Nurse Practitioners in Canada

Background

Nurse practitioners (NPs) are registered nurses with advanced knowledge and skills, including two years of NP education, typically at the master's level. NPs autonomously assess, diagnose, and treat illnesses, order and interpret diagnostic tests, prescribe medications, make referrals to specialists, and perform specific procedures within their scope of practice. They are regulated in all 13 provinces and territories.

Primary health care NPs (PHCNPs), also known as family or all-ages NPs, typically work in the community in settings such as community health centres, primary health-care practices, and long-term care. Acute care NPs (ACNPs), also known as specialty or specialist NPs, provide advanced nursing care across the continuum of acute care services for adult and pediatric patients who are acutely, critically, or chronically ill.

NPs first appeared in Canada in the 1960s by providing care in northern rural and remote areas. By the 1970s, interest in the NP role increased and more education programs began.

Quick Stats

- In 2018, there were 5,697 NPs in Canada.[1]
    - 873 worked in a rural or remote setting.
    - 529 NPs worked in Alberta, with 28 in rural or remote settings.
    - 56 per cent of Canada's NPs worked in Ontario.
- Alberta Health Services employs over 300 nurse practitioners.
- From 2016-19, Alberta Health conducted an NP Demonstration Project at four sites to explore the value of increased use of NPs in community-based health settings. An evaluation found:
    - Extremely high patient satisfaction results.
    - NPs worked to their full scope of practice in their respective health-care delivery teams.
    - A team based-model improving access, continuity, and allowing for the delivery of comprehensive care.
- The Alberta government is spending $3 million in 2019 to hire up to 30 NPs to work in primary care settings in rural and underserved areas.

2018 NP Workforce Data[1]

Jurisdiction	Number of NPs	Rural/Remote	% Rural/Remote
Canada	5,697	873	15
Alberta	529	28	5
Newfoundland and Labrador	168	62	37
Prince Edward Island	29	11	38
Nova Scotia	182	56	31
New Brunswick	130	53	41
Quebec	509	88	17
Ontario	3,206	358	11
Manitoba	193	40	21
Saskatchewan	228	112	49
British Columbia	465	43	9
Yukon	8	1	13
NWT/Nunavut	50	22	44

[1] Canadian Institute for Health Information. Nursing in Canada, 2018 – Data Tables. Ottawa, ON: CIHI; 2019

NP Education Programs in Canada

Universities across Canada offer nurse practitioner education programs:

- **Alberta:** University of Calgary, University of Alberta, Athabasca University
- **Newfoundland and Labrador:** Memorial University
- **Prince Edward Island:** University of Prince Edward Island
- **Nova Scotia:** Dalhousie University
- **New Brunswick:** University of New Brunswick (Saint John and Fredericton), Université de Moncton
- **Quebec:** McGill University, Laval University, University of Montreal, University of Quebec at Outaouais, University of Quebec at Trois-Rivières
- **Ontario:** University of Toronto, York University, Western University, University of Windsor, University of Ottawa, Ryerson University, Queen's University, McMaster University, Laurentian University, Lakehead University
- **Manitoba:** University of Manitoba
- **Saskatchewan:** University of Saskatchewan, partnership between University of Regina and Saskatchewan Polytechnic
- **British Columbia:** University of British Columbia, University of Northern British Columbia, University of Victoria
- **Northwest Territories:** Aurora College in partnership with Dalhousie University

Examples of NP Models of Care

NP-led clinics in Ontario[2]

- In 2006, Canada's first NP-led clinic was developed in the northern Ontario city of Sudbury, a regional hub serving many rural residents. NP-led clinics are a primary health-care delivery model in which NPs are the lead providers of primary health care; the clinic director is an NP and the clinic's board of directors has strong NP representation. The model is designed to improve access to care for those who do not have a primary health-care provider.
- One of the unique aspects of the model is the incorporation of nursing leadership within an interprofessional team. The Sudbury NP-led clinic has six NPs, two collaborating physicians, an RN, pharmacist, social worker, dietician, and clerical staff. Physicians are available on-site a total of five half days per week to consult about more complex care issues.
- Twenty-five NP-led clinics operate in Ontario. Funding is provided by the Ministry of Health and Long-Term Care. NPs working in these clinics are paid a salary. Physicians receive monthly collaboration fees and can bill fee-for-service (FFS) for direct patient encounters that are beyond the scope of NP practice.

Care for Seniors program[3]

- The Care for Seniors program began in 2008 when the North Perth family health team (FHT) in rural southwestern Ontario hired an NP in geriatrics to develop a program to help older adults with complex medical conditions.
- Under the Care for Seniors program, the NP collaborates with primary care physicians and health-care providers to deliver coordinated, comprehensive care to geriatric patients.

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[2] Nurse Practitioners' Association of Ontario. Nurse Practitioner-Led Clinics. https://npao.org/about-npao/clinics/

[3] Prasad S, Dunn W, Hillier L, McAiney C, Warren R, Rutherford P. Rural geriatric glue: a nurse practitioner–led model of care for enhancing primary care for frail older adults within an ecosystem approach. *Journal of American Geriatrics Society*. 2014;62(9):1772-1780. https://onlinelibrary.wiley.com/doi/abs/10.1111/jgs.12982

- The NP also holds monthly clinics, helps patients transition to new living situations, such as long-term care, accepts referrals from other health professionals, and assists with care plans via regular multidisciplinary meetings at the local hospital. Care for Seniors has helped patients get timely access to primary care providers they would not otherwise and addresses many of the challenges associated with rural older adult care.

Mobile Clinics in Manitoba[4]

- In Manitoba, NPs and RNs provide primary care for people living in smaller, underserved communities through Mobile Clinics. Mobile Clinics are buses specifically designed to be primary care clinics. People who live in or near a community served by a Mobile Clinic can use the clinic to receive most of their health care or for occasional health-care needs.

NPs bring primary care to British Columbia

- British Columbia has several rural communities that rely on NPs to provide health care. The Sorrento Community Health Centre clinic was established by an NP in 2013 to bring primary health care to hundreds of residents who would not otherwise have access. In 2015, the donations that supported its services were bolstered by additional funding from the province.[5]
- In May 2018, the Ministry of Health announced it was hiring 200 new primary care NPs and 200 new family physician positions over three years to improve primary health-care service provision and to increase attachment of patients through the development of Primary Care Networks.

[4] Manitoba. Mobile Clinic Fact Sheet, 2016. https://www.southernhealth.ca/assets/Finding-Care/07d6c684a7/Mobile-Clinic-Fact-Sheet.pdf

[5] British Columbia. Interior Health, 2015. Funding to benefit community health programs in Shuswap region. https://www.interiorhealth.ca/AboutUs/MediaCentre/NewsReleases/Documents/Funding%20to%20benefit%20community%20health%20programs%20in%20Shuswap%20region.pdf

Alberta's Rural Health Professions Action Plan

NP Research Scan

Title	Date	Setting	Design	Focus	Key findings
Benefits and challenges faced by a nurse practitioner working in an interprofessional setting in rural Alberta	2016	A rural Alberta community, population 10,000, located 250 km from a major urban centre	Mixed-methods research design using a practical, participatory action research approach	Determine the benefits and challenges of a community initiative to introduce the NP role in rural primary care. Participants included the NP, patients, primary care physicians, other health professionals, and local town administration and health-care leaders.	Introduction of the NP role improved access to care, with 817 previously unattached patients added to the NP's caseload. The NP provided cost-effective, quality care and relieved strain on the local primary care system, filling service gaps including chronic disease and mental health concerns. The NP worked collaboratively with the local health-care team, and physician feedback was positive. Patient satisfaction was high. NP services averaged $903.44/day using the basic FFS schedule as a benchmark, not including chronic disease and rural service fees. Mean cost per day of the NP salary/benefits/overhead model was $101.55 less per day than mean basic benchmark cost. The study identified a need to develop a sustainable provincial funding model to implement the role across rural Alberta. Stable funding would maximize potential for NPs to improve access to primary care services in other rural communities. Local and provincial recommendations included continuing funding until a province-wide mechanism was in place.
Impact of nurse practitioners in primary healthcare fee-for-service practice settings	2015	Central and North Vancouver Island	Case study approach	Impact of salaried, independent NPs in three FFS practices across four domains: patient satisfaction, provider experience, practice efficiencies, and impact on FFS billing.	The study found positive impacts on patient and physician experiences. Patient satisfaction was high; most health-care providers felt that NPs were a good fit with the team and that the NP role was sustainable within an FFS family practice.

				Participants included the NPs, patients, primary care physicians, other health professionals, and staff members.	Physicians' FFS expenditures increased 12 per cent on average, and data indicated that NP services had no negative impacts on FFS billing by GPs in all three clinics; yet concerns remained regarding the financial sustainability of the NP role in FFS practice. The study outcomes indicate that there are opportunities to further integrate NPs into the primary health-care system and expand NP partnerships with community physicians.
Outcomes associated with nurse practitioners in collaborative practice with general practitioners in rural settings in Canada: a mixed methods study	2014	Rural British Columbia	Mixed methods study using a case study approach	Identify outcomes associated with NPs in collaborative FFS primary care practices. Three NPs were hired into FFS practices to identify changes to patient access in the practice, hospitalizations, and emergency department visits. All NPs were salaried employees of one regional health authority. Participants included NPs, GPs, other practice staff, other health professionals, and health authority representatives.	Results showed improved interprofessional communication. NPs and GPs collaborated in patient care, which facilitated group practice instead of siloed care. Collaboration resulted in team members being more satisfied with their job. There was increased access to care and decreased wait time for appointments by offering same-day appointments for urgent patients or within three days. The salaried nature of the NP role allowed the NP to address the needs of complex populations, to have a community focus, and to provide extra time for patient visits. There was a decrease in hospital admissions and visits to the emergency department, although the researchers acknowledged confounding factors that could have contributed to the decreases.
Cost effectiveness and outcomes of a nurse practitioner–paramedic–family physician model of	2009	Long and Brier Islands, a geographically remote area in Nova Scotia	Longitudinal, three-year study	Evaluate the effectiveness of a model of primary health-care service delivery provided by on-site NPs and paramedics in collaboration with an off-site family physician.	The study found a positive impact on the health of rural communities: the NP-paramedic-family physician team increased access to primary health-care services, residents were satisfied with health services, and health-care costs were reduced,

care: the Long and Brier Islands study		with 1,240 residents		Participants included health-care providers, health-care administrators, and community residents.	which was largely attributable to reduced travel and medication costs. Care provided by the NP-paramedic team increased early detection and screening services, greater emphasis on health promotion and illness prevention, and management of acute and chronic health conditions. The effectiveness of this model of care can serve as an example for other rural and remote areas searching for ways to provide comprehensive primary health care to residents.
Introducing a nurse practitioner: experiences in a rural Alberta family practice clinic	2006	A rural community-based family practice in Taber, Alberta	Case study, grounded theory qualitative approach	Experiences introducing an NP into a rural clinic, and if the NP role had an impact on perceptions about the delivery of primary health-care services in the community; how the role could be supported financially; and how working relationships changed as part of introducing the NP role. Participants included physicians, clinic staff, Regional Health Authority health professionals, and community residents.	The NP role was viewed positively by clinic physicians, who believed the role was cost-effective, and other stakeholders because of high patient satisfaction with the NP, billing potential that surpassed salary costs, and increased integration of physician services with Regional Health Authority initiatives. Successful introduction of the NP relied on: • Flexibility in developing the role • Strong community connections outside the clinic • Support from a management team to create positive working relationships • Developing funding mechanisms and arrangements for the NP position that recognized joint benefits and costs to the physician clinic and the broader health system