RNAO

NURSE PRACTITIONER TASK FORCE

VISION FOR TOMORROW

ABOUT THIS REPORT

Vision for Tomorrow and its recommendations represent the collective experience and expertise of the Registered Nurses' Association of Ontario's (RNAO) Nurse Practitioner Task Force (NPTF). The 20 members of the NPTF work in all sectors of the health system and were led by co-chairs Dr. Doris Grinspun, RNAO CEO, and Dr. Elissa Ladd, deputy director of the International Council of Nurses' Nurse Practitioner/Advance Practice Nurse Network Global Academy of Research and Enterprise. The report is additionally informed by systematic and comprehensive literature reviews documenting key new directions for nurse practitioner roles and relationships, key informant interviews, and a scan of health systems in Canada and around the world. RNAO would like to thank task force participants for sharing their expertise, experience, skills and time so generously. RNAO, the nursing profession and our health system are better because of your dedication.

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MESSAGE FROM THE TASK FORCE CO-CHAIRS

RNAO's Nurse Practitioner Task Force (NPTF) is delighted to release Vision for Tomorrow. The report calls for expanded and central roles for nurse practitioners (NP) in health system transformation globally, nationally and here in Ontario. As we progress through the 21st century with the challenges of a pandemic layered over the long-standing impacts of poverty, environmental degradation and consequent health inequities, it is time for decision-makers in Canada and around the world to turn to NPs to address issues of sustainable development and effective and efficient health care.

The arduous work carried out by the 20 members of the task force represents the expertise of NPs serving all populations across all sectors of our health system. The report draws on the extensive knowledge and varied experience of the task force members to identify eight primary recommendations and companion actions on each. It is informed by relevant systematic and comprehensive reviews revealing key new directions for NP roles and relationships, as well as important facilitators and barriers. In addition, sector-specific roles for NPs are identified using key informant interviews.

More than anything else, it is the passion of the task force members for their work as NPs and for advancing the role of the NP in serving the public – locally and globally – that has led to this groundbreaking report. As co-chairs, we have found our collaboration with colleagues to forge a new future for NPs to be invigorating, enlightening and empowering. We offer our heartfelt thanks to task force members and to RNAO staff – especially the Policy and Communications departments – who provided timely and tireless support to ensure our work was grounded in evidence.

This report is just the beginning. As set out in the eight recommendations and companion actions, there is much left to be done by many to ensure NPs are powered to make full use of their expertise and skills for the benefit of a stronger health system and better population health outcomes. The advantages of bringing this report's recommendations to life are too great to do anything other than continue to press forward. This important work will ensure we optimize NP practice across all sectors of health care. We look forward to championing this work to that end.

Yours warmly,

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EXECUTIVE SUMMARY

RNAO launched the Nurse Practitioner Task Force: *Vision for Tomorrow* at its 94th Annual General Meeting in April 2019 in response to Ontario's health-system transformation. The transformation process, which seeks system integration across all health sectors through the creation of Ontario Health Teams,[1] demands an urgent review of the nurse practitioner (NP) role and its capacity to advance this process and meet its aims.[2]

The goal of the task force is to set out recommendations and companion actions to optimize the NP role in an integrated health system anchored in primary care, while paying particular attention to the Quadruple Aim[3] and the United Nations' Sustainable Development Goals[4] (SDG). Both models are outlined as part of this report's framework discussion on pages eight and nine. This report is based on systematic and comprehensive evidence reviews, environmental scans and key informant interviews. The search outcomes informed specific recommendations for optimizing the NP role across sectors and populations to support all aspects of health-care transformation with emphasis on better access, better outcomes, clinical leadership, health equity and attention to vulnerable and underserviced populations. This task force report, although triggered by health-system transformation in Ontario, has implications for health systems, and health-system transformation globally. In this regard, reference to specific regulations and legislation is from an Ontario, Canada perspective, with the understanding that it is interpreted and considered within the relevant context.

The task force is made up of NPs, nurse executives, scholars, and health-system leaders. The membership represents all health sectors and regions of Ontario. The task force proposes eight primary recommendations that will shape the NP role and health care well into the future. Each recommendation identifies specific stakeholders who are critical to the implementation due to their respective roles in planning, knowledge transfer, communication, funding, education, policy, legislation and regulation and/or change leadership and mobilization.

THE EIGHT PRIMARY RECOMMENDATIONS ARE:

1. **Increase the supply of NPs across all sectors and settings.**
2. **Optimize the utilization of NPs within current scope of practice.**
3. **Expand the scope of practice for NPs.**
4. **Align NP curriculum with expanding scope of practice.**
5. **Harmonize NP compensation across all sectors and settings.**
6. **Invest in research to support NP practice and improved health outcomes.**
7. **Optimize access and continuity of care by ensuring all insurance benefit carriers, and other such payers, accept NP services analogous to physician counterparts.**
8. **Showcase impact of NPs through public education campaigns to advance full utilization of NPs across all sectors and settings.**

INTRODUCTION AND BACKGROUND

Historical overview of nurse practitioners in Ontario

Advanced practice nursing roles in Canada have a rich history that can be traced back to the 19th century, when outpost nurses began working in an expanded scope of practice to both meet population health needs and address physician shortages.[5] [6] Though their roles lacked clearly defined practice regulations at the time, nurses working in an advanced capacity led to the emergence of the NP role in the 1960s, when a focus on primary health care and Canada's Medicare system took hold.[7] [8]

Advanced practice nursing roles in Canada have a rich history that can be traced back to the 19th century, when outpost nurses began working in an expanded scope of practice to both meet population health needs and address physician shortages.

Early research into the role demonstrates that patient satisfaction with NPs is high and that they provide primary care as safely and effectively as physicians.[9] [10] In spite of this, NP educational programs were largely discontinued in the 1980s due to: a lack of support from the medical community; the perceived threat of the role to the livelihood of physicians; and the absence of the appropriate regulation and legislation to guide NP practice.[11]

Persistent advocacy by nursing organizations, such as RNAO, to revitalize the NP role and foster a renewed focus from government to improve patient access and enhance preventive health care in the 1990s created a favourable environment for the NP role to again thrive.[12] [13] In 1996, the province of Alberta recognized the NP role in legislation and regulation.[14] Ontario followed one year later with legislation – the *Expanded Nursing Services for Patients Act, 1997*[15] that included amendments to the *Nursing Act, 1991* – outlining a clearly defined, expanded scope of nursing practice for the "Registered Nurse (RN) in the Extended Class (EC)" (synonymous with the title NP).[16] [17] In 2007, with the passage of the *Health System Improvements Act, 2007*[18], the title of nurse practitioner became a protected title in Ontario.

Following formal recognition of the role, Ontario's then Ministry of Health and Long-Term Care (now Ministry of Health) funded NPs in community health centres and family health teams to ensure equitable access to primary care for Ontarians.[19] Since then, university educational programs with specialty streams have been developed at the graduate level supporting NPs to practice in a variety of settings, and research on NPs has continued, resulting in a database of evidence attesting to the value of NPs in our health system.

Ontario's leadership role has been unsurpassed and has positively influenced the role of NPs across the country. This leadership role has been fueled by RNAO's unwavering work through the decades.[20] The early work of RNAO related to NPs culminated with the passage of *Bill 127* making Ontario the second Canadian jurisdiction to legalize the role of NP. From there, RNAO persisted in advancing NP practice through such innovations as Nurse Practitioner-Led Clinics (NPLC), the first one opening in Canada in Sudbury, Ontario in 2007 with intense RNAO support and advocacy. RNAO's continued work to increase access to primary care through the full utilization of NPs led to the 2008 government announcement at RNAO to introduce 25 additional NPLCs across the province. To date, all 26 NPLCs are improving primary care access to all Ontarians. With the growing acceptance of NPs in expanded roles, in May 2010 NPs were able to enroll in Canada's first Anesthesia Care program at University of Toronto,[21] reinforcing RNAO's vision of NPs as a solution to reduce surgical wait times and improve access to care. In 2011-2012, RNAO's drive to expand the scope of practice for NPs resulted in amendments to Regulation 965 of the *Public Hospitals Act, 1990*[22] to legally authorize NPs to admit, treat, transfer and discharge hospital in-patients for the first time in Canada. This change was lauded as increasing access to care, reducing wait times and

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improving delivery of patient-centred care. The authority to discharge patients came into effect in 2011, while the amendment authorizing NPs to admit patients to in-patient hospital units – a real milestone for NP practice – came into effect in 2012.[23] Another milestone occurred in 2014 with the Ontario government committing to hire 75 attending NPs in long-term care, a role RNAO had long promoted as cost and quality effective.[24] [25] In 2017, NPs were authorized to prescribe controlled substances and in 2018 they could prescribe high-dose painkillers to palliative care patients. RNAO has led the consistent role expansion of NPs to transform health care locally and nationally. Thus, it is not a coincidence that Ontario is seen as the vanguard of NP practice and boasts the highest number of NPs in Canada.

NP health human resources in Canada and the United States (U.S.)

There are 5,677 NPs practising in Canada [26] in settings such as primary care, acute care, and long-term care based on 2019 data. In jurisdictions across Canada, the number of NPs extend from 3,426 in Ontario[27] to 549 in Alberta and to just 10 in the Yukon.[28]

Despite our success on NP role expansion in Ontario and across Canada, the number of NPs overall remains extremely low when compared to the U.S., where the NP role was adopted in 1965.[29] In recent years, the number of NPs in the U.S. has been growing rapidly. From 2010 to 2017 the number more than doubled, increasing from 91,000 to 190,000.[30] According to the American Association of Nurse Practitioners (AANP), more than 30,000 new NPs finished their academic programs in 2018-19, thus bringing the number of NPs licensed/registered in that country to more than 290,000.[31] Based on the 2019 U.S. Bureau of Labour Statistics (BLS) employment estimates of 200,600 NPs in the U.S. workforce[32] and the U.S. Census Bureau population estimates[33] there were approximately 61.1 working NPs per 100,000 people.[34]

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In Canada, the NP workforce per capita is strikingly lower. Based on workforce data from the Canadian Institute for Health Information[35] and population data from Statistics Canada,[36] the 2019 NP per 100,000 population ratio is 15.3 for Canada and 22.5 for Ontario, making the U.S. ratio more than four times that of Canada and almost three times that of Ontario.

NPs are the fastest growing classification of nursing in Canada, increasing 8.1 per cent from 2018 to 2019. This is compared to a 1.1 per cent growth for registered nurses (RN) and 3.6 per cent for registered practical nurses (RPN) during the same timeframe.[37] Academic programs for NPs exist at 10 universities in Ontario and in most major universities in Canada.[38] All programs offer a specialty component and graduates earn a clinical master's degree and are eligible for registration in the RN extended class (EC) as an NP in all provinces. Similar education and credentialing is in place globally. While the supply, utilization and scope of practice of NPs varies across jurisdictions in Canada, and in many countries around the world, NPs have increasingly engaged in independent practice with greater scopes of practice. [39] [40] [41] NPLCs have emerged in many jurisdictions across Canada, and have extended to 26 localities across Ontario since the first one opened in Sudbury in 2007.[42] [43]

Outcomes common to NP practice in Ontario and globally are: improved access to acute care and primary care; comprehensive care for vulnerable and underserviced populations; improved health and health-care cost outcomes across all sectors; and increased access to care, particularly in rural and remote areas. [44] [45] [46]

Throughout the COVID-19 pandemic, NPs have taken on an expanded role, working with far greater independence and serving as clinical and medical directors with exceptional results. In fact, during the pandemic, the period in which this report is being written, NPs are proving indispensible in the provision of comprehensive assessments, including diagnostic testing and the formation of a diagnosis, treatment and referral.[47] [48] [49]

Impetus for *Vision for Tomorrow*

This NPTF report, *Vision for Tomorrow*, was announced by CEO Dr. Doris Grinspun at RNAO's 94th Annual General Meeting in April 2019. The work is in response to health-system transformation in Ontario. The mandate of the task force is the optimization of the NP role in an integrated health system. The task force's work is guided by a conceptual framework that incorporates the Quadruple Aim[50] and the Sustainable Development Goals (SDG)[51] as envisioned by the United Nations. This framework provides direction to the focus, organization and interpretation of data informing the report.

THE FOLLOWING OBJECTIVES GUIDE THE SPECIFIC RESEARCH AND ANALYSIS ACTIVITIES:

Highlight key roles and sectors of NP utilization in Ontario, including the extent of utilization.

Propose medium- and long-term strategies for fully integrating NPs across sectors and domains of practice (i.e. clinical, education, research, administration and policy).

Identify current facilitators and barriers to NP role optimization in order to advance timely access to care and improve quality of care for patients in Ontario.

Identify needed legislative and practice changes to remove barriers to NP integration into the health system in Ontario, linking to implications for national and international NP practice.

Recommend a blueprint for optimizing the future role of the NP in a transformed health system with attention to the Quadruple Aim and the SDGs and its application to other health-care contexts and systems.

Guiding framework for *Vision for Tomorrow*

NPs are positioned in this report as global leaders[52] of a new wave in health care that embraces SDGs and aims to advance an inclusive, equitable health and social system that leaves no one behind.[53] Within this context, NPs are also key players in advancing the Quadruple Aim that frames the provision of care from four perspectives. These include: improving the patient experience; improving the health of populations; reducing the cost of health care; and improving the experience of providing care.[54]

The *Vision for Tomorrow* framework depicts the intricate and intimate connection between these two frameworks RNAO refers to as the ecosystem for NPs' leadership work in all five domains of their practice: clinical, education, research, administration and policy. Together, they characterize the global melding of population health, wellness and disease through the kaleidoscope of SDGs (the outer circle), and the imperative that any system aspiring to impact quality of life, living and dying must consistently address the patient/client experience, health outcomes, care costs and the provider experience – the Quadruple Aim (the inner circle). The positioning of NPs' work within these two complimentary frameworks represents their central role in advancing SDGs at the individual level of patients/clients, and their potential to increasingly lead population health outcomes now and into the future. It also serves to refine NP roles and anchor their care context. [55] [56]

NPs have been guided by and have influenced the Quadruple Aim in all aspects – as outlined in multiple research studies – since they were introduced in the 1960s. This includes enriching patient/client satisfaction, improving population health outcomes and cost effectiveness, as well as enhancing the experience of the health team and/or tirelessly working to shape and grow their own work context.[57] [58] At the same time, population health, marginalized and underserviced populations, health equity and social justice are at the heart of all NP practice. NPs currently play leadership roles in diagnosis and treatment, care planning and policy development in areas such as homeless shelters, Indigenous communities, refugee centres and corrections – to mention just a few. The impact of NPs in enhancing staff engagement and role satisfaction has not been fully tapped. However, Ontario's experience of NPs in long-term care during COVID-19 – where their in-person presence, clinical expertise and unique skills have enabled them to act as medical director; contribute to pandemic policy, planning and management, and support families as well as the clinical and management teams – has undeniably contributed to improved team functioning, resident and organizational outcomes.

The recommendations in *Vision for Tomorrow* reflect the cross-sector strength NPs bring to the system, a critical requisite when SDGs are at the core of all health and health care. The eight bold health- and system-enhancing recommendations in this report address the aspects of the Quadruple Aim. The first three aims – the client experience, outcomes and reduced cost – are advanced through increasing the supply of NPs, enabling all NPs to work to full scope, expanding scope, aligning education and curriculum with SDGs as the major drivers of health care, and extending and disseminating relevant research related to NP influence on both the Quadruple Aim and SDGs. The fourth aim – quality work experience – is reinforced through compensation equity and health insurance carrier recognition.

THE SDGs AS ASPIRATIONAL GOALS AND EVALUATIVE MEASURES SERVE TO DEFINE THE RATIONALE FOR THE KEY RECOMMENDATIONS THAT:

1. Affirm NPs as a valued health human resource aligned with a fully integrated system anchored in population health and primary care;
2. Call for essential curriculum reform based on a visionary model of health and health care; and
3. Galvanize the vital role of NPs now and into the future.

REPORT METHODOLOGY

Guided and directed by the conceptual framework and objectives, the report methodology incorporates a thorough and complex set of approaches to enable a breadth of evidence to best determine current roles, future roles, facilitators and barriers and strategies for advancing the NP role. Toward this end, the task force performed a critical thematic scan of the literature, incorporating 15 publications of systematic and comprehensive evidence reviews documenting NP utilization, impact and potential new directions for NP practice, roles and relationships. This literature assisted with the identification of key facilitators and barriers to optimizing the NP role. These facilitators and barriers were categorized into themes of legislative/regulatory, funding and compensation, education, organizational, interprofessional collaboration and public awareness.

In addition, the task force performed a cross-sector environmental scan of current and potential NP role enactment using both the literature and key informant interviews of NPs and other stakeholders working across sectors. This strategy provided a rich understanding of cross-sector utilization – both current and potential. Finally, the environmental scan data were analyzed according to facilitators and barriers drawn from the literature. This work informed the recommendations and in some cases sub-recommendations, as well as the companion actions.

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RECOMMENDATIONS AND ACTIONS FOR THE FUTURE

Many of the recommendations are supported by case studies provided by members of the task force and other NPs in clinical settings. These illustrate the positive impact of the NP role in the service of, in particular, vulnerable and underserved populations, through holistic person-centred care incorporating assessment, diagnostic testing and treatment. Some case studies illustrate the challenges for the system and the client that NPs consistently work to overcome in light of current scope limitations, supply and access.

INCREASE supply
OPTIMIZE utilization
EXPAND scope
ALIGN curriculum
HARMONIZE compensation
INVEST in research
BROADEN coverage
SHOWCASE impact

INCREASE THE SUPPLY OF NPs ACROSS ALL SECTORS AND SETTINGS

RECOMMENDATION **1**

ACTION

GOVERNMENT to develop a comprehensive health human resource (HHR) plan for NPs across all sectors of the health system. This plan must be based on optimized use and role of the NP (see Recommendation 2) and schedule for expanded scope (see Recommendation 3). Target numbers for increased supply include:

- Long-term care (LTC): One (1) NP per 120 LTC residents and, at minimum, adding 100 LTC attending NPs per year over the next six years.[1]
- First Nations communities: One (1) NP per community (and more in larger communities) for a total of 150 NPs, with 50 added per year over three years.[2]
- Persons experiencing homelessness: One (1) NP per 150 persons who are experiencing homelessness – including those who are temporarily accommodated with supports in the community – for a total of 150 NPs, with 50 added per year for three years.[3]
- Corrections: 75 NPs over the next two years: 40 in 2020/21 (including the 15 already announced in 2020 and not delivered) and 35 in 2021/22.[4]
- Acute care: One (1) NP per shift for around the clock coverage for every 15 patients requiring frequent hospitalization and emergency department use for a total of 900 NPs, with 90 added per year for 10 years.[5]

GOVERNMENT, IN PARTNERSHIP WITH ACADEMIC INSTITUTIONS, to increase the funding and capacity for student-NP seats, and associated program costs, in educational programs in response to HHR plan (above).

[1] Based on figures of 79,000 residents in Ontario's LTC Homes.
[2] Based on figures of 134 Council of Ontario First Nations Communities in Ontario and the numbers of persons in each community, ranging from less than one hundred to 100 to well over 1,000.
[3] Based on figures of approximately 22,000 persons experiencing homelessness, living in temporary housing. hotels and shelters, and those persons in supportive housing, in Ontario in 2020.
[4] Based on Ministry of Health & Ministry of the Solicitor General 2020 announcement for Nurse Practitioner led, integrated primary care models in corrections.
[5] Numbers of frequent users based on US estimates that frequent users account for 8% of admissions ("Frequently admitted patients were defined as patients admitted 5 or more times to the same facility in a 12-month period"). Szekendi, M.K., Williams, M.V., Carrier, D., Hensley, L., Thomas, S., and Cerese, J. (2015). The characteristics of patients frequently admitted to academic medical centers in the United States. Journal of Hospital Medicine, https://onlinelibrary.wiley.com/doi/full/10.1002/jhm.2375. Numbers of beds based on FAO estimates: Financial Accountability Office of Ontario. (2020). Ontario Health Sector: A Preliminary Review of the Impact of the COVID-19 Outbreak on Hospital Capacity. April 28. https://www.fao-on.org/en/Blog/Publications/health-2020. Numbers of NPs required based on one NP per shift for around the clock coverage for every 15 frequently admitted patients. Adjustment for time off to deliver the correct number of worked days and FTEs calculated by RNAO.

The number of NPs in Ontario must increase to meet the demand for their expertise in a transformed and integrated system. Many of these demands relate to social determinants of health reflecting the SDGs. While the College of Nurses of Ontario (CNO) has reported growth in the number of NPs since 2014, the Canadian government identified a shortage of "health diagnosing and treating professionals," including NPs, beginning in 2017 and continuing to 2026.[59] [60] [61] [62] NPs are most needed in underserviced regions and settings and sectors with high system utilization. A comprehensive HHR strategy for NPs must account for an over 50 per cent increase of NPs by 2030 just to adequately respond to the needs of vulnerable and underserved populations across the province. An additional increase in NP supply will enable our health system to meet growing population health needs. Concurrent enhancements to nursing graduate education programs are also necessary to ensure needs for faculty are met. Additionally, increased NP programs and positions in NP programs, including preceptors and relevant placements, are critical.

THE TARGET NUMBERS FOR INCREASED SUPPLY, TO PROVIDE NECESSARY CARE AND SERVICES BY SECTOR, MUST INCLUDE (AT MINIMUM):

- **LONG-TERM CARE (LTC):** One (1) NP per 120 LTC residents by adding 100 LTC attending NPs per year for the next six years.
- **FIRST NATIONS COMMUNITIES:** One (1) NP per community (and more in larger communities), for a total of 150 NPs, with 50 added per year over the next three years.
- **PERSONS EXPERIENCING HOMELESSNESS:** One (1) NP per 150 persons who are experiencing homelessness – including those who are temporarily accommodated with supports in the community – for a total of 150 NPs, with 50 added per year for the next three years.
- **CORRECTIONS:** 75 NPs over the next two years including 40 in 2020/21 (adding in 15 already announced for 2020 and not delivered) and 35 in 2021/22
- **ACUTE CARE:** One (1) NP per shift for around the clock coverage for every 15 patients requiring frequent hospitalization and emergency department use for a total of 900 NPs, with 90 added per year for 10 years.

LTC requires additional NPs to provide residents with highly specialized and timely access to care. Since 2012, RNAO has advocated for one (1) NP per 120 LTC residents in the attending NP role. In this role, NPs expertly manage chronic conditions, provide early detection and treatment of medical complications, co-ordinate care, improve resident outcomes and foster a holistic, end-of-life care culture.[63] [64] In doing so, they prevent disruptive transfers to hospital for treatment, thereby contributing to quality of life for residents, peace of mind to families and LTC staff, and cost-savings in the health system. In 2015, the government, responding to RNAO's advocacy, announced funding for 75 attending NPs to be hired over three years. To date, 60 positions have been funded, with promised funds for the remaining 15 still to be delivered. Addressing the NP shortfall in LTC requires the addition of 600 attending NPs, or 100 attending NPs per year for the next six years, with the first year to include the 15 previously announced positions.[65]

Additionally, the deployment of NPs to provide comprehensive, preventive primary health care to underserviced populations is urgently needed. These populations include: refugees; First Nations communities; those living in rural and remote areas with limited access to health services; and populations with high system use.[66] As is often the case with care for vulnerable populations, such as persons experiencing homelessness, there is little opportunity for follow-up to enable person-centred care, continuity of care and monitoring of outcomes. More NPs with increased role flexibility to cross sector boundaries would greatly improve patient and system outcomes.[67]

To respond to this need, NP supply must ensure at least one NP for each First Nations community, for a total of up to 150 positions. Fifty NPs must be added per year over three years. More NPs are also required on interdisciplinary teams, for the care of vulnerable populations with complex needs, such as persons experiencing homelessness. For these populations the supply must include at least 150 more NPs to enable one NP per 150 persons experiencing homelessness, serving those living on the street as well as those in temporary accommodation, such as shelters and hotels serving as shelters during the COVID-19 pandemic. This would include resources for NP oversight for those persons living in temporary, supportive housing in the community care sector to ensure timely health assessment, diagnosis, referral and follow-up, thus preventing emergency department visits and hospital admission/readmission.

Recognizing the needs of those in corrections facilities, in August 2020, the Ministry of Health and Ministry of the Solicitor General committed to implementing an NP-led integrated primary care model in the sector. As part of this model, and starting with 15 positions, a total of 75 new, full-time equivalent NPs will provide care by 2022 to those living in at-risk correctional environments. The focus of their care is delivering timely, preventive and continual care that promotes health, manages chronic disease and allows for seamless transitions to community settings that will support client safety and goals upon discharge.[68]

Finally, in acute care, significant numbers of additional NPs must be available to provide care and follow-up to frequent users of emergency departments and other in-patient hospital units to engage in multi-professional care, for these complex patients as well as early detection, prevention, referral and follow-up in collaboration with care coordinators. This will enable more effective and efficient services and reduce system costs, all reflective of the Quadruple Aim.

Critically important is for educational programs to increase the enrollment of students into the NP Program to meet the demands of a health system that optimizes their role. To address the resulting needs, faculty NPs should be encouraged to pursue doctoral-level studies to ensure there are sufficient NPs available who meet the requirements for academic positions.

CASE EXAMPLE: PROVIDED BY SARAH, NP

Many primary care settings offer health services to underserviced and marginalized persons who experience homelessness, live with a substance-use disorder and/or are in frequent contact with the correctional system. A 42-year-old male, Joel, recently released from a correctional facility to homelessness in January, suffers from severe frostbite. He was seen in a motel by an NP outreach worker, Sarah, who has identified multiple poorly managed co-morbidities.

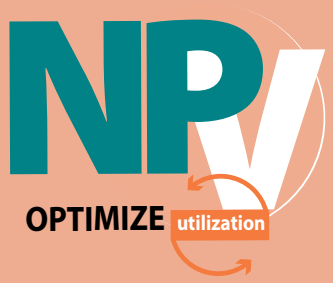
Sarah conducts an assessment, prepares a treatment plan, makes relevant referrals, prescribes medications, and is able to maintain follow-up to help ensure the safety and well-being of Joel. Sarah provides holistic, client-centred care. However, there are hundreds of vulnerable persons who are left uncared for or receive care from a variety of different providers. Such disjointed service provision and lack of follow-through with treatment can lead to a cycle of chronic conditions that continually require urgent care and in some cases result in death. Sarah needs more NP colleagues in similar roles to create a community of NP-led, comprehensive services provided across sectors that respond to the health and health-care needs of clients like Joel.

OPTIMIZE THE UTILIZATION OF NPs WITHIN CURRENT SCOPE OF PRACTICE

RECOMMENDATION **2**

ACTION

- **GOVERNMENT AND REGULATORY BODIES** to implement necessary regulatory and legislative changes to authorize NPs as medical directors, recognizing the major and very effective role of NPs as medical directors in numerous settings during the COVID-19 pandemic.
- **GOVERNMENT** to scale up funding for interdisciplinary primary care models such as NP-led clinics (NPLC), community health centres (CHC), Aboriginal health access centres (AHAC), family health teams (FHT) and others, ensuring NPs work to full scope.
- **GOVERNMENT** to scale out – to sectors and settings – innovative NP models of care, such as the attending NPs in LTC homes model.
- **GOVERNMENT** to scale out NP services and models of care to non-traditional settings with inequitable access, such as consumption treatment services (CTS), settings to aid victims of human trafficking, midwifery clinics, Indigenous health settings, youth shelters, women's shelters, homeless shelters, correctional facilities, mental health and addictions settings, including rapid access addiction medicine (RAAM), and universities.



There is strong evidence that NPs improve access, outcomes and patient satisfaction across care settings.[69] However, existing legislative and regulatory barriers prevent NPs from functioning to their full scope. For example, Ontario's *Health Insurance Act* (1990) prevents NPs from ordering clozapine – a medication used in treating mental health patients – as well as zidovudine (AZT) – a medication used in HIV/AIDS treatment – when they are working in a capacity affiliated with or within a hospital.[70]

There are well-established and successful service models such as NPLCs, CHCs, AHACS and FHTs that should be expanded to fully serve Ontarians by optimizing the existing NP workforce. Funded and team-based models of care that are inclusive of NPs are shown to improve NP integration as valued members of the primary care team and have excellent results on multiple quality metrics.[71] [72] [73] Such team-based primary care models provide care to some of the most underserved and vulnerable populations. These populations are at greater health risk for various reasons, including poverty, health co-morbidities, mental illness and other social and environmental inequities.[74] [75] Government must scale up funded, interprofessional team-based primary care models where NPs are powered to work to their full scope of practice.

CASE EXAMPLE: PROVIDED BY TARA, NP

Tara is an NP in Ontario's first NPLC designed to provide trauma-informed, primary health care to those who have experienced, are currently experiencing or are at risk of experiencing sexual exploitation, coercion and/or human trafficking. The H.E.A.L.T.H clinic (which stands for Health Care, Education, Advocacy, Linkage and Trauma Informed Healing) offers a number of direct health-care services that focus on a comprehensive assessment, diagnosis of potential health issues, provision of precautionary treatments, mental health and trauma-informed counseling, as well as substance-use related care. Due to the nature of the experiences of those who access this clinic, H.E.A.L.T.H clinic does not require proof of documentation.

A large component of the NP practice includes health promotion and prevention of disease and illness through health teaching, counseling and screening of patients, often working with numerous other health and community services in caring for marginalized populations. NPs in this setting provide flexible, comprehensive and holistic care. Their focus is on treating the whole person, understanding the health impacts of trauma and improving health outcomes.

The NPLC where Tara provides this specialized care is unique in Ontario and across the country. It is novel in its approach, yet serves as an example of the vast capacity, utility, willingness and motivation of NPs to provide comprehensive health care to those at most risk. To continue optimizing the utilization of NPs within current scope, the government must scale up investment in these models.

The government must sustainably fund new NP-led programs in underserved settings and sectors. Implementing sustainable funding has been shown to help facilitate the integration of NPs within the system.[76] [77] [78] [79] Expanding successful programs, such as the attending NPs in LTC homes program, across sectors will increase access to care and improve outcomes for underserved populations. An NP in home care, in the role of most responsible provider (MRP) and/or primary care provider (PCP), is able to identify frequent emergency department users and intervene in a timely and safe manner, preventing patient deterioration at home and reducing system costs. NPLCs have been shown to optimize NP roles to help improve access to care for Ontarians. The government must extend funding to scale up these successful programs to other sectors and settings for optimal impact of the NP role.

Finally, the government should fund and implement additional programs to capture other underserviced and vulnerable populations in need of holistic care services across all sectors of the system and in a variety of settings, such as consumption treatment service sites, rapid access addiction medicine clinics, street and shelter-based services for the homeless, and women and youth shelters. NP provision of such services prevents increasing despair and susceptibility to a range of health challenges. Scaling up and scaling out of successful NP programs to novel settings will increase access to care, improve health outcomes and reduce system costs.

DEVELOP NP ROLES ON ONTARIO HEALTH TEAMS (OHT) TO HAVE NPs FUNCTION AS CLINICAL EXPERTS AND SYSTEM NAVIGATORS FOR PATIENTS, FACILITATING THEIR ILLNESS TRAJECTORY ACROSS SECTORS AND TRANSITIONS IN CARE, IN ACCORDANCE WITH IDENTIFIED POPULATION HEALTH NEEDS

RECOMMENDATION 2.1

ACTION

GOVERNMENT to provide funding to the primary care sector for NPs to undertake such roles, with an emphasis on preventive health care.

Optimizing utilization of NPs in a transformed health system can greatly impact vulnerable and underserved populations, such as those described in the case example below. An integrated health system must be supported by nurses, and in particular NPs, who can work across sectors. It is imperative for government to fund NPs as part of OHTs where they can function as clinical experts and health system navigators who can provide cross-sector transitional care for displaced clients to ensure they are not left untreated. NPs in this role must have cross-sector privileges within their OHT boundaries allowing them to serve vulnerable and underserved populations in accordance with their health needs.

CASE EXAMPLE: PROVIDED BY HOODO, NP

Hoodo is an NP providing onsite primary care to underserviced communities. She sees Jamie, a 24-year-old male who has been released from a correctional facility to the shelter system after being incarcerated for six months. He has a history of polysubstance use. Jamie has recently experienced several overdose incidents related to Fentanyl use and would benefit greatly from accessing a local rapid access addiction clinic. He worries that in the interim he will relapse and possibly overdose while waiting to see a prescriber for opioid use disorder management.

Jamie indicates that while he plans to refrain from substances, he struggles with pressure from peers in his environment to engage in this behaviour. Hoodo knows it is not uncommon for clients like Jamie to be discharged without a health-care provider. She is able to provide one-time service and assessment to Jamie. However, due to her role limitations across sectors and her caseload, she cannot follow-up to ensure that Jamie's health-care needs are being met, even though evidence indicates those recently released from correctional facilities are 12 times more likely to die. Twenty per cent of those who die do so within the first week of their release from custody.[80]

PROMOTE THE USE OF A SYSTEMATIC PLANNING PROCESS FOR ROLE DEVELOPMENT AND IMPLEMENTATION, INCLUSIVE OF CONSULTATION WITH KEY STAKEHOLDERS AND THE INTERPROFESSIONAL TEAM, WITH ALLOCATION OF ADEQUATE RESOURCES TO THE PLANNING PROCESS

RECOMMENDATION 2.2

ACTION

- **GOVERNMENT** to use the above-noted process for planning new system-level roles.
- **OHTs AND ORGANIZATIONS** to apply this recommendation to regional and local role planning and implementation.

To ensure the successful development and implementation of new NP roles across the system and within organizations, government and organizations must use a systematic planning process or framework. A planning framework helps to promote successful role establishment and enables the organization and the system to reap all the benefits of having an NP.[81] [82] [83] [84] [85] As the NP role is scaled up and scaled out across Ontario, a process needs to be implemented to ensure success. From a systems perspective, this approach should be used for regions where we know there is a primary care provider shortage, or an anticipated shortage, in order to develop and implement plans based on a thorough assessment to help fill primary care gaps. From an organizational perspective, as discussed by Hurlock-Chorostecki and McCallum (2016), the planning process is crucial to ensuring the vision and goals for the NP role align with those of the organization.[86] It is essential that these processes are undertaken in consultation with key stakeholders, to solicit feedback on the implementation process.

It is also essential that resources are in place to support the NP in their work (e.g. physical clinic space, administrative assistance, equipment, etc.).[87] [88] [89] [90] Both the literature and task force members identify the absence of supportive resources as a barrier to the successful implementation of new NP roles. Also necessary for success is the provision of protected time for non-clinical activities that support NPs to achieve all their competencies, such as research, quality improvement, continuing education and teaching. As part of undertaking role planning, these factors should be established at the outset to ensure successful implementation.

DEVELOP CLEAR POLICIES, COMMUNICATION STRATEGIES AND EDUCATION REGARDING NP ROLE DEFINITION AND RESPONSIBILITIES WITHIN AN ORGANIZATION THAT ENABLE NPs TO SUCCESSFULLY INTEGRATE INTO BOTH NEW AND ESTABLISHED ROLES. ENGAGE NURSE EXECUTIVES AND OTHERS AS CHAMPIONS OF THE NP ROLE

RECOMMENDATION 2.3

ACTION

OHTs AND ORGANIZATIONS to implement policies and strategies to create NP roles enabling them to work to their full scope of practice.

There is overwhelming evidence indicating that clear communication from leadership and unambiguous policies related to NP role definition facilitate successful role development.[91 92 93 94 95 96 97 98] When planning for the implementation of NP roles within OHTs and organizations, it is essential that clear policies are in place in order to enable optimal role functioning. In addition, clearly establishing and communicating expectations for the role and the vision for how the role interfaces with the existing interdisciplinary team, fosters interprofessional collaboration among team members. This collaboration contributes to building mutual respect and promotes team functioning.[99 100] Full acceptance and advocacy from nursing administration and leadership has also been shown to be an effective facilitator for establishing and sustaining NP roles within an organization. It is essential for leaders to reinforce policies and communicate clearly with the interprofessional team. The ability of the NP to function to their full scope in the team environment is critical to job satisfaction and retention.[101]

ORGANIZATIONS TO ENABLE INTRA-PROFESSIONAL COLLABORATION AMONG RPNs, RNs AND NPs IN ORDER TO FOSTER HIGH-FUNCTIONING TEAMS

RECOMMENDATION **2.4**

ACTION

- **NURSES** to engage in efforts to advance the profession through leadership development, collaboration and team building.
- **GOVERNMENT** to fund professional development offerings through academic institutions related to clinical and strategic leadership and intra-professional team development.

Burgess and Purkiss (2011) found that NPs: rely on collaboration for their role development; foster and model sharing of expertise within the team; and demonstrate a commitment to egalitarian power relationships.[102] [103] NPs are well-positioned to promote intra-professional collaboration by modeling effective team behaviours and establishing processes for shared decision-making.[104] Intra-professional conflict was cited in the literature as a barrier to NP integration within a practice setting.[105] Nurses must be supportive of colleagues through clear role definition and powering one another to work to full scope of practice.

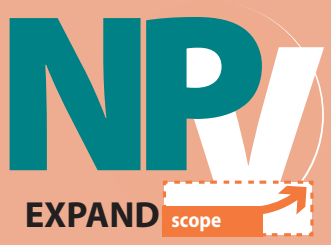
OHTs and health organizations can build on the foundations laid out in previous recommendations by using a systematic planning framework for role implementation (e.g. PEPPA) as well as developing systems and processes that promote collaboration and continuity of patient and client care.[106] Both formal and informal mentorship and preceptorship programs play an integral part in building these relationships and fostering collaboration amongst nurses. OHTs and health organizations can also support nurses in intra-professional practice by providing learning opportunities for nurses, developing competencies for intra-professional practice that are linked to performance appraisals, and providing the opportunity for feedback on intra-professional practice.[107] Government can help to facilitate intra-professional practice by allocating funding for collaborative team development and evaluation initiatives, nursing leadership development initiatives, technology to support team interaction, staffing levels to enable person-centred models of care, recruitment and retention, and an approach to safe and equitable workload that uses design, implementation and evaluation approaches.[108]

EXPAND THE SCOPE OF PRACTICE FOR NPs

RECOMMENDATION **3**

ACTION

- **GOVERNMENT** and regulatory bodies to make necessary changes in legislation and regulation to respond to population health needs.
- **OHTs AND HEALTH ORGANIZATIONS** to ensure all necessary policies and procedures are in place to facilitate NPs to work to full scope in all domains of practice, including governance, across all sectors.
- **RNAO** to continue to advocate for scope expansion for NPs to include point-of-care testing (POCT), ordering of computed tomography (CT) and magnetic resonance imaging (MRI), the ability to complete forms under the *Mental Health Act*, ordering EEGs, and certifying death in all situations.



A combination of factors will influence the authority of NPs to practise to their full scope and in expanded roles. Eliminating all legislative, regulatory and organizational obstacles becomes critical for NPs to provide Ontarians with increased access to health services. In June 2019, the Ministry of Health directed the College of Nurses of Ontario (CNO) to expand the scope of practice for NPs in Ontario to include point-of-care-testing (POCT) and the ordering of computed tomography (CT) and magnetic resonance imagining (MRI). These changes were promised for Winter 2020 however it has not happened yet.[109] It is essential these scope changes are realized urgently and scope continues to expand. For example, in Ontario, the ability to complete forms under the *Mental Health Act*, order additional forms of energy, such as EEGs and to certify death in all situations, are all aspects of expanded scope that would make full use of NPs in their current roles.[110]

Furthermore, discrepancies in scope of practice for NPs across Canada prevent full integration of NPs into the health system and contribute to confusion regarding the role itself.[111] [112] [113] [114] [115] NPs are authorized to diagnose illness, order and interpret diagnostic testing, prescribe medications, perform advanced procedures and make referrals to other health-care providers as appropriate. However, the degree of autonomy in practice differs between jurisdictions.[116] [117] An expanded and harmonized scope and autonomy across jurisdictions would increase access to NP care provincially and reduce discrepancies in access federally. As NP roles are optimized and expanded across jurisdictions, additional legislative, regulatory and organizational barriers to full role utilization become more apparent.[118] It is important that as these newly identified issues emerge, they are addressed by government in a timely manner so access to quality services is improved.

The task force reviewed NP scope across sectors to better understand the responsibilities of practising NPs and factors that both optimized and restricted their contribution. The task force's environmental scan identified restrictive organizational policies as a significant barrier to the full and effective utilization of NPs. As an example, although regulatory changes to Ontario's *Public Hospitals Act*, made in 2011 and 2012, authorize NPs to admit and discharge patients and act as most responsible provider (MRP) in hospital settings, very few organizational policies allow for NPs to act in this capacity.[119] An NP who is able to follow their patient through their hospital stay is able to provide continuity of care, increase patient safety and advance the Quadruple Aim.

The practice of not formally recognizing NPs as MRP in some primary care settings, even though they may be acting as MRP, further limits the NP scope of practice and access to client records. This situation occurs as a result of funding limitations and not only compromises capturing data for NP-provided care in current Ministry of Health data repositories, but also influences organizational policies. For example, an NP who is not recognized as MRP in a primary care setting may have difficulty obtaining consultation notes or diagnostic test results for a patient. This fragmentation of communication results in delays in care and potential safety issues for the patient. This, in turn, impedes progress in all four quadrants of the Quadruple Aim.

When NPs are not permitted to function to their full scope, there are negative impacts to timely access to care regardless of sector or setting. Extensive evidence on the value of NPs demonstrates that fully utilizing NPs results in improved quality of care, patient outcomes, patient experience and cost-effectiveness.[120] Organizations can help to ensure successful integration of NPs practising to full scope across settings through supportive leadership and nursing administration.[121] [122] [123] [124] [125] [126]

CASE EXAMPLE: PROVIDED BY DAVID, NP

David is an NP at a walk-in clinic, a service provided by a family health team. Early in the COVID-19 pandemic, a young mother of two, Jane, called the clinic based on the directive that all patients be triaged, assessed, diagnosed and treated via phone until a video assessment option became available. Jane reported that since December 2019 she had bilateral, thick green nipple discharge and palpable lumps in her breasts. She advised that a few months prior, she went to her primary care provider (PCP) with the concern and was ordered diagnostics of a mammogram, ultrasound and swab sample of the discharge. Jane was informed on follow-up that her mammogram was "clear and nothing was wrong." The ultrasound was cancelled due to this normal result.

Since these symptoms had not resolved, Jane attended the clinic to see David in person as her PCP was not taking new appointments during COVID-19. On assessment, David learned that Jane was experiencing the same irregular discharge and new, firm lumps in her breasts. David noted the normal mammogram results and the swab sample report, which indicated "inadequate sample."

Based on a concerning family health history, he ordered a new requisition for discharge swab sample and requested a bilateral breast/axillary node ultrasound and an external pelvic ultrasound. Within one week, the results were returned to David. The breast ultrasound showed cystic-like nodules and masses that could be malignant, and the pelvic ultrasound showed several cystic areas on the ovaries, possibly also malignant and therefore requiring CT-guided biopsy to be confirmed.

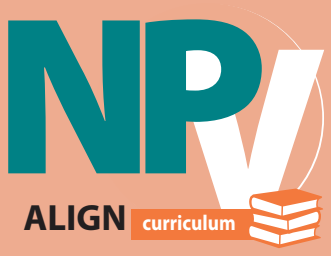
David's scope of practice restricts ordering subsequent testing, so he immediately contacted Jane's PCP for urgent follow-up. Jane was already possibly four months into a cancerous disease process and may have experienced further delays in treatment, reducing her chances of a good response if she unable to connect in a timely way with her PCP.

ALIGN NP CURRICULUM WITH EXPANDING SCOPE OF PRACTICE

RECOMMENDATION **4**

ACTION

- **ACADEMIC INSTITUTIONS AND COLLEGE OF NURSES OF ONTARIO (CNO)** to continue ongoing review and assessment of curriculum to identify gaps and areas for revision in the NP curriculum.
- **GOVERNMENTS ENSURE FUNDING** to enable NPs to be prepared at PhD and Doctorate of Nursing Practice (DNP) levels to provide faculty support in expanded academic programs.
- **GOVERNMENTS PROVIDE FUNDING** to ensure sufficient PhD- and DNP- prepared NPs serve as faculty in expanded academic programs.



As government and regulatory bodies make the necessary changes in legislation to expand the NP scope of practice in response to population health needs (see Recommendation 3), NP curriculum and continuing education/professional development courses must be expanded and adapted to prepare NPs to practice to their full scope. Academic institutions must continue to collaborate through regional and national bodies to review and revise curricula, and work with clinical sites and preceptors to ensure both currency and relevance as the NP role evolves in Canada.[127] [128] Such program revisions must also meet the quality standards set by national and jurisdictional regulatory bodies.

Further, faculty teaching in NP programs needs to be supported to achieve PhD or DNP or Doctorate of Nursing (DN) degrees.[129] Currently, there is a shortage of nursing faculty who practice as NPs and have academic preparation at the doctoral level. Many practising NPs lack the appropriate credentials for admission to doctoral studies required for such academic positions. However, there is evidence they are best positioned to teach student NPs, particularly when their clinical experience is combined with doctorate-level education.[130] [131] [132] Government funding will enable practising NPs and current NP faculty to obtain necessary doctoral-level preparation. This will help ensure NP students receive comprehensive education enabling them to lead and critically apply research, utilize and support implementation of evidence-based guidelines and competently practise in an expanded scope.

INCREASE THE NUMBER OF AVAILABLE PRECEPTORS FOR NP STUDENT PLACEMENTS BY ENSURING PROTECTED TIME TO MEET ALL NP COMPETENCIES, INCLUDING EDUCATION. OFFER RECOGNITION, SUCH AS LIBRARY ACCESS, ADJUNCT APPOINTMENTS AND SUPPLEMENTARY EXPENSES (E.G., PARKING)

RECOMMENDATION 4.1

ACTION

ACADEMIC INSTITUTIONS, IN COLLABORATION WITH PRACTICE PARTNERS, to assess current practices and develop and implement a plan to build and support a team of NP clinical preceptors across placement sites.

Over the last decade, NP program capacity in Canada has grown significantly. From 2012 to 2018, with the addition of only two new NP programs across the country,[133] the number of admissions into NP programs of all types, including post-RN, master's and post-master's, increased by 144 per cent (from 300 to 733) while the number of NP graduates increased by 56 per cent (from 362 to 564).[134] [135] Such gains in NP program capacity create an increased need for clinical placements as well as willing and competent preceptors for NP students.[136] In a 2018 study conducted by the NP Education Interest Group, a sub-group of the Canadian Association of Schools of Nursing (CASN), 17 Canadian universities offering an NP program identified barriers and facilitators to NP preceptor recruitment and retention. Overwhelmingly, respondents cited their student numbers as exceeding that of available placements and preceptors, which causes overutilization of current preceptors, burnout and a reluctance to take new NP students.[137] Some programs, in the absence of an available NP, had to resort to physician preceptors, and as many as 47 per cent of the programs provide remuneration to preceptors as a recruitment and retention strategy.[138]

Given preceptors and clinical placements are essential components of quality NP education, immediate action is needed to address this shortage. By increasing the supply of NPs across sectors and settings to better meet population health needs (see Recommendation 1), the government will also relieve pressure on academic institutions to secure sufficient nursing preceptors for incoming and current NP students. Further, academic institutions must continue to strategize regarding a variety of forms of recognition to attract the untapped resource of NPs not currently precepting, particularly in rural and remote communities (see Recommendation 4.2). Such forms of recognition include library access, access to student materials or continuing education programs (see Recommendation 4.4), preceptor excellence or recognition awards, adjunct faculty appointments, supplementation of expenses (e.g. parking expenses), no-cost preceptor workshops and appreciation events.[139] Further, support for preceptors in the form of formal training/education, webinar orientation and online resources are an effective strategy for attracting and retaining preceptors across a large geographic area.[140]

Finally, NPs must be afforded time to teach, mentor and precept the next generation of NPs as their physician counterparts do for residents and medical students. Adequate time for the precepting process must be built into the NP role description and organizational contract.

ENSURE GEOGRAPHY OF PLACEMENTS IS TAKEN INTO ACCOUNT, AND PROVIDE NECESSARY FINANCIAL SUPPORT FOR STUDENTS TRAVELLING TO REMOTE INDIGENOUS AND RURAL COMMUNITIES

RECOMMENDATION 4.2

ACTION

- **ACADEMIC INSTITUTIONS** to assess current placements and supports in place.
- **GOVERNMENT** to supplement costs of NP students completing their placements in rural and remote areas.

NPs are vital care providers in rural, remote and northern settings. As their role spans the continuum of care, NPs can be found in all areas of the system, from acute care and medical evacuation, to primary care at nursing stations, home care, public health and beyond. Despite this, nursing human resource interventions often favour urban practice areas, and recruitment and retention of NPs into rural, remote and northern areas is a challenge.[141] Exposure to rural, remote and northern practice through clinical placements has been shown to facilitate recruitment.[142]

Academic institutions are encouraged to continue to foster and expand partnerships with rural, remote and northern communities, coordinating student placement opportunities in line with community needs and capacity for introducing new health-care practitioners. In tandem, students require financial support from government to overcome barriers often associated with placements in the north, such as travel, accommodation and food expenses.[143] Expanding placement opportunities into rural and remote Indigenous communities is an important step forward in recruiting and educating the next generation of Indigenous health NPs. The value of such placements for student learning, and as a recruitment tool, is demonstrated in the case example below. With the right opportunities and support, the NP workforce in the north can be augmented and sustained, promoting access to care, better outcomes and health-system cost-effectiveness.[144]

CASE EXAMPLE: PROVIDED BY CARLA, NP*

Carla is an NP providing comprehensive health care to a remote nursing station with Indigenous Services Canada. She is one of few NPs providing advanced nursing care in the area and carries a large patient assignment, as well as many responsibilities related to clinical leadership, policy development and mentoring fellow nursing colleagues. Her role, similar to other NPs at nursing stations in Ontario, ranges from providing chronic disease management to serving as a primary care provider, assessing and treating patients with a variety of conditions. Carla collaborates with local community workers – including those offering prenatal care, mental health support, and dental services – to deliver comprehensive, patient-centred care. She is often on-call after hours to ensure emergency care is accessible to the community.

Though Carla's role is incredibly busy, she welcomes and encourages student NPs to explore clinical placement opportunities in her own and other rural and remote Indigenous communities. In her experience, students with an understanding of Indigenous colonial history in Canada, who also understand the ongoing racism and discrimination towards Indigenous peoples, and can embrace a respectful, culturally safe, holistic approach, are welcomed by the community and utilized as a valued health-care resource. While on placement, NP students are able to build trusting and meaningful relationships with the community, thus experiencing both the practice and the rewards of engaging in such work.

To Carla, expanding placement opportunities into rural and remote Indigenous communities, with supplemental funding for accommodation and travel, is an important step forward in recruiting and educating the next generation of Indigenous health NPs. With the right opportunities and support to do so, Carla believes the NP workforce in the north will achieve new heights, in numbers and outcomes related to quality care and population health.

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* Carla is a pseudonym for the NP providing this case

PROMOTE EXCELLENCE IN NP PRACTICE WITH INDIGENOUS COMMUNITIES BY SUPPORTING NP CURRICULA, INCLUDING PLACEMENTS THAT FACILITATE THE ABILITY TO PROVIDE EQUITY-ORIENTED HEALTH CARE, EMPLOYING TRAUMA- AND VIOLENCE-INFORMED, CULTURALLY SAFE, HARM REDUCTION AND CONTEXTUALLY TAILORED APPROACHES

RECOMMENDATION 4.3

ACTION

- **ACADEMIC INSTITUTIONS** to engage with Indigenous communities (urban, rural and remote) to review and tailor current NP program content to better prepare students to provide respectful, equity-oriented health care for Indigenous peoples and communities.
- **ACADEMIC INSTITUTIONS** to partner with Indigenous health agencies/programs/centres to learn how to best support NP student placements within Indigenous communities.

At the 2014 Global Advanced Practice Nursing (APN) Symposium, the International Council of Nurses (ICN) envisioned standardization of the APN role through five key recommendations, including enhancing the APN (i.e. NP) educational curriculum by respecting cultural diversity.[145]

With more NPs pursuing primary health care in non-traditional settings (see Recommendation 2), and with populations that are underserviced, vulnerable or marginalized by inequity,[146] it is incumbent upon educators and academic institutions to ensure NP curriculum instills the principles of equity-oriented health care (EOHC), which includes concepts of culturally safe, trauma- and violence-informed, harm reduction and contextually tailored care.[147] [148] At its core, EOHC is "about creating safe and respectful environments while tailoring health care to fit the needs, priorities, history and contexts of individual patients and populations served."[149] Strongly reflecting the Quadruple Aim, it is strengths-based, facilitates capacity-building and empowers connections and collaboration between care provider and patient/client.[150]

Results of the environmental scan align with that of the literature review, indicating many NPs self-identify this knowledge gap and are eager for the opportunity to learn the principles of EOHC, including how to create emotionally, physically and culturally safe environments, foster opportunities for choice, and understand how trauma and violence shape people's lives and behaviours,[151] and health and wellbeing.[152] [153] Task force members also identified clinical placement as an opportunity to integrate EOHC into practice. For example, with Indigenous communities (see Recommendation 4.2), the practical experience allows NP students to gain both historical and contextual understanding.[154] The case example below demonstrates how NPs, when given the opportunity to frequently engage with, learn from and earn the trust of the communities they serve, are able to enact positive change through a strengths-based and EOHC lens.

Implementation of EOHC is shown to predict better outcomes for those living in marginalizing conditions. The practitioner is able to take into account the broader social and structural inequalities of the patient, as well as enhance the patient's comfort and confidence in managing their own health problems.[155] [156] As patients' perceptions of their care improve, society also benefits from a reduction in costs to the health-care system.[157] Thus, implementation of educational models and experiences that incorporate EOHC have the potential to develop knowledge, confidence, positive practices and attitudes in NPs as a means to build capacity within their practice and better support Indigenous communities.[158]

CASE EXAMPLE: PROVIDED BY ERIN, NP

Erin is an NP providing health-care services to two remote, northern Indigenous communities in Ontario. The populations Erin serves are disproportionately affected by social determinants of health and face challenges, such as a lack of clean, running water; food insecurity, employment insecurity and crowded housing environments. The predominant condition Erin treats is Type 2 diabetes across the lifespan. Diabetes care is enhanced by health-care providers who are able to offer continuity of care, health and nutritional education and intervention, and a preventive, culturally-sensitive approach.

Erin contributes consistent full-time service within the health team, providing her with the opportunity to get to know and to earn the trust of community members. Erin supports empowerment of her clients to be active participants in their health with impressive results.

In just 12 months, glycated hemoglobin (A1C) levels have been reduced in the community population by 0.5 per cent. This is an effective measure of diabetes management and can predict associated complications [179] and attests to the effectiveness of a comprehensive approach to populations with a high risk and high prevalence of Type 2 diabetes. In addition, through powering community members with knowledge about their health and disease prevention, they have been able to successfully advocate for more nutritious foods in their local grocery store.

ENABLE ACCESSIBLE CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT OPPORTUNITIES FOR NPs, TAKING INTO ACCOUNT EXPANDED SCOPE OF PRACTICE AND ROLES

RECOMMENDATION **4.4**

ACTION

- **ACADEMIC INSTITUTIONS** to receive stable, sustained funding to optimize safe, quality care and enhanced outcomes by ensuring continuing education and professional development are accessible, competency-based and relevant to practice.
- **ACADEMIC INSTITUTIONS** to identify emerging health-care needs, such as those in underserviced populations, to ensure sufficient professional development programming in these clinical areas.
- **OHTs AND HEALTH ORGANIZATIONS** to ensure funding and protected time for NPs to engage in clinical practicums as part of NP professional development.

The College of Nurses of Ontario's *Nurse Practitioner Entry-to-Practice Competencies* hold NPs responsible for "integrating both formal and informal education into their practice," including professional development.[159] However, the environmental scan and literature review conducted by the task force indicate a lack of widely accessible educational programs, continuing education and professional development as a barrier to NPs updating their knowledge. This lack of opportunity was also a barrier to integrating new knowledge into NP practice on an ongoing basis.[160] [161] [162] Additionally, continuing education and professional development programs are often in-person events that may be geographically inaccessible and/or cost-prohibitive. Furthermore, there may be a lack of specialized education for certain roles or specialties.[163] In order to ensure NPs have access to the continuing education and professional development needed to maintain and develop their competencies, relevant opportunities must be available to all NPs regardless of geographic and/or financial circumstances.

HARMONIZE UPWARDS NP COMPENSATION ACROSS ALL SECTORS AND SETTINGS

RECOMMENDATION **5**

ACTION

- **GOVERNMENT** to provide sustainable funding for NPs in those scaled-out positions outlined in Recommendation 2.0, recognizing the unique requirements of some NP positions, such as "on-call" and "call-backs."
- **HEALTH ORGANIZATIONS AND OHTs** to offer compensation and benefits packages that are in line with recent salary recommendations and include such coverage as health and dental, vacation time and protected professional development time.
- **RNAO** to advocate for equitable compensation and benefits.

Recruitment and retention is essential for the successful integration and growth of NPs within the health system. The literature indicates that there is variability between, and sometimes within, sectors with regards to remuneration and benefits packages. Karimi-Shahanjarini et al. (2019) identified competitive compensation as a facilitator to the integration of NPs into primary care, while variability has been shown to act as a barrier to the integration of NPs into such roles.[164] [165] [166] [167] [168] Compensation needs to be in line with current market values identified for NP services, much like those developed to guide recruitment and retention in Ontario's interprofessional primary care organizations.[169] Benefits packages include pensions, health services, vacations and other leave provisions, as well as premiums for on-call work and access to funding for professional development and continuing education.[170] In their 2018 survey, Little & Reichert found salary and benefits to be the biggest source of dissatisfaction for NPs.[171] In order for the system to reap the benefits of existing NPs and to grow the number of NPs, it must be able to attract and retain them.

INVEST IN RESEARCH TO SUPPORT NP PRACTICE AND IMPROVED HEALTH OUTCOMES

RECOMMENDATION **6**

ACTION

- **ACADEMIC INSTITUTIONS** to promote NP-led research, ensure NP preparedness to utilize and conduct research, and promote opportunities for enrolment in doctoral programs.
- **RNAO TO TAKE THE LEAD ON SECURING FUNDS** for an NP and clinical nurse specialist (CNS) research chair position to focus on maintenance of an NP/CNS-related research database (e.g. role-effectiveness research), creation of a research agenda and building a culture of research and evidence.
- **RNAO** to engage with NP members and advocate for research about the role and impact of NPs and NP-led clinical outcomes research.
- **HEALTH ORGANIZATIONS AND OHTs** to support protected time for NP-led research**.**

It is essential that NPs align their role with population health needs reflecting the SDOH and SDGs, based on relevant research.[172] In 2015, the Nurse Practitioner Research Agenda Roundtable released recommendations regarding future directions for NP research, including policy and practice models/programs and NP workforce (Roberts & Goolsby, 2017).[173] Research into NP outcomes is needed on an ongoing basis in order to ensure programs are effective and safe. Investment into growing the number of NPs who conduct research in these areas will help to further optimize and expand the NP role in Ontario. In order to achieve this, NPs need to be supported to take on research and to seek out research opportunities with partners in academia.[174] This can be achieved, in part, by establishing programs focused on promoting doctoral preparation among NPs.

Investment in an NP and CNS research chair will provide expertise and resource to establish and maintain an NP/CNS-related program of research and a research database. Considerable data have been amassed over the past 40 to 60 years that could serve a broader purpose if categorized into a readily accessible database. Such a database will inform wide-reaching initiatives related to NP role optimization and its impact on the Quadruple Aim and SDGs, in a transformed health system. A research chair will also be instrumental in setting an NP-focused research agenda related to contributions to health-system transformation and the effectiveness of NPs/CNSs, as well as contributions to practice, education, policy, research and governance, including organizational and system impacts. Finally, a research chair will provide strong impetus for creating a culture of research and evidence as part of the NP role across health settings.

RNAO has begun the important work of establishing a publicly available NP/CNS-related research database, examining the effectiveness of NP and CNS roles on clinical, financial and organizational outcomes, as well as scope of practice, role expansion and enhancing NP utilization. This database will serve as a critical decision-making tool across the system for health-care organizations, academic organizations, OHTs and NPs.

OPTIMIZE ACCESS AND CONTINUITY OF CARE BY ENSURING ALL INSURANCE BENEFIT CARRIERS, AND OTHER SUCH PAYERS, ACCEPT NP SERVICES ANALOGOUS TO PHYSICIAN COUNTERPARTS

RECOMMENDATION **7**

ACTION

- **INSURANCE COMPANIES** to implement immediate policy changes to recognize NP prescribers.
- **GOVERNMENT** to make necessary legislative, regulatory and administrative changes to recognize NP prescribers.

The task force conducted an environmental scan and consulted with NPs to identify ongoing declinations from insurance companies as a major barrier to daily practice. Declinations hinder timely access to care for patients, especially in circumstances where the NP is the most responsible provider (MRP). Most concerning is the reality that patients face unnecessary suffering when NP prescriptions for medications, equipment, supplies and services are declined, resulting in delays in care or discontinuation of service. Further, there are unnecessary health-system costs associated with the additional time expended by both the NP and the physician should an NP have to consult a physician to get approval for the prescribed treatment. Finally, there are liability risks for physicians who provide a signature for approval when they are not available to review the clinical situation in full. All of these affect and undermine the Quadruple Aim.

Advocacy with insurance regulatory bodies, including the Financial Services Regulatory Authority of Ontario (FSRA), in order to mandate change within the industry, is a critical action related to this recommendation.

CASE EXAMPLE: PROVIDED BY BETH, NP

Bonnie is an NP working in primary care at a rural family health team (FHT). There are two other NPs and one physician on the team. Richard, a long-time client of the clinic, recently accepted a new job that offers extended health benefits through a large insurance carrier. Richard suffers from sleep apnea, which can cause serious health issues. He has been strongly encouraged to begin using a CPAP machine, which has been reinforced at each clinic visit. The referral to the sleep clinic was initially made by Bonnie, his regular primary care provider.

Richard took time off work to attend a consultation and overnight sleep lab appointment in another town. He was fitted for a CPAP mask/machine and completed the paperwork for insurance reimbursement directly with the supplier. A signature of the prescribing practitioner was required, so he returned to the clinic and Bonnie, pleased he moved ahead with the treatment, signed the form.

Ten days after submitting his paperwork, Richard received the form back stating his claim was "not approved." A physician's signature was required. Richard returned to the clinic to discuss the matter with Bonnie. She contacted the supplier and was told they cannot do anything without a physician's signature. After explaining her role as an NP primary care provider, Bonnie was told the insurance carrier lists only physicians as able to sign, and has not updated the policy to include NPs, so she needed to have a physician sign the form and follow the process.

The physician was away for the rest of the week, so Bonnie asked Richard to return the following week to pick up the form. Bonnie needed to find time to discuss Richard's health situation with the physician. The physician then needed to look at Richard's record and call him to review, so not to face any liability. She also had to bill him for signing the insurance form.

When Richard resent the signed form, almost a month had passed since his initial discussion with the supplier. They no longer had CPAP machines in stock, and he had to wait at least two weeks for the next shipment. Richard was extremely frustrated, stressed over pressures of his new role, and had gained significant weight. His care team advised him that he may have to return to be re-fitted as the current mask may not treat his sleep apnea if not a proper fit.

SHOWCASE IMPACT OF NPs THROUGH PUBLIC EDUCATION CAMPAIGNS TO ADVANCE FULL UTILIZATION OF NPs ACROSS ALL SECTORS AND SETTINGS

RECOMMENDATION **8**

ACTION

- **RNAO AND OTHER STAKEHOLDER NURSING ORGANIZATIONS** to engage with members to drive a public awareness campaign.
- **HEALTH ORGANIZATIONS AND OHTs** to promote the role of the NP through awareness campaigns.

NPV SHOWCASE impact

While members of the public say they are very satisfied with their NP, they are not always clear about the scope and role. For example, Stahlk, Rawson and Pituskin (2017) found patients had a high level of satisfaction with NP care, even though they may not have had a clear understanding of the role.[175] More profile and clarity related to the NP role, and advocacy that addresses matters such as insurance coverage and public promotion, will alleviate some of the initial concerns expressed by some patients when their primary care provider is an NP.[176] Research shows that media coverage is a facilitator to increased understanding of the NP role.[177]

Public education in the form of awareness campaigns will facilitate a better understanding of the role and benefits of NPs.[178] Public education that includes the participation of all nurses and nursing support personnel will promote a greater understanding of the NP role, as well as its impact and potential. Consistent messaging about the NP role within the nursing profession will promote intra-professional collaboration. It will also enhance the understanding of and pride in the contribution of the nursing profession to the public, the health system and population health outcomes.

CONCLUSION

Vision for Tomorrow is a blueprint to optimize the role of the NP in a transformed, integrated health system anchored in primary care. The task force was announced and approved unanimously at RNAO's 2019 Annual General Meeting.

The report's conceptual framework – grounded in the Quadruple Aim and the SDGs – highlights the leadership role of NPs in advancing the health of individual clients and populations. While the immediate target of *Vision for Tomorrow* is the province of Ontario, we anticipate it will serve jurisdictions across Canada and internationally.

From its beginnings in the1960s, the NP role has fulfilled its promise to increase timely access to health services, improve health outcomes, reduce complications and reduce costs. Evidence shows NPs can do much more to address long-standing challenges and advance health equity, health-system transformation and integration. NPs can and are filling gaps in our health system.

The evidence in this report is augmented by real-life examples of the significant role of NPs during the COVID-19 pandemic, where emergency directives and regulations have enabled NPs across all sectors of the health system to demonstrate their extraordinary system contributions, particularly in long-term care, where some have acted as medical director in the absence of physicians.

Vision for Tomorrow contains eight recommendations and companion actions targeted to government, health organizations across all sectors, OHTs, academia, regulators, legislators and the nursing profession. Concerted and collaborative effort across the system will enable the implementation of these recommendations in a timely and sustained manner to fully optimize the NP role and advance patient, population, organization and health-system outcomes.

Vision for Tomorrow was released during RNAO's 21st Annual Queen's Park Day on Feb. 25, 2021. The date was chosen very purposefully, as it is symbolic of our call to government to leverage the NP role to transform our health system for today and well into the future. There is no time to wait and no time to waste. Ontarians are in desperate need of timely access to quality care. Every person in every community deserves that care, especially the most vulnerable among us.

REFERENCES

[1] Registered Nurses' Association of Ontario (RNAO). (May, 2020). *Enhancing Community Care for Ontarians (ECCO) 3.0*, 22-23. Retrieved on November 1, 2020 from https://rnao.ca/sites/default/files/2020-05/ecco-report-3.0.pdf?_ga=2.179629732.1866300087.1600789249-1010315699.1580910259

[2] *Ibid.*

[3] Sikka, R., Morath, J.M., & Leape L. (2015). The Quadruple Aim: Care, health, cost and meaning in work. *BMJ Quality & Safety. 24*, 608-610.

[4] United Nations. (2020). *Sustainable development goals report 2020*. Retrieved on December 2, 2020 from https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf

[5] Staples, E. and Ray, S.(2016). An Historical Overview of Advanced Practice Nursing in Canada. In E. Staples, S. Ray, & R. Hannon (Eds), *Canadian Perspectives on Advanced Nursing Practice: Clinical Practice, Research, Leadership, Consultation and Collaboration* (First Canadian Edition), (2-22). Toronto, Ontario, Canada: Canadian Scholar's Press. https://www.canadianscholars.ca/books/canadian-perspectives-on-advanced-practice-nursing

[6] Delvin, M.E., Braithwaite, S., & Camargo Plazas, P. (2018). Canadian nurse practitioner's request for identity: A philosophical perspective. *International Journal of Nursing Sciences, 5*(2), 110-114.

[7] *Ibid.*

[8] Kaasalainen, S., Martin-Misener, R., Kilpatrick, K., Harbman, P., Bryant-Lukosius, D., Carter, N., & DiCenso, A. (2010). A historical overview of the development of advanced practice nursing roles in Canada. *Nursing Leadership* (Toronto, Ont.), *23 Spec No 2010,* 35-60. Retrieved on November 1, 2020 from: https://www.longwoods.com/content/22268/nursing-leadership/a-historical-overview-of-the-development-of-advanced-practice-nursing-roles-in-canada

[9] Spitzer, W.O., Kergin, D.J., Yoshida, M.A., Russell, W.A., Hackett, B.C., & Goldsmith, C.H. (1973). Nurse practitioners in primary care III: The southern Ontario randomized trial. *Canadian Medical Association Journal, 108* (8), 1005- 1016.

[10] Chambers, L.W., & West, A.E. (1978). The St John's randomized trial of the family practice nurse: Health outcomes of patients. *International Journal of Epidemiology, 7*(2), 153-161.

[11] Delvin, M.E., Braithwaite, S., & Camargo Plazas, P. (2018). Canadian nurse practitioner's request for identity: A philosophical perspective. *International Journal of Nursing Sciences, 5*(2), 110-114.

[12] *Ibid.*

[13] Acorn, M. (2016). The Integration of Advanced Practice Nursing Roles in Canada. In E. Staples, S. Ray, & R. Hannon (Eds), *Canadian Perspectives on Advanced Nursing Practice: Clinical Practice, Research, Leadership, Consultation and Collaboration* (First Canadian Edition), (23-36). Toronto, Ontario, Canada: Canadian Scholar's Press. https://www.canadianscholars.ca/books/canadian-perspectives-on-advanced-practice-nursing

[14] Kaasalainen, S., Martin-Misener, R., Kilpatrick, K., Harbman, P., Bryant-Lukosius, D., Carter, N., & DiCenso, A. (2010). A historical overview of the development of advanced practice nursing roles in Canada. *Nursing Leadership* (Toronto, Ont.), *23 Spec No 2010*, 35-60. Retrieved November 1, 2020 from: https://www.longwoods.com/content/22268/nursing-leadership/a-historical-overview-of-the-development-of-advanced-practice-nursing-roles-in-canada

[15] Legislative Assembly of Ontario. (1997). *Bill 127, Expanded Nursing Services for Patients Act, 1997.* Retrieved on September 15, 2020 from https://www.ola.org/en/legislative-business/bills/parliament-36/session-1/bill-127

[16] *Ibid.*

[17] Kaasalainen, S., Martin-Misener, R., Kilpatrick, K., Harbman, P., Bryant-Lukosius, D., Carter, N., & DiCenso, A. (2010). A historical overview of the development of advanced practice nursing roles in Canada. *Nursing Leadership* (Toronto, Ont.), *23 Spec No 2010*, 35-60. Retrieved November 1, 2020 from https://www.longwoods.com/content/22268/nursing-leadership/a-historical-overview-of-the-development-of-advanced-practice-nursing-roles-in-canada

[18] Legislative Assembly of Ontario. (2007). *Bill 171, Health System Improvements Act, 2007*. An act to improve health systems by amending or repealing various enactments and enacting certain Acts. Retrieved from https://www.ontario.ca/laws/statute/s07010:

[19] Delvin, M.E., Braithwaite, S., & Camargo Plazas, P. (2018). Canadian nurse practitioner's request for identity: A philosophical perspective. *International Journal of Nursing Sciences, 5*(2), 110-114.

[20] Punch, D. (2018). Twenty years later. *Registered Nurse Journal,* 30(2), 12-15.

[21] Thorne, Tammy. (2010). New diploma in anesthesia care: First of its kind in Canada. *Health Policy.* Retrieved January 13, 2021 from https://www.longwoods.com/newsdetail/1251

[22] Ontario Ministry of Health and Long-Term Care. (2011). *Proposed amendments to Regulation 965 made under the public hospitals* act, 2011. Retrieved from from: http://www.ontariocanada.com/registry/view.do?postingId=6182&language=en

[23] RNAO. (2015). *Nurse practitioner utilization toolkit.* Retrieved on December 2, 2020 from http://nptoolkit.rnao.ca

[24] Registered Nurses' Association of Ontario. (2014). Ontario Pre-Budget 2014: Finding the Right Balance. January 16. https://rnao.ca/sites/rnao-ca/files/Ontario_Pre-Budget_2014_Finding_the_Right_Balance.pdf

[25] CBC. (2014). More nurse practitioners needed in long-term care homes: RNAO. https://www.cbc.ca/news/canada/thunder-bay/more-nurse-practitioners-needed-in-ong-term-care-homes-rnao-1.2503530

[26] Canadian Institute for Health Information. *Nursing in Canada, 2019* — Data Tables. Ottawa, ON: CIHI; 2020.

[27] College of Nurses of Ontario (CNO).(2021). Special data request related to nursing workforce data. Received from CNO January, 13, 2021.

[28] Canadian Institute for Health Information. *Nursing in Canada, 2019* — Data Tables. Ottawa, ON: CIHI; 2020.

[29] American Association of Nurse Practitioners. *Historical timeline.* Retrieved on September 15, 2020 from https://www.aanp.org/about/about-the-american-association-of-nurse-practitioners-aanp/historical-timeline

30 Auerbach, D.I., Buerhaus, P.I., & Staiger, D.O. (2020). Implications of the rapid growth of the nurse practitioner workforce in the US. *Health Affairs.* 9 (2) Retrieved on December 2, 2020 from https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2019.00686

[31] American Association of Nurse Practitioners. (2020). *NP facts.* Retrieved on December 2, 2020 from https://storage.aanp.org/www/documents/NPFacts__080420.pdf

[32] US Bureau of Labor Statistics. (2020). *Occupational Employment and Wages, May 2019: 29-1171 Nurse Practitioners.* July 6. https://www.bls.gov/oes/current/oes291171.htm.

[33] US Census Bureau. (2019). 2019 U.S. Population Estimates Continue to Show the Nation's Growth Is Slowing. December 30. https://www.census.gov/newsroom/press-releases/2019/popest-nation.html.

[34] United States Census Bureau. (2019). 2019 U.S. population estimates continue to show the nation's growth is slowing. Retrieved on December 2, 2020 from https://www.census.gov/newsroom/press-releases/2019/popest-nation.html

[35] Canadian Institute for Health Information. (2020). *Nursing in Canada, 2019 — Data Tables*. Ottawa, ON: CIHI; 2020.

[36] Statistics Canada. (2020). *Population estimates on July 1st, by age and sex. Annual. Table: 17-10-0005-01*

[37] Canadian Nurses Association. (2019). Nursing statistics. Retrieved on December 2, 2020 from https://www.cna-aiic.ca/en/nursing-practice/the-practice-of-nursing/health-human-resources/nursing-statistics.

[38] College of Nurses of Ontario (CNO). *Nurse practitioner (NP) programs.* Retrieved on September 15, 2020 from http://www.cno.org/en/become-a-nurse/approved-nursing-programs/np-programs/.

[39] Heale, R. (2016). Advanced Practice Nursing from a Global Perspective. In E. Staples, S. Ray, & R. Hannon (Eds), *Canadian Perspectives on Advanced Nursing Practice: Clinical Practice, Research, Leadership, Consultation and Collaboration* (First Canadian Edition), (311-323). Toronto, Ontario, Canada: Canadian Scholar's Press. https://www.canadianscholars.ca/books/canadian-perspectives-on-advanced-practice-nursing

[40] Sangster-Gormley, E. (2016). The Sustainability of Advanced Practice Nursing Roles in Canada. In E. Staples, S. Ray, & R. Hannon (Eds), *Canadian Perspectives on Advanced Nursing Practice: Clinical Practice, Research, Leadership, Consultation and Collaboration* (First Canadian Edition), (300-310). Toronto, Ontario, Canada: Canadian Scholar's Press. https://www.canadianscholars.ca/books/canadian-perspectives-on-advanced-practice-nursing

[41] Staples, E. (2016). The Future of Advanced Practice Nursing in Canada. In E. Staples, S. Ray, & R. Hannon (Eds), *Canadian Perspectives on Advanced Nursing Practice: Clinical Practice, Research, Leadership, Consultation and Collaboration* (First Canadian Edition), (337-347). Toronto, Ontario, Canada: Canadian Scholar's Press. https://www.canadianscholars.ca/books/canadian-perspectives-on-advanced-practice-nursing

[42] Delvin, M.E., Braithwaite, S., & Camargo Plazas, P. (2018). Canadian nurse practitioner's request for identity: A philosophical perspective. *International Journal of Nursing Sciences, 5*(2), 110-114.

[43] Grinspun, D. (2016). Health Policy in Changing Environments. In E. Staples, S. Ray, & R. Hannon (Eds), *Canadian Perspectives on Advanced Nursing Practice: Clinical Practice, Research, Leadership, Consultation and Collaboration* (First Canadian Edition), (285-300). Toronto, Ontario, Canada: Canadian Scholar's Press. https://www.canadianscholars.ca/books/canadian-perspectives-on-advanced-practice-nursing

[44] Kilpatrick, K., Tchouaket, É., Jabbour, M. & Hains, S. (2020) A mixed methods quality improvement study to implement nurse practitioner roles and improve care for residents in long-term facilities. *BMC Nursing*, **19**, 6. https://doi.org/10.1186/s12912-019-0395-2.

[45] Martin-Misener, R., et al. (2015) Cost-effectiveness of nurse practitioners in primary and specialized ambulatory care: systematic review. *British Medical Journal Open*, **5**, e007167.

[46] Maier, C., Aiken, L. & Busse, R. (2017) Nurses in Advanced Roles in Primary Care: Policy Levers for Implementation. *The Organisation for Economic Co-operation and Development (OECD)* Health Working Papers (98). OECD, Paris. Retrieved on January 13, 2021 from https://doi.org/10.1787/a8756593-en.

[47] Sampedro, A.D., et al. (2020) COVID-19 and Advanced Practice Registered Nurses (APRNs): Frontline update #1, *The Journal for Nurse Practitioners* Journal Pre-Proof. https://doi.org/10.1016/j.nurpra.2020.06.014.

[48] Turale, S., Meechamnan, C. & Kunaviktikul, W. (2020) Challenging times: Ethics, nursing and the COVID-19 pandemic. *International Nursing Review*, **67** (3), 164–167.

[49] Rosa W.E., Fitzgerald M., Davis S., Farley J.E., Khanyola J., Kwong J., Moreland P.J., Rogers M., Sibanda B.& Turale S. (2020) Leveraging nurse practitioner capacities to achieve global health for all: COVID-19 and beyond. *International Nursing Review* 67, 554–559. Retrieved on January 13, 2021 from https://onlinelibrary.wiley.com/doi/pdf/10.1111/inr.12632

[50] Sikka, R., Morath, J.M., & Leape L. (2015). The Quadruple Aim: Care, health, cost and meaning in work. *BMJ Quality & Safety. 24*, 608-610.

[51] United Nations. (2020). *Sustainable development goals report 2020*. Retrieved on December 2, 2020 from https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf

[52] Heale, R. (2016). Advanced Practice Nursing from a Global Perspective. In E. Staples, S. Ray, & R. Hannon (Eds), *Canadian Perspectives on Advanced Nursing Practice: Clinical Practice, Research, Leadership, Consultation and Collaboration* (First Canadian Edition), (311-323). Toronto, Ontario, Canada: Canadian Scholar's Press. https://www.canadianscholars.ca/books/canadian-perspectives-on-advanced-practice-nursing

[53] Bryant-Lukosius, D., Martin-Misener, R. (n.d.). Policy Brief Advanced Practice Nursing: An Essential Component of Country Level Human Resources for Health. International Council of Nurses: Geneva.

[54] Sikka, R., Morath, J.M., & Leape L. (2015). The Quadruple Aim: Care, health, cost and meaning in work. *BMJ Quality & Safety. 24*, 608-610.

[55] Edwards, N. & Grinspun, D. (2011, Sept.) Understanding Whole Systems Change in Healthcare: The Case of Emerging Evidence-informed Nursing Service Delivery Models. Retrieved from http://www.cfhi-fcass.ca/sf-docs/default-source/ogc-reports/Edwards-Grinspun-EN.pdf?sfvrsn=0

[56] Edwards, N., Rowan, M., Marck, P., & Grinspun, D. (2011). Understanding whole systems change in health care: the case of nurse practitioners in Canada. Policy Politics & Nursing Practice 12(1):4-17.

[57] Spitzer, W.O., Kergin, D.J., Yoshida, M.A., Russell, W.A., Hackett, B.C., & Goldsmith, C.H. (1973). Nurse practitioners in primary care III: The southern Ontario randomized trial. *Canadian Medical Association Journal, 108* (8), 1005- 1016.

[58] Chambers, L.W., & West, A.E. (1978). The St John's randomized trial of the family practice nurse: Health outcomes of patients. *International Journal of Epidemiology, 7*(2), 153-161.

[59] CNO. (2019). Data Query Tool: Member Demographics. Retrieved on January 22, 2020 from https://remote.cnomail.org/approot/cno_dqt/dmr_adhoc_pub.htm.

[60] Government of Canada. (2017). *Canadian occupational projection system (COPS): Nurse practitioner – primary health care in Canada*. Retrieved on January 22, 2020 from https://www.jobbank.gc.ca/marketreport/outlook-occupation/25524/ca#nat-projection.

[61] RNAO. (2020). *RNAO pre-budget submission 2020: Investing in health*. Retrieved on December 2, 2020 from https://myrnao.ca/sites/default/files/attached_files/RNAO%202020%20Pre-Budget%20Submission_FINAL.pdf?_ga=2.123686856.2108060696.1579623364-2058813313.1554743518

[62] RNAO. (2020). *Nursing home basic care guarantee: RNAO submission to the long-term care staffing study advisory group.* Retrieved on December 2, 2020 from: https://rnao.ca/sites/default/files/2020-06/Nursing%20Home%20Basic%20Care%20Guarantee%20-%20RNAO%20submission%20to%20LTC%20staffing%20study%20advisory%20group%20-%20Final%20-%20June%2009%2C%202020.pdf

[63] *Ibid*

[64] CNA. (2016). *The Canadian nurse practitioner initiative: A 10-year retrospective*. Retrieved on December 2, 2020 from https://www.cna-aiic.ca/-/media/cna/page-content/pdf-en/canadian-nurse-practitioner-initiative-a-10-year-retrospective.pdf?la=en&hash=406D8F34F947CFD94DA04AE0CF56A739514D01B7

[65] As described by task force member Beth Sweeney, NP practising in the justice system at Craigwood Youth Services

[66] Ministry of Health & Ministry of the Solicitor General. (2020). *Nurse Practitioner led, integrated primary care models in corrections* [PowerPoint slides]. Presentation to the Joint Provincial Nursing Committee (JPNC).

[67] RNAO. (2015). *Nurse practitioner utilization toolkit.* Retrieved on December 2, 2020 from http://nptoolkit.rnao.ca.

[68] Ministry of Health & Ministry of the Solicitor General. (Summer, 2020). *Nurse Practitioner led, integrated primary care model in corrections* [PowerPoint slides]. Presentation to the Joint Provincial Nursing Committee (JPNC).

[69] RNAO. (2015). *Nurse practitioner utilization toolkit.* Retrieved on December 2, 2020 from http://nptoolkit.rnao.ca

[70] Health Insurance Act, R.S.O. 1990, c. H.6. Retrieved on December 2, 2020 from https://www.ontario.ca/laws/statute/90h06

[71] Canadian Nurses Association (CNA). (2016). *The Canadian nurse practitioner initiative: A 10-year retrospective*. Retrieved on December 2, 2020 from https://www.cna-aiic.ca/-/media/cna/page-content/pdf-en/canadian-nurse-practitioner-initiative-a-10-year-retrospective.pdf?la=en&hash=406D8F34F947CFD94DA04AE0CF56A739514D01B7

[72] DiCenso, A. & Bryant-Lukosius D. (2010). *Clinical nurse specialists and nurse practitioners in Canada: A decision support synthesis*. Retrieved on December 2, 2020 from http://www.ensp.fiocruz.br/observarh/arquivos/Estudo%20Especial%20sobre%20a%20Pratica%20da%20Enfermagem%20%20%20Canada.pdf

[73] Maier, C., Aiken, L., & Busse, R. (2017). Nurses in advanced roles in primary care: Policy levers for implementation. *OECD Health Working Papers, 98*, 1–72. https://doi.org/10.1787/a8756593-en

[74] Nurse Practitioner Led Clinic Association and Nurse Practitioner Association of Ontario. (2019). *Nurse practitioner led clinics in Ontario: An Overview of the Nurse Practitioner Led Clinic model and recommendations for further development*. Retrieved on December 2, 2020 from https://npao.org/wp-content/uploads/2019/11/NPLC-Overview-Document-1.pdf.

[75] Association of Ontario Health Centres. *Ontario's Community Health Centres: A transformative solution to improve health and wellbeing*. Retrieved on December 2, 2020 from https://www.allianceon.org/sites/default/files/documents/Infographic-english_0.pdf.

[76] Aaron, E., & Andrews, C. (2016). Integration of advanced practice providers into the Israeli healthcare system. *Israel Journal of Health Policy Research, 5*(7), 1-18. https://doi.org/10.1186/s13584-016-0065-8

[77] DiCenso, A., Bryant-Lukosius, D., Martin-Misener, R., Donald, F., Abelson, J., Bourgeault, I., Kilpatrick, K., Carter, N., Kaasalainen, S. & Harbman, P. (2010). Factors enabling advanced practice nursing role integration in Canada. *Nursing Leadership, 23*(SP2), 211-238. https://doi.org/10.12927/cjnl.2010.22279

[78] Kilpatrick, K., Harbman, P., Carter, N., Martin-Misener, R., Bryant-Lukosius, D., Donald, F., Kaasalainen, S., Bourgeault, I. & DiCenso, A. (2010). The acute care nurse practitioner role in Canada. *Nursing Leadership, 23*(SP2), pp. 114-139. https://doi.org/10.12927/cjnl.2010.22272

[79] Maier, C., Aiken L., & Busse, R. (2017). Nurses in advanced roles in primary care: Policy levers for implementation. *OECD Health Working Papers, 98*, 1–72. https://doi.org/10.1787/a8756593-en

[80] Canadian Mental Health Association. (2018). *Reducing harms: Recognizing and responding to opioid overdoses in your organization*. Retrieved on December 3, 2020 from https://ontario.cmha.ca/wp-content/uploads/2018/05/CMHA-Ontario-Reducing-Harms-Updated.pdf

[81] Barrett, N. & Wright, M.E. (2019). Key elements of advanced practice provider integration. *The Journal for Nurse Practitioners, 15*(5), 370-373. https://doi.org/10.1016/j.nurpra.2018.12.004

[82] Carter, N., Martin-Misener, R., Kilpatrick, K., Kaasalainen, S., Donald, F., Bryant-Lukosius, D., Harbman, P., Bourgeault, I. & DiCenso, A. (2010). The role of nursing leadership in integrating clinical nurse specialists and nurse practitioners in healthcare delivery in Canada. *Nursing Leadership, 23*(SP2), 167-185. https://doi.org/10.12927/cjnl.2010.22274

[83] DiCenso, A., Bryant-Lukosius, D., Martin-Misener, R., Donald, F., Abelson, J., Bourgeault, I., Kilpatrick, K., Carter, N., Kaasalainen, S. & Harbman, P.(2010). Factors enabling advanced practice nursing role integration in Canada. *Nursing Leadership, 23*(SP2), 211-238. https://doi.org/10.12927/cjnl.2010.22279

[84] DiCenso, A. & Bryant-Lukosius D. (2010). *Clinical nurse specialists and nurse practitioners in Canada: A decision support synthesis*. Retrieved on December 2, 2020 from http://www.ensp.fiocruz.br/observarh/arquivos/Estudo%20Especial%20sobre%20a%20Pratica%20da%20Enfermagem%20%20%20Canada.pdf

[85] Little, L. & Reichert, C. (2018). *Fulfilling nurse practitioner's untapped potential in Canada's health care system: Results from the CFNU pan-Canadian nurse practitioner retention & recruitment study.* Retrieved on December 2, 2020 from https://nursesunions.ca/wp-content/uploads/2018/06/CFNU_UntappedPotential-Final-EN.pdf

[86] Hurlock-Chorostecki, C. & McCallum, J. (2016). Nurse Practitioner role value in hospitals: new strategies for hospital leaders. *Nursing Leadership,* 29(*3*), 82-92.

[87] Karimi-Shahanjarini, A., Shakibazadeh, E., Rashidian, A., Hajimiri, K., Glenton, C., Noyes, J., Lewin, S., Laurant, M. & Colvin, C.J. (2019). Barriers and facilitators to the implementation of doctor-nurse substitution strategies in primary care: A qualitative evidence synthesis. *Cochrane Database of Systematic Reviews, 4*(4), 1-100. https://doi.org/10.1002/14651858.CD010412.pub2

[88] DiCenso, A. & Bryant-Lukosius D. (2010). *Clinical nurse specialists and nurse practitioners in Canada: A decision support synthesis*. Retrieved on December 2, 2020 from http://www.ensp.fiocruz.br/observarh/arquivos/Estudo%20Especial%20sobre%20a%20Pratica%20da%20Enfermagem%20%20%20Canada.pdf

[89] Maier, C., Aiken L., & Busse, R. (2017). Nurses in advanced roles in primary care: Policy levers for implementation. *OECD Health Working Papers, 98*, 1–72. https://doi.org/10.1787/a8756593-en

[90] Mattison, C. & Wilson, M. (2018). *Rapid synthesis: Enhancing health system integration of nurse practitioners in Ontario*. Retrieved on December 2, 2020 from https://www.mcmasterforum.org/docs/default-source/product-documents/rapid-responses/enhancing-health-system-integration-of-nurse-practitioners-in-ontario.pdf?sfvrsn=4

[91] Barrett, N. & Wright, M.E. (2019). Key elements of advanced practice provider integrat
ion. *The Journal for Nurse Practitioners, 15*(5), 370-373. https://doi.org/10.1016/j.nurpra.2018.12.004

[92] Carter, N., Martin-Misener, R., Kilpatrick, K., Kaasalainen, S., Donald, F., Bryant-Lukosius, D., Harbman, P., Bourgeault, I. & DiCenso, A. (2010). The role of nursing leadership in integrating clinical nurse specialists and nurse practitioners in healthcare delivery in Canada. *Nursing Leadership, 23*(SP2), 167-185. https://doi.org/10.12927/cjnl.2010.22274

[93] DiCenso A., Bourgeault I., Abelson J., Martin-Misener R., Kaasalainen S., Carter N., Harbman P., Donald F., Bryant-Lukosius D. & Kilpatrick K. (2010). Utilization of nurse practitioners to increase patient access to primary healthcare in Canada - Thinking outside the box. *Nursing Leadership, 23*(SP2), 239-259. https://doi.org/10.12927/cjnl.2010.22281

[94] DiCenso, A., Bryant-Lukosius, D., Martin-Misener, R., Donald, F., Abelson, J., Bourgeault, I., Kilpatrick, K., Carter, N., Kaasalainen, S. & Harbman, P. (2010). Factors enabling advanced practice nursing role integration in Canada. *Nursing Leadership, 23*(SP2), 211-238. https://doi.org/10.12927/cjnl.2010.22279

[95] Little, L. & Reichert, C. (2018). *Fulfilling nurse practitioner's untapped potential in Canada's health care system: Results from the CFNU pan-Canadian nurse practitioner retention & recruitment study.* Retrieved on December 2, 2020 from https://nursesunions.ca/wp-content/uploads/2018/06/CFNU_UntappedPotential-Final-EN.pdf

[96] Maier, C., Aiken L., & Busse, R. (2017). Nurses in advanced roles in primary care: Policy levers for implementation. *OECD Health Working Papers, 98*, 1–72. https://doi.org/10.1787/a8756593-en

[97] Mattison, C. & Wilson, M. (2018). *Rapid synthesis: Enhancing health system integration of nurse practitioners in Ontario*. Retrieved on December 2, 2020 from https://www.mcmasterforum.org/docs/default-source/product-documents/rapid-responses/enhancing-health-system-integration-of-nurse-practitioners-in-ontario.pdf?sfvrsn=4

[98] Sangster-Gormley, E., Martin-Misener, R., Downe-Wamboldt, B. & DiCenso, A. (2011). Factors affecting nurse practitioner role implementation in Canadian practice settings: An integrative review. *Journal of Advanced Nursing, 67*(6), 1178-1190. https://doi.org/10.1111/j.1365-2648.2010.05571.x

[99] DiCenso A., Bourgeault I., Abelson J., Martin-Misener R., Kaasalainen S., Carter N., Harbman P., Donald F., Bryant-Lukosius D. & Kilpatrick K. (2010). Utilization of nurse practitioners to increase patient access to primary healthcare in Canada - Thinking outside the box. *Nursing Leadership, 23*(SP2), 239-259. https://doi.org/10.12927/cjnl.2010.22281

[100] Schadewaldt, V., McInnes, E., Hillier, J. & Gardner, A. (2013). Views and experiences of nurse practitioners and medical practitioners with collaborative practice in primary health care - An integrative review. *BMC Family Practice, 14*(132), 1-11. https://doi.org/10.1186/1471-2296-14-132

[101] Little, L. & Reichert, C. (2018). *Fulfilling nurse practitioner's untapped potential in Canada's health care system: Results from the CFNU pan-Canadian nurse practitioner retention & recruitment study.* Retrieved on December 2, 2020 from https://nursesunions.ca/wp-content/uploads/2018/06/CFNU_UntappedPotential-Final-EN.pdf

[102] Burgess, J., & Purkis, M. E. (2010). The power and politics of collaboration in nurse practitioner role development. *Nursing Inquiry, 17*(4), 297-308.

[103] RNAO (2016). *Intra-professional collaborative practice among nurses, second edition*. Toronto: Registered Nurses' Association of Ontario.

[104] *Ibid.*

[105] Sangster-Gormley, E., Martin-Misener, R., Downe-Wamboldt, B. & DiCenso, A. (2011). Factors affecting nurse practitioner role implementation in Canadian practice settings: An integrative review. *Journal of Advanced Nursing, 67*(6), pp. 1178-1190. https://doi.org/10.1111/j.1365-2648.2010.05571.x

[106] RNAO (2016). *Intra-professional collaborative practice among nurses, second edition*. Toronto: Registered Nurses' Association of Ontario.

[107] *Ibid.*

[108] *Ibid.*

[109] Ministry of Health and Long-Term Care. (2019). Letter *to College of Nurses of Ontario (HLTC2968IT-2019-57)*. Retrieved on December 2, 2020 from https://rnao.ca/sites/rnao-ca/files/Scope_of_Practice_letter_-_CNO.pdf

[110] RNAO. (2019). *Increase Access to care by fully utilizing NPs.* Retrieved on December 2, 2020 from https://rnao.ca/sites/rnao-ca/files/Increase_access_to_care_by_fully_utilizing_NPs_QPD_2019_Final_Public.pdf

[111] Canadian Nurses Association (CNA). (2016). *The Canadian nurse practitioner initiative: A 10-year retrospective*. Retrieved on December 2, 2020 from https://www.cna-aiic.ca/-/media/cna/page-content/pdf-en/canadian-nurse-practitioner-initiative-a-10-year-retrospective.pdf?la=en&hash=406D8F34F947CFD94DA04AE0CF56A739514D01B7

[112] DiCenso, A. & Bryant-Lukosius D. (2010). *Clinical nurse specialists and nurse practitioners in Canada: A decision support synthesis*. Retrieved on December 2, 2020 from http://www.ensp.fiocruz.br/observarh/arquivos/Estudo%20Especial%20sobre%20a%20Pratica%20da%20Enfermagem%20%20%20Canada.pdf

[113] Kilpatrick, K., Harbman, P., Carter, N., Martin-Misener, R., Bryant-Lukosius, D., Donald, F., Kaasalainen, S., Bourgeault, I. & DiCenso, A. (2010). The acute care nurse practitioner role in Canada. *Nursing Leadership, 23*(SP2), 114-139. https://doi.org/10.12927/cjnl.2010.22272

[114] Maier, C., Aiken L., & Busse, R. (2017). Nurses in advanced roles in primary care: Policy levers for implementation. *OECD Health Working Papers, 98*, 1–72. https://doi.org/10.1787/a8756593-en

[115] Mattison, C. & Wilson, M. (2018). *Rapid synthesis: Enhancing health system integration of nurse practitioners in Ontario*. Retrieved on December 2, 2020 from https://www.mcmasterforum.org/docs/default-source/product-documents/rapid-responses/enhancing-health-system-integration-of-nurse-practitioners-in-ontario.pdf?sfvrsn=4

[116] Baker, C. (2016). Chapter 22: Advanced Practice Nursing Roles, Education and Future Trends. In E. Staples, S. Ray, R. Hannon (Eds.). *Canadian Perspectives on Advanced Practice Nursing* (325-335). Toronto: Canadian Scholars' Press.

[117] Canadian Institute for Health Information (2020). *Nurse practitioner scopes of practice vary across Canada's provinces and territories.* Ottawa,Ontario:CIHI. Retrieved from https://www.cihi.ca/en/nurse-practitioner-scopes-of-practice-vary-across-canadas-provinces-and-territories

[118] Bryant-Lukosius, D. and Martin-Misener, R. (n.d.). *ICN policy brief. Advanced practice nursing: An essential component of country level human resources for health*. Retrieved on December 2, 2020 from https://fhs.mcmaster.ca/ccapnr/documents/ICNPolicyBrief6AdvancedPracticeNursing_000.pdf

[119] RNAO. (2019). *Queen's Park Day backgrounder: Increase access to care by fully utilizing NPs.* Retrieved on December 2, 2020 from https://rnao.ca/sites/rnao-ca/files/Increase_access_to_care_by_fully_utilizing_NPs_QPD_2019_Final_Public.pdf

[120] RNAO. (2015). *Nurse practitioner utilization toolkit.* Retrieved on December 2, 2020 from http://nptoolkit.rnao.ca.

[121] Carter, N., Martin-Misener, R., Kilpatrick, K., Kaasalainen, S., Donald, F., Bryant-Lukosius, D., et al. (2010). The role of nursing leadership in integrating clinical nurse specialists and nurse practitioners in healthcare delivery in Canada. *Nursing Leadership,* 23 *(Special No),* 167-185.

[122] DiCenso, A. & Bryant-Lukosius D. (2010). *Clinical nurse specialists and nurse practitioners in Canada: A decision support synthesis*. Retrieved on December 2, 2020 from http://www.ensp.fiocruz.br/observarh/arquivos/Estudo%20Especial%20sobre%20a%20Pratica%20da%20Enfermagem%20%20%20Canada.pdf

[123] Karimi-Shahanjarini, A., Shakibazadeh, E., Rashidian, A., Hajimiri, K., Glenton, C., Noyes, J., Lewin, S., Laurant, M. & Colvin, C.J. (2019). Barriers and facilitators to the implementation of doctor-nurse substitution strategies in primary care: A qualitative evidence synthesis.*Cochrane Database of Systematic Reviews, 4*(4), 1-100. https://doi.org/10.1002/14651858.CD010412.pub2

[124] Kilpatrick, K., Harbman, P., Carter, N., Martin-Misener, R., Bryant-Lukosius, D., Donald, F., Kaasalainen, S., Bourgeault, I. & DiCenso, A. (2010). The acute care nurse practitioner role in Canada. *Nursing Leadership, 23*(SP2), 114-139. https://doi.org/10.12927/cjnl.2010.22272

[125] Maier, C., Aiken L., & Busse, R. (2017). Nurses in advanced roles in primary care: Policy levers for implementation. *OECD Health Working Papers, 98*, 1–72. https://doi.org/10.1787/a8756593-en

[126] Sangster-Gormley, E., Martin-Misener, R., Downe-Wamboldt, B. & DiCenso, A. (2011). Factors affecting nurse practitioner role implementation in Canadian practice settings: An integrative review. *Journal of Advanced Nursing, 67*(6), 1178-1190. https://doi.org/10.1111/j.1365-2648.2010.05571.x

[127] Baker, C. (2016). Advanced Practice Nursing Roles, Education, and Future Trends. In E. Staples, S. Ray, & R. Hannon (Eds), *Canadian Perspectives on Advanced Nursing Practice: Clinical Practice, Research, Leadership, Consultation and Collaboration* (First Canadian Edition). (325-335). Toronto, Ontario, Canada: Canadian Scholar's Press. https://www.canadianscholars.ca/books/canadian-perspectives-on-advanced-practice-nursing

[128] Canadian Association of Schools of Nursing (CASN). (2012). Nurse practitioner education in Canada: National framework of guiding principles & essential components. Retrieved on December 2, 2020 from https://casn.ca/wp-content/uploads/2014/12/FINALNPFrameworkEN20130131.pdf

[129] *Ibid.*

[130] *Ibid.*

[131] CNA. (2006). The Canadian Nurse Practitioner Initiative. *Nurse Practitioners: The time is now. A solution to improving access and reducing wait times in Canada.* Retrieved December 2, 2020 from https://www.cna-aiic.ca/-/media/cna/page-content/pdf-en/01_integrated_report.pdf?la=en&hash=F2CAA9AFCA6A5A20181D0BB3D3EA528A24724377

[132] Martin-Misener, R. Bryant-Lukosius D, Harbman P, Donald F, Kaasalainen S, Cartner N, et al. (2010). Education of advanced practice nurses in Canada. *Canadian Journal of Nursing Leadership, 23 (Special No),* 61-84.

[133] The number of NP educational programs in Canada, across all provinces and territories, increased from 26 in 2012 to 28 in 2018. Source: CASN Registered Nurses education in Canada statistics.

[134] CASN. (November, 2013). *Registered nurses education in Canada statistics 2011-2012. Registered nurse workforce, Canadian production: Potential new supply.* Retrieved November 17, 2020 from: https://cna-aiic.ca/~/media/cna/files/en/nsfs_report_2011-2012_e.pdf

[135] CASN. (December, 2019). *Registered nurses education in Canada statistics 2018-2019. Registered nurse workforce, Canadian production: Potential new supply.* Retrieved November 17, 2020 from: https://www.casn.ca/wp-content/uploads/2019/12/2017-2018-EN-SFS-DRAFT-REPORT-for-web.pdf

[136] Staples, E. & Sangster- Gormley, E. (2018). Supporting nurse practitioner education: Preceptorship recruitment and retention. *International Journal of Nursing Sciences, 5*, 115-120.

[137] *Ibid.*

[138] *Ibid.*

[139] *Ibid.*

[140] *Ibid.*

[141] RNAO. (2015). *Coming together, moving forward: Building the next chapter of Ontario's rural, remote and northern nursing workforce report*. Retrieved on November 17, 2020 from https://rnao.ca/sites/rnao-ca/files/RR_May8.pdf

[142] Dolea, C., Stormont, L. & Braichet, J-M. (2010). Evaluated strategies to increase attraction and retention of health workers in remote and rural areas. *Bulletin of the World Health Organization, 88,* 379-385.

[143] Lea, J. Cruickshank, M. (2005). Factors that influence the recruitment and retention of graduate nurses in rural health care facilities. *Collegian, 12*(2), 22-27.

[144] RNAO. (2015). *Coming together, moving forward: Building the next chapter of Ontario's rural, remote and northern nursing workforce report*. Retrieved on November 17, 2020 from https://rnao.ca/sites/rnao-ca/files/RR_May8.pdf

[145] Kooienga, S.A., & Carryer, J.B. (2015). Globalization and advancing primary health care nurse practitioner practice. *The Journal for Nurse Practitioners, 11*(8), 804-811.

[146] Staples, E. & Sangster- Gormley, E. (2018). Supporting nurse practitioner education: Preceptorship recruitment and retention. *International Journal of Nursing Sciences, 5*, 115-120.

[147] Browne, A. J., Varcoe, C., Lavoie, J. G., Smye, V. L., Wong, S. T., Krause, M., . . . Fridkin, A. (2016). Enhancing health care equity with Indigenous populations: Evidence-based strategies from an ethnographic study. *BMC Health Services Research, 16*(544), 1-17. doi:10.1186/s12913-016-1707-9

[148] Ford-Gilboe, M., Wathen, N., Varcoe, C., Herbert, C., Jackson, B., Lavoie, J. G., . . . Browne, A. J. (2018). How equity-oriented health care affects health: Key mechanisms and implications for primary health care practice and policy. *The Milbank Quarterly*. doi:10.1111/1468-0009.12349

[149] *Ibid.*

[150] *Ibid.*

[151] Wathen, C.N. & Varcoe, C. (2019). *Trauma- & Violence-Informed Care: Prioritizing Safety for Survivors of Gender-Based Violence.* London, Canada. Retrieved on December 2, 2020 from https://gtvincubator.uwo.ca/wp-content/uploads/sites/22/2020/05/TVIC_Backgrounder_Fall2019r.pdf

[152] van der Kolk, B.A., McFarlane, A.C., & Weisaeth, L. (Eds.). (1996). *Traumatic stress: The effects of overwhelming experience on mind, body, and society.* Guilford Press.

[153] Gone, J.P., Hartmann, W.E., Pomerville, A., Wendt, D.C., Klem, S., & Burrage, R.L. (2019). The impact of historical trauma on health outcomes for indigenous populations in the USA and Canada: A systematic review. *American Psychologist, 74*(1), 20-35. http://dx.doi.org/10.1037/amp0000338

[154] Wathen, C.N. & Varcoe, C. (2019). *Trauma- & Violence-Informed Care: Prioritizing Safety for Survivors of Gender-Based Violence.* London, Canada. Retrieved on December 2, 2020 from https://gtvincubator.uwo.ca/wp-content/uploads/sites/22/2020/05/TVIC_Backgrounder_Fall2019r.pdf

[155] Ford-Gilboe, M., Wathen, N., Varcoe, C., Herbert, C., Jackson, B., Lavoie, J. G., . . . Browne, A. J. (2018). How equity-oriented health care affects health: Key mechanisms and implications for primary health care practice and policy. *The Milbank Quarterly*. doi:10.1111/1468-0009.12349

[156] *Ibid.*

[157] *Ibid.*

[158] *Ibid.*

[159] College of Nurses of Ontario (2016). *Entry-to-Practice Competencies for Nurse Practitioners.* Retrieved on December 2, 2020 from http://www.cno.org/globalassets/docs/reg/47010-np-etp-competencies.pdf

[160] Aaron, E., & Andrews, C. (2016). Integration of advanced practice providers into the Israeli healthcare system. *Israel Journal of Health Policy Research, 5*(7), 1-18. https://doi.org/10.1186/s13584-016-0065-8

[161] CNA. (2016). *The Canadian nurse practitioner initiative: A 10-year retrospective*. Retrieved on December 2, 2020 from https://www.cna-aiic.ca/-/media/cna/page-content/pdf-en/canadian-nurse-practitioner-initiative-a-10-year-retrospective.pdf?la=en&hash=406D8F34F947CFD94DA04AE0CF56A739514D01B7

[162] DiCenso, A. & Bryant-Lukosius D. (2010). *Clinical nurse specialists and nurse practitioners in Canada: A decision support synthesis*. Retrieved on December 2, 2020 from http://www.ensp.fiocruz.br/observarh/arquivos/Estudo%20Especial%20sobre%20a%20Pratica%20da%20Enfermagem%20%20%20Canada.pdf

[163] *Ibid.*

[164] CNA. (2016). *The Canadian nurse practitioner initiative: A 10-year retrospective*. Retrieved on December 2, 2020 from https://www.cna-aiic.ca/-/media/cna/page-content/pdf-en/canadian-nurse-practitioner-initiative-a-10-year-retrospective.pdf?la=en&hash=406D8F34F947CFD94DA04AE0CF56A739514D01B7

[165] DiCenso, A. & Bryant-Lukosius D. (2010). *Clinical nurse specialists and nurse practitioners in Canada: A decision support synthesis*. Retrieved on December 2, 2020 from http://www.ensp.fiocruz.br/observarh/arquivos/Estudo%20Especial%20sobre%20a%20Pratica%20da%20Enfermagem%20%20%20Canada.pdf

[166] Little, L. & Reichert, C. (2018). *Fulfilling nurse practitioner's untapped potential in Canada's health care system: Results from the CFNU pan-Canadian nurse practitioner retention & recruitment study.* Retrieved on December 2, 2020 from https://nursesunions.ca/wp-content/uploads/2018/06/CFNU_UntappedPotential-Final-EN.pdf

[167] Maier, C., Aiken L., & Busse, R. (2017). Nurses in advanced roles in primary care: Policy levers for implementation. *OECD Health Working Papers, 98*, 1–72. https://doi.org/10.1787/a8756593-en

[168] Mattison, C. & Wilson, M. (2018). *Rapid synthesis: Enhancing health system integration of nurse practitioners in Ontario*. Retrieved on December 2, 2020 from https://www.mcmasterforum.org/docs/default-source/product-documents/rapid-responses/enhancing-health-system-integration-of-nurse-practitioners-in-ontario.pdf?sfvrsn=4

[169] AFHTO, AOHC, & NPAO. (2018). *Conducting a "refresh" of the common salary structure for primary care organizations in Ontario: 2017 Report*. Retrieved on December 2, 2020 from https://www.afhto.ca/wp-content/uploads/2017-Market-Refresh-Report-February-20-2018.pdf

[170] Little, L. & Reichert, C. (2018). *Fulfilling nurse practitioner's untapped potential in Canada's health care system: Results from the CFNU pan-Canadian nurse practitioner retention & recruitment study.* Retrieved on December 2, 2020 from https://nursesunions.ca/wp-content/uploads/2018/06/CFNU_UntappedPotential-Final-EN.pdf

[171] *Ibid*

[172] Bryant-Lukosius, D. and Martin-Misener, R. (n.d.). *ICN policy brief. Advanced practice nursing: An essential component of country level human resources for health*. Retrieved on December 2, 2020 from https://fhs.mcmaster.ca/ccapnr/documents/ICNPolicyBrief6AdvancedPracticeNursing_000.pdf

[173] Roberst, M. & Goolsby, J. (2017). Nurse practitioner research agenda roundtable, October 2015. *Journal of the American Association of Nurse Practitioners, 29*, 7-11.

[174] Ryder, Jacb & Hendricks. (2019). An inductive qualitative approach to explore Nurse Practitioners views on leadership and research: An international perspective. *Journal of Clinical Nursing, 28,* 2644-2688.

[175] Stahlke, S., Rawson, K., Pituskin, E. (2017). Patient perspectives on Nurse Practitioner care in oncology in Canada. *Journal of Nursing Scholarship, 49*(5), 487-495. doi: 10.1111/jnu.12313. Epub 2017 Jun 12.

[176] *Ibid.*

[177] DiCenso A., Bourgeault I., Abelson J., Martin-Misener R., Kaasalainen S., Carter N., Harbman P., Donald F., Bryant-Lukosius D. & Kilpatrick K. (2010). Utilization of nurse practitioners to increase patient access to primary healthcare in Canada - Thinking outside the box. *Nursing Leadership, 23*(SP2), 239-259. https://doi.org/10.12927/cjnl.2010.22281

[178] *Ibid.*

[179] Diabetes Canada. *Chapter 3: Definition, classification and diagnosis of diabetes, prediabetes and metabolic syndrome*. Retrieved Sept 25, 2020 from https://www.diabetes.ca/health-care-providers/clinical-practice-guidelines/chapter-3#panel-tab_FullText

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