

A Decade of Research on Nurse Practitioners: What Have We Learned?

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A stage with red curtains and a spotlight illuminating the text.

A Tribute to
Prof. Suzanne Caty

A Research Chronology: 1995 – 2004 and beyond

- **1995 – 2002: Tracking Study of Students and Graduates of the Nurse Practitioner Education Program:**
 - Study of applicants to the NP education program
 - Surveys of students and graduates:
 - *Entry survey*
 - *Exit survey*
 - *1-year follow-up survey*
 - *3-year follow-up survey*
- **2001 – 2002: Assessing Continuing Education Needs of NPs in Northern and Rural Ontario**
- **2003 – 2004: Evaluation of NP Continuing Education Project**
- **2004 – 2005: NP Employment Profile Survey**

The Researchers

- Suzanne Caty
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Funding Sources

- Council of Ontario University Programs in Nursing
- Rural and Remote Health Innovations Initiative, Health Canada
- Nurse Practitioners Association of Ontario

The Tracking Study of Students
and Graduates of the Nurse
Practitioner Education Program:
7 years of research in a nutshell

What are Primary Health Care Nurse Practitioners (PHC NPs)?

- Registered nurses with additional nursing education
- Specialists in primary health care
- Provide accessible & comprehensive care
- Provide health promotion, prevention, cure, rehabilitation & support services

The NP Initiative

- 1994 – NP Initiative launched as part of primary health care reform
- 1995 – first students began PHC NP education program
- 1995 – CNO approved ‘Extended Class’ for NPs
- 1999 – Nursing Task Force, McKendry and Health Services Restructuring Commission all recommended broader use of NPs
- 2002 – MoHLTC funded 117 NP positions
- 2003 – funding from MoHLTC for another 348 NP positions

The PHC NP Education Program

- Led by Council of University Programs in Nursing (COUPN)
- Distance education program offered by consortium of 10 universities
- 8 universities provide training in English; 2 in English and French
- 2 Northern universities involved: Lakehead and Laurentian
- BScN and diploma prepared nurses accepted

The Tracking Study

- CRaNHR commissioned by COUPN to undertake tracking study of NP applicants, students and graduates
- Study examines: characteristics, views, career goals of students & employment of graduates
- Involves 4 surveys: entry into and exit from program, one-year & three-year post graduation
- Data collected from 1995 to 2001

Student Profile

Entry Surveys 1995-2001

655 admissions and 537 respondents (82% response rate)

- 71% resided in Southern Ontario
- 21% resided in Northern Ontario
- 8% resided outside of Ontario
- 22% studied in Northern Ontario (Lakehead or Laurentian)
- Mostly female, married, with children
- Mean age: 38 years
- Mean prior nursing experience: 14 years
- 66% BScN-prepared; 34% diploma-prepared
- 90% admitted in English program; 10% admitted in French program

Graduate Profile

Exit Surveys 1996-2001

- 339 regular stream graduates
- 41 transition phase graduates
- 380 graduates total
- 519 registered in CNO “Extended class” (2002)

Percentage of Graduates Who Have Worked as NPs Since Graduation

Survey	1996	1997	1998	1999	2000	2001
Exit survey	26	32	31	32	44	67
1-yr follow-up survey		79	79	71	76	81
3-yr follow-up survey				75	93	93

Regions Where NPs Worked at 3 Years After Graduation

Region	%	
Northwestern	6	24
Northeastern	18	
Eastern	17	73
Central East	19	
Central West	16	
Southwestern	21	
Outside Ontario	3	3

Percentage of NPs Working in Urban, Rural and Underserviced Areas at 3 Years After Graduation

Survey	Rural	Urban	Mixed	Underserviced
3-year follow-up survey	28%	58%	14%	51%

Employment Status of NPs at 3 Years After Graduation

Employment Status	%
Full-time permanent	54
Full-time contract	18
Part-time permanent	15
Part-time contract	13
Casual	0

Major NP Practice Settings at 3 Years After Graduation

Setting	%
Community health centre	39
Physician's office/family practice unit	13
Outpost setting/nursing station	5
Aboriginal health access centre	10
Hospital ambulatory care unit	6
Specialty clinic	5
Long-term care facility	8

NP Focus of Practice

- Combination of health promotion, disease prevention, health maintenance & treatment of common health problems
- Holistic in nature

NP Clientele

- Many have clients who may otherwise have trouble accessing PHC
- Some work with typical family practice clientele
- Special client groups are emerging

Percentage of Graduates Not Working as NPs in 2001

- **Exit survey** 33%
- **1-year follow-up survey** 19%
- **3-year follow-up survey** 7%

Barriers to Employment as Reported by NPs

- Policy uncertainty regarding NPs
- Lack of NP positions
- Fee-for-service (OHIP) a deterrent
- Inability to relocate for personal/family reasons
- Lack of incentives to relocate
- Compensation issues and employment conditions

Northern Reflections

- 2 Northern universities offer NP education program
- 21% of students resided in Northern Ontario
- 22% of students studied in Northern Ontario
- 24% of graduates reported working as NPs in Northern Ontario at 3 years after graduation

A Summary

- Employment situation has improved over time but many graduates still cannot find NP jobs
- Many worked on contractual basis; funding needed for more permanent jobs
- Must continue to integrate NPs with PHC reform
- Education program appears successful at educating and keeping NPs in the North
- Difficulties reported in filling some positions – mostly in Northern Ontario
- Continued tracking of NP graduates needed to document trends

Factors Influencing NP Practice Location (based on follow-up surveys of 1998 and 2001 graduate cohorts)

	1998 Cohort \bar{X}	2001 Cohort \bar{X}
Availability of NP employment	6.34	6.45
Ability to exercise full scope of practice	6.25	6.33
Availability of physician back-up	6.00	5.64
<i>Availability of continuing education</i>	5.31	5.25
Size of community	3.57	2.55

Perceived Barriers to Accessing Continuing Education by NPs in Northern Ontario and Rural Southern Ontario

Barrier to Access	Northern Ontario % Yes	Rural Southern Ontario % Yes
Distance to travel	89%	78%
Expense of registration/tuition	73%	83%
Lack of employer designated funds	66%	78%
Unaware of continuing education opportunities	66%	53%
Lack of access to a computer	12%	0%
Lack of access to Internet and WWW	22%	8%

Major Health Problems in Rural/ Northern Ontario Identified by NPs

- **Diabetes and related complications**
- **Cardiovascular diseases**
- **Psychosocial problems**
- **Lack of access to health services**

Continuing Education Needs Identified by Rural/Northern NPs

- Health promotion and disease prevention
- Women's reproductive health
- Assessment and diagnosis
- Diabetes and related complications
- Psychosocial health issues
- Cardiovascular health
- Drug prescription and interactions
- Interpreting lab tests
- Advanced counselling skills

Rural/Northern NP Continuing Education Pilot Program

- **Funded by Rural and Remote Health Innovations Initiative, Health Canada**
- **Managed by Council of Ontario University Programs in Nursing**
- **8-week courses; each course has 8 learning modules**
- **Internet-based**
- **Supplemented by teleconferences and “newsgroups”**
- **CRaNHR conducted the evaluation**

5 Continuing Education Courses Developed for Rural/Northern NPs

- **Fundamentals of Primary Health Care**
- **Persistent Illness**
- **Issues in Mental Health**
- **Pharmacotherapeutics**
- **Emergency Health Care in Rural Settings**

Strengths and Weaknesses of Continuing Education Pilot Program

- Students liked flexibility of on-line learning
- Interface and technical support aspects were deemed very positive
- Students liked the module approach and case studies
- Some technological problems:
 - lack reliable Internet access
 - problems in mail and courier delivery

NPs' Comments Reflect Rural/Northern Reality

- **“Rural access to the Internet is an absolute nightmare.”**
- **“I was delayed two weeks before I was able to get help getting on-line.”**
- **“Only half my quizzes reached COUPN.”**
- **“We are not set up in our remote area, but it will be an excellent way to access extra resources once we are set up.”**

A Summary

- A significant number of NPs work in rural/northern areas
- They need support such as continuing education
- Rural/northern areas have special challenges
- One-size-fits-all program may not work

Next Steps

- **NP Employment Profile Survey underway**
 - More up-to-date information
 - All NPs
- **Working with NPAO and Nursing Secretariat**

Suzanne Caty's Legacy

- Foresaw growing role of NPs and need to initiate a program of research
- Important to know trends, not just a one-off survey
- Special focus on NPs working in rural/northern Ontario
- Put CRaNHR on the map in terms of NP research
- Important to share knowledge and use information to support practice and policy

Research Dissemination

- Piles of reports and working papers
- Articles in peer-reviewed journals
- Conference presentations
- Research in **FOCUS** on Research

Suzanne,
We raise our
hat to you.

