

Patient Compliance with Teletriage: Are There Rural-Urban Differences?

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Teletriage: Goals

- Facilitate the appropriate use of health care resources.
- Provide accessible health information and advice.
- Increase caller confidence and ability to provide informal care.

Potentially important for residents of rural areas

- Access, availability, travel, etc.

Direct Health/TéléSanté

- Triage pilot project: June '99-March '01
- 24 hours a day / 7 days a week
- RNs use clinical guidelines and nursing judgment to advise patients on most appropriate level of care
- Continued as Telehealth Ontario - a province-wide telecare service

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Research Question

**Does caller compliance differ
with geography?**

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Methods

- Survey of consenting callers conducted by CRaNHR
- Mail-outs: February to June 2001
- 2389 valid and complete questionnaires
- 44% response rate

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Survey Methodology - Compliance

- Respondents choose from a list of 15 health service actions

Grouped into four categories:

- Visit Emergency Department
- Visit Physician Office/Clinic
- Call or Visit Other Health Care Provider
- Informal Care Only

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Statistical Area Classification Statistics Canada

Census Metropolitan Areas (CMAs) (>100,000)

Census Agglomerations (CAs) (10,000-99,999)

Metropolitan Influenced Zones (MIZ) (<10,000)

Strong MIZ 30-50% of commuters

Moderate MIZ 5% - <30%

Weak MIZ 0% - <5%

No MIZ <= 40 commuters

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Respondent Demographics

■ Survey Respondents vs. Northern Ontario

- 89% of callers were female (50% N. Ontario)
- 63% of patients were female

- 50% of callers 17-34 years (25% N. Ont.)

- 46-49% of patients 0-16 years (24% N. Ont.)

■ Survey Respondents vs. All Teletriage Callers

- Slightly younger
- Some differences in
 - Why respondents called
 - Respondent's original inclination and nurse's advice category

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Nurse's Advice by Geographic Category

<i>Nurse's Advice</i>	All Areas	CMA/ CA	Strong/ Moderate MIZ	Weak/ No MIZ
Visit ED	36%	34% ↓	40%	41% ↑
Visit MD Office/ Clinic	25%	26%	24%	22%
Other HCP	12%	13%	14%	9% ↓
Informal Care Only	27%	27%	22%	28%

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Chi-squared statistic =17.8, df =6, p<0.01

Arrows indicate statistically significant deviation from expected

Patient's Action by Geographic Category

<i>Patient's Action</i>	All Areas	CMA/ CA	Strong/ Moderate MIZ	Weak/ No MIZ
Visit ED	36%	33% ↓	41%	41% ↑
Visit MD/Clinic	25%	26% ↑	23%	21% ↓
Other HCP	11%	12%	12%	9%
Informal Care Only	29%	29%	25%	29%

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Chi-squared statistic =16.3, df =6, p=0.012

Arrows indicate statistically significant deviation from expected

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Were there any differences in compliance between rural and urban survey respondents?

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Compliance to Visit ED

Of the 832 who were advised...	All Areas	CMA/ CA	Strong/ Moderate MIZ	Weak/No MIZ
<i>Complied</i>	92%	91%	94%	95%
<i>Did not Comply</i>	8%	9%	6%	5%

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Statistically Significant Differences?

No statistically significant differences for:

- ED visits (832 calls) (p=0.21)
- MD visits (569 calls) (p=0.83)
- Other HCP calls/visits (274 calls) (p=0.54)
- Self-care/ Informal care (618 calls) (p=0.83)

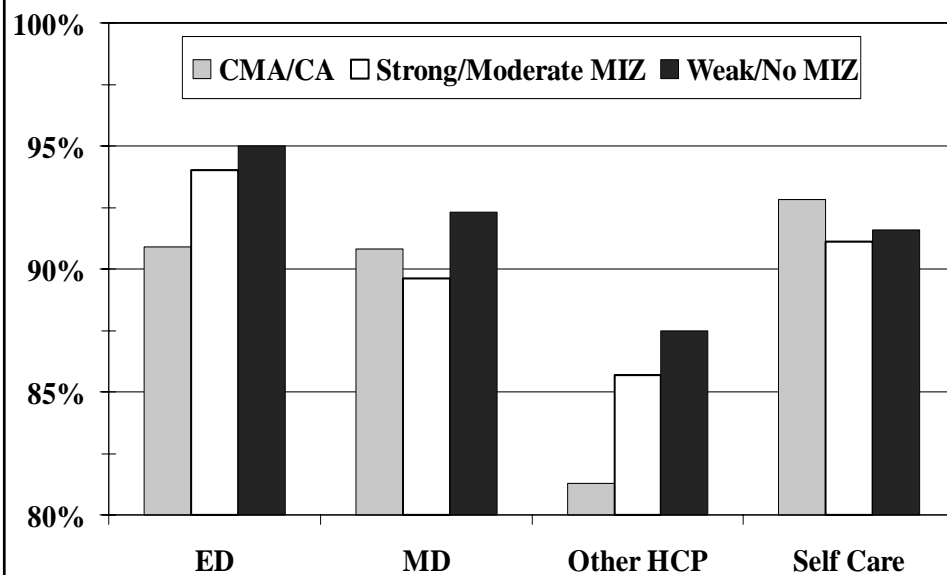
Chi-squared statistics <3.2. df=2, probabilities as above

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Compliance Levels by SAC Type



Compliance Comparisons-methods

Survey estimates were compared to:

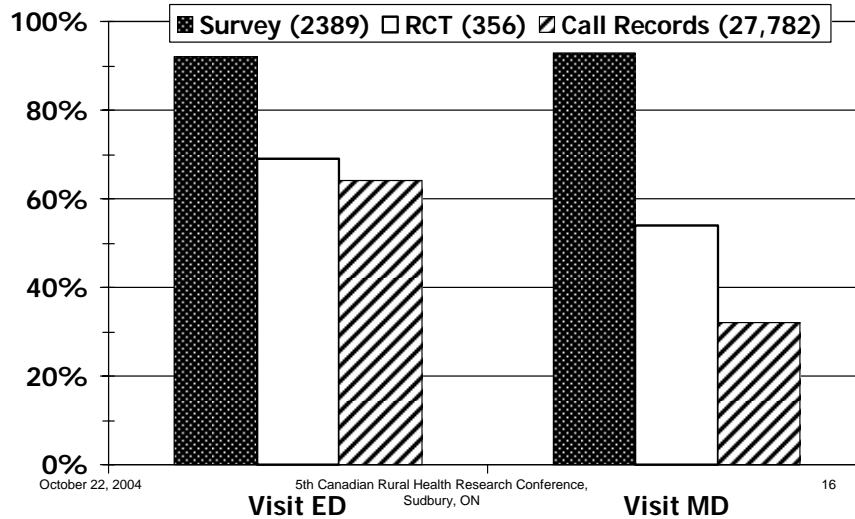
1. Randomized Controlled Trial of teletriage promotion
 - Conducted with the Group Health Centre in Sault Ste. Marie, Ontario
 - Based on comparison of call records to Group Health Centre and Sault Area Hospital records (n = 356 calls)
2. Direct Health/Télésanté Call Records & OHIP Claims
 - Analysis of Direct Health/Télésanté Call Records matched to OHIP claims (n = 27,782)
 - Matched for consenting callers by colleagues at the Institute for Clinical Evaluative Sciences

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Comparison of Compliance-results



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Survey Limitations

- Non-random sample
- Survey respondents not fully representative of all callers
- Recall and social desirability bias

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Summary

- Statistically significant differences among geographic categories for:
 - Nurse's advice
 - Patient's action
- No significant differences among geographic categories for:
 - Patient's compliance with the nurse's advice
- Compliance reported by survey respondents was very high in comparison to other studies

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Conclusions

Compliance was higher in the remote areas for ED, MD and other HCP visits, but these differences were not statistically significant.

Callers in remote areas are calling with more urgent concerns as evidenced by higher percentage of patients in remote areas who were advised to go to the ED.

Health status may be lower or callers may already be conducting their own triage.

In either case, the health information component of the teletriage service may need to be more heavily promoted to remote residents.

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for more information...

www.cranhr.ca

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