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Department of Health and Community Services

Review of Occupational Therapy and Physiotherapy Services

Final Report
21 November, 2018

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Executive Summary

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Executive Summary

Improving access to community-based programs and services is among the Department of Health and Community Service's key strategic priorities. Occupational therapy (OT) and physiotherapy (PT) in particular were identified by the Department as key services for supporting individuals to remain independent in their homes and communities for longer. In January 2018, Deloitte was engaged by the Department to work with the four regional health authorities (RHAs) to review public and private OT and PT services across the continuum of care to identify opportunities to:

- Improve access to services, specifically those that are provided in the community;
- Align resource allocation and utilization to population needs; and,
- Enhance clinical efficiency and the extent to which occupational therapists and physiotherapists work to their full scope of practice.

The review of OT and PT services involved a range of qualitative and quantitative analysis methods to derive its recommendations including:

- Review of policies, practices, and other documents that govern the delivery of clinical services;
- Interviews and focus groups with RHA executives, managers and clinical leads;
- An online survey of front-line clinicians and support workers;
- Consultations with client advocacy groups, private providers, professional associations, and regulatory bodies;
- Evaluation of workforce data and workload measurement metrics; and,
- Full-day workshops with Steering Committee members from the Department and RHAs.

In seeking to understand the current state of OT and PT services, the review concluded:

- Inpatient care is currently the focus of OT and PT service delivery across the Province with resource allocations, program-oriented reporting structures, and clinical processes all contributing to this prevailing model.
  - Across the continuum of care, OTs and PTs are challenged by inappropriate and duplicative referrals that contribute to the inefficient use of valuable clinical time.
  - Referral to community-based services is challenged by a relative lack of resources working in that care-setting, unclear discharge criteria, and, disparate clinical information systems.
  - OT and PT participation in public health and preventative intervention programs is currently limited.
  - Performance management is challenged by a lack of consistent data collection and reporting; this impedes the RHAs' ability to effectively align resources to population needs.
- Clinical processes across the province are generally well defined and moderately mature relative to leading practices but vary significantly across RHAs and programs. Provincial standards and policies are generally limited and the RHAs currently have significant autonomy in how OT and PT services are organized and delivered.
  - Examples of leading practice exist in pockets (e.g., client trigger demand management in Eastern Health and Central Health), however, governance and policy mechanisms to support provincial dissemination and adoption of leading practices for OT and PT are limited.

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Executive Summary (cont.)

- While scope of practice for OT and PT is well defined from a regulatory standpoint, roles within interdisciplinary teams are not sufficiently defined to allow clinicians to work to their full scope of practice. Challenges related to scope of practice are multi-faceted and span:
  - Task assignment of clinical duties to paraprofessionals;
  - Shared scope of practice with other clinical professions; and,
  - Delegation of administrative duties.
- The level of clinical supervision and support varies significantly across RHAs and programs and the role of clinical leaders are inconsistent.
- Service delivery is currently poorly supported by information technology:
  - Continuity of care and clinical efficiency are significantly impacted by disparate clinical information and case management systems;
  - While telehealth and other technology solutions are utilized to some extent across RHAs, scaling technology-enabled approaches to service delivery is challenged by device availability, systems integration, strict privacy and security requirements, and competing technology priorities.
- Multiple collective agreements and bargaining units create barriers to aligning resource allocations to population needs.
- The Home Modification Program and Special Assistance Program have workload implications for occupational therapy, however deficiencies in these adjacent programs contribute to clinical inefficiency and scope of practice challenges.
- There is an extensive network of private sector providers that mirrors the catchment area of the public system that is currently underutilized due to a lack of funding arrangements, formal referral processes and criteria.
- Despite the current challenges, clinical leaders, managers and front-line practitioners are highly engaged and believe that change is necessary to meet the future needs of the population.

Research into leading practices complemented internally focused elements of the review. This research included review of publicly available research, literature, program evaluations, policies and consultation with jurisdictional contacts and subject matter advisors. For the purposes of comparison and informing a future model of OT and PT service delivery, the most pertinent findings include:

- The inclusion of OT and PT services within interprofessional primary care teams and networks;
- Enhanced system navigation and matching of the right service for the right client using generalized, interdisciplinary and patient-centered assessment processes;
- Realignment of some public-sector resources to primary and community care by funding the private sector to manage high-volume, low complexity post-surgical interventions with well-established care pathways and quality monitoring processes in place;
- Maximize efficiency by leveraging technology for remote clinical service delivery, including supervision of paraprofessionals; and
- OT and PT intervention earlier in the continuum of care, particularly in the management of chronic disease and falls prevention.

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Executive Summary (cont.)

With a shared understanding of the current state of OT and PT services and knowledge of alternative practices, the Steering Committee has collaboratively defined a bold vision for the future of OT and PT services. This long-term vision provides the guiding framework for decision-making and brings context to the improvement opportunities that were identified as part of the review. The target service delivery model for OT and PT services in Newfoundland and Labrador comprises of:

- Serving a larger population of patients, clients, and residents with an increased emphasis on preventative and less resource intensive interventions.
- Deliberate and focused strategies for providing services to meet the specific therapeutic needs of pediatrics, adults, and seniors.
- Inpatient and outpatient services dedicated to the provision of secondary services.

As such, Deloitte recommends the Department and RHAs pursue the following improvement opportunities over the next three to five years:

- Define and establish a generalized, holistic, and patient and family-centered assessment to enhance the effectiveness and efficiency of in-take processes and system navigation.
- Provincial adoption of the client-trigger model of demand management system where it is appropriate to do so to mitigate the impact of inappropriate referrals, missed appointments and long waiting times.
- Strengthen OT and PT integration with primary care providers by establishing co-located or distributed practitioner networks.
- Strengthen OT integration with the education sector to increase reach and involvement in preventative interventions.
- Review and revise the roles and responsibilities of OTs, PTs, and support workers to clarify the scope of clinical and administrative task delegation, shared scope of practice, and model of clinical supervision and support.
- Define and establish a generalized therapy support worker position to support OTs, PTs, and other clinical disciplines across programs and facilities.
- Expand the utilization of technology, particularly the use of point of care devices, to enable point of care documentation, remote assessments and supervision of paraprofessionals.
- Increase the utilization of private providers, where available, for select clinical and administrative tasks, including:
  - Post-surgical rehabilitative care for select high-volume standardized services (e.g., total hip replacement, total knee replacement) with quality monitoring in place;
  - Utilization of home support workers already engaged through an agency or self-managed care arrangement for select delegated and supervised clinical tasks; and,
  - Establishment of a managed service arrangement for equipment and adaptive aids to reduce OT non-clinical workload.
- Expand the role of student, volunteer, and partner organization support to community-based programs and services.
- Establish a continual student run clinic to support community-based programs and enhance the attraction of new talent.
- Reinforce provincial standards for system performance management to increase the quality and granularity of reporting.
- Establish a provincial professional practice function to support the consistent adoption of leading practices and advocacy of OT and PT disciplines within the RHAs' program-oriented structure.
- Progressively realign resource allocation to support the target delivery model for OT and PT services.

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Executive Summary (cont.)

Quantitative analysis of these improvement opportunities suggests that it is possible to expand the percentage of referral serviced by OT and PT practitioners by 19% and 25% respectively without an increase in the number of human resources. The increased productivity enabled by the implementations of the improvement opportunities, combined with a reallocation of resources between care settings and a shift of activities towards prevention and education will enable this broader access. It will be important to implement key performance indicators to determine the extent to which access is occurring in the identified target populations, and the impact on corresponding health outcomes attributable to this resource shift.

With the magnitude of change proposed by this review, reallocation of resources to support the target delivery model should be progressive and integrated into the RHAs' annual planning and budgeting processes.

It also is important to acknowledge the fundamental shift in OT and PT service delivery that the Province intends to embark upon and the associated barriers to change that will need to be mitigated for the target model to be realized. Principle among these change barriers are:

- The need for financial resources to support adoption of the target delivery model (e.g., training, technology devices, assessment tools).
- Navigating multiple collective agreements and bargaining units.
- Realigning resources to meet population needs within the prevailing program-oriented structure of the RHAs.
- A lack of technology systems that adequately support community-based programs and care across the continuum.
- Stakeholder alignment and buy-in to the target delivery model.
- Technology literacy of patients, clients, residents, and their families.

The target delivery model for OT and PT services represents a bold step forward that is aligned to the Department's guiding strategy for the provincial health system. Attaining this vision and improving outcomes for patients, clients, and residents will require ongoing commitment from the Steering Committee, support and engagement from the Department and RHA leadership.

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Introduction

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Background & Context

The review of Occupational Therapy and Physiotherapy services forms part of a broader strategy of shifting care out of hospitals and into the community to improve access, reducing costs, and aligning services to population needs.

In January 2018, Deloitte was engaged by the Department to work with the four RHAs to review public and private OT and PT services across the continuum of care to identify opportunities to:

- Improve access to services, specifically those that are provided in the community;
- Align resource allocation and utilization to population needs; and,
- Enhance clinical efficiency and the extent to which occupational therapists and physiotherapists work to their full scope of practice.

The review of Occupational Therapy (OT) and Physiotherapy (PT) services included OT and PT services across the continuum of care, public services managed by the RHAs, and private services.

The review of OT and PT services aligns with the Department's approach to making evidence-informed decisions and supports the forward vision for the Province in which Newfoundlanders and Labradorians have access to responsive, innovative, and cost-effective healthcare programs and services.

The safe and timely discharge of patients from inpatient and outpatient care, as part of the Home First program, requires ready access to rehabilitation services within the community. Better access to OT and PT in the community may contribute to reducing the number of alternate level of care (ALC) placements and could result in improved satisfaction with community-based services, both of which are goals in the Department's current strategy. Further to this, the potential for improved clinical efficiencies by allowing health care providers to work to their full scope of practice, another goal of the strategy, presents exciting opportunities for existing and future occupational therapists and physiotherapists.

The Provincial Home Support Program's (PHSP) ambitious new vision requires improved access to services in the community. Imagine the world in which "All citizens of the Province have access to the home support services they need to help them remain independent in their homes and communities, avoid unnecessary hospitalization and long-term care placement, and maintain their well-being." Achievement of the vision is not possible without clients of the PHSP having suitable access to OT and PT services in the community. Promoting health and preventing injury, key roles of OT and PT, are critical to the maintenance of independence by addressing physical, cognitive, behavioural, and social barriers.

This review of OT and PT services aimed to evaluate the current state of services delivery, assess opportunity improvements, and develop recommendations to align patient care to population needs.

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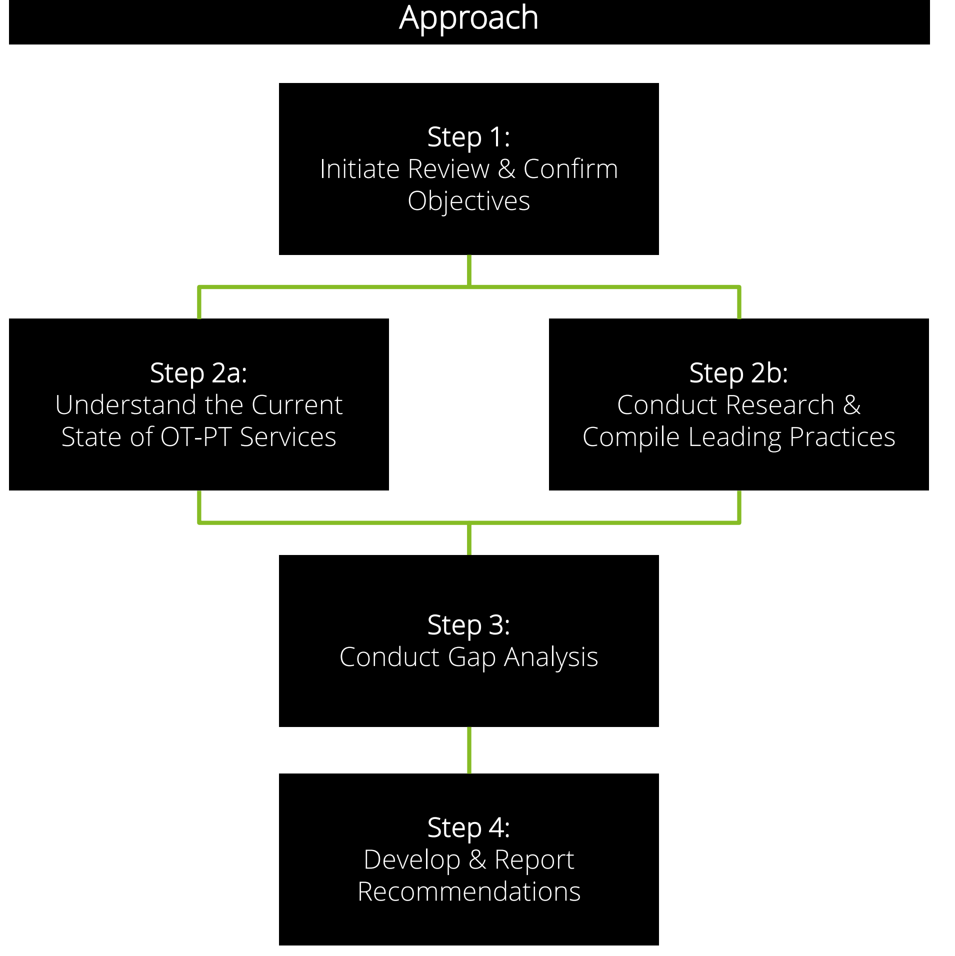
Approach & Methodology

A four-step approach enabled the development of a target OT/PT service delivery model that identified how services should be delivered to meet the needs of the populations across the continuum of care.

In completing the review, key elements of the approach included:

- A comprehensive assessment of the current state of occupational therapy and physiotherapy services consisting of three primary activities:
    - Review of data and information provided by the Department and the RHAs;
    - Interviews with clinical leads, managers, and executives from the RHAs; and,
    - Development of a practitioner survey distributed to public and private sector OTs and PTs.
- Research into leading practices in other jurisdictions complemented internally focused elements of the review. This research included a review of publicly available research, literature, program evaluations, policies, and consultation with jurisdictional contacts and subject matter advisors.
- Several exploration and validation workshops, including a maturity assessment of clinical processes, were conducted with the Steering Committee comprised of representatives of the RHAs and the Department. A Capability Maturity Model (CMM) was explored during workshops. Further details surrounding the CMM are provided in Appendix E.
- Analysis of findings and development of recommendations supported by a preliminary implementation roadmap.



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Methodology and Work Plan: Effectiveness and Efficiency Elements

The approach was underpinned by various methodologies intended to improve effectiveness and efficiency throughout the review process.

1 Engaged Clinical & Workforce Planning Leadership

Two facilitated collaboration workshops were conducted with RHA and Department representatives on the Steering Committee to validate the current state of OT and PT service delivery and explore, prioritize, and develop opportunities to enhance clinical efficiency, improve productivity and access to services.

2 Applied Quantitative Methods to Deliver Deep Insights

Quantitative analyses were conducted through the development of a MS Excel-based model to analyze caseloads, productivity, and the quantifiable factors that affect OT and PT service delivery in the community (e.g. catchment area, travel requirements, technical/process issues, etc.).

3 Utilized Consolidated Evidence-Based Leading Practices

The review leveraged a Capability Maturity Model (see description at right), and other information sources, to assess the current state of OT and PT services and involved the conduct of a qualitative gap analysis.

Capability Maturity Models (CMM) are frameworks for defining leading practices from an industry standpoint focused on people, process, and technology dimensions of core (e.g., clinical services delivery) and support functions (e.g., finance and accounting).

4 Leveraged a Proven Change Management Toolkit

In formulating the review recommendations, change management tools were leveraged to systematically identify and assess change barriers and apply proven mitigation strategies. The proactive identification and mitigation of change barriers will be important for putting the review recommendations successfully into implementation.

5 Creatively Engaged Regional Stakeholders

The need to solicit input and insight from key stakeholders across the RHAs was pivotal to this review. In-person and telephone interviews with Department and RHA leaders were conducted, complemented by an online survey of public and private OT and PT practitioners. Using multiple methods of engagement, input from a broad cross-section of stakeholders was achieved.

6 Leveraged Network & Relationships for Innovative ideas

The Deloitte network yielded close connections within the health sector across Canada and beyond. These relationships were leveraged to take the research beyond a detached review of policy documents and research to deeper insights on trends in scope of practice, productivity drivers, and innovative approaches to improving cost-effective access to services.

Capability Stage Definitions

CMMs are comprised of sets of qualitative criteria that can be used to assess and articulate a system's current performance, the future vision, and what will be achieved from an improvement initiative.

STAGE V – Leading
- Processes: Serves as a model for other health care organizations.
- Performance: Evidence-based practices integrated and automated into processes and systems across operations. Maintains on ongoing focus on continuous improvement and fostering innovation.
- Technology: Seamlessly integrates clinical information across the care continuum.

STAGE IV – Advanced
- Processes: Uses standardized, integrated, and interdisciplinary clinical processes.
- Performance: Regularly monitors organizational performance and patient outcomes and compares it to established benchmarks.
- Technology: Integrates priority clinical information and uses web-enabled and shared tools.

STAGE III – Defined
- Processes: Beginning to standardize, but interdisciplinary practice is not widespread and organizational silos still exist.
- Performance: Expanded manual audits to comply with regulatory, accreditation, or national standards. Performance improvement plans in place with documented improvements.
- Technology: Beginning to use web-enabled and shared tools.

STAGE II – Developing
- Processes: Sound static polices and procedures exist but there is minimal organization-wide standardization.
- Performance: Minimal monitoring is performed using manual auditing – some performance improvement plans are in place.
- Technology: Relies mainly on paper with a few computer-based tools for support.

STAGE I – Beginning
- Processes: Clinical practices, policies and procedures vary, are fragmented, and are inconsistently documented and followed.
- Performance: Minimal monitoring is performed using manual auditing – few performance improvement plans are in place.
- Technology: Relies heavily on paper-based manual workflows.

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Current State of OT & PT Services

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Current State of OT & PT Services

Occupational Therapy and Physiotherapy are relatively under represented clinical professions in Newfoundland and Labrador, in general and in the delivery of community-based services in particular.

There are currently 369 public OT/PT FTEs (including support workers) practicing in Newfoundland & Labrador providing services for over 19,000 OT referrals and 34,000 PT referrals though a wide array of services such as assessment of function and adaptive behaviour, rehabilitation services, education, and prevention. The services are performed across the continuum of care (HCS, 2017).

Public resources are currently concentrated in Eastern Health (70% or 259.9 FTEs). Practitioners in Western Health and Central Health account for 12% (48.8 FTEs) and 13% (42.9 FTEs) of all public OT and PT resources respectively. Labrador-Grenfell Health practitioners account for the remaining 5% (17.5 FTEs).

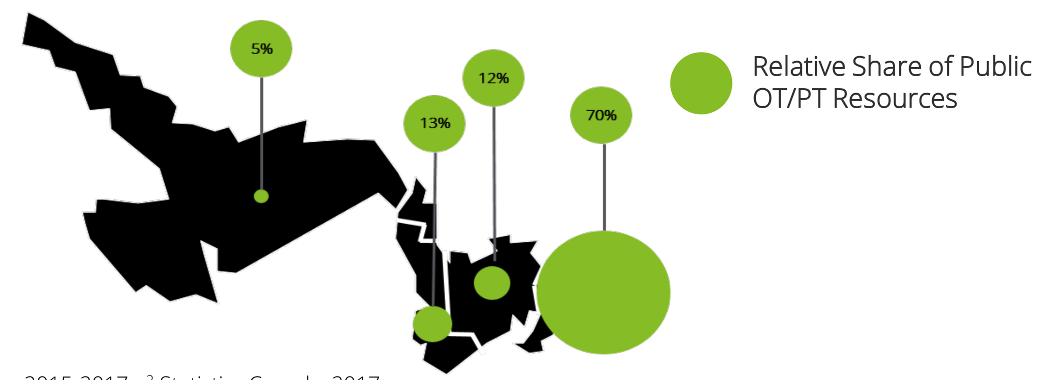
OT and PT resources are confronted to different conditions if they practice in urban setting (i.e. St John's) or in rural setting. To adequately serve the Newfoundland & Labrador population, resources need to be deployed in rural areas, which often leads to recruitment and retention challenges.

There are currently 39 Occupational Therapists per 100,000 individuals (compared to a national average of 48), and 53 Physiotherapists per 100,000 individuals (compared to a national average of 62) (CIHI, 2016).

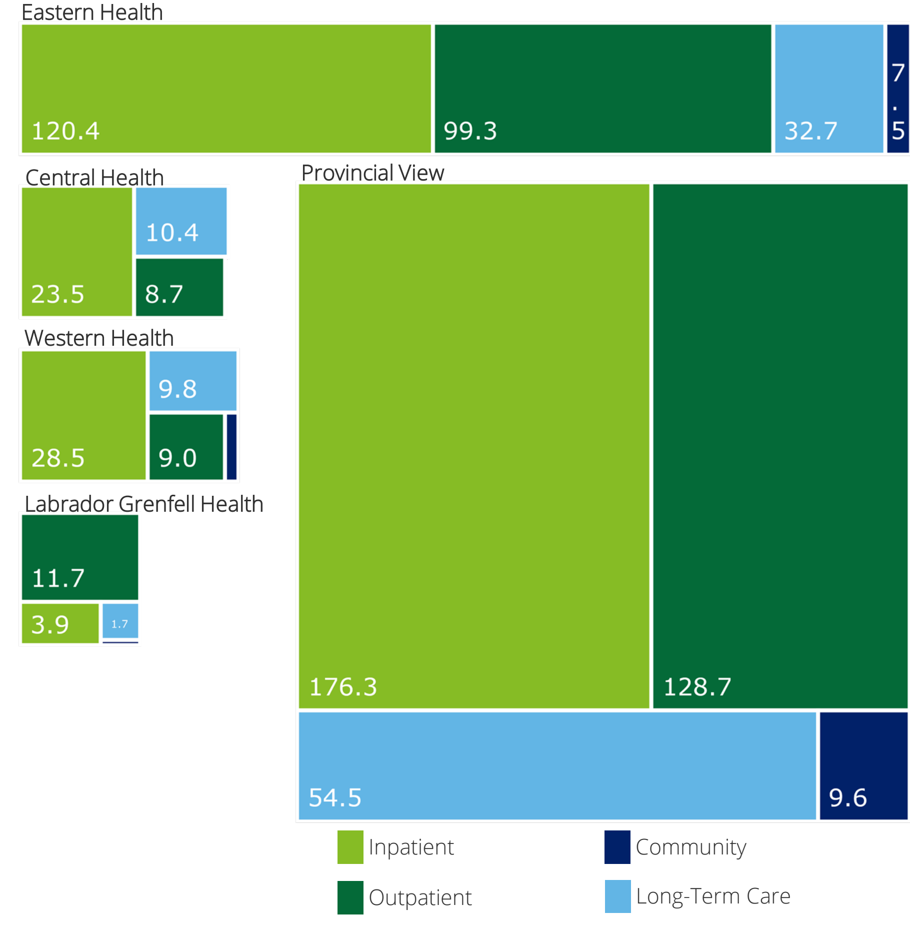
Currently, budgeted OT and PT resources are highly concentrated in inpatient programs (48%). Approximately 15% of resources are allocated to long-term care.

It is worth noting that budgeted OT/PT resources do not necessarily align with the setting where the work is actually performed (e.g. FTEs can be budgeted in one care setting but deliver services in multiple care settings).

RHA Share of OT/PT Resources Relative to Population Served [2]



Budgeted OT/PT FTE Resources by RHA and Care Setting / Functional Centre[1]



[1] HCS, 2017; NLCHI P13 Reports, 2015-2017. [2] Statistics Canada, 2017

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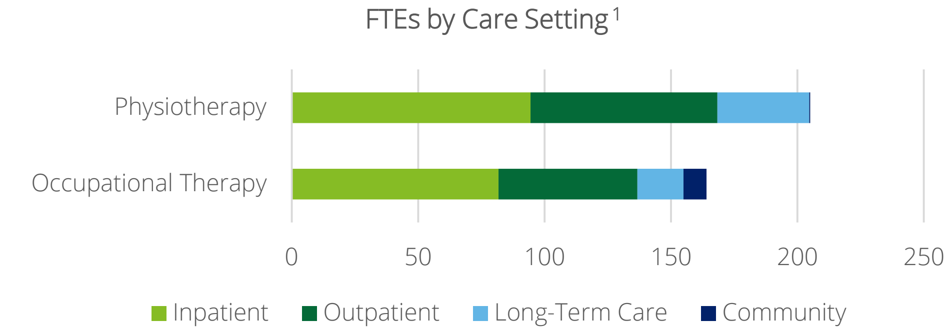
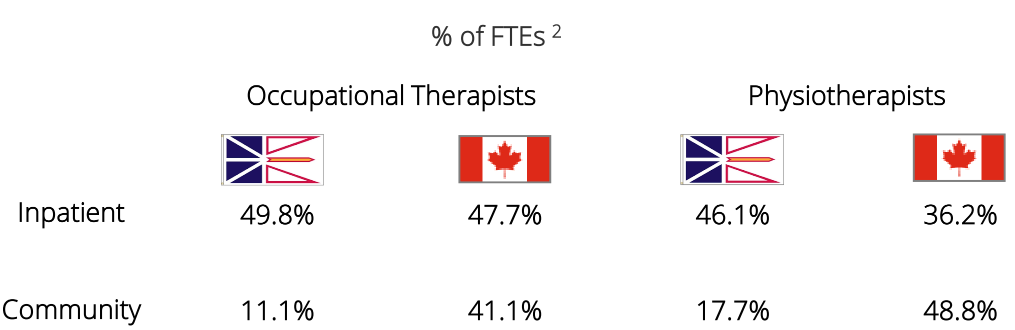
Current State of OT & PT Services

Inpatient care is currently the focus of OT and PT service delivery across the Province with resource allocations, program-oriented reporting structures, and clinical processes all contributing to this prevailing model.

The current resource allocation skewed towards inpatient care, with 46% (94.5 FTE) of Physiotherapists and 50% (81.8 FTE) of Occupational Therapists budgeted in that care setting. When compared with the rest of Canada (in-hospital practice setting), the number OT and PT resources allocated to inpatient care is larger than the national average.





[1] HCS, 2017; NLCHI P13 Reports, 2015-2017. [2] CIHI – Health Workforce Indicators, 2016

Interviews and survey findings have indicated that there is a perception that inpatient care has become the "catch-all program", leading to disproportionate resource allocation. However, even with the largest number of resources allocated to that care setting, there is a perception that inpatient care is currently serving too broad a scope of conditions and is unable to provide quality care to all who need it. For example, practitioners have mentioned only being able to serve the most urgent cases and struggling to address other patient needs.

With so many resources focused on urgent cases in inpatient care, and so few resources in the community, OT and PT participation in health promotion and disease prevention programs is currently limited.

The pressure put on the inpatient care setting is inflated due to a misunderstanding by health care practitioners and patients regarding the type of conditions OT and PT inpatient services are meant to be serving. Clinical assessment and therapeutic in inappropriate contexts and environment can lead to inappropriate and duplicate referrals that contribute to unnecessary additional assessment and needless intervention.

Estimates by Steering Committee members surrounding the appropriateness of referrals by care settings are presented below:

Discipline	% Appropriate Referrals			
	Inpatient	Outpatient	Long-Term Care	Community
Occupational Therapy	80%	75%	70%	85%
Physiotherapy	70%	85%	80%	60%

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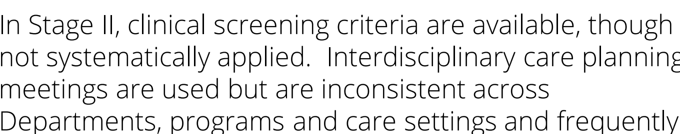
Current State of OT & PT Services

Clinical processes across the province are generally well defined and moderately mature relative to leading practices but vary significantly across RHAs and programs. Provincial standards and policies are generally limited and the RHAs currently have significant autonomy in how OT and PT services are organized and delivered.

A key component of the current state assessment leveraged a CMM that framed the evaluation of the maturity of different dimensions (process, people & organization, and technology). The consensus from all four RHAs is that clinical processes are either developing (Stage II) or have begun to be defined (Stage III).

Capability Maturity Model – Process Dimensions

Patient Intake & Treatment Planning:



In Stage II, clinical screening criteria are available, though not systematically applied. Interdisciplinary care planning meetings are used but are inconsistent across Departments, programs and care settings and frequently have variation in participants.

Paper-based care plans are used but not consistently and estimated length of stay (LOS) is identified upon inpatient care admission but is not actively managed.

Discharge Planning & Referrals:

Between Stage II and Stage III, discharge planning documentation is generally complete but is not interdisciplinary. Discharge planners function as utilization reviewers with a focus on documenting health plan criteria. Discharge planning begins when an LOS is designated by Case Management. There is no clearly defined process for determining Case Manager consults/reviews.

Coordination with Next Level of Care:

Between Stage II and Stage III, primary care practitioners (PCP) or community case managers are regularly notified that their patient is admitted through manual paper communication. Follow up appointments with the PCP or community services are made for the patient prior to their discharge.

Between these stages, the PCP and community services providers have very limited access to some electronic information and the discharge summary is delivered to PCP or community services regularly in paper copy.

	Stage I Beginning	Stage II Developing	Stage III Defined	Stage IV Advanced	Stage V Leading
Process					

Through the interview and survey processes, practitioners and clinical leads identified that referral to community-based services is challenged by a relative lack of resources working in that care setting. Furthermore, unclear discharge criteria and disparate clinical information systems (e.g. Meditech and CRMS) are among the current challenges raised with regards to the ease of transition across the continuum of care. This is further exacerbated by the current inpatient and outpatient centric model of care.

Overall, examples of leading practice exist in pockets (e.g., client trigger demand management in Eastern Health and Central Health), however, governance and policy mechanisms to support provincial dissemination and adoption of leading practices for OT and PT are limited.

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Current State of OT & PT Services

While scopes of practice for OT and PT are well defined, roles within interdisciplinary teams are not sufficiently defined to allow clinicians to work to their full scope of practice.

Throughout the consultation process, practitioners and clinical leads identified several inefficiencies resulting in an inability to work to their full scope of practice.

Practitioners identified the lack of support staff (e.g. PTSW, OTSW, clerical) as the primary challenge they face. Consequently they are often doing work such as patient booking, and equipment repairs that could be done more cost effectively by others.

Additionally, scope of practice is perceived as overlapping with other disciplines in some areas (e.g. nurse) which leads to confusion about who is responsible for specific tasks (e.g., physiotherapists in hospital spending disproportionate amount of time on patient mobility relative to therapeutic interventions).

Finally, some OTs and PTs are unclear about scope of practice of PTSW, OTSW, and TA which leads to confusion about what can be assigned.

Strongly Disagree | Neutral | Strongly Agree

I am able to consistently work to my full scope of clinical practice.

Discipline: 1 — 3 — 5

RHA: 1 — 3 — 5

Discipline: Occupational Therapy, Physiotherapy

RHA: Eastern Health, Central Health, Western Health, Labrador-Grenfell Health

Capability Maturity Model – People & Organization Dimensions

Resource Deployment:

In Stage II, there is a limited focus on resources outside of inpatient and outpatient care. Home care is available, but integration across the continuum of care is minimal. Also, clinical roles are defined, but in practice there is overlap of responsibilities between care team members.

Care managers understand the principles of resource utilization, however do not routinely act when unnecessary utilization occurs.

Scope of Practice:

In Stage III, automated care planning components are in use and are interdisciplinary. Furthermore, scopes of practice for each discipline are defined but are not yet standardized across the health system.

Clinical leaders recognize the impact of redundant scope of practice and are developing strategies to address.

	Stage I Beginning	Stage II Developing	Stage III Defined	Stage IV Advanced	Stage V Leading
People & Organization					

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Current State of OT & PT Services

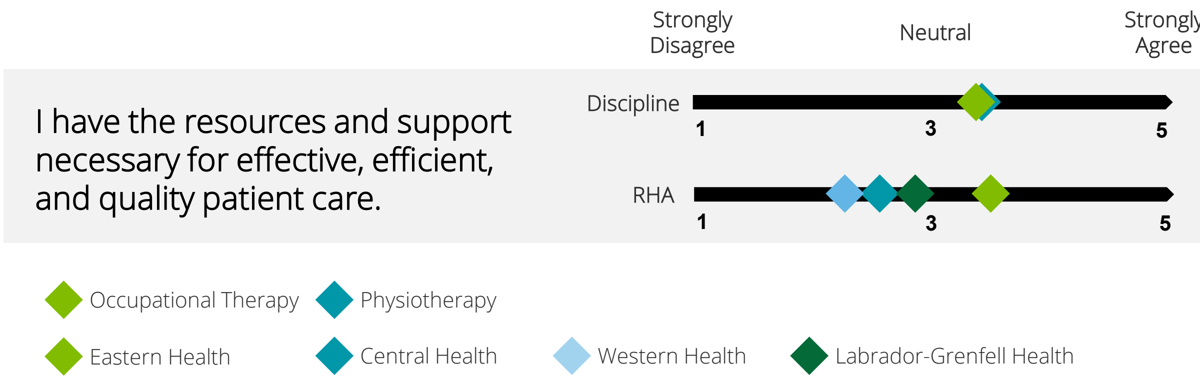
The level of clinical supervision and support varies significantly across RHAs and programs and expectations of clinical leaders are inconsistent.

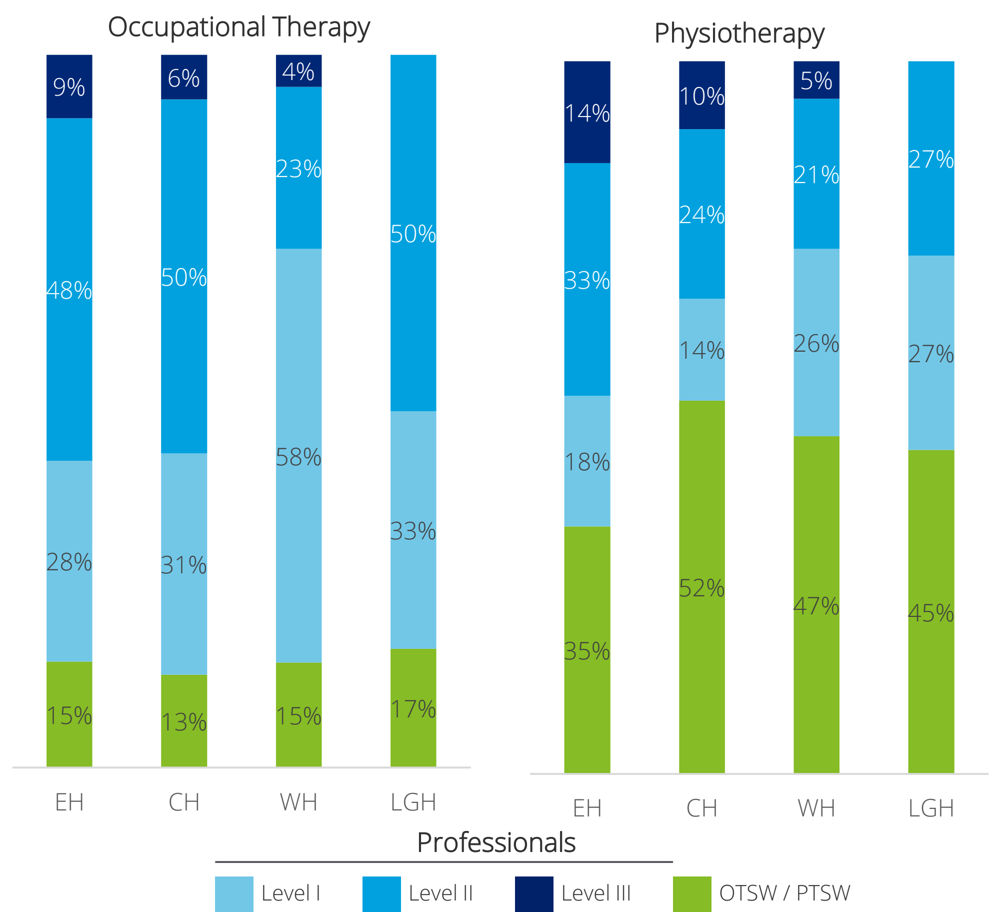
The review examined the current staffing model within OT and PT in each RHA. Within OT, Level II (OT-II) resources are the most prevalent, while within PT, support workers represent the highest proportion of FTEs (HCS, 2017).

During the interview process, clinical leads expressed some frustration with regards to the sharing of information across RHAs. Varying levels of standardization across the Province means that often each RHA operates autonomously, leading to differing role definitions and expectations for clinical leads across the Province.

Additionally, as part of the survey and interview processes, practitioners and clinical leads identified the lack of support as a key challenge. When practitioners were asked if they feel they have the resource and support necessary for effective, efficient, and quality patient care, only practitioners from Eastern Health answered with a slightly positive answer, highlighting a divide between the RHAs.

It should be noted that this could be explained by the fact that Eastern Health has dedicated discipline-specific professional practice (OT and PT), while others do not.





[1] HCS, 2017

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Current State of OT & PT Services

Multiple collective agreements and bargaining units create barriers to aligning resource allocations to population needs.

Practitioners are members of three bargaining units: the Association of Allied Health Professionals (AAHP), the Association of Public and Private Employees (NAPE), and the Canadian Union of Public Employees (CUPE).

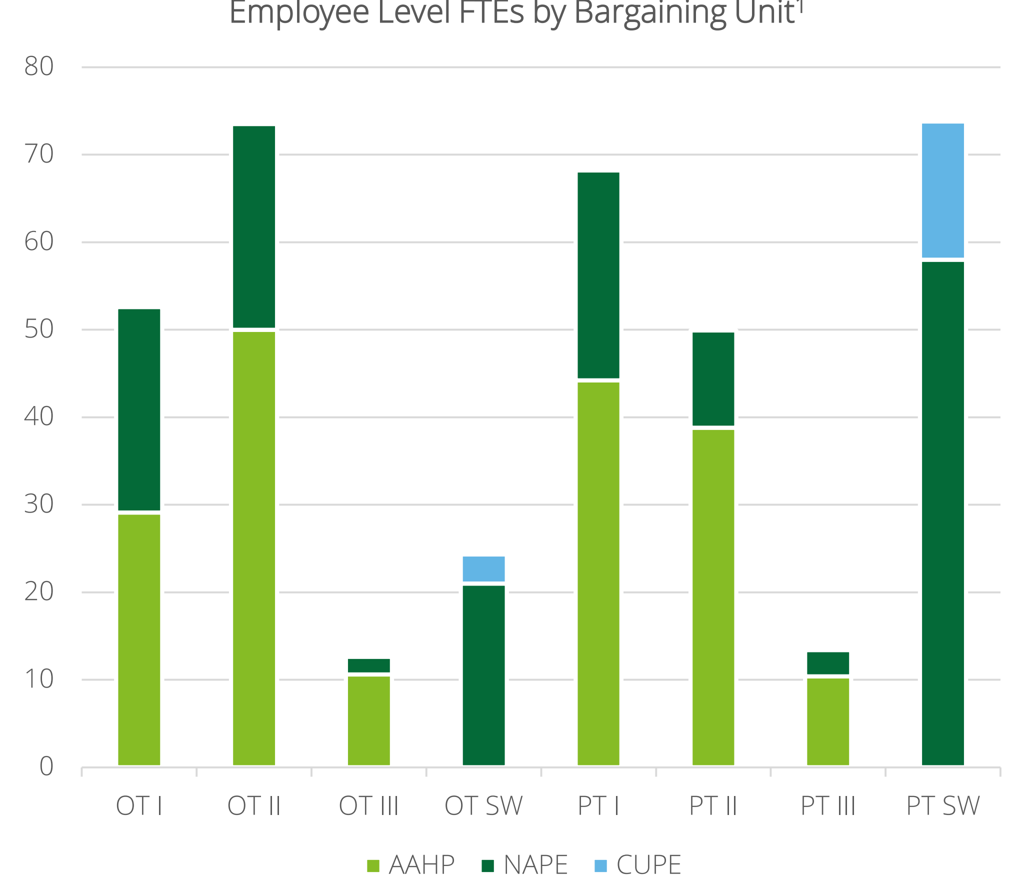
Bargaining Unit	Discipline		FTE	
	OT	PT	#	%
AAHP	89.7	93.4	183.1	50%
NAPE	70.0	96.1	166.1	45%
CUPE	3.3	15.8	19.1	5%
Total	**163.0***	**205.3**	**368.3**	**100%**

* One budgeted FTE is for a Nurse Coordinator, Occupational Health Role that belongs to another bargaining unit.

Some inefficiencies surrounding part-time positions at two different sites that could be filled by the same practitioners have been identified by practitioners and clinical leads. Consequences of these inefficiencies include having to reallocate two different resources to two partial roles, even if one resource would have the capacity to fill it by splitting their time between the two sites.

Another consequence of the multiple collective agreements is their impact on the allocation of resources. As seniority does not transfer across AAHP and NAPE, resources that could be reallocated to a different role under a different collective agreement may decide not to in order to retain their seniority and benefits.

The absence of relief positions across the RHAs also contributes to this challenge as it means that vacation time, training time, and time allocated to activities such as professional development, will likely impact service delivery directly as several roles will be vacant for a total of multiple weeks every year.



[1] HCS, 2017

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Current State of OT & PT Services

The Home Modification Program and Special Assistance Program have workload implications for OT, however deficiencies in these adjacent programs contribute to clinical inefficiency and scope of practice challenges.

Home Modification Program

Through Newfoundland and Labrador Housing Corporation (NLHC), the Home Modification Program (HMP) has been created to assist homeowners with an annual income of $46,500 or less who require accessibility changes to their residences. The aim of the program is to help promote independence, self-reliance, assist with a better quality of life, and enable individuals to remain in their own homes for a longer period.

An OT's report is required and it must clearly indicate whether modifications are urgent (i.e. required for client to return/remain home) or non-urgent. Where extenuating circumstances exist and at the discretion of NLHC, a report prepared by a qualified medical professional other than an OT may be accepted. NLHC provides funding to eligible homeowners up to the costs associated with repairs. Persons with accessibility needs may receive a forgivable loan of up to $7,500. Repairs exceeding these levels may be addressed under a repayable loan of up to $10,000 [$13,000 in Labrador] (NLHC, 2018).

Special Assistance Program

The Special Assistance Program (SAP) provides medical supplies, oxygen, and orthotics to assist with activities of daily living for people living in the community. A functional assessment must be completed by a licensed health professional and the results documented on the Client Assessment Form (SAP-1) to clearly demonstrate the client's need for the recommended equipment. Only a licensed health practitioner meeting a specific set of criteria can complete an equipment prescription through SAP (HCS, 2018).

Challenges and Pain Points

The HMP has been identified as an important initiative, but often modifications are delayed due to the requirement for a formal OT assessment. Private providers have been contracted to complete assessments, but stakeholder feedback suggests up-take has been limited as the cost of the assessment is added to the modification loan amount and many patients choose to wait for an assessment from the public system. One report indicated that documentation time has been estimated at 60 to 180 minutes per case. Furthermore, the report highlights that once the recommendation was completed, 10% of clients decided to not go ahead with the modifications. The report also concluded that, of the 40 clients contacted, seven were inappropriate referrals (did not require active intervention) and 2 were referred privately. Finally, the report highlighted a high level of cross-over between the HMP and the SAP with 53% of referrals requiring equipment prescriptions through the SAP (Eastern Health, 2016).

The SAP is perceived as unresponsive and administratively burdensome for OTs. The application and approval processes are time-consuming, and equipment delivery is not optimal and often requires OT or OTSW follow-up and intervention. Follow-ups by OTs are often required during the processing time until the installation is complete, resulting in inefficiencies and time worked outside of scope of practice. All these factors leads to a decreased clinical efficiency.

Recent changes to the SAP in the 2017 policy manual allow nurses to prescribe the basic types of equipment.

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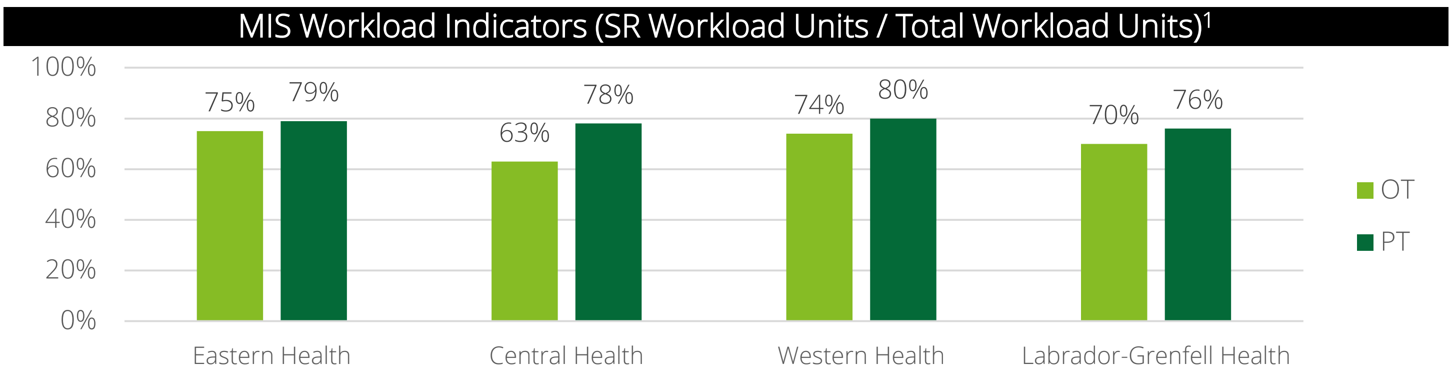
Current State of OT & PT Services

Inconsistencies in reported workload data lead to variation of performance indicators, making it difficult to assess provincial OT and PT performance.

Current Management Information Systems (MIS) indicators, such as utilization (the proportion of service recipient units of the total workload units) and productivity (SR units per FTE and NSR units per FTE) are impacted by inconsistent data.

Analysis of current workload data reveals that Eastern Health reports the highest SR productivity indicator for OT while Labrador-Grenfell reports the highest for PT. Labrador-Grenfell Health reports the lowest productivity indicators for OT while Central Health reports the lowest for PT. Central Health OT resources recorded the highest number of Non Service Recipient workload units per FTE, largely driven by their functional centre activities. Labrador-Grenfell PT resources recorded the highest number of Non Service Recipient workload units per FTE. It is worth nothing that a large portion of NSR time are for necessary activities (i.e. professional development, research, travel, caseload management, teaching).

When analyzing the current workload indicator (SR workload units / Total workload units), the provincial averages for OT and PT are 74% and 79% respectively, meaning that 26% of OT time and 21% of PT time is spent on Non Service Recipient activities. It is recognized that a desirable percentage of time should be allocated to NSR. Typical average targets have been identified as 80% SR and 20% NSR.



MIS Productivity Indicators[1]

Service Recipient Productivity per FTE (Service Recipient Time / FTE)

	Eastern Health	Central Health	Western Health	Labrador-Grenfell Health
Occupational Therapy	63,835	52,441	59,058	51,481
Physiotherapy	64,104	57,741	60,865	81,502

Non Service Recipient Productivity per FTE (Non Service Recipient Time / FTE)

	Eastern Health	Central Health	Western Health	Labrador-Grenfell Health
Occupational Therapy	22,614	30,139	24,623	21,513
Physiotherapy	16,696	16,749	15,355	20,676

[1] NLCHI P13 Reports, 2015-17

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Current State of OT & PT Services

Performance management is currently challenged by a lack of consistent data collection and reporting mechanisms.

When analyzing performance management practices, the review concluded that there are currently challenges with the data reporting processes, as well as with the data itself. Practitioners have identified the high administrative burden associated with clinical documentation as their second biggest challenge.

While data is reported according to MIS standards, there are areas of workload measurement that are not reported consistently across sites or RHAs (e.g. NSR workload units are not reported to the same level of detail across sites in the RHAs, SR/New Referral for PT in LGH is five times higher than in other RHAs). While clinical leads and VPs from the RHAs all demonstrate a desire to make evidence-based decisions, performance management is currently challenged by a lack of consistent data collection and reporting. MIS data is being recorded and analyzed, but standards are interpreted differently across the RHAs which impedes the RHAs' ability to effectively align resources to population needs.

Furthermore, responses to requests for data are often slow which in turn leads to slow decision-making. To add to the challenges surrounding appropriate data, formal channels for RHAs to share best practice and compare data are currently not readily available.

Capability Maturity Model – Performance Management

Performance Management: ◆

In Stage III, performance measures and metrics are defined, communicated, and applied throughout clinical services delivery. Target setting exists, but is limited and alignment with goals is inconsistent. Furthermore, formal review of policies, procedures, and internal controls are performed on a regular basis. Mandatory professional development is enforced and plans for performance correction are consistently monitored. Performance measures are based on national standards.

	Stage I Beginning	Stage II Developing	Stage III Defined	Stage IV Advanced	Stage V Leading
People & Organization			◆		

Challenge Heat Map – Survey Results

Challenge	Rank (1 being the biggest challenge and 7 the smallest challenge)									
	Eastern Health		Central Health		Western Health		Labrador-Grenfell Health		All RHAs	
	OT	PT	OT	PT	OT	PT	OT	PT	OT	PT
Availability and accessibility of resources and support (e.g., therapist assistants, rehabilitation equipment)	1	1	1	1	1	1	1	1	1	1
High administrative burden associated with clinical documentation	2	3	2	3	3	3	2	5	2	3
Inefficient referral, in-take, discharge and case management processes	3	2	3	4	2	2	5	2	3	2
Unnecessary duplication of effort across care-settings, programs and professional disciplines	4	4	5	2	6	4	6	4	4	4
Inadequate technology enablers to clinical services delivery	5	6	6	5	4	6	4	6	5	6
Delays in the completion of diagnostic services	6	5	4	6	5	5	2	6	6	5
Inadequate clinical practice standards and guidelines	7	7	7	7	7	7	7	3	7	7

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Current State of OT & PT Services

Service delivery is currently poorly supported by information technology.

When considering service delivery and performance management, continuity of care and clinical efficiency are significantly impacted by disparate clinical information and case management systems.

The use of different systems across the continuum of care is creating difficulties to maintain quality of care during transition between care settings. Similar to previous reviews, navigating disparate systems (e.g., Meditech, CRMS, interRAI) and many manual paper-based processes are consistently cited by stakeholders as key challenges.

Technology solutions are utilized to some extent across RHAs (e.g. Eastern Health using iPads, Central Health piloting telehealth for PTSW oversight, E-Mental Health), however they have not yet been leveraged consistently to deliver services.

Stakeholders reported a desire to increase utilization of technology. However, there is agreement that implementation of these technology solutions will require increased reliance on support practitioners.

Scaling technology-enabled approaches to service delivery is currently challenged by device availability, systems integration, strict privacy and security requirements, and competing technology priorities.

Capability Maturity Model – Technology Dimensions

Integration of Information:

In Stage III, portions of clinical documentation are completed on a region-wide system and are partly interdisciplinary. Niche systems may be used for documentation, however clinical documentation, whether automated or on paper, is largely standardized across the organization.

Care plans and/or pathways are not yet automated and continue to be inconsistently documented on paper but pathways are introducing interdisciplinary practice.

Finally, medical device integration is in place in high acuity areas and is limited to monitors.

Technology Enablers:

In Stage III, some online sharing and collaboration tools exist to facilitate interaction across regions, facilities and programs and other stakeholders. While some consolidation and integration of clinical information systems exist, integration challenges remain across care-settings.

The first level of clinical decision support is available to support error check for patient charting and order entry.

Finally, some level of medical imaging access is available.

	Stage I Beginning	Stage II Developing	Stage III Defined	Stage IV Advanced	Stage V Leading
Technology					

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Current State of OT & PT Services

There is an extensive network of private sector providers that mirrors the catchment area of the public system that is currently underutilized due to a lack of formal referral processes and criteria.

OT and PT services are currently being provided both publicly and privately to residents of Newfoundland & Labrador. In fact, the analysis indicates that 98% of the population residing in a community of at least 1,000 inhabitants has access to either private or public OT services within 50km of their respective city or community center. That percentage climbs to 99% for PT services.

There are private providers of both OT and PT services across the Province, with a heavy concentration in the area serviced by Eastern Health.

Occupational Therapy	EH	CH	WH	LGH	Total
# of Private Providers	31	3	10	1	45
Scope of Services	• Assessment • Equipment • Rehabilitation • Pediatrics • Ergonomics • Chronic pain	• Assessment • Equipment	• Assessment • Equipment • Rehabilitation • Ergonomics	• Ergonomics	

Physiotherapy	EH	CH	WH	LGH	Total
# of Private Providers	38	8	13	2	61
Scope of Services	• Assessment • Rehabilitation • Pediatrics • Chronic pain • Orthopedic	• Assessment • Rehabilitation • Chronic pain	• Assessment • Rehabilitation • Pediatrics • Orthopedic	• Assessment • Rehabilitation	

Availability of OT Services[1]

Availability of PT Services[2]

Public Provider

Private Provider

50km Catchment Area

Practitioners and Clinical Lead identified that insurance coverage is a barrier to access to private services, especially for occupational therapy services. Furthermore no formal or defined referral channel to private services (including clinical and financial eligibility criteria) exists for OT and PT.

[1] NLAOT, 2018. [2] NLCPT, 2018

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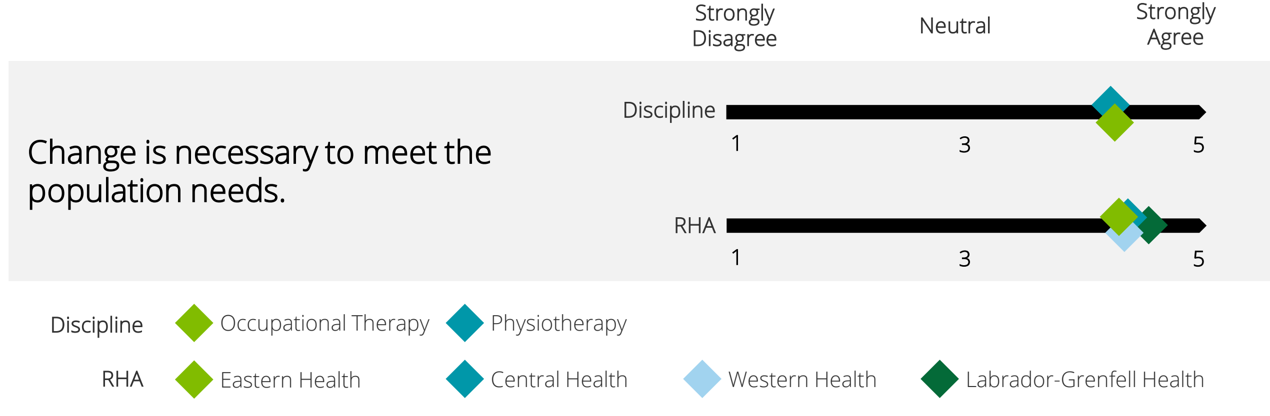
Current State of OT & PT Services

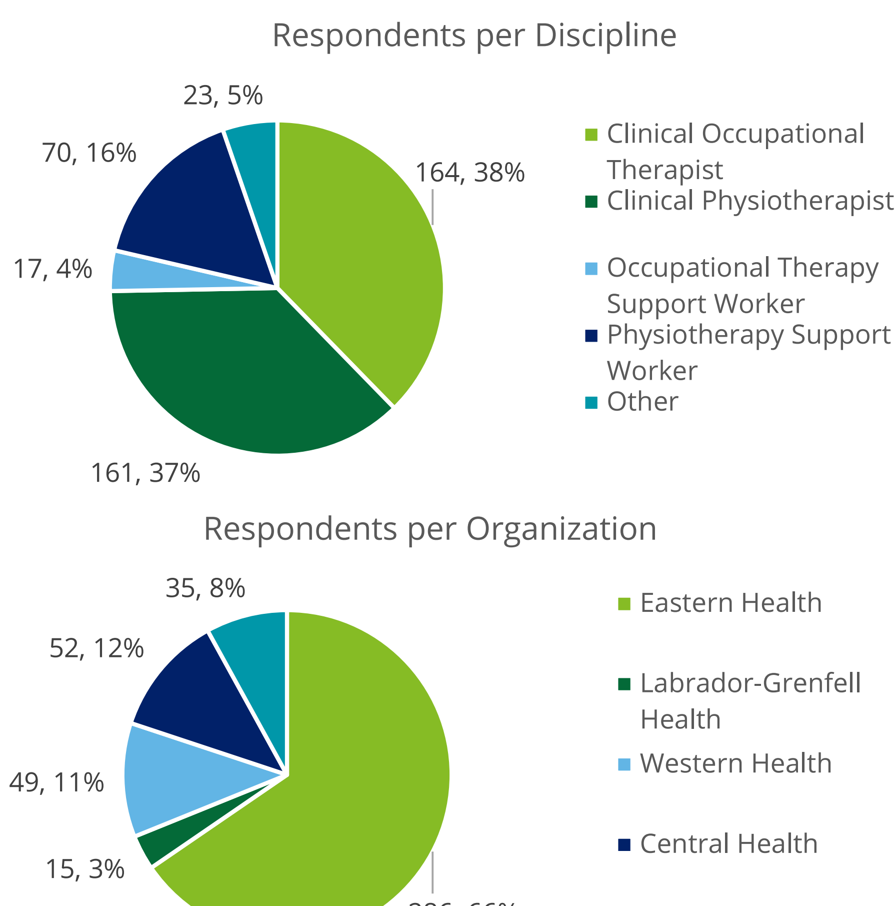
Despite the current challenges, clinical leaders, managers and front-line practitioners are highly engaged and believe that change is necessary to meet the future needs of the population.

Throughout the stakeholder engagement process, there were open discussions and a willingness to share personal experiences. 21 VP/Directors and 42 Managers/Clinical Leads made themselves available for a one-hour interview in which they shared their experience on topics such as current program structure, observed challenges, and potential opportunities for improvement.

437 practitioners from the RHAs as well as the private sector participated in the online survey, 231 (53%) of which identified as physiotherapists or physiotherapy support workers, and 181 (41%) identified as occupational therapists or occupational therapy support workers.

When asked if change is necessary to meet the population needs, there was significant agreement across disciplines and RHAs.





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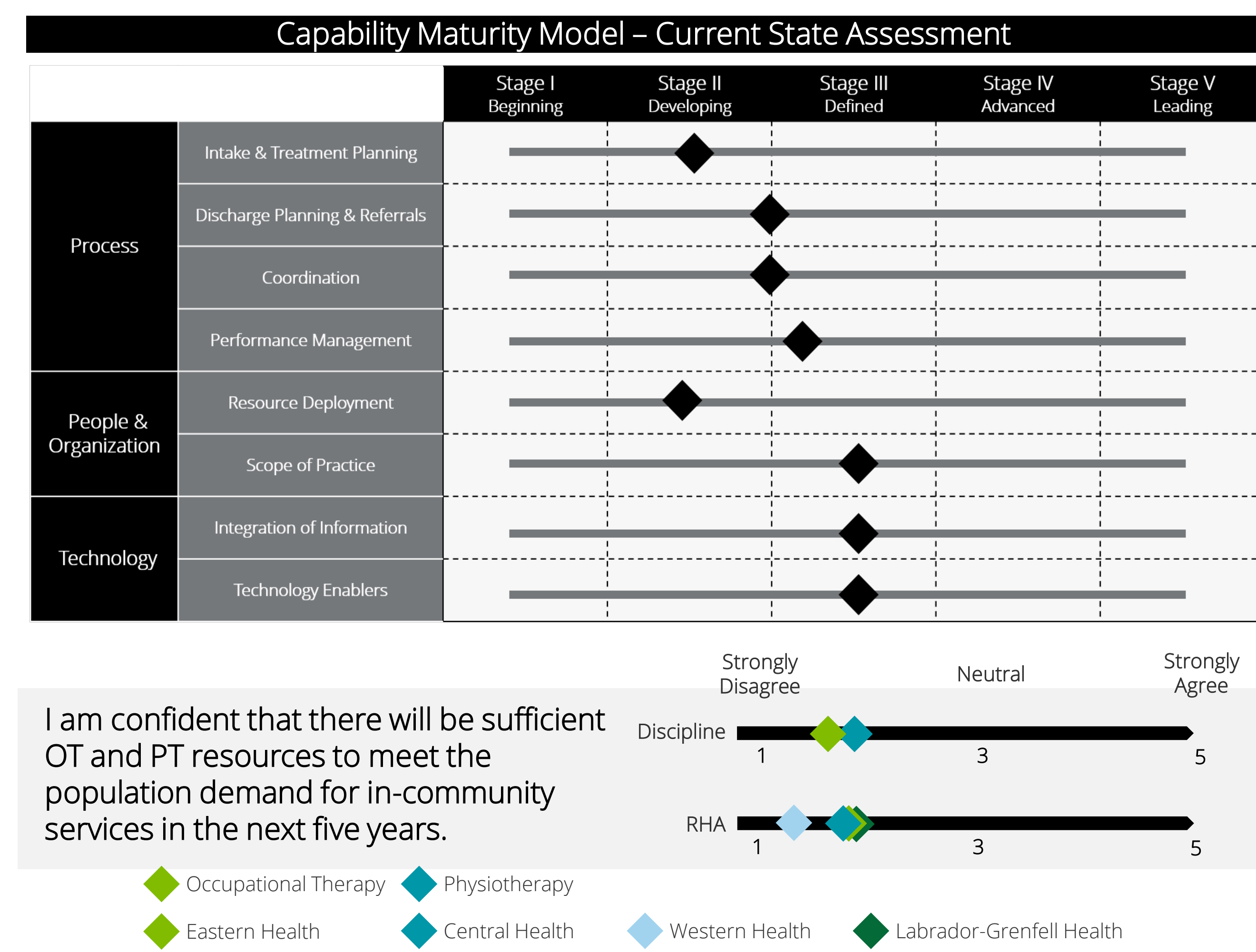
Current State – Summary of Key Findings

The review of the current state of Occupational Therapy and Physiotherapy services concluded that the province is facing a number of challenges.

In seeking to understand the current state of OT and PT services, the review identified several key findings:

- Inpatient care is currently the focus of OT and PT service delivery across the Province with resource allocations, program-oriented reporting structures, and clinical processes all contributing to this prevailing model.
- Clinical processes across the province are generally well defined and moderately mature relative to leading practices but vary significantly across RHAs and programs (see the Capability Maturity Model at right).
- While scopes of practice for OT and PT are well defined from a regulatory standpoint, roles within interdisciplinary teams are not sufficiently defined to allow clinicians to work to their full scope of practice.
- The level of clinical supervision and support varies significantly across RHAs and programs and expectations of clinical leaders are inconsistent.
- Service delivery is currently poorly supported by information technology which significantly impacts continuity of care and clinical efficiency.
- Multiple collective agreements and bargaining units create barriers to aligning resource allocations to population needs.
- The Home Modification Program and Special Assistance Program have workload implications for occupational therapy, however deficiencies in these adjacent programs contribute to clinical inefficiency and scope of practice challenges.
- There is an extensive network of private sector providers that mirrors the catchment area of the public system that is currently underutilized due to a lack of formal referral processes and criteria.
- Despite the current challenges, clinical leaders, managers and front-line practitioners are highly engaged and believe that change is necessary to meet the future needs of the population.



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Research Findings

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Research Methodology

External research into practice examples in other jurisdictions complemented internally focused elements of the review.

Research Scope

Deloitte's research gathered data and information from Canadian provinces as well as several other countries. Additional research relating to leading practices and innovative programs was used to supplement the jurisdiction-specific findings. The intent of the research was to to identify 'thought starters' or ideas for consideration on four research topics identified by the Steering Committee:

- Scope of Practice
- Clinical Efficiency
- Workload
- Productivity

Research Methodology

The research comprised the following elements:

- Desktop research on specific practice examples;
- Review of literature (e.g., secondary research, industry reports);
- Program evaluations and policy documents; and
- Interviews with subject matter experts.

Research Findings

The research identified insights in five key opportunity areas:

1. The inclusion of OT and PT services within primary care networks.
2. The use of generalized, interdisciplinary and patient and family-centered assessment processes.
3. Utilization of the private sector for the delivery of therapeutic interventions with well defined care standards and protocols and careful monitoring systems built in.
4. Remote clinical assessment and supervision of support paraprofessionals through technology.
5. OT and PT participation in health promotion, particularly in the management of chronic diseases and injury prevention.

The pages that follow detail the findings in each of these five opportunity areas. The Complete list of practice examples is provided in Appendix D.

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Learning Opportunity and Insight

The inclusion of OT and PT services within primary care networks increases access to OT and PT services closer to patients' homes.

Practice Example	Description	Key Findings / Outcomes
encompass Working together for better health and care UK NHS Vanguard Program: Encompass (Whitstable, Faversham, and Canterbury)	Interdisciplinary Teams Closer to Patients Homes The Encompass vanguard will create a more cost-efficient and clinically effective service by treating patients closer to home using specialist GPs, health professionals such as occupational and physical therapists, and community-based consultants, who will coordinate and simplify services. There will also be greater use of information technology. Telecare and telemedicine systems – which use a network of remote sensors and systems to monitor patients – will enable people to maintain their independence through self-care and self management. The use of shared single electronic patient records will support integrated care as any number of health care professionals involved in an individual's care can access their complete and up to-date information. Four health and social care 'hubs' will also be created. These will provide a central point for health and social care covering some nursing home and hospital in-patient services. A federation of GPs will work in partnership with everyone involved in health and social care across the local area, including the voluntary sector and patient groups.	A recent report evaluated the change in emergency admission rates for a 12 month period between 2017 and 2014-2015. Findings showed a reduction of 7.3% in the admission rate. A November report also highlighted a 27.3% decrease in short-stay admissions, and a 5.8% reduction in A&E minor attendance. The organizations participating in this vanguard jointly serve a population of approximately 170,000 people across Whitstable, Faversham, Canterbury, Ash and Sandwich
Ontario Local Health Integration Network	Physiotherapy Community Health Centres (CHC) In Primary Health Care (PHC), physiotherapists deliver clinical care both individually and in a group setting to provide rehabilitation programs and education aimed at improving function, wellbeing and quality of life. Physiotherapy service delivery has multiple elements and can include: • Assessment, diagnosis and treatment of various acute and chronic conditions, including the provision of individualized exercise programs, manual therapy, self management and education • Triaging for musculoskeletal pain, including referral to community based treatment programs and identifying the need for additional diagnostics or specialist referral • System navigation assistance for those who qualify for other community based physiotherapy services, and who are in need of other services in the community • Mobility aid assessment and assistance in navigating funding options • Support and education for caregivers for assistance of those with chronic disease including prevention of injury programs for caregivers	In 2011, PHC teams employed a small number of physiotherapists, with only 13 of 73 CHCs in Ontario offering physiotherapy services. As of September 2017, nearly 80 physiotherapists are employed at approximately 60 different PHC facilities across Ontario. Currently, there is a significant unmet need for community based physiotherapy services across Canada, and a large proportion of this need has been identified in Ontario. According to data from the TCLHIN CHC evaluation report, 70% of individuals who reported receiving care from a PHC physiotherapist identified that they would not have been able to access physiotherapy services had it not been offered by the PHC organization.

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Learning Opportunity and Insight

The use of generalized, interdisciplinary and patient and family-centered assessment processes reduce inappropriate referrals.

Practice Example	Description	Key Findings / Outcomes
Alberta Health Services	Rehabilitation Framework AHS has developed the "Rehabilitation Conceptual Framework" to assist clinicians, managers and planners improve access to quality, sustainable rehabilitation services. Needs identification and service delivery parameters in the Framework cover the collaborative processes involved in linking client or community needs with the appropriate service delivery options. These are: • Identifying where the client needs fit within the health continuum through Screening or Assessment, • Choosing the required rehabilitation Service Delivery Parameters, specifically Intervention Types (Health Promotion, Prevention, Treatment, Care, Case Management) and Rehabilitation Service Levels (Universal Services, Targeted Services, Clinical Services), • Choosing the appropriate Service Pathway, and • Identifying Population Health Needs and System Linkages.	Consider opportunities to : • Integrate tools and processes to support early identification of need for ambulatory and community based rehabilitation services and • Develop linkage with the appropriate services, particularly for those at highest risk for poor outcomes, deterioration, or increased use of services.
Chartered Society of Physiotherapy Case Study: North West Wales	Musculoskeletal Assessments Advanced Physiotherapy Practitioners (APP) in clinically assessing patients with musculoskeletal problems as an alternative to the General Practitioner in primary care. It is estimated that up to 30% of all GP consultations relate to musculoskeletal complaints, and evidence shows that using MSK Advanced Physiotherapy Practitioners as the first point of contact for musculoskeletal complaints in primary care ensures the patients are seen by the most appropriate practitioner through the musculoskeletal care pathway, having a positive impact on secondary care referral rates into musculoskeletal services.	Of the 2170 patients seen (5% Did Not Attend rate), 84% were successfully managed within Primary care by the APPs. 15% (n=326) of patients referred into secondary care MSK services including Physiotherapy, therapies, Orthopaedics, rheumatology, pain services, and CMATS (musculoskeletal service); a reduction of 33% (n=164 NP's) compared with pre-service electronic referral system data. Less than 1% of patients had to be referred back to the GP. Cost reduction within primary care appointments was estimated at £9,618.22.
Ontario	Rapid Access Clinics Ontario is investing in more rapid assessment clinics. The new clinics will help people with pain in their muscles or bones get the treatment and specialized care they need by reducing unnecessary medical procedures, including imaging and surgery. The clinics will also improve wait times through a coordinated intake and triage process, with patients better able to access the right education and treatment options faster, which could include referrals to proven alternatives to surgery and pain medication like physiotherapy or chiropractic treatment	Family physicians can refer patients to a Rapid Access Clinic to receive an assessment, education and treatment recommendations within four weeks by a physiotherapist or chiropractor

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Learning Opportunity and Insight

Utilization of the private sector for the delivery of therapeutic interventions with well defined care standards and protocols enhances public practitioners productivity while maintaining or increasing quality of care.

Practice Example	Description	Key Findings / Outcomes
United Kingdom – National Health Service (NHS)	Privatization of PT services The 2012 Health and Social Care Act opened up the NHS to competition. Since then, there has been a gradual privatization of health services, some working well, others less so, covering a range of services from general outpatient work, to physiotherapy, ophthalmology, diagnostic and even children's services. Between April 2010 and April 2015, • 86% of contracts for pharmacy services were awarded to non-NHS providers • 83% of contracts for patient transport services were awarded to non-NHS providers • 76% of diagnostic services were awarded to non-NHS providers • 69% of GP/Out of Hours services were awarded to non-NHS providers • 45% or community health services were awarded to non-NHS providers • 25% of mental health services were awarded to non-NHS providers.	Benefits of the privatization include: • Reduced wait times • Decreased secondary care referrals and related costs • Reduced costs • Increased access to services There exists some concerns around privatization of NHS with regards to: • The motivation of the companies (making money vs providing care) • Workforce implications of public providers • Treatment of patients • Communications complications between the different private providers and NHS
Manitoba - Community Therapy Services Inc.	Leverage of Private Provider CTS is a private, non profit Agency that leverages its expertise in occupational therapy and physiotherapy to meet the rehabilitation service needs of individuals, care providers and care organizations in Manitoba. Services include: Home Care: CTS employs specialists in community care (OT and PT) who provide services to clients in WRHA home care program. Referrals are received from community and hospital based case managers, physicians, hospital rehabilitation departments, and directly from clients and their families. Long Term Care (Personal Care Homes): CTS employs specialists in long term care (OT and PT) who provide consultation services in Personal Care Homes (nursing homes) throughout Winnipeg. Community Mental Health (SCIL): CTS employs OTs who provide rehabilitation services to persons with mental illness living in the community in a number of different settings. First Nations Physiotherapy: CTS PTs provide services to residents living in several First Nations Communities in Northern and Central Manitoba. This is predominantly a Fly-In service as most communities are inaccessible by road most of the year. Schools: CTS provides OT services to students in the elementary school system.	Private organizations have capacity to deliver services that public sector is not able to cover due to lack of resources, or other constraints. Clear identification of protocols and standards are required to ensure consistency and quality of care. Potential cost savings can be achieved while leveraging the private sector.

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Learning Opportunity and Insight

Remote clinical assessment and supervision of support paraprofessionals through technology increases productivity while delivering care in patient homes.

Practice Example	Description	Key Findings / Outcomes
Ontario Telemedicine Network	Physiotherapy Case Studies OTN is a not-for-profit organization funded by the Ontario Ministry of Health and Long-Term Care charged with building a sustainable and responsive virtual care system. Case study 1 – Telemedicine: A tool for the rehabilitation and socialization of stroke patients in remote communities. Case study 2 – Personal Videoconferencing, a tool for increasing patient capacity and improving care.	Case Study 1: This first study led to a three-year trial, which determined there is no difference in the treatment outcome between a stroke specific self-management program conducted in person. The results were life-changing for the practitioner and her clients. Case Study 2: When encountering a patient for the first time, practitioners must collect a history and conduct an interview. The goal is to understand the problem from the patient's perspective. Initial consults are up to an hour long, with as many as 20 minutes spent interviewing and collecting patient history. While a best practice, it reduced the amount of time the practitioner had for hands-on care for the community of Ignace, 2.5 hours west of Thunder Bay. By re-thinking the mechanics of an initial consult - splitting the interview process from the hands-on encounter for initial consults the practitioner is able to see as many as three additional patients in an hour that was traditionally consumed by one patient.
Brighton and Sussex University Hospitals NHS Trust NHS United Kingdom	Virtual Fracture Clinic A Virtual Fracture Clinic (VFC) has been set up. The service provides follow-up assessment, videos and acute rehabilitation advice for self-management without the patient needing to return to the hospital. The clinic launched in August 2013.	The service has given patients direct access to physiotherapists and enabled a 100% consultant review rate. The service has also delivered cost savings. The clinic has managed over 10,000 patients, reducing outpatient appointments by 57% and saving the NHS over £750,000. Patient satisfaction surveys show that patients have a better understanding of their rehabilitation and that they value the ease of access to trained physiotherapists.
Arnprior Regional Health Arnprior, Ontario	Remote Monitoring using Mobile Technology Designed for use on a tablet, the aTouchAway platform is a secure communication and information sharing digital platform created by Aetonix Systems, an Ottawa-based health technology company that was founded in 2014. Through the Health Technologies Fund, the provincial government is supporting 15 unique software and mobile health devices from across the province. Concepts range from real-time monitoring apps and software for diabetes and post-cardiac surgery patients, to a video sharing app for patients with spinal cord injuries that opens up access to coordinated care and treatment at home.	Use of technology can be used as a follow up for ongoing monitoring to patient/clients or a way for patients/clients to seek support virtually. Using this innovation solution, the Arnprior Region and West Ottawa and Upper Canada Health Links connect patients with more than 50 agencies including hospitals, primary care teams and community sector agencies. Access to devices is a required investment to deliver this service. Personal devices can be used by the patients.

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Learning Opportunity and Insight

OT and PT participation in health promotion, particularly in the management of chronic diseases and injury prevention can reduce the need for intervention.

Practice Example	Description	Key Findings / Outcomes
GLA:D™ CANADA	Hip & Knee Osteoarthritis Exercise Program GLA:D® is an education and exercise program developed by researchers in Denmark for individuals with hip or knee osteoarthritis symptoms. Clinics are currently present in Canada in BC (13), AB (36), MB (3), ON (50), NB (2), and NL (1 clinic in St-John's)	Research from the GLA:D® program in Denmark has shown a reduction in progression of symptoms by 27%. Other outcomes include a reduction in pain intensity, reduced use of joint related pain killers, and fewer individuals on sick leave. Program participants also reported high levels of satisfaction with the program and increased levels of physical activity 12 months after starting the program.
NHS Harrogate and Rural District Clinical Commissioning Group United Kingdom	Integrated Teams and Prevention Services will be provided by an integrated (joined-up) care team including GPs, community nurses, adult social care, occupational therapy, physiotherapy, mental health, geriatricians and the voluntary sector. Boundaries between primary, community, acute, mental health and social care are being removed and hospital beds will be used only when they are truly needed. A response and overnight service will provide rapid support and social care staff will work with A&E, both helping to avoid admissions to hospital. Community beds are available for those who need a little more support. The vanguard also focuses on early intervention, prevention and promoting self-care. Prevention will focus on falls, mental health and strokes.	A focus on prevention and self-care will help support independence and reduce the need for interventions from health or social care services High quality and sustainable services will offer value for money and be clinically and financially sustainable Local and personal support will help reduce unnecessary hospital admissions. The vanguard covers a population of approximately 160,000.
Winnipeg Regional Health Authority	Proactive Hip & Knee Rehabilitation Clinic Winnipeg Health Region Authority (WRHA) has a dedicated program to provide proactive rehabilitation support services for hip and knee replacement surgery in preparation for the surgery. Services listed include improving exercise tolerance and strength, improving nutrition for healing and weight loss, increasing your ability to manage daily activities, pain management, smoking cessation, and optimizing mental well-being and social supports	Goal of the program is a faster recovery from surgery and potentially decreased complications. Upstream intervention can lead to less complications and a faster discharge.

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OT/PT Services Review Analysis

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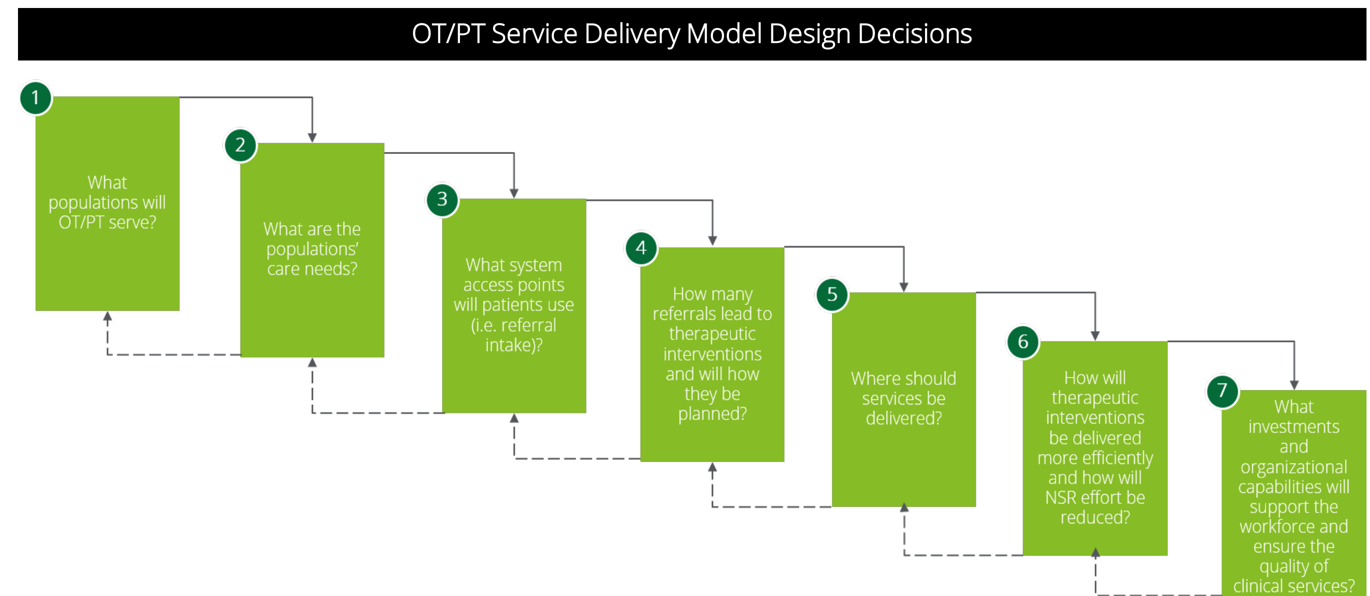
Target OT/PT Service Delivery Model

The design of the target delivery model for OT/PT services was framed by a series of interrelated choices, each of which had implications for the resource allocation across the continuum of care.

The objectives of the review were to identify potential opportunities to improve access to OT and PT services, align resource allocation and utilization to population needs, and enhance clinical efficiency and the extent to which practitioners work to their full scope of practice.

As such, the design of the future or target OT/PT service delivery model was framed-up as a seven-step logic model:

1. What population will OT/PT serve?
2. What are the populations' care needs?
3. What system access points will patients use (i.e. referral intake)?
4. How many referrals lead to therapeutic interventions and how will they be planned?
5. Where should services be delivered?
6. How will therapeutic interventions be delivered more efficiently and how will unnecessary Non Service Recipient (NSR) effort be reduced?
7. What investments and organizational capabilities will support the workforce and ensure the quality of clinical services?



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Target OT/PT Service Delivery Model

The approach to defining the target service delivery model for OT/PT services was based on a "build with the end in mind" philosophy. With a clear picture of the future population needs and required actions, improvement opportunities were identified to achieve the long-term vision of the program.

A key principle of the Department is the need for a health system that is patient centered and where care is planned based on patient needs. This required challenging the status quo by removing current limitations.

As such, the design of the target OT/PT service delivery model leveraged specific practice examples from the body of research to generate innovative ideas that formed the basis of the desired future for OT and PT services in the Province. The design decisions led to the creation of a target OT/PT service delivery model that aligned with the following ambitions:

- Serving a larger population of patients, clients, and residents with an increased emphasis on preventative and less resource intensive interventions;
- Inpatient and ambulatory care services dedicated to the provision of secondary services; and
- Deliberate and focused strategies for providing services to meet the specific therapeutic needs of pediatrics, adults, and seniors.

Target populations were identified by considering incidence of conditions where OT and PT services would ideally be part of the treatment plan. Additionally, individuals receiving OT and PT services through health prevention programs were also included in the target populations.

Age Group	2017 Population[1]	Target % of Population Receiving OT Services	Target Population Receiving OT Services	Target % of Population Receiving PT Services	Target Population Receiving PT Services
Pediatrics (0-19)	101,855	2.5%	13,162	3.3%	17,187
Adults (20-64)	322,215	12.6%	66,843	16.3%	85,934
Seniors (65+)	104,754	12.0%	63,459	5.5%	29,085
Total	528,817	27.1%	143,465	25.0%	132,206

[1] Statistics Canada, 2017

Discipline	Referral Intake by Care Setting							
	Inpatient		Outpatient		Long-Term Care		Community	
	Current	Target	Current	Target	Current	Target	Current	Target
OT	59%	25%	31%	20%	6%	6%	4%	49%
PT	49%	25%	46%	20%	5%	5%	-	50%

The target model promoted a significant shift of referrals from inpatient and outpatient care to the community.

Delivery methods were also assessed, with the conclusion that continuity of care (practitioner following the patient throughout the continuum of care) may be preferable in certain instances and for targeted populations. A focus on education, prevention, and alternate delivery methods was also deemed necessary to align with population needs. Delivery of services in patient homes and in the community was in line with the Department's vision of the future of health care in the province.

Following the design of the target OT/PT service delivery model, a gap analysis against the current state of OT and PT services was performed using the CMM. See appendix E for additional details.

Improvement opportunities were identified along four main themes:

- Technology enablers;
- Organization & people;
- Process; and
- Service delivery model.

A quantitative model supporting the evaluation of each of the themes was used to estimate the potential benefits related to the identified improvement opportunities. Assumptions related to the quantitative analysis are presented in Appendix F.

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Improvement Opportunities

With a shared understanding of the current state of OT and PT services and knowledge of alternative practices, the Steering Committee collaboratively identified improvement opportunities that will enhance access and efficiency of OT and PT services while allowing for realignment of resources to meet the population needs.

◔ Low Potential ◑ Some Potential ◕ Moderate Potential ● High Potential

ID	Opportunity Name	Description	Improvement Potential			Complexity
			Access to Services	Clinical Efficiency	Scope of Practice	
Technology Enablers						
1	Expand Point of Care Device Use	Investments and training to enable point of care documentation. Development of security and privacy protocols	◕	●	◑	Moderate
2	Expand Remote Assessment & Monitoring	Investments in devices and training of practitioners and clients on the use of remote technology	◕	◕	◑	Moderate
3	Expand Remote Support Worker Supervision	Develop clear remote supervision protocols across the province	◕	◕	◕	High
4	Enable Patient & Family Directed Care	Encourage self-directed care by promoting available services and appropriate setting to receive those services	◕	◕	◑	High
5	Integrate Community Systems	Integrate Meditech and CRMS so practitioners can have a single information system across all care settings	◑	●	◑	High
Organization & People						
6	Realign Roles & Responsibilities	Clarify the scope of services OT and PTs provide and standardize across the province	◑	◕	●	Moderate
7	Educate Health Practitioners & Patients	Develop education program on the role of OT and PT and the service they deliver	◔	◕	◕	Low
8	Establish Generalist Therapist Assistants	Create TA roles that support OT and PT practitioners	◕	◑	◕	Low
9	Develop Leadership Capabilities	Investments in professional development to grow leadership capabilities and change management skills	◔	◑	◕	Moderate
10	Realign Resources Across the Continuum	Reallocate resources between the care-settings to align with population needs and target populations	◕	●	◕	High
Process						
11	Establish Generalized Patient and Family-Centered Assessments	Develop assessment protocols that align to patient needs and that allow for care plans delivered in the right care setting	◔	◕	◑	High
12	Expand Client Trigger Demand Management	Remove wait-list by expanding the Eastern Health protocols across the province	●	◕	◑	Low
13	Expand Primary Care Network Integration	Integrate OT and PT in primary care setting to decrease inappropriate referrals	◕	◑	◑	High
14	Improve Support to Population Health	Investments into upstream intervention in community settings (schools, workplaces, community centres)	◑	◔	◑	High
15	Reinforce Performance Management Standards	Improve MIS data documentation by standardizing reporting practices and creating formal information sharing networks	◔	◕	◕	Low
16	Establish Provincial Standards & Policies	Standardize RHA specific standards and policies across the province to ensure alignment and consistency	◔	◕	◕	Moderate
17	Establish Provincial Professional Practice	Create provincial supervision discipline role for OT and PT and establish standard supervisory hierarchy	◔	◕	◕	Low
Service Delivery Model						
18	Establish Equipment Managed Service	Develop standards and protocols with the private sector to reduce OT involvement with equipment services	◑	◑	◕	Moderate
19	Establish Private Joint Replacement Rehabilitation Option	Create a referral process to private sector for low complexity / high volume post-surgical rehabilitation	◑	◑	◕	Low
20	Enable Assignment to Private Home Support Workers	Develop clear task assignment guidelines and formalize scope of tasks that can be assigned to Home Support Workers	◕	◑	◕	Low
21	Engage Community Volunteers	Develop clear task assignment guidelines and formalize scope of tasks that can be assigned to volunteers	◑	◔	◕	Low
22	Establish & Sustain a Student Clinic	Partner with Memorial University of Newfoundland (MUN) and other OT / PT schools to establish a student clinic	◑	◔	◕	High

Improvement Opportunities

Expanding the use of technology, particularly the use point of care devices, will enable remote assessments and supervision of assigned clinical tasks.

By investing in technology enablers, OT and PT will increase the ways in which they provide services, thus aligning better with client needs.

1. **Expand Point of Care Device use:** Investments in devices and practitioner training to enable point of care device usage will allow for the reduction of time spent documenting clinical information. Additionally it will accelerate the transition of the patient through the continuum of care as information will be documented during or right after the intervention.
2. **Expand Remote Assessment & Monitoring:** Development of security and privacy standards will enable the expansion of remote assessment and monitoring of patients. Allowing patients and practitioners to use their own devices will reduce the limitations regarding equipment needs. Additionally, remote intervention will reduce unnecessary travel time.
3. **Expand Remote Support Worker Supervision:** Leverage current practices within RHAs to create provincial wide standards that will enable a larger portion support worker to remotely supervised work. Remote supervision will enable OT and PT practitioners to reduce travel time while ensuring support workers are delivering quality care.
4. **Enable Patient & Family Directed Care:** Promote available services and their respective care setting so patients and their family own their care plan and act on their care needs by engaging directly with the health care system. Technology solutions can be developed to facilitate the way patients and informal care givers interact with OT and PT services, thus getting services they need at the appropriate time and in the right setting.
5. **Integrate Community Systems:** By integrating Meditech, CRMS under a single platform, and provincial electronic health records, the Department will facilitate information sharing across care settings. Documentation requirements could be simplified, allowing practitioners to allocate more time to patients.

These five opportunities will leverage technology to improve productivity of the practitioners and deliver quality care where patient need it.

The utilization of technology will have the largest impact on community and in-home service delivery as it will reduce the travel time required for follow-up visits that could be done remotely. Point of care documentation will further reduce the documentation time, increasing productivity.

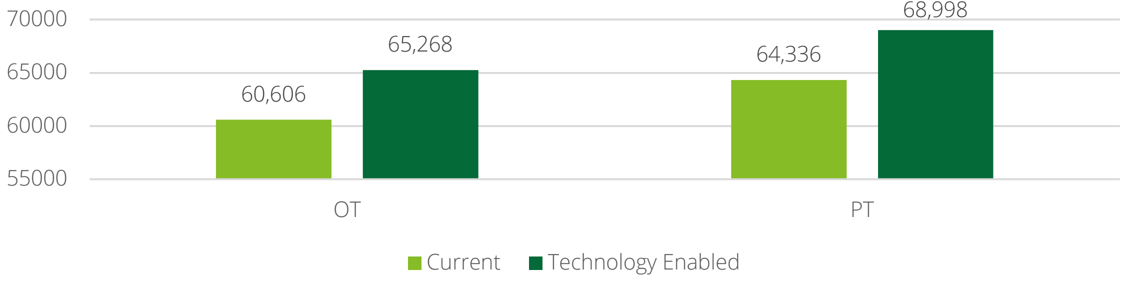
25% Reduction of NSR Workload Units (re-allocated to SR Workload Units)

Discipline	Current SR Productivity	Technology Enabled SR Productivity
OT	65%	70%
PT	69%	74%

By re-allocating 25% of the NSR functional workload units, the quantitative model has calculated an **increase in productivity for community practitioners of 5% OT and PT**.

By leveraging technology, to increase the productivity of community practitioners, the analysis estimates that this will result in a **8% increase in Service Recipient workload for OT and 7% for PT**. These results point to practitioners being able to serve a larger number of clients ever year.

SR Recipient Workload Units per FTE – Community



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Improvement Opportunities

Review and revise the roles and responsibilities of OTs, PTs, and support workers to clarify the scope of clinical and administrative task delegation, shared scope of practice, and model of clinical supervision and support.

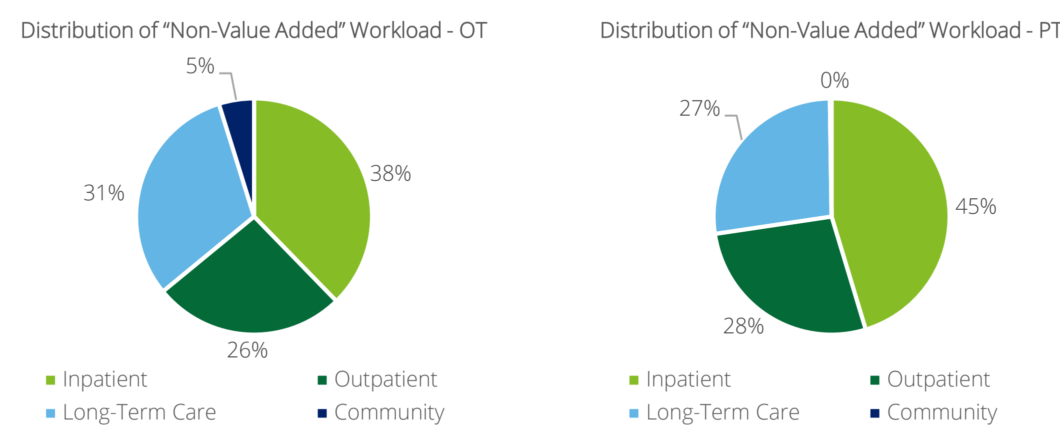
By investing in organizational capabilities, the Department will increase efficiency and productivity of its workforce which will result in higher quality of care. In order to do so, the Department may wish to consider to:

6. Realign Roles and Responsibilities: Clarifying the scope of services provided by OT and PTs across levels (e.g. OT-I, OT-II, OT-III, OTSW) in an effort to reduce administrative burden and ineffective professional time will increase the reach and availability of therapy services available for patients. To achieve this, the scope of services delivered by support workers must also be clearly defined.
7. Educate Health Practitioners and Patients: By educating both health practitioners and patients on the roles and services offered by OT and PT practitioners, it will clarify when OT/PT intervention is required.
8. Establish Generalist Therapist Assistants: Moving away from the current system whereby therapist assistants (TA) are qualified to deliver supporting services to OT and PT practitioners but are not used to their full potential by establishing a network of generalist therapist assistants would allow TAs to provide care in both disciplines on a basis of need; thereby improving resource allocation efficiency.
9. Develop Leadership Capabilities: Investments in training and professional development to grow OT and PT leadership capabilities and develop change management skills will contribute to the success of the implementation of the different recommendations coming out of the review and beyond.
10. Realign Resources Along the Continuum: By progressively realigning resources to the appropriate care setting, the appropriate services will be delivered where the patients need them.

By addressing some or all of these organizational opportunities, the overall impact felt would be high. Specifically, there would be tremendous impact on the scope of practice, leading to improved quality and efficiency of care for both patient and practitioner.

Discipline	Current Assessment of Non-Value Added SR Workload Units by Care Setting			
	Inpatient	Outpatient	Long-Term Care	Community
OT	10%	10%	40%	30%
PT	15%	10%	20%	30%

Through discussions with front-line staff across the Province, practitioners have identified that they are currently devoting a large percentage of their time to work that could be done by other health practitioners (i.e. nurse, home support workers, etc.), clerical staff, students, or volunteers. This estimate has been defined as non-value added service recipient time. **The waste associated with the non-value added workload has been estimated at 12,500 hours for OT, and 21,200 hours for PT.** Reallocating those hours will lead to increased clinical efficiency.



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Improvement Opportunities

Enhance referral and transition mechanisms across the continuum of care and enable formal data sharing practices between the RHAs, allowing evidence-based decision making.

By clarifying current clinical processes across RHAs, the Department will develop a common understanding of the target delivery model, and will ensure consistency of service delivery across RHAs and across the continuum of care.

11 **Establish Generalized Patient and Family-Centered Assessments:** The development of assessment protocols that align to patient and family needs across the province will ensure that patients are directed to the right care setting, and that the patients care plan is aligned to the patients needs.

12 **Expand Client Trigger Demand Management:** Removal of wait lists by expanding practices used in Eastern Health and Central Health across the province will develop a patient directed model of care. This will reduce wait times and ensure that care is aligned with patient needs.

13 **Expand Primary Care Network Integration:** By integrating OTs and PTs in primary care, patients will have access to specialized services earlier in the continuum of care, allowing them to access the right care in the right care settings.

14 **Improve Support to Population Health:** By allocating practitioners to early intervention and prevention programs in community setting, OTs and PTs will be able to reach a larger portion of the population. The increased client awareness and prevention programs will lead to a reduction of necessary services downstream at a more appropriate time.

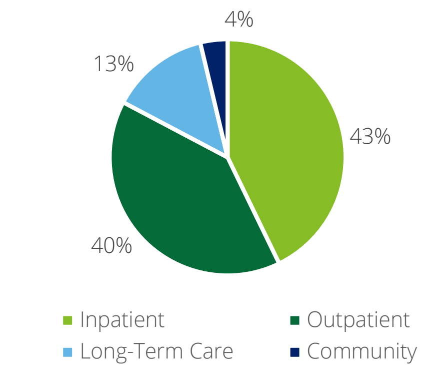
15 **Reinforce Performance Management Standards:** Improving MIS data documentation by standardizing report practices across the province will support evidence-based decision making. Additionally, creating formal information sharing networks will facilitate the access to information required to evaluate performance and drive continuous improvements.

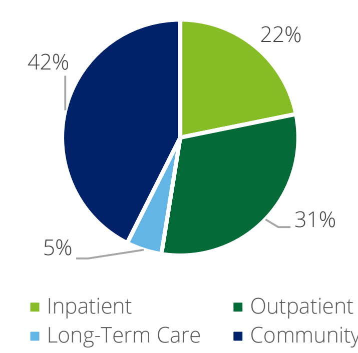
16 **Establish Provincial Standards & Policies:** Developing provincial documentation leveraging the current RHA specific standards and policies will ensure alignment and consistency, allowing a common understanding of the available information.

17 **Establish Provincial Professional Practice:** Creating a provincial supervision model for both OT and PT would enable a single point of contact to oversee improvement implementation and ensure provincial objectives are being met by the different RHAs. Furthermore, establish standard provincial supervision hierarchy will increase consistency across RHAs.

Discipline	Current Assessment of Appropriate Referrals by Care Setting			
	Inpatient	Outpatient	Long-Term Care	Community
OT	80%	75%	70%	85%
PT	70%	85%	80%	60%

Current assessments by the Steering Committee of the incidence of inappropriate referrals has helped identified that inappropriate referrals are generating excess work for practitioners across all care setting. The quantitative analysis has produced an estimate of a total of **32,700 hours for OTs and 52,000 hours for PTs per year wasted on inappropriate referrals**.





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Improvement Opportunities

Leverage the private sector, volunteers, students, and community partners to improve the accessibility and clinical efficiency of OT and PT services, enabling current practitioners to be reallocated to work better aligned with their scope of practice.

By concentrating OT and PT services to service recipients who benefit the most from OT and PT services, and transferring the right portion of the workload to the private network, to students, community partners, or volunteers, OT and PT practitioners will be able to increase clinical efficiency and deliver an increased quality of care.

18 **Establish Equipment Managed Service:** By developing standards and protocols with the private equipment providers, OTs and PTs will be able to reduce their involvement with unnecessary activities that are currently reducing their productivity.

19 **Establish Private Joint Replacement Rehabilitation Option:** By creating a referral process to the private sector for low complexity and high volume post-surgical rehabilitation interventions, public physiotherapy capacity is created, allowing resources to be reallocated closer to the point of primary care in a community setting for early access to assessment and intervention.

20 **Enable Assignment to Private Home Support Workers:** By developing clear task assignment guidelines and formalizing the scope of tasks that can be assigned to private home support workers, OTs and PTs will be able to assign some activities to practitioners that are already in the home, rather than having to travel themselves.

21 **Engage Community Volunteers:** By developing clear task assignment guidelines and formalizing the scope of tasks that can be assigned to volunteers, OTs and PTs will be able to delegate some activities to volunteers. Examples of such task could include home support, or delivering a prevention program in a community group setting.

22 **Establish & Sustain a Student Clinic:** By partnering with Memorial University and other universities to establish a student clinic, OTs and PTs would have access to a constant supply of students with a focus on care-setting requiring additional support. This model provides the opportunity for student to do placements at the student clinic throughout the year without the need to create a dedicated OT and/or PT school. Additionally, students may decide to remain in Newfoundland & Labrador to practice once they have graduated.

Category	Activity	OT Equipment Prescription Workload[1]
Value-Added	Assessment	60 minutes
	Documentation	120 minutes
	Follow-up and Installation	30 minutes
Non-Value Added	Phone calls, unnecessary follow-up, etc.	60 minutes
Total		**270 minutes**

Through discussions with front-line staff across the Province, practitioners have identified that they currently are spending a considerable amount of time working on multiple unnecessary activities such as follow-ups with equipment providers that should ideally be handled by the clients themselves. In the current context, OTs are often the point of contact between the client and the vendor. The estimated amount of non-value added time in the community setting is 30%, leading to an estimate of 60 minutes wasted on non-value added activities per equipment prescription. Given an estimate of 4,000 prescription a year, there is currently **OT practitioners spend approximately 4,000 hours annually** on unnecessary activities related to the SAP equipment program.

Post-Surgical (Full Joint Replacement) Rehabilitation Workload

There are currently a large volume of joint-replacement procedures that require post-surgical physiotherapy rehabilitation services. Current estimate is around 800 - 900 procedures per year. A significant proportion (~80%) of those procedures require a very prescriptive care plan due to the low complexity of the rehabilitation. The workload related to those transferable rehabilitation interventions is **estimated at 4,000 – 5,000 hours** per year.

[1] Eastern Health, 2016

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Improvement Opportunities – Impact on Resource Allocation

Efficiencies derived from the identified improvement opportunity and a reallocation of inpatient and outpatient care resources to the community will result in an increased productivity per practitioner leading to more time spent delivering services to the target populations and increased access.

The analysis suggests that should all these improvement opportunities be implemented, the current number of practitioners will be able to serve a larger portion of the population due to a combined increase in productivity and a reduction of workload related to activities that are deemed non-value added.

The target service delivery model design framed up the need to serve ~25% of the population of Newfoundland & Labrador, however, due to data limitations, it is currently impossible to evaluate the number of individuals receiving services across programs. In order to quantify the impact of the suggested improvement opportunities, the quantitative analysis examined the number of additional referrals that could be serviced.

Discipline	Total Number of Referrals Serviced		
	Current[1]	With Efficiencies	Variation
OT	19,464	23,222	+19.3%
PT	33,764	42,215	+25.0%

In order to service this increased amount of referrals under current conditions (pre-efficiencies), the analysis suggests that an additional 13 OT FTE and 15 PT FTE would need to be added to the current workforce. Given the current fiscal environment, the addition of OT and PT resources in not a viable approach. In order to service the increase in referrals with the current number of resources, the resource allocation requires a shift in from inpatient and outpatient care to community.

Overall, by reallocating resources based on the future population needs and by implementing the different identified improvement opportunities, the province will improve access to services, enhance clinical efficiency, and maximize the extent to which practitioners are able to work to their scope of practice.

With the magnitude of change proposed by this review, reallocation of resources to support the target delivery model should ideally be progressive and integrated into the RHAs' annual planning and budgeting processes.

Reallocated Budgeted FTEs by Care Setting

Care – Setting	OT	PT	Total
Inpatient	41.1	51.3	92.4
Outpatient	32.9	41.0	73.9
Long-Term Care	9.9	10.3	20.2
Community	80.6	102.5	183.1
Primary Care	*16.5*	*20.5*	*37.0*
In-Home	*41.1*	*61.5*	*102.6*
*Others**	*23.0*	*20.5*	*43.5*
Total**	164.1	205.0	369.1

* Other Community care setting include workplaces, schools, community centres, etc.

** Total may not sum due to rounding

[1] NLCHI P13 Reports, 2015-17

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Improvement Opportunity Prioritization

Each identified improvement opportunity was assessed with respect to its impact relative to service accessibility, clinical efficiency, other qualitative factors, as well as the anticipated ease of implementation. This assessment informs the prioritization of improvement opportunities, and ultimately the recommended approach to implementation.

Prioritization Criteria

Impact:

- Quantifiable improvements to clinical efficiency and service accessibility.
- Improvements to service quality, patient satisfaction, and clinician engagement.
- Alignment to identified priority population needs.

Ease of Implementation:

- Implementation schedule.
- Potential need for investment.
- Number of stakeholder groups impacted.
- Stakeholder readiness for change.
- Sphere of OT and PT influence.

Improvement Opportunities

ID	Opportunity Name
Technology Enablers	
1	Expand Point of Care Device Use
2	Expand Remote Assessment & Monitoring
3	Expand Remote Support Worker Supervision
4	Enable Patient & Family Directed Care
5	Integrate Community Systems
Organization & People	
6	Realign Roles & Responsibilities
7	Educate Health Practitioners & Patients
8	Establish Generalist Therapist Assistants
9	Develop Leadership Capabilities
10	Realign Resources Across the Continuum
Process	
11	Establish Generalized Patient-Centred Assessments
12	Expand Client Trigger Demand Management
13	Expand Primary Care Network Integration
14	Improve Support to Population Health
15	Reinforce Performance Management Standards
16	Establish Provincial Standards & Policies
17	Establish Provincial Professional Practice
Service Delivery Model	
18	Establish Equipment Managed Service
19	Establish Private Joint Replacement Rehabilitation Option
20	Enable Assignment to Private Home Support Workers
21	Engage Community Volunteers
22	Establish & Sustain a Student Clinic

The review identified an array of opportunities across all aspects of OT and PT service delivery (i.e., technology enablers, organization and people, service delivery model), but not all are equal in terms of ease of implementation and their degree of impact on the Province's desired outcomes. By applying the right criteria, the Department and RHAs can gain a relative prioritization of improvement opportunities so as to inform follow-up implementation work from this review.

To some degree, the prioritization is subject to change based on health system needs, priority outcomes being sought by the Department and RHAs, and situational factors that may change during implementation (e.g. evolution of stakeholder readiness for change, the availability of new sources of investment).

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Barriers to Change and Mitigation Strategies

With such an ambitious vision for the future of OT and PT services the province and continuum of care, it is critical to understand barriers to attaining the target delivery model, and establish appropriate mitigating strategies. While there are several financial, process, technological, and workforce barriers to change, the Province should be encouraged by the availability of effective mitigating strategies.

Barrier to Change	Type	Mitigation Strategies
Stakeholder alignment and buy-in to the target delivery model.	Workforce	• Utilize a formal change management strategy and engage dedicated resources to support implementation of the target delivery model. • Rapid follow-up on review findings and recommendations with impacted stakeholders to take advantage of relative high levels of engagement seen to date. • While maintaining consistent guiding principles at a provincial level, undertake further refinement of the target delivery model to account for population differences across RHAs. • Consider a progressive and phased implementation approach to validate the operability of the target delivery model.
A lack of financial resources to support adoption of the target delivery model (e.g. training, technology devices, assessment tools).	Financial	• With personal mobility devices relatively ubiquitous; explore the feasibility of a "bring your own device" policy. • Explore alternative procurement, service delivery and funding models with external vendors that minimize and amortize capital expenditures. • Maximize funding from external and non-traditional sources; for example Canada Health Infoway. • Establish mechanisms that enable savings gained from operational efficiencies to be reinvested in other initiatives the support implementation of the target delivery model.
Realigning resources to meet population needs across multiple unions and collective bargaining units.	Workforce	• Explore the consolidation and simplification of collective agreements and bargaining units. • Operate within the scope of current collective agreements and pursue implementation of the target model over a longer time frame.
Realigning resources to meet population needs within the prevailing program-oriented structure of the RHAs.	Process	• Prioritize implementation of Opportunity 17 – Establish Provincial Professional Practice to support implementation of review recommendations and ongoing governance of OT and PT services. • Encourage the assessment, and where appropriate the realignment, of program management decision rights at the RHAs. • Create incentives for Functional Centre owners to allow mobility of resources across the continuum of care.
A lack of technology systems that adequately support community-based programs and care across the continuum.	Technology	• Prioritize implementation of improvement opportunities based on dependence on integrated clinical information and case management systems. • Reassess alternatives to maintaining CRMS as the primary system for community-based programs and services.
Technology literacy of patients, clients, residents, and their families.	Technology	• Utilize user-centered design methods in solution development. • Support the implementation of patient and caregiver facing technology with appropriate education and user-directed training materials.
Unknown interest among private sector providers to play an increased role in OT and PT service delivery.	Process	• Undertake informal and formal (e.g., solicit Expressions of Interest) market sounding activities to further understand private sector capabilities and interests. • Explore progressive funding models to incentivize private sector participation on OT and PT service delivery.
An inability for the Province to attract and retain the necessary resources to support the target delivery model.	Workforce	• Utilize the future resource requirements for the target delivery model to inform education programming and recruitment. • Reprioritize implementation of Opportunity 22 – Establish & Sustain a Student Clinic as appropriate.

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Implementation Roadmap

Attaining the target delivery model for OT and PT services will require the Department and RHAs to pursue a common implementation roadmap. Based on the prioritization of improvement opportunities and other key activities necessary to mobilize resources and successfully effect change; the following four phase implementation roadmap defines the recommended path forward.

Note: Implementation of the target service delivery model is expected to take up to five years. The precise timing implementation activities is subject to detailed implementation planning during Phase 1 and is dependent on resource availability, stakeholder readiness, and the extent to which barriers to change can be mitigated. Evaluation of each opportunity would include both clinical outcomes and program outcomes.

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Concluding Remarks

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Concluding Remarks

Strengthening community supports is a central element of the Department's approach to simultaneously improving population health, providing better care and driving value. This provincial review of OT and PT services lays out an ambitious service delivery model that can dramatically improve access to community-based programs and services in support of wider health system objectives. It demonstrates the potential future of a subset of clinical services that can be considered a pilot model for other services where access in the community is limited, and health outcomes are inadequate.

Achieving this improved access within the current resource and fiscal constraints will require significant changes to clinical processes, enabling technologies, roles, responsibilities, and the role of the private sector in the delivery of services. Furthermore, implementation of the recommendations made in this review will require strong alignment between the Department and the RHAs, proactive engagement of stakeholders, patience, and disciplined project and change management.

While the recommended model for OT and PT service delivery is a bold step forward and the associated change is significant, it is well aligned to the Department's overarching strategy and is necessary for improving health outcomes within the Province's fiscal means.

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Appendix A

Steering Committee Terms of References

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Steering Committee Terms of Reference

Background

Deloitte has been contracted to complete a review of occupational therapy (OT) and physiotherapy (PT) services in the four regional health authorities (RHAs) with an objective to determine how Government can increase access to community-based OT and PT home support and care services in Newfoundland and Labrador. This review will identify how existing OT and PT resources can be more appropriately allocated, utilized, and supported to meet population needs throughout the continuum of care (i.e., community care, inpatient and outpatient care, and long term care), including opportunities to improve clinical efficiencies by allowing OT and PT to work to their full scope of practice.

This review emphasizes Government's continued focus on achieving greater public sector efficiency and delivering better services outlined as a priority in *The Way Forward: A Vision for Sustainability and Growth in Newfoundland and Labrador*. It will also address two key priorities outlined in the Department of Health and Community Services' (HCS) *Strategic Plan 2017-20: (1)* Community Supports and Capacity Building, and (2) *Modernize and Streamline the Delivery of Services*.

This work supports implementation of findings of the *Provincial Home Support Program Review Final Report*, and lays the foundation for further investment related to current and future Health Accord funding. In considering the need for additional human resources, it is important to ensure that current human resources are well-utilized and aligned with population needs.

Oversight for this initiative is provided by the OT and PT Services Review Steering Committee.

Project Scope and Deliverables

Deloitte will deliver both a hard copy and electronic version of a comprehensive, written final report in Microsoft Word format, with recommendations that support opportunities to align existing OT and PT services with population needs and create better value for health care expenditures. Specifically, the deliverable will include:

a) A current state analysis of access to OT and PT services in each of the four RHAs by facility or location including a review of public sector OT and PT workload and productivity, and the availability of private sector OT and PT services;
b) A literature review and jurisdictional scan of evidence-based practice with respect to clinical efficiencies, scope of practice, workload, and productivity across the continuum of care with emphasis on opportunities for aides to increase timely access to care and decrease costs;
c) A comparison of OT and PT practices, workload, and productivity in Newfoundland and Labrador with evidence-based practice as noted above in b);
d) A detailed analysis of factors that may impact efficiencies (e.g., catchment area, travel requirements, structural issues, technical/process issues); and
e) Recommendations for possible solutions including anticipated barriers and challenges to implementing changes, and recommendations for ongoing efficiency and quality monitoring by HCS.

Deloitte will consult with key stakeholders in the four RHAs including, but not limited to, directors and executive team members responsible for OT and PT services in their regions. Deloitte will conduct interviews with peer facilities and communities outside of the province, if deemed valuable to determining best practice.

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Steering Committee Terms of Reference

Timelines for Deliverable

Deloitte will commence work on this project January 8, 2018. The deliverable will be finalized on or before March 31, 2018. Deloitte will provide an opportunity for the Steering Committee to review the draft report and provide feedback at least twice before the deadline.

Governance

The Steering Committee is chaired by the Director, Regional Services, HCS. The Steering Committee, through the chair, is accountable to the Deputy Minister and Minister of HCS.

Membership

The following constitutes the individuals with responsibilities under this Steering Committee.

Organization	Representative	Title	Email
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EH	Marjorie Scott	Division Manager, Development and Rehabilitation Division	marjorie.scott@easternhealth.ca;
CH	Valerie Pritchett	Regional Director, Cardiopulmonary and Rehabilitative Services	Valerie.Pritchett@centralhealth.nl.ca;
WH	Renee Luedee-Warren	Regional Director, Long Term Care	reneeluedeewarren@westernhealth.nl.ca;
LGH	Blenda Dredge	Regional Director, Rehabilitative Services	blenda.dredge@lghealth.ca;

Roles and Responsibilities

Members are responsible for providing qualitative and quantitative data on behalf of their organizations to Deloitte and the Steering Committee, as required. Members are also responsible for reviewing, providing comments, and editing the draft deliverable prior to finalization.

Frequency of Meetings

Deloitte will provide verbal updates on progress to the Steering Committee on a bi-weekly basis for the duration of their contract, commencing January 8, 2018. Deloitte is responsible for scheduling bi-weekly meetings of the Steering Committee.

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Appendix B

Stakeholders Consulted

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RHA Stakeholders Engaged – Interviews

Name	Title	Organization
Judy O'Keefe	VP Community & Long-term Care	Eastern Health
Elaine Warren	VP Mental Health & Addictions and Child & Women's Health	Eastern Health
Collette Smith	VP Medicine and Surgery	Eastern Health
Katherine Turner	Regional Director Home and Community Care	Eastern Health
Kim Grant	Regional Director Community Mental Health	Eastern Health
Judy Davidson	Regional Director Adult Rehabilitation	Eastern Health
Debbie Walsh	Regional Director Medicine	Eastern Health
Sandy Penney	Regional Clinical Manager Mental Health & Addiction Services	Labrador-Grenfell Health
Donnie Sampson	VP Rehabilitation, Intervention and Community Supportive Services	Labrador-Grenfell Health
Dr. Gabe Woollam	VP Medical Services	Labrador-Grenfell Health
Craig Davis	Director of Health Services	Central Health
Sean Tulk	VP Rural and Allied Health	Central Health
Doug Prince	Regional Director Surgical Services	Central Health
Terry Ings	VP Human Resources and Support Services	Central Health
Diane Minhas	Regional Manager of Mental Health and Addiction	Central Health
Cynthia Davis	VP Patient Services and Chief Nursing Officer	Western Health
Michelle House	VP Population Health and Human Resources	Western Health
Kelli O'Brien	VP Long-term Care, Rural Health, and Quality	Western Health
Tammy Priddle	Regional Director Community Care Services	Western Health
Danielle Shea	Director Patient Services	Western Health
Barbara Ann Dunphy	Director Ambulatory Services	Western Health

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RHA Stakeholders Engaged – Focus Groups

Name	Organization
Kelly Scaplen	Eastern Health
Krista Wade	Eastern Health
Doreen Spencer	Eastern Health
Sarah Burt	Eastern Health
Kim Whelan	Eastern Health
Marcel Billard	Eastern Health
Loretta Hawco	Eastern Health
Cindy Penney	Eastern Health
Ted Downey	Eastern Health
Sean Pardy	Eastern Health
Kelli Spearns	Eastern Health
Frances Lake	Eastern Health
Patti O’Keefe	Eastern Health
Lois Chafe	Eastern Health
Bonnie Hutton	Eastern Health
Cheryl Faseruk	Eastern Health
Penny Grant	Eastern Health
Melissa Coish	Eastern Health
Jennifer Shears	Eastern Health
Deanne Dyke	Eastern Health
Caroline Sullivan	Eastern Health

Name	Organization
Janet Gosse	Eastern Health
Karen Evans	Eastern Health
Tracy Penney	Eastern Health
Beverly Woodward	Labrador-Grenfell Health
Jennifer Sullivan	Labrador-Grenfell Health
Stuart Layton	Labrador-Grenfell Health
Charlene Kinsella	Labrador-Grenfell Health
Heather Callahan	Labrador-Grenfell Health
Glenda Cokes	Central Health
Bethann Lynch	Central Health
Sonja Hoskins	Central Health
Janie Kean	Central Health
Shannon Pike	Central Health
Doug Keough	Central Health
Brooke Wiseman	Western Health
Terri Walters	Western Health
Cora Collins	Western Health
Sandy Wiseman	Western Health
Deanne Wareham	Western Health
Paulette Lavers	Western Health
Glen Wiseman	Western Health

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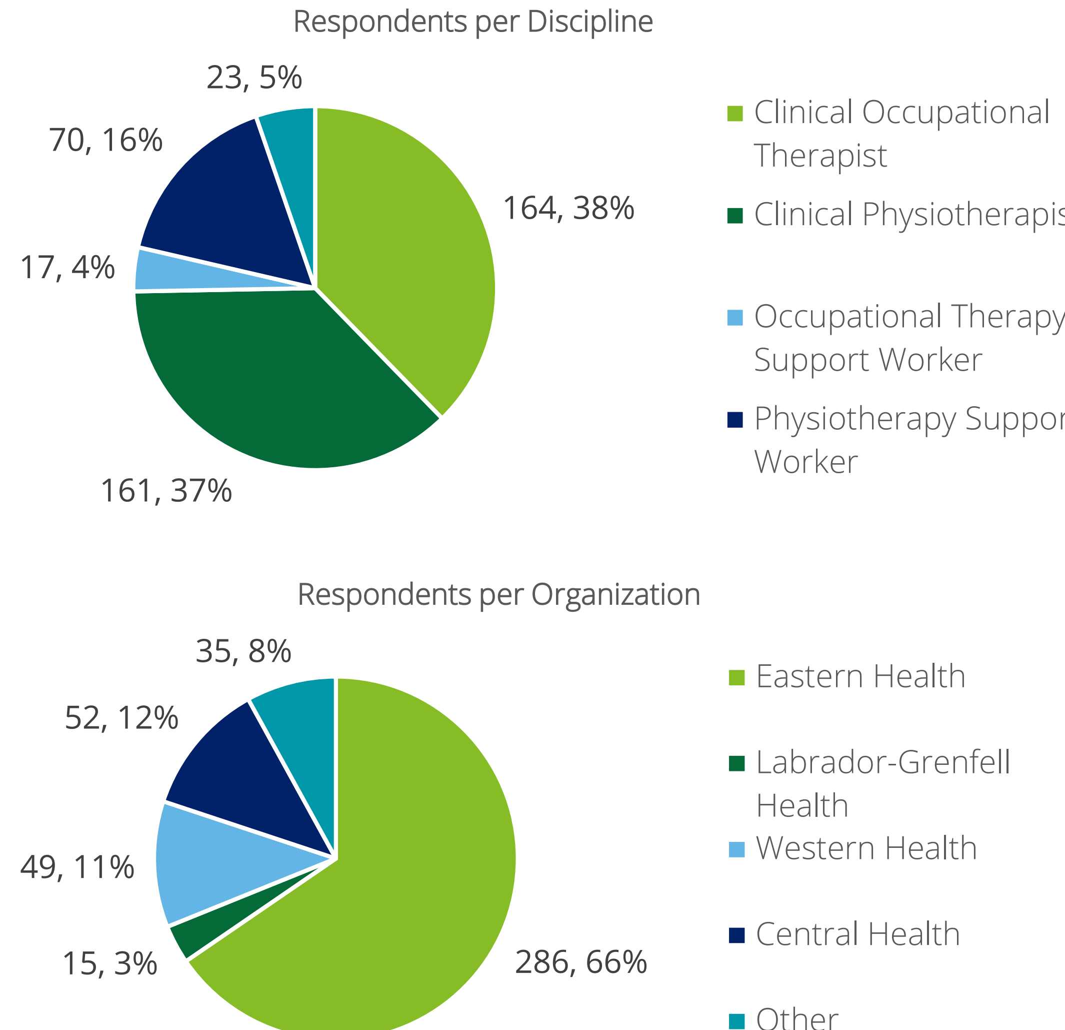
Practitioner Survey - Demographics

A total of 437 individuals across RHAs and the private sector have answered the survey



Key Insights:

- 231 respondents (53%) identified as Physiotherapists or Physiotherapy Support Workers
- 181 respondents (41%) identified as Occupational Therapists or OT Support Workers

Key Insights:

- The large majority of respondents identified Eastern Health as their organization
- The Organization distribution is aligned with the budgeted FTEs:

	Respondents (%)	Budgeted FTEs (%)
Eastern Health	66%	70%
Central Health	12%	12%
Western Health	11%	13%
Labrador-Grenfell Health	3%	5%

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Summary of stakeholders engaged through invitation for written submission

Professional organizations as well as relevant organizations were invited to provide input for the review of OT/PT services

	Newfoundland & Labrador Occupational Therapy Board
	Canadian Physiotherapy Association – Newfoundland & Labrador
	Newfoundland & Labrador Association of Occupational Therapists
	Newfoundland & Labrador College of Physiotherapists

	SeniorsNL
	NL Housing Corporation
	Coalition of Person with Disabilities of Newfoundland & Labrador
	NLMA – Primary Physicians Group

Appendix C

Survey Questionnaire

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Survey Questionnaire

1. Demographics

1.1 What population demographic do you primarily serve?

- Children and Youth (<18)
- Adults (19 - 64)
- Seniors (>65)
- All of the above

1.2 What is your organization?

- Eastern Health
- Central Health
- Western Health
- Labrador-Grenfell Health
- Other:

1.3 Which region / community / facility do you primarily work in?

1.4 What is your main discipline?

- Clinical Occupational Therapist
- Clinical Physiotherapist
- Occupational Therapy Support Worker
- Physiotherapy Support Worker
- Other:

1.5 How long have you been practicing as an OT/PT?

1.6 Which care setting(s) do you work in (select all that apply)?

- Rehab - Outpatients
- Acute Care - Inpatients
- Acute Care - Outpatients / Ambulatory Care
- Mental Health - Outpatients
- Community Care / Home Care
- Community Care / Mental Health
- Long-Term Care
- Private Care
- Other:

2. Outcomes

Note: For all remaining questions, please answer from the perspective of the area of OT/PT that relates the most to your identified care setting(s).

2.1 Please indicate how you would currently rate the Newfoundland & Labrador performance in the following areas as they relate to OT/PT services:

2.1.1 Clinical services efficacy

Very Poor				Excellent	
1	2	3	4	5	Do not know

2.1.2 Patient safety

Very Poor				Excellent	
1	2	3	4	5	Do not know

2.1.3 Wait times

Very Poor				Excellent	
1	2	3	4	5	Do not know

2.1.4 Patient length of stay for in-patient services

Very Poor				Excellent	
1	2	3	4	5	Do not know

2.1.5 Rate of readmission to in-patient services

Very Poor				Excellent	
1	2	3	4	5	Do not know

2.1.6 Patient experience and satisfaction

Very Poor				Excellent	
1	2	3	4	5	Do not know

2.1.7 Cost-effectiveness of services

Very Poor				Excellent	
1	2	3	4	5	Do not know

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Survey Questionnaire

3. Demand Drivers

3.1 What is the largest contributor to increased demand for OT/PT services?

3.2 What is the largest contributor to increased demand for OT/PT community-based services?

4. Current Situation Assessment

4.1 Please indicate the extent to which you agree with the following statements:

4.1.1 The allocation of OT and PT resources across regions, programs and care-settings is well aligned to meet the population needs of the Province.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

4.1.2 The level of training and professional development allows clinical competencies to remain current and adapt to the ever-changing population needs.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

4.1.3 The planning, coordination, and delivery of OT and PT services is efficient, effective, safe, and patient-centered.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

Survey Questionnaire

4.1.4 Care is well coordinated and delivered with consistent quality across the continuum.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

4.1.5 I have the resources and support necessary for effective, efficient, and quality patient care.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

4.1.6 I am confident that there will be sufficient OT and PT resources to meet the population demands for in-community services in the next five years.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

4.1.7 Caseload and workload measurements are appropriate and are effective tools for improving clinical efficiency.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

4.1.8 Caseload and workload measurements are appropriate and are effective tools for improving resource allocation.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

4.1.9 My role is professionally fulfilling and I have the opportunity to leverage my strengths every day.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

4.1.10 I am able to consistently work to my full scope of clinical practice.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

4.1.11 The inter-disciplinary teams that I work with are effective at collaborating to improve patient outcomes.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

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Survey Questionnaire

4.1.12 Change is necessary to meet the population needs.

Strongly Disagree		Neither Agree or Disagree		Strongly Agree	
1	2	3	4	5	Do not know

5. Challenges

5.1 From the list of challenges presented below, please rank the challenges that you experience while delivering clinical services (1 being the biggest challenge and 7 being the smallest challenge):

1) Select:
2) Select:
3) Select:
4) Select:
5) Select:
6) Select:
7) Select:

5.2 Please highlight additional challenges that you believe are impacting the accessibility to OT/PT services:

5.3 Please highlight additional challenges that you believe are impacting the accessibility to OT/PT community-based services:

5.4 What new challenges do you foresee will impact the access to OT/PT community-based services?

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Survey Questionnaire

6. Opportunities

6.1 Please comment on any opportunity areas that could lead to an improvement in access and/or efficiency to OT/PT services:

6.2 Please comment on any opportunity areas that could lead to an improvement in access to OT/PT community-based services:

6.3 Please comment on any opportunity areas that could lead to an improvement in efficiency of service delivery of OT/PT community-based services:

6.4 When thinking about potential changes that could improve the access, efficiency, and efficacy of OT/PT services, what are the main barriers that you are seeing?

6.5 Increasingly, decisions need to be made based on the value of a service from the patients' perspective. How can this patient reported outcome approach be enhanced in OT and PT?

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Appendix D

Research Findings

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Inventory of Identified Leading Practice Examples

36 leading practice examples have been identified as exhibiting elements of considerations for the review of OT/PT services in Newfoundland & Labrador.

Leading Practice Example	Discipline	Program	Scope of Practice	Clinical Efficiency	Workload	Productivity
Japan Integrated Community Care System – Mitsugi's case study	OT/PT	Across Continuum	X	X	X	X
Alberta Health Services – Rehabilitation Framework	OT/PT	Across Continuum	X		X	
UK NHS Vanguard Program: Encompass (Whitstable, Faversham, and Canterbury) – Interdisciplinary Teams Closer to Patients Homes	OT/PT	Outpatient & Community	X	X	X	X
UK NHS Vanguard Program: West Cheshire Way – Integrated Teams	PT	Across Continuum	X	X	X	X
UK NHS Vanguard Program: Harrogate and Rural District Clinical Commissioning Group – Integrated Teams and Prevention	OT/PT	Across Continuum	X	X		
Saskatchewan – Connected Care Program – Accountable Care in Major Hospitals	OT/PT	Across Continuum	X	X		
UK NHS Vanguard Program: North East Hampshire and Farnham – Integrated Teams	OT/PT	Across Continuum	X			X
Ontario – TCLHIN – Physiotherapy in Community Health Centres	PT	Outpatient	X	X	X	X
UK NHS Vanguard Program: Cambridge and Peterborough Clinical Commissioning Group – Integrated Teams in a Seven Day Model	OT/PT	Across Continuum	X			X
UK - Privatisation of PT services	PT	Outpatient, Long-Term Care & Community	X	X	X	X
Manitoba - Community Therapy Services Inc. – Use of Private Provider	OT/PT	Long-Term Care & Community	X	X	X	X
North West Whales – Musculoskeletal Assessments	PT	Outpatient	X	X	X	X
Ontario - Rapid Access Clinics	PT	Outpatient		X	X	
Ontario - Inter-professional Spine Assessment and Education Clinics	PT	Outpatient	X	X	X	
Palliative and Therapeutic Harmonization (PATH)	Interdisciplinary	Across Continuum		X		

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Inventory of Identified Leading Practice Examples

36 leading practice examples have been identified as exhibiting elements of considerations for the review of OT/PT services in Newfoundland & Labrador.

Leading Practice Example	Discipline	Program	Scope of Practice	Clinical Efficiency	Workload	Productivity
Halifax - Mobile Outreach Street Health (MOSH)	OT	Community	X			
Winnipeg Health Authority Region – Proactive Hip & Knee Rehabilitation Clinic	OT/PT	Outpatient	X	X		
GTA Rehab Network – Discharges Planning Guidelines	OT/PT	Across Continuum		X	X	
Toronto - Providence Healthcare – Use of Patient Flow Coordinator	OT/PT	Across Continuum	X	X		
St-John's Regional Health Centre in Springfield, Missouri –Patient Education for Patient Transition	OT/PT	Inpatient & Community	X	X		
Brighton and Sussex University Hospital – Virtual Fracture Clinic	PT	Community		X		X
Ontario Telemedicine Network (OTN) – Physiotherapy Case Studies	PT	Community				X
Arnprior Regional Health - Remote Monitoring using Mobile Technology	OT/PT	Across Continuum		X	X	X
Northern Alberta Tele-Health – Videoconferencing Technology	OT/PT	Community				X
KO Telemedicine – Remote Aboriginal Communities	OT/PT	Community				X
Toronto - Women's College Hospital – Remote Monitoring using Mobile Technology	Interdisciplinary	Community				X
UK - NHS MSK – Library of Self Management Resources	OT/PT	Across Continuum		X		
West Australia Department of Health – Ongoing Monitoring in Chronic Disease Management	Interdisciplinary	Across Continuum				X
Denmark – Using COPM in Geriatric Rehabilitation	OT/PT	Community	X			X
Alberta Health Services – Assignment, Monitoring and Evaluation of Therapist Assistants	OT/PT	Across Continuum	X	X	X	
GLA:D Program – Hip & Knee Osteoarthritis Exercise Program	PT	Community	X	X		

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Inventory of Identified Leading Practice Examples

36 leading practice examples have been identified as exhibiting elements of considerations for the review of OT/PT services in Newfoundland & Labrador.

Leading Practice Example	Discipline	Program	Scope of Practice	Clinical Efficiency	Workload	Productivity
Together in Movement and Exercise (TIME) – Balance and Mobility Program	PT	Community	X	X		
NSW Health - Stepping On – Fall Prevention Program	OT/PT	Community	X	X		
Maine Health – Matter of Balance – Fall Prevention Program	OT/PT	Community	X	X		
Canadian Stroke – Stroke Rehabilitation Best Practices	OT/PT	Across Continuum	X	X	X	
Bone and Joint Canada – Network Approach to Transition Knowledge	PT	Across Continuum		X		

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
Japan Integrated Community Care System – Mitsugi's case study	OT/PT	Across Continuum	Scope of Practice, Efficiency, Workload & Productivity	Mitsugi built a community-based integrated care which comprises of a complex that can provide comprehensive acute, long-term, institutional and home-visit care services for the residents of Mitsugi. According to the rapid growth of the services and facilities, the Office of Collaboration for Comprehensive Community Medical and Other Care Services opened in 2002, as a liaison between hospitals and the associated facilities in the complex. In addition, Mitsugi recruited volunteers to assist patients. Volunteer activities have physically and psychologically linked residents with the Mitsugi Hospital Complex, helped them to understand the services provided in the complex and increased their awareness of being part of the integrated care system. Four reasons contributed to the establishment of the Mitsugi Hospital Complex: • Rapidly aging population • Fewer hospitals, welfare facilities and preventative organizations than larger cities • Budget for welfare facilities came from Hiroshima prefecture • Strong and innovative leadership	Three results: • Reduction of number of bedridden people from 3.75% to 1% • Slowdown in rise of medical costs • Increase in number of people receiving medical checkups The use of volunteer within the center has lead to positive outcomes.	https://www.ijic.org/articles/10.5334/ijic.2451/
Alberta Health Services – Rehabilitation Framework	OT/PT	Across Continuum	Scope of Practice & Workload	AHS has developed the "Rehabilitation Conceptual Framework" to assist clinicians, managers and planners improve access to quality, sustainable rehabilitation services. Needs identification and service delivery parameters in the Framework cover the collaborative processes involved in linking client or community needs with the appropriate service delivery options. These are: • Identifying where the client needs fit within the health continuum through Screening or Assessment, • Choosing the required rehabilitation Service Delivery Parameters, specifically Intervention Types (Health Promotion, Prevention, Treatment, Care, Case Management) and Rehabilitation Service Levels (Universal Services, Targeted Services, Clinical Services), • Choosing the appropriate Service Pathway, and • Identifying Population Health Needs and System Linkages.	Consider opportunities to integrate tools and processes to support early identification of need for ambulatory and community based rehabilitation services and linkage with the appropriate services, particularly for those at highest risk for poor outcomes, deterioration, or increased use of services.	http://rehabcarealliance.ca/uploads/File/knowledgeexchange/Alberta_Health_Services-Rehabilitation-Conceptual-Framework.pdf

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
UK NHS Vanguard Program: Encompass (Whitstable, Faversham, and Canterbury) – Interdisciplinary Teams Closer to Patients Homes	OT/PT	Outpatient & Community	Scope of Practice Efficiency, Workload & Productivity	The Encompass vanguard will create a more cost-efficient and clinically effective service by treating patients closer to home using specialist GPs, health professionals such as occupational and physical therapists, and community-based consultants, who will coordinate and simplify services. There will also be greater use of information technology. Telecare and telemedicine systems – which use a network of remote sensors and systems to monitor patients – will enable people to maintain their independence through self-care and self management. The use of shared single electronic patient records will support integrated care as any number of health care professionals involved in an individual's care can access their complete and up to-date information. Four health and social care 'hubs' will also be created. These will provide a central point for health and social care covering some nursing home and hospital in-patient services. A federation of GPs will work in partnership with everyone involved in health and social care across the local area, including the voluntary sector and patient groups.	Reduced number of hospital admissions by providing more care in the community Improved health of local people by helping them stay healthy. The organizations participating in this vanguard jointly serve a population of approximately 170,000 people across Whitstable, Faversham, Canterbury, Ash and Sandwich	https://www.england.nhs.uk/wp-content/uploads/2015/11/new_care_models.pdf
UK NHS Vanguard Program: West Cheshire Way – Integrated Teams	PT	Across Continuum	Scope of Practice Efficiency, Workload & Productivity	This vanguard is showing how the national program's support for organizations to empower patients and to better integrate the buying and delivery of services can make a difference to patients while also easing pressure on NHS services. There will be easier access to more joined-up services in the community through new health and social care teams, wellbeing coordinators and direct access to physiotherapy for patients. GPs and community teams will act as the first port of call for accessing coordinated support for children and young people. Adults with long-term conditions will be identified and supported to minimize the impact of their conditions on their daily lives, again with care models designed together with clinicians. Vulnerable older people who are most at risk of poor health and wellbeing will be identified by GPs. They will then work with that person's nominated care coordinator (who works with health and social care teams to help people obtain care, understand their options and make care decisions) to develop care plans and ensure care is provided by teams with members from the specialties needed.	Patients work with clinicians to manage their own health better Wellbeing coordinators help people manage the wider issues that may affect their health, such as loneliness or financial worries Clinicians from various teams work together to deliver more coordinated, effective and efficient care. The initial three month pilot saw 754 patients, discharging over 50% with advice and exercises. One third were referred on for physiotherapy intervention and only 3% were referred for specialist assessment.	https://www.england.nhs.uk/wp-content/uploads/2015/11/new_care_models.pdf https://casestudies.csp.org.uk/case-studies/physiotherapy-first-direct-access-physiotherapy-service

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
UK NHS Vanguard Program: Harrogate and Rural District Clinical Commissioning Group – Integrated Teams and Prevention	OT/PT	Across Continuum	Scope of Practice & Efficiency	Services will be provided by an integrated (joined-up) care team including GPs, community nurses, adult social care, occupational therapy, physiotherapy, mental health, geriatricians and the voluntary sector. Boundaries between primary, community, acute, mental health and social care are being removed and hospital beds will be used only when they are truly needed. A response and overnight service will provide rapid support and social care staff will work with A&E, both helping to avoid admissions to hospital. Community beds are available for those who need a little more support. The vanguard also focuses on early intervention, prevention and promoting self-care. Prevention will focus on falls, mental health and strokes.	A focus on prevention and self-care will help support independence and reduce the need for interventions from health or social care services High quality and sustainable services will offer value for money and be clinically and financially sustainable Local and personal support will help reduce unnecessary hospital admissions. The vanguard covers a population of approximately 160,000.	https://www.england.nhs.uk/wp-content/uploads/2015/11/new_care_models.pdf
Saskatchewan – Connected Care Program – Accountable Care in Major Hospitals	OT/PT	Across Continuum	Scope of Practice & Efficiency	Connected care focuses on a team approach which includes the patient and family and extends from the community into the hospital and back again. It is about connecting teams and providing seamless care for people with multiple, ongoing health care needs, with a particular focus on care in the community The first major outcome is the adoption of "Accountable Care Units" in major hospital	Positive results: • Patient and staff satisfaction increased • Overtime reduced • Clear communication about medications	https://hqc.sk.ca/how-were-helping-improve-health-care/reducing-waits-in-emergency-and-improving-patient-flow
UK NHS Vanguard Program: North East Hampshire and Farnham – Integrated Teams	OT/PT	Across Continuum	Scope of Practice & Productivity	This will include new integrated teams of specialist health and social care professionals who will ensure joined up care for patients, especially those who are vulnerable or have complex needs. The teams will include community nurses, occupational therapists, physiotherapists, social workers, a psychiatric nurse, a lead psychiatrist, a pharmacist, a geriatrician (doctor specializing in care for older people), GPs, the voluntary sector, specialists for people who are terminally ill and their families, and home carers. Improved services will be available in people's own homes, in GP surgeries and local community hospitals and specialist inpatient care will be available in community hospitals such as in Farnham and Fleet as well as Frimley Park Hospital. The program will also focus on preventing ill health, helping people better manage their own health and wellbeing, and ensuring the right services are available to all.	The better value for money delivered through new ways of working will help close the gap between the available resources and the costs of providing services to meet needs Supporting a happy, healthier population to live independently will reduce demand and reliance on health and care services. It serves a population of more than 220,000.	https://www.england.nhs.uk/wp-content/uploads/2015/11/new_care_models.pdf

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
Ontario – TCLHIN – Physiotherapy Community Health Centres (CHC)	PT	Outpatient	Scope of Practice Efficiency, Workload & Productivity	In Primary Health Care (PHC), physiotherapists deliver clinical care both individually and in a group setting to provide rehabilitation programs and education aimed at improving function, wellbeing and quality of life. Physiotherapy service delivery has multiple elements and can include: • Assessment, diagnosis and treatment of various acute and chronic conditions, including the provision of individualized exercise programs, manual therapy, self management and education • Triaging for musculoskeletal pain, including referral to community based treatment programs and identifying the need for additional diagnostics or specialist referral • System navigation assistance for those who qualify for other community based physiotherapy services, and who are in need of other services in the community • Mobility aid assessment and assistance in navigating funding options • Support and education for caregivers for assistance of those with chronic disease including prevention of injury programs for caregivers	In 2011, PHC teams employed a small number of physiotherapists, with only 13 of 73 CHCs in Ontario offering physiotherapy services. As of September 2017, nearly 80 physiotherapists are employed at approximately 60 different PHC facilities across Ontario. Currently, there is a significant unmet need for community based physiotherapy services across Canada, and a large proportion of this need has been identified in Ontario. According to data from the TCLHIN CHC evaluation report, 70% of individuals who reported receiving care from a PHC physiotherapist identified that they would not have been able to access physiotherapy services had it not been offered by the PHC organization.	https://opa.on.ca/wp-content/uploads/Physiotherapists-Primary-Health-Care.pdf
UK NHS Vanguard Program: Cambridge and Peterborough Clinical Commissioning Group – Integrated Teams in a Seven Day Model	OT/PT	Across Continuum	Scope of Practice & Productivity	Local urgent and emergency health services will provide safer, faster and better care for patients. The program partners will change the way they work together to join up an often confusing range of A&E, GP services, minor injuries clinics, ambulance services, community services and the NHS 111 non-emergency number so that patients know where they can get urgent help easily and effectively, seven days a week. Plans include putting in place the right people to deliver the changes, including GPs, nurses, occupational and physical therapists, community pharmacists and other staff equipped to meet various mental and physical health needs.	Hospital, community, mental health and social care services to work more closely together to provide patients with safer, faster, and better care seven days a week Care will be delivered in, or as close as possible to, people's homes Patients will be treated in centres with the very best expertise and facilities in order to maximize their chances of survival and a good recovery. Together they serve a population of 922,000	https://www.england.nhs.uk/wp-content/uploads/2015/11/new_care_models.pdf

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
UK - Privatisation of PT services	PT	Outpatient, Long-Term Care, Community	Scope of Practice Efficiency, Workload & Productivity	The 2012 Health and Social Care Act opened up the NHS to competition. Since then, there has been a gradual privatization of health services, some working well, others less so, covering a range of services from general outpatient work, to physiotherapy, ophthalmology, diagnostic and even children's services. Between April 2010 and April 2015, • 86% of contracts for pharmacy services were awarded to non-NHS providers • 83% of contracts for patient transport services were awarded to non-NHS providers • 76% of diagnostic services were awarded to non-NHS providers • 69% of GP/Out of Hours services were awarded to non-NHS providers • 45% or community health services were awarded to non-NHS providers • 25% of mental health services were awarded to non-NHS providers.	Benefits of the privatization include: • Reduced wait times • Decreased secondary care referrals and related costs • Reduced costs • Increased access to services There exists some concerns around privatization of NHS with regards to: • The motivation of the companies (making money vs providing care), • Workforce implications of public providers • Treatment of patients • Communications complications between the different private providers and NHS	Kahungu, L. (2016). Should the NHS be privatised? Potential merits and demerits of privatisation of the National Health Service.
Manitoba - Community Therapy Services Inc. – Use of Private Provider	OT/PT	Long-Term Care & Community	Scope of Practice, Efficiency, Workload & Productivity	CTS is a private, non profit Agency that leverages its expertise in occupational therapy and physiotherapy to meet the rehabilitation service needs of individuals, care providers and care organizations in Manitoba. Services include: Home Care: CTS employs specialists in community care (OT and PT) who provide services to clients in WRHA home care program. Referrals are received from community and hospital based case managers, physicians, hospital rehabilitation departments, and directly from clients and their families. Long Term Care (Personal Care Homes): CTS employs specialists in long term care (OT and PT) who provide consultation services in Personal Care Homes (nursing homes) throughout Winnipeg. Community Mental Health (SCIL): CTS employs OTs who provide rehabilitation services to persons with mental illness living in the community in a number of different settings. First Nations Physiotherapy: CTS PTs provide services to residents living in several First Nations Communities in Northern and Central Manitoba. This is predominantly a Fly-In service as most communities are inaccessible by road most of the year. Schools: CTS provides OT services to students in the elementary school system.	Private organizations have capacity to deliver services that public sector is not able to cover Which area could be sub-contracted to private providers by the RHAs? What criteria for eligibility would need to be put in place?	http://www.ctsinc.mb.ca/

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
North West Wales – Musculoskeletal Assessments	PT	Outpatient	Scope of Practice, Efficiency, Workload & Productivity	Advanced Physiotherapy Practitioners in clinically assessing patients with musculoskeletal problems as an alternative to the General Practitioner in primary care. It is estimated that up to 30% of all GP consultations relate to musculoskeletal complaints , and evidence shows that using MSK Advanced Physiotherapy Practitioners (APP) as the first point of contact for musculoskeletal complaints in primary care ensures the patients are seen by the most appropriate practitioner through the musculoskeletal care pathway, having a positive impact on secondary care referral rates into musculoskeletal services.	The pilot saw 84% of their patients successfully managed within primary care by the APP and demonstrated potential cost savings. £9,618.22 Cost reduction within primary care appointments <1% Had to be referred back to the GP	https://casestudies.csp.org.uk/case-studies/clinical-musculoskeletal-assessment-and-treatment-service-cmats
Ontario - Rapid Access Clinics	PT	Outpatient	Efficiency & Workload	Ontario is investing in more rapid assessment clinics. The new clinics will help people with pain in their muscles or bones get the treatment and specialized care they need by reducing unnecessary medical procedures, including imaging and surgery. The clinics will also improve wait times through a coordinated intake and triage process, with patients better able to access the right education and treatment options faster, which could include referrals to proven alternatives to surgery and pain medication like physiotherapy or chiropractic treatment	Family physicians can refer patients to a Rapid Access Clinic to receive an assessment, education and treatment recommendations within four weeks by a physiotherapist or chiropractor	https://news.ontario.ca/mohltc/en/2017/12/ontario-making-treatment-faster-for-hip-knee-and-lower-back-pain.html
Ontario - Inter-professional Spine Assessment and Education Clinics	PT	Outpatient	Scope of Practice Efficiency & Workload	The Inter-professional Spine Assessment and Education Clinics (ISAEC) is an innovative, upstream, shared-care model of care in which patients receive rapid low back pain assessment (less than two weeks on average), education and evidence-based self-management plans. It is designed to decrease the prevalence of unmanageable chronic low back pain, reduce unnecessary diagnostic imaging as well as unnecessary specialist referral. ISAEC launched in Toronto, Hamilton and Thunder Bay in November 2012.	This program has helped over 6,500 people and maintains satisfaction rates of 99 per cent among patients, and 97 per cent for primary care providers. To date, ISAEC has been successful in decreasing MRI utilization by over 30% within the ISAEC network as well as documenting a significant reduction in the risk of chronicity for patients with low back pain	http://www.isaec.org/

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
Palliative and Therapeutic Harmonization (PATH)	Interdisciplinary	Across Continuum	Efficiency	PATH is an innovative approach to healthcare for the frail elderly. It aims to help elderly people and their families better understand their health status, and helps to guide them through the process of making health care decisions that best reflect their individual interests and quality of life. The goal is to choose the appropriate blend of therapeutic (aims to solve health problems) and palliative (aims to ease suffering) services on a patient-by-patient basis. PATH healthcare providers capture a comprehensive understanding of each patient's health determinants and health trajectory, and offer multidisciplinary healthcare. PATH aims to provide better patient care while using fewer healthcare resources. PATH clinics are currently in Halifax and South Shore, Nova Scotia.	PATH patients (and families) have a better understanding of their 'big picture' health status, leading to well informed care decisions and fewer medical interventions: • PATH doctors found a 33-54% reduction in planned medical and surgical interventions for PATH patients. • Reduced number of hospital admissions (due to choice of home care). • Positive participant experience overall (in 2012, 100% of participants found PATH to be very helpful for care planning and decision making).	http://pathclinic.ca/resources/ Moorhouse and Mallery (2012). Palliative and Therapeutic Harmonization: A Model for Appropriate Decision-Making in Frail Older Adults. https://search.proquest.com/docview/1848096615?pq-origsite=gscholar
Halifax - Mobile Outreach Street Health (MOSH)	OT	Community	Scope of Practice	MOSH provides accessible primary health care services to people who are homeless, insecurely housed, street involved and underserved in our community. The MOSH team is a collaborative primary health care team of two full-time nurses, half-time occupational therapist, half-time administrative support and 12 hrs of physician care per week.	Process is: • Referral through online form or fax • Assessment (Housing First schedules the appointment) • Intake (no wait-list, based on severity of situation)	http://moshhalifax.ca
Winnipeg Health Authority Region – Proactive Hip & Knee Rehabilitation Clinic	OT/PT	Outpatient	Scope of Practice & Efficiency	Winnipeg Health Region Authority (WRHA) has a dedicated program to provide proactive rehabilitation support services for hip and knee replacement surgery in preparation for the surgery. Services listed include improving exercise tolerance and strength, improving nutrition for healing and weight loss, increasing your ability to manage daily activities, pain management, smoking cessation, and optimizing mental well-being and social supports	Goal of the program is a faster recovery from surgery and potentially decrease complications. Upstream intervention can lead to less complications and a faster discharge	http://www.wrha.mb.ca/

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
GTA Rehab Network – Discharges Planning Guidelines	OT/PT	Across Continuum	Efficiency & Workload	The GTA Rehab Network has established Discharge Planning Guidelines for Inpatient Rehab to standardize when and how patients should be discharged for inpatient high tolerance and low tolerance rehabilitation programs. The tool includes guiding principles, standards, different types of criteria to consider for discharge (e.g., medical stability, rehabilitation goal attained), and where the patient/client should be discharged when they reach the goal.	Implementation of these guidelines has shown to improve several providers' discharge practices in terms of identifying patient goals, early identification of estimated discharge dates and destinations, and identification of barriers to discharge	http://www.gtarehabnetwork.ca/
Toronto - Providence Healthcare – Use of Patient Flow Coordinator	OT/PT	Across Continuum	Scope of Practice & Efficiency	At Providence Healthcare, inpatient and outpatient rehabilitation staff work collaboratively to transition patients from inpatient to outpatient rehabilitation Providence Healthcare has a Patient Flow Coordinator that works at acute care hospitals to support patient/client transition to their healthcare facility to ensure timely access	Opportunity to develop formal and clear transition points and partners to support consistency in access across the continuum. A flow coordinator type of role can support identification of appropriate points of access for patients/clients being discharged from the acute setting.	http://www.providence.on.ca/
St-John's Regional Health Centre in Springfield, Missouri – Patient Education for Patient Transition	OT/PT	Inpatient & Community	Scope of Practice & Efficiency	St. John's Regional Health Center in Springfield, Missouri has cardiac rehabilitation educators who work with client/patients in the acute setting to prepare them for their transition to the community setting.	Information is shared between care settings to ensure fluid transition. Consider opportunities to better integrate health care professionals at key transition points to support education and appropriate triage to services.	Silow-Carroll S, Edwards JN and Lashbrook A. "Reducing Hospital Readmissions: Lessons from Top-Performing Hospitals." The Commonwealth Fund (2011):1473(5)

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
Brighton and Sussex University Hospital – Virtual Fracture Clinic	PT	Community	Efficiency & Productivity	A Virtual Fracture Clinic (VFC) has been set up. The service provides follow-up assessment, videos and acute rehabilitation advice for self-management without the patient needing to return to the hospital. The clinic launched in August 2013.	The service has given patients direct access to physiotherapists and enabled a 100% consultant review rate. The service has also delivered cost savings. The clinic has managed over 10,000 patients, reducing outpatient appointments by 57% and saving the NHS over £750,000.	https://casestudies.csp.org.uk/case-studies/physiotherapy-led-virtual-clinic-orthopaedic-fracture-clinic https://www.fracturecare.co.uk/about-us/
Ontario Telemedicine Network (OTN) – Physiotherapy Case Studies	PT	Community	Productivity	OTN is a not-for-profit organization funded by the Ontario Ministry of Health and Long-Term Care charged with building a sustainable and responsive virtual care system. Case study 1 – Telemedicine: A tool for the rehabilitation and socialization of stroke patients in remote communities Case study 2 – Personal Videoconferencing, a tool for increasing patient capacity and improving care	Case Study 1: That first study led to a three-year trial, which determined there is no difference in the treatment outcome between a stroke specific self-management program conducted in person. The results were life-changing for Denise and her clients. Case Study 2: The goal is to understand the problem from the patient's perspective. Initial consults, then, are up to an hour long, with as many as 20 minutes spent interviewing and collecting patient history. While a best practice, it reduced the amount of time he had for hands-on care for the community of Ignace, 2.5 hours west of Thunder Bay.	https://otn.ca/
Arnprior Regional Health - Remote Monitoring using Mobile Technology	OT/PT	Across Continuum	Efficiency, Workload & Productivity	Designed for use on a tablet, the aTouchAway platform is a secure communication and information sharing digital platform created by Aetonix Systems, an Ottawa-based health technology company that was founded in 2014. Through the Health Technologies Fund, the provincial government is supporting 15 unique software and mobile health devices from across the province. Concepts range from real-time monitoring apps and software for diabetes and post-cardiac surgery patients, to a video sharing app for patients with spinal cord injuries that opens up access to coordinated care and treatment at home.	Use of technology can be used as a follow up for ongoing monitoring to patient/clients or a way for patients/clients to seek support virtually. Access to devices is a required investment to deliver this service. Personal devices can be used by the patients.	http://www.womenscollegehospital.ca/news-and-events/Connect-2018/Staying-connected-Integrating-care-at-home-with-digital-technology

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
Northern Alberta Tele-Health – Videoconferencing Technology	OT/PT	Community	Productivity	Telehealth in Alberta primarily uses videoconference technology to connect Albertans with the best possible health care, no matter where they live. There are more than 900 videoconferencing sites in Alberta today. Telehealth connects patients and health care providers with the health system securely and confidentially by carrying pictures, voices and information so that effective decisions about health care can be made.	Telehealth provides new models of care. Different health care providers in different regions can consult in real-time as to what is best for the patient or client; for example, follow-up that prevents repeat hospitalizations. Telehealth addresses population need. Home and creative workforce options to address the aging population or increase services to rural areas. Telehealth reduces travel and associated costs for clinical, education, and administrative events. Telehealth increase the capacity of clinicians to deliver services and provides support for clinicians in rural areas or isolated environments.	https://www.albertahealthservices.ca/info/service.aspx?id=7371
KO Telemedicine – Remote Aboriginal Communities	OT/PT	Community	Productivity	KO Telemedicine will improve health for all First Nations Communities through a sustainable First Nations Telemedicine Program that is holistic, community driven and culturally appropriate. KO Telemedicine (KOTM) delivers clinical, educational and administrative services via videoconferencing and advanced information communication technologies to First Nation communities in Ontario. Currently used by 70 First Nation Communities.	Considerations and lessons learned can be found here: https://tm.knet.ca/files/report/KOTH-CHI-PDF/2-C-2-Table%201-Formative%20Migration.pdf	https://telemedicine.knet.ca/
Toronto - Women's College Hospital – Remote Monitoring using Mobile Technology	Interdisciplinary	Community	Productivity	Women's College Hospital has used mobile technology to follow up with patients post-surgery by being able to monitor their patients by answering questions and taking pictures of surgical sites. The application was able to reduce complications, reduce readmissions, and ER visits. The patient/clients would have a closer access point to the healthcare system	Use of technology can be used as a follow up for ongoing monitoring to patient/clients or a way for patients/clients to seek support virtually.	http://www.womenscollegehospital.ca/

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
UK - NHS MSK – Library of Self Management Resources	OT/PT	Across Continuum	Efficiency	A new library of self management resources is available for people with musculoskeletal (MSK) problems. They have been developed and endorsed by a UK wide expert panel with input from patient groups, NHS inform and The Plain English Campaign. This library includes a website with live support, digital TV channel, helpline, and the MSK App	Between 10,000-50,000 downloads (Android)	https://www.nhsinform.scot/care-support-and-rights/tools-and-apps/nhs-24-msk-help-app
West Australia Department of Health – Ongoing Monitoring in Chronic Disease Management	Interdisciplinary	Across Continuum	Productivity	West Australia Health's chronic disease management program is based on phone coaching for patients/clients with chronic conditions supported by a registered nurse	Use of technology can be used as a follow up for ongoing monitoring to patient/clients or a way for patients/clients to seek support virtually.	http://ww2.health.wa.gov.au/Home
Denmark – Using COPM in Geriatric Rehabilitation	OT/PT	Community	Scope of Practice & Productivity	In a community-based geriatric rehabilitation project, the Canadian Occupational Performance Measure (COPM) was used to develop a coordinated, interdisciplinary, and client and family-centered approach focusing on occupational performance	COPM may be useful as an admission and outcome measurement for the rehabilitation of elderly citizens; however, aspects of education and administration must be considered before the instrument can be successfully administered in an interdisciplinary geriatric rehabilitation context	http://www.tandfonline.com/doi/abs/10.3109/11038128.2011.574151
Alberta Health Services – Assignment, Monitoring and Evaluation of Therapist Assistants	OT/PT	Across Continuum	Scope of Practice Efficiency & Workload	Therapist Assistants (TAs) are an integral part of Alberta Health Services (AHS) and they make a vital contribution to effective and efficient delivery of health services. Rehabilitation therapists are accountable for service delivery, including assigning service activities, monitoring TAs who carry out these activities and evaluating outcomes. Therapist Assistants act in the following roles: • assistant • collaborator • lifelong learner • paraprofessional	This resource provides a guide to the supervisory process. The supervisory process is described in three steps: assignment, monitoring and evaluation. Each step is essential to ensure that TAs can safely and competently perform their role	http://www.bcaslpaconference.ca/content/wp-content/uploads/2015/04/Assignment-Monitoring-Evaluation-14-07-24-FINAL.pdf

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
GLA:D Program – Hip & Knee Osteoarthritis Exercise Program	PT	Community	Scope of Practice & Efficiency	GLA:D® is an education and exercise program developed by researchers in Denmark for individuals with hip or knee osteoarthritis symptoms. Clinics are currently present in Canada in BC (13), AB (36), MB (3), ON (50), NB (2), and NL (1 clinic in St-John's)	Research from the GLA:D® program in Denmark has shown a reduction in progression of symptoms by 27%. Other outcomes include a reduction in pain intensity, reduced use of joint related pain killers, and fewer individuals on sick leave. Program participants also reported high levels of satisfaction with the program and increased levels of physical activity 12 months after starting the program.	http://gladcanada.ca/
Together in Movement and Exercise (TIME) – Balance and Mobility Program	PT	Community	Scope of Practice & Efficiency	Together In Movement and Exercise (TIME™) is a community-based program welcoming people with balance and mobility challenges to exercise. The group exercise program is designed by physiotherapists at Toronto Rehab, and led by fitness instructors in community centres across the country, presently in dozens of locations and growing. The health care and community centre collaboration creates a safe and effective opportunity for participants to exercise in their neighbourhoods. Programs are currently offered in BC, AB, ON, NB, and PEI.	Results of a pilot evaluation of the TIME™ program published in a peer-reviewed journal found improvement in all measures and statistically significant gains in balance and walking capacity in people with stroke (Salbach et al 2014).	http://www.uhn.ca/TorontoRehab/PatientsFamilies/Clinics_Tests/TIME http://www.uhn.ca/TorontoRehab/PatientsFamilies/Clinics_Tests/TIME/Documents/TIME_together_movement_and_exercise.pdf

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
NSW Health - Stepping On – Fall Prevention Program	OT/PT	Community	Scope of Practice & Efficiency	Stepping On is a seven week program designed for people who are living at home and have experienced a fall or are concerned about falling. The program is an evidence-based program that is effective and proven to reduce falls in older people living in the community. The program incorporates strategies to implement positive lifestyle changes to keep you independent, upright and active.	The evidence has proven that Stepping On reduces falls by 31% in the community.	http://www.steppingon.com/program/ https://www.frontiersin.org/articles/10.3389/fpubh.2017.00128/full?&utm_source=Email_to_authors_&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field=&journalName=Frontiers_in_Public_Health&id=217504
Maine Health – Matter of Balance – Fall Prevention Program	OT/PT	Community	Scope of Practice & Efficiency	A Matter of Balance: Managing Concerns About Falls is a program designed to reduce the fear of falling and increase the activity levels of older adults who have this concern. It is based upon research conducted by the Roybal Center for Enhancement of Late-Life Function at Boston University. The program's goal is to reduce fear of falling, stop the fear of falling cycle, and increase activity levels among community-dwelling older adults. The volunteer lay leader model utilizes trained volunteers, called coaches, to conduct the class, which consists of eight two-hour sessions for groups of 10 to 12 participants	Preliminary findings of the participant outcome evaluation indicate that there were significant improvements for participants regarding their level of falls management, the degree of confidence participants perceive concerning their ability to manage the risk of falls and of actual falls; falls control, the degree to which participants perceive their ability to prevent falls; level of exercise; and social limitations with regard to concern about falling	https://www.ncoa.org/resources/program-summary-a-matter-of-balance/

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Research Findings: Practice Profiles

Practice Example	Discipline	Program	Research Topic	Description	Observations	Source
Canadian Stroke – Stroke Rehabilitation Best Practices	OT/PT	Across Continuum	Scope of Practice Efficiency & Workload	Includes best-practices surrounding stroke rehabilitation, including assessment, prevention, optimal community and long-term stroke care guidelines on transition of care. Telestroke is a care delivery modality that has emerged to bridge the geographic gap between patient and expertise. It can be used to support stroke diagnosis and decisions regarding recanalization therapy, as well as the optimization of stroke prevention and rehabilitation therapies.	Telestroke implementation toolkit has been developed. Analysis shows that telestroke is still under-utilized in Canada.	http://www.strokebestpractices.ca/stroke-rehabilitation/ http://www.strokebestpractices.ca/telestroke/
Bone and Joint Canada – Network Approach to Transition Knowledge	PT	Across Continuum	Efficiency	Bone and Joint Canada (BJC) has developed partnerships across Canada with health care providers committed to the management of people presenting with musculoskeletal disorders. Working through clinical, administrative and policy leaders in each of the provinces, BJC has developed a network approach to improving system performance and patient care. BJC will continue to function as a knowledge translation agency to work with the health care providers across Canada to implement best practices in the management of MSK conditions as new research becomes available. BJC will continue to focus on its key surgical programs of hip and knee replacement as well as hip fracture. Work will be expanded into the primary care sector through the implementation of the framework for low back pain and OA that were developed through 2014. Finally work will also continue in injury prevention through the ongoing implementation of successful MSK injury prevention strategies	Currently partnering with Canadian Association of Occupational Therapists and Canadian Physiotherapy Association Local/Regional Model of Care Approach development guide has been created and could be leveraged to refresh the current framework	http://boneandjointcanada.com/

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Appendix E

Capability Maturity Model

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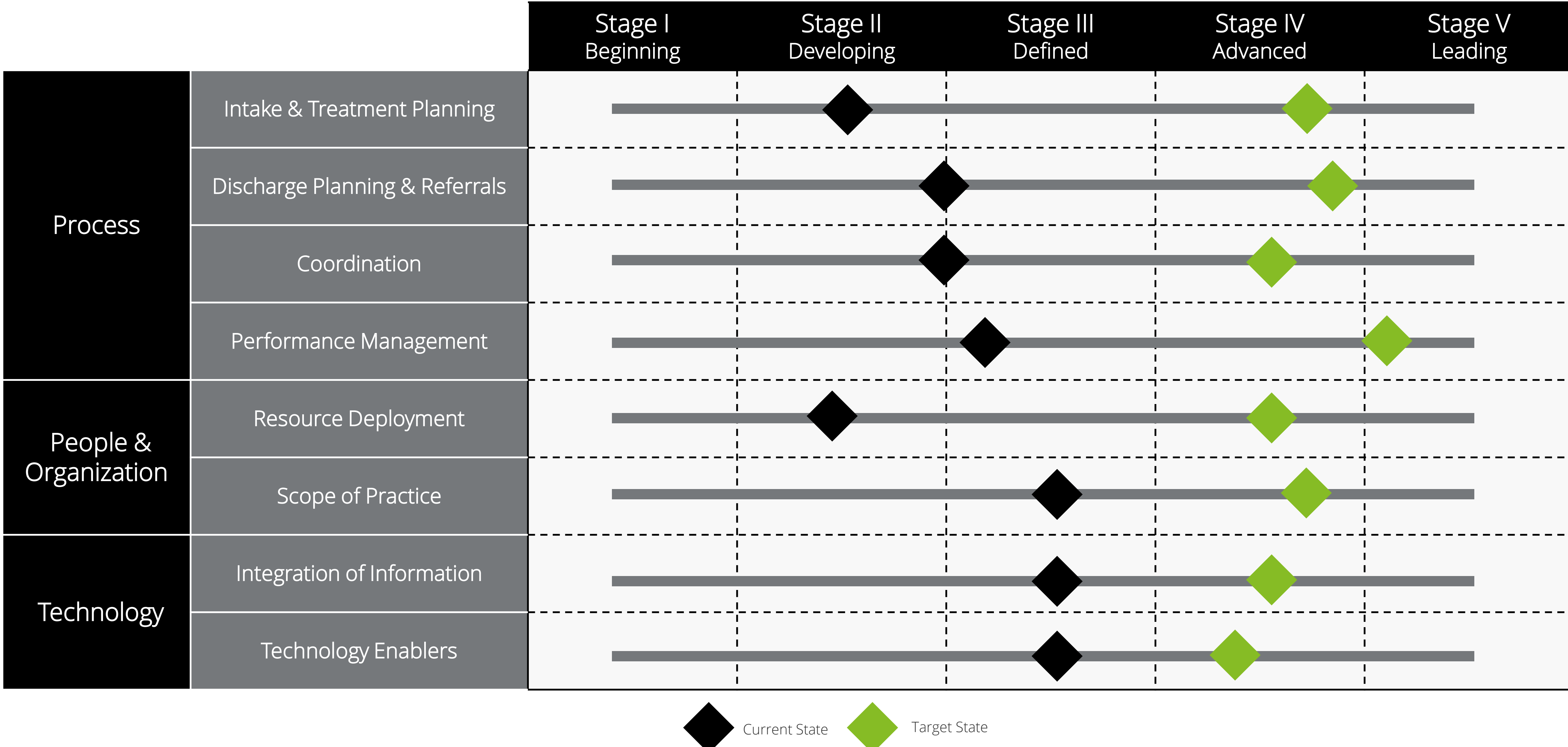
Capability Maturity Model



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Care Management: Patient In-take and Treatment Planning

	Stage I	Stage II	Stage III	Stage IV	Stage V
Clinical Services Capabilities	• Clinical screening criteria for level of care and severity of illness is not utilized. • No use of care plans or care pathways. • Care paths/care plans, if utilized, are not evidence based. • Estimated length of stay (LOS) is not targeted upon inpatient care admission and is not managed during the hospital stay. • Post acute target clinical outcomes not defined or measured.	• Clinical screening criteria is available, though not systematically applied. • Interdisciplinary care planning meetings are used but are inconsistent across departments, programs and care-settings and frequently have variation in participants. • Paper-based care plans are used but not consistently. • Estimated LOS is identified upon inpatient care admission but is not actively managed	• Interdisciplinary care planning occur daily and have participation primarily from nursing and case management staff. • Evidenced-based electronic care plans are consistently used across programs and care-settings. • Plan of care is formally verbally shared with patient and family. • Estimated LOS is communicated and agreed across all disciplines. • Community-based programs will be notified of likely need for services and will initiate identification of post acute referral based on projected LOS.	• Common clinical screening criteria is applied at all points of access. • Centralized intake in place, with one source of admission. • Care paths/care plans are updated at least annually using evidence-based approach. • Care paths/care plans are shared with scheduled patients prior to admission or commencement of services. • Interdisciplinary care planning occurs daily and is well attended by all health professionals. • All disciplines are involved in using the electronic care plans. • Daily plan of care is communicated with patient.	• Electronic integrated care pathways are used by all members of the care team including the physicians. • Clinical criteria applied every 24 hours to ensure patients meet level of care being delivered and the appropriateness of care-setting. • Patients and families are able to view schedule on-line and electronically. They know when providers are expected to provide clinical services and have designated times to meet with the team. • Organization demonstrates summary data continuity for all clinical services (e.g. inpatient, outpatient, community).
Assessment	Current State: Stage II			Target State: Stage IV	

Current State
Target State

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Care Management: Discharge Planning & Referrals

	Stage I	Stage II	Stage III	Stage IV	Stage V
Clinical Services Capabilities	• Lack of documentation for the following: integrated discharge planning, procedures for referral and in-take. • The discharge process begins when the discharge order is written. • Case Managers are not readily available and only respond after a specific consult.	• Partial documentation that describes the discharge process. • Patients are commonly kept in the hospital over the weekend so a procedure can be performed on the following Monday. • Discharge planners function as utilization review with a focus on documenting health plan criteria. Minimal emphasis on discharge planning.	• Discharge planning documentation is generally complete and is not interdisciplinary. • Discharge planning begins when an LOS is designated by Case Management. • No clearly defined process for determining Case Manager consults/reviews. • The patient and their family are an integral part of the discharge process.	• Discharge documentation is completed electronically and is not interdisciplinary. • Discharge planning begins when LOS is agreed by all disciplines or automatically triggered based upon diagnostics or identified risk factors. • Discharge planning is an interdisciplinary process. • Patients are discharged on Friday and either readmitted on Monday for their procedures/treatments or they are scheduled as an outpatient. • Some discharge and stay information is available to the next level of care electronically.	• Discharge documentation is completed electronically and is interdisciplinary. • Discharge planning begins as soon as patient is admitted or in the case of elective admissions, discharge planning begins prior to admission. • All hospital discharge and stay information is available to the next level of care through an integrated electronic record. • Any procedures, treatments, community-based services are scheduled prior to the patient's discharge and communicated clearly with the patient.
Assessment					

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Care Management: Coordination with Next Level of Care

	Stage I	Stage II	Stage III	Stage IV	Stage V
Clinical Services Capabilities	• Primary care provider (PCP) or community supports are not notified that their patient is admitted. • Patient is told that they need to follow up with their PCP, a specialist, or community-based service but no additional information or support is provided. • Discharge summaries are rarely sent to PCP or other specialty providers	• Primary care provider is occasionally notified that their patient is admitted. • Patient is given additional detail and instructions to support making their follow up appointments with their PCP or community-based services. • Discharge summaries are occasionally delivered to PCP or community-based service but rarely to anyone else and only on paper.	• PCPs or community case managers are regularly notified that their patient is admitted through manual paper communication. • Follow up appointments with the PCP or community services are made for the patient prior to their discharge. • PCP and community services providers have very limited access to some electronic information. • Discharge summary is delivered to PCP or community services regularly in paper copy.	• PCPs or community services are notified electronically that their patient is admitted. • Follow up appointments are made for the patient prior to their discharge with all relevant services. • PCP and community services are delivered electronic discharge summary as part of continuity of care documentation. • Inpatient services occasionally contact the PCP or community-based clinician/case manager to review the patient's care and discharge plan.	• PCPs or community services are notified electronically automatically if their patient has been admitted and also notified if patient's condition changes. • PCPs or community services will see the patient are delivered discharge summaries electronically and can view the patients chart online. • Inpatient services always contact the PCP or community-based clinician/case manager to review the patient's care and discharge plan • Patients retain the same care manager for chronic disease management across care-settings.
Assessment					

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Performance Management

	Stage I	Stage II	Stage III	Stage IV	Stage V
Clinical Services Capabilities	• No performance measures are defined or applied. • Performance reporting is ad hoc and varies significantly across facilities and programs. • Performance is monitored through audits of chart samples and is focused on accreditation requirements. • Completeness of documentation varies widely. • Technology is not widely used to support data collection and documentation.	• Informal and inconsistent performance measures and metrics are defined. • No formal integration of performance reports across service areas. • Plans for performance correction are inconsistently monitored. • Performance measures based on national standards are known and incorporated. • Policies and procedures are being developed.	• Performance measures and metrics are defined, communicated and applied throughout clinical services delivery. • Target setting exists but is limited and alignment with strategies and goals is inconsistent. • Formal review of policies, procedures and internal controls are performed on a regular basis. • Mandatory professional development is enforced. • Plans for performance correction are consistently monitored. • Performance measures based on national standards are known and incorporated.	• A comprehensive set of metrics and targets aligned with strategies and goals are used to assess all performance aspects. • Measurement is partially automated and accessible through web enabled interactive data and information sharing tools. • Plans for performance correction are consistently monitored. • Performance measures based on national standards are known and incorporated.	• Performance measures are proactively updated to monitor and address changes in environment. • Measurement and reporting processes are performed in a proactive manner using sophisticated tools and the most current technologies. • Strategic and operational plans for performance improvement are consistently monitored. • Clinical data warehouses are being used to analyze patterns of clinical data to improve quality of care and patient safety.
Assessment					

Current State Target State

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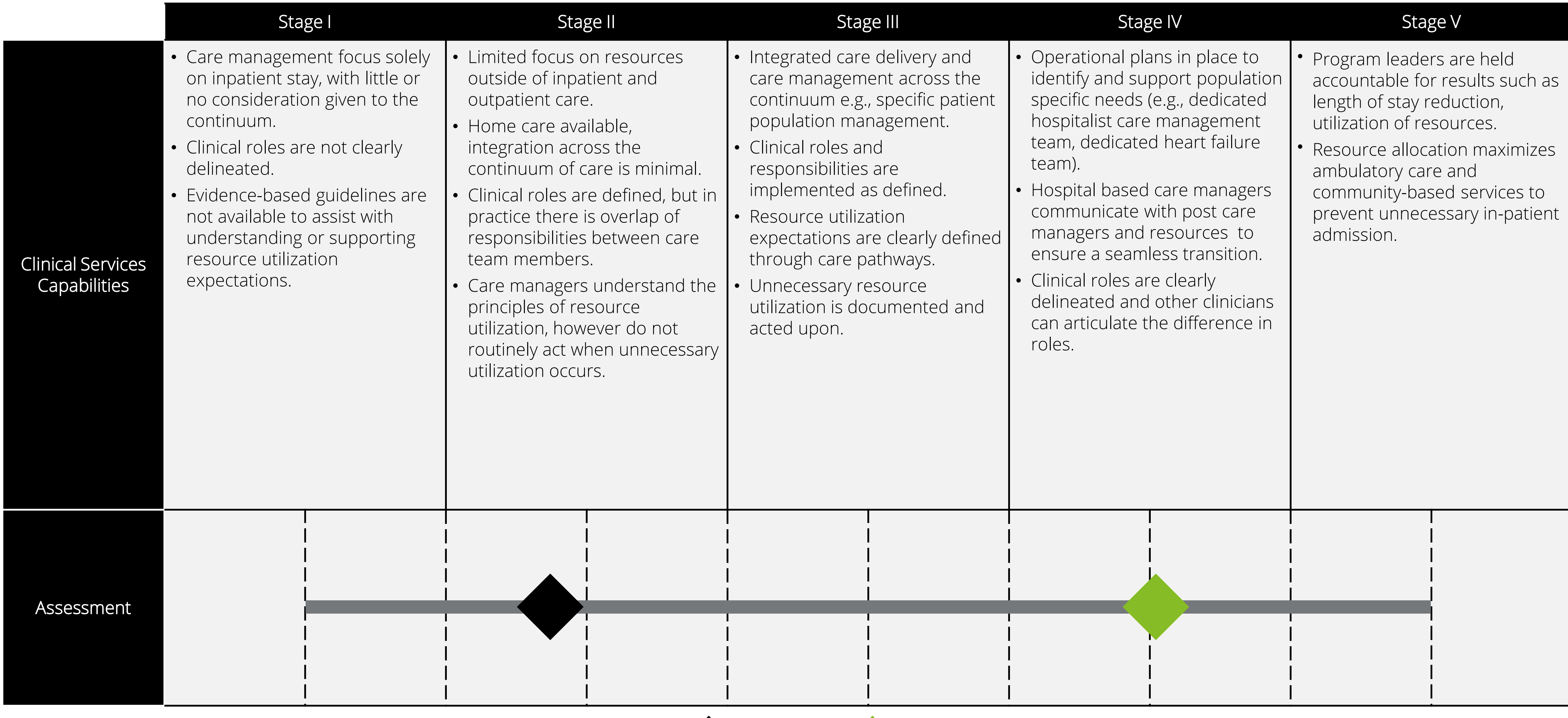
Resource Deployment



	Stage I	Stage II	Stage III	Stage IV	Stage V
Clinical Services Capabilities	• Care management focus solely on inpatient stay, with little or no consideration given to the continuum. • Clinical roles are not clearly delineated. • Evidence-based guidelines are not available to assist with understanding or supporting resource utilization expectations.	• Limited focus on resources outside of inpatient and outpatient care. • Home care available, integration across the continuum of care is minimal. • Clinical roles are defined, but in practice there is overlap of responsibilities between care team members. • Care managers understand the principles of resource utilization, however do not routinely act when unnecessary utilization occurs.	• Integrated care delivery and care management across the continuum e.g., specific patient population management. • Clinical roles and responsibilities are implemented as defined. • Resource utilization expectations are clearly defined through care pathways. • Unnecessary resource utilization is documented and acted upon.	• Operational plans in place to identify and support population specific needs (e.g., dedicated hospitalist care management team, dedicated heart failure team). • Hospital based care managers communicate with post care managers and resources to ensure a seamless transition. • Clinical roles are clearly delineated and other clinicians can articulate the difference in roles.	• Program leaders are held accountable for results such as length of stay reduction, utilization of resources. • Resource allocation maximizes ambulatory care and community-based services to prevent unnecessary in-patient admission.
Assessment					

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Scope of Practice

	Stage I	Stage II	Stage III	Stage IV	Stage V
Clinical Services Capabilities	• Clinical leaders verbalize the desire for interdisciplinary practice but it is not operationalized. • Scopes of practice for each discipline are not defined. • Practice is redundant as disciplines duplicate one another in the performance of care.	• Clinician leaders are attempting to operationalize interdisciplinary practice by creating paper tools that integrate patient education and the outcomes of interdisciplinary care planning and management. • Scopes of practice for each discipline are defined in some departments and programs. • Practice continues to be redundant.	• Automated care planning components are now in use and they are interdisciplinary. • Scopes of practice for each discipline are defined and are not standardized across the health system. • Clinical leaders are recognizing the impact of redundant scope of practice and are developing strategies to address.	• Clinical care planning is automated and designed to be interdisciplinary. • Scopes of practice have been defined and clinician education programs around integration of scope of practice are being developed. • Leaders are focused on patient-centered practice but have not been able to operationalize at this stage.	• Clinical care planning is fully automated and interdisciplinary. • Scopes of practice have been defined and clinicians have undergone developmental education around integrating their scopes of practice. • Leaders have put in place an effective patient-centered practice.
Assessment			Current State	Target State	

Current State Target State

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Integration of Information

	Stage I	Stage II	Stage III	Stage IV	Stage V
Clinical Services Capabilities	• Clinical documentation is completed on paper and is not standardized, interdisciplinary or integrated. • Documentation is completed at the end of shifts or later. • Reporting is conducted in an informal and ad hoc manner without the input of relevant clinical disciplines.	• Clinical documentation is completed on paper and may be standardized within departments, or programs. • Documentation is not interdisciplinary or integrated. • Documentation is initiated early in shift; but is completed in a centralized location. • Care plans are inconsistently used and some organizations may be using standardized paper care plans. • Reporting is formalized but remains without the input of relevant clinical disciplines.	• Portions of clinical documentation are completed on a region-wide system and are partly interdisciplinary. • Niche systems may be used for documentation. • Clinical documentation, whether automated or on paper, is largely standardized across the organization. • Care plans and/or pathways are not automated and continue to be inconsistently documented on paper. • Pathways are introducing interdisciplinary practice • Medical device integration is in place in high acuity areas and is limited to monitors.	• Full clinical documentation is completed on region-wide system. • Documentation tools are standardized across the organization. • Clinical disciplines have designed the tools to better integrate their practice. • Automated clinical documentation components now include leading evidence-based scales for assessments and care plan and pathway content that reflects the needs of many disciplines. • Clinical leaders are urging clinicians to document at the pint of service, involving the patient/family.	• Patient information is highly automated and integrated across the continuum of care. • Interdisciplinary teams collaborate to evaluate tools, evidence and opportunities for improved safety and the reduction of variation. • Information management infrastructure monitors policy and procedure changes and assists clinical teams address these issues. • All hand-offs are conducted with the involved clinicians across care-settings and the patient/family. • Device integration across care-settings enables key data to be auto-collected and reported.
Assessment					

Current State   Target State

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Technology Enablers

	Stage I	Stage II	Stage III	Stage IV	Stage V
Clinical Services Capabilities	• Staff work with printed records. • Technology systems are disparate and do not communicate properly. • Staff use manual scheduling and documentation. • Patients are frequently asked redundant questions.	• Knowledge sharing across regions, facilities and programs is informal (e-mail, etc.) and inconsistent. • Data entry is challenging, and extensive training is required. • Many disparate systems are interfaced to communicate data, and data elements are often repeated or unknown. • Prime dependence on legacy systems. • Documentation may be done on a niche system that does not integrated with other clinical information systems. • Patients continue to be asked redundant questions.	• Some online sharing and collaboration tools exist to facilitate interaction across regions, facilities and programs and other stakeholders. • Some consolidation and integration of clinical information systems exist, but integration challenges remain across care-settings. • The first level of clinical decision support is available to support error check for patient charting and order entry. • Some level of medical imaging access is available.	• Clinicians have access to patient information from previous hospitalizations, ED visits, and home vests. • Integrated enterprise-wide systems are aligned with the organization's strategic and operational requirements. • Advanced analytical tools (e.g. data mining) are utilized for data analysis. • Patients and clinicians have secure access to information remotely. • Capability to electronically exchange key clinical information between providers and individuals in the patient's circle of care.	• Enterprise-wide systems are integrated and common databases provide real-time information required for assessment, service delivery, and decision-making. • Comprehensive technology is easily customizable and utilizes industry best practices for look and feel and data capture. • All fields in enterprise system are fully auditable, and user access is limited by training requirements. • Systems enable scenario analysis and performance measurements. • Clinical information readily shared via standardized electronic transactions with all authorized entities.
Assessment					

Current State Target State

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Appendix F

Quantitative Analysis Assumptions

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Quantitative Analysis Assumptions

- FTE data presented in the Current State portion of the report are derived from Budgeted FTEs provided by the Department.
- FTE data for each care-setting are derived from NLCHI P13 Reports, using the percentage of SR workload units for each care setting.
- Population targets for each age groups were set by the Steering Committee and calculated using incidence of conditions provided by NLCHI or from the Canadian Chronic Disease Indicators.
- Workload measurement data was extracted from P13 reports.
- The required time to perform an assessment has been estimated as SR Unit per Attendance Day.
- The annual available hours per FTE is estimated as 1,554.
- Target Referral Intake was developed by the Steering Committee.
- Current Assessment of Non-Value Added SR Workload Units by Care Setting was estimated from a brief landscape survey of several practitioners within the different RHAs. Lower ranges of the estimates were used in the quantitative analysis.
- Current Assessment of Inappropriate Referrals per Care Setting was estimated by the Steering Committee.
- Estimated total of Non-Value Added SR workload units for equipment prescriptions are derived from findings from the *OT Community Demonstration Project*, and a brief landscape survey of several practitioners within the different RHAs. Lower ranges of the estimates were used in the quantitative analysis.
- The estimated average care plan for total knee replacement procedure is 6 session of 60 minutes.

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Appendix G

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