

Teletriage: the Service in Northern Ontario

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Direct Health/TéléSanté

- A teletriage pilot project
- Based in North Bay, covered northern Ontario (705, 807 area-codes)
- Run by Clinidata Corporation
- June 1999 to March 2001
- Continued as Telehealth Ontario - a province-wide telecare service

Telephone health information and triage services

- 24 hours a day / 7 days a week
- Provided by registered nurses
- Services provided in English and French, now multilingual
- RNs use clinical guidelines and nursing judgment to advise patient on most appropriate level of care

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3

Objectives of pilot project:

- Reduce demand on existing health care resources (e.g., EDs, walk-in clinics)
- Promote patient independence and confidence in health decision-making

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4

Evaluation components

1. Describe calls and callers
2. Identify awareness and satisfaction
3. Assess effect on informal and self-care
4. Assess effect on medical service use
5. Assess clinical appropriateness of information/advice given
6. Assess economic implications
7. Document CQI processes
8. Discuss policy implications

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5

Data and Methodologies (1 of 2)

- Data from Clinidata Corporation (e.g., statistics on calls)
- Surveys of callers, non-callers in northern Ontario, and people in southern Ontario
- OHIP data from ICES to examine utilization and impact

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Data and Methodologies (2 of 2)

- "Chart audit" - review of taped calls
- CQI self-assessment

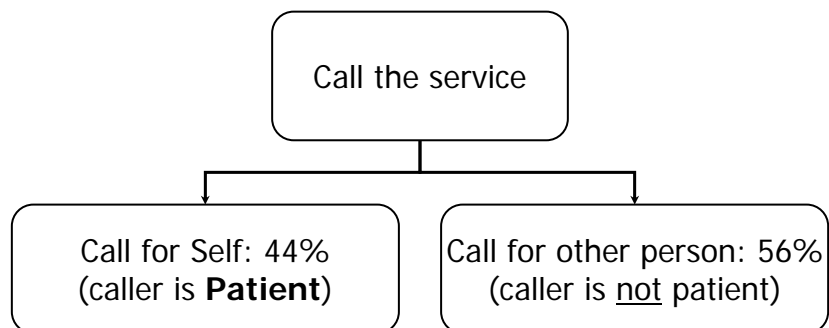
- RCT of teletriage service
 - Conducted in 2002 after service had been rolled-out across the province

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7

Callers and Patients



Source: CRaNHR survey, Clinidata

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Gender and Age

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

- 50% of callers 17-34 years (25% N. Ont.)
- 46-49% of patients 0-16 years (24% N. Ont.)

Source: CRaNHR survey, Clinidata, Statistics Canada

Awareness and Satisfaction

- 44% of non-callers had heard of service

- Over 93% of callers had ranked the service as “Very Good” or “Excellent” for:
 - Quality of the service
 - Attention of the nurse to the caller’s concern
 - Information
 - Instructions or advice

Source: CRaNHR survey

Effect on Informal/Self Care

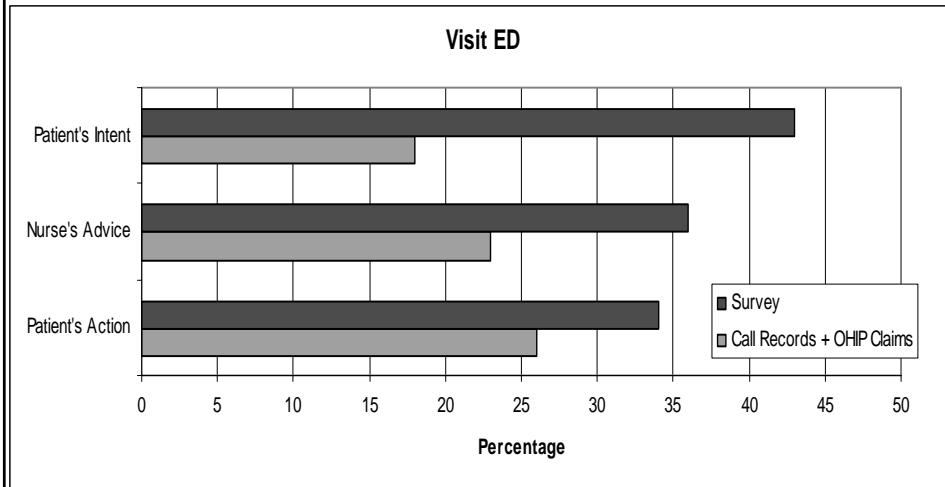
- 25% said that the kind and amount of informal care had increased, the rest reported no change.
- 50% reported that their confidence in providing informal care had increased, while the rest reported no change.

Source: CRaNHR survey

Medical Service Use

- Focus on visits to:
 - Emergency departments
 - Physician's offices & after-hour/walk-in clinics

ED visits

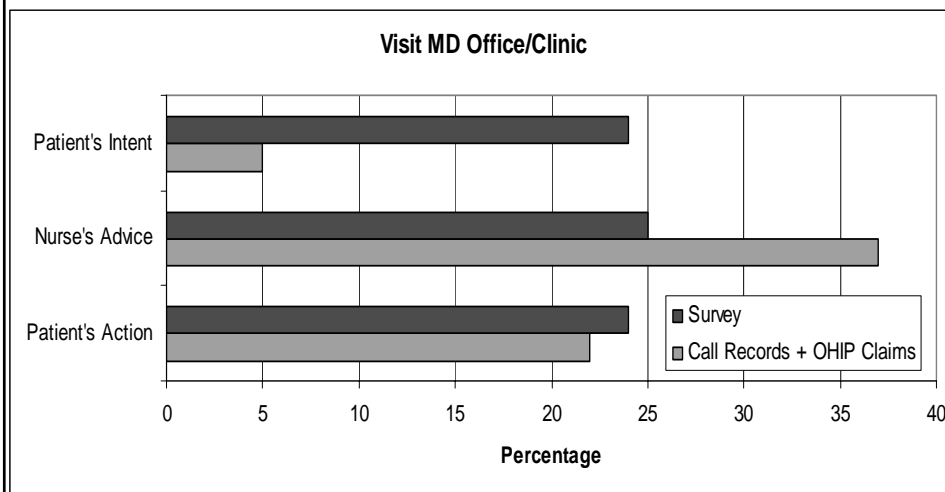


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13

MD visits

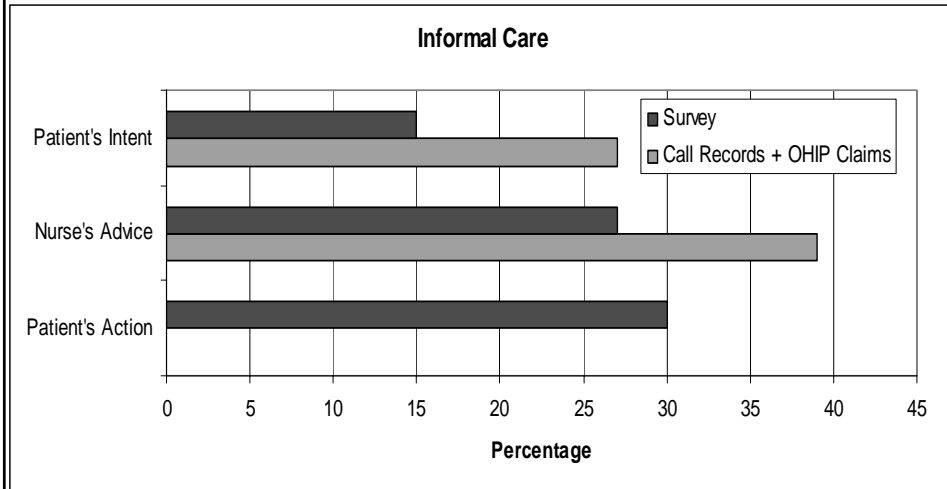


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14

Informal Care

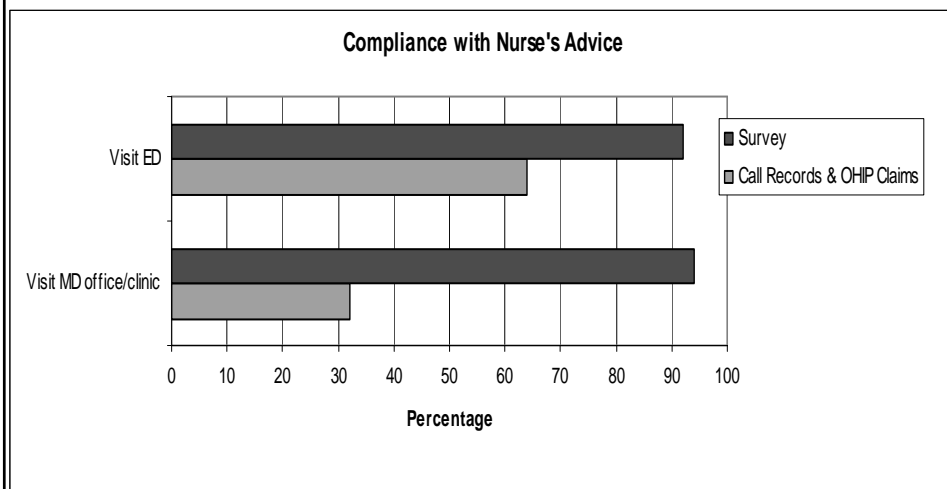


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15

Compliance



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16

Broad Trends in Medical Service Use: Methods

<i>ED & MD visits in...</i>	Before Pilot	During Start-up	Plateau Phase
North Bay			
Brantford, Cambridge, Guelph			

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17

Broad Trends in Medical Service Use: Results (1 of 2)

- Net decrease in North Bay and Comparison Communities
- Evidence for additional decrease in ED and MD visits for:
 - Pneumonia/Flu
 - Upper/Lower Respiratory Tract Infections, Otitis, Rhinitis
 - Other Respiratory Conditions
 - Central/Peripheral Nervous System

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18

Broad Trends in Medical Service Use: Results (2 of 2)

- Increase in visits for:
 - Strains (excluding back) & Cuts [ED only]
 - Tension Headache [ED only]
 - Hemolytic Disorders [MD only]
 - Gastrointestinal Disorders [MD only]

Source: Clinidata Call records matched to OHIP claims

Caveats

- Consenting callers (Survey, Call records/OHIP claims)
 - not random and not representative of all callers → selection bias
- Survey
 - Social desirability & recall biases
- Call records/OHIP claims
 - Systematic bias

Randomized Controlled Trial

- Collaboration with Group Health Centre, Sault Ste. Marie & Clinidata
- 1057 patients
- Stratified into 3 patient groups
- Randomized into Care-as-Usual or Teletriage groups
- 14 months—when service was province-wide (additional details in two presentations posted on www.cranhr.ca)

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21

RCT-main findings

- Mean number of calls in Teletriage Group was significantly higher than in the Care-as-Usual Group (50% higher)
- No statistically significant difference in mean visit rate to MD office/clinic:
 - Common cold
 - Muscle/Stomach aches & pains
 - Other respiratory symptoms
- Subgroup analyses
 - Common cold → 39% lower for frequent visitors

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22

Appropriateness of Advice

- 73 calls (convenience sample)
- Telenurse's advice was judged "appropriate" in 83% of the calls
- Another 8% had mitigating circumstances that justified more/less cautious advice
- Nurses were 3 times as likely to err on the side of caution

Source: Independent audit organized by CRaNHR
Telemedicine Journal and e-Health, Spring 2004 10(1):53-60.

Conclusions (1 of 2)

- Some evidence that caller's/patient's ability & confidence in conducting informal/self-care has improved
- No evidence for change in total number of visits to ED or to MD office/clinic
- Evidence from survey, OHIP claims and RCT that visits associated with cold/flu symptoms has decreased

Conclusions (2 of 2)

- Not everyone is using the service
 - Young, urban females with children are primary users
- Survey respondents were highly satisfied with service

Some Comparisons (1 of 2)

Scotland	N. Ontario
Nurse teletriage Centralized service	
Directs patients to services	
Directs services to patients	
Integrated with other services	Stand alone service

Some Comparisons (2 of 2)

Scotland	N. Ontario
Patients/Callers highly satisfied	
30-40% are directed to self-care	
No impact on total visits to A&E or ED	
Impact on OOH co-op	Impact on visits for colds/flu

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27

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For more information... www.cranhr.ca
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28