3
Less than once a month	20	32.8	34.5	82.8
Not at all	2	3.3	3.4	86.2
Don't know	8	13.1	13.8	100.0
Total	58	95.1	100.0	
No Response	3	4.9		
Total	61	100.0		

Health Metrics: Asthma

	Frequency	Percent	Valid Percent	Cumulative Percent
Every day	0	0.0	0.0	0.0
At least once a week	3	4.9	5.7	5.7
At least once a month	3	4.9	5.7	11.3
Less than once a month	5	8.2	9.4	20.8
Not at all	29	47.5	54.7	75.5
Don't know	13	21.3	24.5	100.0
Total	53	86.9	100.0	
No Response	8	13.1		
Total	61	100.0		

Health Metrics: Blood Pressure

	Frequency	Percent	Valid Percent	Cumulative Percent
Every day	4	6.6	6.8	6.8
At least once a week	5	8.2	8.5	15.3
At least once a month	13	21.3	22.0	37.3
Less than once a month	10	16.4	16.9	54.2
Not at all	12	19.7	20.3	74.6
Don't know	15	24.6	25.4	100.0
Total	59	96.7	100.0	
No Response	2	3.3		
Total	61	100.0		

Health Metrics: Blood Sugar

	Frequency	Percent	Valid Percent	Cumulative Percent
Every day	2	3.3	3.6	3.6
At least once a week	6	9.8	10.9	14.5
At least once a month	6	9.8	10.9	25.5
Less than once a month	8	13.1	14.5	40.0
Not at all	19	31.1	34.5	74.5
Don't know	14	23.0	25.5	100.0
Total	55	90.2	100.0	
No Response	6	9.8		
Total	61	100.0		

Health Metrics: Exercise

	Frequency	Percent	Valid Percent	Cumulative Percent
Every day	4	6.6	7.5	7.5
At least once a week	4	6.6	7.5	15.1
At least once a month	7	11.5	13.2	28.3
Less than once a month	12	19.7	22.6	50.9
Not at all	10	16.4	18.9	69.8
Don't know	16	26.2	30.2	100.0
Total	53	86.9	100.0	
No Response	8	13.1		
Total	61	100.0		

Health Metrics: Pain

	Frequency	Percent	Valid Percent	Cumulative Percent
Every day	2	3.3	3.7	3.7
At least once a week	5	8.2	9.3	13.0
At least once a month	5	8.2	9.3	22.2
Less than once a month	14	23.0	25.9	48.1
Not at all	11	18.0	20.4	68.5
Don't know	17	27.9	31.5	100.0
Total	54	88.5	100.0	
No Response	7	11.5		
Total	61	100.0		

Health Metrics: Weight

	Frequency	Percent	Valid Percent	Cumulative Percent
Every day	2	3.3	3.6	3.6
At least once a week	4	6.6	7.1	10.7
At least once a month	7	11.5	12.5	23.2
Less than once a month	16	26.2	28.6	51.8
Not at all	6	9.8	10.7	62.5
Don't know	21	34.4	37.5	100.0
Total	56	91.8	100.0	
No Response	5	8.2		
Total	61	100.0		

13. When the portal is working, how helpful do you expect the following features will be for you?

Health Library

		Frequency	Percent	Valid Percent	Cumulative Percent
Not at all helpful:	1	0	0.0	0.0	0.0
	2	0	0.0	0.0	0.0
	3	2	3.3	3.5	3.5
Average:	4	13	21.3	22.8	26.3
	5	8	13.1	14.0	40.4
	6	13	21.3	22.8	63.2
Extremely helpful:	7	16	26.2	28.1	91.2
Don't know		5	8.2	8.8	100.0
Total		57	93.4	100.0	
No Response		4	6.6		
Total		61	100.0		

Personal Health Record (e.g., Medical History, Medication)

		Frequency	Percent	Valid Percent	Cumulative Percent
Not at all helpful:	1	0	0.0	0.0	0.0
	2	0	0.0	0.0	0.0
	3	0	0.0	0.0	0.0
Average:	4	6	9.8	10.3	10.3
	5	6	9.8	10.3	20.7
	6	18	29.5	31.0	51.7
Extremely helpful:	7	21	34.4	36.2	87.9
Don't know		7	11.5	12.1	100.0
Total		58	95.1	100.0	
No Response		3	4.9		
Total		61	100.0		

Electronic Medical Record (EMR) information from your doctor

		Frequency	Percent	Valid Percent	Cumulative Percent
Not at all helpful:	1	0	0.0	0.0	0.0
	2	0	0.0	0.0	0.0
	3	0	0.0	0.0	0.0
Average:	4	4	6.6	7.0	7.0
	5	4	6.6	7.0	14.0
	6	14	23.0	24.6	38.6
Extremely helpful:	7	28	45.9	49.1	87.7
Don't know		7	11.5	12.3	100.0
Total		57	93.4	100.0	
No Response		4	6.6		
Total		61	100.0		

Secure Messaging with your doctor

		Frequency	Percent	Valid Percent	Cumulative Percent
Not at all helpful:	1	0	0.0	0.0	0.0
	2	0	0.0	0.0	0.0
	3	0	0.0	0.0	0.0
Average:	4	5	8.2	8.8	8.8
	5	1	1.6	1.8	10.5
	6	15	24.6	26.3	36.8
Extremely helpful:	7	28	45.9	49.1	86.0
Don't know		8	13.1	14.0	100.0
Total		57	93.4	100.0	
No Response		4	6.6		
Total		61	100.0		

Health Metrics: Asthma

		Frequency	Percent	Valid Percent	Cumulative Percent
Not at all helpful:	1	7	11.5	13.2	13.2
	2	2	3.3	3.8	17.0
	3	0	0.0	0.0	17.0
Average:	4	4	6.6	7.5	24.5
	5	1	1.6	1.9	26.4
	6	3	4.9	5.7	32.1
Extremely helpful:	7	3	4.9	5.7	37.7
Don't know		33	54.1	62.3	100.0
Total		53	86.9	100.0	
No Response		8	13.1		
Total		61	100.0		

Health Metrics: Blood Pressure

		Frequency	Percent	Valid Percent	Cumulative Percent
Not at all helpful:	1	3	4.9	5.6	5.6
	2	2	3.3	3.7	9.3
	3	0	0.0	0.0	9.3
Average:	4	4	6.6	7.4	16.7
	5	5	8.2	9.3	25.9
	6	8	13.1	14.8	40.7
Extremely helpful:	7	15	24.6	27.8	68.5
Don't know		17	27.9	31.5	100.0
Total		54	88.5	100.0	
No Response		7	11.5		
Total		61	100.0		

Health Metrics: Blood Sugar

		Frequency	Percent	Valid Percent	Cumulative Percent
Not at all helpful:	1	6	9.8	11.3	11.3
	2	1	1.6	1.9	13.2
	3	0	0.0	0.0	13.2
Average:	4	4	6.6	7.5	20.8
	5	2	3.3	3.8	24.5
	6	6	9.8	11.3	35.8
Extremely helpful:	7	10	16.4	18.9	54.7
Don't know		24	39.3	45.3	100.0
Total		53	86.9	100.0	
No Response		8	13.1		
Total		61	100.0		

Health Metrics: Exercise

		Frequency	Percent	Valid Percent	Cumulative Percent
Not at all helpful:	1	2	3.3	3.8	3.8
	2	1	1.6	1.9	5.8
	3	0	0.0	0.0	5.8
Average:	4	7	11.5	13.5	19.2
	5	5	8.2	9.6	28.8
	6	3	4.9	5.8	34.6
Extremely helpful:	7	14	23.0	26.9	61.5
Don't know		20	32.8	38.5	100.0
Total		52	85.2	100.0	
No Response		9	14.8		
Total		61	100.0		

Health Metrics: Pain

		Frequency	Percent	Valid Percent	Cumulative Percent
Not at all helpful:	1	3	4.9	6.1	6.1
	2	1	1.6	2.0	8.2
	3	0	0.0	0.0	8.2
Average:	4	5	8.2	10.2	18.4
	5	2	3.3	4.1	22.4
	6	2	3.3	4.1	26.5
Extremely helpful:	7	10	16.4	20.4	46.9
Don't know		26	42.6	53.1	100.0
Total		49	80.3	100.0	
No Response		12	19.7		
Total		61	100.0		

Health Metrics: Weight

		Frequency	Percent	Valid Percent	Cumulative Percent
Not at all helpful:	1	1	1.6	1.9	1.9
	2	1	1.6	1.9	3.8
	3	0	0.0	0.0	3.8
Average:	4	8	13.1	15.1	18.9
	5	4	6.6	7.5	26.4
	6	4	6.6	7.5	34.0
Extremely helpful:	7	13	21.3	24.5	58.5
Don't know		22	36.1	41.5	100.0
Total		53	86.9	100.0	
No Response		8	13.1		
Total		61	100.0		

15. Before using the mydoctor.ca Health Portal, had you been keeping records of your:

	Yes		Percent
	N	Percent	of Cases
Asthma	3	3.0%	5.3%
Blood Pressure	25	24.8%	43.1%
Blood Sugar	8	7.9%	13.6%
Exercise	20	19.8%	34.5%
Pain	17	16.8%	29.3%
Weight	27	26.7%	46.6%
Other	1	1.0%	4.5%
Total	101	100.0%	

16. Were you taught to use at home monitoring equipment for:

	Yes		Percent
	N	Percent	of Cases
Asthma	6	8.3%	10.7%
Blood Pressure	28	38.9%	49.1%
Blood Sugar	14	19.4%	24.6%
Exercise	7	9.7%	13.0%
Pain	4	5.6%	7.3%
Weight	13	18.1%	23.6%
Other	0	0.0%	0.0%
Total	72	100.0%	

17. Please rate your agreement with the following statements about using the Health Portal.

I am comfortable using computers

		Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree:	1	2	3.3	3.3	3.3
	2	1	1.6	1.7	5.0
	3	1	1.6	1.7	6.7
Neither agree nor disagree:	4	2	3.3	3.3	10.0
	5	4	6.6	6.7	16.7
	6	9	14.8	15.0	31.7
Strongly agree:	7	41	67.2	68.3	100.0
Don't know		0	0.0	0.0	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

Overall, registering for the mydoctor.ca Health Portal was easy

		Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree:	1	1	1.6	1.7	1.7
	2	0	0.0	0.0	1.7
	3	0	0.0	0.0	1.7
Neither agree nor disagree:	4	3	4.9	5.0	6.7
	5	4	6.6	6.7	13.3
	6	11	18.0	18.3	31.7
Strongly agree:	7	41	67.2	68.3	100.0
Don't know		0	0.0	0.0	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

Overall, the Health Portal is easy to use

		Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree:	1	1	1.6	1.7	1.7
	2	0	0.0	0.0	1.7
	3	1	1.6	1.7	3.3
Neither agree nor disagree:	4	4	6.6	6.7	10.0
	5	8	13.1	13.3	23.3
	6	13	21.3	21.7	45.0
Strongly agree:	7	33	54.1	55.0	100.0
Don't know		0	0.0	0.0	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

I am comfortable logging on to the mydoctor.ca Health Portal

		Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree:	1	0	0.0	0.0	0.0
	2	1	1.6	1.7	1.7
	3	1	1.6	1.7	3.3
Neither agree nor disagree:	4	5	8.2	8.3	11.7
	5	8	13.1	13.3	25.0
	6	7	11.5	11.7	36.7
Strongly agree:	7	38	62.3	63.3	100.0
Don't know		0	0.0	0.0	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

I feel confident in my ability to use the portal

		Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree:	1	0	0.0	0.0	0.0
	2	1	1.6	1.7	1.7
	3	2	3.3	3.3	5.0
Neither agree nor disagree:	4	6	9.8	10.0	15.0
	5	6	9.8	10.0	25.0
	6	11	18.0	18.3	43.3
Strongly agree:	7	34	55.7	56.7	100.0
Don't know		0	0.0	0.0	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

I am comfortable entering information into my Personal Health Record

		Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree:	1	0	0.0	0.0	0.0
	2	0	0.0	0.0	0.0
	3	2	3.3	3.3	3.3
Neither agree nor disagree:	4	6	9.8	10.0	13.3
	5	6	9.8	10.0	23.3
	6	9	14.8	15.0	38.3
Strongly agree:	7	32	52.5	53.3	91.7
Don't know		5	8.2	8.3	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

I am comfortable sending and receiving messages with my doctor

		Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree:	1	0	0.0	0.0	0.0
	2	1	1.6	1.7	1.7
	3	1	1.6	1.7	3.3
Neither agree nor disagree:	4	3	4.9	5.0	8.3
	5	4	6.6	6.7	15.0
	6	10	16.4	16.7	31.7
Strongly agree:	7	40	65.6	66.7	98.3
Don't know		1	1.6	1.7	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

I am comfortable checking information in my EMR from my doctor

		Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree:	1	1	1.6	1.7	1.7
	2	0	0.0	0.0	1.7
	3	1	1.6	1.7	3.4
Neither agree nor disagree:	4	2	3.3	3.4	6.8
	5	6	9.8	10.2	16.9
	6	10	16.4	16.9	33.9
Strongly agree:	7	37	60.7	62.7	96.6
Don't know		2	3.3	3.4	100.0
Total		59	96.7	100.0	
No Response		2	3.3		
Total		61	100.0		

I am not concerned about privacy on the Internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree:	1	9	14.8	15.0	15.0
	2	1	1.6	1.7	16.7
	3	8	13.1	13.3	30.0
Neither agree nor disagree:	4	10	16.4	16.7	46.7
	5	4	6.6	6.7	53.3
	6	8	13.1	13.3	66.7
Strongly agree:	7	19	31.1	31.7	98.3
Don't know		1	1.6	1.7	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

I am not concerned about the privacy or security of putting my health information on the Internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree:	1	5	8.2	8.3	8.3
	2	3	4.9	5.0	13.3
	3	11	18.0	18.3	31.7
Neither agree nor disagree:	4	8	13.1	13.3	45.0
	5	4	6.6	6.7	51.7
	6	8	13.1	13.3	65.0
Strongly agree:	7	20	32.8	33.3	98.3
Don't know		1	1.6	1.7	100.0
Total		60	98.4	100.0	
No Response		1	1.6		
Total		61	100.0		

18. Please rate your agreement with the following statements about potential Health Portal benefits.

The Health Portal was useful to me

		Frequency	Percent	Valid Percent	Cumulative Percent
Don't know		4	6.6	6.6	6.6
Strongly disagree:	1	0	0.0	0.0	6.6
	2	0	0.0	0.0	6.6
	3	1	1.6	1.6	8.2
Neither agree nor disagree:	4	15	24.6	24.6	32.8
	5	8	13.1	13.1	45.9
	6	7	11.5	11.5	57.4
Strongly agree:	7	26	42.6	42.6	100.0
Total		61	100.0	100.0	

Using the Health Portal increased my understanding of my health condition

		Frequency	Percent	Valid Percent	Cumulative Percent
Don't know		2	3.3	3.3	3.3
Strongly disagree:	1	0	0.0	0.0	3.3
	2	0	0.0	0.0	3.3
	3	4	6.6	6.6	9.8
Neither agree nor disagree:	4	23	37.7	37.7	47.5
	5	9	14.8	14.8	62.3
	6	8	13.1	13.1	75.4
Strongly agree:	7	15	24.6	24.6	100.0
Total		61	100.0	100.0	

Using the Health Portal increased my understanding of my treatment

		Frequency	Percent	Valid Percent	Cumulative Percent
Don't know		5	8.2	8.2	8.2
Strongly disagree:	1	0	0.0	0.0	8.2
	2	0	0.0	0.0	8.2
	3	2	3.3	3.3	11.5
Neither agree nor disagree:	4	28	45.9	45.9	57.4
	5	7	11.5	11.5	68.9
	6	7	11.5	11.5	80.3
Strongly agree:	7	12	19.7	19.7	100.0
Total		61	100.0	100.0	

Using the Health Portal improved my ability to manage my own health

		Frequency	Percent	Valid Percent	Cumulative Percent
Don't know		4	6.6	6.6	6.6
Strongly disagree:	1	0	0.0	0.0	6.6
	2	0	0.0	0.0	6.6
	3	1	1.6	1.6	8.2
Neither agree nor disagree:	4	22	36.1	36.1	44.3
	5	11	18.0	18.0	62.3
	6	8	13.1	13.1	75.4
Strongly agree:	7	15	24.6	24.6	100.0
Total		61	100.0	100.0	

Using the Health Portal allowed me to be more involved in decision making with my doctor

		Frequency	Percent	Valid Percent	Cumulative Percent
Don't know		6	9.8	9.8	9.8
Strongly disagree:	1	1	1.6	1.6	11.5
	2	1	1.6	1.6	13.1
	3	2	3.3	3.3	16.4
Neither agree nor disagree:	4	22	36.1	36.1	52.5
	5	7	11.5	11.5	63.9
	6	5	8.2	8.2	72.1
Strongly agree:	7	17	27.9	27.9	100.0
Total		61	100.0	100.0	

The Health Portal makes it easy to monitor and track my health at home

		Frequency	Percent	Valid Percent	Cumulative Percent
Dont know		5	8.2	8.2	8.2
Strongly disagree:	1	0	0.0	0.0	8.2
	2	0	0.0	0.0	8.2
	3	1	1.6	1.6	9.8
Neither agree nor disagree:	4	15	24.6	24.6	34.4
	5	7	11.5	11.5	45.9
	6	9	14.8	14.8	60.7
Strongly agree:	7	24	39.3	39.3	100.0
Total		61	100.0	100.0	

I would recommend the portal to friends and family

		Frequency	Percent	Valid Percent	Cumulative Percent
Dont know		1	1.6	1.6	1.6
Strongly disagree:	1	0	0.0	0.0	1.6
	2	0	0.0	0.0	1.6
	3	0	0.0	0.0	1.6
Neither agree nor disagree:	4	15	24.6	24.6	26.2
	5	5	8.2	8.2	34.4
	6	6	9.8	9.8	44.3
Strongly agree:	7	34	55.7	55.7	100.0
Total		61	100.0	100.0	

19. Has the portal...

helped you communicate with your health care providers?

	Frequency	Percent	Valid Percent	Cumulative Percent
Don't know	9	14.8	15.0	15.0
No	12	19.7	20.0	35.0
Yes	39	63.9	65.0	100.0
Total	60	98.4	100.0	
No Response	1	1.6		
Total	61	100.0		

increased your ability to monitor your health?

	Frequency	Percent	Valid Percent	Cumulative Percent
Don't know	9	14.8	15.0	15.0
No	9	14.8	15.0	30.0
Yes	42	68.9	70.0	100.0
Total	60	98.4	100.0	
No Response	1	1.6		
Total	61	100.0		

increased satisfaction with health care received from the City of Lakes Family Health Team?

	Frequency	Percent	Valid Percent	Cumulative Percent
Don't know	8	13.1	13.1	13.1
No	11	18.0	18.0	31.1
Yes	42	68.9	68.9	100.0
Total	61	100.0	100.0	

improved the quality of your care?

	Frequency	Percent	Valid Percent	Cumulative Percent
Don't know	14	23.0	23.0	23.0
No	14	23.0	23.0	45.9
Yes	33	54.1	54.1	100.0
Total	61	100.0	100.0	

made it easier to manage your health?

	Frequency	Percent	Valid Percent	Cumulative Percent
Don't know	11	18.0	18.0	18.0
No	11	18.0	18.0	36.1
Yes	39	63.9	63.9	100.0
Total	61	100.0	100.0	

decreased your use of other health care services?

(e.g., emergency department, specialists, walk-in clinics)

	Frequency	Percent	Valid Percent	Cumulative Percent
Don't know	19	31.1	31.1	31.1
No	22	36.1	36.1	67.2
Yes	20	32.8	32.8	100.0
Total	61	100.0	100.0	

20. What part of the portal do you think your doctor used the most?

	Responses		Percent of Cases
	N	Percent	
Health Library	9	8.5%	17.0%
Personal Health Record (e.g., Medical History, Medication)	28	26.4%	52.8%
Electronic Medical Record (EMR)	30	28.3%	56.6%
Secure Messaging	28	26.4%	52.8%
Health Metrics	9	8.5%	17.0%
Other	2	1.9%	3.8%
Total	106	100.0%	

a. Dichotomy group tabulated at value 1.

21. Given the opportunity, how likely are you to continue to use the portal?

		Frequency	Percent	Valid Percent	Cumulative Percent
Don't know		2	3.3	3.3	3.3
Not at all likely:	1	1	1.6	1.6	4.9
	2	0	0.0	0.0	4.9
	3	4	6.6	6.6	11.5
Somewhat likely:	4	3	4.9	4.9	16.4
	5	4	6.6	6.6	23.0
	6	10	16.4	16.4	39.3
Very likely:	7	37	60.7	60.7	100.0
Total		61	100.0	100.0	

22. After the pilot project ends, how likely are you to pay MD Physician Services, the makers of the mydoctor.ca Health Portal, $19.95 per year to use the Health Portal?

		Frequency	Percent	Valid Percent	Cumulative Percent
Don't know		3	4.9	4.9	4.9
Not at all likely:	1	12	19.7	19.7	24.6
	2	6	9.8	9.8	34.4
	3	3	4.9	4.9	39.3
Somewhat likely:	4	9	14.8	14.8	54.1
	5	7	11.5	11.5	65.6
	6	2	3.3	3.3	68.9
Very likely:	7	19	31.1	31.1	100.0
Total		61	100.0	100.0	

23. What is your age?

	N	Mean	Std. Deviation
AGE	60	54.0667	10.10767
Valid N (listwise)	60		

24: What is your sex?

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	17	27.9	27.9	27.9
Female	44	72.1	72.1	100.0
Total	61	100.0	100.0	

25. What is the highest level of education that you have completed?

	Frequency	Percent	Valid Percent	Cumulative Percent
Elementary school	0	0.0	0.0	0.0
High school	22	36.1	36.1	36.1
College/Trade	26	42.6	42.6	78.7
Undergraduate University degree	11	18.0	18.0	96.7
Master's degree	0	0.0	0.0	96.7
Doctoral or professional designation	2	3.3	3.3	100.0
Total	61	100.0	100.0	

26. What language do you speak most often:

at home

	Frequency	Percent	Valid Percent	Cumulative Percent
English	54	88.5	88.5	88.5
French	7	11.5	11.5	100.0
Other	0	0.0	0.0	100.0
Total	61	100.0	100.0	

with your doctor

	Frequency	Percent	Valid Percent	Cumulative Percent
English	53	86.9	89.8	89.8
French	4	6.6	6.8	96.6
Other (F & E)	2	3.3	3.4	100.0
Total	59	96.7	100.0	
No Response	2	3.3		
Total	61	100.0		

27. Did you use the mydoctor.ca Health Portal in French?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	0	0.0	0.0	0.0
No	61	100.0	100.0	100.0
Total	61	100.0	100.0	

28. In general, would you say your health is:

	Frequency	Percent	Valid Percent	Cumulative Percent
poor	3	4.9	4.9	4.9
fair	15	24.6	24.6	29.5
good	25	41.0	41.0	70.5
very good	15	24.6	24.6	95.1
excellent	3	4.9	4.9	100.0
Total	61	100.0	100.0	