McMaster Premium Literature Service (PLUS): An Evidence-based Medicine Information Service Delivered in Collaboration with the Northern Ontario Virtual Library

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Accessing the Evidence

- Rapid growth of clinical literature
- Physicians lack skills and time for searching and appraisal
- Few tools proven to help in Evidence-based Medicine (EBM) information access

HIRU’s Solution to Information Overload

PLUS Database

Medscape Best Evidence

Critical appraisal

MORE Rating System

McMaster Premium Literature Service (PLUS)

- Funded by Ontario Ministry of Health
- In collaboration with NOVL
- For physicians in the North (primary care, internal medicine)
- Keep up-to-date with new research
- Email alerts & searchable PLUS database

Northern Ontario Virtual Library (NOVL)

- Users: Northern clinical practitioners
- Virtual, 24/7 access
- Biomedical databases, full text journals, textbooks (Ovid, Stat!Ref, eCPS)
- Training and on-going user support
- Operated: NOMEC and NOMP

PLUS Research Question

- Canadian Institutes for Health Research
- Cluster randomized trial model:

  PLUS + NOVL VS NOVL

  Full-serve Self-serve
**Trial Recruitment**

- Email, surface mail, fax, presentations, NOVL registration form
- Inclusion criteria:
  - Active email account
  - Stable, active clinical practice in Gen/IM
  - Northern Ontario (NOVL eligibility)

**Trial Interface Offerings**

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<th>Baseline period: 5 months - NOVL access</th>
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<tr>
<td><strong>Self Serve Version</strong></td>
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<tr>
<td>• Ovid</td>
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**Full Serve Intervention**

- User’s Profile: e.g. Emergency Medicine
- PLUS Database
- Email Alerts: Articles in ER Med (~4/alert)
- Search Engine: • All Articles (7800) • Only ER Med Articles

**PLUS Article Record**

**Participant Flow**

- 325 physicians expressed interest
- 203 randomized: 10 communities
  - 6 small clusters
  - 4 large clusters
    - 3 Full-Serve clusters
    - 3 Self-Serve clusters
    - 2 Full-Serve clusters
    - 2 Self-Serve clusters
- 98 Full-Serve participants
- 105 Self-Serve Participants

**Participant Demographics**

- 150 male, 53 female
- Mean age: 43.9 y
- Mean year of graduation: 1989
- General Practice/ Family Practice (48%); Emergency Medicine (41%)
- High speed internet: home (55%); office (44%); clinic (33%); hospital (62%)
**Trial Outcomes**

- Frequency of logins
- Satisfaction with PLUS features
- Specific resource and feature use
- Determinants of use
- Number of new participants

**Data Collection**

- Automatic tracking of login and link selection
- Online in-system questionnaires
- Post session emailed surveys
- Ovid Stats tool

**Comparison of “Users” per Group**

**Comparison of Login Rate per Group**

**Study Limitations**

- Generalizability of findings to other settings?
- Data collection precluded other information seeking
- Low response rate to satisfaction-related questionnaires
- No direct measure the information applied to clinical care

**Conclusion**

- PLUS: robust, customizable information delivery service
- Ongoing data analysis: satisfaction, specific resource use, effect on clinical practice
- Trial results → best design features for information delivery to physicians in remote and rural environments
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