Sustaining the allied health professions:

Research Report

May 2012
Contents

Abbreviations ................................................................. ii
Acknowledgements ............................................................ iii
Executive Summary ........................................................... iv
1. Introduction ...................................................................... 1
2. Respondent Profile .......................................................... 5
3. Sustainability Challenges .................................................. 10
4. PSE Recruitment, Retention, and Transition to Employment .......... 18
5. Aboriginal Learners and IEHPs ........................................... 32
6. Allied Health Program Delivery ......................................... 37
7. Workplace Issues ............................................................ 45
8. Labour Market Information ................................................ 53
Conclusion ........................................................................ 56
References ......................................................................... 58
Appendix A: Allied Health Definitions ..................................... 60
Appendix B: Working Group Subcommittees .............................. 62
Appendix C: Key Informants .................................................. 63
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCC</td>
<td>Association of Canadian Community Colleges</td>
</tr>
<tr>
<td>ACHDHR</td>
<td>Advisory Committee on Health Delivery and Human Resources</td>
</tr>
<tr>
<td>ACMDTT</td>
<td>Alberta College of Medical Diagnostic and Therapeutic Technologists</td>
</tr>
<tr>
<td>AH</td>
<td>Allied Health</td>
</tr>
<tr>
<td>AHHRI</td>
<td>Aboriginal Health Human Resources Initiative</td>
</tr>
<tr>
<td>CAAHP</td>
<td>Canadian Association of Allied Health Programs</td>
</tr>
<tr>
<td>CAMRT</td>
<td>Canadian Association of Medical Radiation Technologists</td>
</tr>
<tr>
<td>CAOT</td>
<td>Canadian Association of Occupational Therapists</td>
</tr>
<tr>
<td>CHA</td>
<td>Canadian Healthcare Association</td>
</tr>
<tr>
<td>CICIC</td>
<td>Canadian Information Centre for International Credentials</td>
</tr>
<tr>
<td>CIHI</td>
<td>Canadian Institute of Health Information</td>
</tr>
<tr>
<td>CMA</td>
<td>Canadian Medical Association</td>
</tr>
<tr>
<td>CSDMS</td>
<td>Canadian Society of Diagnostic Medical Sonographers</td>
</tr>
<tr>
<td>CSMLS</td>
<td>Canadian Society for Medical Laboratory Science</td>
</tr>
<tr>
<td>CSRT</td>
<td>Canadian Society of Respiratory Therapists</td>
</tr>
<tr>
<td>DMS</td>
<td>Diagnostic Medical Sonography</td>
</tr>
<tr>
<td>HHR</td>
<td>Health Human Resources</td>
</tr>
<tr>
<td>HHRS</td>
<td>Health Human Resource Strategy</td>
</tr>
<tr>
<td>IEHP</td>
<td>Internationally Educated Health Professional</td>
</tr>
<tr>
<td>IEHPI</td>
<td>Internationally Educated Health Professionals Initiative</td>
</tr>
<tr>
<td>IPC</td>
<td>Interprofessional Collaboration</td>
</tr>
<tr>
<td>IPE</td>
<td>Interprofessional Education</td>
</tr>
<tr>
<td>LMI</td>
<td>Labour Market Information</td>
</tr>
<tr>
<td>MLS</td>
<td>Medical Laboratory Sciences</td>
</tr>
<tr>
<td>MLT</td>
<td>Medical Laboratory Technology</td>
</tr>
<tr>
<td>MRT</td>
<td>Medical Radiation Technology</td>
</tr>
<tr>
<td>NAHO</td>
<td>National Aboriginal Health Organization</td>
</tr>
<tr>
<td>NSCRT</td>
<td>Nova Scotia College of Respiratory Therapists</td>
</tr>
<tr>
<td>NUI</td>
<td>National Unique Identifier</td>
</tr>
<tr>
<td>OT</td>
<td>Occupational Therapy</td>
</tr>
<tr>
<td>PSE</td>
<td>Post-secondary Education</td>
</tr>
<tr>
<td>QWQHC</td>
<td>Quality Worklife Quality Healthcare Collaborative</td>
</tr>
<tr>
<td>RT</td>
<td>Respiratory Therapy</td>
</tr>
</tbody>
</table>
The Association of Canadian Community Colleges (ACCC) acknowledges and thanks the many individuals and organizations who contributed so generously of their time and expertise to the Sustaining the Allied Health Professions study.

First and foremost, we recognize Health Canada for its commitment and financial contribution to this work.

This study would not have been possible without the support, insights and dedication of the members of the multi-stakeholder Working Group, who provided leadership from the study’s initial inception to the formulation of the final reports. Working Group members willingly participated in numerous teleconferences and meetings, and in ongoing review of materials and early versions of study reports.

We also thank the federal and provincial government representatives, educators, employers, academics, union leaders, students, regulators and representatives of allied health professional associations, who participated in key informant interviews. A special word of thanks goes to allied health professionals themselves, who responded to the online survey and shared their concerns about their professions, their thoughts on moving forward, and their hopes for improved health services for Canadians.

We extend our sincere appreciation to the following Working Group members and their organizations:

**EDUCATIONAL INSTITUTIONS**
- Cathie Auger, Vice President
  Student Support Services
  Fanshawe College
- Ray Bourgeois, Dean
  Science, Medical Studies and Engineering
  Dawson College
- Jane Gamberg, Dean
  School of Health Sciences
  College of the North Atlantic
- Louise Gordon, Dean
  School of Health Sciences and Community Services
  Red River College
- Pam McLaughlin, Dean
  Faculty of Health Sciences and Human Services
  Fanshawe College

**ACCREDITATION SERVICES**
- Margaret Dukes, Associate Director (retired)
  Conjoint Accreditation Services
  Canadian Medical Association

**PROFESSIONAL ASSOCIATIONS**
- Kim Boles, Past President
  Canadian Society of Diagnostic Medical Sonographers

Maureen Coulthard, CAOT Representative and Former Director of Standards
Canadian Association of Occupational Therapists

Angela Coxe, President-Elect
Canadian Society of Respiratory Therapists

Elaine Dever, Director of Education
Canadian Association of Medical Radiation Technologists

Christine Nielsen, Executive Director
Canadian Society for Medical Laboratory Science

**REGULATORY BODIES**
- Kathy Hilsenteger, CEO/Registrar
  Alberta College of Medical Diagnostic and Therapeutic Technologists

Shannon McDonald, Registrar
Nova Scotia College of Respiratory Therapists

**EMPLOYER GROUPS**
- Mary Costantino, Training and Education Consultant
  LifeLabs Medical Laboratory Services

Karl Samuelson, Former Senior Health Policy Analyst
Canadian Healthcare Association
While much health human resource (HHR) research and policy has focused on nurses and physicians, equally critical shortfalls have been documented in a range of allied health occupations. Representing about 50% of the health care workforce, allied health professionals are a key component of the health care team. These health care professionals deliver key diagnostic, therapeutic, clinical, rehabilitation, home care, long-term care and other clinical services that are essential to sustaining an efficient and effective health care system. As well, many play a crucial role in research, education, management and health policy. Given the involvement of allied health professionals in all stages of health care delivery – from diagnosis to treatment and recovery – shortages have significant implications for access to diagnostic and therapeutic health care services for Canadians, and to wait times for medical procedures.

This report summarizes the primary research undertaken to inform a national study titled Sustaining the Allied Health Professions, conducted by the Association of Canadian Community Colleges (ACCC) with funding from Health Canada. The focus of the study was to develop and promote a pan-Canadian approach to ensuring a sustainable supply of allied health care professionals. Since new graduates of allied health post-secondary programs and internationally educated health professionals (IEHPs) constitute the two main sources of supply, the study focused on identifying effective measures to improve student retention and success in allied health programs, as well as strategies to integrate IEHPs into the Canadian health care system. Special emphasis was placed on understanding HHR issues from a First Nations, Métis, and Inuit perspective.

The study contributed three major deliverables:

1. *Meeting Expectations: A Blueprint for Sustaining the Allied Health Professions*, which outlines specific policy recommendations for the sector,
2. *Six Innovations in Allied Health Education*, which highlights leading practices in allied health student recruitment, retention and success, and
3. *Sustaining the Allied Health Professions: Research Report*, which provides a detailed analysis of the primary research conducted to inform the development of the policy recommendations.

These publications can all be accessed from the ACCC website (www.accc.ca).

To conduct the research for the policy blueprint, a mixed-methods research design was employed that included qualitative interviews with 43 key informants from a wide range of stakeholder groups and an online survey of more than 1500 allied health professionals, educators and policy makers. This report presents the findings of that research.

---

1. While there is no clear and consistent agreement in Canada on the definition of allied health professionals, they are generally considered to provide diagnostic, therapeutic, and rehabilitative health services. Different approaches to defining allied health professions are provided in Appendix A. It is beyond the scope of this study to develop a precise definition, and it is recognized that the groupings may change based on context. Similarly, there is some debate about the most appropriate term to refer to these health professions. For lack of a well-recognized alternative, allied health is used throughout this report.
PROFILE OF RESPONDENTS

Key informants represented a wide range of stakeholder groups and regions. Approximately one-quarter were from a professional or regulatory association. About 20% were from government, post-secondary (PSE) institutions, or other groups (employers, health organizations or unions) respectively. Other informants included an academic researcher, and representatives of IEHP, Aboriginal health, and secondary school guidance counsellor organizations.

Almost three-quarters of the 1520 online survey respondents were practicing allied health professionals. As a result, the online survey findings primarily reflect practitioner views. Among the non-practitioners, close to two-thirds were associated with post-secondary education. Online survey findings are broken down to compare practitioner and non-practitioner responses where appropriate. Survey respondents had a wealth of experience to draw upon, with close to three-quarters reporting more than 10 years involvement in health care.

SUSTAINABILITY CHALLENGES

Key informants and online survey respondents were asked to identify the most significant allied health sustainability challenges. While responses varied, there was a general consensus that job satisfaction and educational capacity were two of the most critical areas.

Among key informants, the three most frequently cited issues were the lack of a plan to deal with current or impending shortages of allied health professionals, concerns about job satisfaction, and challenges related to the capacity of educational institutions to deliver allied health programs. When asked to identify the top issue, about one in five informants cited the aging workforce and consequent impending human resource shortages, and an equal number cited inadequate funding of the health care system. These were followed by challenges related to changing practice models.

Presented with a list of 10 key focus areas, online survey respondents were directed to choose the three most important areas to be addressed.

- Among all survey respondents, job satisfaction (59.9%) and continuing education (53.4%) were the most frequently selected areas of focus, followed by educational capacity (37.6%).
- Practitioners clearly regarded job satisfaction (64.5%) and continuing education (54.9%) as the most pressing areas of concern. However, non-practitioners ascribed similar levels of importance to continuing education (47.9%), educational capacity (45.7%), job satisfaction (43.3%), and IPE and clinical placements (42.9%).

POST-SECONDARY RECRUITMENT, RETENTION, AND TRANSITION TO EMPLOYMENT

Building a sustainable allied health workforce in large part depends on recruiting and retaining students in allied health programs, and promoting their successful entry into health care careers.

- Recruitment barriers identified by key informants included lack of career awareness, long wait lists and high admissions criteria, increased entry-to-practice requirements, program costs, and program location. More than one-quarter of survey respondents (28.3%) identified career interest and awareness as a key focus area and 18.6% identified post-secondary recruitment.
- Personal and financial issues, academic difficulties, and a mismatch between the expectations and the reality of a program or profession were cited by key informants as the primary barriers to students successfully completing their program. Post-secondary program retention and completion was selected by 13.9% of survey respondents as a key area of concern.
- Informants noted that many new graduates face difficulty securing full-time permanent employment due to budget cutbacks and a general move toward casual employment. Close to one-quarter of survey respondents identified graduates’ transition to employment as one of the most important focus areas.
- Top strategies identified by survey respondents included raising awareness of the value of allied health professions, improving selection processes, enhancing financial, academic and social supports, focusing on foundational skills, and ensuring that graduates are highly qualified in both technical and soft skills.

ABORIGINAL LEARNERS AND INTERNATIONALLY EDUCATED HEALTH PROFESSIONALS

Aboriginal learners and internationally educated health professionals (IEHPs) represent two important potential sources for future supply of allied health professionals, and face unique sets of issues and challenges.
According to key informants, First Nations, Métis and Inuit peoples often have little exposure to the full range of health professions and may lack the prerequisite math and science courses to enter an allied health program. The location of post-secondary institutions in urban centres, together with culturally alienating institutional environments and curriculum, can also pose challenges for Aboriginal learners.

Promoting health careers early, developing access programs to bridge Aboriginal students without the math and science prerequisites into health programs, offering high quality health programs by distance education, enhancing the cultural awareness of faculty, providing financial and social supports, and making institutions more welcoming environments for Aboriginal learners were suggested as potential strategies.

The barriers identified for IEHPs included difficulties becoming registered to practice, financial issues, and language and cultural differences. Key informants also noted inadequate government programs and services to assist IEHPs to enter professional practice.

While only 7.5% of online survey respondents selected IEHPs as a key focus area, 20.6% of Quebec respondents and 13.6% of respondents in top management positions viewed integration of IEHPs as one of the most important areas to be addressed.

Increasing bridging and labour market integration programs, improving pre-immigration information, and developing a pan-Canadian approach to the assessment of foreign credentials were identified as important strategies to improve the integration of IEHPs into the allied health workforce.

ALLIED HEALTH PROGRAM DELIVERY
The expansion of post-secondary enrolments was acknowledged as critical to addressing HHR shortages. However, meeting the growing demand for allied health professionals depends on institutional resources and capacity to deliver quality programs to larger numbers of students.

Key informants cited lack of clinical placements as the factor with the greatest impact on the capacity of educational institutions to deliver allied health programs.

Inadequate government funding, difficulties in recruiting and retaining qualified faculty, space constraints on campuses, the need for expensive equipment, and workforce demands and regulatory changes were also seen as critical factors.

Strategies to improve program delivery included increasing provincial support for clinical placements, enhancing preceptor training, increasing funding for allied health programs, expanding faculty recruitment and retention efforts, and enhancing interprofessionalism in health education.

Simulation was identified by some key informants as a strategy to deal with clinical placement shortages, with the caution that simulation cannot replace clinical experience.

WORKPLACE ISSUES
Job satisfaction and continuing education were identified in the online survey as the most urgent allied health issues, particularly among practitioners. Key informants also reinforced the need to address job satisfaction of allied health professionals.

Working conditions, remuneration, career pathways/laddering, and employment opportunities were identified by informants as the factors with the greatest impact on job satisfaction.

Survey respondents viewed continuing education as important because it enhances job satisfaction, facilitates career development and promotion, and is often required to maintain professional designations. Continuing education was also considered critical to assist allied health professionals to adjust to changing scopes of practice and deal with technological advances.

Suggested strategies for addressing workplace issues included increasing the profile of the allied health professions, developing career/educational pathways, providing support for continuing education, addressing workload issues, and ensuring appropriate salaries and benefits.
LABOUR MARKET INFORMATION
There was general agreement that a lack of data to accurately map HHR needs poses a challenge to long-term workforce planning. Among online survey respondents, 14.1% identified labour market information as one of the most important focus areas. Both key informants and survey respondents felt that the collection of labour market data should be a coordinated undertaking involving a variety of stakeholder groups, including government ministries, post-secondary institutions, health care employers, professional associations, and regulatory bodies. Key informants and survey respondents recommended that labour market information include the following:
- Professionals’ demographic data
- Data on population health needs
- Job satisfaction/dissatisfaction information by profession and type of workplace
- Workforce attrition data
- Productivity measures, including hours worked, number of patients or tasks performed per week, and allocation of time between clinical and non-clinical duties
- Number of hires by profession, including full-time, part-time and casual hires

CONCLUSIONS
These findings suggest several broad policy directions where significant progress could be made, and future research priorities to build the evidence base and ensure allied health sustainability:
- Undertake public education about the value of allied health professions
- Improve HHR labour market information, data collection and planning
- Address clinical placement shortages
- Develop allied health sector resources to support focused student recruitment strategies
- Increase the number of Aboriginal allied health professionals
- Strengthen alignment between post-secondary allied health programs and sector needs
- Introduce measures to facilitate the integration of IEHPs into the allied health workforce
- Address quality of worklife issues
- Conduct future research to explore:
  > The levels and sources of job satisfaction/dissatisfaction by profession
  > The appropriate role of simulation in clinical education
  > The collection of detailed national information on clinical placement challenges and how they are being addressed, including student numbers, health disciplines, clinical training requirements, and supervision arrangements
  > The development of career pathways and corresponding educational steps to provide allied health professionals with opportunities for professional growth and career advancement

Specific recommendations arising from these broad policy directions are outlined in Meeting Expectations: A Blueprint for Sustaining the Allied Health Professions available on the ACCC website (www.accc.ca).
In December 2009 the Association of Canadian Community Colleges (ACCC) secured funding from Health Canada to undertake a project titled Sustaining the Allied Health Professions to develop and promote a pan-Canadian approach to ensuring a sustainable supply of allied health care professionals. While there is no exclusive definition of allied health professions, they are generally considered to be diagnostic, therapeutic, and rehabilitative health occupations. Different approaches to defining allied health professions are provided in Appendix A.

Canada’s population is aging. Canadians are living longer, and facing more complex and chronic health conditions. Large numbers of health professionals are also nearing retirement and there is concern whether there will be enough future health care providers to meet the dual demands of providing high quality patient care and educating future generations of allied health professionals. Since post-secondary graduates of allied health science programs and internationally educated health professionals (IEHPs) constitute the two main sources for the future supply of qualified health professionals, the study focused on effective practices to improve student retention and success in allied health programs, as well as strategies to integrate IEHPs into the Canadian health care system. In light of faster rates of population growth and younger demographics in Aboriginal communities than in Canada overall, and the significantly higher health needs of First Nations, Métis and Inuit peoples, the study placed special emphasis on understanding health human resource issues from an Aboriginal perspective.

As Canada’s primary provider of advanced skills and a leader in immigrant labour market integration, the college system plays a key role in optimizing the supply of allied health care professionals. ACCC, the national organization representing Canada’s network of public colleges and institutes, carried out the study in collaboration with a Working Group made up of representatives of educational institutions, national professional associations, accreditation services, provincial regulatory bodies, and employer organizations. Two Working Group subcommittees, described in Appendix B, were formed to oversee the study deliverables. In May 2010, Academica Group was contracted to develop the research instruments and study protocols, manage and execute the fieldwork, analyze the data, and report on the key findings and implications. The results of the research are presented in the following study reports:

- **Meeting Expectations: A Blueprint for Sustaining the Allied Health Professions**, which outlines policy recommendations for governments, provincial regulators, professional associations, and educational institutions to improve the recruitment, retention, graduation, and employability of allied health students and IEHPs.
- **Six Innovations in Allied Health**, which highlights innovative and effective practices, resources and tools to support post-secondary allied health student retention and success.
- **Sustaining the Allied Health Professions: Research Report**, which provides a detailed analysis of the primary research conducted to inform the development of the policy recommendations.

These publications can all be accessed from the ACCC website (www.accc.ca).

The study focused on five disciplines that account for significant numbers of allied health professionals in Canada: medical laboratory sciences (MLS), medical radiation technology (MRT), respiratory therapy (RT), occupational therapy (OT) and diagnostic medical sonography (DMS). However, the findings form the basis for a comprehensive, integrated and long-term planning approach to Canadian health human resource planning, and are of value for allied health professions in general.

**Background and Context**

Human resources are the single greatest cost in the health care system, and also its greatest asset. In 2004, Canada’s First Ministers committed to work together on a 10-Year Plan to secure and maintain a stable and optimal health workforce in an effort to reduce wait times, improve health human resource (HHR) planning and management, and ensure access to the health care services needed by Canadians. The plan was developed in response
to evidence from studies such as the Kirby Report (2002) and the Romanow Commission (2002) which detailed imbalances and looming shortages in Canada’s supply of health care professionals and other providers of health-related services. The Plan calls for meaningful involvement of health care professionals and closer collaboration among the health, post-secondary education and labour market sectors in the development and implementation of initiatives in health labour relations, interdisciplinary training, investments in post-secondary education, and credentialing of health professionals.

Since the launch of the Plan, Health Canada has made significant investments in three key HHR strategies: the Health Human Resource Strategy (HHRS), the Internationally Educated Health Professionals Initiative (IEHPI), and the Aboriginal Health Human Resources Initiative (AHHRI). To strengthen the evidence base and capacity for HHR planning, in 2005, the Canadian Institute of Health Information (CIHI) was asked to create national databases to provide a comprehensive national picture for pharmacists, occupational therapists, physiotherapists, medical laboratory technologists, and medical radiation technologists.

In addition, a Framework for Collaborative Pan-Canadian Health Human Resources Planning was developed, establishing a cross-national approach to HHR planning and identifying priorities for collaborative and jurisdiction-specific action to achieve a more stable, effective health workforce.

While much HHR research and policy has focused on nurses and physicians, equally critical shortfalls have been documented in a range of allied health occupations. For example, the Canadian Institute for Health Information (CIHI) estimates that more than half of all medical laboratory technologists could retire by 2018 (CIHI, 2010a), and current shortages among medical radiation technologists, physiotherapists, and occupational therapists are projected to continue into the next decade (HRSDC, 2008). Representing about 50% of the health care workforce, allied health professionals are a key component of HHR through their collaboration with physicians and other members of the health care team (Health Council of Canada, 2005). These health care professionals are essential to sustaining an efficient and effective health care system and play a crucial role in research, management and health policy. Given the involvement of allied health professionals in all stages of health care delivery – from diagnosis to treatment and recovery – shortages have significant implications for access to diagnostic, therapeutic and rehabilitative health care services for Canadians, and to wait times for medical procedures.

Labour market supply and demand must take into consideration provincial capacity to produce or recruit enough new allied health professionals each year to compensate for attrition through retirements, turnover, or out-migration, and to keep pace with population growth. Factors affecting the demand for allied health professionals include changes in patient populations, advances in medical technology and knowledge, patterns of clinical practice, and demographics within individual health professions. Supply issues include lack of awareness about allied health professions, educational program quotas and changes in enrolment, reductions in clinical training capacity, and pre- and post-employment attrition from certain professions.

In Canada, supply and demand for allied health professionals fluctuates widely across regions. Some provinces do not offer training programs for the full range of allied health professions, requiring students to go out of province to obtain educational credentials. Other provinces have implemented policies to reduce or freeze the availability of training places, restricting the number of students admitted to allied health programs. Numbers and settlement patterns of internationally educated health professionals (IEHPs) immigrating to Canada also contribute to differences in supply and demand. Given the mobility of health professionals, policies and practices in one region can have an impact on supply in another, highlighting the need for a nationally coordinated approach.

Methodology

A mixed-methods design was used to conduct the research for this study, utilizing both quantitative and qualitative methods of data collection. This report provides an analysis of the findings through triangulation of the quantitative and qualitative data.

KEY INFORMANT INTERVIEWS

Between November 2010 and February 2011, 40 telephone interviews were conducted with 43 selected key informants to gather qualitative insights on the main issues, challenges and opportunities for the sustainability of the allied health professions, and solicit recommendations for policy action. (See Appendix C for a list of key informants.) The interview questionnaire was developed by Academica Group in consultation with the Working Group. An email
invitation and interview protocol were also prepared to support the administration of the interviews.

Purposive sampling was used to identify key informants and ensure the participation of multiple stakeholders across all regions of Canada. Representatives were sought from the following groups: ministries of health and higher education, secondary school guidance counsellors, deans of allied health sciences and post-secondary leaders, post-secondary student services, student organizations, health advocacy organizations, national professional associations, professional regulatory bodies, employer organizations, and representatives of Aboriginal and IEHP organizations. Efforts were made to identify key informants from each stakeholder group across seven regional groupings: National, BC/Yukon Territory, Alberta/Northwest Territories, Saskatchewan/Manitoba/Nunavut Territory, Ontario, Quebec and Atlantic Canada. This process identified 165 potential key informants, with approximately 50 invited to participate in interviews.

The initial requests for interviews were sent by email by ACCC on October 12, 2010. Key informants were asked to indicate their willingness to assist with the study and their preferred availability. About half the interviews were conducted by members of the Working Group, and the remainder were conducted by Academia Group or ACCC. Interviews were conducted in French and English, and each interview was about one hour in length. Interviews were audio-recorded, transcribed and, where necessary, translated. NVivo 9 coding software was used to thematically analyze the qualitative data.

**NATIONAL ALLIED HEALTH PROFESSIONS SURVEY**

Academica Group developed and programmed an online survey to assist in identifying key issues and suggestions for action from a range of allied health sector stakeholders. The initial topics addressed in the survey were identified during a brain-storming exercise with the study Working Group, and refined through a review of secondary materials. The Health Human Resources and Education conceptual framework developed by Statistics Canada provided a structure for the progression of the instrument (Figure 1). The initial draft of the instrument was revised after extensive input from the Working Group. The survey instrument employed both closed-ended and open-ended questions, and asked respondents to rate the importance of a series of key issue areas and strategies for action, using a 5-point scale from 1 (“not at all important”) to 5 (“very important”).

A snowball sampling strategy was employed to reach as broad a cross-section of stakeholders as possible. An initial database (N=1383) was created by ACCC. It included names of individuals who had contacted ACCC and indicated an interest in the study, as well as representatives of ACCC member institutions and membership lists of Working Group organizations. The invitation to participate was sent to all database contacts by ACCC on November 26, 2010. The invitation was issued in both official languages and included embedded links to both the English survey and the French survey, with respondents able to choose which survey to enter. Following the removal of email bounce-backs, this initial invitation reached approximately 1200 individuals. Two reminder emails were sent on December 7, 2010 and January 4, 2011. The survey closed on January 24, 2011.

Respondents were encouraged to forward the invitation to others who might be interested in participating, and Working Group members agreed to post the survey hyperlink on their home pages, and to promote the survey with their own memberships and other organizations. Since the total number of individuals who received an invitation to participate is not known, it is not possible to calculate response rates or confidence intervals.

There were 1678 respondents to the English survey and 43 respondents to the French survey. Of these, 1292 of the English respondents and 38 of the French respondents completed the entire survey, and 1477 of the English respondents and 43 of the French respondents completed the survey to the acceptable cut-off point. The final analysis includes 1520 respondents.

Data collected from the survey was analyzed using frequency distributions and mean scores, and open-ended comments were manually coded by theme. Differences between groups were tested for statistical significance, using T-tests for mean scores (p <0.05).

---

2 Question 11 asked “What are the three most important themes, or areas of focus, that should be addressed in order to sustain the allied health workforce?” and was deemed to be the acceptable cut-off point. Respondents who answered up to and including Question 11 were retained in the analysis.
Aspire to health occupation

Learn about Canadian health education programs and meet prerequisites

Application and acceptance to a Canadian health education program

Entrance to a Canadian health education program

Canadian post-secondary health education (including graduate studies)
- Institutions and programs
- Educational activity and pathways
- Practical training

Complete Canadian health education program (may be initial program or other health program, including graduate studies)

Meet occupational entry requirements

Licensure or registration

Make transition to health labour market

Canadian health labour market (first 5 years after graduation)

Practice (Direct care)

<table>
<thead>
<tr>
<th>Health research</th>
<th>Health administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health training/education</td>
<td>Health policy (government, associations, etc.)</td>
</tr>
</tbody>
</table>

Recognition and assessment

- Interest in health occupations (aspirations)
- Recruitment by institutions and occupations
- Access to health programs
- Capacity, infrastructure, resources
- Program retention, transfer, completion
- Geographic and occupational mobility
- Occupational entry requirements
- Graduate outcomes and transitions
- Continuing education

Before
- Do not apply
- Do not enter health education program

During
- Drop out, temporary exit or transfer to non-health program
- Migration before and after graduation (within Canada, urban/rural, international)

After
- Enter non-health occupations (first 5 years after graduation)

Source: Statistics Canada

Figure 1
2. Respondent Profile

A broad range of stakeholder groups across the allied health sector provided input for this study through key informant interviews and the online National Allied Health Professions Survey. In addition to practicing allied health professionals, research participants included representatives of the following groups:

- Post-secondary institutions
- Employers (public and private)
- Provincial ministries of health and education
- Professional associations
- Unions
- Regulatory bodies
- Health advocacy organizations

This chapter summarizes relevant characteristics of key informants and online survey respondents.

KEY INFORMANTS

In total, 40 qualitative interviews were conducted with 43 key informants in the field of allied health. About one-quarter of the interviews (n=11) were with representatives of professional or regulatory associations. Nine interviews were with provincial government officials; eight were with post-secondary educators; and eight were with representatives of employer groups, health advocacy organizations, or unions. The four remaining interviews were with an academic researcher and individual representatives of IEHP, Aboriginal health, and secondary school guidance counsellor organizations (Figure 2).

About one-third of the interviews (n=13) were with key informants from Ontario-based organizations. At least one key informant from each province was interviewed; however, there were no informants representing the Yukon, Northwest Territories, or Nunavut. Six key informants brought a national perspective to allied health issues (Figure 3).

The five health professions that are the focus of this study (MLS, OT, MRT, RT and DMS) were each represented by at least one key informant. However, close to two-thirds of interviews (n=25) were with key informants more familiar with the overall allied health sector than with a specific discipline (Figure 4).
The National Allied Health Professions Survey was available online in both French and English. Of the 1520 survey respondents included in the analysis, 1477 (97.2%) completed the English language survey, while 43 (2.8%) completed the French language survey. Over three-quarters of respondents (78.6%) were practicing health care professionals.

The 21.4% of respondents who were not practicing health professionals (n=326) were asked additional questions about the type of organization they were most closely affiliated with and the title that best described their position. Almost two-thirds were affiliated with the post-secondary education sector – either at a college (50%), university (10.1%), student organization (2.1%), or other PSE institution (1.8%) (Figure 5). Another 17.5% were affiliated with health sector employers, predominantly from the public sector (16%) The most common position held by non-practitioners was faculty member (19.6%), followed by supervisor/manager (12.3%), executive director/director (11.7%), program coordinator (11.7%) and dean/faculty chair/program director (11.3%) (Figure 6).

Reviewing the types of positions held by non-practitioner respondents within each organizational group provides more detail about the profile of these respondents (Figure 7). The organizations fall into four broad categories: health sector organizations, professional/regulatory associations, government bodies, and post-secondary institutions. Positions held fall into five categories: student; dean or faculty; staff; middle management; and top management. Respondents affiliated with health sector and government organizations were primarily a mix of middle management, staff, and top management. Over half of respondents from professional/regulatory associations were in top management positions, with an additional one-third identifying as staff. Post-secondary respondents were slightly more varied, including almost half who were deans or faculty, close to one-third in middle management positions, about 15% students, and about 8% staff.
All respondents were asked how long they had been involved in the health care sector (Figure 8). Results show that respondents were highly experienced, with almost three-quarters (73.2%), reporting more than 10 years of involvement. Similar proportions (7.2% to 8.4%) had been involved in the health sector for 1-3 years, 4-6 years, and 7-10 years. Only 3.6% of respondents were new to the health sector, with less than one year of experience.

The five professions that are the focus of this study were fairly well represented. Close to one-quarter of respondents had expertise in MRT (23%), followed by MLS (20.6%), DMS (10.9%), RT (7.5%) and OT (3.2%) (Figure 9). While there were far fewer respondents from DMS and RT than from MLT and MRT, these are also smaller professions in Canada. However, given the relatively larger number of OTs in Canada, OTs were considerably underrepresented among respondents. More than one-quarter of respondents reported expertise in another health profession, and approximately 8% of respondents had sector expertise, rather than knowledge of a specific health profession. Table 1 provides a breakdown of all areas of health profession expertise reported by respondents.

---

3 According to 2008 CIHI data, there are 19,043 MLTs, 16,195 MRTs, 12,649 OTs, and 8,796 RTs. DMS is an unregulated profession, and is therefore not captured in CIHI’s data. However, 2006 Census data reports 3,180 Medical Sonographers in Canada.
Table 1 – Respondents by Profession (N=1520)

<table>
<thead>
<tr>
<th>Profession</th>
<th>Respondents (n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Radiation Technology</td>
<td>349</td>
<td>23.0</td>
</tr>
<tr>
<td>Medical Laboratory Science</td>
<td>313</td>
<td>20.6</td>
</tr>
<tr>
<td>Diagnostic Medical Sonography</td>
<td>166</td>
<td>10.9</td>
</tr>
<tr>
<td>Allied Health Sector</td>
<td>113</td>
<td>7.4</td>
</tr>
<tr>
<td>Respiratory Therapy</td>
<td>114</td>
<td>7.5</td>
</tr>
<tr>
<td>Health Information Management</td>
<td>105</td>
<td>6.9</td>
</tr>
<tr>
<td>Paramedic</td>
<td>52</td>
<td>3.4</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>48</td>
<td>3.2</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>48</td>
<td>3.2</td>
</tr>
<tr>
<td>Nursing</td>
<td>34</td>
<td>2.2</td>
</tr>
<tr>
<td>Dentistry</td>
<td>31</td>
<td>2.0</td>
</tr>
<tr>
<td>Speech Language Pathology</td>
<td>21</td>
<td>1.4</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>19</td>
<td>1.3</td>
</tr>
<tr>
<td>Paramedicine</td>
<td>14</td>
<td>0.9</td>
</tr>
<tr>
<td>Social Work</td>
<td>11</td>
<td>0.7</td>
</tr>
<tr>
<td>Dietitian</td>
<td>10</td>
<td>0.7</td>
</tr>
<tr>
<td>Recreation Therapy</td>
<td>10</td>
<td>0.7</td>
</tr>
<tr>
<td>Counselling</td>
<td>8</td>
<td>0.5</td>
</tr>
<tr>
<td>Biomedical Engineering Technology</td>
<td>6</td>
<td>0.4</td>
</tr>
<tr>
<td>Audiology</td>
<td>5</td>
<td>0.3</td>
</tr>
<tr>
<td>Combined MLS and MRT</td>
<td>5</td>
<td>0.3</td>
</tr>
<tr>
<td>Pre-hospital Medicine</td>
<td>4</td>
<td>0.3</td>
</tr>
<tr>
<td>Cardiology Technology</td>
<td>3</td>
<td>0.2</td>
</tr>
<tr>
<td>Chiropody</td>
<td>3</td>
<td>0.2</td>
</tr>
<tr>
<td>Therapeutic Services</td>
<td>3</td>
<td>0.2</td>
</tr>
<tr>
<td>Registered Massage Therapy</td>
<td>2</td>
<td>0.1</td>
</tr>
<tr>
<td>Combined MRT and DMS</td>
<td>2</td>
<td>0.1</td>
</tr>
<tr>
<td>Anaesthesia</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>HR Management</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Medical Physics</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Neurophysiology Technology</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Orthopaedic Technologist</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Orthoptics</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Pacemaker Technologist</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Perfusionist</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Reflexology/Reiki</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Spiritual Care</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Supported Child Development Consultant</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1520</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Figure 10 shows the profession of expertise by practitioner and non-practitioner. More than one-third of non-practitioners reported having sector expertise, rather than knowledge of a specific profession. While there were larger proportions of practitioners with knowledge of MLS, MRT, RT and DMS than non-practitioners, the opposite was true for OT.

Province of residence was determined by the first three digits of respondents’ self-reported postal code. 3.7% of respondents did not give a valid postal code, and are not included in the figure below. Respondents were fairly evenly distributed across Canada, with 30.2% of respondents residing in Ontario, 24.3% residing in Manitoba, Saskatchewan or Alberta, 23.6% residing in BC and 16.8% residing in Atlantic Canada. However, only 5.1% of respondents were from Quebec (Figure 11).

Respondents were asked to indicate whether they were more familiar with local, regional or provincial allied health issues, or with national issues. Only 12.9% of respondents stated greater awareness of national issues. The majority were most familiar with their local, regional, or provincial contexts (87.1%), including 24.5% with knowledge of Ontario, 20.7% with knowledge of BC/Yukon, and 15.0% with knowledge of Atlantic Canada (Figure 12).

As Figure 11 shows, there were very few survey respondents from the territories, raising the question of whether the regional groupings can be said to include a territorial perspective. Among the 14 respondents from the Northwest Territories included in the Alberta/Northwest Territories regional grouping, nine were most familiar with that region. One was most familiar with Atlantic Canada, and four were most familiar with national issues. The BC/Yukon regional grouping included a single Yukon Territory respondent, who indicated most familiarity with that region. There were no respondents from Nunavut included in the Saskatchewan/Manitoba/Nunavut regional grouping. Given the very small representation of respondents from the territories, the regional groupings should be viewed as reflective of only provincial concerns.
3. Sustainability Challenges

Both key informants and online survey respondents were asked to identify the main sustainability challenges facing the allied health professions. In an open-ended question, informants were asked to identify the three to five issues with the most significant impact on allied health sustainability, and to choose the top issue from those identified. Survey respondents were given a list of 10 issues, or areas of focus, and directed to select the three they felt were most important to be addressed to sustain the allied health workforce. Survey respondents were also given an option to identify other issues not on the list.

CHALLENGES: KEY INFORMANTS

Twelve broad themes emerged from key informant responses to the question of the three to five most significant issues facing the allied health professions (Figure 13). The most frequently chosen themes were the limited supply of allied health professionals, post-secondary capacity challenges in delivering allied health programs, and concerns about job satisfaction, with between 40% and 55% of key informants citing issues related to each.

After these three themes, about one-third of informants highlighted issues associated with career interest and awareness, defining career pathways, and health care funding and policies. Concerns about post-secondary recruitment, continuing education, IEHPs, and labour market information were each cited by 10% to 16% of participants. Only three key informants (8%) saw post-secondary retention as a significant issue facing the allied health professions, and only one mentioned transition to employment. The three main themes are described in more detail below.

Figure 13 – Most Significant Issues Facing the Allied Health Workforce, Key Informants

Supply of Allied Health Professionals

The theme that emerged most often as a significant issue facing the allied health workforce was concern about the supply of allied health professionals (Figure 13). Key informants reported that many allied health professions are facing significant shortages, particularly due to an aging workforce and the growing health care needs of an aging population:

Retirements are an issue across the province in every profession, and probably all across the country.

Replacement of retiring workers is going to be a big issue. There is an increasing need, but not a following increase, in graduates from the educational institutions. It’s like standing on the cusp of a volcano. There are challenges all across the province with staffing, and the rate of retirements and rate of graduates is at a crossroads.

In addition to the obvious concern of generating enough graduates to meet system needs, the large number of impending retirements poses a significant challenge due to the loss of expertise this represents. There is a concern, particularly in MLS, that the specialized knowledge of those about to retire is not being transferred to the next generation:

Our experts are retiring, we’re an aging profession, and a significant number of us are going to retire in the next five years. There are simply not enough grads to replace them and you can’t replace the experts.
Due to retirements, there is going to be a large loss of knowledge and there is a lack of a succession strategy.

A few key informants also noted that allied health professionals entering the system now have different expectations and a greater concern for work-life balance than those retiring. It was felt that this will impact the number of health professionals needed, and will require new approaches to attracting and retaining allied health professionals. Further, uncertainty around the number and timing of professional retirements creates difficulty in planning to meet future needs. Many key informants expressed concerns that there is no clear strategy being developed to deal with this issue.

Educational Capacity

Almost half of key informants cited issues related to educational capacity. These included concerns about clinical placement capacity, funding for post-secondary institutions, and the availability of instructors to teach in allied health programs:

Educational issues are big – both having the educators themselves (in other words, enticing people to leave their practice of the profession to come in and teach) and finding the clinical placements. Both of these are critical to the educational process.

There are inadequate resources to support the training and educational needs of students to build the workforce for the future. In particular, development and financial support for the clinical instruction component are lacking.

One of the largest issues is the financial piece and the special funding envelopes that are required. Extra financial support is needed for students and for educational institutions to deliver programs that are going to provide for the graduates of the future. There are huge gaps and huge needs. The clinical education piece in particular is so much in need.

Lack of capacity within the system to meet clinical placement requirements was a central concern throughout the interviews. Many institutions struggle to find adequate clinical sites for their current student population, and preceptors often do not receive adequate training. While a few key informants raised the potential of using simulation in place of clinical placements to meet some competencies, a host of issues were noted with simulations, including differences between performing a task in a simulated versus a clinical environment and whether various regulatory associations would recognize simulation as demonstrating competency. The availability of instructors was also a concern. Post-secondary educational institutions have difficulty attracting and retaining qualified instructors to deliver health programs.

A key difficulty is the inability to offer a competitive wage that can entice experienced professionals to become instructors. Inadequate funding for post-secondary education overall was also a concern. These issues are seen as barriers to ensuring sufficient educational opportunities to produce an adequate number of allied health graduates.

Job Satisfaction

A broad range of issues relating to job and career satisfaction was cited by key informants. These issues included workload, job-related stress and burnout, opportunities for career pathways, work-life balance expectations, appropriate salaries and benefits, and opportunities for full-time employment:

Worker shortages, demands to work overtime, and heavy workloads are causing a lot of stress. I’m seeing really low morale, and people who are dedicated to health care and love their jobs but now hate to go to work in the morning.

There are not a lot of opportunities for the allied health workforce in a big organization to advance their careers and even move into leadership and management roles.

Key informants clearly feel that improving job satisfaction is critical in ensuring the sustainability of the allied health professions. As will be discussed later in this report, job satisfaction is intricately connected to many other themes that emerged in the interviews, including defining career pathways, health care funding and policies, and student recruitment. Funding cutbacks and frequent policy changes have created dissatisfaction among many allied health professionals, with a significant impact on workforce retention, as well as the ability to attract individuals to pursue allied health careers.
Top Issue

When key informants were asked to identify the single issue with the greatest impact on allied health sustainability, a slightly different picture emerges (Figure 14). While supply of allied health professionals was still cited most frequently (20.5%), almost as many key informants identified health care funding and policies (17.9%). These two issues were followed by career pathways (12.8%), educational capacity (12.8%), job satisfaction (10.3%), and career awareness (10.3%). Continuing education, labour market information, post-secondary recruitment, and IEHPs were also identified by a few respondents as the single top issue.

Key informant views on the supply of allied health professionals are outlined in the previous section. However, it is important to note that all informants who identified supply of allied health professionals as the top issue spoke specifically about the aging workforce.

Those who identified health care funding and policies as the top issue pointed to inadequate funding of the health care system – in particular budget cutbacks and the increasing focus on system efficiencies – which has numerous impacts on allied health professionals, including increasing workloads, creating work-life imbalances, and changing the nature of work in many professions:

There are huge pressures on the system right now, and that manifests itself in a shortage of full-time positions. Many of our members are working a number of part-time jobs rather than having full-time positions.

One issue in particular that all organizations are facing is budget restraints, and the challenge is to maintain staffing resources to support the needs of the patients. Budget restraints limit our ability to recruit and retain experienced staff.

Key informants underscored the impact of continually changing government policies on allied health supply and demand, for example, the MRI wait time strategy that requires more professionals to perform MRIs. Many noted the importance of improving the interface between government, post-secondary institutions, and health care employers to ensure that policy changes are based on careful consideration of needs and opportunities rather than on political motivations.

We need governments to recognize and do some thoughtful, careful modelling with the health providers of what the needs are and are expected to be, and to make policy decisions based on those studies – as opposed to political expediency and short-term election cycles and fiscal cycles.

CHALLENGES: ONLINE SURVEY RESPONDENTS

Over half of online survey respondents selected allied health job satisfaction (59.9%) and continuing education (53.4%) as the most important issues to be addressed for allied health sustainability (Figure 15). The next most frequently selected issues were educational capacity (37.6%), followed by allied health career interest and awareness (28.3%), interprofessional education and clinical placements (27.7%), and transition to employment (23.6%). Post-secondary student recruitment (18.6%), allied health labour market information (14.1%), post-secondary program retention and completion (13.9%), and IEHPs (7.5%) were less likely to be selected as the most important areas of focus.

While there is much overlap between the results of the key informant interviews and the online survey, there are also some apparent areas of divergence. A few themes that emerged in the qualitative interviews were not provided as focus area options in the survey,
characteristics of each group of respondents. Over three-quarters of survey respondents were currently working as practitioners, while key informants were made up entirely of non-practitioners.

Similar differences between practitioners and non-practitioners were evident among online survey respondents. The following section examines differences in the key issues selected by online survey respondents by various respondent characteristics.

**Areas of Focus by Respondent Characteristics**

**Practitioner/Non-Practitioner**

Practitioners and non-practitioners view the challenges facing allied health quite differently (Figure 16). Most notably, non-practitioners (almost two-thirds of whom were involved in the post-secondary sector) identified continuing education (47.9%), educational capacity (45.7%), job satisfaction (43.3%), and IPE and clinical placements (42.9%) as the most significant challenges, and ascribed similar levels of importance to each. Practitioners, in contrast, clearly regarded job satisfaction (64.5%) and continuing education (54.9%) as the most pressing concerns.

**Profession**

The three most widely selected issues were fairly consistent across the five professions, with job satisfaction or continuing education ranked first across the board, and educational capacity ranked third by all but one profession (Table 3). MRT respondents were the only anomaly, with transition to employment replacing educational capacity as the third ranked issue. It should be noted, however, specifically, supply of allied health professionals, health care funding and policies, and defining career pathways. Further analysis reveals, however, that survey respondents’ concerns about these issues were often captured in the importance ascribed to specific strategies and open-ended comments.

For example, many survey respondents identified career pathways as an important aspect of job satisfaction. Differences can also be attributed to the
respondents selected job satisfaction as a key theme (72.2%), considerably more than respondents from the other professions (between 56.3% and 64.5%). Continuing education was selected as a key theme much less often by MLS respondents (41.5%) than other respondents (between 53.6% and 68.8%). Conversely, MLS respondents were significantly more likely than other respondents to select post-secondary student recruitment as a key theme (26.2% compared to 12.5% to 17.5%) and post-secondary completion and retention (18.2%). Only 2.1% of OT respondents felt that post-secondary retention was a key issue.

Approximately one-third of RT and OT respondents selected IPE and clinical placements, compared to only one in five MLS, MRT and DMS respondents. Finally, almost 45% of DMS respondents selected educational capacity as one of the main areas of focus, compared to only 29.5% of MRT respondents.

Table 2 – Focus Area Rankings by Practitioner vs. Non-Practitioner

<table>
<thead>
<tr>
<th>Focus Areas</th>
<th>Practitioner</th>
<th>Non-Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Educational Capacity</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Career Awareness</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Transition to Employment</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>IPE and Clinical Placements</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Post-Secondary Recruitment</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Labour Market Information</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Post-Secondary Retention</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>IEHPs</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 3 – Focus Area Rankings by Profession

<table>
<thead>
<tr>
<th>Focus Areas</th>
<th>MLS</th>
<th>MRT</th>
<th>RT</th>
<th>OT</th>
<th>DMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Educational Capacity</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Career Awareness</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>IPE and Clinical Placements</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Transition to Employment</td>
<td>6</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Post-Secondary Recruitment</td>
<td>5</td>
<td>8</td>
<td>6</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Labour Market Information</td>
<td>9</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Post-Secondary Retention</td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>IEHPs</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>
Region of Familiarity
A number of striking regional differences are seen in Figure 18. Respondents most familiar with Quebec were less likely than other respondents to select job satisfaction (48.5%) and continuing education (41.2%) as key focus areas, and more likely to select post-secondary retention (27.9%) and IEHPs (20.6%). While job satisfaction was selected as one of the top issues by respondents across regions, a significantly greater percentage of those most familiar with British Columbia (73.9%) selected this focus area compared to respondents from other regions (between 48.5% and 59.9%).

Atlantic respondents viewed post-secondary student recruitment as a greater challenge than respondents from other regions, with almost one-third selecting this focus area. Post-secondary retention was much more likely to be identified as a key issue by respondents familiar with Quebec (27.9%), Saskatchewan and Manitoba (22.6%) and Atlantic Canada (21.5%), and was less of a priority for Ontario (10.2%) and BC (4.5%) respondents.

Table 4 – Focus Area Rankings by Region

<table>
<thead>
<tr>
<th>Theme Areas</th>
<th>BC</th>
<th>AB</th>
<th>SK/MB</th>
<th>ON</th>
<th>QC</th>
<th>Atlantic</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Educational Infrastructure</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Career Awareness</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>IPE and Clinical Placements</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Transition to Employment</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>PSE Recruitment</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>10</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Labour Market Information</td>
<td>7</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>PSE Retention</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>4</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>IEHPs</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>7</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Years Involved in the Health Sector
Not surprisingly, respondents who had been involved in the health sector for less than four years were significantly more likely to select transition to employment (38.4%) as a key issue, and least likely to select job satisfaction as a key theme (50%), compared to those who had been in the sector for four years or more (Figure 19). Respondents who had been in the sector for four to 10 years were the most likely to identify continuing education as a primary focus area (64.3%).

Non-Practitioner Affiliation
Among respondents who were not practicing allied health professionals, those affiliated with a health sector employer were much more likely than other non-practitioners to select job satisfaction (55.6%) and continuing education (62.5%) as the most important themes to be addressed (Figure 20).
Slightly over half of respondents who were affiliated with government (55.6%) and professional associations or regulatory bodies (51.9%) selected IPE and clinical placements as one of the most important themes to be addressed. As would be expected, the most commonly selected focus area for respondents affiliated with PSE institutions was educational capacity (51.6%).

Non-Practitioner Position

Students were far more likely to select transition to employment as a key theme area (40.6%) compared to other non-practitioner respondents (13.6% to 20.8%) (Figure 21). While about half of respondents in managerial or supervisory roles selected job satisfaction, only 31.8% of respondents in top positions (presidents/vice presidents or executive directors) selected this as a key theme to be addressed. Deans and faculty were most likely to select educational capacity, with 61.4% of deans and faculty selecting this focus area. Interestingly, less than one in 10 deans and faculty selected PSE student recruitment (7.9%), compared to 20.5% to 25.0% of respondents in other positions.

Table 5 – Focus Area Rankings by Years in Sector

<table>
<thead>
<tr>
<th>Theme Areas</th>
<th>Less Than 4</th>
<th>4-10</th>
<th>Over 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Educational Capacity</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Career Awareness</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>IPE and Clinical Placements</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Transition to Employment</td>
<td>3</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>PSE Recruitment</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Labour Market Information</td>
<td>8</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>PSE Retention</td>
<td>9</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>IEHPs</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Figure 20 – Focus Areas by Non-Practitioner Affiliation (n=326)
### Table 6 – Focus Area Rankings by Non-Practitioner Affiliation

<table>
<thead>
<tr>
<th>Theme Areas</th>
<th>PSE</th>
<th>Government</th>
<th>Professional / Regulatory</th>
<th>Health Employer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Educational Infrastructure</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Career Awareness</td>
<td>7</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>IPE and Clinical Placements</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Transition to Employment</td>
<td>5</td>
<td>9</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>PSE Recruitment</td>
<td>8</td>
<td>3</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Labour Market Information</td>
<td>9</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>PSE Retention</td>
<td>6</td>
<td>5</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>IEHPs</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

### Table 7 – Focus Area Rankings by Non-Practitioner Position

<table>
<thead>
<tr>
<th>Theme Areas</th>
<th>Student</th>
<th>President/VP or ED</th>
<th>Manager or Supervisor</th>
<th>Staff</th>
<th>Dean or Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Educational Infrastructure</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Career Awareness</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>IPE and Clinical Placements</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Transition to Employment</td>
<td>3</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>PSE Recruitment</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Labour Market Information</td>
<td>8</td>
<td>6</td>
<td>9</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>PSE Retention</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>IEHPs</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>
4. PSE Recruitment, Retention, and Transition to Employment

As outlined in the previous chapter, the supply of skilled professionals to replace an aging workforce is a critical issue facing the Canadian health care system. As the post-secondary system is one of the main sources of future supply of allied health professionals, this chapter presents findings related to the student lifecycle – from recruitment and retention to transition to employment. It then discusses potential strategies to address the key issues identified.

PSE STUDENT RECRUITMENT

Lack of awareness about allied health professions, wait lists and admissions criteria, entry-to-practice requirements, program costs, and location were all mentioned by key informants as significant barriers to recruiting students to allied health programs.

Lack of Career Awareness

Lack of awareness about potential allied health careers was the most often cited PSE recruitment barrier. Key informants pointed out that very few students were knowledgeable about the full range of health professions:

I think it’s all based on knowledge. Like when you talk to students, let’s say high school students, they can identify two of the 61 health professions.

One of the things certainly that strikes me is that when students in general think of health professions, they think nursing and medicine. There’s not enough familiarity with the other allied health professions. Getting those professions out into public view and letting students know that these are options and they are rewarding options is important.

In addition to students’ lack of knowledge, key informants observed that parents and guidance counsellors may also be unfamiliar with the range of allied health program options. Many allied health professionals work behind the scenes, and have little exposure in the media, which limits their recognition among the general public. A few key informants noted that even when people are aware of these professions, they are not seen as exciting or attractive career options:

Part of the barrier is that there’s poor or non-existent marketing. People just don’t know that these opportunities exist. They’re not glamorous or high profile enough.

Typically the allied health care professional group doesn’t have a profile. They’re often the ones that are not really seen as part of the team, or are perceived as the handmaiden of nurses or doctors.

Perhaps worse than being seen as unglamorous, key informants feared that bad press about the health care system arising from cutbacks and wait times was dissuading prospective students from considering allied health careers:

Students are reading in the paper of disquiet among health workers, and that doesn’t do much for building these as attractive professions.

If we fail to change the image of the health system and health care, we will continue to have great difficulty in recruiting youth.

Wait Lists and Admissions Criteria

Despite the barriers to recruitment posed by career awareness and negative perceptions of health professions, key informants also pointed out that many allied health programs are oversubscribed, with stiff competition to be admitted. Students applying directly from high school to college-based allied health programs often find themselves competing against people with undergraduate degrees. Programs with a first qualified admissions policy based on minimum entry requirements have their own set of issues, as high demand in these programs creates long wait lists. Faced with having to wait multiple years to enter a program, candidates may decide to look for another profession:

Many lab and x-ray and respiratory therapy programs have two- or three-year wait lists, so that’s a severe barrier. If you call them up and ask to start a lab program in September, they’ll laugh and say no, you have to wait two years.
If there’s a wait list, students are not going to sit at home and wait for a program to begin. They’re either going to do something else or they’ll move to where the programs are available.

It was also noted that the high demand for programs was leading some educational institutions to introduce competitive selection processes or to raise entrance requirements:

The volume of applications has been an issue. Due to the number of applicants, we’ve gone to a high demand process where each year we evaluate the applicants and then take the top ones.

Many programs are beginning to have very high entrance requirements. For some of them, the entry requirements are as difficult as they are for medicine.

Increasing admission criteria creates its own set of barriers, either because students feel they are not able to meet the entry requirements, or because entry requirements are so high that the student opts for another profession with higher pay or more prestige.

Students’ math and science skills were a further concern for key informants. They pointed out that the science and math prerequisites for entering allied health programs impede many students who have not obtained these high school credits:

Kids get funnelled into different categories very early, so if you think you’re not interested in the sciences then you don’t pursue them. It’s important that kids keep taking these courses so that health careers are not eliminated from their options.

Students, because of their discomfort with basic numeracy at the elementary level, dramatically shut down a wide range of possible career options. Mathematics is a pivotal issue because allied health programs, to a greater or lesser degree depending on where you are in that area, can require a fair amount of math skill sets.

Entry-to-Practice Requirements

As institutions have increased the admission criteria for allied health programs, many professions have also raised the entry-to-practice requirements, or the level of education needed to become certified as a practitioner. These changes in educational entry-to-practice requirements were identified as a barrier by many key informants:

People who might have wanted to do a two-year program or a three-year program are now looking at four and five years. The whole issue of the length of training may really be a barrier for some people.

Programs currently offer a pharmacy technician diploma, but there’s going to be a change within a couple of years to what’s called a registered pharmacy technician that has more responsibility and a slightly different scope of practice than an existing pharmacy technician. That makes it difficult, because you want to take the right program at the right time to get the right designation to get the right job.

Some key informants observed that increased entry-to-practice requirements can deter students who are motivated to choose allied health programs because of their relatively short length and quick workforce entry. As noted above, when changes to entry-to-practice requirements are introduced, the confusion created during the transition period can also act as a barrier for potential applicants.

Conversely, some key informants felt that lower entry-to-practice requirements themselves present barriers. Key informants pointed out that college-based allied health programs may be perceived as leading to less prestigious occupations than university degree programs. Both parents and guidance counsellors were viewed as contributing to this perception:

Parents often hold this idea that you have to have a university education or you’re not up to snuff. There seems to be stigma attached to going to college as opposed to university.

Traditionally, secondary schools have thought that high performing students should go to university as a given. They weren’t aware of what colleges could offer or what allied health care training really was. So they’d see somebody strong in chemistry, for example, and would suggest pharmacy as opposed to being a laboratory technologist.
Program Costs
There are also cost barriers involved in attending an allied health program, whether at the college or university level. For many students, the financial resources required to attend post-secondary education means taking on significant debt:

*The cost of tuition and the resources that are needed by students throughout these programs are substantial. Clinical placements are not always local, so they need to travel, or they need accommodations while being away.*

*Colleges don’t offer a lot of scholarship money, certainly not at the level that universities do. While we’re getting better at that, we just don’t have the amount of money needed to help students.*

In addition to expenses for tuition, books, and lab fees, there are financial costs associated with potential relocation for clinical placements. With fewer opportunities for college-level scholarships, many allied health students are forced to take out student loans.

Location
Some students – particularly those from rural and remote locations, or with strong community ties, may be interested in an allied health career but unwilling (or unable) to relocate:

*Oftentimes to become an allied health professional there is only one place individuals can go in the province, and maybe they don’t want to move there or can’t move there because they have a young family.*

*There hasn’t been the commitment to set up training programs regionally around the province.*

As reported in the previous chapter, online survey respondents most familiar with the Atlantic region (27.6%) were about twice as likely as BC (15.3%), Ontario (14.5%), or Quebec (13.2%) respondents to select PSE student recruitment as one of the most important areas to be addressed. Atlantic respondents were also the most likely to select allied health career interest and awareness as a key focus area, followed closely by Ontario. Findings from the key informant interviews can help to contextualize these differences. Key informants from Atlantic Canada noted that a significant concern in the region is the lack of availability of many allied health programs:

*For a number of professions, you have to go out of the province to take a program. The relocation and cost involved with this can be a barrier.*

The availability of programs is a big issue. For professions that we do not offer an education program, we are struggling.

Many allied health programs are not offered in every Atlantic province, and some are not offered in the entire Atlantic region. Key informants identified the lack of training opportunities in some professions as a key contributor to workforce shortages in their province. To recruit their residents to take these programs, Atlantic provinces often arrange seat purchase agreements with outside institutions and provide incentives to students to attend the program and then return to work in the province. Nonetheless, this is a significant barrier to recruitment for these professional programs, and ultimately a barrier to having a sustainable supply of these professionals in the region.

PSE STUDENT RETENTION
Retaining allied health students through to graduation is important for students, PSE institutions, and the health workforce. Students who successfully complete their program are able to reap the benefits of obtaining the credential, PSE institutions maintain the tuition revenue from students’ attendance, and the health workforce benefits from the production of a trained professional. While student retention was not raised by key informants as a top issue, they did identify many factors that have an impact on students’ ability to successfully complete an allied health program. Although each barrier is discussed in isolation, it is important to recognize that there is considerable overlap and interconnection between these.
Personal and Financial Issues

Financial costs were identified by interview participants as one of the top barriers to student retention. Once admitted to a program, key informants noted that students often continue to work to pay for their tuition and living expenses, limiting the time they can devote to their studies. Many allied health programs are intensive, and students may find it difficult to reconcile their work and study responsibilities:

The financial burden for students is the greatest barrier. The intensity of many health programs means that students are often not able to work, limiting their cash flow. The lack of adequate financial aid and support is especially significant for those who need to travel to do their placement or be away from home.

Money is always an issue for students. It’s getting more and more expensive for people to go to school, and science programs are very intense, so the expectation that somebody works part-time and tries to study is unrealistic.

For allied health programs specifically, extra costs that students may not have anticipated, such as expenses associated with clinical placements, can act as a further barrier to successful program completion:

Our students frequently have to travel to get to their clinical placements. Or sometimes they’re in a situation where they have to take on two sets of rent because they need to rent an apartment.

These issues are compounded for students who have a family to support, as they not only are relied upon to provide for their family, but must also balance the additional demands of family life with their work and school commitments:

A portion of students have families and jobs in addition to their schooling, and are having to try and balance everything.

Some students have families, and they may have a part-time job to be able to afford to go to school. The complexities of these lives are challenging, and being able to focus 90 per cent of their time and resources on simply completing their program is not necessarily an option.

Without adequate financial supports, the high cost of education can place considerable strain on allied health students and increase the possibility of withdrawing from the program. However, even when finances are not a concern, key informants noted that personal issues often impede a student’s ability to successfully complete their program:

The big concerns I see, particularly in the female cohort, are issues related to domestic abuse, divorce, and relationship deterioration. These issues add to their stress and there is a need for adequate counselling services to help them get through a difficult time.

Some students don’t progress or are unsuccessful in the national registration exam, not because they don’t understand the content, but because there are things going on in their lives that interfere with their cognitive functioning skills and ability to perform successfully during evaluation.

Personal issues, whether the need to balance school and family commitments, or dealing with loss, relationships, abuse, or mental health, can impede program completion. Informants felt that financial and personal difficulties were often greatest for mature students or students with families or young children.

Academic Difficulties

Describing allied health programs as time intensive and academically challenging, key informants often felt that the inability to meet these academic demands was a barrier to retention for many students, whether or not they were working part-time during their studies. Many allied health programs are science-based and require a large number of hours in class in addition to time spent studying and doing homework. Some informants noted that students are often unaccustomed to or unprepared for the pace and workload of an allied health program. Others stressed that entry into a program often assumes a certain level of knowledge and educational preparation and there is little time within a course to bring someone up to speed:

Some people coming into the program don’t have an adequate grasp of the prerequisite knowledge, and there is no time within the program to bring them up to speed.
Sometimes people who enter the program don’t have the aptitude, the discipline, or the interest to follow through, and you’re going to get some fall-off because of that. Also you’re going to get people who complete the program, but can’t pass their certification exams.

As with any educational program, if students experience difficulty completing course work and passing exams, chances of attrition, whether involuntary or voluntary, are much higher. Acquiring study strategies and time management skills are often as important to academic success as having the course-specific prerequisite knowledge. However, even students who graduate from their program may have difficulty passing the certification exam to practice in their field.

**Expectations vs. Reality**

Incongruence between a student’s expectations of a program and the reality can also act as a barrier to retention. Key informants noted that program attrition often occurs when students do not have a clear understanding of the program workload and expectations, and sometimes of the health profession itself:

> For some students, they’re just in the wrong field. They start the program and then discover that it is just not for them, and they lose interest.

> We are hearing on a national basis that when students come in and there is no particular selection process other than their marks, they may be very good at science but many are lost when faced with the realities of the profession.

So if we have 50 seats and we lose 15 to 20 percent of them right off the bat, those are potential professionals that we lose before they even get started.

I remember hearing horror stories of people who would get into the program and not realize they actually had to touch a patient or deal with blood. There is a real lack of preparation, both on the side of the potential applicant, but also on the side of the program where the program needs to do its best to make sure that the candidates they are accepting have a clear knowledge of what they’re getting into as a future professional.

When students are not fully aware of the realities of the educational program or of the profession, there is a greater chance of attrition. Each student who withdraws from a program represents a lost training seat. Ensuring that students have a firm understanding of the realities of the program and profession prior to entering an allied health program can help to attract the right candidates, save students time and money, and make more efficient use of institutional resources and capacity.

**TRANSITION TO EMPLOYMENT**

Employment opportunities were raised by key informants as a strong motivator for students to consider allied health careers:

> Students want to know that they’re going to have a job at the end. I think that’s really important.

The potential for employment can motivate people to take a particular course.

The potential for employment after graduating from an allied health program was contrasted to many university degrees, which often have no specific career path. Key informants felt that students view allied health programs as an attractive alternative, and often a post-degree option, to enhance their employment prospects. In addition to obtaining employment, informants noted that job security was an additional motivating factor for students. Since there will always be a need for health care providers, these professions are perceived to be “recession proof,” offering job security and a career for life.

The lack of full-time permanent work for new graduates was also discussed by informants. Budget cutbacks and the casualization of work are leading new graduates in many allied health fields to take on casual or part-time employment:

> Permanent, full-time positions for some allied health professions have been an issue. New graduates are having difficulty finding one full-time position, and they often have to take multiple part-time positions.

> The pendulum certainly swings with regards to the labour market, but right now new graduates have to take on casual positions and work their way up. It is not like they graduate into a full-time position.

While some new graduates may enjoy the variety and flexibility that part-time and casual employment
can offer, or may view the difficulty finding full-time work as a normal part of entering a new career, it can also lead to job dissatisfaction. A few key informants voiced concern that new graduates may become frustrated and leave the profession altogether. This is particularly problematic as almost all key informants underscored the imminent need for allied health professionals to replace retiring baby boomers.

PSE STRATEGIES: KEY INFORMANTS
Key informants were asked to share their views on strategies to address barriers and improve student recruitment and retention in allied health programs. Five main strategies were identified: improving interest and awareness in allied health careers, improving selection processes, enhancing financial support, improving academic and social supports, offering job guarantees, and developing flexible programming options.

Improve Allied Health Career Awareness and Perception
Not surprisingly, given that perception and lack of awareness of allied health careers was seen by most key informants as the largest barrier to recruitment, improving the awareness and perception of allied health professions emerged as the highest priority strategic action.

In particular, key informants emphasized that raising awareness must go beyond providing information about the various allied health professions, to enhancing understanding of their value – both in terms of the value to the health care system, as well as the value of working in an allied health profession:

*Being able to promote an allied health career is to talk about the opportunities that are available, the career ladders that are being created, and the mobility that is possible. You can also talk about the need for care and how that is going to be increasing, and so these are really good solid, sustainable careers to get into.*

*The allied health sector needs a higher profile, more exposure and marketing, so that students get a better sense of the richness of the possibilities in that sector.*

*It’s important to stress the role of allied health in the bigger health care picture, and the important contributions that they make. We need to spotlight some of these specific professions, not just always doctors and nurses.*

As indicated above, key informants felt that basic awareness of the range of allied health careers needs to be improved. At the same time, they also urged a focus on raising awareness of the benefits and strengths of allied health careers. Awareness campaigns could highlight the mobility allied health careers allow, the opportunities for advancement where they exist, the sustainability of these careers, the rewarding nature of the jobs, and the wide range of workplace settings possible, from more people-oriented occupations to professions that are lab-based or data-driven.

Key informants offered a variety of suggestions about where to target awareness campaigns. High school students are an obvious target audience, and several key informants noted that grades 7 and 8 are a pivotal time for career awareness:

*The best possible tool is good comprehensive information targeted at middle school and early high school kids, targeting kids just before they choose their path.*

*There could be more attention on developing materials to introduce students to the allied health professions earlier in their high school and pre-high school careers, to get them excited and explain what they need to be taking as prerequisites to make a smooth entry into the education programs after they finish high school.*

An additional benefit of focusing on elementary school students is that students who develop an interest in allied health careers at a younger age can ensure that they are taking the prerequisite courses, such as sciences, in high school. Key informants also underscored the importance of targeting awareness efforts to parents and guidance counselor, as they are influential figures in the lives of youth.

Young adults attending university were identified as another potential focus of recruitment and awareness efforts, since many university students complete their degree but then have difficulty finding a career:

*It’s not just the secondary system. It’s young adults, and those who may have a chemistry degree or micro degree and say now what do I do with this? I love the field, but I don’t see a lot of job offers on my plate. Then they’ll see an application where they can do med lab science and work in microbiology.*
There needs to be marketing done within undergraduate science programs because I suspect there are a lot of people who are doing chemistry, physics or biology degrees, who along the way discover that their degree alone may not secure employment.

While increasing allied health career interest and awareness is generally conceptualized as a recruitment strategy, some key informants also linked this to student retention. One of the main barriers to retaining students was the mismatch between students’ expectations and the reality of the program or profession. Raising awareness of the nature of different allied health professions – including working conditions, hours, salary, and work settings and locations – lets students make more informed decisions when choosing a post-secondary program:

It is very important that students have a clear knowledge and grasp of what it is to be that type of allied health professional, and have a greater understanding of the pros and cons of the industry compared to their particular wants or needs.

Pre-screening is the most important piece, so that you have individuals who are not only interested, but aware that this is what their job will entail.

As these key informants highlight, improving awareness of allied health careers can increase retention by ensuring that students understand the day-to-day reality of being an allied health professional before they enter an allied health program.

Key informants also offered insight into methods that could be used to improve career interest and awareness. While brochures and print materials were suggested for reaching out to parents and older generations, a number of key informants emphasized the importance of using innovative and technology-based social marketing tools to connect with younger generations:

I don’t believe educational institutions are engaging young people in the social media forums in which they are most comfortable and responsive. We should all be on Facebook, Twitter, Flickr, engaging younger people in the modalities in which they are most receptive.

Perhaps some blended learning or interactive activities are needed to engage young people. I was at a demonstration in sonography the other day where they actually used something like a video game, and the students seemed more engaged in the learning and in the whole simulation.

An additional suggestion was to develop curriculum resources that could be used in high school science courses. Many provinces include mandatory career studies in the secondary school curriculum, or have a career paths component in individual courses. An allied health sector resource for classroom teachers could reach a large number of youth.

A few key informants emphasized that any promotion activities should be developed with insight from experts in career guidance and based on research about career awareness and interest to ensure that marketing activities are effective.

When asked who should be responsible for awareness initiatives, most informants stressed the need for collaboration among all stakeholder groups – including educational institutions, professional and regulatory associations, health authorities and government bodies. They felt that raising awareness about allied health careers should be a joint initiative involving all of the professions:

Post-secondary institutions, the public school system, and the health care system really all need to band together. We need to get that awareness out there as a combined group.

If we could get the federal government to pay for a website that would be great. I see this as a part of a larger collaboration of the various allied health professions.

Many key informants shared information about activities already implemented by their organizations. Some health authorities regularly participate in “Take Your Kids to Work” days, and several professional associations have produced brochures, DVDs or websites, organized presentations to high school students, and set up booths at job fairs and college and university information sessions. The following are specific examples of promotional activities:

• Memorial University runs a summer program called Med Quest, which brings students in grades 10 to 12 to the university for a one-week session to introduce them to a variety of health professions through lectures, experiments, job shadowing, tours and role playing.
The Health Sciences Association of BC has put together packages for their members to use to speak about health care professions at schools in their own communities.

The Prince Edward Island Department of Health and Wellness runs a program called Health Care Futures in which graduating high school students and post-secondary students are hired during the summer to work in the health care sector.

The Nova Scotia Department of Health supplied funding to bring classes of students, aged 14 and 15, to primarily rural college campuses. The idea was to get students interested in allied health careers, to encourage them to take science courses and finish high school.

Georgian College brings grade 7 and 8 students to campus to introduce them to health professions, focusing on nursing, paramedic, optician, and massage.

CAREERS: Health Services Youth Initiative, a public/private initiative in Alberta, provides summer internships in health care occupations for grade 11 students.

In addition to the examples given above, a few key informants noted that their organizations had received seed money to develop programs or strategies that were never fully implemented due to lack of ongoing funding. They highlighted the need for sustainability, and emphasized that to truly be effective, awareness strategies must be coordinated and tied to long-term funding.

Selection Process Improvement

Several key informants felt that enhancing college selection processes for allied health programs could improve both student recruitment and retention. Allied health programs often operate on a “first qualified, first admitted” basis, where every student who meets the basic requirements of the program is entered in the program based on their date of application. Once the program seats are filled, additional applicants are placed on a wait list. For many allied health programs, recruiting enough students to apply to their programs is not the issue, since many more applications are received than there are seats available. The issue is whether candidates with the greatest chances of success are being recruited. As discussed in the recruitment barriers section, long wait lists can deter potentially strong candidates from applying or lead them to enter different programs.

While there is a lack of research evidence, several informants believed that inadequate screening procedures were a key contributor to program attrition:

Whenever we meet with the Minister of Health, I talk about the lack of pre-screening. I understand the open aspect piece, but all I’m saying is give the individual an opportunity to see if it’s a program that they’re really interested in and have the aptitude for, because if they’re not, we’re not doing them any service either.

We have a first-come-first-served policy, and for this reason we don’t necessarily see the programs with the best candidates, so we have a fairly high attrition rate.

We don’t have really good qualified candidates failing. It seems that it’s a systematic thing about who we select to admit in the first place.

As these comments demonstrate, some key informants felt that a “first qualified, first admitted” policy does little to ensure that students with the greatest potential for success enter the program. This is seen as a disservice to both the institution and to the students themselves. For programs operating on this basis, some informants suggested changing to a competitive selection process, but pointed out that simply raising entrance requirements was not the answer. Innovative selection processes are needed that go beyond grades, including using “soft skills” to assess applicants:

There are some students who really struggle with the academic stuff, but when you put the equipment in their hands, they just light up – they get it and it all makes sense to them. But how do you find those students if they don’t meet the entrance requirements? So it may be a matter of finding different ways to get students into programs that are beyond the standard approach to entrance requirements.

Key informants provided a number of suggestions for process improvements as well as examples of current strategies that show promise, such as Multi-Mini Interviews (MMI):
[Institution] has instituted a new selection process and marks are just one component. It’s almost like speed dating, the institution hires actors and they look at how that person would interact in different situations. They have about 11 scenarios in which they evaluate the person’s soft skills to see if they’re a good fit for the profession. From what I’ve heard, this is having very good results and students that they select using that method are much more likely to complete the program.

While some key informants felt that competitive selection processes could improve student retention, it will be important for institutions considering changing their selection process to examine empirical evidence about the relationship between competitive selection processes and retention rates and to understand the most important success factors. Institutions will also need to consider the time and resources required to develop and use a competitive selection process, and to balance the potential conflict between ensuring that the right candidates are selected without deterring students from applying because of the rigour of the process. Finally, it is important to note that for some institutions, provincial mandates around access policies preclude a movement to competitive selection.

Financial Support

Key informants described a number of financial support strategies to improve recruitment and retention. These included increasing the number and amount of scholarships, bursaries, and interest-free loans available, providing financial support for clinical placements, and improving awareness about funding available:

- Some of our sponsorship-type programs have been successful, where we’re supporting students with the costs associated with the programs or we’re able to get them a spot in a program that may be hard to get into.

- There should be subsidies for health care professions so that if you’re choosing health care, perhaps your tuition isn’t as high or you’re given some type of support for your clinical placements if you have to travel.

Key informants clearly felt that more can be done to support students financially during their studies. Financial support has the potential to improve both student recruitment and retention in a variety of ways. For some students, financial support reduces barriers to application, and can also decrease the need for students to work during their studies, allowing more time to devote to successfully completing the program. Subsidizing the costs associated with clinical placements was viewed as especially important, since these placements are a mandatory, unpaid component of many allied health programs and often entail significant additional expenses for students.

Academic and Social Supports

A retention strategy highlighted by many key informants was the need to provide both academic and social supports to students:

- If it’s identified that a student is having issues with particular courses or skills, they should be required to do some remedial work. It shouldn’t have a negative connotation. Sometimes people just need a little bit of extra work in particular areas to bring them up to par.

- We need to give students more support and create more mentorship opportunities. It would be someone they could call if they were having problems, other professionals that they could talk to about any issues.

Key informants viewed non-academic services, such as counselling and peer mentors, as vital to building a sense of community and providing access to advice and support. A number of key informants highlighted the importance of early intervention to identify students who are having difficulty and to assist them with whatever is needed. One key informant suggested that PSE institutions perform an intake interview or questionnaire to identify student needs before they enter the program, allowing schools to take a proactive approach to student retention and completion.

In terms of leadership on student retention, key informants recognized the benefits of educational institutions working in partnership with health authorities and professional associations. An employer commented:

- We’ve talked about becoming more like partners with our institutions to try to find mentors for students. Our Department of Health

[26 ASSOCIATION OF CANADIAN COMMUNITY COLLEGES]
has done a grand job with the mentoring of new nursing graduates, but I don’t believe that that’s happening in allied health.

Job Guarantees

While not widely suggested, a few key informants noted that job guarantees could help to improve both student recruitment and retention, with provincial funding to support reciprocal agreements:

Health authorities could have a reciprocal agreement where, for example, if it’s a three-year program the student must commit to working for the authority for three years and then tuition is covered. This adds to the motivation to complete the program because the student knows that their tuition is being paid and they will have a job when they finish.

Within the government, the ministry responsible for post-secondary education could assign a portion of their training program funding to the health authorities, to be audited and used exclusively for recruiting people into that health authority.

Given that potential for employment was identified by key informants as a significant motivation for students to consider allied health careers, student awareness of a job at the end of their program offers both an incentive to apply and a reward for persistence.

Program Flexibility

A final strategy suggested by key informants was to make allied health programs more flexible in both design and delivery. Key informants felt that flexible program delivery options could appeal to a wider range of students, enhancing recruitment efforts, and would also improve retention by providing students who fall behind or cannot afford full-time tuition with alternatives to dropping out. Two options were proposed: to increase part-time programming to allow students to balance work and/or family life with their studies, and to expand distance education opportunities to enable students to remain in their home communities while accessing allied health programs:

There needs to be some kind of flexibility in the programs, some distance education components, some components to do programs on a part-time basis, and varying degrees of part-time study.

Some organizations – our community college for example – have been exploring what they refer to as non-traditional education times for people who are currently employed. If you can bring these people in on the evenings or on weekends that’s going to give you a great deal more flexibility.

As demonstrated in these comments, a number of key informants felt that innovative ideas for program design and delivery are needed to adequately serve both potential and current students and to meet the needs of the workforce.

PSE STRATEGIES: ONLINE SURVEY RESPONDENTS

Of the 10 focus areas presented in the online survey, two were related to recruitment (allied health career interest and awareness and PSE student recruitment), one to retention, and one to transition to employment. Respondents who selected these focus areas were asked to rate the importance of various strategies that could be undertaken to address the issues. They were also given an opportunity to identify the single most important action that should be implemented, and asked to indicate who should be responsible for that action.

Career Interest and Awareness

Career interest and awareness was selected by 28.3% of respondents as one of the top issues to be addressed, including a somewhat greater proportion of practitioners (29.5%) than non-practitioners (23.9%). Among the respondents who selected this focus area, almost all viewed public education about the value of allied health professions as an important strategy (Figure 22). Nine out of 10 respondents – and practitioners in particular – also ascribed high importance to improving accuracy of career information, followed by developing coordinated awareness campaigns, and giving students exposure to allied health workplaces (Table 8). While over 80% of respondents felt that organizing outreach programs for secondary students was important, elementary school outreach was rated much lower in importance, especially by practitioners.
There were 288 open-ended responses identifying the most important strategy to improve career interest and awareness. Overwhelmingly, public education through awareness campaigns (n=112), media advertising (n=31), and emphasizing the value of allied health professionals (n=31) was identified as the highest priority action. Similar numbers of respondents mentioned focused high school outreach (n=39) and information about allied health careers (n=38).

Respondents viewed public education and public relations as very much the responsibility of provincial ministries of health, and professional associations. By contrast, all stakeholder groups were considered to have a role to play in high school outreach efforts and providing career-specific information.

**PSE Recruitment**

Overall, 18.6% of respondents selected PSE recruitment as an area of focus. For almost nine out of 10 of these respondents, the top rated strategy was strengthening program marketing and promotion (Figure 23). This was followed by expanding financial aid programs, improving student selection, and improving information about admission requirements, each identified by about three-quarters of respondents. Similar proportions of practitioners (18.7%) and non-practitioners (18.1%) selected PSE recruitment as an area of focus, with no significant differences between the groups in the mean importance ratings ascribed to specific strategies (Table 9).

### Table 8 – Career Interest and Awareness Strategies, Practitioner vs. Non-Practitioner

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Practitioner (29.5%)</th>
<th>Non-Practitioner (23.9%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raising public awareness of the value of AH professions</td>
<td>Mean: 4.73, n=333</td>
<td>Mean: 4.66, n=71</td>
</tr>
<tr>
<td>Exposing students to AH workplaces</td>
<td>Mean: 4.36, n=333</td>
<td>Mean: 4.46, n=70</td>
</tr>
<tr>
<td>Developing coordinated awareness campaigns</td>
<td>Mean: 4.43, n=331</td>
<td>Mean: 4.45, n=71</td>
</tr>
<tr>
<td>Improving accuracy of information about AH careers*</td>
<td>Mean: 4.53, n=332</td>
<td>Mean: 4.32, n=68</td>
</tr>
<tr>
<td>Organizing early outreach programs for secondary school students</td>
<td>Mean: 4.26, n=329</td>
<td>Mean: 4.30, n=71</td>
</tr>
<tr>
<td>Holding AH career fairs</td>
<td>Mean: 4.07, n=332</td>
<td>Mean: 4.13, n=71</td>
</tr>
<tr>
<td>Organizing early outreach programs for elementary students*</td>
<td>Mean: 2.79, n=329</td>
<td>Mean: 3.16, n=69</td>
</tr>
</tbody>
</table>

* Indicates a statistically significant difference, p<.05
The 188 respondents who provided open-ended comments about the most important PSE recruitment strategy strongly endorsed marketing and promotional activities, through focused program marketing (n=40), improved career information (n=32), general awareness campaigns (n=18), and messaging to reinforce the value of allied health professionals (n=5). Another 23 respondents recommended expanded outreach to secondary schools (n=17) and increased opportunities for students to experience allied health workplaces (n=6).

Respondents viewed responsibility for marketing and promotion as a shared responsibility among colleges, professional associations, and provincial ministries of health, but also recognized the role played by other stakeholder groups, including school boards, ministries of higher education, and employers. Similarly, respondents recommended that high school outreach be a coordinated effort of several stakeholder groups, in particular school boards, professional associations, and provincial ministries of health.

**PSE Retention and Completion**

For the 13.9% of respondents who selected PSE retention and completion as a focus, the highest rated strategies were emphasizing foundational skills, improving career guidance for students, enhancing financial support programs, improving information about program expectations, enhancing academic student support, and expanding articulation agreements between institutions (Figure 24). Non-practitioners were somewhat more likely to select this focus area than practitioners (17.5% vs. 13.0%), and ascribed significantly greater importance

<table>
<thead>
<tr>
<th>Table 9 – PSE Recruitment Strategies, Practitioner vs. Non-Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practitioner (18.7%)</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Strengthening program marketing and promotion</td>
</tr>
<tr>
<td>Expanding financial aid programs</td>
</tr>
<tr>
<td>Improving selection, screening and interview processes</td>
</tr>
<tr>
<td>Improving information about admission requirements</td>
</tr>
<tr>
<td>Offering academic enrichment programs</td>
</tr>
<tr>
<td>Promoting Prior Learning and Assessment Recognition (PLAR)</td>
</tr>
<tr>
<td>Offering pre-admission programs</td>
</tr>
<tr>
<td>Creating a culturally-aware campus environment</td>
</tr>
<tr>
<td>Targeting recruitment strategies to Aboriginal learners</td>
</tr>
<tr>
<td>Targeting recruitment strategies to IEHPs</td>
</tr>
</tbody>
</table>
to articulation agreements, a variety of clinical placement settings, and targeted supports for Aboriginal learners (Table 10).

There was no clear consensus among the 124 online respondents who offered suggestions on the most important strategy to improve PSE retention and completion. Respondents recommended improved mentoring and supports for students (n=22), improved job outcomes and working conditions (n=17), better student screening and selection (n=16), enhanced funding and financial aid (n=15), strengthened program content (n=15), and changes to high school curriculum (n=10).

With the exception of colleges, which were viewed as primarily responsible for ensuring appropriate student support services, no one stakeholder group was considered to have overall responsibility for any of these actions. Rather, all stakeholder groups were expected to contribute to the shared implementation of these strategies.

**Transition to Employment**

Transition to employment was selected as a key area of focus by almost one-quarter of all respondents (23.6%) – including a slightly larger proportion of practitioners (24.4%) than non-practitioners (20.6%). Raising awareness of job opportunities and providing occupational forecasts by profession were regarded as the two most important strategies to facilitate graduate employment (Figure 25). There were no significant differences between practitioners and non-practitioners in their views on the importance of specific strategies (Table 11).
Several ideas were put forward by respondents in the open-ended question about the one single strategy that should be undertaken. Of the 212 respondents who offered suggestions, ensuring highly qualified graduates with the necessary competencies was the most frequently mentioned (n=39). Almost as many identified better matching of supply to demand (n=19) or generating occupational forecasts for allied health professions (n=19). Providing information about job openings was suggested by 30 respondents. Similar numbers of respondents recommended improving graduate soft skills in teamwork and communication (n=19) and taking action on regulatory and professional issues, such as a college for DMS and entry-to-practice requirements (n=18).

Leadership on improving graduate competencies was viewed as a shared responsibility of the colleges, employers, professional associations, and provincial ministries. The colleges, with assistance from the provincial health ministries, were expected to track employer needs in order to determine numbers of seats, while occupational forecasting was considered to be mainly a provincial or federal responsibility. Colleges were also viewed as responsible for developing soft skills of allied health graduates. Regulatory and professional changes were regarded as the responsibility of the regulatory bodies, in coordination with the provinces and professional associations.

### Table 10 – PSE Retention and Completion Strategies, Practitioner vs. Non-Practitioner

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Practitioner (13.0%)</th>
<th>Non-Practitioner (17.5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving career guidance for students</td>
<td>Mean 4.15 n 137</td>
<td>Mean 4.36 n 50</td>
</tr>
<tr>
<td>Enhancing financial support programs</td>
<td>Mean 4.00 n 137</td>
<td>Mean 4.29 n 48</td>
</tr>
<tr>
<td>Expanding articulation agreements between institutions*</td>
<td>Mean 3.89 n 132</td>
<td>Mean 4.26 n 50</td>
</tr>
<tr>
<td>Enhancing academic support programs and services</td>
<td>Mean 3.93 n 136</td>
<td>Mean 4.22 n 49</td>
</tr>
<tr>
<td>Focusing on foundational skills</td>
<td>Mean 4.22 n 137</td>
<td>Mean 4.14 n 50</td>
</tr>
<tr>
<td>Offering a variety of clinical placement settings*</td>
<td>Mean 3.59 n 133</td>
<td>Mean 4.08 n 50</td>
</tr>
<tr>
<td>Improving information about program expectations</td>
<td>Mean 4.10 n 136</td>
<td>Mean 4.04 n 50</td>
</tr>
<tr>
<td>Providing facilitated entry/transition programs</td>
<td>Mean 3.73 n 135</td>
<td>Mean 3.94 n 50</td>
</tr>
<tr>
<td>Providing faculty PD on effective intervention strategies</td>
<td>Mean 3.64 n 121</td>
<td>Mean 3.92 n 49</td>
</tr>
<tr>
<td>Providing opportunities to “ladder” within institutions</td>
<td>Mean 3.88 n 129</td>
<td>Mean 3.90 n 49</td>
</tr>
<tr>
<td>Developing peer mentoring programs</td>
<td>Mean 3.86 n 138</td>
<td>Mean 3.84 n 49</td>
</tr>
<tr>
<td>Streamlining credit transfer process within institutions</td>
<td>Mean 3.80 n 133</td>
<td>Mean 3.80 n 50</td>
</tr>
<tr>
<td>Providing access to childcare</td>
<td>Mean 3.29 n 129</td>
<td>Mean 3.56 n 48</td>
</tr>
<tr>
<td>Developing culturally competent curriculum</td>
<td>Mean 3.11 n 134</td>
<td>Mean 3.50 n 48</td>
</tr>
<tr>
<td>Enhancing non-academic support programs and services</td>
<td>Mean 3.21 n 132</td>
<td>Mean 3.47 n 49</td>
</tr>
<tr>
<td>Developing targeted supports for Aboriginal learners*</td>
<td>Mean 2.75 n 124</td>
<td>Mean 3.44 n 45</td>
</tr>
<tr>
<td>Developing targeted supports for IEHPS</td>
<td>Mean 3.16 n 133</td>
<td>Mean 3.28 n 47</td>
</tr>
</tbody>
</table>

* Indicates a statistically significant difference, p<.05
5. Aboriginal Learners and IEHPs

This chapter considers the unique set of issues and challenges related to the participation of Aboriginal learners and Internationally Educated Health Professionals (IEHPs) in allied health professions.

ABORIGINAL LEARNERS

Aboriginal peoples are under-represented in the health workforce across Canada. This under-representation has negative implications for First Nations, Métis and Inuit health and well-being, creating barriers to accessing services and contributing to culturally alienating health service experiences. In 1996, the Report of the Royal Commission on Aboriginal Peoples recommended that 10,000 Aboriginal peoples be trained in health professions over a 10-year period. Some noteworthy initiatives that have been implemented since the report include the provision of scholarships and bursaries through the National Aboriginal Achievement Foundation, the 2004 Aboriginal Health Human Resource Initiative of the federal government, as well as a number of access programs at colleges and universities that help Aboriginal learners bridge into health programs. While progress has been made, First Nations, Métis and Inuit peoples remain under-represented in the health workforce and many Aboriginal communities still have difficulty attracting health professionals, underscoring the need to build health human resource capacity within Aboriginal communities. One key informant stated this particularly well:

---

**Table 11 – Transition to Employment Strategies, Practitioner vs. Non-Practitioner**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Practitioner (24.4%)</th>
<th>Non-Practitioner (20.6%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>n</td>
</tr>
<tr>
<td>Raising public awareness of the value of AH professions</td>
<td>4.73</td>
<td>333</td>
</tr>
<tr>
<td>Exposing students to AH workplaces</td>
<td>4.36</td>
<td>333</td>
</tr>
<tr>
<td>Developing coordinated awareness campaigns</td>
<td>4.43</td>
<td>331</td>
</tr>
<tr>
<td>Improving accuracy of information about AH careers*</td>
<td>4.53</td>
<td>332</td>
</tr>
<tr>
<td>Organizing early outreach programs for secondary school students</td>
<td>4.26</td>
<td>329</td>
</tr>
<tr>
<td>Holding AH career fairs</td>
<td>4.07</td>
<td>332</td>
</tr>
<tr>
<td>Organizing early outreach programs for elementary students*</td>
<td>2.79</td>
<td>329</td>
</tr>
<tr>
<td>Improving graduate employability skills</td>
<td>3.74</td>
<td>268</td>
</tr>
<tr>
<td>Providing information about non-accredited training institutions</td>
<td>2.95</td>
<td>252</td>
</tr>
</tbody>
</table>

* Indicates a statistically significant difference, p<.05
From an HHR point of view, if we can’t figure out how to get Aboriginal peoples into the health professions, we’re going to be in deep trouble because the Aboriginal communities have difficulty attracting and retaining health professionals anyway. And if we run into a shortage they’ll be the most disadvantaged group in terms of access to care.

With a young and quickly growing population, First Nations, Métis and Inuit peoples could also be an important source of health professionals to help address impending workforce shortages. A few key informants provided insight into the challenges Aboriginal learners face, and suggested strategies to attract and retain Aboriginal students in allied health programs.

Key informants noted that, as with all students, there is often little awareness of allied health professions among Aboriginal students. For Aboriginal students living in rural and remote locations, however, there may not be any exposure to the variety of health professions available. The limited number of First Nations, Métis and Inuit peoples in the allied health workforce means there are also few role models available, or opportunities for Aboriginal students to see themselves reflected within these professions:

I don’t know that they get the exposure to these career opportunities.

There are far fewer role models, so the opportunity to see someone you know working in that profession is limited.

High school preparation is also a primary area of concern. Difficulties in attracting and retaining science and math teachers in northern and reserve communities, and the lack of adequate funding for labs within schools means that many Aboriginal students may not have the opportunity to obtain the prerequisites required to enter health professions:

The barriers are very diverse and they definitely are different depending on the learner. One barrier is the availability of required secondary classes, such as chemistry. Some high schools in rural or northern communities don’t have labs, so they don’t have the chemistry, they don’t have the biology.

If they’ve gotten most of their education in their home community, they probably don’t have the background in math and science because it’s hard for these communities to recruit math and science teachers. That’s a huge problem.

For students who overcome these challenges and seek to enter an allied health field, the location and availability of programs can influence their decision and their ultimate success in the program. Colleges and universities are typically located in urban centres. Therefore, attending an allied health program requires Aboriginal peoples living in rural and remote areas to leave family and community, and relocate to a very different environment with few social supports available:

Support for Aboriginal learners is a big issue, especially if they’re coming from a reserve experience to a major city. Just getting into that different cultural ethos and making sure that they have that support to succeed.

If they come into a college it’s big, it’s impersonal, there’s not a lot of understanding of their particular cultural needs and challenges. And many of our Aboriginal students are mature and they already have children, for example. They have multiple challenges.

There’s generally limited peer support for this group. I think they need a lot more support and they need their peers. Also, because there are limited numbers of Aboriginal workers when they get out into placement, they don’t have the Aboriginal role models to help stimulate them and motivate them to continue.

While some post-secondary institutions are establishing satellite campuses in northern communities, these opportunities are still limited. Cultural differences are also a key issue for many Aboriginal peoples, regardless of whether they are from a northern or remote community. Aboriginal peoples often do not see themselves represented in the curriculum, teaching, or physical surroundings at colleges and universities:

The educational culture between Aboriginal communities and what we think of as our regular college communities are very different, and I think that can be a serious barrier in terms of the comfort level of Aboriginal students in a college classroom.
Culturally, Aboriginal peoples don’t see themselves represented very well in the school system or in the workplace. That’s a challenge that we have to address.

ABORIGINAL STRATEGIES: KEY INFORMANTS

Based on the issues identified, key informants suggested a number of strategies that should be taken to increase the representation of Aboriginal peoples in allied health professions. These included promoting health careers early, offering access programs to bridge Aboriginal students without math and science prerequisites into health programs, and offering high quality health programs through distance education or in Aboriginal communities, that would allow students to work in a variety of settings, both on reserve and in urban communities. Key informants also made some specific recommendations for post-secondary institutions. These included the need to enhance the cultural awareness of faculty, provide financial and social supports to students, and generally to make institutions more welcoming environments for Aboriginal learners:

- Providing focused funding for Aboriginal support programs and increasing financial aid for students, especially when they’re travelling and need accommodation in alternate locations, is very significant and important.

- Having an Aboriginal centre, like a university has cultural centres, is important.

- We need to really educate our instructors about the differences that Aboriginal students may need in training and teaching, and what we can do to help Aboriginal students succeed.

Our northern institutions have had some greater success, particularly our big ones, because they’ve brought cultural teachings right into the programs. This makes it more friendly, and the Aboriginal students seem to have a higher completion rate at our northern institutions.

There is also work that can be done by the professional associations to make their professions more attractive to Aboriginal peoples:

- Organizations themselves really need to address recruitment and retention issues. Associations should develop a policy statement around not just recruitment and retention, but improving relations with Aboriginal communities. Down the road they can start doing cultural competency training to improve the way they deliver their services to Aboriginal people.

- From an organizational perspective, one approach could be to deliver training across the board on cultural competency. Another approach is to recognize people in the profession that practice in a culturally safe way or a way that recognizes the distinctiveness of different communities.

A few examples of strategies currently in place at various institutions were highlighted in the interviews. These included an Aboriginal focused pre-health program, a targeted support program for Aboriginal health and science students, and a “mini-med” program used to recruit Aboriginal students into medicine that could be a model for other health professions:

In September we will be introducing an Aboriginal-focused pre-health program. The students would still take the biology, chemistry, math, English, but they’d also have an opportunity to take health care in Canada courses that embrace health care as it’s practiced within Aboriginal cultures and communities. Also, within the science courses, which are traditionally ones that Aboriginal students have more difficulty with, our plan is to make the classes smaller and to take teachers that either have Aboriginal backgrounds, or experience with teaching in Aboriginal communities.

We have set up a strategy for Science and Health students where we have advisors in the two main campuses. These counsellors are available for Aboriginal learners and have very specific knowledge, and our Aboriginal learners tend to feel more comfortable going to those individuals. They can help with the academics, they can help with the social, they can help with some of the financial challenges in terms of funding agencies intervening on the students’ behalf, et cetera.

[Institution] has a mini-med program for Aboriginal students. Last year they did a mini-med for Aboriginal high school students, and a mini-med for Aboriginal students in university. It’s a good way to recruit people.
INTERNATIONALLY EDUCATED HEALTH PROFESSIONALS

Internationally educated health professionals (IEHPs) play an important role in the Canadian health care system, providing culturally competent care to Canada’s diverse population and helping to address health human resource shortages. Many IEHPs, however, face significant challenges in the transition to practice in Canada. A number of key informants felt that the Canadian government is not doing an adequate job of integrating IEHPs into professional practice in Canada’s health care system:

We in this country still struggle to get the recipe right in terms of integrating the internationally educated. We’re trying to find that balance between maintaining standards, and yet not creating so many barriers that people can’t gain access. I don’t think we’ve gotten the balance right yet. We don’t do a good job of informing people before they come to Canada of what exactly will be required of them. This is why, to a great extent, I think we have lots of people landing in this country thinking it will be relatively easy, and then discovering just what the barriers are.

There seems to be a very strong disconnect between the information at the Canadian embassy and what the reality is, and it’s very expensive and very confusing for immigrants. It adds to a lot of stress and is destabilizing for the whole settlement process.

When asked to identify challenges facing IEHPs, the main themes that emerged from key informant interviews were difficulties becoming registered in regulated professions, financial issues, and cultural and language differences.

Registration

The regulatory environment governing the allied health professions can be a maze of confusion for IEHPs. Regulatory requirements vary by province and profession, and many IEHPs do not fully understand the process before arriving in Canada. Further, educational entry-to-practice requirements often necessitate academic upgrading, adding an additional layer of confusion and uncertainty as each post-secondary institution has its own process and criteria for recognizing prior learning.

Canadian universities and community colleges need to review their policies and practices for recognizing previous education and work experience for purposes of prior learning recognition. It’s a major disservice to internationally educated health care professionals, and it demonstrates a very strong lack of respect for those individuals by not having more liberal policies in recognizing their previous education and work experience.

A few key informants also commented on the importance of clinical experience in preparing IEHPs for practice in Canada, and assisting them to meet registration requirements, but noted that finding clinical placement opportunities can be a challenge:

It’s very helpful if IEHPs have the ability to get Canadian lab experience. It seems to help in writing the exam. However, it’s difficult for the college to get enough clinical placements for their students, and it’s even more difficult for internationally educated to get that same kind of clinical experience.

From our experience, the programs for internationally educated MRTs that are more successful have clinical experience built into them. It can be very difficult to find time for the MRTs to get that clinical experience. Provincial governments are going to need to make a conscious effort to give institutions incentives so that these people are able to get clinical experience.

As stated previously, clinical placements are in short supply in virtually all allied health professions across the country. Many educational institutions have established relationships with health care facilities, but have difficulty finding an adequate number of clinical placement sites for their students. IEHPs with few connections in Canada face an even greater hurdle in gaining clinical experience. This is exacerbated by liability concerns, with many health employers unwilling to provide a placement opportunity without liability insurance coverage.
Financial Issues

Immigrating to a new country is a very expensive process. These financial difficulties are compounded for IEHPs by the costs associated with becoming registered to practice, and their inability to earn income working in their profession in the intervening period:

Once they’ve been out of their field for some time, because of the credentialing and having to work survival jobs, they start losing their skill.

They are often the main financial supporters of their family when they come here. So they may have financial issues to deal with as well. That puts stress on you when you study.

Language and Culture

About half of key informants reported that cultural and language differences are a significant barrier to the successful integration of IEHPs into the Canadian health workforce:

The most salient issue really is language, and profession-specific language, and health-sector specific language. That’s clearly very important.

I think the greatest barrier is understanding the health care environment in Canada and understanding the cultural differences, because health care is a cultural activity. So it can be very, very different in Canada from the country they’ve originated from.

Key informants noted that the Canadian health care system has a culture of its own that may be significantly different from the health care system of the IEHP’s home country. This can pose a challenge regardless of level of language proficiency. Those with French or English as second languages face additional barriers to successful integration. Key informants noted that learning medical terminology and the culturally-specific ways in which this terminology is used in the Canadian health care system is often the most challenging aspect for IEHPs in communicating effectively.

IEHP STRATEGIES: KEY INFORMANTS

While efforts to establish consistent pan-Canadian standards for IEHP credential recognition have been in progress for a number of years, one key informant suggested that formalizing such an approach is becoming even more important in light of the Agreement on Internal Trade:

The effort has been underway for several years to come up with a pan-Canadian approach. Particularly now that the Agreement on Internal Trade has, I hesitate to say standardized, but certainly in some ways simplified labour mobility, having a pan-Canadian system for determining the validity of foreign credentials is extremely important, and will be extremely useful.

Various strategies relating to bridging programs were also reflected in the key informant interviews, with many informants highlighting the need to develop efficient and affordable means of enabling IEHPs to practice in Canada. Key informants noted the value of bridging programs that include clinical placement opportunities, and language and cultural training where required. Recognizing the financial difficulties many IEHPs experience, key informants felt strongly that programs should be designed in such a way to enable the participation of IEHPs who are working to make ends meet, and to ensure accessibility through the provision of financial supports:

Bridging programs, when they are available, are very expensive for internationally educated health care professionals to complete. Also, it takes a long time and because these people often have taken menial jobs to earn money, it’s difficult for them to get time away from those jobs in order to do their studies. It’s a bit of a vicious circle for them.

It was also suggested that bridging programs should be tailored to the needs of the individual, allowing for specialized plans to meet gaps in knowledge and experience, rather than requiring IEHPs to take a complete program regardless of skill level:

We need to do a better job of assessing IEHPs and training their gaps rather than sometimes forcing them to take a complete bridging program. We have both models in place, and I’m not sure which one works better, but I’m a fan of assessing the gaps and just training to those gaps.
There was also recognition that more could be done to prepare health professionals before they immigrate to Canada, through distance offerings and off-shore preparatory programs:

When you think of how a lot of the MBA programs are delivered, it’s all done remotely. We don’t have anything comparable to that to bring internationally trained technologists up to speed. If we had programs like that, some of these people could probably even qualify before they left their home country.

The health authorities in each province should pool their energies and put together a preparatory program in a country of origin, because once people get over here, they’re just struggling to pay the bills. The health authorities, post-secondary institutions, the ministries of advanced education and the ministry of health, and Immigration Canada should all have a role in this. It needs to be coordinated.

Bridging programs can be expensive to establish and in some of the smaller health professions and provinces, the numbers of IEHPs simply are not there to support a bridging process. It was suggested that national coordination could help to alleviate some of this difficulty:

One of the things that has been identified by community colleges and professional bodies is that if we’ve got five people who want to take a bridging program in a particular year, the expense and demand of creating a valid bridging program is prohibitive for some organizations to create. So there is an opportunity for some national cooperation to create these programs.

There were a few comments made by key informants around the importance of integrating language proficiency into bridging programs and of providing more social supports to IEHPs:

The other key component that the bridging programs have identified as the precursors to success is language fluency. So often there’s a considerable amount of time spent on language in bridging programs.

Mentorship programs would be something that we could provide perhaps for the internationally trained as a form of support to help them through the process.

6. Allied Health Program Delivery

Given health human resource shortages across the country, post-secondary institutions are under pressure to increase enrolments. However, meeting the growing demand for allied health professionals depends on institutions having the resources and capacity to provide a quality education to larger numbers of students.

Asked to identify factors, both internal and external, that affect the capacity of educational institutions to deliver allied health programs, key informants provided insight into a number of critical areas. Of these, clinical placements clearly emerged integration programs (Table 12).

Of the 87 online survey respondents who provided input into the priority action to address issues related to IEHPs, more than one-third (n=31) emphasized standardizing or streamlining the assessment process. Half as many (n=15) identified bridging programs, followed by programs to assist IEHPs to integrate into the labour market (n=9). Changes to assessment processes were considered to be the responsibility of professional associations and regulators, with assistance from the federal and provincial governments. Provincial ministries of health were seen as the stakeholder group mainly responsible for bridging programs, with involvement from the colleges, ministries and other stakeholders. All stakeholder groups were considered to have a role in supporting labour market integration.

IEHP Strategies: Online Survey Respondents

In the online survey, only 7.5% of all respondents selected IEHPs as a key area of focus, including similar proportions of non-practitioners (8.0%) and practitioners (7.4%). For these respondents, the top-rated strategy was the standardization of foreign credential assessment, viewed as important by almost nine out of 10 respondents (Figure 26). Among non-practitioners, improving pre-immigration information was identified as the most important strategy, followed closely by increasing funding for bridging programs and improving labour market
as the primary concern. Issues around funding, faculty, physical space, adjusting to regulatory changes, and educating students to work in interprofessional teams were also discussed.

Clinical Placements

The most frequently-cited factor affecting institutional capacity to deliver allied health programs was the availability of clinical placements. Key informants from all provinces and professions cited difficulty finding an adequate number of placement sites, with many stating that this was limiting the ability of institutions to expand education programs or was preventing educational institutions from filling available seats:

"You may be able to say, we’ve got an auditorium here and we can fill it with 100 people, but we only have clinical sites for 30. That’s where the limitation is – you can only take in as many students as you have clinical placements.

Competition for clinical placements is huge.

Probably the biggest barrier is the lack of clinical placements for these students. The class size is often limited by the number of clinical opportunities for students.

While there are a number of causes of the shortage of clinical placements, key informants noted that a contributing factor is employer reluctance to take on students. Too often, employers fail to see that providing a clinical placement is an opportunity to assess students as potential future employees.

Instead, providing a placement experience is perceived as decreasing productivity. Given budgetary cutbacks, higher workloads, and the lack of financial support for employers to provide clinical placements, employers see little incentive to accept more students:

"It’s very difficult to get clinical placements. Most employers are not willing to have one of their employees train someone outside of their lab because it’s a drain on their financial resources.

As budgets have gotten tighter and tighter, fewer and fewer organizations are willing to provide clinical placements. There’s no compensation by the ministry or by the colleges to the hospitals or community labs for providing these clinical placements, so organizations just have to hope that these people will come back and practice there.

The shortage of clinical placement sites not only affects the number of program seats educational institutions are able to offer, but also the ability of
students to complete their program if they need to take a semester off or repeat a course:

The way the school is structured, we don’t have over-capacity. If you’re not successful, if you miss one course and you have to come back, we can’t say well, we have 20 seats, we’re just going to make it 21 or 22. Whereas we might be able to accommodate it on campus, we can’t in the clinical.

Finally, another critical issue related to clinical placement sites is the need for preceptor training to ensure that students are receiving a quality clinical experience:

Some students don’t feel that they’re getting quite enough feedback from the preceptors. Some of the preceptors are not necessarily as well trained as teachers as they could be.

Right now we’re having trouble finding the number of placements, trying to find qualified and appropriate supervisory folks who understand the curriculum and understand what we’re trying to do. It’s a huge problem.

Funding

Government funding was highlighted by a number of key informants as an important factor affecting the capacity of post-secondary institutions to deliver allied health programs. The delivery of allied health programs is costly, with many programs requiring expensive equipment and dedicated space. Key informants felt that government actions to expand the intake of allied health programs need to be matched with a concomitant increase in government funding:

Certainly the major issue that I hear about quite a lot is funding, in terms of capital funding for space and funding for bringing in new faculty.

First and foremost is funding. Our post-secondary education institutions have recently been hit with funding freezes and cuts. You can’t expand programs in that kind of a climate.

Given the realities of shrinking government grants, it’s been difficult to make sure that students have adequate equipment for training. I’ve heard of situations in which pieces of equipment have essentially been condemned. They’re so old and have been so over-used that they’re unsafe.

A few key informants felt that colleges, which offer the majority of allied health programs, are often overlooked or short-changed in provincial post-secondary budgets in comparison to universities:

Table 12 – IEHP Strategies, Practitioner vs. Non-Practitioner

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Practitioner (7.4%)</th>
<th>Non-Practitioner (8.0%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving pre-immigration information*</td>
<td>4.28 74</td>
<td>4.68 22</td>
</tr>
<tr>
<td>Increasing funding for institutions offering bridging programs</td>
<td>4.24 74</td>
<td>4.59 22</td>
</tr>
<tr>
<td>Improving labour market integration/employment programs for IEHPs</td>
<td>4.24 75</td>
<td>4.48 23</td>
</tr>
<tr>
<td>Improving English language proficiency assessment process</td>
<td>4.18 78</td>
<td>4.39 23</td>
</tr>
<tr>
<td>Standardizing assessment of foreign credentials/curriculum/transcripts</td>
<td>4.49 78</td>
<td>4.36 22</td>
</tr>
<tr>
<td>Improving initial career assessment process</td>
<td>4.19 75</td>
<td>4.32 22</td>
</tr>
<tr>
<td>Developing IEHP student support programs</td>
<td>4.21 77</td>
<td>4.27 22</td>
</tr>
<tr>
<td>Making bridging programs available in more locations</td>
<td>4.17 77</td>
<td>4.26 22</td>
</tr>
<tr>
<td>Providing preceptor PD/training about IEHPs</td>
<td>3.96 78</td>
<td>4.20 20</td>
</tr>
<tr>
<td>Increasing flexibility of bridging programs</td>
<td>4.16 75</td>
<td>4.19 21</td>
</tr>
<tr>
<td>Improving IEHP orientation programs</td>
<td>4.14 77</td>
<td>4.19 21</td>
</tr>
<tr>
<td>Providing faculty PD/training about IEHPs</td>
<td>3.86 76</td>
<td>4.14 21</td>
</tr>
<tr>
<td>Providing financial support programs for IEHPs</td>
<td>3.97 77</td>
<td>4.05 20</td>
</tr>
</tbody>
</table>
The problem is that we’re all competing for a flat number of dollars that isn’t increasing. Funding coming to community colleges is not being increased to meet our changing needs as it is to some other institutions, such as universities. We’re making a request for infrastructure dollars, but not getting them.

There’s a disconnect between the community colleges and the universities in regards to public respect or acknowledgement or understanding of what goes on, and the funding that is attributed.

Faculty
One internal challenge facing post-secondary institutions is recruiting experienced, qualified faculty. As the academic credentials required to practice in many professions increase, finding experienced clinicians with the appropriate academic background becomes a challenge. Key informants reported that an inability to offer a competitive wage is also making it difficult to attract practitioners to teach in post-secondary institutions:

Recruiting experienced faculty at the pay scales that educational institutions offer can be very challenging. They may be making a lot more in their health care institution because they’re working overtime and taking extra shifts. So their annual salary if they come to an educational institution is probably lower than what they are making, particularly as they start in a college system.

The hope is that you pull one instructor out of the workforce, and they’re going to train 20 people per year to replace them. But there is competition for instructors.

As these comments highlight, allied health professionals can often earn a higher salary working in their field than working as a program instructor, and many prefer to remain practicing professionals. Additionally, there is recognition that attracting instructors requires removing professionals from the clinical workforce, which can be particularly difficult in professions with worker shortages and in specialized sub-areas. Informants also emphasized the importance of attracting the right people for the job, that is, attracting individuals who are both passionate about teaching and highly experienced in their field:

Ideally, the instructors we want to attract are the best of the best technologists, and then we train them to be instructors here. We’re doing our part to engage with them more and identify potential good teachers out there, and really try to recruit them, but it would be nice if they wanted to come to us a little more readily.

Finding expertise is a struggle. You need a group of experts to build a curriculum, provide advice and direction on how to set up a program, and you need to recruit good faculty to teach the courses.

Physical Space
Key informants reported that space is at a premium on many post-secondary campuses, posing a challenge to increasing student intake into allied health programs:

Space presents an issue, particularly when we expanded enrolments. We had to actually lease buildings out for some institutions because we just didn’t have the space.

Space issues for us are big right now. We have limited space, and trying to accommodate the lab requirements, the computer lab requirements, the X-ray lab requirements, and classrooms is difficult for us from a capacity perspective.

There are physical restrictions on how many students we can actually hold in a program. We need greater space and more training areas.

Reinforcing the importance of physical space, one key informant talked about the positive difference a new, dedicated building can make for delivering health programs:

Thinking about institutional capacity, one of the nice things about this new building is it’s helped us to launch programs that we otherwise could not have launched. [The college] has grown very fast over the last number of years, particularly within our health and wellness portfolio, so space has been difficult. Up until this building, we’ve been managing
but not doing things the way we’d like to do them. Having a new building and having that opportunity to design things the way we want to has been really helpful.

Workforce Needs and Regulatory Changes

A fifth theme that emerged from key informant interviews was the impact of regulatory changes and workforce needs on the ability of post-secondary institutions to deliver allied health programs:

It takes a long time for the certification bodies to make change, and it can take a long time for the community colleges and the educators to modify the programs to basically come into the 21st century.

We’re seeing a number of the national associations setting competency profiles that a lot of our allied health educational programs can’t meet. To meet them would mean significantly lengthening the program, hence credential creep. So it’s creating a lot of anxiety. It creates issues in terms of how we’re going to sustain so many different education programs and so many different occupations.

As workforce needs shift and competency profiles alter, educational institutions must meet these changes quickly and efficiently. Adding program seats, developing new programs, or changing curriculum require time and resources. In addition, the move to define career pathways within allied health professions poses a challenge to educational institutions, which must provide the corresponding education pathway. As a key informant noted, this raises the issue of how post-secondary institutions will sustain a number of different education programs.

Interprofessional Education

Finally, a few key informants talked about the importance of educational institutions responding to the growing emphasis on interprofessional collaborative practice in health care delivery by implementing interprofessional education (IPE). However, the location of various programs across a campus or multiple campuses and strict program requirements pose a challenge to IPE initiatives at some institutions:

The difficulty we’ve had up to this point is that the location of the different health programs on various campuses currently makes it difficult to truly embrace an interprofessional care model.

To implement interprofessional education, we need to figure out how people can work across the silos.

It is clear that providing interprofessional education to students will require creative thinking about ways of teaching and promoting collaborative practice.

PROGRAM DELIVERY STRATEGIES: KEY INFORMANTS

A number of actions were suggested by key informants to support post-secondary institutions in the delivery of allied health programs. Strategies included increasing supports for clinical placements, enhancing funding for allied health programs, and providing monetary incentives to recruit and retain faculty. Ways to increase the interprofessional nature of education programs were also discussed.

Increase Supports for Clinical Placements

Key informants felt strongly that more financial assistance is needed to support clinical placement opportunities, and believed that provincial government ministries have a central role to play:

We need to have focused funding for clinical education. There is a gap in how clinical education is funded and supported between the two ministries. So the ministries of health and the ministries that support colleges really need to work together on supporting the clinical education piece. We’re having huge challenges with that provincially right now.

The Department of Health needs to have a hand in supporting clinical placements. If they are unable to put in resources – either to give a stipend to preceptors or to make space for these students – it bottlenecks the process and severely limits the number of students who can be trained.

Beyond simply increasing funding for clinical education, key informants urged provincial ministries to work together to address clinical education needs. A central area requiring attention is the recruitment
and training of preceptors. Key informants highlighted the need to explore focused strategies, including dedicated positions for preceptors and financial incentives, as well as to change attitudes so that administrators recognize the necessity of providing clinical placement opportunities:

Preceptors need to be paid, and the reality is that years ago they were paid. The educational partners had the money to pay for clinical instructors to train students. Now the expectation is that your frontline staff will do that.

Many managers are saying “I can’t afford to offer this training,” so they are not opening up placements for these students. However, it is in the best interests of employers, for sustainability of our human resources, to create these training opportunities.

A number of key informants also noted that the difficulties facing clinical education will require creative solutions, and through the interviews a few examples of innovative strategies emerged:

Provincial coordination is an important piece. We are posting a provincial coordinator position and that person will help to coordinate all of the clinical placements in the province. A provincial coordinator for the bigger placement issues is really important.

We work with the site managers and preceptors to develop creative rotations, to optimize the clinical capacity. We’ve also worked towards what might be deemed less ideal, where a student doesn’t go to one site but to multiple sites in order to get their full exposure and experience. So we’ve tried to work creatively to increase capacity.

The use of simulation as a strategy for coping with clinical placement shortages was also discussed, with key informants highlighting the complexity of moving towards increased use of simulation, and the many conflicting views on the strengths and drawbacks of this approach:

The other really important strategy is to support innovation in simulation. There are opportunities in simulation that could help us to reduce the amount of clinical education needed, which would enable us to educate more students and ultimately have more allied health workers out in the workforce.

[Institution] has taken to having a simulated environment because they can’t get clinical placements, but there hasn’t been any extensive research done to determine whether this simulated environment will produce an MLT at the same calibre as somebody who goes to work in a clinic. The pressures are completely different in a live environment than they are in a simulated one.

Increase Funding for Allied Health Programs

As previously noted, key informants identified funding as a key factor affecting the capacity of educational institutions to deliver allied health programs, and called for increased provincial funding for allied health programs. Interview participants also emphasized the fundamental importance of strategic, long-term planning about how education is to be funded:

As a nation, we need to be more strategic in our long-term planning and our funding initiatives. Generally, funding is year to year, and it makes it very difficult and challenging to plan and to implement strategies that are longer term. This is a huge, huge problem.

Recruit, Retain and Support Faculty

Although interview participants raised few issues related to post-secondary faculty, one key informant pointed to market stipends as a potential strategy to assist with faculty recruitment:

We have a process in place where we have a market stipend to help compete for qualified individuals who are typically better remunerated within the health region than in the educational institution.

Interprofessional Education

Several key informants reported that their institutions were already taking steps to increase the interprofessional content of allied health programs. This included establishing courses in common subject areas for students from a variety of health disciplines, and creating a virtual community for students in different disciplines to explore the same cases through the lens of various health professionals:
The other thing we’re looking to do academically, and I think it’s going to take a few years, is to make the courses less siloed. Wouldn’t it be nice if students from health programs could take, for example, a common anatomy and physiology, so you have more opportunity for doing interprofessional care within the classroom. You would have more communication, more understanding of the professions and their scope, and how they could collaborate in providing care to patients in a clinical setting.

We have a very active interprofessional education initiative going on in the school. We have faculty do guest presentations in other programs, and we run a day where students from various programs coordinate to work on case studies together. We also have an interesting online community where students have access to similar cases, but through different lenses. With those we have blogs written by different health professionals and different case notes and things, so they get a greater appreciation for the other role, and of the role overlap.
PROGRAM DELIVERY STRATEGIES: ONLINE SURVEY RESPONDENTS

The 10 focus areas presented in the online survey included two that relate directly to program delivery: educational capacity, and interprofessional education and clinical placements. Respondents who selected these focus areas were asked to rate the importance of various strategies that could be undertaken to address the issues. They were also given an opportunity to identify the single most important action that should be implemented, and asked to indicate who should be responsible for that action.

Educational Infrastructure, Capacity, and Resources

Selected by 37.6% of respondents overall, educational capacity was the third most frequently identified area of focus in the online survey, and was much more likely to be selected by non-practitioners (45.7%) than practitioners (35.3%). Among those who selected this area, increasing funding for allied health programs was the top-rated strategy, with nine out of 10 respondents describing this as important or very important (Figure 27). This was followed by recruiting and retaining qualified faculty, and improving supports for faculty. About seven out of 10 respondents viewed increasing the use of simulation as important – a strategy for dealing with the shortage of clinical placement sites that requires infrastructure investments in labs and equipment. Some differences were noted between practitioners and non-practitioners with regard to the importance they ascribed to specific strategies (Table 13). Faculty retention and credential qualifications were rated higher by practitioners, while IEHP bridging programs...
and targeted programs for Aboriginal learners were rated higher by non-practitioners.

Of the 370 online survey respondents who recommended a single priority action to address educational capacity issues, about one-quarter identified increasing funding (n=86). A strategy closely linked to funding – increasing the number of seats – was mentioned by another 42 respondents. This was followed by strategies to address the availability and quality of clinical placements (n=46) or develop clinical simulations (n=21). Another 32 respondents recommended actions to improve faculty recruitment (n=14), retention (n=11) or supports (n=7). Increasing funding and increasing student intake was strongly acknowledged as a provincial responsibility – typically ministries of higher education but also ministries of health. Leadership to address clinical education was seen as a responsibility of provincial ministries of health, but ministries of higher education were considered to have an important role in clinical simulations. Respondents felt that addressing faculty concerns was primarily a college responsibility, but many recommended the involvement of other stakeholder groups in dealing with faculty recruitment and retention.

**IPE and Clinical Placements**

Overall, IPE and clinical education was selected by more than one-quarter of respondents (27.7%), but was almost twice as likely to be identified by non-practitioners (42.9%) as practitioners (23.5%). Respondents were asked to rate the importance of six strategies, three related to clinical placements, two specific to IPE, and one that addressed both clinical placements and IPE. Enhancing preceptor training was the top-rated strategy, considered important or very important by about nine out of 10 respondents (Figure 28). The remaining five strategies were also rated high in importance, particularly expanding numbers of placements, assessing and evaluating placements, and enhancing IPE curriculum, and developing IPE placements. Despite the greater proportion of non-practitioners who selected this focus, no significant differences were observed between practitioners and non-practitioners in the importance of specific strategies (Table 14).

The almost 300 respondents who offered comments identified increasing the number or quality of clinical placements as the highest priority action (n=74), and viewed this as the responsibility of provincial ministries of health. Overall, roughly half of respondents mentioned strategies related to clinical placements, with many citing the need to provide more support for preceptors, either through enhanced training, dedicated time for preceptorship, or monetary compensation. About one-third of respondents mentioned strategies related to supporting IPE, including integrating IPE into allied health curriculum (n=35), raising awareness of IPE within the professions (n=22), providing students with IPE placements (n=12), and enhancing IPE in clinical sites (n=11). Responsibility for IPE was seen as a shared responsibility across all stakeholder groups.

**7. Workplace Issues**

To ensure a sustainable supply of allied health professionals, it is important to not only attract individuals to the field, but to retain professionals once they have entered the workforce. This section explores issues related to job satisfaction and continuing education among allied health professionals.

**JOB SATISFACTION**

To delve deeper into these issues, key informants were asked to identify factors that contribute to job satisfaction or dissatisfaction among allied health professionals. The most frequently cited factors were working conditions, remuneration, career pathways, and employment opportunities.

**Working Conditions**

Roughly two-thirds of key informants identified working conditions or workplace environment as a key factor impacting allied health job satisfaction. As these key informants noted, working conditions involve a number of issues, from workplace culture and respect, to management style:

* A lot of it is the workplace environment, and that is so broad in terms of the quality of the work environment, how they’re treated, and the values and the culture in the institution. There are a lot of factors that come into play.

* Number one is quality of their workplace. That sums up a whole lot of things, including feeling...
respected, safe, being given responsibility, and receiving adequate pay. Not necessarily stellar pay though, pay is not number one and there’s a lot of research on this. Good leadership is also a big part of it – having a good boss. Having full-time permanent employment is always important as well.

Key informants identified supportive management styles, including greater flexibility and job-decision latitude, as central to a positive work environment and increased job satisfaction:

Job decision latitude is something so critically important in the sociology of work literature, and all of the literature on health workers, and we pay so little attention to it. We really as managers seem to do everything to kind of undermine job decision latitude.

These are really, really intelligent people who have a contribution to make, who are sometimes pegged with inflexible working arrangements and lack of autonomy. And I think that creates a bit of a mismatch.

Times have changed and employers need to be more receptive to workers’ demands in the sense of flexibility of hours and things like that. When I first got into the field, you worked when your boss told you to work. Now if you want to be an employer of choice, you need to have flexibility in hours and give a little more personal freedom to the employee.

As these comments reveal, key informants saw a direct link between allied health professionals’ job satisfaction and a degree of flexibility and control over their working arrangements. A number of informants warned that addressing working conditions, including work-life balance, will only become more important as the next generation enters the workforce:

Human resource people need to change the way that they’re managing people. The young ones coming up, the Gen Xers, they want different things and have different tolerance limits than the older generation. Since there’s a shortage, employers are going to have to start catering to what it is that they want. They want things like career mobility, flex time, and to have an opportunity to continue to learn. They value work/family balance. Organizations are going to have to start recognizing these realities if they want to keep people.

We’ve found that as a result of tax cuts and that kind of thing, reduced government revenues means that the workload per staff member has gone up. It’s seen as productivity gains in one sense, but it’s also increasingly eroding the health and satisfaction of workers.

Workloads seem to be constantly increasing as people are being told we need to do more with less, work smarter, not harder. Well, they’re all working harder. Quite frankly, we are losing people to frustration and disability from workloads.

Finally, the level of support and supervision within a workplace was also identified as having an impact on allied health professionals’ satisfaction with their working conditions:

People really like to work in a place where they have good collegial support. Staff don’t like working in isolated positions where they don’t have anyone to consult with and share with.

For some, there are issues around management spans of control. Sometimes they don’t see their boss or there are too few bosses for the number of people. Although that sounds like a good thing, it’s really not. Especially for the young ones coming in. That is a critical point in learning their occupation and it’s hard to retain them if they’re not receiving support.
As highlighted above, the level and nature of support and supervision in the workplace is a particular issue for graduates entering the field, who often need additional guidance and direction to feel secure in their new role.

**Respect and Value**

According to many key informants, job satisfaction also hinges on feeling respected and valued in the workplace. As reported earlier in Chapter 4, this finding was echoed in the online survey, which found strong support for public education about the value of allied health professions. Unfortunately, key informants felt that lack of respect and appreciation is currently a large source of dissatisfaction for many allied health professionals:

*Respect is very important, not just respect as an individual, but also as a profession. As people watch their profession almost disintegrate with all of the de-listing that's happened around optometry and chiropractic and physiotherapy, they start wondering if what they're doing is of any value because the public system doesn't seem to think so.*

*A lack of appreciation or respect on the worksite contributes to dissatisfaction. Everything is so high-paced in health, and nobody has the time to thank anybody for a job well done. Sometimes it’s just disheartening.*

Key informants noted that perceptions of respect and value are often tied to the ability to perform their job in the way they were trained, or to work to full scope, and to feel that they are able to make a difference in patients’ lives:

*There is an emphasis on increased efficiency related to patient flow within health care organizations, and there is a general feeling within the allied groups that they are having to change the art of work. So they’re not able to meet the needs of patients as they were before, and don’t feel they have that connection anymore.*

*In the community care sector, occupational therapists who work for home care have been severely limited in terms of what their scope of practice is allowed to be. So whereas they might have been able to actually feel like they were helping people in the past, now they feel they’re just providing information and getting out, and not really being given the opportunity to provide the services that they feel that their clients need.*

For many allied health professionals, and for occupational therapists and physiotherapists in particular, job satisfaction and the feeling of being valued can also come from patients, and from seeing patients progress. However, there is a concern that funding cutbacks and an increased emphasis on efficiencies are limiting the ability of allied health professionals to perform their jobs in a way that allows them to feel they are having a positive impact.

**Career Opportunities and Pathways**

In addition to general working conditions and feelings of being valued, career opportunities and pathways emerged as a central factor influencing job satisfaction among allied health professionals. Key informants observed that allied health professions often offer few opportunities for advancement. This can be a source of dissatisfaction for those who would like to see a career where they can progress and build on their education and knowledge:

*There are issues with career opportunities. There are not a lot of opportunities for the allied health workforce in a big organization to advance their careers and move into leadership and management roles.*

*Career dissatisfaction is mostly around a lack of opportunity for progression. To progress in their career they have to stop and go back to square one and take additional education, so that’s a big part of the dissatisfaction.*

It was noted that the desire for career pathways is not the case for all health professionals, as some are content to remain in a position throughout their career. However, there is a sense that increased educational entry-to-practice requirements are being accompanied by greater expectations for career progression. The lack of educational pathways for career advancement is also a key issue. For health professionals to progress in their field they often need to return to school, receiving little to no credit for their experience and previous education. For example, if an occupational therapy assistant wishes to become an occupational therapist, they must earn a bachelors degree and then apply for a Master’s program. In most cases this would involve six years of additional full-time education, which is a major barrier to individuals. In other fields, such as medical...
laboratory science, some key informants remarked that education pathways can be confusing and difficult to navigate.

**Remuneration**

While roughly half of key informants mentioned remuneration as a factor affecting job satisfaction, opinions varied on the significance of wage levels:

*First I put down salary. So what are the factors that contribute to career satisfaction? If you’re getting paid well, you’re happy.*

*We know from the research that it’s not about money. Money has to be adequate and appropriate, and the more the better, of course, but people rarely leave a really good workplace because they’re not making quite enough money. But they will leave a workplace where they’re paid huge amounts of money, but it’s just an uncivil place to be.*

*It’s one thing to be underpaid, but it’s another thing to be underpaid and under-appreciated. You can probably deal with either one of those, but if you’re underpaid and under-valued, those are probably the two worst things.*

A number of key informants noted that remuneration as a source of job satisfaction or dissatisfaction is largely dependent on whether the pay is perceived as “fair”. This can be in relation to the amount and complexity of the work the individual is performing, the time and resources invested in their education, pay scales of other professions, or pay scales for the same profession in other jurisdictions:

*If you feel like you’re not being fairly compensated according to your peers, it can irk you. A professional makes a tremendous investment in time, energy, tuition, and loss of earnings while they’re going to school. Our members are smart, and they can look up wage packages on the Internet and the collective agreements for other allied health professionals across the country. So the comparisons of compensation can add to or take away from somebody’s satisfaction in the job.*

*They do not get as paid as well as nurses, which is a sore spot for them, and would fall under dissatisfaction. But they do get paid pretty well.*

**Employment Opportunities**

In an effort to reduce labour costs, non-standard employment, such as part-time and casual work, are increasingly being used in health care settings. A number of key informants felt that the decrease in full-time employment opportunities is leading to dissatisfaction among allied health professionals:

*There has been a lot of overtime, and few permanent jobs. There have been a lot of casual and part-time kinds of work for people, but when you’ve been in school and you’re paying off debts you want some security and you want steady hours.*

*One of the other big sources of dissatisfaction with allied health workers is the casualization of the workplace. So many new employees come on in a casual capacity, even though they work full-time, and the job satisfaction isn’t as high because they don’t have the job security. It also creates difficulties for them in scheduling and planning and all of those sorts of things.*

**CONTINUING EDUCATION**

While key informants were not asked to speak specifically about continuing education, the issue was discussed in relation to a number of broader issues, including mandatory requirements for maintaining professional designations, a source of general job satisfaction, and in relation to career development and pathways:

*The allied health workforce is continually crying out for continuing education, and never feels it has enough of it.*

*Increased regulatory demands and credential creep are challenging as the professions have become self-regulating and the continuing education requirements have become more formalized. And when people are later in their careers and might be shifting to more part-time or casual work, our members are saying that if they have to do the same amount of education and yet their compensation is less than half, they may not be prepared to do that.*

*For career satisfaction, continuing education that allows professionals to improve their work and can possibly lead to career laddering contributes to career satisfaction.*
In addition, the importance of continuing education was highlighted for its contribution to keeping allied health professionals current in their fields:

*Technology is changing daily, policies are changing daily, the world is changing, and we have to keep up.*

Professional roles are very demanding, and they change every two, three, or four years in response to changing technologies. What they learn today is valid but not necessarily something that will still be the same in five or 10 years. So it is imperative that we talk about training and lifelong learning.

Continuing education for allied health professionals is vital to ensuring that professionals stay current in their field, and that patients receive safe, quality care.

**WORKPLACE STRATEGIES:**

**KEY INFORMANTS**

Key informants proposed a number of strategies that could be implemented to improve the job satisfaction of allied health professionals, including increasing the profile of the allied health professions, improving health human resource planning mechanisms, developing career pathways, supporting continuing education, and increasing flexibility and autonomy.

**Increase the profile of the allied health professions**

Several key informants reported that public education to raise awareness of the value of allied health professions is needed as much for job satisfaction as for recruitment. Raising the profile of the allied health professions and highlighting their contributions to the health care system can help to create a culture in which allied health professionals feel respected and valued by both the public and by their fellow health professionals:

*We need to take the focus off one or two professions, otherwise known as nursing and physicians, and put the focus on the team.*

*We need recognition of the professions and their contribution to health care, and they should be included in planning, decision-making and changes.*

Key informants also talked about the need to improve understanding of the importance of allied health professions among government officials and policy makers. Since government officials and policy makers ultimately decide on funding, ensuring that people in positions of power are aware of the vital role played by allied health professionals in the health care system is critical to generating more funding for allied health positions, and promoting positive policies and practices. This could help to improve job satisfaction, not only through recognition and respect for the professions, but also by addressing workload issues and the availability of full-time positions.

A few key informants discussed strategies that are currently being implemented to increase the profile of the allied health sector and to demonstrate to professionals that they are valued:

*We are just in the process of starting a re-branding effort, a lot of which is aimed at addressing other health professionals and the public image of our profession. It can help to make people feel proud about what they’re doing, and help them begin to see that others are perceiving them as contributing to care.*

*We have a communication strategy to improve awareness of six particular professions. We’ve been told by the professional associations that a study like this is a really positive reinforcement to the professions, and they feel really good about it, and we’re hoping that it will contribute towards retention.*

**Develop Career/Educational Pathways**

Approximately half of key informants talked about the need to create career and educational pathways, and open up opportunities for advancement in the allied health professions in order to increase job satisfaction and improve employee retention:

*We probably need a general Bachelor of Science degree for some of the technical or diploma-level training that is structured in such a way that it would augment their career. It might permit them to move into a leadership role, for example. So it would be an interprofessional undergraduate degree that would be a feeder for a number of different diploma programs, and we need to be very creative about how we would design those things.*
One retention technique we’ve implemented is establishing new roles for respiratory therapists. It’s a bit of a career laddering opportunity and compensation increase and it gives respiratory therapists the opportunity, with some education, to go on and do a slightly different and more advanced role.

In developing career pathways with corresponding educational training steps, cautions were raised that this process needs to be based on solid evidence about the appropriate scope of practice and needed level of education for all positions:

“We’ve seen a lot of credential creep in allied health and in health care in general. It’s time to look at what the required skills that people need in order to do their jobs are, and then consider what that means from an educational perspective. That needs to involve regulatory bodies and accrediting bodies.”

A couple of key informants pointed to a potential model for MLS career/educational pathways in Ontario, outlined in a 2010 report titled Creating Sustainability for Laboratory Human Resources: A Proposed Education/Career Path Model for Ontario Medical Laboratory Professionals.

Support for Continuing Education

Key informants felt that improving the accessibility of continuing education – through enhanced support, funding, and mode of delivery – could contribute significantly to workforce sustainability:

The most effective strategy is stimulating people by giving them access to continuing education and rewarding them, not necessarily financially but with work challenges, to keep them moving forward.

The whole piece around continuing education and competency is another area to tap into. We don’t do a great job of assessing the landscape to determine what the needs are in terms of education. If we were able to support individuals more readily and routinely, I think we would definitely see people stay in the professions a little bit longer.

They want educational opportunities that will permit them to remain employed. They want flexible, they want online, they want some of the clinical components to be applied in their workplace. They’re looking for some creative approaches that will mean they won’t have to quit work and go back to school.

WORKPLACE STRATEGIES: ONLINE SURVEY RESPONDENTS

Job satisfaction and continuing education are critical to ensure the sustainability of a skilled allied health workforce. Reflecting this importance, online survey respondents overwhelmingly selected these as the first and second areas to be addressed. Job satisfaction was identified by 59.9% of all respondents, while continuing education was identified by 53.4% of respondents.

Job Satisfaction

Job satisfaction was a significantly greater concern among practitioners (64.5%) than non-practitioners (43.3%). The online survey respondents who selected job satisfaction as an area of focus were unequivocal in their views about the importance of salaries and benefit. They strongly endorsed appropriate wage packages as a high priority for action, followed closely by addressing workload issues (Figure 29). Job-related stress and burnout was the next most commonly cited priority, because of its strong negative impact on allied health professionals’ perceptions of their workplace. In addition, many respondents highlighted the importance of respectful work environments in improving workplace quality. The overlap between job satisfaction and continuing education was shown by the more than 90% of these respondents who rated enhancing professional growth, and providing opportunities for career advancement as important to allied health workplace issues. The only significant difference between practitioners and non-practitioners in the importance ascribed to specific strategies was with regard to workplace mentoring, which was rated higher by non-practitioners. Similar to key informants, non-practitioners viewed respect in the workplace, workload and job stress as equally – if not more – important than salaries and benefits.

Among the 626 respondents who offered recommendations about the single strategy needed to address job satisfaction issues, the most frequent was dealing with workload issues to reduce employee stress and burnout (n=170). This was followed by strategies related to salaries (n=107), described by one respondent as “economic respect.
I want to open my pay stub and see how much my employer values my skills and experience.” Of the respondents who flagged salaries and benefits as a priority, one-quarter explicitly mentioned wage parity with other professions (particularly nursing) and between provinces. Respect in the workplace was important to 77 respondents, who urged employers to acknowledge the professional skills of allied health care providers. For 50 respondents, opportunities for career advancement were critical to provide “access to challenging and rewarding positions”. Similar numbers of respondents identified enhancing professional growth opportunities (n=36) and creating more full-time jobs (n=36).

Respondents looked to both provincial ministries of health and health sector employers for action on workload. While they saw salaries as a provincial area of responsibility, they expected employers to take the lead on creating respectful workplace environments, providing staff with clear career path progression, dealing with stress and burnout, and ensuring access to professional growth. Full-time employment was acknowledged as a shared responsibility of provincial health ministries and health sector employers.

### Continuing Education

Like job satisfaction, continuing education was a greater concern for practitioners (54.9%) than non-practitioners (47.9%). However, it should be noted that non-practitioners ranked this area first among the 10 focus areas. Respondents who selected continuing education were asked to prioritize various topics and issues to be addressed. There was strong interest in continuing education on the impact of

---

### Figure 29 – Job Satisfaction Strategies (n=911)

![Bar chart showing job satisfaction strategies](chart.png)

### Table 15 – Job Satisfaction Strategies, Practitioner vs. Non-Practitioner

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Practitioner (64.5%)</th>
<th>Non-Practitioner (43.3%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensuring respectful work environments</td>
<td>4.57 697</td>
<td>4.67 124</td>
</tr>
<tr>
<td>Addressing workload issues</td>
<td>4.67 697</td>
<td>4.65 124</td>
</tr>
<tr>
<td>Dealing with job-related stress/burn-out</td>
<td>4.60 697</td>
<td>4.64 124</td>
</tr>
<tr>
<td>Ensuring appropriate salaries and benefits</td>
<td>4.72 697</td>
<td>4.62 124</td>
</tr>
<tr>
<td>Enhancing opportunities for career advancement</td>
<td>4.42 697</td>
<td>4.52 123</td>
</tr>
<tr>
<td>Enhancing professional growth opportunities</td>
<td>4.51 696</td>
<td>4.50 124</td>
</tr>
<tr>
<td>Ensuring safe physical work environments</td>
<td>4.35 697</td>
<td>4.33 124</td>
</tr>
<tr>
<td>Increasing opportunities for full-time employment</td>
<td>4.26 693</td>
<td>4.30 122</td>
</tr>
<tr>
<td>Developing workplace mentoring programs*</td>
<td>4.03 693</td>
<td>4.23 123</td>
</tr>
<tr>
<td>Facilitating interprovincial mobility</td>
<td>3.64 687</td>
<td>3.64 121</td>
</tr>
</tbody>
</table>

* Indicates a statistically significant difference, p<.05
technology in the workplace, followed by changes to scope of practice (Figure 30). Interprofessional collaboration and changing models of care were also identified as important topics for continuing education by at least 80% of all respondents. Significant differences were observed between practitioners and non-practitioners on the issues of culturally competent care and mental health, which were rated higher in importance by non-practitioners (Table 16).

In open-ended comments, 521 respondents provided insights into the single most-important actions related to continuing education for allied health professionals. For 83 respondents, access to continuing education opportunities was a priority, with several mentioning the barriers to access among rural professionals. Funding was a priority for 78 respondents, and another 50 emphasized the need for greater employer support for staff participation in continuing education. In terms of specific topics, dealing with technological advances was identified by 64 respondents, followed by changing scopes of practice (n=46) and IPE (n=37). A number of online respondents (n=45) stressed the importance of ensuring that continuing education is relevant to professionals’ learning needs and competence areas.

Ensuring access to continuing education opportunities was seen as a shared responsibility of employers and professional associations. While provincial ministries of health were viewed as accountable for funding, health sector employers were also expected to contribute financially, and to support employees to participate in continuing education as part of their professional obligations.

* Indicates a statistically significant difference, p<.05

### Table 16 – Continuing Education Strategies, Practitioner vs. Non-Practitioner

<table>
<thead>
<tr>
<th>Continuing Education Strategies</th>
<th>Practitioner (54.9%)</th>
<th>Non-Practitioner (47.9%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean  n</td>
<td>Mean  n</td>
</tr>
<tr>
<td>Adjusting to changing scopes of practice</td>
<td>4.48  584</td>
<td>4.54  138</td>
</tr>
<tr>
<td>Dealing with technological advances</td>
<td>4.61  585</td>
<td>4.52  138</td>
</tr>
<tr>
<td>Collaborating with other health professionals</td>
<td>4.39  584</td>
<td>4.38  138</td>
</tr>
<tr>
<td>Adjusting to changing models of care</td>
<td>4.25  579</td>
<td>4.29  138</td>
</tr>
<tr>
<td>Providing culturally competent care*</td>
<td>3.79  577</td>
<td>4.11  136</td>
</tr>
<tr>
<td>Responding to rural health needs</td>
<td>3.99  571</td>
<td>4.07  134</td>
</tr>
<tr>
<td>Responding to mental health needs*</td>
<td>3.84  570</td>
<td>4.06  135</td>
</tr>
<tr>
<td>Working with geriatric populations</td>
<td>3.92  570</td>
<td>4.05  138</td>
</tr>
<tr>
<td>Responding to changing rates of disease incidence</td>
<td>3.93  578</td>
<td>3.91  137</td>
</tr>
</tbody>
</table>
8. Labour Market Information

Chapter 3 of this research report describes supply of allied health professionals as the most pressing issue identified by key informants for allied health sustainability. While many pointed to current or future shortages in allied health professions, key informants also acknowledged the lack of data on these predicted shortages, and underscored the need to better understand allied health supply and demand:

The main thing is – and this has been attempted a couple of times in this province – the development of a health professional inventory system, some system of actually measuring exactly who is doing what and where.

Having accurate and reliable data is so important. I don’t know that we have the systems to provide us with accurate and reliable data, to be able to act on what the needs are.

The major information gap is population needs-based data, to find out just what in fact we need.

We have focused so much on supply, and we’ve not focused on population needs. We haven’t focused enough on creating data around the needs of the population, which should direct our supply.

Key informants emphasized that beyond data on supply, better ways of forecasting population health needs and building these in to planning models are needed to more accurately map the HHR landscape. In addition to the lack of data to project supply of allied health professionals, some key informants emphasized the contribution that labour market information (LMI) could make to efficient workforce utilization, and preparing for the labour market impact of changes in technology and scopes of practice:

We really misuse intellectual capital in the health care system. We don’t have a good HHR plan that really thinks about how we are using people.

Most of our regulatory structures are really outdated in terms of their ability to be able to utilize personnel in the best possible way. We’ve got plenty of work to go around, especially when we look at shortages, and if we could use the personnel we have in the health care system more intelligently then we could mitigate the shortages. There are some genuine opportunities around how we use personnel.

LMI STRATEGIES: KEY INFORMANTS

Throughout the key informant interviews, there was strong support for reliable, comprehensive data that can contribute to HHR planning:

If we were able to more readily access information about the average age of professionals, whether they’re female or male, whether there’s going to be a fair amount of maternity leaves or retirements, I think we could make better decisions as a system.

The first issue is the availability of consistent information, both in the province and nationally. Certainly CIHI is doing a good job at starting to gather baseline data, but generally speaking we don’t have great information on the roles and the functions of allied health care providers, particularly those who are not regulated. So from a planning perspective, it’s hard to know what it is that we need when we don’t even really know what the health human resources capacities are.

Key informants believed that LMI must go beyond simple numbers of health professionals to capturing information related to gender, location, workloads, and professional capacities. A number of key informants also emphasized the need to collect data on demand for health services, particularly at the community level:

The biggest gap that I see in information is really the core health needs of the population. What are the needs and how do they translate into human resource requirements? That is so fundamental.

From a needs-based planning perspective, we really need to get a handle on what the needs of the population are and how the allied health care provider group can meet those needs.
We still don’t know what the true need is in the communities, and that is a big gap.

Through comprehensive data collection, better understanding of the health care system can help inform long-term planning. Key informants felt strongly that the collection of data should involve a variety of stakeholder groups, including government ministries, the post-secondary education sector, health care employers, and professional and regulatory associations, so that these groups can collaboratively develop long-term strategies:

One organization or institution cannot resolve the shortage or make up for the demand that’s required. It has to be a collaboration of government, health professional associations, and the professionals themselves.

More intergovernmental cooperation is needed. We have a lot of competition amongst and between provinces. When there is a shortage in Newfoundland, decisions are made that then draw people from elsewhere. When there is a shortage in Alberta, bumping up compensation can suck people out of other parts of the country.

While recognizing that the complexity of forecasting health needs and human resource supply precludes ever completely matching supply and demand, improving HHR planning mechanisms can potentially have an impact on many areas related to the supply of allied health professionals. With a better understanding of labour needs, government and educational institutions could work to establish...
an adequate number of training seats; potential students could have a clearer understanding of the employment opportunities in allied health fields; and workload issues could be better addressed, improving job satisfaction.

**LMI STRATEGIES: ONLINE SURVEY RESPONDENTS**

The 14.1% of respondents who selected allied health labour market information as a focus area included a slightly greater proportion of non-practitioners (15.3%) than practitioners (13.5%). When presented with various types of data that could be collected through labour market tools, respondents were strongly in favour of collecting information on job satisfaction and dissatisfaction by profession, as well as by workplace setting (Figure 31). They also rated information on retirement rates, hirings, and career change as high in importance. There were no significant differences between practitioners and non-practitioners in the importance they ascribed to specific labour market data (Table 17).

Insights into LMI priorities were offered in the 137 respondent comments on the single action needed. Information on the job market through numbers of employment opportunities available (n=20) and occupational forecasting (n=16) were identified the most important pieces of LMI. Similar numbers of respondents mentioned salaries and wage comparisons between professions (n=19) and job satisfaction (n=18).

While many respondents looked to the provincial ministries of health for leadership on most LMI issues, almost as many believed that other stakeholder groups should be involved, suggesting a role for coordinated activity on the collection and dissemination of labour market intelligence.
Conclusion

Ensuring a sustainable supply of health professionals to meet the needs of the Canadian population is a complex undertaking. While considerable attention has been paid to the shortage of physicians and nurses, far less consideration has been given to the equally critical need for allied health professionals. In an effort to begin to address this gap, this study offers valuable insight into the range of issues impacting the supply of allied health professionals in Canada, from the recruitment of students into allied health fields through to workplace employment.

The research shows that there are a number of critical issues requiring attention. Many allied health programs currently receive many more applications than they are funded for, creating long wait lists for students, and suggesting that there is strong interest in entering allied health professions. Yet educational institutions are limited in their ability to expand allied health programs by the lack of clinical placement opportunities, difficulties in attracting and retaining faculty, and lack of funding for additional equipment and buildings. There is also a concern that the “right” students are not being recruited, and that students who enter allied health programs may not have a clear understanding of the expectations and realities of the program and the profession.

In the workplace, job satisfaction and continuing education are the two most pressing concerns. In addition to job dissatisfaction as a result of heavy workloads and a lack of recognition and respect, the absence of career pathways in many allied health professions is a source of dissatisfaction for those who would like to advance in their careers. Opportunities to participate in relevant, meaningful continuing education – supported by employers – not only improves job satisfaction but also demonstrates to those working in allied health careers that their skills and professionalism are recognized and valued.

Inadequate funding of the health care system and lack of comprehensive, long-term planning to address allied health human resource shortages were seen as key issues at the system-level. Planning is needed to ensure the right number and mix of health professionals, the efficient deployment of health professionals to maximize their skills, and the transfer of knowledge as the baby boomer generation retires.

While a number of strategies are identified throughout the report, the findings point to several broad policy directions where significant progress could be made, and future research priorities to build the evidence base and ensure allied health sustainability.

1. Undertake public education about the value of allied health professions.

There is a need to develop a collaborative strategy to increase awareness of the value of allied health professions, spearheaded by provincial ministries of health and professional associations. Raising the profile of the allied health professions and highlighting their contributions to the health care system would help to create a culture in which allied health professionals feel respected and valued by the public and health professional peers, as well as by government officials responsible for health care policy and funding.

2. Improve HHR labour market information, data collection and planning.

National HHR data collection mechanisms need to be improved for long-term planning. For truly comprehensive workforce planning to take place, information on workforce demographics, numbers of graduates from allied health programs, numbers of IEHPs immigrating, productivity levels, employment practices, attrition rates, population health needs and health service utilization should be captured.

3. Address clinical placement shortages.

The lack of clinical placements is a bottleneck to the expansion of allied health educational programs. Greater financial support and coordination is needed to assist educational institutions in providing students with the practical skills necessary to become an allied health professional.

4. Develop allied health sector resources to support focused student recruitment strategies.

The development of allied health sector resources could contribute to more focused recruitment efforts, and help to ensure that students are better informed about the range of opportunities available as well as the expectations and realities of various health professions. One potential resource could be an allied health web portal, which would provide accurate...
information about the range of allied health careers and engage prospective learners through social media tools. Additional outreach efforts to secondary schools and the involvement of workplaces in enabling students to gain exposure to real allied health careers would assist in targeting the right students early, and ensure that they obtain the math and science prerequisites needed for allied health programs.

5. Increase the number of Aboriginal allied health professionals.

Aboriginal learners represent a young and quickly growing segment of the population. Despite significant progress, they continue to face barriers to pursuing allied health education programs and professions. Educational institutions and employers should work with First Nations, Métis and Inuit communities to promote allied health career opportunities and develop culturally-based supports to assist Aboriginal students in successfully accessing and completing allied health programs and integrating into the health workforce.

6. Strengthen alignment between post-secondary allied health programs and sector needs.

Post-secondary institutions need to review curriculum and learning supports to ensure that graduates have the necessary foundational skills as well as soft skills. Mentorship programs delivered by peers, faculty or professionals appear to be effective in retaining allied health students. Flexible delivery options, such as part-time and distance learning, should be considered to engage mature students and those living in remote or rural locations.

7. Introduce measures to facilitate the integration of IEHPs into the allied health workforce.

There is a need for sustained funding for flexible, affordable and accessible bridging and employment integration programs for IEHPs, preferably with online components that could be completed prior to arrival in Canada. There is also a need to develop a standardized approach to the assessment of foreign credentials, and ensure that IEHPs are well informed of the process prior to arrival in Canada.

8. Address quality of worklife issues.

Staffing shortages and restructuring have placed high demands on health professionals, often leading to burnout, stress, and early exits from the health system. In addition, few opportunities for career advancement, lack of respect and recognition, inflexible work arrangements, and lack of support for continuing education are contributing to job dissatisfaction and need to be addressed. Further research on attrition and absenteeism is also needed.

The examination of critical issues provided in this report raises many additional questions and areas for future research. Key issues to be explored include:

- Levels and sources of job satisfaction/dissatisfaction by profession
- Appropriate role of simulation in clinical education and the demonstration of competency
- Collection of detailed national information on clinical placement challenges and how they are being addressed, including student numbers, health disciplines, clinical training requirements, and supervision arrangements.
- Development of career pathways with corresponding educational steps to provide allied health professionals with opportunities for professional growth and career advancement.

The specific recommendations arising from these broad policy directions are outlined in Meeting Expectations: A Blueprint for Sustaining the Allied Health Professions, available on the ACCC website (www.accc.ca).
References


———. 2010b. *National Unique Identifier for Health Care Providers Feasibility Study*. Ottawa: CIHI.


Clinical Laboratory Management Association, Trillium Chapter. 2010. *Creating Sustainability for Laboratory Human Resources: A Proposed Education/Career Path Model for Ontario Medical Laboratory Professionals*. Toronto: CLMA.


Tomblin Murphy, G. and Maddalena, V. 2007. *Establishing a Minimum Data Set to Support the Advancement of NAHO’s Aboriginal Health Human Resource Initiative: Next Steps.* Ottawa: NAHO.


Appendix A: Allied Health Definitions

Statistics Canada’s Classification of Instructional Programs, 2000 classifies the following allied health instructional programs within the series Health Professions and Related Clinical Sciences:

ALLIED HEALTH DIAGNOSTIC, INTERVENTION AND TREATMENT PROFESSIONS

- Cardiovascular Technology/Technologist
- Electrocardiograph Technology/Technician
- Electroneurodiagnostic/Electroencephalographic Technology/Technologist
- Emergency Medical Technology/Technician (EMT Paramedic)
- Nuclear Medical Technology/Technologist
- Perfusion Technology/Perfusionist
- Medical Radiologic Technology/Science – Radiation Therapist
- Respiratory Care Therapy/Therapist
- Surgical Technology/Technologist
- Diagnostic Medical Sonography/Sonographer and Ultrasound Technician
- Radiologic Technology/Science – Radiographer
- Physician Assistant
- Athletic Training/Trainer
- Gene/Genetic Therapy
- Cardiopulmonary Technology/Technologist
- Radiation Protection/Health Physics Technician

ALLIED HEALTH AND MEDICAL ASSISTING SERVICES

- Medical/Clinical Assistant
- Clinical/Medical Laboratory Assistant
- Occupational Therapist Assistant
- Pharmacy Technician/Assistant
- Physical Therapist Assistant
- Veterinary/Animal Health Technology/Technician and Veterinary Assistant
- Anesthesiologist Assistant

- Emergency Care Attendant (EMT Ambulance)
- Pathology/Pathologist Assistant
- Respiratory Therapy Technician/Assistant
- Chiropractic Assistant/Technician

CLINICAL/MEDICAL LABORATORY SCIENCE AND ALLIED PROFESSIONS:

- Blood Bank Technology Specialist
- Cytotechnology/Cytotechnologist
- Hematology Technology/Technician
- Clinical/Medical Laboratory Technician
- Clinical Laboratory Science/Medical Technology/Technologist
- Ophthalmic Laboratory Technology/Technician
- Histologic Technology/Histotechnologist
- Histologic Technician
- Phlebotomy/Phlebotomist
- Cytogenetics/Genetics/Clinical Genetics Technology/Technologist
- Renal/Dialysis Technology/Technician
REHABILITATION AND THERAPEUTIC PROFESSIONS

• Art Therapy/Therapist
• Dance Therapy/Therapist
• Music Therapy/Therapist
• Occupational Therapy/Therapist
• Orthotist/Prosthetist
• Physical Therapy/Therapist
• Therapeutic Recreation/Recreational Therapy
• Vocational Rehabilitation Counselling/Counsellor
• Kinesiotherapy/Kinesiotherapist
• Assistive/Augmentative Technology and Rehabilitation Engineering

The Canadian Association of Allied Health Programs (www.caahp.ca) recognizes the following allied health programs:

• Anaesthesia Technology
• Biomedical Engineering Technology
• Cardiac Sciences
• Dental Sciences
• Electro-neurosciences
• Emergency/Paramedic
• Environmental Health
• Food & Nutrition
• Health Information Sciences
• Medical Imaging Sciences
• Medical Laboratory Sciences
• Ophthalmic Sciences
• Pharmaceutic Sciences
• Radiation Therapy
• Rehabilitation Sciences
• Respiratory Therapy
• Traditional Chinese Medicine

The Canadian Medical Association (www.cma.ca/officiallist) recognizes the following list of accredited and registered health science professions:

• Cardiology Technology
• Cardiovascular Perfusion
• Clinical Genetics
• Cytotechnology
• Diagnostic Ultrasound Technology
• Magnetic Resonance Imaging
• Medical Laboratory Assistant
• Medical Laboratory Technology
• Nuclear Medicine Technology
• Ophthalmic Medical Assisting Technology
• Orthoptics
• Orthoptics/Ophthalmic Medical Technologist
• Paramedicine
• Physician Assistant
• Radiation Therapy Technology
• Radiological Technology
 Appendix B: Working Group Subcommittees

**POLICY BLUEPRINT**
Rae Gropper (Chair)
Kim Boles, CSDMS
Ray Bourgeois, Dawson College
Maureen Coulthard, CAOT
Angela Coxe, CSRT
Elaine Dever, CAMRT
Kathy Hilsenteger, ACMDDT
Shannon McDonald, NSCRT
Pam McLaughlin, Fanshawe College
Christine Nielsen, CSMLS
Karl Samuelson, CHA

**INNOVATIONS GUIDE**
Rae Gropper (Chair)
Cathie Auger, Fanshawe College
Mary Costantino, LifeLabs
Maureen Coulthard, CAOT
Angela Coxe, CSRT
Elaine Dever, CAMRT
Margaret Dukes, CMA
Jane Gamberg, College of the North Atlantic
Louise Gordon, Red River College
Appendix C: Key Informants

Judy Ash
Director, Programs and Member Services
Ontario Association of Medical Laboratories

Elisabeth Ballermann
President
Health Sciences Association of Alberta
Co-Chair, Health Professional Secretariat

Ivy Lynn Bourgeault
CIHR Research Chair
Health Human Resource Policy
University of Ottawa

Simon Brascoupé
Acting CEO
National Aboriginal Health Organization

Bryan Buell
Executive Director /Registrar
College and Association of Respiratory Therapists Alberta

Mary Anne Cecutti
Co-Founder,
Executive Edge
Innovations in Laboratory Medicine for Lab Leaders

Adam Chrobak
CEO/Registrar
College of Medical Laboratory Technologists of Manitoba

Linda Cloutier
Director
Health Sciences
La Cité collégiale

Wendy Despins
President
Manitoba Association of Health Care Professionals

Susan Duff
Manager
Academic Policy and Standards
New Brunswick Community College

Kathleen Foran
Executive Director
Canadian Society of Diagnostic Medical Sonographers

Pamela Fralick
President and CEO
Canadian Healthcare Association

Linda Gough
Registrar
College of Medical Radiation Technologists of Ontario

Reid Johnson
President
Health Sciences Association of British Columbia

Anshoo Kamal
Provincial Planner
Health Human Resources, Forecasting and Modelling Unit
Ministry of Health and Long-Term Care
Ontario

Elinor Larney
Deputy Registrar
College of Occupational Therapists of Ontario

Judith Limkilde
Dean
School of Health and Human Services
Nova Scotia Community College

Lori MacKenzie
Director, Health Programs Research
Universities, and Health Programs Branch (RUHP)
Ministry of Advanced Education
British Columbia

Kathleen MacMillan
Dean
School of Health Sciences
Humber College

Marney MacRae
Manager
Recruitment and Retention Secretariat
Department of Health and Wellness
Prince Edward Island

Sean Madorin
Associate Dean
School of Health and Wellness
Georgian College

Paul Man-Son-Hing
Manager
Interprofessional Practice
Toronto East General Hospital

Linda Mattern
Executive Director
Health and Wellness
Workforce Policy and Planning Branch
Ministry of Advanced Education and Technology
Alberta

David Mercer
Health Education Strategist
Department of Labour and Advanced Education
Nova Scotia
Jennifer Murdoch
Manager
Health Human Resources
Department of Health
Nova Scotia

Theresa Norlander
President
Saskatchewan Capacity of Internationally Trained Professionals

Josée Prud’Homme
Directrice générale et Secrétaire
l’Ordre professionnel des inhalothérapeutes du Québec

Danica Prusic
President
Ontario Society of Diagnostic Medical Sonographers

Bonnie Reib
Managing Director
Paediatric Laboratory Medicine
Toronto Sick Kids Hospital

Christine Robinson
Registrar
College of Respiratory Therapists of Ontario

Nathalie Rodrigue
Presidente
Ordre professionnel des technologistes médicaux du Québec

Debbie Sargent
Associate Dean
Health and Human Services
Camosun College

Laura Schneider
Manager, Health Programs
Post-secondary and Community Education
Ministry of Advanced Education and Technology
Alberta

Aleatha Schoonover
Program Head,
Medical Diagnostics
Kelsey Campus, SIAST

Jane Seltzer
Manager
Allied Health Human Resources
Policy and Planning Unit
Ministry of Health and Long-Term Care
Ontario

Charles Shields
CEO
Canadian Association of Medical Radiation Technologists

Cathy Sinclair
Health Recruiter
Recruitment and Retention Secretariat
Department of Health and Wellness
Prince Edward Island

Marc Verhoeve
Executive Director
Ontario School Counsellors’ Association

Andrew Wells
Manager
Workforce Planning Department of Health
Newfoundland

Bryan Witt
Program Head
MRT and CLXT
Kelsey Campus, SIAST

Janet Squires
Regional Director
Allied Health Professional Practice Newfoundland

Josée Prud’Homme
Directrice générale et Secrétaire
l’Ordre professionnel des inhalothérapeutes du Québec

Danica Prusic
President
Ontario Society of Diagnostic Medical Sonographers

Bonnie Reib
Managing Director
Paediatric Laboratory Medicine
Toronto Sick Kids Hospital

Christine Robinson
Registrar
College of Respiratory Therapists of Ontario

Nathalie Rodrigue
Presidente
Ordre professionnel des technologistes médicaux du Québec

Debbie Sargent
Associate Dean
Health and Human Services
Camosun College

Lyne St. Pierre-Ellis
Associate Deputy Minister
Health-Francophone Services
Ministry of Health, New Brunswick

Joshua Tepper
Assistant Deputy Minister
Health Human Resource Strategy
Ministry of Health and Long-Term Care
Ontario