

Patterns of Computer and Internet Use among Urology Patients in Northern Ontario



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ABSTRACT

Introduction and Objective: We attempted to determine if the Internet can be used as a potential health promotion tool in Northern Ontario by identifying patient's computer and Internet access and use patterns in two Northern Ontario communities: Kirkland Lake and Kapuskasing.

Materials and Methods: This study was reviewed and approved by the review boards of the Kapuskasing and Kirkland Lake hospitals and Brock University, St. Catharines. Data were collected by paper and pen questionnaire in English and French. Qualitative information regarding computer and Internet use were also obtained. Quantitative and qualitative data were analyzed using the Statistical Analysis Software (SAS) and the conceptual matrix, respectively.

Results: The response rate of the study sample was 90%; 137 questionnaires were distributed and collected, 7 were incomplete. There were 67 men (62%) and 63 women (48%) aged between 24 and 84 (mean=56) years. Languages spoken by respondents were English (56.9%) French (37.5%) and others (5.1%). The sample was stratified into 3 groups: those with computer and Internet access; those with computer and no Internet; and those with neither computer nor Internet access. Those who were younger, had higher education and higher paying jobs used the computer more often than older persons, less educated or with less paying jobs. Seeking health information for themselves, their families and friends was their main reason for use of the Internet in health related matters. There were mixed feelings about communicating with their physicians through the Internet.

Conclusion: A majority of the respondents (53.5%) used computer and Internet to access health information. Patient reactions toward online communication with their physician were mixed. The sample population is small and limits far-reaching conclusions. Further studies are recommended.



INTRODUCTION

- In the 21st century, the Internet has become a useful tool for information sharing (Pew Family and Internet Project, 2002).
- The Ontario government is exploring new ways of providing health services to rural and Northern Ontario.
- Northern Ontario's small population and large land mass make it difficult for the citizens to access essential health services (Eng et al., 1998).
- The Internet's widespread accessibility - 60% of Canadian houses are 'wired' to the Internet (Rethinking the Internet, 2001), demonstrates its potential to become a health promotional tool.



OBJECTIVE

- We attempted to determine if the Internet can be used as a potential health promotion tool in Northern Ontario by identifying patient's computer and Internet access and use patterns in two Northern Ontario communities: Kirkland Lake and Kapuskasing.

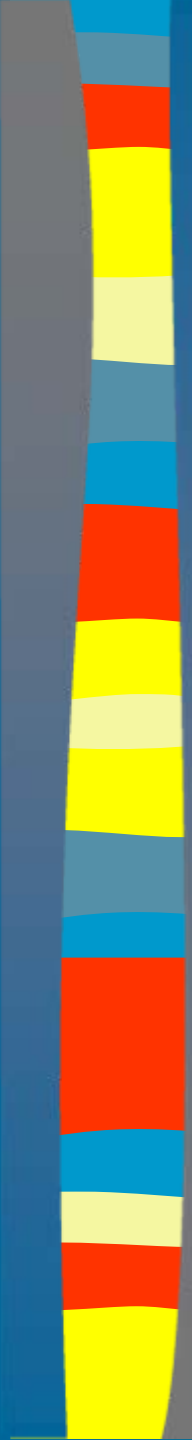


METHODS

- Ethics approval
- Bilingual paper-pen questionnaire
- Quantitative statistical analysis using SAS
- Qualitative conceptual matrix

Results: Sample Population Demography

Variable	1	2	3	α
Age (yr)	49.68	58.5	65.5	<.0001
Income	2.55	2.62	2.15	0.00002
Education	2.83	2	1.96	<.00001
Language (%)				
English	57.5	25	33.3	0.0019
(French)	41.8	75	66.6	0.0072
Sex (%)				
Male	42.25	25	38.89	0.0781
(Female)	-57.5	-75	-62.1	0.0447



Results: Demographic Summary

Legend

LEGEND

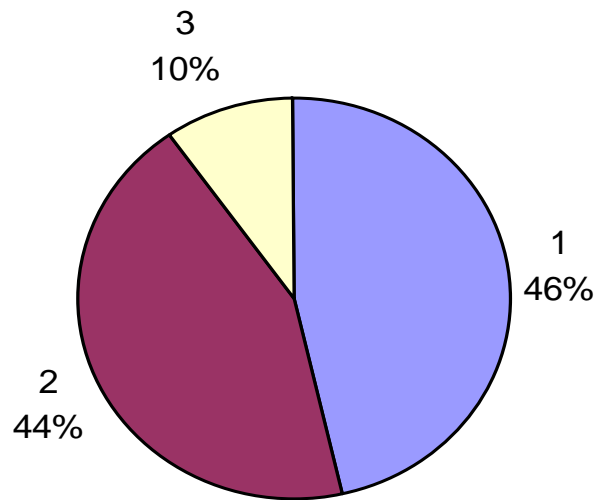
Level of educational attainment*

1=Elementary school 2= High school 3=College 4= University 5= Trade 6=postgraduate 7=Professional, the results were calculated by averaging the mean level of education in each group

LEGEND: INCOME(CAD\$)

1=0-10, 000 2=10,000-20,000 3=20,000-30,000
4=30,000-40,000 5=40,-000-60,000 6=60,000 and up, the results were calculated by averaging the mean of the level of income in each group

Results: Who do you search health information for?

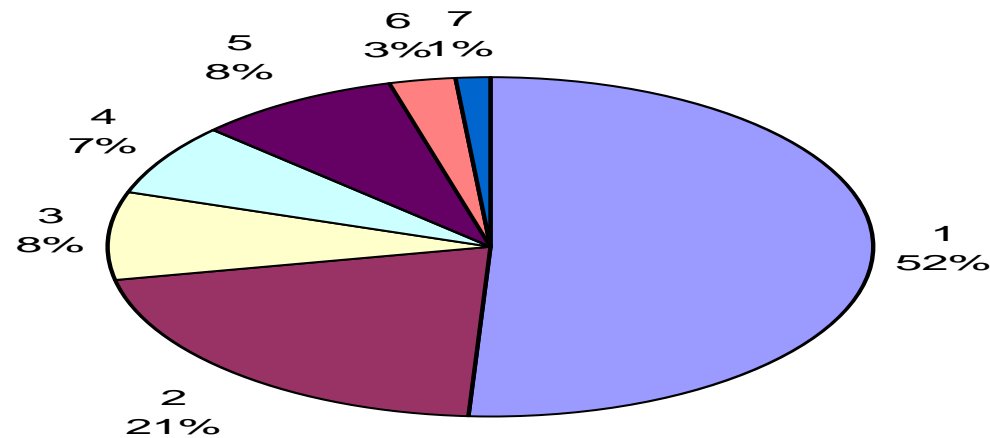


1= For myself

2= For friends and family

3= For a specific problem

Results: Health Information Internet Users Seek



1= Disease information 2= Surgical information
3= Alternative/complementary medicine 4= Diagnostic imaging procedure information
5 = Area health facilities 6= Area physicians 7 =Travel health information



Results: Patients' Opinions on online communication with their doctor

“ Don't know if he has one.”

“He doesn't communicate well when I'm there in person. I don't believe he would do well through the Internet.”

“ I don't have a family doctor”

“ No need to. I book an appointment instead”

Conceptual Matrix of Patient attitudes toward e-mail communication with physician



Discussion

- The demographic distribution of this study's results confirm existing literature that sex, age and income impact Internet use (Pew Internet and American Project, 2002).
- High use of the Internet for health related purposes is associated to Patients' positive perception the Internet.
- Patients in this study use the Internet for disease information. Searching regularly for themselves or family and friends.
- The patients' positive perceptions of the Internet are related to their perceptions in finding high quality websites for disease and surgery information. This may identify potential development for a health promotional tool.



CONCLUSION

- Excellent beginning to technological innovation in the delivery of health care in Northern Ontario has begun
- In-depth study of how language affects computer and Internet use in Northern Ontario may be considered.
- Research and development of health initiatives for the older Northern Ontario population can be explored.



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ACKNOWLEDGMENTS

To the hospital executive administrative staff who administered and collected the questionnaires for this study at Kirkland Lake and District Hospital and Sensenbrenner Hospital, Kapuskasing.