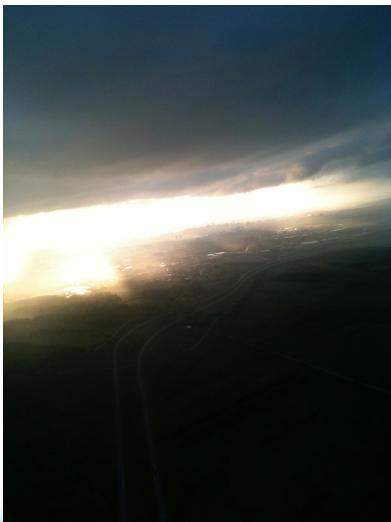




Health System Clinical Placement Capacity

Submitted to Government of Saskatchewan
Ministry of Health
Healthcare Human Resources Branch



REPORT

February 22, 2024

healthintelligenceinc.



healthintelligenceinc.

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Letter of Introduction

February 22, 2024

Government of Saskatchewan
Ministry of Health
Healthcare Human Resources

Following is the report on *Health System Clinical Placement Capacity*, prepared for the Government of Saskatchewan by [Health Intelligence Inc. and associates](#).

The preliminary focus to reporting includes context and an understanding of the current clinical learning environment as a significant contribution to the development of professional practice capabilities across several health professions.

Our approach was centred on the merger of qualitative and quantitative information in an evidence-based report that reflects stakeholder engagement and an understanding of numerous variables and data challenges in the determination and management of clinical placement capacity.

Section (5.0) on Key Observations provides an Executive Summary derived from the report and complements the Recommendations.

Respectfully submitted on behalf of the consultancy.

David Peachey
Principal, Health Intelligence Inc.

Acronyms and Initialisms

ACP	Advanced Care Paramedic
CCA	Continuing Care Assistant
CLXT	Combined Laboratory and X-Ray Technologist
CNPP	Collaborative Nurse Practitioner Program
CPR	Cardiopulmonary Resuscitation
FT	Full-Time
HHR	Health Human Resources
HSPnet	Health Services Placement Network
LPN	Licensed Practical Nurse
LPU	Learner Placement Unit
MHA	Mental Health and Addictions
MLA	Medical Laboratory Assistant
MLT	Medical Laboratory Technologist
MOH	Ministry of Health
MRIT	Magnetic Resonance Imaging Technologist
MRT	Medical Radiation Technologist
NAIT	Northern Alberta Institute of Technology
NP	Nurse Practitioner
PA	Physician Assistant
PCP	Primary Care Paramedic
PEP	Preceptor Education Program
PHA	Pharmacist
PHT	Pharmacy Technician
Plc	Placing
PT	Part-Time
Rcv	Receiving
RFP	Request for Proposals
RN	Registered Nurse
RPN	Registered Psychiatric Nurse
SAHSN	Saskatchewan Academic Health Sciences Network

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SaskPoly	Saskatchewan Polytechnic
SCBScN	Saskatchewan Collaborative Bachelor of Science in Nursing
SCA	Saskatchewan Cancer Agency
SHA	Saskatchewan Health Authority
SIM	Simulation
UR	University of Regina
US/USask	University of Saskatchewan



1.0

Context

1.1 Background

One of the challenges facing the Saskatchewan Ministry of Health (MOH) and its health system partners is establishing a deeper understanding of the current clinical learning environment as a key contribution to the development of professional practice capabilities for selected health professions.

The following high-level questions abstracted from the RFP will provide guidance to the clinical placement capacity review:

I. Current Status

- I.1** What criteria are currently being used to determine capacity, and what criteria should be used?
- I.2** What is the current unit and facility level clinical placement capacity in the context of the healthcare system in Saskatchewan - both public and private?
- I.3** How does system coordination occur between partners to identify need, capacity and placement?
- I.4** Who is involved in the clinical placement process?
- I.5** What are the opportunities available with the increased role of simulation as a substitute for clinical placements?
- I.6** What are the current processes SHA employs to provide clinical placements and the current costs to host students for variety of scenarios including hosting students in-person vs virtually?
- I.7** How does the Saskatchewan's health system's learner-to-staff ratio compare to other jurisdictions in Canada?

II. Future Capacity

- II.1** Based on current capacity analysis, what is the system's capability of addressing future needs?
- II.2** What obstacles and barriers are impeding a larger clinical capacity in the healthcare system?
- II.3** What are the resource (capital, human and operational) requirements and technology or innovations that should be considered if there is a need to expand clinical placement capacity?
- II.4** Is there capacity outside the public health care system (Saskatchewan Health Authority, Saskatchewan Cancer Agency) that could be utilized for clinical placements in Saskatchewan?

II.5 What are the recommendations for enhancing clinical placement capacity in Saskatchewan to meet current and future HHR/training demands? Is there a role for private or third party operators?

III. Deliverables

The anticipated deliverables are:

- Review and understanding of related Saskatchewan legacy files¹
- Transparent methodology²
- Current Capacity and Status
 - Criteria to determine capacity (measured against ideal criteria)
 - Public and private sector unit and facility placement capacity
 - Placement process that reflects need, capacity, and placement that identifies system coordination between and among partners
 - Opportunities offered by simulations as a substitute for clinical placements
 - Identification of current SHA processes to provide clinical placements
 - Pan-Canadian comparisons of learner-to-staff ratios
- Future Capacity
 - Capability of addressing future needs measured against the analysis of current capacity
 - Obstacles and barriers to achieving a larger clinical capacity
 - Implications to resource needs (capital, human, and operational requirements) and technology and innovations if it is confirmed that clinical placement capacity needs to expand
 - Capacity external to Saskatchewan Health Authority and Saskatchewan Cancer Agency that could be utilized for clinical placements
 - Recommendations to enhance clinical placement capacity to meet current and future demands generated by current and future health human resources and training demands

¹ See Section 2.0 on the abstractions from the legacy files

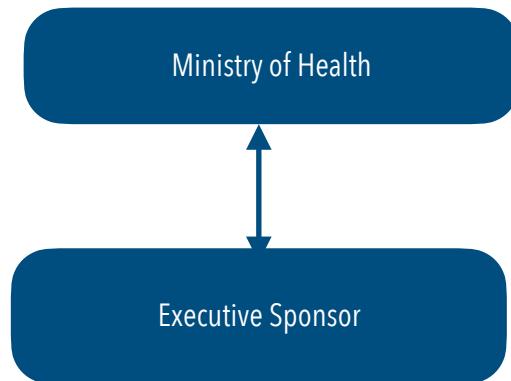
² See Sections 1.3 through 1.5

1.2 Scope

The in-scope health professions for this review are:

- Combined Laboratory and X-ray Technologists (CLXT)
- Continuing Care Assistants(CCA)
- Licensed Practical Nurses (LPNs)
- Magnetic Resonance Imaging Technologists (MRIT)
- Medical Laboratory Assistants (MLA)
- Medical Laboratory Technologists (MLT)
- Medical Radiation Technologists (MRT)
- Mental Health and Addiction Counselors (MHA)
- Nurse Practitioners (NP)
- Paramedics (PAR)
- Pharmacists (PHA)
- Pharmacy Technicians (PHT)
- Registered Nurses (RN)

1.3 Approach



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- Project initiation
- Meetings with project governance, both scheduled and as required
- Project Charter
- Project logistics
- Detailed work plan
- Monthly status reports
- Measurement of activity against the detailed work plan
- Development of interview template
- Logistics, completion, and collation of internal interviews
- Logistics, completion, and collation of external interviews
- Final data menu
- Data acquisition, validation, and analytics
- Integration of qualitative and quantitative study elements
- Reporting draft and final

1.4 Qualitative Details

1.4.1 Initiation and Administration

Project initiation is the foundation to support the overall study; failure to address details at this stage can undermine each subsequent phase. The Project Charter is an essential element and builds to progressive key stakeholder engagement and a shared understanding from the outset, and initiates the ongoing process of collaboration on the end results.

The key elements of the project initiation are, as follows:

- Project setup
- Preliminary teleconferences with project management
- Development of the detailed plan
- Refine initial proposed plans to a greater level of detail while incorporating feedback
- Development of data menu
- Development of data strategy
- Review of assumptions
- Initiate stakeholder meetings and introductory presentations

1.4.2 Stakeholder Engagement

Stakeholder engagement is essential during each phase and, not uncommonly, is an iterative process. The engagement begins with a project review and becomes progressively granular as the stakeholders share information from individual perspectives.

The objectives of stakeholder engagement are, as follows:

- Create, document, verify, and report findings from the stakeholder perspective of their current state and future needs
- Create, document, analyze, and report findings from a data and research perspective of stakeholder current state and potential future needs
- Cultivate a deeper understanding by stakeholders of the project, methodology, and objectives in order to create greater support for the end results

Health System Clinical Placement Capacity

- Research, document, analyze, and report findings from the broader provincial, national, and international environments on specific subjects impacting health human resource planning. The most useful strategy for acquiring meaningful stakeholder input is founded on developing a standardized interview template that also encourages customized inquiries beyond the template.

1.5 Quantitative Details

Recognizing a cross-over with the qualitative research plus the requirement for integration, the six quantitative elements are, as follows:

- Current demand
- Current capacity
- Net surplus or deficit in current capacity
- Future demand
- Future capacity
- Net surplus or deficit in future capacity

The current demand is a function of:

- Quantifying the number of learners by profession by year, course unit/program, and part-time or full-time status
- Quantifying the curriculum by year, clinical course, ideal hours by clinical course, and number of learners
- Quantifying the current demand by sites (large city, small city, town)

The current capacity is a function of:

- Quantifying the number of preceptors (actual and ideal) by profession, clinical service by year, course unit/program, capacity as hours per week, and sector (public or private)
- Quantifying the current capacity by sites (large city, small city, town)
- Interviews with clinical leadership to assess current and future capacity (quantitative and qualitative)

The net surplus or deficit of current capacity is a metric of ideal and actual.

The future demand is a function of:

- Quantifying the number of learners by profession by year, course unit/program, and part-time or full-time status
- Quantifying the curriculum by year, clinical course, ideal hours by clinical course, and number of preceptors course unit/program, capacity as hours per week, and sector (public or private)

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The future capacity is a function of quantifying the number of preceptors by profession, year, course unit / program capacity as hours per week, and sector (public or private).

The net surplus or deficit of future capacity is a predictive metric of estimated learners and preceptors.

The following planning schematic brings together the qualitative details and the quantitative details

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2.0

Abstractions from Legacy Files

2.1 Source Files

Substantial effort into both broad and focused aspects of health system clinical capacity has been undertaken in Saskatchewan. The source files follow in a chronological order:

- Sax Institute (2015)
- Health Sciences Placement Network Current Use and Future Opportunities in Saskatchewan (2017)
- Clinical Placement Agreement (2017)
- Saskatchewan Registered Nursing Education Program Education Report (2018)
- Clinical Education Placements in Saskatchewan (June 2019)
- Overview of HSPnet (2019)
- Medical Laboratory Technology Diploma (February 2022)
- Nursing Seat Expansion (May 2022)
- Advanced Care Paramedic Diploma (SaskPoly December 2022)
- Pharmacy Technician Diploma (SaskPoly December 2022)
- Practical Nursing Diploma (SaskPoly January 2023)
- Bachelor of Science of Nursing (UR LPU January 2023)
- Bachelor of Science of Nursing (US LPU January 2023)
- Primary Care Paramedic Certificate (SaskPoly January 2023)
- Mental Health and Addictions Counseling Diploma Program (SHA February 2023)
- Collaborative Nurse Practitioner Program (UR and SaskPoly) (February 2023)
- Combined Laboratory and X-Ray Technology Diploma (SaskPoly February 2023)
- Scan of Academic Training Programs in Saskatchewan (February 2023)
- Medical Laboratory Assistant Applied Certificate (SaskPoly February 2023)
- Medical Radiologic Technology Diploma (SaskPoly February 2023)

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- Roadmap Priority: Health Human Resources (SHA)
- Continuing Care Assistant Certificate (SaskPoly March 2023)
- Improving the Clinical Nursing Placement Process (March 2023)
- A Conversation about Clinical Placements in Canadian Nursing Education (April 2023)
- Learner Placement Unit Level of Involvement with Hard-to-Recruit Programs (April 2023)
- Nursing Seat Expansion - Academics and Learning Update (May 2023)
- Nursing Preceptorship in Saskatchewan (SHA LPU August 2023)
- Recruiting and Supporting Learner Placements in the SHA to Enable Training Seat Expansion (January 2023 revised October 2023)
- Supporting Student Learners in the SHA (October 2023)

2.2 Abstractions

The source files listed above provide substantial policies and data that underpin this work on aspects of health system clinical capacity in Saskatchewan. Each file merits review; however, following is a non-prioritized summary of relevant abstractions from these files.

- In the fall of 2017, Government requested a review of Saskatchewan's two-provider undergraduate registered nursing education model. The varying curricula enabled multiple exit and entry points. The extant seat-level of 690 annually was supported but not expanded. While acknowledging that the presence of a single provider, program, or curriculum would not permit the clinical placement of students across all years, it was concluded that the two-provider nursing education model allowed for the coordinated facilitation of greater than 2,000 undergraduate nursing students annually. The inclusion of rural and remote communities both alleviated congestion in Regina and Saskatoon and achieved a distributed education model that promoted labour market attachments in those rural and remote areas. As well, support was advanced for simulation capabilities in Saskatchewan, in part to address both cost and complexity.
- The creation of the SHA created a unique opportunity to establish a Provincial Clinical Placement Office, acting as the lead agency for the Health Sciences Placement Network (HSPnet), maximizing the health education potential across all health education programs.
- In March 2018, the Saskatchewan Academic Health Sciences Network (SAHSN) identified clinical placement issues as a strategic priority that required further investigation to address a negative impact on program expansion and training seat reductions (leading to additional job vacancies). The key challenges were seen to be a lack of clarity on SHA clinical placement capacity, differing processes to coordinate the placements, and the absence of a forum to link placement sites and education programs.
- As recently as March 2023, a report on improving clinical nursing placements made seven recommendations:
 - Establish and formalize governance structures
 - Formalize expectations through policies and procedures.
 - Maximize the functionality of HSPnet
 - Determine opportunities to standardize training
 - Determine the feasibility of multi-placement cohorts

- Leverage partners to optimize the placement process
- Advocate for additional funding / placement programs
- HSPnet is a set of integrated functions that enable participating agencies to:
 - Maintain online profiles for:
 - students, instructors, and courses/programs in placing agencies
 - sites, destinations and supervisors/preceptors in receiving agencies
 - Coordinate requests and placements
 - Monitor status of requests
 - Coordinate student arrangements such as consent forms, orientation packages, and prerequisites for immunization status and CPR certification.
 - Manage documents
 - Manage access to agency information systems for students and instructors
 - Generate reports
 - Publish and access online policies and guidelines
 - Develop and track Educational Contracts or Affiliation Agreements
 - Enable students and faculty to access online orientation content
 - Track student employment including under-graduate and new graduate hiring programs
- Across Canada, the use of HSPnet as an online practice education management system grew to include 31 programs. It was first developed in 2003 in British Columbia and implemented in Saskatchewan in 2006 to align placing agencies and receiving agencies. During fiscal year 2016-2017, there were 3,643 confirmed placements comprising 1,222,954 student practice hours. The main challenge facing HSPnet was identified as difficult to learn (especially for small programs with few or infrequent placements). As of 2017, HSPnet use in Regina Qu'Appelle and Saskatoon health regions was limited to nursing, while other software solutions were implemented by other health science programs. That notwithstanding, there was agreement that a single vendor solution to support practice education management in Saskatchewan was necessary, but only if sponsorship from senior leadership within government and health post-secondary education sectors was able to secure stakeholder commitment and the necessary resources.

- Saskatchewan has invested in HSPnet annually but it has only been partially adopted as a provincial tool to manage practice education. Uptake has been very limited beyond nursing. Nonetheless, the benefits of HSPnet are clearly tabulated for health authorities, SHA, and health sciences programs.
- By 2022, Government expanded nursing seats by 150, consisting of 124 RN seats, 16 RPN seats, and 10 NP seats, thereby increasing the nursing seat count from 690 to 840, heavily concentrated in Saskatoon (42%, December 2021) and Regina (46%). The challenges were exacerbated by the COVID-19 pandemic with services both slowing down and surging, requiring staff to be moved to meet system needs. On January 6 2023 (and revised October 1, 2023) 18 health sciences training programs were approved by Government to increase enrolment, including hard-to-recruit disciplines and increase in demand (amounting to 503 new seats each year). One further consequence was a demonstrated need for expanded resources in the Learner Placement Unit (LPU).
- Careful strategic planning was undertaken in 2023 to identify, by semester, course work and practicum requirements and has been carefully documented at SHA by hard-to-recruit programs, health region, academic institution, and level of involvement of the Learner Placement Unit (LPU) for the following:
 - Mental Health and Addictions Counseling Program
 - Collaborative Nurse Practitioner Program (Masters of Nursing)
 - Combined Laboratory and X-ray Technology Diploma
 - Continuing Care Assistants
 - Diagnostic Medical Sonographers
 - Electro Neurophysiologists
 - Licensed Practical Nurses
 - Medical Laboratory Assistants
 - Medical Laboratory Technologist
 - Medical Radiation Technologists
 - Medical Radiologic Technologists
 - MRI Technologists
 - Occupational Therapist

- Perfusionist
- Pharmacy Technicians
- Physical Therapist
- Primary Care Paramedics
- Psychologist
- Registered Nurses
- Respiratory Therapist
- Speech Language Pathologist
- The LPU was created with the amalgamation to the SHA with the following roles and responsibilities to support student learners:
 - Broad management of student placements in the SHA
 - Streamline placement processes and support those involved in learner clinical education
 - Liaison between academic programs and SHA clinical teams
 - Host the HSP net placement software
 - Ensure student requirements have been met (including, confidentiality, immunization)
 - Assist out-of-province learners to navigate placements
 - Update academic programs on policy changes
- A 1 - 3 year work plan for the LPU is focused on:
 - Enhanced preceptor recruitment and support
 - Increase placement capacity to support seat increases
 - Host learners in new sites, such as rural and northern hospitals to align with HHR needs
 - Expand the use of HSPnet to new disciplines
- The findings of a study suggest the need for exploring a wider intra-professional collaboration among graduate NP programs/faculty, clinical placement sites, and NPs to facilitate the recruitment and retention of preceptors.³

³ Supporting nurse practitioner education: Preceptorship recruitment and retention International Journal of Nursing Sciences 5 (2018) 115-120

- The July 2015 report from the Sax Institute examined an *Evidence Check* through review of both academic and grey literature, with 11 peer-reviewed publications and 10 reports deemed relevant for inclusion. Fundamentally, no thorough investigation into the costs and benefits of clinical placements for health service organizations had been completed. Although there are reports discussing the likely cost and benefits, there is insufficient evidence in the peer reviewed literature to support the claims. Most of the evidence-based literature has focused on one aspect of costs and/or benefits, and for most the cost and/or benefit was not the primary outcome of the research design. No research compared a cost and/or benefit in more than one setting (rural versus metropolitan, public versus private), between disciplines or investigated clinical placements related to vocational training. One simple and limited cost-benefit analysis of dietetics placements in rural and metropolitan Australian hospitals was completed by Hughes and Debrow. The researchers concluded that students are required to be at least 80% as efficient as graduate level staff to add benefit to the host organization.

The Saskatchewan interviews did not reveal a valid or consistent cost assessment of clinical placements. Criteria explored included staff time and altered productivity, educational materials, accommodation, and intangible costs and benefits.

- A 2014 report (Bowles et al) prepared in New South Wales determined that no research compared costs and/or benefits of clinical placement programs between public and private providers.
- A previous report prepared by the Canadian Society for Medical Laboratory Science (September 2004)⁴ found that the costs of clinical education were "mainly immediate and tangible", whereas the benefits are "mainly delayed and intangible". Some strategies that were identified include: paying sites to take students, finding out-of-province or out-of-country sites, and making placement conditional on student commitment to work at a given location. One specific finding in a Canadian study⁵ found that the average cost for a Medical Lab Technologist (MLT) in Alberta was just over \$34,000 per student.

⁴ Grant, M and David, K. (2004). Clinical placements for Canadian Medical Laboratory Technologists: Costs, Benefits, and Alternatives – Final Report. Canadian Society for Medical Laboratory Science.

⁵ Hughes, E. (2003). Medical laboratory technology: Clinical student training cost issues. Edmonton: Northern Alberta Institute of Technology.



3.0

Interviews

3.1 Approach to Interviews

Both internal (Saskatchewan) and external (non-Saskatchewan) interviews were conducted to further inform the underpinning research. The internal interviews⁶ were considered to be the most useful in providing experience and insight. The external interviews could not replicate the depth of the internal interviews; however the external interviews did provide a sense of related activity in other jurisdictions and were selected on the basis of representativeness. A total of 41 interviews were conducted and are listed as an Appendix, in addition to the Interview Template.

3.2 What We Heard

3.2.1 Internal Interviews

Throughout the conduct of the internal interviews, it was apparent that the main strength of clinical placements and preceptorship rested with people - the leadership, program leads, coordinators, managers, and preceptors. That notwithstanding, process challenges were identified by many.

Following is a non-prioritized summary of the key messages from the **INTERNAL** interviews:

- Existing processes around preceptorship are cumbersome to many and require streamlining to address over-demand. Support was articulated for direct negotiations for placements. As well, a recurring theme was that the health-care system is not responsive to training needs. Support was expressed for small group preceptorships rather than the current approach for many being 1:1 (compared to many in Ontario at 1:2). Specifically noted was the need for effective governance and coordination rather than more bureaucracy.
- Saskatchewan Health Authority understands the present and future gaps in the demand-capacity conundrum. Improved collaboration across the care providers would be of great benefit and could be led by LPU. The current state can be characterized as short-staffed overall, a victim of ill-considered seat expansion, and diminished capacity. That notwithstanding, there is a sense of improved alignment across SHA with partners. However, supply is nowhere near demand.

⁶ Government of Saskatchewan Ministry of Health, Saskatchewan Health Authority, Saskatchewan Polytechnic

- The compensation for preceptorship is between nil and insignificant (often 6 - 12 cents per hour). The main motivators are professional pride and ethics. An exception is the compensation provided to some but not all NPs, but not other nursing disciplines. The absence of compensation for MRT preceptors is considered to be a growing concern, especially when all MRT practitioners are also preceptors. No compensation is available for the laboratory preceptors. ACP and PCP preceptors receive educational credits rather than compensation.
- Each discipline works independently - one suggestion with merit is to develop a shared approach with LPU, SHA, and College of Medicine. Academic nursing has improved provincial standardization and a decrease in silo mentality. The impact of standardization should not be under-estimated.
- There are 70 Nurse Practitioner students per semester at SaskPoly who are aligned with 30 preceptors. In the collaborative NP program, preceptorship has five 120-hour sessions followed by a single 180-hour session. Across the province, there continues to be a shortage of NP preceptors. This has been exacerbated with an NP seat expansion at US from 8 to 40. Also, there has been a significant turnover in potentially eligible NP preceptors. The absence of sufficient NP preceptors can, on occasion, hold back a student by a full year. There have been examples of two requests for every single NP preceptor.
- The two streams of acute care Hospital Pharmacists are 45 plus 3-5 specialty students and include a mandatory eight-week placement in Saskatoon or Regina. Some resistance was noted at rural locations, presumably due to resource limitations. There is no use of HSPnet and no additional compensation. The care provided is very much part of a team.
- Preceptorship for Hospital Pharmacists has been a team-based approach and requires approximately one hour per pharmacist per day. Typically, there are two such preceptorships annually, each lasting eight weeks. There continues to be some resistance to participating that is not observed in Saskatoon and Regina. The challenge going forward is that the current capacity is not ideal (too many students) with the pharmacist-to-bed ratios being 30:1.
- Not all Licensed Practical Nursing programs start and finish at the same time. This is particularly important for programs that need to use Saskatoon for clinical placements. For all three LPN sites, the provincial coordinator works with the program heads and the nursing advisory group. This includes an HSPnet group placement schedule. There are 24 - 25 group placements in a term (110 students across three sites). HSPnet is characterized as not intuitive and complicated, but with great capability. The most significant challenge is preceptor capacity.
- The Pharmacy Technician program (SaskPoly) is struggling to deal with shortages (especially community-based) - and, is predicted to get worse. Now there are 48 seats (was 24) with 20 graduates

per year. There has not been preceptor training (despite requests). The growth of pharmacies has outpaced available staff and exacerbated by scope increase. This program does not have a full-time curriculum coordinator but would benefit from a centralized process.

- Three preceptors per year are required for Advanced Care Paramedics and two per year for Primary Care Paramedics - previously there was a single preceptor throughout the program - and, now, there is a shortage of preceptors. There is a shortage of paramedics across Canada, 100 extra seats for PCP at SaskPoly, and a need for 100 additional preceptors. Previously ground ambulance was 30% of the paramedic total but now is 50%. A shortage of ACP has led to the Ministry providing a bursary for two years return-of-service. SaskPoly determines the siting of paramedic students. A significant problem is the limitation of time available in the operating room. ACP/PCP training workshops for preceptors were unsuccessful because not mandatory and poor attendance.
- Medical Radiation Technologists (MRT) are within Medical Diagnostics and include radiological technology, nuclear medicine, radiation therapy, and MRI technology. A seat expansion at SaskPoly CLXT and XRT increased the number from 20 to 40. Clinical placement for MRT is shared by Saskatoon and Regina, almost as "standing placements" - this has worked well, however the seat expansion will require additional placements at Prince Albert and Moose Jaw.
- Medical Diagnostics for laboratory services include MLT, MLA, CLXT, and phlebotomy and pre-analytics. For this group, there are no defined placement processes - basically, there is nothing more than reaching out to multiple groups. The clinical coordinators and instructors create student rotations for each clinical site. The clinical site determines how many students can be within a certain area and the coordinators and instructors develop rotations that meet both the program the clinical rotation requirements. Students commonly need to train at multiple locations within a city or within the province in order to fulfill all program competencies. The number of MLA seats was increased to 27 from 21 and MLT seats were increased to 50 from 40 and are now back to 35 (anticipating 30 graduates). There has been no use of HSPnet or LPU. Placements are 9 months for MLT, 30 days for MLA, and 45 days for CLXT. Program would benefit from an SHA placement officer. These placements are dealing with the referenced seat expansion that occurred without appropriate consultations (Ministries of Health and Advanced Education). The attrition rate from these programs has been problematic and capacity, which varies by location, is diluted provincially. There are 24.3 FTE vacancies for MLAs (with a current count of 195) and 57.0 FTEs for MLTs (with a current count of 456). There are pan-Canadian shortages of MLTs, MLAs, and CLXTs with the greatest appearing to be in Alberta, Saskatchewan, and Manitoba.

- Continuing Care Assistants work with clinical instructors require two clinical placements annually (Regina, Saskatoon, Prince Albert) in LTC facilities with 105 hours in the first practicum and 120 hours in the second. Regina and Prince Albert are short-staffed, and Saskatoon is fully staffed. There are part-time clinical placements as well. There are 48 students in Regina, 46 in Saskatoon, and two intakes at Prince Albert (40 and 39). Projected increases in seat capacity will ultimately make it very difficult for placements. There may be limited capacity to increase the number of placement sites, and therefore place students, since some LTC facilities are not suitable for student training. One of the reasons a site may be deemed unsuitable is the absence of a tub room which is required for proper training".
- Mental Health services are provided in an exemplary manner at the Calder Centre, using multidisciplinary teams (LPN, RN, RPN, MHA counselors, visiting psychiatrist, psychologist, recreation therapist, social worker). There is no alignment between the centre and HSPnet, LPU, preceptor training, or simulation. Typically, students approach the centre with an expression of interest (12-week practicum for a 1.0 FTE over one-year). The centre aims to assist people with need, but also unmet need. Consideration has been given to a more formalized process that includes a letter of understanding.
- The role and functions of Registered Psychiatric Nurses are poorly understood in the system, and likely under-valued. It is thought that the culture at SHA should change, starting with stronger job posting and improving the understanding of RPNs by the policy writers. RPNs are in a 2 1/2 year program that requires mentorship (but only about 1/2 RPNs are willing to participate). RPNs require 385 placement hours but the impact on recruitment has not been successful. There are frequent placement declines from SHA. There are 56 third year RPN students.
- Provincially, the Nursing preceptorship spans 6 to 12 weeks. In nursing, there has been a turnover of senior staff, often due to "preceptor fatigue" leading to a loss of some preceptors at a time when the seats have expanded substantially. It has been noted that, in rural settings, the shortages have been navigated by sharing the workload, although this is progressively difficult as increasing numbers of preceptors decline. This is not considered a current problem in urban settings. UR has not succeeded in placing 15 students and US has not succeeded with 7 students. SHA works carefully with academe to determine, in a centralized process, how research and education can improve the current status. In this regard, support was expressed for an additional distributed site for nursing. The collaborative BScN uses clinical educators more than preceptors. In year one, there are 407 long-term care placements for the program, with 45 hours in community service settings. In the winter of year one, at least 80 students participate at long-term care settings. Year four preceptors (supported by clinical

instructors and the collective bargaining agreement) provide 436 hours of teaching. The collaborative BScN uses group placements widely with seven students per clinical instructor. The challenges in this program are considered to be fixable, notably different students by the day (need to stabilize), burned out SHA partners (need to remember that the students are learners and not workload), and the development of an improved partnership with the LPU.

- There is notable support for improving resources available to the clinical placement activities.
- Rural placements are characterized as costly and a prime demonstration of the demand-capacity conundrum. The costing issue has been a much greater problem with group placements.
- There is anticipated value and "return on investment" to engage with retired or part-time preceptors, including "traveling preceptors" in addition to expanded simulation and virtual and distributed learning. Also, international recruitment has a significant role (recruitment, incentives, bursaries, pathways)
- Preceptor training occurs virtually and through academic-centred workshops several times annually and has been considered successful. Nonetheless, there is a compelling argument to gain additional funding as an investment in the preceptor; however, many see preceptorship as a matter of professional pride and prestige. It has been suggested that benefit would evolve from some sort of award program to celebrate preceptors.
- A majority opinion of both programs and agencies is that HSPnet is complicated and not user-friendly, and has been the root cause of failure to acquire and use information. Provincially, HSPnet has not been relied upon to any significant degree for nursing, hospital pharmacy, or pharmacy technicians. The complexities of HSPnet have discouraged its applications (whereas single placements have worked well). Many feel that the necessary communications aligned with HSPnet have not been fulfilled. The RPN program uses HSPnet but finds it very complex and not user-friendly. The ACP and PCP programs consider that HSPnet requires the most fixing and would like someone else to program it in Saskatchewan. Also, it is difficult for ACP to get time protected in the operating room. This compares to Alberta where these students receive 64 hours over two practicums. HSPnet is not used for the paramedic programs. The collaborative BScN program uses HSPnet extensively but has noted its weakness in the areas of data and relevant statistics - it considers it to be not user friendly and not intuitive.
- HSPnet was originally intended to be used by the MRT program, however inefficiencies and the absence of an anticipated platform resulted in HSPnet not being used at all by the program. It has been suggested that two dedicated resources at SHA (laboratory and MRT) would go a long way in

resolving this situation. Laboratory services do not currently use HSPnet nor LPU (although LPU becomes involved if the student is from out-of-province). HSPnet works well for CCAs.

- Learner Placement Unit is viewed positively by almost all of those interviewed. This was noted particularly by the NP program. Exceptions are hospital pharmacy, MRT, and Paramedicine programs where the LPU has not been involved to a significant degree. The LPU does, however, identify provincial HHR requirements as the foundation of a resource plan without alignment between the autonomous schools and HSPnet. The future is likely to include improved collaboration with the LPU.
- Simulation is seen by provincial nursing strategies to be a logical solution to the current challenges to augment skills, but this would require further expansion within a framework of strategic planning. The use of simulation as a supplement to education increased during the pandemic and its value was further underlined. The potential benefit for training for hospital pharmacy has been identified; however, it has been underused in this setting. Simulation in MRT training has been valuable (including examinations and competency) but could be expanded with increased funding and resources. There is no simulation for the laboratory services (phlebotomy and pre-analytics) except the year-one cohort from the College of Medicine (and provided at the SIM centre). For SHA laboratory services, CLXT always uses simulation, MLA previously used simulation, MLT just added simulation. These simulations are thought to decrease clinical placements by about 30%. Pharmacy Technicians would benefit from simulations but this has not occurred. The applications and use of simulation for LPNs are increasing. Simulation is a very large part of paramedic programs.
- A consistent outcome of preceptorship has been improved recruitment. An example of this is hospital pharmacy which has experienced a 70% retention. There is one MRT site with preceptorship potential but has consistently declined.
- A recurring hope is that the Ministry can gain an improved understanding of preceptorship and the related requirements, including compensation. As well, it is hoped that communication with preceptors improves over a current "trickle down" sharing of information.
- There have not been firm criteria to determine current placement capacity. Planning has been reactive and without enough consultation - too many moving pieces to make it work. Students dislike different preceptors on different days - preference is to follow around a single preceptor.
- Support was expressed to bring back the Provincial Clinical Coordinating Committee and its twice yearly meetings. There is a strong need articulated for a forum for provincial clinical placement coordinators.

3.2.2 External Interviews

Following is a non-prioritized summary of the key messages from the **EXTERNAL** interviews, augmented with additional source files and literature:

- There is significant variation across jurisdictions without consistent processes.
- Where HSPnet is used (exception is Manitoba where it covers the entire province), it has been considered useful albeit complicated with some evidence of inconsistencies in the acquisition and use of data.
- Alberta Health Services offers free online training and tools designed to help throughout a placement. AHS uses a Collaborative Practice Model of Care that is patient-centric and brings together a team of health-care providers. As well, each student is assigned a faculty representative for the duration of the placement. Specific policies and strategies are identified for nursing and allied health students.
- In Alberta, the collective agreement(s) are the strongest constraints on the capacity to provide placements. Other identified constraints are inadequate staff numbers leading to workload management and diminished ability to provide preceptorships. As well, smaller sites have smaller workloads and laboratory students are sent to larger sites. This movement of students has been challenging to coordinate for both preceptors and students, including cost and travel constraints. Historically, a minimal payment has been available to nurses who provide preceptorship.
- In British Columbia, foundational and advanced mentorship courses prepare a preceptor for the role, with related responsibilities assumed by the educational institution with reimbursement to managers for the foundational course. Support for preceptors, clinicians, and field supervisors is made available by health authorities. As well, a competency assessment tool is available to identify proficiency as a mentor or preceptor.
- BCIT School of Health Sciences offers an annual full day workshop for all preceptors, most relevant for clinical education for diagnostics, laboratory science, and advanced practice programs. As well, HSPnet is anticipated to be used for managing health sciences student placements by increasing the availability and quality of practice education opportunities. As well, students and their progress are tracked electronically to share communication and information during a practicum.⁷
- In British Columbia, following orientation, those who host students are required to abide by specific policies:

⁷ CompTracker

- Student practice policy
- Documentation
- Hand hygiene
- Confidentiality and security of personal information
- Electronic communications
- Professional image
- Conflict of interest
- Respectful workplace
- Safe handling of patients, residents, and clients
- Respiratory Protection
- Scented products
- Influenza policy
- Research and intellectual property
- Patient and family gifts
- Media relations
- In British Columbia, preceptorship placements target interdisciplinary care teams where the expectations of preceptorship are placed on the team rather than one individual, thereby bolstering capacity. Simulations and the incorporation of tools of artificial intelligence have provided an opportunity to create capacity. As well, remote preceptorships have been on the rise post-pandemic. Challenges have developed where the university is responsible for the student, especially within a health authority facility. These challenges have been witnessed as ad-hoc orientation, communications issues, preceptor identification issues, and inequity in opportunities across health authorities.
- The University of Manitoba uses Western University's Preceptor Education Program (PEP) as online preparation for both students and preceptors. As well, The Experiential Education Program is a series of practice-based courses that help PharmD students transfer knowledge and skills from the classroom into real life pharmacy practice. Working closely with experienced preceptors in settings like patient care clinics, hospitals, community pharmacies and primary care centres, students develop

confidence and build the strong patient-care skills they will need for careers of their own. Experiential education takes place in year 2 and year 4 of the PharmD program and can happen in any part of the province.

- Preceptorship in Manitoba continues to be heavily focused on nursing; however, expansion to other disciplines is of increasing interest and attention, including pharmacy and pharmacy technicians, and primary and advanced care paramedicine. Publications are provided as guidelines to finding a preceptor, as is peer-reviewed literature.⁸ In Manitoba, the nursing collective agreement includes mentorship as a three-month unpaid practicum under the license of the nurse on the unit. As well, 50% of nursing students include simulation as part of their education.
- In Manitoba, preceptorship has demonstrated a strong alignment with recruiting success, especially with stable units of team-based care.
- Prince Edward Island has been challenged by an increase to the complexity of finding preceptors as a consequence of being under-staffed and over-worked. Compensation is little more than token payments. Simulation is starting to replace clinical placements. It has been reported that, in the United States, simulation has replaced 50% of placements. There are two or three preceptors per student, including one senior preceptor. The deficit of preceptors changes yearly (especially in the last year) and is considered the most difficult in five years, requiring creative scheduling. Preceptor training is provided in one-day workshops. Nursing preceptorship is the responsibility of the Clinical and International Placement Coordinator and the Faculty of Nursing Placement Committee.
- Whether a preceptor in Prince Edward Island is paid, and by whom, varies. In addition to nursing programs, placement opportunities include resident care worker, primary care paramedicine, physiotherapy, and pharmacy technician.
- Ontario is introducing a nurse scholar program to encourage active nurses to delay retirement. This program pairs an experienced front-line nurse as a dedicated mentor with either newly graduated nurses, internationally educated nurses, or nurses wanting to be able to provide services that require additional skills.

⁸ Yonge O., Ferguson L. Myrick F. *Preceptor Placements in Western Rural Canadian Settings: Perceptions of Nursing Students and Preceptors*. Online Journal of Rural Nursing and Health Care, vol. 6. no.2, Fall 2006, 48-56



4.0 Use of Quantitative Data

Approach

The main objective for the collection of quantitative data was to assemble a comprehensive summary of the requirements for academic (group supervision) and preceptored (1:1) clinical supervisions across the disciplines identified in scope for this project. The aim was to provide a reasonable picture of the current state of the capacity to provide clinical education based on actual experience. From that, the data would be used to create a tool to project three years into the future based on certain assumptions, including potential growth rates in either student placement volumes or hours required for each program, or both.

An Excel® tool is intended to be used to conduct "what-if" analyses as opposed to being a forecasting tool. There are a number of exogenous factors that could influence levels of supervision required for clinical education across the disciplines. In particular, policy changes is seen as a primary driver, where decisions were made to increase the numbers of positions available within specified programs. The COVID pandemic also influenced student placement volumes in recent years and was a reason not to attempt a longitudinal analysis of activity. In some instances, academic cohorts had decreased and subsequently rebounded.

The current academic year (2023/2024) was used as the base year, reflecting the most recent placement levels and activity. The projection horizon included academic years 2024/2025, 2025/2026 and 2026/2027. The tool allows percentage increases to be applied to student placement counts, year by year. It is also possible to override percentage growth figures and to enter anticipated cohort figures directly within each clinical program. Hours required for each student to complete are also carried forward and may be changed as needed if program requirements change.

Literature has suggested that the use of simulation can be used to offset increased clinical need. The tool includes the ability to adjust clinical supervision hours based on the increased use of simulation technology.

Data for this project

Data were supplied in several formats, including:

1. Data were provided by Saskatchewan Polytechnic in Excel® format including the following data fields:
 - Year of program, Site, Course, Course description, Term, Number of FT students, Number of PT students, Clinical Hours, Simulation hours, Lab hours, Preceptor required Y/N, Preceptor hours required, Additional information, Clinical Placement database used and comments about use.

- Information was included for the following disciplines: CNPP, psychiatric nursing, SCBScN-Regina, LPN, SCBScN-Saskatoon, CCA, MLA, MLT, MRT, Paramedic, CLXT, pharmacy technicians and MHAC.
2. Responses to a survey undertaken by the Saskatchewan Health Authority (SHA), including responses from University of Saskatchewan, University of Regina, Saskatchewan Polytechnic and Northern Alberta Institute of Technology (NAIT) were provided in Word® format for the following disciplines:
- Nursing, Advanced Care Paramedicine, Primary Care Paramedicine, Pharmacy Technician, Medical Radiologic Technology, Medical Laboratory Technology, Medical Laboratory Assistant (Applied), Combined Laboratory and X-Ray Technology, Continuing Care Assistant, Mental Health and Addictions Counselling, Magnetic Resonance Imaging.
3. SHA also provided data from HSPNet data for three clinical programs (NPs, LPNs, and CCAs) with the following fields (provided by SHA):
- Year, Rcv Agency, RA Site, RA Service, RA Dest, Plc Agency, Department, PA Program, Discipline, Sub-Discipline, PA Course, ProgYr, Status PR Type, # PRs, # Students, Placement Hrs, Student Hrs.
4. Reports:
- Nursing Capacity: A current state assessment of nursing learner placements in the Saskatchewan Health Authority, November 29, 2023 [Draft]
 - Nursing Preceptorship in Saskatchewan: A Brief Update on Unit/Facility/Site Visits & Initial Findings from the Nursing Preceptor Survey, August 16, 2023
 - Report: A Conversation About Clinical Placements in Canadian Nursing Education, April 5, 2023
 - Health Sciences Placement Network: Current Use and Future Opportunities in Saskatchewan, September 21, 2017

The first data source identified above was used as the primary data source to identify the current state of clinical placement, along with the status for two prior years (academic years 2023/2024, 2022/2023 and 2021/2022). This source provided the most consistent and comprehensive tabulation of information. It also provided a template that could be used for the remaining programs that were outside of Saskatchewan Polytechnic's responsibility.

Estimates provided through the survey conducted by the Saskatchewan Health Authority (SHA), the second source of data identified, were compiled earlier in 2023. The figures provided in the responses may not have the most up to date information with respect to offers that were declined or out of cohort students that would have required placements. These responses may also not include expansion numbers. It was for this reason that we

have relied on the Excel data provided by Saskatchewan Polytechnic, the first data source. The survey data were acknowledged and considered as a possible source of information where gaps in the Saskatchewan Polytechnic data may have occurred. In the end, this was not necessary. Although there were some inconsistencies, in general, there was alignment between the two sources. The format of reporting may have contributed to the variation between the two. Overall hours and student placement counts aligned well between the two.

Information from the three files of the third source reflect numbers of requests for placements and is based on number of placements, not the number of unique students. These files facilitate the ability to see the distribution of activity by receiving agency (regions across the province), and for those preceptored (1-1) versus those academically supervised in groups. The information also facilitates identifying confirmations, cancellations, those that were declined and those that were redirected.

Information from the fourth source, in particular the 2017 report, was used to provide points of reference and to assess orders of magnitude and changes.

The data provided by Saskatchewan Polytechnic were collated and supplemented with information for the remaining in-scope disciplines to create a master table of programs. Some additional follow-up was conducted with program leaders to confirm the data in the master table. Additional calculations were made to derive overall hours for academic and preceptored supervision, and to create fields for the three projected academic years.

Historical data were provided in the Excel file, covering academic years 2021/2022, 2022/2023 and 2023/2024. This period showed a great deal of volatility, where some programs saw large increases. In a few places, some academic cohorts had decreased and subsequently rebounded.

As indicated previously, information was assembled to use as a basis for projecting the next three academic years (2024/2025, 2025/2026 and 2026/2027). While the primary driver of future volumes will be policy driven, we have used student placement counts from academic 2023, with associated academic and preceptored hours, and applied percentage increases (10%, 15% and 20%) in student placement counts to project forward over the three years, maintaining the required hours for individual courses. This provides estimates of the number of anticipated hours.

An adjustment for reductions in academic and preceptored hours through the use of simulation. Literature has suggested that simulation can be used to offset increased need.⁹ While estimates vary here as well, we have applied modest adjustments (5%, 10% and 15%) separately over the next three years to show the impact.

In a few instances, some specific estimates were provided for changes in student placement numbers in the coming years. These have been entered directly into the projections; they appear as yellow shaded cells in the Excel file.

Challenges Working with the Data

A primary focus of this work was to gain an understanding of the current clinical learning environment that contributes to the development of professional practice capabilities across a number of health professions. That this work covers a range of in-scope professions identified in Section 1.2 of this report was an initial signal of the challenges working with the acquired data. Historically and currently, programs to educate and train the various professionals identified operate generally independent of each other. Without standardized reporting guidelines or protocols, the programs have evolved their own approaches to managing and documenting clinical placement activities.

Although it may seem minor, use of consistent labelling and acronyms to identify the different professions and the subcategories of the professions is important. For those within a program, this may seem obvious. However, for an external viewer, this may cause uncertainty and confusion.

While there is some consistency of data capture within academic organizations, there was no consistent approach implemented to characterize and capture information about the configuration or scale of clinical education across programs. Without prior knowledge of the form or content of information, a request was issued to collect what was currently being captured by the programs. No template was provided in an effort to see how the data were being captured. Saskatchewan Polytechnic's response, having provided extensive information covering the majority of the disciplines in scope for this project, became to the template that was adopted to characterize and collate the data. Information for programs missing in Saskatchewan Polytechnic's submission were added to provide a comprehensive summary.

⁹ Jimenez, FA. White Paper: "Can Virtual Patient Simulation Be Used in Substitution of Traditional Clinical Hours in Undergraduate Nursing Education? A Review of the Evidence" Elsevier. 22-NHPep-0237 CH 04/22.

Edwards, JJ, Nichols A, and Bakerjian, D. March 1, 2023. Simulation Training | PSNet.
<https://psnet.ahrq.gov/primer/simulation-training#:~:text=The%20go%E2%80%A6%20simulation%2Dbased>

Cross-validation of data was also challenging. Estimates varied across the different sources making the process difficult to reconcile. This was further exacerbated by the metrics used. Program seats were often used to describe the size of a clinical program, in combination with academic supervision and preceptored hours. However, actual requirements varied with the numbers of student placements, which at times were less than and, occasionally, exceeded seat counts. To develop an overall view of clinical capacity, we opted to use student placement counts (focusing on full-time students) along with stated academic supervision and preceptor hours to derive required volumes of time. Again, to a great extent, these were provided through Saskatchewan Polytechnic directly, which is affiliated with most of the clinical program areas. As noted, exceptions include the Pharmacy and Nursing programs at the University of Saskatchewan (US). Some US nursing information was captured in the Excel file along with data reflecting other disciplines. Additional US nursing data were provided directly by the program. Pharmacy information was drawn from the university's website.

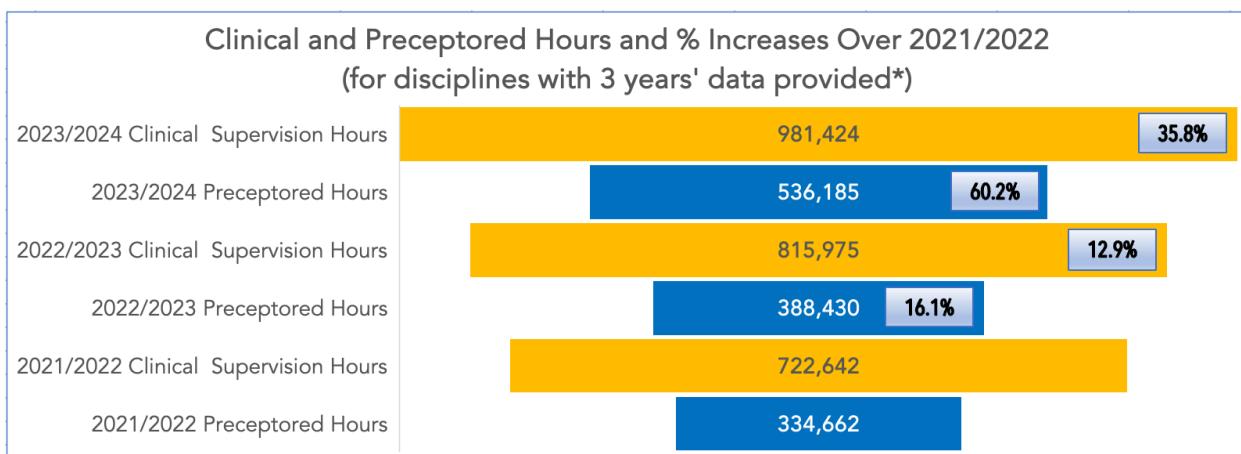
The choice to focus on placements of full-time students and to not include part-time students was based on our understanding that placements for part time students was less or not predictable. This would make planning for clinical supervision (academic or preceptor) for part-time students' more difficult. From the data received, there did not appear to be a large number of student placements involved and in broader planning for clinical training needs, it was felt that this would be one of a number of factors that could affect overall volumes of activity.

A final point to note is the lack of identification of attrition among the learner groups. The numbers of people who drop out of the programs impacts the requirements for clinical supervision. While this may have less of a noticeable impact on group learning under academic supervisors, the number of preceptor hours would be more directly affected.

Data Source 1: Saskatchewan Polytechnic Supplemented with Data from University of Saskatchewan Nursing and Pharmacy

For illustration purposes, **Data Exhibit 1** shows the magnitude of changes from academic year 2021/2022 through 2023/2024 for disciplines where trend data were provided. It was noted that data for US Nursing programs (BSN, PDBSN, PDBSN & BSN) and Pharmacists were not provided in the original Saskatchewan Polytechnic dataset, as these are not programs that are affiliated with Polytechnic. Additional data for these programs for 2023/2024 were later added to provide a more comprehensive current state summary of activity. It was also noted that trend data for 2021/2022 and 2022/2023 were not provided for CCAs and MLAs.

Data Exhibit 1: Clinical and Preceptored Hours and % Increases over 2021/2022 (for disciplines with 3 years' data provided)



Data Source 2: Reports

1. Nursing Capacity: A current state assessment of nursing learner placements in the Saskatchewan Health Authority, November 29, 2023 [Draft]

"Starting in 2022-23, the University of Saskatchewan College of Nursing and the Saskatchewan Collaborative Nursing program added 150 new seats, including 124 in Bachelor of Science in Nursing (BSN), 16 in Registered Psychiatric Nursing, and 10 in the Nurse Practitioner program. For the BSN programs, this represents an annual admission increase from 690 to 814¹⁰ nursing learners. Owing to this increase, by 2025-26, the demand for nursing placements will rise by 18%, which amounts to an additional 1,054 placements or 156,612 placement hours per year."¹¹

¹⁰ Please note earlier reported figure of 840

¹¹ This report also presents various breakdowns by clinical environment, settings, acceptance, geographic distribution, academic term

Data Exhibit 2: Placement Durations

	<i>UofS Placement curricula</i>	Placement Duration	<i>SCBScN Placement curricula</i>	Placement Duration
Year 1	None		CNUR 101 (Group)	48 hours
Year 2	N206 (Group, LTC or Acute) N221 (Group, Med/Surg)	42 hours 132 hours	CNUR 205 (Group, Acute) CNUR 206 (Group, Acute)	120 hours 156 hours
Year 3	N308 (Group, Mental Health) N331 (Group, Obs/Peds) N333 (Group, Acute)	132 hours 156 hours 144 hours	CNUR 302 (Group, Child/Adolescent) CNUR 303 (Group, Family and Newborn) CNUR 304 (Group, Mental Health) CNUR 305 (Group, Acute)	96 hours 96 hours 126 hours 126 hours
Year 4	N431 (Group, community) N450 (Preceptored)	216 hours 336 hours	CNUR 401 (Group, Pop health/community) CNUR 403 (Preceptored) CNUR 404 (Preceptored, Acute)	168 hours 216 hours 216 hours
		1,158 hours		1,368 hours

This report also presents various breakdowns by clinical environment and settings, acceptance, geographic distribution, and academic term.

2. Nursing Preceptorship in Saskatchewan: A Brief Update on Unit/Facility/Site Visits & Initial Findings from the Nursing Preceptor Survey, August 16, 2023

"From May 3-July 14, 2023, Learner Placement Unit (LPU) Specialists conducted 143 unit/facility site visits across the SHA in fifteen communities. Visits included acute care, long-term care, primary health care (public health and community health care) and other sites for allied health placement areas."

During these visits, four areas were identified as being important to preceptor placements:

- Preceptor support and capacity - Staffing vacancies and increased clinical demand has led to an overall reduction in preceptorship capacity. The need for increased educational supports was identified, such as knowledge of preceptor workshop, ongoing preceptor skill acquisition and increased time for student evaluations. Consistency in reimbursement for preceptorship was identified.
- Communication - Consistent communication amongst Manager/CNE, staff and educational institutions for clarification of roles, expectations, and unit processes.
- Information Technology - Inconsistent IT processes across former health regions have led to significant administrative workload and impact to placement length and curricular requirements. SHA website, location of many nursing resources, is challenging to navigate for students.

- Space - Physical space impacts the number of students a unit can accept as well as availability of resources such as computers. Lack of space for learning materials and student personal items is a common theme.

3. Report: A Conversation About Clinical Placements in Canadian Nursing Education, April 5, 2023

Canadian Association of Schools of Nursing (CASN) held a virtual cross-country event for clinical placement coordinators on April 5, 2023 with participation by 290 individuals from 11 provinces and territories. The following graphic demonstrates the main pain points identified by participants:

Data Exhibit 3: Ranking Challenges with Clinical Placements



Source: Report: CASN/ACESI - A Conversation About Clinical Placements in Canadian Nursing Education, April 5, 2023

4. Health Sciences Placement Network: Current Use and Future Opportunities in Saskatchewan, September 21, 2017

"Health science programs that currently use HSPnet in Saskatchewan include: nursing (baccalaureate, practical nursing, psychiatric nursing, nursing re-entry, nurse practitioner, and the orientation program for internationally educated nurses), physical therapy (MPT), combined lab and x-ray technology (CLXT) and continuing care assistant/health care aide (CCA/HCA) programs. Collectively across these programs there were 3,643 confirmed placements recorded in HSPnet during academic year 2016-17, comprising 1,122,954 student practice hours."

The 2017 HSPNet report listed the programs that use the HSPNet service. This list does not include paramedicine or pharmacy technicians. The report states that, collectively across these programs, there were

Health System Clinical Placement Capacity

3,643 confirmed placements and 1,122,954 student practice hours in academic year 2016/2017. Overall figures for 2023/2024, including the disciplines not included in Data Exhibit 1, appear in **Data Exhibit 2** and indicate that there were 1,476,684 hours of supervision, with 695,141 hours for preceptorship.

Data Exhibit 4 presents the breakdown of these figures by clinical program. The data provided in this file provide information pertaining to the year of the program, course and term, in addition to qualitative information at these levels. Site information is provided as well.

Data Exhibit 4: Clinical and Preceptored Hours and % Increases Over 2021/2022 By Clinical Program (for disciplines with 3 years' data provided)

	2023/2024 Clinical Supervision Hours	2023/2024 Preceptored Hours	2022/2023 Clinical Supervision Hours	2022/2023 Preceptored Hours	2021/2022 Clinical Supervision Hours	2021/2022 Preceptored Hours
CNPP	24,440	24,440	15,120	15,120	11,076	11,076
SCBScN-Regina	287,208	81,620	263,088	67,628	219,570	47,276
SCBScN-Saskatoon	225,084	70,416	207,828	55,728	191,598	53,136
Usask BSN	337,764	89,376				
Usask PDBSN	23,250					
Usask PDBSN & BSN	23,520	23,520				
RPN	61,705	31,858	42,615	19,260	40,670	19,605
LPN	86,440	25,480	64,850	12,540	63,560	12,375
Paramedic - ACP	13,251	13,251	5,754	5,754	16,708	15,190
Paramedic - PCP	66,676	66,676	55,680	55,680	55,680	55,680
Pharmacists	56,880	31,140				
CLXT	56,000	56,000	43,480	43,480	21,740	21,740
MRT	44,860	41,404	43,200	38,880	34,560	31,104
MLT	73,960	73,960	56,160	56,160	56,160	56,160
MLA	14,920	14,920				
Pharm Tech	11,420	20,700	4,440	4,440	7,160	7,160
MHAC	30,380	30,380	13,760	13,760	4,160	4,160
CCA	38,925					
Subtotal: Disciplines with 3 years' data	981,424	536,185	815,975	388,430	722,642	334,662
TOTAL (all disciplines)	1,476,683	695,141				
Increase over 2021/2022 for disciplines with 3 years' data						
# Hours	258,782	201,523	93,333	53,768		
%	35.8%	60.2%	12.9%	16.1%		
Trend data were not provided for US Nursing programs (BSN, PDBSN, PDBSN & BSN), Pharmacists, MLAs and CCAs						

The Excel tool that was prepared to compile clinical training data across disciplines also included calculations to estimate potential hours for the three academic years following the base year, 2023/2024. As indicated earlier

in this section of the report, estimates of future clinical hours were prepared, including adjustments of increased use of simulation to offset the need for supervised training. Data Exhibits 2a and 2b present two scenarios:

In the exhibits, AY means Academic Year and FT means Full Time Students.

The scenarios indicate that there is substantial room to offset the number of hours of clinical supervision required through the use of simulation. In Scenario 1, this would amount to nearly 16% fewer hours by 2025/2026, where no additional student placements were anticipated over the ones directly identified by the programs. In Scenario 2, a 5% increase in student placements is introduced (over the specific increases identified by the programs). This results in an anticipated 12% reduction in supervised hours.

Scenario 1:

- a) No anticipated general percentage increase in student enrolment (seats); some specific increases expected
- b) Impact of increased use of simulation year over year (5%, 10%, 15%)

Data Exhibit 5: Projected Future Clinical Training Hours - Scenario 1

Program	AY 2023 TOTAL FT Clinical Hours	AY 2023 TOTAL FT Preceptor Hours	AY 2024 Total Clinical Hours	AY 2024 Total Preceptor Hours	AY 2024 Clinical Hours (reduced by simulation)	AY 2025 Total Clinical Hours	AY 2025 Total Preceptor Hours	AY 2025 Clinical Hours (reduced by simulation)	AY 2026 Total Clinical Hours	AY 2026 Total Precepto r Hours	AY 2026 Clinical Hours (reduced by simulation)
CNPP	24,440	24,440	27,950	27,950	26,553	31,460	31,460	28,314	34,970	34,970	29,725
SCBScN - Regina	287,208	81,620	287,208	81,620	272,848	287,208	81,620	258,487	287,208	81,620	244,127
SCBScN - Saskatoon	225,084	70,416	225,084	70,416	213,830	225,084	70,416	202,576	225,084	70,416	191,321
Usask BSN	337,764	89,376	337,764	89,376	320,876	337,764	89,376	303,988	337,764	89,376	287,099
Usask PDBSN	23,250		23,250	0	22,088	23,250	0	20,925	23,250	0	19,763
Usask PDBSN & BSN	23,520	23,520	23,520	23,520	22,344	23,520	23,520	21,168	23,520	23,520	19,992
RPN	61,705	31,858	69,520	32,872	66,044	81,400	36,760	73,260	90,400	45,760	76,840
LPN	86,440	25,480	86,440	25,480	82,118	86,440	25,480	77,796	86,440	25,480	73,474
Paramedic ACP	13,251	13,251	13,251	13,251	12,588	13,251	13,251	11,926	13,251	13,251	11,263
Paramedic PCP	66,676	66,676	66,676	66,676	63,342	66,676	66,676	60,008	66,676	66,676	56,675
Pharmacists	56,880	31,140	56,880	31,140	54,036	56,880	31,140	51,192	56,880	31,140	48,348
CLXT	56,000	56,000	56,000	56,000	53,200	85,925	85,925	50,400	85,925	85,925	47,600
MRT	44,860	41,404	83,080	76,214	78,926	83,080	76,214	74,772	83,080	76,214	70,618
MLT	73,960	73,960	75,460	75,460	71,687	75,460	75,460	67,914	75,460	75,460	64,141
MLA	14,920	14,920	14,920	14,920	14,174	14,920	14,920	13,428	14,920	14,920	12,682
Pharm tech	11,420	20,700	11,420	20,700	10,849	11,420	20,700	10,278	11,420	20,700	9,707
MHAC	30,380	30,380	30,380	30,380	28,861	30,380	30,380	27,342	30,380	30,380	25,823
CCA	38,925		38,925	0	36,979	38,925	8,775	35,033	38,925	8,775	33,086
Grand Total	1,476,683	695,141	1,527,728	735,975	1,451,342	1,573,043	782,073	1,388,806	1,585,553	794,583	1,322,284

Health System Clinical Placement Capacity

Program	YEAR OVER YEAR INCREASES							
	2023 to 2024		2024 to 2025		2025 to 2026			
	Clinical Hours	Clinical Hours Reduced by Simulation	Clinical Hours	Clinical Hours Reduced by Simulation	Clinical Hours	Clinical Hours Reduced by Simulation		
CNPP	14.4%	8.6%	12.6%	1.3%	11.2%	-5.5%		
SCBScN - Regina	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
SCBScN - Saskatoon	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Usask BSN	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Usask PDBSN	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Usask PDBSN & BSN	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
RPN	12.7%	7.0%	17.1%	5.4%	11.1%	-5.6%		
LPN	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Paramedic ACP	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Paramedic PCP	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Pharmacists	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
CLXT	0.0%	-5.0%	53.4%	-10.0%	0.0%	-44.6%		
MRT	85.2%	75.9%	0.0%	-10.0%	0.0%	-15.0%		
MLT	2.0%	-3.1%	0.0%	-10.0%	0.0%	-15.0%		
MLA	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Pharm tech	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
MHAC	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
CCA	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Total	3.5%	-1.7%	3.0%	-9.1%	0.8%	-15.9%		

Scenario 2:

- (a) 5% increase anticipated in student enrolment (seats) for 2026; including some expected specific increases
(b) Impact of increased use of simulation year over year (5%, 10%, 15%).

Data Exhibit 6: Projected Future Clinical Training Hours - Scenario 2

Program	AY 2023 TOTAL FT Clinical Hours	AY 2023 TOTAL FT Precepto- r Hours	AY 2024 Total Clinical Hours	AY 2024 Total Preceptor Hours	AY 2024 Clinical Hours (reduced by simulation)	AY 2025 Total Clinical Hours	AY 2025 Total Preceptor Hours	AY 2025 Clinical Hours (reduced by simulation)	AY 2026 Total Clinical Hours	AY 2026 Total Preceptor Hours	AY 2026 Clinical Hours (reduced by simulation)
CNPP	24,440	24,440	27,950	27,950	26,553	31,460	31,460	28,314	34,970	34,970	29,725
SCBScN - Regina	287,208	81,620	287,208	81,620	272,848	287,208	81,620	258,487	301,568	85,701	256,333
SCBScN - Saskatoon	225,084	70,416	225,084	70,416	213,830	225,084	70,416	202,576	236,338	73,937	200,887
Usask BSN	337,764	89,376	337,764	89,376	320,876	337,764	89,376	303,988	354,652	93,845	301,454
Usask PDBSN	23,250		23,250	0	22,088	23,250	0	20,925	24,413	0	20,751
Usask PDBSN & BSN	23,520	23,520	23,520	23,520	22,344	23,520	23,520	21,168	24,696	24,696	20,992
RPN	61,705	31,858	69,520	32,872	66,044	81,400	36,760	73,260	93,795	46,923	79,726
LPN	86,440	25,480	86,440	25,480	82,118	86,440	25,480	77,796	90,762	26,754	77,148
Paramedic ACP	13,251	13,251	13,251	13,251	12,588	13,251	13,251	11,926	13,914	13,914	11,827

Health System Clinical Placement Capacity

Paramedic PCP	66,676	66,676	66,676	66,676	63,342	66,676	66,676	60,008	70,010	70,010	59,508
Pharmacists	56,880	31,140	56,880	31,140	54,036	56,880	31,140	51,192	59,724	32,697	50,765
CLXT	56,000	56,000	56,000	56,000	53,200	85,925	85,925	50,400	90,221	90,221	49,980
MRT	44,860	41,404	83,080	76,214	78,926	83,080	76,214	74,772	87,234	80,024	74,149
MLT	73,960	73,960	75,460	75,460	71,687	75,460	75,460	67,914	79,233	79,233	67,348
MLA	14,920	14,920	14,920	14,920	14,174	14,920	14,920	13,428	15,666	15,666	13,316
Pharm tech	11,420	20,700	11,420	20,700	10,849	11,420	20,700	10,278	11,991	21,735	10,192
MHAC	30,380	30,380	30,380	30,380	28,861	30,380	30,380	27,342	31,899	31,899	27,114
CCA	38,925		38,925	0	36,979	38,925	8,775	35,033	40,871	9,214	34,741
Grand Total	1,476,683	695,141	1,527,728	735,975	1,451,342	1,573,043	782,073	1,388,806	1,661,957	831,438	1,385,956

	YEAR OVER YEAR INCREASES										
	2023 to 2024		2024 to 2025			2025 to 2026					
Program	Clinical Hours	Clinical Hours Reduced by Simulation	Clinical Hours	Clinical Hours Reduced by Simulation	Clinical Hours	Clinical Hours	Clinical Hours Reduced by Simulation	Clinical Hours	Clinical Hours Reduced by Simulation		
CNPP	14.4%	8.6%	12.6%		1.3%	11.2%		-5.5%			
SCBScN - Regina	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
SCBScN - Saskatoon	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
Usask BSN	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
Usask PDBSN	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
Usask PDBSN & BSN	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
RPN	12.7%	7.0%	17.1%		5.4%	15.2%		-2.1%			
LPN	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
Paramedic ACP	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
Paramedic PCP	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
Pharmacists	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
CLXT	0.0%	-5.0%	53.4%		-10.0%	5.0%		-41.8%			
MRT	85.2%	75.9%	0.0%		-10.0%	5.0%		-10.8%			
MLT	2.0%	-3.1%	0.0%		-10.0%	5.0%		-10.8%			
MLA	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
Pharm tech	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
MHAC	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
CCA	0.0%	-5.0%	0.0%		-10.0%	5.0%		-10.8%			
Total	3.5%	-1.7%	3.0%		-9.1%	5.7%		-11.9%			

5. Canadian Institute for Health Information Health Human Resource Data

Information available through CIHI is for practising professionals and is not directly related to measuring learners but focuses on doctors, nurses and other allied health practitioners. This information is useful to understand the general HHR environment. Exhibits presenting this information appear as Appendices.

Information available through CIHI is for practising professionals and are not directly related to measuring learners but focuses on doctors, nurses and other allied health practitioners. This information is useful to understand the general HHR environment, as with the following examples:

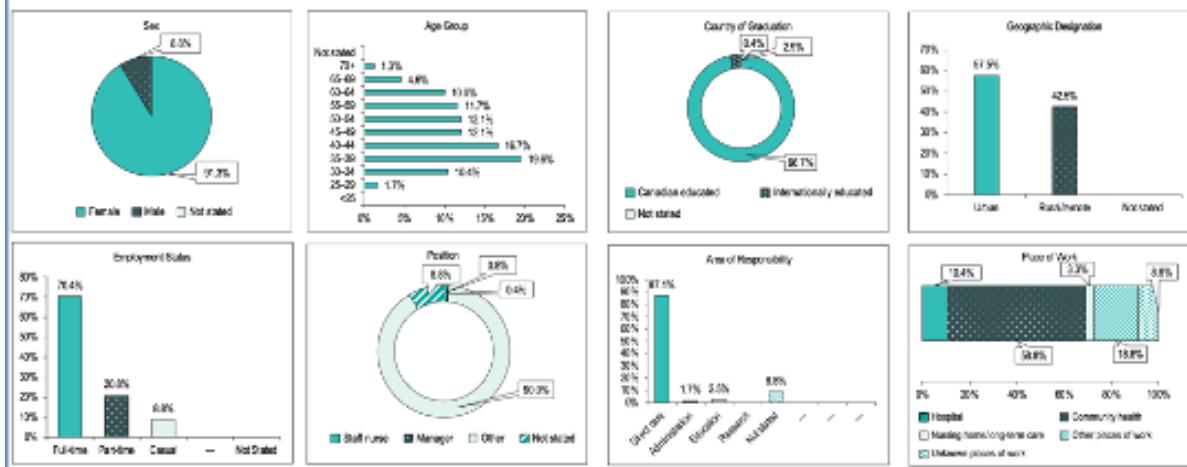
Data Exhibit 7: CIHI Health Workforce Quickstats 2021: Nurse Practitioners in Saskatchewan

Provincial/territorial profile for nurse practitioners workforce in Saskatchewan, all places of work, 2021

Instructions: Select a provider, jurisdiction, place of work and year from the drop-down lists in cells A8, A8, A10 and A12.

Type of provider
Nurse practitioners
Province/territory
Saskatchewan
Place of work*
All places of work
Year
2021

Data will change in the figures and table below based on your selections above.



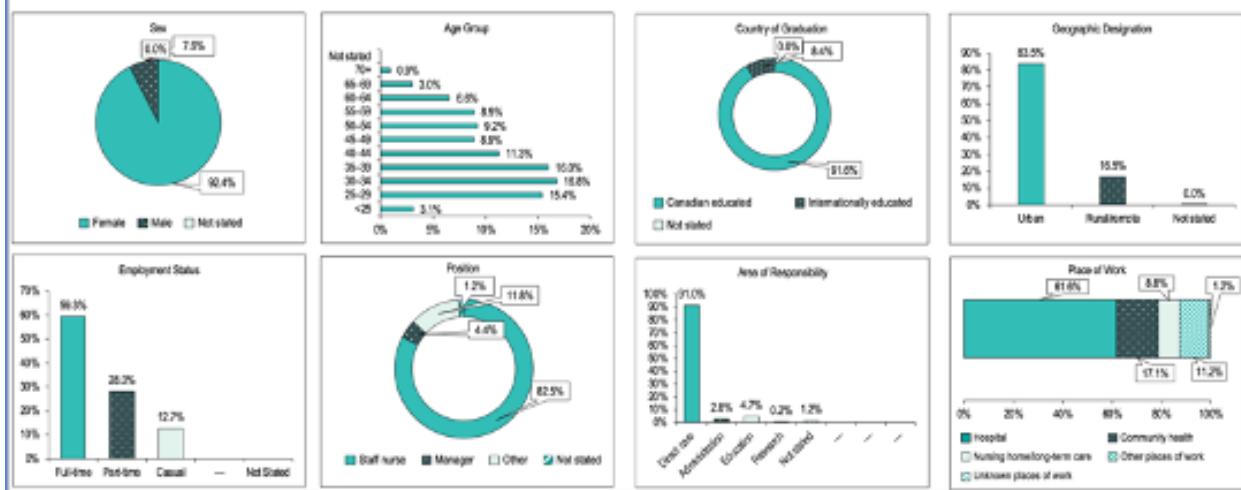
Data Exhibit 8: CIHI Health Workforce Quickstats 2021: Registered Nurses in Saskatchewan

Provincial/territorial profile for registered nurses workforce in Saskatchewan, all places of work, 2021

Instructions: Select a provider, jurisdiction, place of work and year from the drop-down lists in cells A6, A8, A10 and A12.

Type of provider	Registered nurses
Province/territory	Saskatchewan
Place of work*	All places of work
Year	2021

Data will change in the figures and table below based on your selections above.



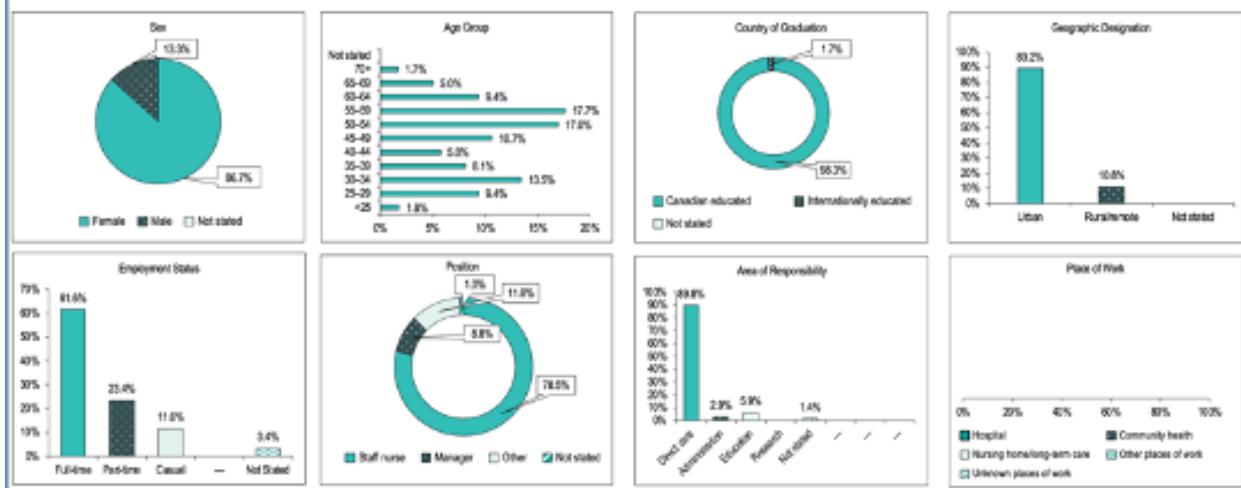
Data Exhibit 9: CIHI Health Workforce Quickstats 2021: Registered Psychiatric Nurses in Saskatchewan

Provincial/territorial profile for registered psychiatric nurses workforce in Saskatchewan, all places of work, 2021

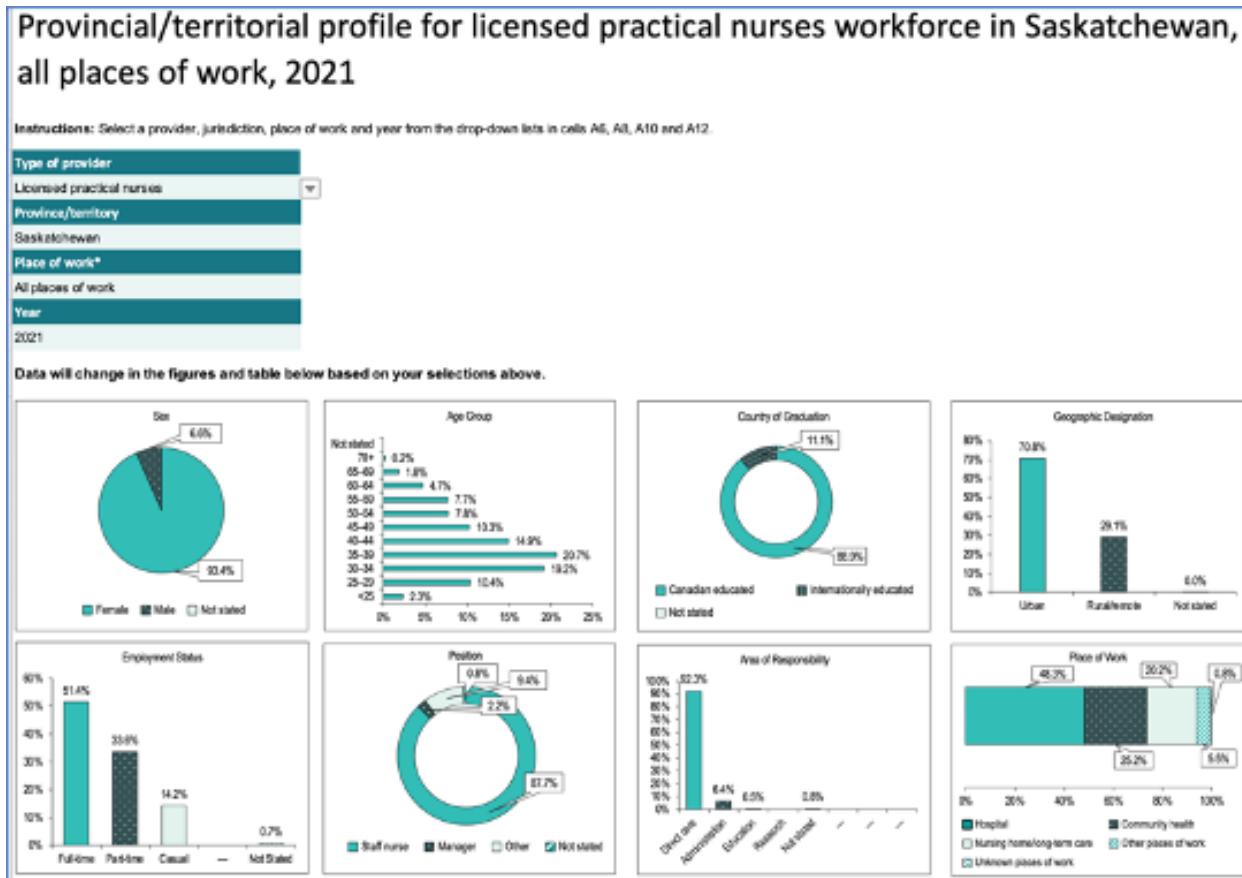
Instructions: Select a provider, jurisdiction, place of work and year from the drop-down lists in cells A6, A8, A10 and A12.

Type of provider	Registered psychiatric nurses
Province/territory	Saskatchewan
Place of work*	All places of work
Year	2021

Data will change in the figures and table below based on your selections above.



Data Exhibit10: CIHI Health Workforce Quickstats 2021: Licensed Practical Nurses in Saskatchewan



Data Source 3: SHA Survey Responses

Responses to the SHA survey to identify programs and courses that relate to clinical placements were compiled as a point of comparison with the figure presented in Data Exhibits 1 and 2 above. It became apparent fairly quickly that there were discrepancies between the two sources of information. It was noted that overall the SHA survey data produced a higher number of hours, despite missing data for Pharmacists. The figures were referred to Saskatchewan Polytechnic for comment. The recommendation was to proceed with the data used in Exhibit 1 and to disregard the information from the SHA survey. To prevent confusion, these data were set aside.

Data Source 4: Placement Requests through HSPnet

The following Data Exhibits are based on data provided by SHA for NPs, LPNs, and CCAs. **Data Exhibit 5** presents numbers of requests and hours for Nurse Practitioner trainees.

Data Exhibit 5: Requests and Clinical Hours for Nurse Practitioner Program

Health System Clinical Placement Capacity

Counts			Status				
Year	Receiving Agency	Confirmed / Accepted	Cancelled	Declined	Total	% Receiving Agency	
2021	SHA-NE	7	11	15	33	15%	
	SHA-NW	13	5	8	26	12%	
	SHA-Reg	19	2	9	30	14%	
	SHA-Sktn	5	8	13	26	12%	
	SHA-SE	23	15	43	81	38%	
	SHA-SW	5	5	9	19	9%	
2021 Total		72	46	97	215	100%	
2022	SHA-NE	18	13	43	74	21%	
	SHA-NW	28	11	30	69	20%	
	SHA-Reg	21	4	15	40	11%	
	SHA-Sktn	5	6	21	32	9%	
	SHA-SE	34	8	52	94	27%	
	SHA-SW	15	7	21	43	12%	
2022 Total		121	49	182	352	100%	
2023	SHA-NE	30	4	35	69	16%	
	SHA-NW	37	17	34	88	21%	
	SHA-Reg	24	6	10	40	10%	
	SHA-Sktn	9	4	17	30	7%	
	SHA-SE	39	16	76	131	31%	
	SHA-SW	22	19	21	62	15%	
2023 Total		161	66	193	420	100%	
	2023 % by Status	38%	16%	46%			
Clinical Hours		Status					
Year	Receiving Agency	Confirmed / Accepted	Cancelled	Declined	Total	% Receiving Agency	
2021	SHA-NE	994	1,781	2,363	5,138	18%	
	SHA-NW	1,849	783	1,513	4,145	14%	
	SHA-Reg	1,773	133	954	2,860	10%	
	SHA-Sktn	891	510	1,905	3,306	12%	
	SHA-SE	2,882	2,037	6,491	11,410	40%	
	SHA-SW	691	370	747	1,808	6%	
2021 Total		9,080	5,614	13,973	28,667	100%	
2022	SHA-NE	2,474	1,705	6,846	11,025	23%	
	SHA-NW	3,962	1,685	4,309	9,956	21%	
	SHA-Reg	1,817	475	2,022	4,314	9%	
	SHA-Sktn	572	817	2,984	4,373	9%	
	SHA-SE	4,482	1,401	6,727	12,610	27%	
	SHA-SW	1,682	794	2,388	4,864	10%	
2022 Total		14,989	6,877	25,276	47,142	100%	
2023	SHA-NE	4,231	726	6,080	11,037	18%	
	SHA-NW	5,022	2,537	5,024	12,583	21%	

Health System Clinical Placement Capacity

	SHA-Reg	2,862	544	996	4,402	7%
	SHA-Sktn	1,170	706	2,435	4,311	7%
	SHA-SE	5,065	2,384	11,104	18,553	31%
	SHA-SW	3,024	2,836	3,229	9,089	15%
2023 Total		21,374	9,733	28,868	59,975	100%
	2023 % by Status	36%	16%	48%		

Of note is the proportion of requests declined in 2023 (46%). After a further 16% were cancelled, there were only 38% confirmed or accepted. The highest proportion of requests in 2023 were for SHA-SE (31%) and the lowest proportions were for Regina and Saskatoon.

Granular tabulations of data and scenarios are provided as Appendices



5.0

Key Observations as an Executive Summary

Please note that there was insufficient evidence to make valid observations on:

- Placement capacity outside the publicly funded health-care system
- Placement tool/software used in other provinces where HSPnet is not (widely) used
- Programs with consistent identification of 1:1 preceptor to student training

Following are non-prioritized observations¹² derived from the qualitative and quantitative research as an essential step in the integration of the research data, enabling final recommendation:

1. The strengths of clinical placements in Saskatchewan are the people who make it work.
2. The weaknesses of clinical placements in Saskatchewan are the related and inconsistent processes.
3. There are no satisfactory or consistent criteria used to determine clinical placement capacity.
4. Seat expansion in the absence of appropriate consultation exacerbates the challenges of planning and executing clinical placement capacity.
5. Successful clinical placement initiatives are most appropriately focused on the public sector.
6. Governance and coordination among partners in the identification of need and capacity has been weak in Saskatchewan.
7. Simulation as a complement to clinical placement is of great value that continues to increase. With respect to this increase, it has been reported that, in the United States, simulation has replaced 50% of placements.
8. Hosting students in clinical placements is largely a rural issue that is made to work through participating preceptors and organizations.
9. Data with respect to learner-to-staff ratios across Canada does not offer solutions as the information is spotty, changing, and not consistently measured.
10. Stakeholder engagement using a template approach for interviews is revealing and aligned with experience and candour.
11. Source files and abstractions underpin the foundation of this research, especially as follows:

¹² Please note that these are generalities with identifiable exceptions

- While acknowledging that the presence of a single provider, program, or curriculum would not permit the clinical placement of students across all years, it was concluded that the two-provider nursing education model allowed for the coordinated facilitation of greater than 2,000 undergraduate nursing students annually.
- The inclusion of rural and remote communities for clinical placements both alleviated congestion in Regina and Saskatoon and achieved a distributed education model that promoted labour market attachments in those rural and remote areas.
- The key organizations in clinical placement issues are Government of Saskatchewan (Ministries of Health and Advanced Education), Saskatchewan Health Authority SHA), and academic institutions. Weaknesses were identified in the governance, program coordination, and the absence of a forum to link placement sites and education programs.

12. The Learner Placement Unit (LPU) at SHA is respected but noted not to have achieved its full potential, initially articulated as:

- Broad management of student placements in the SHA
- Streamline placement processes and support those involved in learner clinical education
- Liaison between academic programs and SHA clinical teams
- Host the HSP net placement software
- Ensure student requirements have been met (CPA, CRC, confidentiality, immunization)
- Assist out-of-province learners to navigate placements
- Update academic programs on policy changes

It is hoped that there will be benefits achieved within the LPU 3-year work plan that is focused on:

- Enhanced preceptor recruitment and support
- Increase placement capacity to support seat increases
- Host learners in new sites, such as rural and northern hospitals to align with HHR needs
- Expand the use of HSPnet to new disciplines

Careful strategic planning was undertaken in 2023 to identify, by semester, course work and practicum requirements and has been carefully documented at SHA by hard-to-recruit programs, health region, academic institution, and level of involvement of the LPU.

13. The Health Sciences Placement Network (HSPnet) as an online practice education management system has existed in Canada since 2003 and in Saskatchewan since 2006. Its uptake and use in Saskatchewan is inconsistent and not used at all in some learner disciplines. This has been attributed to being difficult to learn and to program, and has been characterized as unsuccessful in providing data. There is some agreement that a single vendor solution to support practice education management in Saskatchewan was necessary, but only if sponsorship from senior leadership within government and health post-secondary education sectors was able to secure stakeholder commitment and the necessary resources.
14. Existing processes around preceptorship was noted in many internal interviews to be cumbersome and requiring streamlining to address over-demand. As well, support was expressed for small group preceptorships rather than the current approach for many being 1:1 (compared to many in Ontario at 1:2).
15. Many interviews identified that Saskatchewan Health Authority understands the present and future gaps in the demand-capacity conundrum. Improved collaboration across the care providers would be of great benefit and could be led by LPU. The current state was characterized as short-staffed overall, a victim of ill-considered seat expansion, and diminished capacity. That notwithstanding, there is a sense of improved alignment across SHA with partners. However, supply is nowhere near demand.
16. Compensation for preceptorship (from nil to insignificant) was identified as a fundamental weakness that required remedy. It is accepted that compensation identified as part of a salaried arrangement as a component of collective bargaining was appropriate, unlike a non-salaried arrangement or a need for overtime.
17. The metrics of clinical placements for the in-scope professions are included in the summary of internal interviews and require individual attention. This information provides a current state assessment.
18. Rural placements are characterized as costly and a prime demonstration of the demand-capacity conundrum. The costing issue has been a much greater problem with group placements.

19. There is anticipated value and "return on investment" to engage with retired or part-time preceptors, including "traveling preceptors" in addition to expanded simulation and virtual and distributed learning. Also, international recruitment has a significant role (recruitment, incentives, bursaries, pathways).
20. Interest was expressed with respect to the Ontario nurse scholar program designed to delay retirement and to expand the participation in clinical placements through engagement with retired or part-time preceptors as well as "traveling preceptors."
21. Preceptor training is generally done well with virtual training and academic-centred workshops. Ideally, a standard approach provincially would be ideal.
22. The use of simulation is done well and ideally will be expanded and include those disciplines not currently benefiting from the technology.
23. Clinical placement capacity and planning has been reactive and without sufficient consultation (including seat expansion and the impact on clinical placement capacity).
24. Recruitment is a clear benefit of clinical placements.
25. Support was expressed to bring back the Provincial Clinical Coordinating Committee and its twice yearly meetings. There is a strong need articulated for a forum for provincial clinical placement coordinators.
26. The external interviews confirmed significant jurisdictional variation and the absence of lessons that could be easily imported into Saskatchewan except for the increase in patient-centric team-based approaches and inter-disciplinary care.
27. Prince Edward Island has been challenged by an increase in the complexity of finding preceptors as a consequence of being under-staffed and over-worked. There are two or three preceptors per student, including one senior preceptor. The deficit of preceptors changes yearly (especially in the last year) and is considered the most difficult in five years, requiring creative scheduling.
28. The collation of acquired data in this study signalled specific key points:
 - Saskatchewan Polytech data shows considerable growth across the three years with an 84% increase in preceptor hours in fiscal year 2023/2024 over 2021/2022. Clinical hours increased 46% over the same time period and the numbers of students grew by 56%.

- Responses to SHA survey identified programs and courses that relate to clinical placements, compiled into an Excel dataset. The total combined preceptor and clinical hours was 1,621,453 in 2023 - 2024, demonstrating strong correlation with the Saskatchewan Polytechnic data. The vast majority of hours are attributable to nursing, over 78% for BScN, LPN and CNPP. The University of Regina and Saskatchewan Polytechnic jointly offer BScN and CNPP (Masters) programs, which makes it appear that University of Regina has a larger clinical education presence than University of Saskatchewan. It is our understanding that there is approximate parity between the two schools. The discrepancy largely reflects the collaboration between University of Regina and Saskatchewan Polytech.
- The proportion of NP requests that were declined in 2023 was 46%. A further 16% were canceled, leaving 38% confirmed or accepted. The highest proportion of requests in 2023 were for SHA-SE (31%) and the lowest proportions were for Regina and Saskatoon.
- 72% of the requests for LPN were confirmed in 2023, corresponding to 82% of the students. The majority of the requests were for Regina and Saskatoon (21% and 32%, respectively), corresponding to roughly equal proportions of students (26% and 27%, respectively).
- 76% of requests for CCA trainees were confirmed in 2023. Saskatoon (at 25%) and NE (at 24%) had the highest proportions of requests, followed by Regina at 20%. The corresponding proportions of students in these areas were 29% (Saskatoon), 28% (NE) and 18% (Regina).
- Starting in 2022-23, the University of Saskatchewan College of Nursing and the Saskatchewan Collaborative Nursing program added 150 new seats, including 124 in Bachelor of Science in Nursing (BSN), 16 in Registered Psychiatric Nursing, and 10 in the Nurse Practitioner program. For the BSN programs, this represents an annual admission increase from 690 to 814¹³ nursing learners. Owing to this increase, by 2025-26, the demand for nursing placements will rise by 18%, which amounts to an additional 1,054 placements or 156,612 placement hours per year.

¹³ Please note earlier reported figure of 840

- LPU site visits in 2023 identified four areas as important to preceptor placements:
 - Preceptor support and capacity - Staffing vacancies and increased clinical demand has led to an overall reduction in preceptorship capacity. The need for increased educational supports was identified, such as knowledge of preceptor workshop, ongoing preceptor skill acquisition and increased time for student evaluations. Consistency in reimbursement for preceptorship was identified.
 - Communication - Consistent communication Manager/CNE, staff and educational institutions for clarification of roles, expectations, and unit processes.
 - Information Technology - Inconsistent IT processes across former health regions have led to significant administrative workload and impact on placement length and curricular requirements. The SHA website, location of many nursing resources, is challenging to navigate for students.
 - Space - Physical space impacts the number of students a unit can accept as well as availability of resources such as computers. Lack of space for learning materials and student personal items is a common theme.
- A 2023 virtual meeting for nursing placement coordinators ranked ten challenges with the following results in descending order:
 1. Capacity challenges in general
 2. Staff / preceptor availability
 3. Increasing student enrolment
 4. Student requests
 5. Competition from local schools
 6. Agency and health-care organization policies
 7. Student accommodation requirements
 8. Managing IT requirements
 9. Managing student health and safety
 10. Specific requests from clinical instructors

- From 2012 to 2021 (CIHI), Saskatchewan had a higher proportion of RPNs than NPs or RNs. Further, there was a falling proportion of NPs employed in the profession over this period. The percentage of RNs employed in the profession increased initially but had fallen since 2014. RPNs employed in the profession dipped but rebounded in 2021. The proportion of LPNs had risen and fallen but in 2021 was at the level it was in 2012. Notable were the proportions of NPs, RNs and RPNs over age 60, nearing retirement.
- The proportion of nurses who graduated in Saskatchewan in 2021 and stayed in Saskatchewan were:
 - Registered nurses 84.8%
 - Registered psychiatric nurses 86.3%
 - Licensed practical nurses 72.6%



6.0 Recommendations

Using a logic model, there are key areas identifiable as pivotal in determining recommendations:



Following are non-prioritized recommendations for consideration by the Government of Saskatchewan:

THAT:

1. The underpinning premise of clinical preceptorship is that it is an essential element in the education of the in-scope health human resources and that benefit will accrue to health human resource planning and to the quality of care provided to patients in Saskatchewan.
2. The following master tables serve as the quantitative master files for the current state¹⁴ and a template for the future state¹⁵, using 2023-2024 as "time zero" leading to a three-year rolling plan (to be determined) and an estimate of net surplus / (deficit) as a predictive metric. Simulation is significant going forward due to the potential of a 30-50% substitution for clinical placements.

Subset	Institution	HSPnet	LPU	Seats	Simulation
NP	UR and SaskPoly			30	Y
BScN (1)	UR and SaskPoly	Y		365	
BScN (2)	US	Y		345	
LPN	SaskPoly			110	Y
RPN	SaskPoly	Y		56	
CLXT	SaskPoly	N		40	
MRT	SaskPoly	N		40	
MLT	SaskPoly	N		50	
MLA	SaskPoly	N		27	
Phlebotomy	SaskPoly	N		40	
PCP	SaskPoly	N	N	104	
ACP	SaskPoly	N	N	18	
CCA	SaskPoly			134	

¹⁴ Demand and capacity - learners, curriculum by year and the required hours for preceptorship

¹⁵ Need - the number of learners by discipline, curriculum by year, and the required hours for preceptorship

Health System Clinical Placement Capacity

Subset	Institution	HSPnet	LPU	Seats	Simulation
MHA	SaskPoly			35	
Pharm	US	N	N	45	
Pharm Tech	SaskPoly			48	
MRI	NAIT			4	

Subset	SaskPoly Data				
	Students	Preceptor Hours	Clinical Hours	Preceptor+Clinical Hours	% of Hours
NP	248	24,440	24,440	48,880	2.80%
BScN (1)	2,183	81,620	287,208	368,828	21.11%
BScN (2)	1,690	70,416	225,084	295,500	16.91%
LPN	693	25,480	86,440	111,920	6.41%
RPN	302	31,858	61,705	93,563	5.35%
CLXT	280	56,000	56,000	112,000	6.41%
MRT	216	41,404	44,860	86,264	4.94%
MLT	520	73,960	73,960	147,920	8.47%
MLA	304	26,248	26,248	52,496	3.00%
PCP	448	66,676	66,676	133,352	7.63%
ACP	57	13,251	13,251	26,502	1.52%
CCA	346	38,925	38,925	77,850	4.46%
MHA	258	30,380	30,380	60,760	3.48%
Pharm	1,170	31,140	56,880	88,020	5.04%
Pharm Tech	186	20,700	11,420	32,120	1.84%
MRI	4	6,750		6,750	0.39%

3. The Learner Placement Unit (LPU) within Saskatchewan Health Authority (SHA) be the lead governance committee for clinical placement in Saskatchewan, and assume the mandate and responsibilities previously assigned to the Provincial Coordinating Committee.
4. The governance committee confirm the LPU strategic plan to include and monitor:
 - Broad management of student placements in the SHA
 - Streamline placement processes and support those involved in learner clinical education
 - Liaison between academic programs and SHA clinical teams
 - Host the HSP net placement software
 - Ensure student requirements have been met (CPA, CRC, confidentiality, immunization)
 - Assist out-of-province learners to navigate placements
 - Update academic programs on policy changes
5. Two co-chairs of the governance committee be appointed by the Deputy Minister of Health and the Chief Executive Officer of SHA.
6. Membership on the governance committee be constituted by selected representatives of the in-scope disciplines and the corresponding academic institutions.
7. The entire governance committee meet twice annually in addition to invitational meetings at the call of the Co-Chairs.
8. The record-keeping of the governance committee include relevant minutes and the master table as constructed above.
9. Seat expansion in Saskatchewan be confirmed by the governance committee and include a related planning process reflected in an amended master table.
10. Clinical placement capacity be determined using a three-year rolling plan with any amendments to be approved by the governance committee.
11. An annual report from the governance committee be submitted to the Deputy Minister of Health and the Chief Executive Officer of SHA.
12. Simulation be determined as supplements to clinical placements according to approval by the governance committee.

13. HSPnet be implemented for all clinical placements in Saskatchewan and increased support be provided to simplify and program HSPnet activities, including dedicated staff reporting to the governance committee and a communications strategy for all in-scope disciplines aligned with collaborating coordinators for each in-scope discipline.
14. That, where possible, small group preceptorships take precedence over 1:1 preceptorship.
15. Clinical preceptors in Saskatchewan be compensated at the same hourly rate unless the preceptor is in a salaried position that includes reference to the preceptor responsibilities and that salaried preceptors who are required to provide overtime services be compensated at the same hourly rate.
16. The Ontario nurse scholar program be given serious consideration for adoption in Saskatchewan.
17. Preceptor training in Saskatchewan be standardized (virtual and workshops provided by academic institutions) across the in-scope disciplines.



7.0

Appendices

Appendix 1: Projected Future Clinical Training Hours by Scenario

The Excel tool that was prepared to compile clinical training data across disciplines also included calculations to estimate potential hours for the three academic years following the base year, 2023/2024. As indicated earlier in this section of the report, estimates of future clinical hours were prepared, including adjustments of increased use of simulation to offset the need for supervised training. Data Exhibits 2a and 2b present two scenarios:

In the exhibits, AY means Academic Year and FT means Full Time Students.

The scenarios indicate that there is substantial room to offset the number of hours of clinical supervision required through the use of simulation. In Scenario 1, this would amount to nearly 16% fewer hours by 2025/2026, where no additional student placements were anticipated over the ones directly identified by the programs. In Scenario 2, a 5% increase in student placements is introduced (over the specific increases identified by the programs). This results in an anticipated 12% reduction in supervised hours.

Scenario 1:

- a) No anticipated general percentage increase in student enrolment (seats); some specific increases expected
- b) Impact of increased use of simulation year over year (5%, 10%, 15%)

Appendix Exhibit 1: Projected Future Clinical Training Hours

Scenario 1

Program	AY 2023 TOTAL FT Clinical Hours	AY 2023 TOTAL FT Preceptor Hours	AY 2024 Total Clinical Hours	AY 2024 Total Preceptor Hours	AY 2024 Clinical Hours (reduced by simulation)	AY 2025 Total Clinical Hours	AY 2025 Total Preceptor Hours	AY 2025 Clinical Hours (reduced by simulation)	AY 2026 Total Clinical Hours	AY 2026 Total Precepto r Hours	AY 2026 Clinical Hours (reduced by simulation)
CNPP	24,440	24,440	27,950	27,950	26,553	31,460	31,460	28,314	34,970	34,970	29,725
SCBScN - Regina	287,208	81,620	287,208	81,620	272,848	287,208	81,620	258,487	287,208	81,620	244,127
SCBScN - Saskatoon	225,084	70,416	225,084	70,416	213,830	225,084	70,416	202,576	225,084	70,416	191,321
Usask BSN	337,764	89,376	337,764	89,376	320,876	337,764	89,376	303,988	337,764	89,376	287,099
Usask PDBSN	23,250		23,250	0	22,088	23,250	0	20,925	23,250	0	19,763
Usask PDBSN & BSN	23,520	23,520	23,520	23,520	22,344	23,520	23,520	21,168	23,520	23,520	19,992
RPN	61,705	31,858	69,520	32,872	66,044	81,400	36,760	73,260	90,400	45,760	76,840
LPN	86,440	25,480	86,440	25,480	82,118	86,440	25,480	77,796	86,440	25,480	73,474

Health System Clinical Placement Capacity

Paramedic ACP	13,251	13,251	13,251	13,251	12,588	13,251	13,251	11,926	13,251	13,251	11,263
Paramedic PCP	66,676	66,676	66,676	66,676	63,342	66,676	66,676	60,008	66,676	66,676	56,675
Pharmacists	56,880	31,140	56,880	31,140	54,036	56,880	31,140	51,192	56,880	31,140	48,348
CLXT	56,000	56,000	56,000	56,000	53,200	85,925	85,925	50,400	85,925	85,925	47,600
MRT	44,860	41,404	83,080	76,214	78,926	83,080	76,214	74,772	83,080	76,214	70,618
MLT	73,960	73,960	75,460	75,460	71,687	75,460	75,460	67,914	75,460	75,460	64,141
MLA	14,920	14,920	14,920	14,920	14,174	14,920	14,920	13,428	14,920	14,920	12,682
Pharm tech	11,420	20,700	11,420	20,700	10,849	11,420	20,700	10,278	11,420	20,700	9,707
MHAC	30,380	30,380	30,380	30,380	28,861	30,380	30,380	27,342	30,380	30,380	25,823
CCA	38,925		38,925	0	36,979	38,925	8,775	35,033	38,925	8,775	33,086
Grand Total	1,476,683	695,141	1,527,728	735,975	1,451,342	1,573,043	782,073	1,388,806	1,585,553	794,583	1,322,284

Program	YEAR OVER YEAR INCREASES							
	2023 to 2024		2024 to 2025		2025 to 2026			
	Clinical Hours	Clinical Hours Reduced by Simulation	Clinical Hours	Clinical Hours Reduced by Simulation	Clinical Hours	Clinical Hours Reduced by Simulation		
CNPP	14.4%	8.6%	12.6%	1.3%	11.2%	-5.5%		
SCBScN - Regina	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
SCBScN - Saskatoon	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Usask BSN	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Usask PDBSN	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Usask PDBSN & BSN	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
RPN	12.7%	7.0%	17.1%	5.4%	11.1%	-5.6%		
LPN	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Paramedic ACP	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Paramedic PCP	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Pharmacists	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
CLXT	0.0%	-5.0%	53.4%	-10.0%	0.0%	-44.6%		
MRT	85.2%	75.9%	0.0%	-10.0%	0.0%	-15.0%		
MLT	2.0%	-3.1%	0.0%	-10.0%	0.0%	-15.0%		
MLA	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Pharm tech	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
MHAC	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
CCA	0.0%	-5.0%	0.0%	-10.0%	0.0%	-15.0%		
Total	3.5%	-1.7%	3.0%	-9.1%	0.8%	-15.9%		

Scenario 2:

- (a) 5% increase anticipated in student enrolment (seats) for 2026; including some expected specific increases
- (b) Impact of increased use of simulation year over year (5%, 10%, 15%).

Appendix Exhibit 2: Projected Future Clinical Training Hours -**Scenario 2**

Program	AY 2023 TOTAL FT Clinical Hours	AY 2023 TOTAL FT Preceptor Hours	AY 2024 Total Clinical Hours	AY 2024 Total Preceptor Hours	AY 2024 Clinical Hours (reduced by simulation)	AY 2025 Total Clinical Hours	AY 2025 Total Preceptor Hours	AY 2025 Clinical Hours (reduced by simulation)	AY 2026 Total Clinical Hours	AY 2026 Total Preceptor Hours	AY 2026 Clinical Hours (reduced by simulation)
CNPP	24,440	24,440	27,950	27,950	26,553	31,460	31,460	28,314	34,970	34,970	29,725
SCBScN - Regina	287,208	81,620	287,208	81,620	272,848	287,208	81,620	258,487	301,568	85,701	256,333
SCBScN - Saskatoon	225,084	70,416	225,084	70,416	213,830	225,084	70,416	202,576	236,338	73,937	200,887
Usask BSN	337,764	89,376	337,764	89,376	320,876	337,764	89,376	303,988	354,652	93,845	301,454
Usask PDBSN	23,250		23,250	0	22,088	23,250	0	20,925	24,413	0	20,751
Usask PDBSN & BSN	23,520	23,520	23,520	23,520	22,344	23,520	23,520	21,168	24,696	24,696	20,992
RPN	61,705	31,858	69,520	32,872	66,044	81,400	36,760	73,260	93,795	46,923	79,726
LPN	86,440	25,480	86,440	25,480	82,118	86,440	25,480	77,796	90,762	26,754	77,148
Paramedic ACP	13,251	13,251	13,251	13,251	12,588	13,251	13,251	11,926	13,914	13,914	11,827
Paramedic PCP	66,676	66,676	66,676	66,676	63,342	66,676	66,676	60,008	70,010	70,010	59,508
Pharmacists	56,880	31,140	56,880	31,140	54,036	56,880	31,140	51,192	59,724	32,697	50,765
CLXT	56,000	56,000	56,000	56,000	53,200	85,925	85,925	50,400	90,221	90,221	49,980
MRT	44,860	41,404	83,080	76,214	78,926	83,080	76,214	74,772	87,234	80,024	74,149
MLT	73,960	73,960	75,460	75,460	71,687	75,460	75,460	67,914	79,233	79,233	67,348
MLA	14,920	14,920	14,920	14,920	14,174	14,920	14,920	13,428	15,666	15,666	13,316
Pharm tech	11,420	20,700	11,420	20,700	10,849	11,420	20,700	10,278	11,991	21,735	10,192
MHAC	30,380	30,380	30,380	30,380	28,861	30,380	30,380	27,342	31,899	31,899	27,114
CCA	38,925		38,925	0	36,979	38,925	8,775	35,033	40,871	9,214	34,741
Grand Total	1,476,683	695,141	1,527,728	735,975	1,451,342	1,573,043	782,073	1,388,806	1,661,957	831,438	1,385,956

Health System Clinical Placement Capacity

	YEAR OVER YEAR INCREASES					
	2023 to 2024		2024 to 2025		2025 to 2026	
Program	Clinical Hours	Clinical Hours Reduced by Simulation	Clinical Hours	Clinical Hours Reduced by Simulation	Clinical Hours	Clinical Hours Reduced by Simulation
CNPP	14.4%	8.6%	12.6%	1.3%	11.2%	-5.5%
SCBScN - Regina	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
SCBScN - Saskatoon	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
Usask BSN	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
Usask PDBSN	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
Usask PDBSN & BSN	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
RPN	12.7%	7.0%	17.1%	5.4%	15.2%	-2.1%
LPN	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
Paramedic ACP	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
Paramedic PCP	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
Pharmacists	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
CLXT	0.0%	-5.0%	53.4%	-10.0%	5.0%	-41.8%
MRT	85.2%	75.9%	0.0%	-10.0%	5.0%	-10.8%
MLT	2.0%	-3.1%	0.0%	-10.0%	5.0%	-10.8%
MLA	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
Pharm tech	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
MHAC	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
CCA	0.0%	-5.0%	0.0%	-10.0%	5.0%	-10.8%
Total	3.5%	-1.7%	3.0%	-9.1%	5.7%	-11.9%

Appendix 2: Licensed Practical Nurse Trainees

Appendix Exhibits 3a and 3b present numbers of requests, students, and hours for Licensed Practical Nurse trainees.

Appendix Exhibit 3a: Requests and Student Counts for Licensed Practical Nurse Trainees

Requests		Preceptored				
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total
2021	SHA-NE	26	13	1		40
	SHA-NW	11	11	9	8	39
	SHA-Reg	30	10	11		51
	SHA-Sktn	33	20	4		57
	SHA-SE	4	1			5
	SHA-SW	14	1			15
2021 Total		118	56	25	8	207
2022	SHA-NE	16	6	2		24
	SHA-NW	5	3			8
	SHA-Reg	34	19	6		59
	SHA-Sktn	24	14	3		41
	SHA-SE	19	6	1		26
	SHA-SW	21	7	4		32
2022 Total		119	55	16		190
2023	SHA-NE	37	8	7		52
	SHA-NW	11	12	3		26
	SHA-Reg	45	11	4		60
	SHA-Sktn	68	30	20		118
	SHA-SE	25	3	9		37
	SHA-SW	29	6	6		41
2023 Total		215	70	49		334

Health System Clinical Placement Capacity

Requests								
Group								
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total	Total	Agency %
2021	SHA-NE	27	6		3	36	76	20%
	SHA-NW		3		1	4	43	11%
	SHA-Reg	36	8	5		49	100	27%
	SHA-Sktn	27	10	3		40	97	26%
	SHA-SE	16	3			19	24	6%
	SHA-SW	14	6	1		21	36	10%
2021 Total		120	36	9	4	169	376	100%
2022	SHA-NE	26	1			27	51	13%
	SHA-NW	4	2			6	14	4%
	SHA-Reg	44	5	1		50	109	28%
	SHA-Sktn	57	7	4		68	109	28%
	SHA-SE	20	1	5		26	52	13%
	SHA-SW	18	1			19	51	13%
2022 Total		169	17	10		196	386	100%
2023	SHA-NE	26	7			33	85	18%
	SHA-NW	4				4	30	6%
	SHA-Reg	37	4			41	101	21%
	SHA-Sktn	33	4	1		38	156	32%
	SHA-SE	13				13	50	10%
	SHA-SW	19				19	60	12%
2023 Total		132	15	1		148	482	100%
2023%		72.0%	17.6%	10.4%	0.0%	100.0%	(combined)	

Health System Clinical Placement Capacity

Students						
Preceptored						
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total
2021	SHA-NE	26	13	1		40
	SHA-NW	11	11	9	8	39
	SHA-Reg	30	10	11		51
	SHA-Sktn	33	20	4		57
	SHA-SE	4	1			5
	SHA-SW	14	1			15
2021 Total		118	56	25	8	207
2022	SHA-NE	16	6	2		24
	SHA-NW	5	3			8
	SHA-Reg	34	19	6		59
	SHA-Sktn	24	14	3		41
	SHA-SE	19	11	1		31
	SHA-SW	21	7	4		32
2022 Total		119	60	16		195
2023	SHA-NE	37	8	7		52
	SHA-NW	11	12	3		26
	SHA-Reg	45	11	4		60
	SHA-Sktn	68	30	20		118
	SHA-SE	25	3	9		37
	SHA-SW	29	6	6		41
2023 Total		215	70	49		334

Health System Clinical Placement Capacity

Students								
Group								
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total	Total	Agency %
2021	SHA-NE	176	32		13	221	261	21%
	SHA-NW		22		11	33	72	6%
	SHA-Reg	246	54	35		335	386	31%
	SHA-Sktn	174	51	21		246	303	24%
	SHA-SE	101	13			114	119	9%
	SHA-SW	77	21	4		102	117	9%
2021 Total		774	193	60	24	1,051	1,258	100%
2022	SHA-NE	180	6			186	210	15%
	SHA-NW	21	10			31	39	3%
	SHA-Reg	285	31	5		321	380	27%
	SHA-Sktn	343	38	26		407	448	32%
	SHA-SE	109	7	32		148	179	13%
	SHA-SW	99	8			107	139	10%
2022 Total		1,037	100	63		1,200	1,395	100%
2023	SHA-NE	176	52			228	280	22%
	SHA-NW	21				21	47	4%
	SHA-Reg	249	29			278	338	26%
	SHA-Sktn	200	28	8		236	354	27%
	SHA-SE	98				98	135	10%
	SHA-SW	105				105	146	11%
2023 Total		849	109	8		966	1,300	100%
2023%		81.8%	13.8%	4.4%	0.0%	100.0%	(combined)	

72% of the requests for LPN were confirmed in 2023, corresponding to 82% of the students. The majority of the requests were for Regina and Saskatoon (21% and 32%, respectively), corresponding to roughly equal proportions of students (26% and 27%, respectively).

Appendix Exhibit 3b: Placement Hours for Licensed Practical Nurse Trainees

Preceptor Hours		Preceptored				
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total
2021	SHA-NE	4,669	2,091	165		6,925
	SHA-NW	1,872	1,725	1,647	1,416	6,660
	SHA-Reg	5,013	1,650	1,878		8,541
	SHA-Sktn	5,661	3,336	723		9,720
	SHA-SE	650	165			815
	SHA-SW	2,465	165			2,630
2021 Total		20,330	9,132	4,413	1,416	35,291
2022	SHA-NE	2,775	990	330		4,095
	SHA-NW	1,130	625			1,755
	SHA-Reg	5,600	3,135	990		9,725
	SHA-Sktn	4,110	2,310	575		6,995
	SHA-SE	3,139	985	160		4,284
	SHA-SW	3,775	1,155	815		5,745
2022 Total		20,529	9,200	2,870		32,599
2023	SHA-NE	6,060	1,311	1,328		8,699
	SHA-NW	2,130	2,045	490		4,665
	SHA-Reg	7,655	1,815	660		10,130
	SHA-Sktn	12,661	5,364	3,603		21,628
	SHA-SE	4,040	495	1,458		5,993
	SHA-SW	4,910	1,045	1,385		7,340
2023 Total		37,456	12,075	8,924		58,455

Health System Clinical Placement Capacity

Preceptor Hours								
Group								
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total	Total	Agency %
2021	SHA-NE	2,516	352		90	2,958	9,883	19%
	SHA-NW		292		72	364	7,024	14%
	SHA-Reg	3,430	790	600		4,820	13,361	26%
	SHA-Sktn	3,089	1,050	347		4,485	14,205	27%
	SHA-SE	1,520	240			1,760	2,575	5%
	SHA-SW	1,554	595	80		2,229	4,859	9%
2021 Total		12,109	3,319	1,027	162	16,616	51,907	100%
2022	SHA-NE	2,910	70			2,980	7,075	13%
	SHA-NW	575	200			775	2,530	5%
	SHA-Reg	4,455	405	120		4,980	14,705	28%
	SHA-Sktn	5,176	744	202		6,122	13,117	25%
	SHA-SE	2,510	72	600		3,182	7,466	14%
	SHA-SW	2,057	80			2,137	7,882	15%
2022 Total		17,683	1,571	922		20,176	52,775	100%
2023	SHA-NE	2,571	780			3,351	12,050	16%
	SHA-NW	300				300	4,965	7%
	SHA-Reg	3,590	454			4,044	14,174	19%
	SHA-Sktn	3,468	327	120		3,915	25,543	35%
	SHA-SE	1,252				1,252	7,245	10%
	SHA-SW	1,900				1,900	9,240	13%
2023 Total		13,081	1,561	120		14,762	73,217	100%
2023%		69%	19%	12%	0%	100%	(combined)	

Health System Clinical Placement Capacity

Student Hours						
Preceptored						
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total
2021	SHA-NE	4,669	2,091	165		6,925
	SHA-NW	1,872	1,725	1,647	1,416	6,660
	SHA-Reg	5,013	1,650	1,878		8,541
	SHA-Sktn	5,661	3,336	723		9,720
	SHA-SE	650	165			815
	SHA-SW	2,465	165			2,630
2021 Total		20,330	9,132	4,413	1,416	35,291
2022	SHA-NE	2,775	990	330		4,095
	SHA-NW	1,130	625			1,755
	SHA-Reg	5,600	3,135	990		9,725
	SHA-Sktn	4,110	2,310	575		6,995
	SHA-SE	3,139	1,810	160		5,109
	SHA-SW	3,775	1,155	815		5,745
2022 Total		20,529	10,025	2,870		33,424
2023	SHA-NE	6,060	1,311	1,328		8,699
	SHA-NW	2,130	2,045	490		4,665
	SHA-Reg	7,655	1,815	660		10,130
	SHA-Sktn	12,661	5,364	3,603		21,628
	SHA-SE	4,040	495	1,458		5,993
	SHA-SW	4,910	1,045	1,385		7,340
2023 Total		37,456	12,075	8,924		58,455

Health System Clinical Placement Capacity

Student Hours								
Group								
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total	Total	Agency %
2021	SHA-NE	16,341	2,212		390	18,943	25,868	19%
	SHA-NW		2,116		792	2,908	9,568	7%
	SHA-Reg	23,250	5,360	4,200		32,810	41,351	30%
	SHA-Sktn	19,994	5,470	2,426		27,889	37,609	27%
	SHA-SE	9,360	1,040			10,400	11,215	8%
	SHA-SW	8,126	2,405	320		10,851	13,481	10%
2021 Total		77,071	18,603	6,946	1182	103,801	139,092	100%
2022	SHA-NE	20,048	420			20,468	24,563	16%
	SHA-NW	2,995	1,000			3,995	5,750	4%
	SHA-Reg	28,065	2,670	600		31,335	41,060	26%
	SHA-Sktn	33,133	4,353	1,364		38,850	45,845	29%
	SHA-SE	13,492	504	3,800		17,796	22,905	14%
	SHA-SW	11,919	640			12,559	18,304	12%
2022 Total		109,652	9,587	5,764		125,003	158,427	100%
2023	SHA-NE	17,326	5,760			23,086	31,785	21%
	SHA-NW	1,560				1,560	6,225	4%
	SHA-Reg	23,720	3,208			26,928	37,058	24%
	SHA-Sktn	21,243	2,289	960		24,492	46,120	30%
	SHA-SE	9,324				9,324	15,317	10%
	SHA-SW	10,390				10,390	17,730	11%
2023 Total		83,563	11,257	960		95,780	154,235	100%
2023%		78%	15%	6%	0%	100%	(combined)	

Appendix 3: Continuing Care Assistants

Appendix Exhibits 4a and 4b present numbers of requests, students, and hours for Continuing Care Assistant (CCA) trainees.

Appendix Exhibit 4a: Requests and Student Counts for Continuing Care Assistant Trainees

Requests						
Preceptored						
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total
2021	SHA-NE	103	10		1	114
	SHA-NW	23	4	3	22	52
	SHA-Reg	67	16	4		87
	SHA-Sktn	85	16	5	1	107
	SHA-SE					
	SHA-SW	10				10
2021 Total		288	46	12	24	370
2022	SHA-NE	37	1			38
	SHA-NW	73	22	16		111
	SHA-Reg	21	2			23
	SHA-Sktn	74	17	5		96
	SHA-SE					
	SHA-SW	28				28
2022 Total		233	42	21		296
2023	SHA-NE	36	1			37
	SHA-NW	20	14			34
	SHA-Reg	9	9	11		29
	SHA-Sktn	37	8	2		47
	SHA-SE	2	2			4
	SHA-SW	28				28
2023 Total		132	34	13		179

Health System Clinical Placement Capacity

Requests								
Group								
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total	Total	Agency %
2021	SHA-NE	13	4	2		19	133	29%
	SHA-NW	4	4			8	60	13%
	SHA-Reg	5	2			7	94	20%
	SHA-Sktn	50		3		53	160	34%
	SHA-SE			2		2	2	0%
	SHA-SW	4	1			5	15	3%
2021 Total		76	11	7		94	464	100%
2022	SHA-NE	37	3	2		42	80	19%
	SHA-NW	2	4			6	117	27%
	SHA-Reg	21	9			30	53	12%
	SHA-Sktn	33		3		36	132	31%
	SHA-SE	4				4	4	1%
	SHA-SW	16	1			17	45	10%
2022 Total		113	17	5		135	431	100%
2023	SHA-NE	26	9			35	72	24%
	SHA-NW	9				9	43	15%
	SHA-Reg	23	6			29	58	20%
	SHA-Sktn	20	2	1	5	28	75	25%
	SHA-SE	2	1			3	7	2%
	SHA-SW	12				12	40	14%
2023 Total		92	18	1	5	116	295	100%
2023%		76%	18%	5%	2%	100%	(combined)	

Health System Clinical Placement Capacity

Students						
Preceptored						
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total
2021	SHA-NE	103	10		1	114
	SHA-NW	23	4	3	22	52
	SHA-Reg	67	16	4		87
	SHA-Sktn	85	16	5	1	107
	SHA-SE					
	SHA-SW	15				15
2021 Total		293	46	12	24	375
2022	SHA-NE	37	1			38
	SHA-NW	73	22	16		111
	SHA-Reg	21	2			23
	SHA-Sktn	74	17	5		96
	SHA-SE					
	SHA-SW	28				28
2022 Total		233	42	21		296
2023	SHA-NE	36	1			37
	SHA-NW	20	14			34
	SHA-Reg	9	9	11		29
	SHA-Sktn	37	8	2		47
	SHA-SE	2	2			4
	SHA-SW	28				28
2023 Total		132	34	13		179

Health System Clinical Placement Capacity

Students								
Group								
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total	Total	Agency %
2021	SHA-NE	40	17	4		61	175	25%
	SHA-NW	31	11			42	94	14%
	SHA-Reg	17	6			23	110	16%
	SHA-Sktn	121		15		136	243	35%
	SHA-SE			29		29	29	4%
	SHA-SW	20	7			27	42	6%
2021 Total		229	41	48		318	693	100%
2022	SHA-NE	123	13	16		152	190	24%
	SHA-NW	23	32			55	166	21%
	SHA-Reg	69	27			96	119	15%
	SHA-Sktn	96		6		102	198	25%
	SHA-SE	22				22	22	3%
	SHA-SW	65	7			72	100	13%
2022 Total		398	79	22		499	795	100%
2023	SHA-NE	120	39			159	196	28%
	SHA-NW	33				33	67	10%
	SHA-Reg	73	23			96	125	18%
	SHA-Sktn	99	7	7	42	155	202	29%
	SHA-SE	12	6			18	22	3%
	SHA-SW	56				56	84	12%
2023 Total		393	75	7	42	517	696	100%
2023%		75%	16%	3%	6%	100%	(combined)	

76% of requests for CCA trainees were confirmed in 2023. Saskatoon (at 25%) and NE (at 24%) had the highest proportions of requests, followed by Regina at 20%. The corresponding proportions of students in these areas were 29% (Saskatoon), 28% (NE) and 18% (Regina).

Appendix Exhibit 4b: Placement Hours for Continuing Care Assistant Trainees

Preceptor Hours						
Preceptored						
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total
2021	SHA-NE	10,821	939		24	11,784
	SHA-NW	2,313	320	260	1690	4,583
	SHA-Reg	5,176	1,432	225		6,833
	SHA-Sktn	7,681	1,202	467	105	9,455
	SHA-SE					
	SHA-SW	866				866
2021 Total		26,857	3,893	952	1819	33,521
2022	SHA-NE	3,720	114			3,834
	SHA-NW	7,285	1,962	1,380		10,627
	SHA-Reg	1,632	152			1,784
	SHA-Sktn	6,371	1,395	402		8,168
	SHA-SE					
	SHA-SW	2,028				2,028
2022 Total		21,036	3,623	1,782		26,441
2023	SHA-NE	3,909	112			4,021
	SHA-NW	1,952	1,440			3,392
	SHA-Reg	936	1,080	1,224		3,240
	SHA-Sktn	3,224	912	224		4,360
	SHA-SE	321	192			513
	SHA-SW	296				296
2023 Total		10,638	3,736	1,448		15,822

Health System Clinical Placement Capacity

Preceptor Hours								
Group								
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total	Total	Agency %
2021	SHA-NE	1,361	304	150		1,815	13,599	32%
	SHA-NW	480	350			830	5,413	13%
	SHA-Reg	560	224			784	7,617	18%
	SHA-Sktn	4,378		185		4,563	14,018	33%
	SHA-SE			80		80	80	0%
	SHA-SW	441	112			553	1,419	3%
2021 Total		7,220	990	415		8,625	42,146	100%
2022	SHA-NE	3,709	185	288		4,182	8,016	21%
	SHA-NW	265	544			809	11,436	30%
	SHA-Reg	1,845	755			2,600	4,384	11%
	SHA-Sktn	2,611		250		2,861	11,029	29%
	SHA-SE	225				225	225	1%
	SHA-SW	1,434	105			1,539	3,567	9%
2022 Total		10,089	1,589	538		12,216	38,657	100%
2023	SHA-NE	2,833	996			3,829	7,850	28%
	SHA-NW	1,040				1,040	4,432	16%
	SHA-Reg	2,532	680			3,212	6,452	23%
	SHA-Sktn	2,088	128	104	573	2,893	7,253	25%
	SHA-SE	209	120			329	842	3%
	SHA-SW	1,365				1,365	1,661	6%
2023 Total		10,067	1,924	104	573	12,668	28,490	100%
2023%		73%	20%	5%	2%	100%	(combined)	

Health System Clinical Placement Capacity

Student Hours						
Preceptored						
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total
2021	SHA-NE	10,821	939		24	11,784
	SHA-NW	2,313	320	260	1,690	4,583
	SHA-Reg	5,176	1,432	225		6,833
	SHA-Sktn	7,681	1,202	467	105	9,455
	SHA-SE					
	SHA-SW	1,076				1,076
2021 Total		27,067	3,893	952	1,819	33,731
2022	SHA-NE	3,720	114			3,834
	SHA-NW	7,285	1,962	1,380		10,627
	SHA-Reg	1,632	152			1,784
	SHA-Sktn	6,371	1,395	402		8,168
	SHA-SE					
	SHA-SW	2,028				2,028
2022 Total		21,036	3,623	1,782		26,441
2023	SHA-NE	3,909	112			4,021
	SHA-NW	1,952	1,440			3,392
	SHA-Reg	936	1,080	1,224		3,240
	SHA-Sktn	3,224	912	224		4,360
	SHA-SE	321	192			513
	SHA-SW	296				296
2023 Total		10,638	3,736	1,448		15,822

Health System Clinical Placement Capacity

Student Hours								
Group								
Year	Receiving Agency	Confirmed	Cancelled	Declined	Redirected	Total	Total	Agency %
2021	SHA-NE	4,135	1,256	300		5,691	17,475	28%
	SHA-NW	3,760	1,000			4,760	9,343	15%
	SHA-Reg	1,904	672			2,576	9,409	15%
	SHA-Sktn	10,787		795		11,582	21,037	34%
	SHA-SE			1,160		1,160	1,160	2%
	SHA-SW	2,219	784			3,003	4,079	7%
2021 Total		22,805	3,712	2,255		28,772	62,503	100%
2022	SHA-NE	12,052	975	2,304		15,331	19,165	26%
	SHA-NW	2,800	4,352			7,152	17,779	24%
	SHA-Reg	6,180	2,260			8,440	10,224	14%
	SHA-Sktn	7,878		435		8,313	16,481	22%
	SHA-SE	1,270				1,270	1,270	2%
	SHA-SW	6,361	735			7,096	9,124	12%
2022 Total		36,541	8,322	2,739		47,602	74,043	100%
2023	SHA-NE	12,993	4,320			17,313	21,334	29%
	SHA-NW	3,952				3,952	7,344	10%
	SHA-Reg	8,079	2,600			10,679	13,919	19%
	SHA-Sktn	10,726	616	728	4,839	16,909	21,269	29%
	SHA-SE	1,254	720			1,974	2,487	3%
	SHA-SW	6,405				6,405	6,701	9%
2023 Total		43,409	8,256	728	4,839	57,232	73,054	100%
2023%		74%	16%	3%	7%	100%	(combined)	

Appendix 4: Regulated Nurse Graduates by Profession and Jurisdiction

Following as **Appendix Exhibit 5** is the tabulation of regulated nurse graduates (entry to practice) by profession and jurisdiction, demonstrating that between 2012 and 2021, Saskatchewan had a higher proportion of RPNs than NPs or RNs.

**Appendix Exhibit 5: Regulated Nurse Graduates (entry to practice) by Profession and Jurisdiction
for provinces and territories with available data, 2012 - 2021 (CIHI)**

Graduate	Year	SK	Jurisdictions	SK %
NP	2012	9	394	2%
NP	2013	11	359	3%
NP	2014	13	449	3%
NP	2015	20	551	4%
NP	2016	31	543	6%
NP	2017	26	555	5%
NP	2018	16	481	3%
NP	2019	-	-	
NP	2020	29	573	5%
NP	2021	-	-	
RN	2012	409	11,771	3%
RN	2013	407	11,683	3%
RN	2014	446	11,954	4%
RN	2015	590	12,579	5%
RN	2016	508	12,484	4%
RN	2017	591	12,283	5%
RN	2018	550	12,837	4%
RN	2019	-	-	
RN	2020	592	12,071	5%
RN	2021	-	-	
RPN	2012	24	336	7%

Health System Clinical Placement Capacity

RPN	2013	21	277	8%
RPN	2014	27	257	11%
RPN	2015	27	363	7%
RPN	2016	30	283	11%
RPN	2017	31	294	11%
RPN	2018	–	–	
RPN	2019	–	–	
RPN	2020	–	–	
RPN	2021	–	–	
LPN	2012	88	7,967	1%
LPN	2013	194	7,966	2%
LPN	2014	174	–	
LPN	2015	130	8,022	2%
LPN	2016	108	7,500	1%
LPN	2017	204	6,685	3%
LPN	2018	–	–	
LPN	2019	–	–	
LPN	2020	–	–	
LPN	2021	–	–	

Appendix 5: Supply of Registered Nurses by Type of Professional (1)

Appendix Exhibit 6 presents the supply of nurses by type from 2012 to 2021. The table shows a falling proportion of NPs employed in the profession over this period. The percentage of RNs employed in the profession increased initially but had fallen since 2014. Psychiatric nurses employed in the profession dipped but rebounded in 2021. The proportion of LPNs employed in the profession has risen and fallen but in 2021 was at the level it was in 2012. Also of note are the proportions of NPs, RNs and Psychiatric RNs over age 60, nearing retirement.

Appendix Exhibit 6: Supply of Regulated Nurses by Type of Professional (2012-2021)

Year	Type of Nurse	n	Inflow	Outflow	Renewal	Net n	Employed	Mean age	> 60 yrs	% > 60 yrs	Grand Total	International	Note stated
2012	NP	136	12	4	124	136	100.0%	48.4	10	7.4%	97	0	39
2013	NP	158	26	8	132	157	99.4%	48.4	19	12.0%	151	7	0
2014	NP	169	19	9	150	163	96.4%	48.2	23	13.6%	160	9	0
2015	NP	186	26	9	160	172	92.5%	47.9	25	13.4%	169	9	8
2016	NP	206	29	14	177	192	93.2%	46.9	30	14.6%	190	9	7
2017	NP	216	24	9	192	204	94.4%	46.8	31	14.4%	207	9	0
2018	NP	228	21	11	207	215	94.3%	46.3	33	14.5%	216	10	2
2019	NP	236	19	18	217	232	98.3%	46.4	35	14.8%	227	9	0
2020	NP	240	22	14	218	226	94.2%	46.1	34	14.2%	231	8	1
2021	NP	260	34	-	226	240	92.3%	46.1	39	15.0%	252	7	1
2012	RN	10,099	676	545	9,423	9,787	96.9%	45.0	1,379	13.7%	8,694	682	723
2013	RN	10,372	818	863	9,554	10,102	97.4%	44.7	1,472	14.2%	9,711	661	0
2014	RN	10,291	782	632	9,509	10,179	98.9%	44.2	1,435	13.9%	9,502	789	0
2015	RN	10,226	567	691	9,659	10,054	98.3%	44.1	1,445	14.1%	9,299	803	124
2016	RN	10,507	972	597	9,535	10,264	97.7%	43.4	1,431	13.6%	9,507	873	127
2017	RN	10,677	767	672	9,910	10,416	97.6%	43.0	1,415	13.3%	9,667	879	131
2018	RN	10,825	820	621	10,005	10,538	97.3%	42.4	1,309	12.1%	9,876	937	12
2019	RN	10,940	736	592	10,204	10,637	97.2%	42.0	1,251	11.4%	9,999	941	0

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2020	RN	11,182	834	626	10,348	10,753	96.2%	41.8	1,285	11.5%	10,219	961	2
2021	RN	11,307	751	-	10,556	10,843	95.9%	41.5	1,215	10.7%	10,371	935	1
2012	RPN	865	52	42	813	828	95.7%	48.9	143	16.5%	851	11	3
2013	RPN	872	49	68	823	841	96.4%	49.1	151	17.3%	857	11	4
2014	RPN	866	62	70	804	826	95.4%	48.7	144	16.6%	851	10	5
2015	RPN	878	82	66	796	841	95.8%	48.5	157	17.9%	816	11	51
2016	RPN	851	39	60	812	825	96.9%	48.0	144	16.9%	801	9	41
2017	RPN	847	56	71	791	787	92.9%	47.9	142	16.8%	802	13	32
2018	RPN	825	49	58	776	755	91.5%	47.1	131	15.9%	812	13	0
2019	RPN	802	35	54	767	712	88.8%	46.8	128	16.0%	789	13	0
2020	RPN	799	51	50	748	706	88.4%	46.6	126	15.8%	786	13	0
2021	RPN	769	20	-	749	713	92.7%	47.0	127	16.5%	757	12	0
2012	LPN	2,961	290	285	2,671	2,816	95.1%	41.6	213	7.2%	2,877	84	0
2013	LPN	3,124	448	221	2,676	2,842	91.0%	40.6	192	6.1%	2,951	169	4
2014	LPN	3,306	403	227	2,903	3,134	94.8%	40.5	237	7.2%	3,053	253	0
2015	LPN	3,503	424	274	3,079	3,230	92.2%	40.0	258	7.4%	3,206	297	0
2016	LPN	3,526	297	300	3,229	3,389	96.1%	40.0	262	7.4%	3,196	330	0
2017	LPN	3,630	404	343	3,226	3,392	93.4%	40.0	268	7.4%	3,256	374	0
2018	LPN	3,649	362	376	3,287	3,406	93.3%	40.0	241	6.6%	3,240	409	0
2019	LPN	3,700	427	311	3,273	3,038	82.1%	40.0	245	6.6%	3,267	433	0
2020	LPN	3,770	381	374	3,389	3,633	96.4%	40.3	252	6.7%	3,346	424	0
2021	LPN	3,683	287	-	3,396	3,525	95.7%	40.8	245	6.7%	3,282	401	0

Appendix 6: Supply of Registered Nurses by Type of Professional (2)

Appendix Exhibit 7 presents workforce status from 2012 to 2021 by employment status (full-time, part-time or casual), place of work (hospital, community health, nursing home / long term care) and urban versus rural / remote.

Appendix Exhibit 7: Workforce of Regulated Nurses by Type of Professional (2012-2021)

Year	Type	n	Workforce											
			Employed			Place of Work						Direct	Geography	
			FT	PT	Cas	Hos	Comm	Nur/	Oth	?			URB	RUR
2012	NP	136	108	1	27	19	93	3	21	0	125	60	76	
2013	NP	157	69	44	36	21	107	3	15	11	141	68	89	
2014	NP	163	133	17	13	23	117	6	17	0	156	72	91	
2015	NP	172	133	25	14	22	122	3	15	10	157	78	94	
2016	NP	192	149	26	17	23	133	6	18	12	175	90	102	
2017	NP	204	152	33	19	27	142	4	23	8	189	97	107	
2018	NP	215	150	39	26	27	141	4	28	15	194	103	112	
2019	NP	232	161	46	25	32	162	7	31	0	225	110	122	
2020	NP	226	159	43	24	26	139	7	31	23	196	122	104	
2021	NP	240	169	50	21	25	141	8	45	21	209	138	102	
2012	RN	9,787	5,887	2,682	1,218	5,811	1,710	1,093	1,136	37	8,794	7,881	1,905	
2013	RN	10,102	5,967	2,741	1,388	6,022	1,769	1,109	1,172	30	9,129	8,173	1,929	
2014	RN	10,179	5,919	2,696	1,521	6,008	1,854	1,055	1,196	66	9,240	8,198	1,972	
2015	RN	10,054	5,921	2,730	1,403	5,953	1,756	989	1,132	224	9,030	8,169	1,885	
2016	RN	10,264	6,035	2,774	1,455	6,038	1,800	979	1,174	273	9,211	8,380	1,876	
2017	RN	10,416	6,110	2,846	1,460	6,214	1,757	980	1,159	306	9,350	8,503	1,897	
2018	RN	10,538	6,143	2,914	1,481	6,304	1,724	991	1,191	328	9,458	8,287	2,235	
2019	RN	10,637	6,250	2,913	1,474	6,512	1,749	1,037	1,202	137	9,770	8,708	1,908	
2020	RN	10,753	6,225	3,018	1,510	6,542	1,787	978	1,197	249	9,688	8,888	1,863	
2021	RN	10,843	6,433	3,035	1,375	6,683	1,853	957	1,217	133	9,870	9,049	1,793	
2012	RN(Ps)	828	593	133	59	193	176	264	151	44	703	744	84	
2013	RN(Ps)	841	598	163	77	211	202	286	142	0	764	753	88	
2014	RN(Ps)	826	594	148	82	218	200	273	135	0	748	742	84	
2015	RN(Ps)	841	582	153	99	170	205	276	163	27	746	765	76	
2016	RN(Ps)	825	575	157	92	211	220	216	148	30	712	696	128	
2017	RN(Ps)	787	498	155	109	211	212	194	141	29	687	663	123	
2018	RN(Ps)	755	483	156	103	209	201	184	128	33	653	672	82	
2019	RN(Ps)	712	351	133	93	202	197	169	131	13	621	631	81	
2020	RN(Ps)	706	457	165	74	219	206	156	123	2	620	627	79	
2021	RN(Ps)	713	439	167	83	210	226	145	125	7	640	636	77	
2012	LPN	2,816	1,458	774	531	1,667	607	478	31	33	2,722	1,900	916	
2013	LPN	2,842	1,493	780	530	1,672	619	515	29	7	2,774	1,954	888	
2014	LPN	3,134	1,618	939	575	1,743	774	567	49	1	2,978	2,175	959	
2015	LPN	3,230	1,603	941	684	1,772	797	611	50	0	3,073	2,237	993	
2016	LPN	3,389	1,650	924	813	1,769	890	636	68	26	3,188	2,351	1,038	

Health System Clinical Placement Capacity

2017	LPN	3,392	1,623	907	856	1,747	891	652	74	28	3,159	2,366	1,026
2018	LPN	3,406	1,623	893	862	1,718	873	657	85	73	3,104	2,396	1,010
2019	LPN	3,038	1,480	980	578	1,495	814	636	93	0	3,027	2,114	924
2020	LPN	3,633	1,737	1,153	634	1,720	911	708	165	129	3,275	2,562	1,069
2021	LPN	3,525	1,812	1,185	502	1,702	890	712	194	27	3,255	2,497	1,027

Appendix 7: Work Force of Regulated Nurses by Type of Professional

Appendix Exhibit 8 compares supply figures with workforce (CIHI: Nursing in Canada 2012-2021). At times, the workforce figures drop to more than 10% below supply levels.

The proportion of nurses who graduated in Saskatchewan in 2021 and stayed in Saskatchewan were:

- Registered nurses 84.8%
- Registered psychiatric nurses 86.3%
- Licensed practical nurses 72.6%

It is unclear from the data where LPNs who did not register in Saskatchewan went. For RNs and RPNs, graduates often went to Alberta (3.6% of RNs and 8.5% of RPNs) and to a lesser degree Manitoba.

Appendix Exhibit 8: Workforce of Regulated Nurses by Type of Professional (2012-2021) (CIHI)

Year	Type	Supply n	Work Force n	Work Force % of Supply		Year	Type	Supply n	Work Force n	Work Force % of Supply
2012	NP	136	136	100.0%		2012	RPN	865	828	95.7%
2013	NP	158	157	99.4%		2013	RPN	872	841	96.4%
2014	NP	169	163	96.4%		2014	RPN	866	826	95.4%
2015	NP	186	172	92.5%		2015	RPN	878	841	95.8%
2016	NP	206	192	93.2%		2016	RPN	851	825	96.9%
2017	NP	216	204	94.4%		2017	RPN	847	787	92.9%
2018	NP	228	215	94.3%		2018	RPN	825	755	91.5%
2019	NP	236	232	98.3%		2019	RPN	802	712	88.8%
2020	NP	240	226	94.2%		2020	RPN	799	706	88.4%
2021	NP	260	240	92.3%		2021	RPN	769		92.7%
2012	RN	10,099	9,787	96.9%		2012	LPN	2,961	2,816	95.1%
2013	RN	10,372	10,102	97.4%		2013	LPN	3,124	2,842	91.0%
2014	RN	10,291	10,179	98.9%		2014	LPN	3,306	3,134	94.8%
2015	RN	10,226	10,054	98.3%		2015	LPN	3,503	3,230	92.2%
2016	RN	10,507	10,264	97.7%		2016	LPN	3,526	3,389	96.1%
2017	RN	10,677	10,416	97.6%		2017	LPN	3,630	3,392	93.4%
2018	RN	10,825	10,538	97.3%		2018	LPN	3,649	3,406	93.3%
2019	RN	10,940	10,637	97.2%		2019	LPN	3,700	3,038	82.1%
2020	RN	11,182	10,753	96.2%		2020	LPN	3,770	3,633	96.4%
2021	RN	11,307	10,843	95.9%		2021	LPN	3,683	3,525	95.7%

Appendix 8: Interview Template

Date	
Name	
Representing	
Contact information	
Introduction	
Mandate	<ul style="list-style-type: none"> • To establish a deeper understanding of the current clinical learning environment as a key contribution to the development of professional practice capabilities for selected health professions • To make recommendation(s) that align with the understanding
In-Scope Professions	<ul style="list-style-type: none"> • Combined laboratory and x-ray technologists • Continuing care assistants • Licensed practical nurses • Magnetic resonance imaging technologists • Medical laboratory assistants • Medical laboratory technologists • Medical radiation technologists • Mental health and addictions counselors • Nurse practitioners • Paramedics • Pharmacists • Pharmacy technicians • Registered nurses
Project Governance	<ul style="list-style-type: none"> • Ministry of Health • Supported by SHA and an Advisory Committee
Approach to the Study	
Qualitative	<ul style="list-style-type: none"> • Literature • Legacy files • Saskatchewan interviews • External interviews
Quantitative	<ul style="list-style-type: none"> • Current state of demand and capacity
Context	

Health System Clinical Placement Capacity

What is your role in clinical placement capacity?	
What is your assessment of what is and is not working today with the placements?	
Is there a fix ?	
Your Awareness	
What criteria are used to determine current capacity - what should be used?	
Assessment of HSPnet	
Assessment of Learner Placement Unit?	
Nature of preceptor training and barriers to precepting?	
Role of simulation or virtual learning and the potential to reduce hours of preceptorship?	
Role of private or third party sectors?	
Related Logistics	
Internal processes and the costs of hosting?	
Do placements for some programs impact other programs?	
Conclusion	
What is your ideal approach to dealing with clinical placement capacity - how would it work?	
How can health partner collaborations be improved for more efficient placement processes?	
Are you able to provide any relevant data?	
Are there metrics that are not being used but would be helpful?	
What would like to see come out of this work?	
Can the current process be streamlined and simplified in order to be more responsive?	

Is there anyone else that you think we should talk to?

Appendix 9: Interview Lists

Following is a list of the **INTERNAL** interviews conducted using the interview template:

- Cynthia Barbour - Director Learning Pathways Unit (LPU), Ministry of Advanced Education
- Dana Bouskill - Program Head, Collaborative Bachelor Science in Nursing, SaskPoly
- Michelle Breker - LPN Provincial Placement Coordinator, SaskPoly
- Liliana Canadic - Chief Nursing Officer, SK Ministry of Health
- Anna Datablan - International and Programs Unit, SK Ministry of Health
- Bob Fenner - Practicum Coordinator, Paramedic Programs, SaskPoly
- Erin Goodfellow - Director Workforce Planning and Employment Strategies , Regina and Rural, SHA
- **GROUP** - Shelley Lofstrom - ED Workforce Planning and Employment Strategies, Mike Northcott, Chief Human Resource Officer, and Penny Bouressa, Director, Workforce Planning and Employment Strategies, Urban, SHA
- **GROUP** - SHA Pharmacy Services
- Adrienne Hagen - Director, Academic Health Sciences, SHA
- Kandis Harris - Academic Chair, Collaborative Bachelor Science in Nursing, SaskPoly
- Jeffrey Herbert - Clinical Coordinator Adult Medicine / Emergency / Pharmacy RUH, SHA
- Lenore Howey - Executive Director, Laboratory Medicine, SHA
- Linda Kappel - Clinical Coordinator CLXT, CYTO, MLA, MLT, MRT, PHLB programs, Medical Diagnostic Department, SaskPoly
- Cheryl Kisters - NP Preceptor SHA
- Karen Lehman - Associate Dean Nursing, UR
- Brenda Lock - Preceptor MRT Medical Diagnostics, SHA
- Michele Loeffler - Manager Clinical Placement Coordinator, US
- Shelley Lofstrom - ED Workforce Planning and Employment Strategies Saskatoon City Hospital, SHA

Health System Clinical Placement Capacity

- Jamie Louiseseize - RPN Faculty Placement and Mentorship Coordinator, SaskPoly
- Leah Lowe - Program Head Perioperative Nursing, Occupational Health Nursing, Medical Device Reprocessing Technical Programs, SaskPoly
- Rod MacKenzie, Executive Director Provincial Services - Community Care
- Sue Mack-Klinger - Practicum Coordinator Pharmacy Technician Program, SaskPoly
- Andrew McLetchie - Chief Nursing Officer, SHA
- Angela McTaggart - Manager Phlebotomy and Pre-Analytics, Laboratory Services SHA
- Adam Mills - Director HHR Branch SK Ministry of Health - AND - Deborah Moynes-Keshen - Executive Director HHR Branch SK Ministry of Health
- Robert Moore - Practicum Coordinator, Paramedic Programs, SaskPoly
- Maxine Newton - NP Programs Coordinator, US
- Dan Oliynyk - Clinical Coordinator MRT Medical Diagnostics, SaskPoly
- Barbara Papp - Shift Supervisor Calder Centre, SHA
- Ivy Poulin - Collaborative Nurse Practitioner Program Regina, SaskPoly
- Jason Remple - Community Paramedic Practicum Coordinator, SaskPoly
- Kirsten Tangedal - Hospital Pharmacist Preceptor, SHA
- Lorna Weisbrod - Senior Clinical Placement Coordinator / Faculty, SCBScN, SaskPoly
- Sarah White - Clinical Placement Coordinator, Continuing Care Assistant, SaskPoly
- Brandy Winquist - Executive Director, Academics and Learning, SHA

Following is a list of representative **EXTERNAL** interviews conducted using an interview template::

- Alberta Health Services
- Prince Edward Island Department of Health and Wellness
- Shared Health Manitoba
- University of Prince Edward Island, Director of Clinical Learning and Simulation Centre
- Vancouver Coastal Health Authority