ENABLING EFFECTIVE, QUALITY POPULATION AND PATIENT-CENTRED CARE: A PROVINCIAL STRATEGY FOR HEALTH HUMAN RESOURCES

CROSS SECTOR POLICY DISCUSSION PAPER 2015
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Executive Summary

Strategic Context

A key proposition set out in Setting Priorities for the B.C. Health System and a subsequent document on B.C. Health System Strategy Implementation: A Collaborative and Focused Approach is that the current utilization of hospitals is neither sustainable nor the best delivery system for meeting the needs of several key populations. The documents argue the need to radically rethink and reposition hospital care by providing a more effective range of services in the community. A suite of strategic policy papers – primary and community care, surgical services, and rural health services - produced by the Ministry of Health are intended to address this shift in service delivery. This will have a significant impact on health human resources management.

The province currently lacks a coherent, comprehensive and sustained health human resource strategy. The Health Human Resource Strategy advanced here is a key enabling strategy identified to support the priorities of the health system and to produce an engaged, skilled, well-led and healthy workforce that can provide the best patient-centred care for British Columbians.

This policy paper sets out both a framework and direction for health human resources in B.C. The proposed framework is designed to structure and align our actions across different levels (practice, regional/organizational, and provincial), across the scope of service delivery (public health, community, diagnostics and pharmacy, and hospital), and across delivery settings (metro, urban, rural, remote). The policy paper is also proposing a number of specific key actions to implement a comprehensive health human resources (HHRM) strategy that will drive the change required to achieve quality services and health outcomes for British Columbians over the coming decade, starting in 2015.

The goals and objectives of the framework and direction align with the strategic direction for the health system in Setting Priorities for the B.C. Health System (Priorities 1, 2, 3, 4, 5, 6, 7, and 8) and the areas of focus set out in the April 2014, the Ministry of Health published B.C. Health System Strategy Implementation: A Collaborative and Focused Approach. They also align with the three overarching goals of the Triple Aim (developed through the Institute of Health Improvement):

1. Improving the health of populations;
2. Improving the patient experience of care (including quality and satisfaction), to which B.C. has recognized the additional requirement of improving the experience of delivering care for providers and support staff as critical to patient-centred care built on efforts of those who deliver and support health services; and
3. Reducing the per capita cost of health by focusing on quality (especially effectiveness and appropriateness) and the efficiency of health care delivery.
The Case for Change

The health care needs of the population in B.C. are grouped into four areas: Staying Healthy, Getting Better, Living with Illness or Disability, and Coping with End of Life.

**Staying Healthy**: This dimension accounts for 16 per cent of the provincial population, who account for nine per cent of expenditures for minor episodic health needs and maternity care services.

- Healthy Non-User (14 per cent of population; 0 per cent of expenditures)
- Healthy with Minor Episodic Health Needs (34 per cent of population; 5 per cent of expenditures)
- Maternity and Healthy Newborns (2 per cent of population; 4 per cent of expenditures)

**Getting Better**: This dimension accounts for only three per cent of the population and uses 6 per cent of services. The majority of patients in this category have major or significant, yet time-limited, health needs (three per cent of population; six per cent of expenditures).

**Living with Illness or Disability**: This dimension accounts for over 40 percent of the population and almost 50 per cent of all health system expenditures accounted for in the matrix ($5.2 billion). This group requires significant, sustained, and coordinated effort on the part of health service providers to achieve the best possible health outcomes. The Living with Illness or Disability dimension is subdivided as follows:

- Low Complex Chronic Conditions (29 per cent of population; 15 per cent of expenditures)
- Medium Complex Chronic Conditions (9 per cent of population; 12 per cent of expenditures)
- High Complex Chronic Conditions (4 per cent of population; 12 per cent of expenditures)
- Mental Health and Substance Use Needs (2 per cent of population; 5 per cent of expenditures)
- Cancer (1 per cent of population; 5 per cent of expenditures)

**Coping with End of Life**: The population in this category is dealing with health challenges that will likely not diminish. While accounting for less than two percent of the provincial population, this group uses 35 per cent of all services accounted for in the matrix ($3.7 billion):

- Frail in Community (<1 per cent of population; 9 per cent of expenditures)
- Frail in Residential Care (1 per cent of population; 21 per cent of expenditures)
- Palliative Care (<1 per cent of population; 5 per cent of expenditures)

Responding to this evolving and changing profile of population and patient needs requires expanding and developing primary and community care services while appropriately delivering needed acute hospital care needs, these changes have health human resource implications at the practice and service delivery level; at the organization level in terms of enabling effective change and operational
management; as well as at the provincial levels in terms of consultation and buy in from associations and unions, aligning education, training and regulatory frameworks, improving forecasting and recruitment capacity, aligning compensation and working regimens.

In this context, the strategic policy paper identifies key HR related themes linked to the directions outlines in the Primary and Community Care strategic policy paper, the Rural Health policy paper, the Surgical Services policy paper. It also highlights the need for continuous improvement across the scope of health services to meet population and patient health care needs and its implications for health human resource management. Successfully supporting these kinds of directional changes requires an aligned strategy across different levels (practice, regional/organizational, and provincial), across the scope of service delivery (public health, community, diagnostics and pharmacy, and hospital), and across delivery settings (metro, urban, rural, remote).

The strategic policy paper proposes a conceptual model for HHRM and assessment of current capacity for the purpose of achieving target health outcomes and, in the process, enhancing the quality of the health care delivery experience. The conceptual model is based on the micro (practice), meso (organizational) and macro (provincial) context descriptions commonly used in the social sciences. These inputs or levels of analysis are not isolated from one another. More frequently than not, they interact across the three levels.

- The micro layer is where the health human resource deployment efforts of operational service planners take shape in the form of individual and team work design.
- At the meso layer, service delivery is impacted by interventions that take place at organization level, often but not always through human resource departments.
- At the macro layer, service delivery is impacted by the province’s health human resource infrastructure; such as health professional education, credentialing, and regulation.

The policy paper argues that any health service delivery team must have five core characteristics in order to provide quality patient care. Health service providers must be **accessible** to the patient. They must be **engaged and motivated** to achieve health service delivery goals. They must possess the **skills and competencies** required to deliver patient-centred health services. They need a workplace environment that is **safe and healthy**. Finally, they must receive the **support and leadership** they need from the organization to deliver service effectively. The role of HHRM is to the enable those five characteristics.
Practice Level Input

The practice level inputs include HHR deployment, professional and inter-professional culture and motivation/engagement.

The **HHR deployment** model focuses on *staff mix* and *skill management*. The most common approaches for optimizing staff mix are adjusting the number of personnel, mixing qualifications (i.e., basic versus advanced credentials), balancing junior and senior staff members (i.e. experience), and mixing disciplines (i.e., inter-professional care teams). Evidence for the effectiveness of inter-professional primary care teams, especially in the context of chronic disease management, is particularly promising. Staff-mix within primary care teams typically includes nurses, physicians, specialists, pharmacists and (more rarely) social workers, non-clinical staff and volunteers.

In addition to addressing staff mix, there are approaches for managing the skills of individual health service providers and distributing tasks between them. The policy paper identifies a number of models - role enhancement, role enlargement, skill flexibility and role delegation - which have been applied in practice with various degrees of success.

HR deployment also raises the issue of optimizing scope of practice as a strategy to better utilize health professionals. Enabling effective team work will require experimentation and a cross level approach to remove barriers and building enablers to optimizing scopes of practice. While there have been multiple experiments with team designs across the health system in B.C., the structured consideration of the elements set out above and the cross level need for coordinated action has been lacking to date.

Linked to effective team work at the practice level is the issue of **culture**. Health professions such as nursing, medicine and pharmacy, have distinct cultures, including differing beliefs, language, values, customs and knowledge. It is important for health system stakeholders to be aware of how these distinct cultures might impact the direction and success of patient-centred health system change.

When different professions work together, a shared inter-professional culture can emerge at the practice level; but equally as each profession brings its own culture to the team this can equally be a cause of conflict. The human resource management challenge is to build on this common ground so different professions can work as a collaborative, effective health service delivery team.

Health professionals do recognize collaborative (inter-professional) care as the new way going forward. One of the most important interventions for promoting inter-professional culture has been to provide inter-professional training. Such programs are already producing results. IP interventions create a collaborative culture and increase provider satisfaction, and strong evidence that IP interventions reduce the cost of patient care. There is also sufficient evidence that students are attracted to clinical placements in rural communities when there are IP opportunities.

Although professional and inter-professional culture is most often experienced at the practice level, it impacts (and is impacted by) all levels of the health system. While this is not a new issue in B.C., there is
still a significant distance to go in enabling this approach at a practice level supported by organizational and provincial actions.

Provider **motivation** and **engagement** are essential during times of change. Motivation exists when there is alignment (a matching up) between the health service provider’s individual goals and the organization’s goals. Engagement is important to HHR management because it has an impact on productivity, turnover, employee safety incidents, absenteeism, patient safety incidents, and quality.

The policy paper identifies a number of best practices for preserving (or enhancing) provider motivation when change is implemented. It also explores the issue of physicians’ engagement because it is different from engaging other health service providers. Engaging physicians in health system decision-making is seen as critical to successfully executing on health system strategies. Physicians possess specialty (medical) information that is required to make strategic decisions about the health system. They are also in the best position to interpret and analyze medical information.

Motivation and engagement are seen as critical issues at the practice level and are influenced by action or inaction taken at both the organizational and provincial levels of the health system. The impact of health sector change on health service provider motivation and engagement will be mediated by activities that go on at the organizational and provincial levels as is addressed below under the need for change management.

**Organizational Level Inputs**

The organizational level inputs discussed here include self-efficacy recruitment and retention practices; transition from education to practice; HHR management; change and leadership management; workplace health and safety; and corporate learning and development.

**Recruiting and retaining** health service providers is key to ensuring that British Columbians continue to have access to the health services they need. The drivers of recruitment and retention vary from salary and benefits to other factors other factors such as opportunities for advancement, working with talented co-workers and the overall work environment mattered much more. These different values have implications for how recruitment and retention initiatives should be designed.

The recruitment and retention of health service providers in rural and remote parts of B.C. is crucial for ensuring adequate access to health services in these communities. These challenges may be overcome by knowing what counts to employees and practitioners – for example, by improving professional development opportunities or adopting tele-health and other distance technologies for recruiting and retaining occupational therapists (Wielandt & Taylor, 2010). Supporting ill and injured providers through effective disability management contributes to the retention of employees with valuable skills. Health service providers invest a significant amount of time,
effort and money in their chosen occupation. When disability removes a health service provider from the workplace, it has negative impact on both the provider and the patient.

The transition from education to practice is crucial for recruiting and retaining younger workers and ensuring safe and high-quality patient care. Professional education programs prepare students with the basics, but the academic setting is different from the workplace.

BC has experimented with a number of models and tools to close the gaps in knowledge and experience such as pre-registration (student) placements and formal transition programs.

Transition to practice is also a concern for health professionals that have been educated outside of Canada. Helping internationally-educated doctors transition to practice in Canada increases the number of family doctors available to BC citizens.

In 2015, the Government of BC will launch a pilot program for internationally-educated doctors who have completed their residency program in another country. The Practice Ready Assessment-British Columbia (PRA-BC) program will provide qualified family physicians with a pathway to being licensed in BC. Similarly, the province is working collaboratively with the province’s three nursing regulatory bodies to develop a “nursing community” assessment service for internationally educated nurses who may qualify to practice in B.C. as registered nurses, licensed practical nurses or care aides.

HHR Management is a key organizational building block which warrants further careful review and consideration with respect to the system’s current capacity both in the formal sense of the HHRM organizational units in health authorities (including physician health human resource management) as well as the distributed capacity and competencies of operational managers.

Change Leadership and Management are critical to any successful change process – from local initiatives to wide-scale reform. Organizations must build capacity within their senior management, line managers and front-line workers to plan, implement and sustain change in a manner that meets their overall goals.

Three essential elements of change management (defined in this paper) have been found to require attention in health care: power dynamics, organizational capacity and process for change (Antwi & Kale, 2014). In addition, the change process includes three phases: preparation, implementation and sustainment (Antwi & Kale, 2014). Preparing for change requires a clear understanding of the reason for change and an assessment of the organization’s environmental context, including political forces, economic influences and financial capabilities. It also includes an analysis of social trends, technological innovations, ecological factors and legislative requirements (if applicable). The purpose of this analysis is to determine readiness for change.

The paper identifies key challenges during the three phases of change management. For example, preparation and implementation of change initiatives without proper attention to sustainment
inevitably lead to results that fail to live up to potential, while key challenges during the implementation phase included altering well-established patterns of care and a lack of communication and coordination.

Building change leadership and management capacity within the health system’s leadership structure is essential across the micro, meso and macro levels of the system. The policy paper discusses the value of driving this agenda using a provincial collaborative for health system leadership development - “Leadership Linx – A Provincial Pathway to Leadership Development” which consists of a comprehensive suite of leadership programs focusing on five key areas: coaching, mentoring, new managers (Core Linx), experienced leaders (Experience Linx) and senior leaders (Transforming Linx). The Linx curriculum ties in with the five domains of LEADS:

- Leads Self
- Engages Others
- Achieves Results
- Develops Coalitions
- Systems Transformation

The BC Health Leadership Development Collaborative continues to evaluate and assess the effectiveness of the Leadership Linx programs.

A safe and healthy workplace is a vital requirement for a healthy, engaged and productive healthcare workforce. Healthcare workers are one-and-a-half times more likely than the average Canadian to be off work due to illness or disability (Canadian Healthcare Association, 2013).

In B.C., occupational health and safety (OH&S) standards are established at the macro (provincial) level through provincial legislation and WorkSafeBC regulations, guidelines and policies; however, health care workers experience workplace health and safety culture at the practice level. WorkSafeBC monitors employers to make sure they comply with these standards.

Psychological workplace health is also a focus at the national level. Although a psychologically healthy and safe workplace is a clear priority for enabling a healthy, engaged and productive healthcare workforce, efforts to address this issue have thus far been limited to the local/regional health authority level. British Columbia currently lacks a common approach to creating a psychologically healthy and safe workplace (e.g., collectively adopting the CSA standard).

Currently each health authority is accountable for corporate developing learning and development programs for their staff, while physicians independently pursue required continuing medical education. While continuous improvement is identified as critical to the health care agenda in BC there is no overarching collaborative framework in place to drive this strategy. In 2012, the Government of BC implemented an evidence-based corporate learning strategy for the BC public service. While the public service differs from the health sector in many ways, the underlying evidence and research does apply.
Corporate learning and development programs must respond quickly to learning needs that result from rapid technological, demographic and social change. Also, they must be accessible and responsive to enable responsive learning.

**Technology’s role** in the health system is to enable health service providers to provide quality patient-centred care. Technology is used in the context of medical, surgical and diagnostic procedures. It is also used to manage information. Information technology is usually broken down into administrative data (e.g., human resource data, scheduling data, patient accounts) or clinical data (e.g. patient records, diagnostic tests, care plans, etc.) (Blackwell, 2008).

**Provincial Level Inputs**

The provincial level inputs include professional education, professional legislation and regulation, labour organization and bargaining, funding and remuneration, HHR planning and governance, and provincial engagement.

There has been increased recognition of the interdependence between professional educational planning and access to consistent and appropriate healthcare across the province. The Ministry of Health is working with education and service delivery partners to ensure education programs and continuing professional development meet the needs of practitioners and health care system.

The **self-regulating professions** are governed by 22 regulatory colleges under the *Health Professions Act* while the emergency medical assisting and social workers are a self-regulating profession governed by under a specific regime set up by two other pieces of legislation. Professional self-regulation is a model that allows government to have some control over the profession’s activities (e.g. services provided), without having to maintain in-depth knowledge of the profession’s practice (Balthazard, 2010). The primary functions of the professional colleges are to ensure their members are qualified, competent and following clearly defined standards of practice and ethics. All colleges administer processes for responding to complaints from patients and the public and for taking action when it appears one of their members is practicing in a manner that is incompetent, unethical, illegal or impaired by alcohol, drugs or illness.

The policy paper discussed a number of issues related to labour organization and bargaining, including the structure of the bargaining organizations and units; the parties to the bargaining process; and the challenges arising from the provincial collective agreements. It concludes that this is a complex area but one which through a candid recognition of competing interests, combined with a willingness to work together to navigate those interests, we can leverage the significant skills and professional commitment of the health sector workforce to support the required health system change.

The majority of the health care budget is spent on **compensation for HHR**. Compensation for service delivery represents approximately 70 cents of every health care dollar spent in the public system.
The total compensation cost for the public health sector is roughly $12.6B a year, which covers over 170,000 health professionals including physicians, nurses, allied health workers, supporting staff, community workers, dentists, optometrists, midwives and managements/excluded staff.

In order to plan ahead to ensure citizens have access to the health services they will need in the future, planners and policy makers must be able to predict, as accurately as possible: a) what health services will be required; b) how many health professionals (and what type) will be needed to provide those services; and, c) how many health professionals (and what type) will be available to provide those services. Once both supply and demand are known, strategies can be developed to fill any projected gaps, such as an anticipated shortage of certain health professionals.

The Ministry of Health and the Health Employers Association of BC (HEABC) are now developing a new Integrated Health Human Resource Planning (IHHRP) model that will further improve the province’s HHR planning ability. The IHHRP model will use information on the health of the population, utilization of health services from the Health System Matrix, and data from the Ministry of Health and HEABC to generate specific health service provider information geographically and by designation (i.e. metro, urban, rural and remote). The model will forecast the number, type and location of providers required to provide appropriate health care services on an annual basis over a five and 10 year projection.

Setting Priorities identifies the need for refreshed governance and standing committee structures to facilitate greater engagement and collaboration among the Ministry, health authorities and other health system partners in support of key strategic priorities, including health human resources. A new Standing Committee on Health Human Resources (SCHHR) reporting to Leadership Council is required to drive the health human resources strategic agenda.

The opportunity for health service provider groups to provide feedback to senior decision makers at the provincial level has clear benefits in terms of engagement and addressing issues of concern to all parties at a policy level. A provincial engagement framework has been established with the Doctors of BC in order to give effective voice for physicians on policy matters at the senior levels of government. This model will be proposed to other associations and unions to give their members the same opportunity.

The Next Steps

The recommendations put forward in these papers push the boundaries of what we have been doing so far and emphasize a need for timely, short and longer term action. I want to emphasize that we are putting forward a range of proposed actions that we think will improve our health services in a number of important areas and better position our health system to meet increasing demand from key patient populations. The actions proposed would be undertaken opportunistically building on initiatives and

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1 Total Compensation is defined as all costs associated with employment, including wages, overtime, premiums, allowance, pension and benefits.
innovative service delivery already underway across B.C., but also will require a systematic approach to change that builds a truly patient-centred system of care (*The British Columbia Patient-Centered Care Framework* – hyperlink).

You may have different views on the proposed action, how to improve the system or how to implement these recommendations and that is precisely what we are testing out by posting these papers. Your feedback will be part of a healthy and thoughtful discussion of these recommendations. Over the coming three months my aim is for us to achieve a good level of consensus across key partner and stakeholder groups of what the final set of specific actions should be; and then, for us to move forward collaboratively to figure out the detail, the how and the timing of implementation linked to better meeting current and emerging needs in a timely way. Patients as Partners will be an important part of this process.

I want to assure you the implementation of the final set of recommendations will allow enough flexibility for a diversity of implementation approaches across communities but that I also intend to push us to create a truly integrated system of health care that works for patients and not just for us. Your input, creativity and innovation in shaping and implementing the final set of recommendations at the local, organizational and provincial levels will bring new solutions and enrich our B.C. health system.

The implementation of an HHRM strategy will be an ongoing multi-year process, and the directions set out here are intended as the more immediate actions to be undertaken over the next two fiscal years (2015/16 - 2016/17) to shape and enable implementation of the HHRM strategy over the longer term.

**1. Establishing a Coherent Policy Framework**

**1.1 The Ministry of Health in collaboration with Health Authorities, Colleges, Associations and Unions, Educators, and other stakeholders, will establish a single provincial Health Human Resource Framework that will be used to plan, link and coordinate go-forward actions and initiatives.**

The starting point for consultation will be the framework used in this paper subject to modification and development but with an expectation that the consultation will be completed and the framework start to be used in the spring of 2015 for planning, coordinating action and quality assurance.

**2. Enabling Effective Cross Sector Health Human Resource Management**

Taking a series of coordinated HHRM actions across different levels (practice, regional/organizational, and provincial), across the scope of service delivery (public health, community, diagnostics and pharmacy, and hospital), and across delivery settings (metro, urban, rural, remote) to support continuous improvement linked to strategic priorities for the health system.
2.1 Leadership Council will establish a Standing Committee on Health Human Resources (SCHHR) as BC's senior level HHR governance structure, reporting into Leadership Council. Setting Priorities identifies the need for a refreshed governance structure to facilitate greater engagement and collaboration between the Ministry, health authorities and other health system partners in support of key strategic priorities, such as health human resources. To facilitate health human resource planning and policy across all professional groups, Leadership Council will establish a Standing Committee on Health Human Resources as the province’s senior level governance structure.

The Committee will report to Leadership Council, and consist of core membership from the Ministry of Health, the health authorities, HEABC and the First Nations Health Authority. Health authority representatives will consist of Vice Presidents, Human Resources; Vice Presidents, Medicine; Chief Nursing Officers, and other representatives as determined. Ad hoc participants will include other government agencies, regulatory agencies, educational institutions, professional associations, unions, non-profit organizations and patient representatives.

Draft terms of reference for the Committee are currently out for consultation with the parties affected. The Standing Committee will be established by March 31, 2015.

2.2 Develop and implement an HR Deployment methodology linked to an effective, thoughtful workplace redesign methodology.

By September 30 2015, the Standing Committee, in collaboration with Health Professional Colleges, associations and unions and other relevant provincial stakeholder groups, will develop a provincial approach to managing HR deployment and thoughtful workplace redesign processes in support of the directions set out in the policy papers. As there is currently no evidence-based, prescriptive approach in BC, the methodology will be built on the elements set out in this paper, as well as examples from other jurisdictions, and through meaningful consultation, and will involve evaluation and action learning principles. This framework will guide specific change management initiatives going forward.

2.3 By September 30, 2015, Health Authorities will complete an organizational change management assessment of their organization’s current capacity, approaches and infrastructure. This assessment will form the basis for taking action to implement the HR Deployment methodology linked to an effective, thoughtful workplace redesign methodology set out above.

Each health authority will submit a report summarizing its self-assessment (a) change management capacity building plan, and (b) action taken to implement the HR deployment and workplace redesign methodology to the Ministry of Health as part of its year accountability reporting in March 31, 2016.

2.4 By September 30, 2015, Health Authorities will complete an HHRM (including physician human resource management) assessment of the organization’s current capacity, approaches and infrastructure. This assessment will form the basis for taking action to implement the HHRM framework set out above.

Each health authority will submit a report summarizing its self-assessment (a) health human resource
management capacity building plan (b) and action taken to implement the HR management plan to the Ministry of Health as part of its year accountability reporting in March 31, 2016.

2.5 The Ministry of Health and the Health Employers Association of BC (HEABC) will complete the development of a new Integrated Health Human Resource Planning (IHHRP) tool to improve the province’s HHR planning ability.

The IHHRP model will use information on the health of the population, utilization of health services from the Health System Matrix, and data from the Ministry of Health and HEABC to generate specific health service provider information geographically and by designation (i.e., metro, urban, rural and remote). The model will forecast the number, type and location of providers required to provide appropriate health care services on an annual basis over a five and 10 year projection. Authorized staff from the Ministry of Health, HEABC, and the health authorities will be able to adjust the forecasts according to real or hypothetical changes in service delivery approaches and trends. The tool will be ready to use starting April 2016.

2.6 Inventory of public and private post-secondary education and training programs, including clinical placement capacity.

The Ministry, in partnership with Advanced Education and other health system partners will undertake an inventory and assessment of current education and training programs for health professionals and use the inventory in concert with workforce planning models to identify opportunities to re-align these programs with population health needs. The inventory will be completed by September 2015.

2.7 Patient-centred, culturally sensitive and inter-professional learning opportunities.

In conjunction with the inventory above, the Ministry will work with Advanced Education and other stakeholders to ensure curriculum for health care workers supports development of patient-centred, culturally sensitive and inter-professional professional and organizational cultures.

2.8 Enable effective transition to practice in the BC health system

Health authorities, in partnership with academic institutions, the colleges, and the associations and unions representing health professional staff; will form a task force on transition to practice and develop recommendations with respect to a) priority objectives for improving transition to practice, b) an action plan of strategies and tactics for achieving those objectives and c) methods, indicators and success criteria for measuring achievement of those objectives.

The task force will consist of representation from the health authorities, academic institutions, the colleges, and the associations and unions representing professional health staff. The task force will consider relevant research/evaluations or initiatives that have taken place (including Rush et al.’s (2013) evaluation of BC’s nursing transition programs), to develop recommendations with respect to:

a. Priority objectives for improving physician, nurses, and allied health professionals’ transition to practice. The objectives chosen must be:
   i. Measurable and achievable within three years, with reporting starting by March 31, 2017
ii. Justified by existing evidence (i.e. best available research evidence, evaluations, experiential evidence)

iii. Explicitly linked to the province’s target population health outcomes and service delivery goals

b. An action plan that includes strategies and tactics for achieving those objectives.

c. The methods, indicators and success criteria for evaluating the province’s achievement of those objectives.

The task force will report its recommendations to the Leadership Council by March 31, 2016.

2.9 The SCHHR will lead the development and implementation of a leadership and management development framework for both the senior management and senior executive management of the BC health system.

A key priority in the Setting Priorities document is the development of a leadership and management framework for the health system. The underlying principle for this framework is ensuring BC health care leaders have the right skills at the right time to achieve meaningful and sustained transformation of the health system.

Using any required contracted resources, health authorities will conduct a current state inventory of health leadership and management operational capacity; programs being used to develop leadership and/or management skills; as well as a comprehensive literature review and analysis of best practice and emerging trends in health leadership and management development nationally and globally with a specific focus on health care transformation. An ad hoc Leadership and Management Development Working Group will be brought together with representation from health authorities, academia and key partner organizations to assess the current state of leadership and management development in the BC health system, review and validate best practices and emerging trends and make recommendations for continued or new actions. The Working Group through SCHHR will report its recommendations to the Leadership Council by January 2016 with action being implemented starting in the 2016/17 fiscal year.

2.10 The SCHHR in collaboration with the Doctors of BC and health unions will round out and ensure the implementation of an inter-professional multilevel engagement strategy that builds from existing agreements and processes to support the creation of inclusive, vibrant and healthy workplaces across the health sector.

As set out in Setting Priorities (pg. 37), there is a commitment to ensure the development and implementation of a provincial engagement, influence and accountability framework in collaboration with health authorities and unions to support the creation of inclusive, vibrant and healthy workplaces across the health sector. The framework will ensure rigorous discussion with physicians, nurses, allied health workers, and health support staff about healthcare practices and change. Clearly articulated, specific and measurable healthy workplace objectives linked to the engagement framework will be developed by each health authority. Achievement of these objectives will be monitored, measured and reported to Leadership Council on a quarterly basis. This approach is to be fully implemented by March 31, 2016. Linked to these objectives, Health Authorities will adopt the National Standard of Canada for
Psychological Health and Safety in the Workplace as their own standard.

3. **Enabling Strategic Policy Paper Directions**

3.1 The SCHHR in collaboration with Health Professional Colleges, the Doctors of BC, health unions and other relevant provincial stakeholder groups, will undertake specific planning to take coordinated HR actions across different levels (practice, regional/organizational, and provincial), across the scope of service delivery (public health, community, diagnostics and pharmacy, and hospital), and across delivery settings (metro, urban, rural, remote) in support of the directions set out in the Primary and Community Care, Surgical Care and Rural Health policy papers. The enabling strategic action plans will be developed in tandem with the relevant consultation processes.
Introduction

In February 2014, the Ministry of Health set out a refreshed strategic direction for our province’s health system in the policy paper Setting Priorities for the BC Health System. In April 2014, the Ministry of Health released BC Health System Strategy Implementation: A Collaborative and Focused Approach. This strategic direction and the resulting actions are built around the three overarching goals of the Triple Aim (developed through the Institute of Health Improvement):

1. Improving the health of populations;
2. Improving the patient experience of care (including quality and satisfaction), to which B.C. has recognized the additional requirement of improving the experience of delivering care for providers and support staff as critical to patient-centred care built on efforts of those who deliver and support health services; and
3. Reducing the per capita cost of health by focusing on quality (especially effectiveness and appropriateness) and the efficiency of health care delivery.

A key enabling strategy identified to support the priorities was the need for a health human resource strategy that would result in an engaged, skilled, well-led and healthy workforce. Enabling Effective Quality Population and Patient-Centred Care: A Provincial Strategy for Health Human Resources sets out both a framework and direction for health human resources (HR) in BC.

This is one of several policy papers in development that are aligned and built from the two earlier foundational papers:
- Public health
- Health Promotion
- Primary and Community Care
- Surgical Services
- Rural health
- Health Human Resources
- Academic Health Science Network
- IMIT
- Funding Review
- Cost Management

This policy paper sets out a proposed framework to structure and align our actions across different levels (practice, regional/organizational, and provincial), across the scope of service delivery (public health, community, diagnostics and pharmacy, and hospital), and across delivery settings (metro, urban, rural, remote).

The framework starts with the purpose of the health system – population and patient health – and a brief overview of the emerging population and patient needs of British Columbians. It then links these to
service delivery in general and more specifically to the proposed directions set out in three key policy papers – primary and community care, surgical care, and rural health.

The paper then goes on to set out a framework for driving a comprehensive health human resource strategy actions across different levels, service delivery components and delivery settings linked to better meeting current and emerging population and patient health needs. That framework is used to assess current strengths and weaknesses in BC’s current approach to HHRM.

The paper concludes by proposing a number of specific key actions to implement a comprehensive HHRM strategy that will drive the change required to achieve quality services and health outcomes for British Columbians over the coming decade, starting in 2015. These proposed specific actions will drive the stakeholder consultation and engagement phase over the winter and early spring.

Two key assumptions of this paper are that 1) a successful health human resource strategy will require health system stakeholders to build a substantial level of consensus, and 2) that implementation of this strategy will require significant collaboration. Strategy is often assumed to be synonymous with a plan (Setting Priorities, pg. 33) but this is not the case. A strategy takes into account the competing interests and viewpoints of stakeholders. These must be resolved through the active engagement of those stakeholders. However, this paper also argues that the focus of that engagement must be the health of British Columbians. The core of this strategy will be to incrementally position health human resources to better meet the changing population and patient needs over the coming 1 to 5 years, and to enable an engaged and well trained workforce providing services in healthy workplace environments.

Through a candid recognition of competing interests, combined with a willingness to work together to navigate those interests, we can leverage the significant skills and professional commitment of the health sector workforce to support the health system change required to meet population and patient needs.

The release of this paper positions the Ministry to move into stakeholder consultation and engagement with a view to beginning to take action starting in the spring and fall of 2015.

**Strategic Context**

**The Challenge of Health Human Resource Management**

It could be argued that health human resource management (HHRM) poses the greatest strategic challenge of all for health systems for at least four reasons:

1. Health care is made up of a large and complex system of health service provider groups and the organizations that represent, regulate or employ them. Health service provider groups include general practitioners, over 35 classifications of medical specialists, over 12 surgical specialist classifications, nursing professionals, some 20 allied health professional groups, and support
workers. In total there are currently over 150,000 health professionals and support workers across BC. To this list we can add managers and senior executives.

In turn, health service providers interact with a vast array of organizations that have their own specific mandates. The majority of health service providers are represented by associations or unions. Many providers are regulated by their respective professional colleges. While a significant portion of physicians operate independent practices, some physicians and most non-physician health service providers are employees of health service delivery organizations, primarily health authorities. At the policy and legislative level, of course, is government; which is directly accountable to the citizens of BC and on whose behalf government spends some $17 billion dollars from tax revenue.

The complexity of the health system is not unique to BC. In *Chronic Condition*, Jeffrey Simpson (2012) notes that Canada’s health care system as a whole features “huge bureaucracies, large institutions, powerful professional associations, [and] formidable unions.” (pp. 168-169). This results in a system that is large, complex and notoriously difficult to manage.

2. The effective execution of a health human resource strategy requires buy-in, cooperation, and coordination within this large and complex system. Rigoli and Dussault (2003), point out that although referred to as “human resources,” health service providers are not passive inputs into the system, as are financial or physical resources; rather, they are “strategic actors” (pg. 1) who have the ability to facilitate or resist health system change. Franco, Bennett, & Kanfer (2002) further note how, ‘Health sector performance is critically dependent on worker motivation: health care delivery is highly labour-intensive. Consequently, service quality, efficiency, and equity are all directly mediated by workers’ willingness to apply themselves to their tasks’ (pg. 1255). These are important distinctions to make because they highlight the need to enlist “the active collaboration of providers” to successfully implement patient-centred health system change.

Health service providers are not the only strategic actors in the system. Obtaining buy-in for change extends, to a certain extent, to professional colleges, associations, and unions. The positions of these organizations are often framed by complex legislative frameworks, collective agreements, inter-organizational relationships, practices deeply embedded in tradition, and value systems that emphasize the need for professional autonomy and protection of work jurisdiction. As a result, diverging interests between the groups can sometimes act as a barrier to collaboration.

However, against this backdrop of diverging interests we can and do find common ground. The health sector is made up of many passionate, well-educated and committed health service providers. Over the past decade, a significant amount of collaboration has occurred between

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2 Rigoli & Dussault (2003), pg. 4.
associations, unions, health authorities and government to try to find a different way forward. Health system stakeholders have demonstrated that they can work together to effect change. Leveraging the professional commitment of all parties to patient-centred care, these past successes can be built upon to benefit the citizens of BC.

3. The third reason relates to the challenge of providing a distributed service delivery system across the large geographic area of our province; which includes metro, urban and rural communities. Deploying the appropriate mix of health service providers to the communities in which they are needed, and doing so in an equitable manner, is a problem that is not unique to BC. Other parts of Canada and other countries with areas of low population density (e.g., Australia) are faced with similar challenges. The policy paper on our rural and remote health strategy addresses this issue and will tie in closely with our health human resource strategy.

4. The final reason relates to the challenge of anticipating and responding to future health human resource needs. Despite advances the province has made, and continues to make, in forecasting the demand for and supply of health human resources; it is sometimes difficult to anticipate how demographic, social, and technological shifts will manifest in the workforce. For example, generational shifts in work values can have significant implications for what is important to offer when recruiting and retaining workers. However, such changes are hard to predict because they do not show up as work values until the generation is of working age, leaving a small window of time to adjust our approach. Strategies that involve training more health professionals can be effective when supply gaps are identified. However, training takes time and does not always allow for a quick response to filling these gaps.

Despite the complexity of the health system and its inherent challenges, there is still general consensus among health system stakeholders that it needs to change. This brings us back to our health human resource strategy as an enabler of such change. At a practical level, we have yet to reach consensus on how to effectively position our health workforce to provide the best patient-centred care for British Columbians. As such, the province currently lacks a coherent, comprehensive and sustained health human resource strategy.
How Might We Best Understand the Health System?

Consensus can only be built when there is a shared understanding of the subject at hand. In June 2014 the Ministry of Health introduced a framework (see Figure 1. Health System Performance Management Framework) for the BC health system to drive a more structured and convergent discussion on health system delivery and performance. The premise being, that while the system is large and complex, there is an underlying structure and logic to service delivery and performance.
The framework proposes three contextual axes that must be continuously balanced and reconciled for the delivery of health services in BC: (1) ensuring quality; (2) ensuring effective and efficient budget allocation and cost management; and (3) ensuring meaningful health outcomes.

**Figure 1: Health System Performance Management Framework**
allocation and cost management; and (3) ensuring effective distribution, delivery and management of services across metro, urban, rural and remote areas.

Within these axes the fundamental logic of the health system starts with achieving meaningful health outcomes for the population and individual patients. Outcomes are focused on what actual health outcomes are achieved and the quality of the health care experience:

- Effectiveness: Care that is known to achieve intended outcomes.
- Appropriateness: Care provided is evidence-based and specific to individual clinical needs.
- Accessibility: Ease with which health services are reached.
- Safety: Avoiding harm resulting from care.
- Acceptability: Care that is respectful to patient and family preferences, needs and values.

Two other dimensions of quality measure the performance of the system in which health care services are delivered:

- Equity: Distribution of health care and its benefits fairly according to population need
- Efficiency: Optimal use of resources to yield maximum benefits and results

Underpinning these dimensions of quality is a commitment to consistently strive to provide patient-centred care. Health care is about providing care to fellow human beings. Research demonstrates that a lack of human caring results in poorer health outcomes and higher health care costs. While many health organizations assert they put patients first, there is an overwhelming consensus that the health care system in many OECD jurisdictions is built around the needs of administrators and providers.

In any true patient-centred care delivery model, the primary driver of priorities is the delivery of quality care to the patient. Improving patient-centred care is about examining all aspects of the patient experience and considering them from the perspective of patients versus the convenience of providers. This requires a shift in the culture of health care organizations from being disease-centred, problem-based, and provider focused to being proactive in addressing patient needs from a person-centred approach. It requires translating high-level patient-centred care concepts linked to optimally and efficiently meeting patient health care needs into actionable, attainable and sustainable practices. It will require engaging medical, nursing and allied health care professionals in patient-centred care and challenging outdated concepts of professional autonomy and silo based practice, while also empowering health professionals to work with patients to individualize their experience and use data to drive change.

As the system evolves, finding new ways of delivering care that are efficient and effective, without conceding the compassion patients expect and deserve, is both a challenge and a prerequisite of an effective system.
These outcome criteria must be applied to evaluate how well the health sector is meeting population and patient health needs across four broad groupings of the population: Staying Healthy, Getting Better, Living with Illness or Disability, Coping with End of Life. These groupings are further divided into 13 subpopulations, against which the health system is able to assess current demand and project future needs through the use of health data.

The operational imperative for the health sector is to design and deliver a system of specific services and programs of services to best meet these needs from both the population and patient centred care, quality, cost, and distribution lenses.

Aligning the right human resource skill sets enables service delivery to best meet the needs of the population. The overall system is then supported by clinical and analytical information, health technology and work place infrastructure.

These system elements are provided through a provincial health authority and five regional health authorities (divided into health service delivery areas or HSDAs and further divided in to local service delivery areas) and physician service providers. These organizational structures are underpinned by the need for effective governance and management which includes effective health authority board governance, competent executive management, aligned operational plans and line accountability and engagement structures, along with change management skills in support of delivering an effective and efficient system. Most recently a provincial First Nations Health Authority has been added to this structure through a tripartite agreement between First Nations, the Federal and Provincial Governments.

To be successful, the entire health care enterprise must be driven by a coherent set of aligned policy objectives and system wide coordinated strategy with effective monitoring, reporting and accountability processes.

This framework provides a robust tool for driving analysis and understanding of health human resources linked to other parts of the health system to deliver high quality health services for British Columbians.
What is the Province’s Health Status and How is It Projected to Change over the Coming 10 to 15 Years?

To understand the population’s health care needs, the Ministry of Health groups BC residents according to their major health concern in a given year. As previously noted, the population is first divided into the four dimensions: **Staying Healthy, Getting Better, Living with Illness or Disability, and Coping with End of Life**. These dimensions are further divided into smaller segments, as reflected in Figures 2 and 3 below.

The Ministry then tracks health service utilization by population segment in the following areas: physician billings, PharmaCare, most acute and home support services, a portion of emergency department and hospital outpatient care, some home and community services, community mental health services, and funding for population health and wellness. These services make up approximately two-thirds of all yearly health expenditures, providing a good representation of provincial health service usage. This information is used for analysis and decision making; in particular, to measure current and project future health service needs.

The information above is put into a matrix (a table of data) that shows how much money is spent on these particular health services on average per person (Figure 2) and in total (Figure 3).

**Figure 2: Health System Matrix ($ PER PERSON)**

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3 The system does not currently track the services provided by salaried or contract physicians.
What does this data tell us about population and patient health needs? It allows us to identify emerging trends in health service utilization. We will examine these trends in the following subsections. However, it is immediately worth highlighting that three population segments stand out as using a significant percentage of health services and health dollars:

1. The frail senior population living in residential care;
2. Patients with low, medium or high complex chronic conditions; and
3. Patients with severe mental illness and/or substance use issues.

Successfully meeting the needs of these populations is therefore a critical component of any go forward health human resource strategy within the spectrum of meeting the broader set of health needs of the population.4

Staying Healthy
This dimension accounts for 16 per cent of the provincial population, who account for nine per cent of expenditures for minor episodic health needs and maternity care services.

- Healthy Non-User (14 per cent of population; 0 per cent of expenditures)

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4 This section provides a high level summary of population and patient health care needs. More detailed data and analysis can be found in each of the current service policy papers – primary and community care, surgical care, rural health.
• Healthy with Minor Episodic Health Needs (34 per cent of population; 5 per cent of expenditures)
• Maternity and Healthy Newborns (2 per cent of population; 4 per cent of expenditures).

Clearly, the optimal outcome for the health system is to ensure that as many British Columbians as possible reside in this group, free from major health crises. The majority of patients in this category will have minor episodic health concerns and live relatively healthy lives. The key focus for health service delivery to this group is to provide timely access to quality, minor episodic care in the community and to avoid unnecessarily using emergency departments and other hospital services for non-urgent care. A second important service delivery area in this grouping is maternity care, which is currently largely provided in hospitals in BC.

Getting Better
This dimension accounts for only three per cent of the population and uses six per cent of services. The majority of patients in this category have major or significant, yet time-limited, health needs.

• Major or Significant Time-Limited Health Needs (3 per cent of population; 6 per cent of expenditures)

The key focus for health service delivery in this group is to provide timely access to quality, major or significant time-limited care that includes access to diagnostics, medical and surgical services as required. A key area of growth is the demand for elective surgery. Over the past five fiscal years the number of cases identified as requiring surgery at a given point in time has not changed significantly, ranging between 70,102 and 72,391; however the volume of surgeries completed in the province has risen from 491,870 in 2008/09 to 529,932 in 2012/13. The raw numbers only give partial insight into need. Advances in both surgical procedures and supporting technologies have made a range of elective surgical procedures both more attractive to patients as they weigh the cost benefit. This applies across all age sectors with a growing number of elective surgeries now being undertaken into the 80s. Often referred to as “preference-sensitive conditions”, much of the demand for surgery depends on patient preferences.

Living with Illness or Disability
This dimension accounts for over 40 percent of the population and almost 50 per cent of all health system expenditures accounted for in the matrix ($5.2 billion). From a health service delivery perspective, the focus for this group is three-fold: to help manage their health conditions as best as possible over time; to help prevent their condition from becoming more severe or complicated by additional health issues; and, if possible, to return them to full health. This group requires significant, sustained, and coordinated effort on the part of health service providers to achieve the best possible health outcomes. The Living with Illness or Disability dimension is subdivided as follows:

• Low Complex Chronic Conditions (29 per cent of population; 15 per cent of expenditures)
• Medium Complex Chronic Conditions (9 per cent of population; 12 per cent of expenditures)
• High Complex Chronic Conditions (4 per cent of population; 12 per cent of expenditures)
• Mental Health and Substance Use Needs (2 per cent of population; 5 per cent of expenditures)
• Cancer (1 per cent of population; 5 per cent of expenditures)

**Chronic Conditions (low, medium, high complexity)**

In BC, people with chronic conditions of medium or high complexity represent 13 per cent of the provincial population and use 26 per cent of health services. Those with highly complex chronic conditions use the most hospital, PharmaCare, and home and community care services. They are also high users of general practitioner and specialist services. The challenge presented by chronic conditions will get worse - both high and medium complex chronic conditions are expect to increase significantly over the coming fifteen years.

The aging population is a key driver of this projected growth, as the prevalence of chronic conditions increases with age (Figure 4). Ninety one per cent of seniors have at least one or more chronic conditions and three-quarters have two or more.

**Figure 4. Number of Chronic Conditions by Age (Percent of Population Cohort)**

In Canada, seniors with more than two chronic conditions have nearly three times the number of health care visits than seniors with no reported chronic conditions (CIHI, 2011). However, it is important to note that the same rise in health care visits increases with the number of chronic conditions in all age cohorts (CIHI, 2014). This underscores that this is not simply a service issue for the older population. Multiple chronic conditions are difficult for health service providers to treat. In one study, only 55 per cent of Canadian physicians reported feeling well prepared to treat people with multiple chronic conditions (Schoen et al., 2006). A wide range of chronic illnesses (e.g., arthritis, asthma, lung disease, chronic pain, congestive heart failure, diabetes, high blood pressure, stroke) require sustained and co-ordinated medical and non-medical management. BC has taken some important steps in addressing this concern in its collaboration with Doctors of BC through the General Practice Services Committee and patient self-management initiatives but with significant room for improvement at a system wide level.
Evidence shows that people newly diagnosed with one or more chronic conditions have hospital and specialist costs that are much higher than for people who have been diagnosed previously. This can be explained by the significant medical intervention needed in the initial acute onset of the illness, as opposed to the disease management stage that follows. From both a quality of life and health service spending point of view, benefits can accrue from helping patients better manage and then avoid or delay the progression of chronic disease through proactive, informed care.

Patients with chronic conditions require more health professional time, care planning, and care co-ordination. This becomes even more important as they age into their 70s and 80s with increasing frailty for a subset of the population. It is also clear that inadequate or ineffective community care results in an increased demand for acute care services, which is both sub-optimal for patient care and wellbeing and more expensive for the system.

**Mental Health and/or Substance Use**

Mental health and substance use conditions represent a high burden of disease in the population due to the number of individuals affected (one in five individuals over a 12 month period), the early age of onset and the need for ongoing treatment through the patient’s life span.

Though the majority of those with mild to moderate mental health and/or substance use problems can be effectively supported or treated through primary care and/or low-intensity community-based services, a small proportion of people experience severe and complex problems that require more intensive service approaches. An estimated 130,000 British Columbians have severe addictions and mental illness (SAMI) representing approximately three per cent of the province’s population. A further sub-set of the SAMI population (2,202 individuals in BC) are considered to have complex co-occurring disorders (CCD) as they meet the criteria for SAMI and are also high users of the justice, social welfare, and hospital systems.

While making up two per cent of provincial health service users, the most severe mental health and substance use cohort accounts for five per cent of health spending, or almost $500 million each year. These individuals are significant users of hospital services, with 29 per cent of emergency visits resulting in admission to an inpatient bed. When all mental health and substance use clients are taken into account, the Province spent over $1.38 billion on mental health and substance use services in 2013-2014.

A subset of this population segment has severe addictions and/or mental health issues (SAMI) with one or more psychiatric diagnoses that significantly affect their ability to participate in various areas of daily life. This sub-set suffers from chronic and disabling substance use, and often severe psychosis, bipolar, neuro-developmental disorders, and/or cognitive impairment. Many of these individuals either do not or cannot access existing therapeutic supports. As a result, they use emergency services more than most other groups and are frequently involved with the justice system. This cohort is also at high risk for homelessness. Although the existing range of mental health services and supports should serve the
majority of SAMI patients well, a sustained effort is required to ensure they can effectively access these services.

Cancer
People with cancer account for one per cent of the population and five per cent of all health system expenditures accounted for in the matrix. Those receiving treatment for cancer are often significant users of health resources during the two year period following diagnosis, when they are receiving treatment.

In BC, the expected increase in new cancer cases is about 45 per cent from 2011 to 2027. This is primarily due to population growth and aging. Although some types of cancers are on the rise (such as thyroid, non-Hodgkin lymphoma and melanoma), most major cancer types have remained steady or declined over the past decade with improved screening and awareness of how some cancers can be prevented.

Coping with End of Life
The population in this category is dealing with health challenges that will likely not diminish. Some are in the final stages of life while others have significant and often age-related health concerns that either require residential care or substantial community based health care and support. While accounting for less than two percent of the provincial population, this group uses 35 per cent of all services accounted for in the matrix ($3.7 billion). Here, the focus is on aiding in the management of conditions in a way that produces the best possible health outcomes and quality of life delivered in a cost-effective manner:

- Frail in Community (<1 per cent of population; 9 per cent of expenditures)
- Frail in Residential Care (1 per cent of population; 21 per cent of expenditures)
- Palliative Care (<1 per cent of population; 5 per cent of expenditures)

Frail Seniors
British Columbia has the fastest growing senior’s population in Canada. The number of seniors in BC is expected to almost double by 2036, and the 75+ population will grow by almost 130 per cent over the same time\(^5\). While the majority of seniors are comparatively healthy and have few serious health concerns, others within this age cohort are not as fortunate.

Frailty (complex care needs necessitating assistance with activities of daily living) increases with age, especially after a patient reaches the age of 75 and then moves into their 80s or 90s, alongside the prevalence of dementia and other forms of cognitive decline.

Residential care accounts for, by far, the majority of expenditures in this area. Although frail seniors in residential care represent only one per cent of the population, they use 21 per cent of all health system expenditures included in the matrix. A large driver of this cost is the provision of 24/7 residential care.

British Columbia’s 303 residential care facilities are home to almost 42,000 residents, with an average age of 85 years. Many of these residents have one of more chronic conditions at varying levels of severity. For example, 61.4 per cent have dementia and 20.2 per cent have diabetes. In addition, 6.7 per cent have cancer while almost one-third have severe cognitive impairment. These seniors require a wide range of health supports to help manage such medical challenges, which are often what precipitated the entry into residential care in the first place.

It is to say the obvious that most seniors prefer to remain in their homes and communities rather than move to a care facility. When community care provides a viable alternative, patient experience is enhanced. When seniors are admitted to acute care, they can experience prolonged periods of inactivity during which time their level of functional ability is reduced and may never recover. The quality of life is better when an individual is able to be sustained in their home and community. The per-person cost of caring for a frail senior through home and community support is less than half the cost of caring for them in residential care (e.g., residential care: $59,210; community: $20,290; community with high chronic condition: $29,690). This is true even though frail seniors in the community have a higher number of emergency department visits than those who live in residential care (i.e., 18 per cent for frail seniors living in the community versus 7.1 per cent for those living in residential care).

Analysis shows that health care costs, especially hospitalization expenditures, rise in the year before a patient enters residential care; often due to a health concern that precipitates need for this type of care. This same analysis points to the need for community-based, coordinated care that, a) defers, where possible, the need for residential care or, b) when residential care is required, facilitates access in a planned manner rather than through a health crisis requiring an emergency visit and inpatient stay in the hospital.

Improving geriatric care across the continuum of health service delivery is a key factor in ensuring appropriate care designed to promote the best outcomes and quality of life.

Palliative Care

Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering. It is applicable early in the illness but is predominately applied in BC at the end of life, the period marked by disability or disease that is progressively worse until death.

In BC, the oldest segment of the population is expected to grow the fastest. As a consequence of the aging of our population, more people are living with advancing, chronic and life-limiting illness and often with multiple, interacting medical and social problems. However, currently in BC, the majority of palliative services are accessed by those with cancer, a unique chronic disease as it can often be

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7 CIHI (2013-2014b).
predicted when the end of life may be approaching. This is not the case with most chronic diseases. Consequently, most individuals with advancing chronic life-limiting conditions such as heart disease, chronic obstructive pulmonary disease, kidney disease and dementias, do not access palliative care services.

In March 2013, the Provincial End-of-Life Care Action Plan for British Columbia (the Action Plan) was released. The Action Plan is designed to increase individual, community, and health care services’ capacity for palliative and end-of-life care services and support people to remain in their homes and communities longer. Three priority actions were identified by the End-of-Life Care Working Group for development and implementation over the short-term.

- Implement a population needs-based approach to planning palliative and end-of-life care services that identifies individuals earlier who would benefit from a palliative approach and who would receive quality care in the most appropriate settings.
- Improve the capacity to provide quality end-of-life care in residential care facilities and other housing and care settings
- Address issues related to the BC Palliative Care Benefits Program

In the June 2014 mandate letter, the Ministry of Health committed to work with Treasury Board and the Ministry of Finance to develop a plan for hospice expansion.

**What Are the Implications for a Health Human Resource Strategy?**

Using the population and patient health analysis is the basis for understanding service delivery needs and the need for specific health human resources at the practice level across the delivery settings.

**Expanding and Developing Community Care Services While Appropriately Delivering Needed Acute Hospital Care Needs**

A key proposition set out in *Setting Priorities for the BC Health System* and a subsequent document on *BC Health System Strategy Implementation: A Collaborative and Focused Approach* is that the current utilization of hospitals is neither sustainable nor the best delivery system for meeting the needs of several key populations. The documents argue the need to radically rethink and reposition hospital care by providing a more effective range of services in the community.

This is picked up in the *Primary and Community Care* strategic policy paper (see pp. 98 -103) that proposes several actions at the practice level including:

- Clarifying the roles of walk in clinics;
• Supporting the continued development of full service family practices that support patients across their life spans but incrementally plan for and support the establishment of team based family practices as full service sole practitioners retire;
• Assessing and reviewing how best to provide in-patient hospital care;
• Assessing and reviewing maternity care;
• Assessing and reviewing how best to meet the increasing demand for cancer care;
• Systematically and opportunistically establishing Linked Community and Residential Care Service Practices for Older Adults with Moderate to Complex Chronic Conditions;
• Systematically and opportunistically establishing Community and Residential Care Services Practices For Patients with Moderate to Severe Mental Illnesses and/or Substance Use Issues; and,
• Supporting full service practice teams with appropriate medical specialist shared care and consultations and redesigned approaches to consultant services for older people, those with chronic conditions and patients with moderate to severe mental illnesses.

Key HR related themes linked to these directions are:

• Enabling different kinds of structural, contractual and/or salaried relationships between family physicians and medical specialists between themselves and with health authority services;
• Enabling the increased deployment of nursing and allied health staff in to cost effective community service models;
• Better understanding and then enabling an expanded role for midwifery as a choice for women during and after pregnancy;
• Increased training and development for working with priority populations including patients with moderate to complex chronic conditions, moderate to complex mental illnesses; and caring for the frail elderly; and,
• Enabling effective team work, staff mix, skill management, and scope optimization (inclusive of physicians) to support more coordinated and effective health care for both patients with moderate to severe complex chronic conditions, as well as patients with moderate to complex mental illnesses.

These directions also have health human resource implications at the organization level in terms of enabling effective change and operational management, as well as at the provincial levels in terms of consultation and buy in from associations and unions, aligning education, training and regulatory frameworks, improving forecasting and recruitment capacity, aligning compensation and working regimens.

Some of these themes are picked up in the Rural Health policy paper including:

• Optimize scope of practice, skill mix, and skill flexibility to support the rural primary and community care practice model;
• Work with the Doctors of BC, the Joint Standing Committee on Rural Issues, the Rural Coordination Centre of BC, the University of British Columbia, Faculty of Medicine and Continuing Professional Development department and others, to better support, through training, generalist models of physician practice in rural communities throughout the province;
• Complete a review and make recommendations for improvements and additions to incentive and support programs for health human resources in rural and remote communities linked to the evolving practice models;
• BC Emergency Health Services, in collaboration with the Ministry of Health, health authorities, associations and unions and other stakeholders, will introduce a community paramedicine model that expands roles for paramedics and enables effective use of their skills in rural and small urban communities.
• Working with HEABC, the Ministry of Health will focus on improving timely recruitment and deployment of health professionals to rural and remote communities;
• Review opportunities for expansion and distribution of education and training programs specifically for nursing and allied health care workers within Interior, Northern and Island Health Authorities;
• Examine policy tools available to have more effective influence on the distribution of health care professionals throughout the province; and,
• Review and refresh funding and compensation mechanisms to support health professional staffing models for primary and community care service delivery models in rural and remote communities, as well as enabling formal regional and when needed provincial networks of specialized teams.

** Appropriately Addressing Demand for Surgical Care**

The Surgical Policy paper outlines at a high level a number of recommendations to support the priority area of improving timely access to surgical care in the province with implications for health human resource management:

• Examining how teams are best organized at a local level to optimize access, service and care;
• Examining the appropriate deployment of staff to meet future needs, including those in the range of public facilities as well as the impact of using private surgery facilities supported with public funds;
• Improved health provider – patient/family communication, that also applies to the populations mentioned above, including patients being better informed of the potential benefits, risks and limitations attached to various surgical interventions through family physicians and specialists implementing practice guidelines for consulting with patients on treatment options;
• Another key practice recommendation involves using standardized care pathways and evidence based guidelines;
• Analyzing the age, distribution, and work life projections of the care providers who comprise the surgical team including surgeons, anaesthesiologists, operating room staff, nurses in general,
and allied health professionals, then making plans with Advanced Education to meet future needs;

- Ensuring health care education adequately prepares graduates for the realities of health care service delivery in its current and anticipated future state, in order to optimize retention and a return on investment;
- Examining the feasibility of increasing cohorts of existing health care providers (e.g., anaesthesia assistants) and introducing new health care providers (e.g., nurse anaesthetists), taking into account regulatory requirements, among other factors; and,
- Adopting and adequately resourcing a robust change management strategy in order to make the transformation that is required of the health system, and engaging individuals at all levels in leading the change efforts.

Continuous Improvement across the Scope of Health Services to Meet Population and Patient Health Care Needs

The BC Health System Strategy Implementation: A Collaborative and Focused Approach document argues that it is critical that we achieve system-wide improvement while focusing on the key cross system areas of focus. What does this mean for health human resource management?

1. We must maintain a strong focus on delivering quality public health and health promotion services to keep the population as healthy as possible. This includes:
   - Providing excellent maternity care; and,
   - Providing effective chronic disease prevention through universal and targeted population health interventions that address all major risk factors across the life cycle.

2. We must ensure British Columbians have adequate access to quality, community-based care that addresses minor episodic health needs. We must ensure such care provides responsive diagnostic and specialist service needs to address significant short term illness. This includes:
   - Reducing demand on emergency departments for low acuity (i.e., CTAS 4/5)\(^8\) medical conditions;
   - Providing timely access to appropriate short term medical specialist treatments and care; and,
   - Providing timely access to appropriate surgical procedures and care.

3. We must ensure adequate access to quality, long term, community-based treatment and support for patients living with long term illness or disability. This will require cost effectively and significantly improving patient outcomes in the community to reduce the flow of three key

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\(^8\) CTAS stands for Canadian Triage and Acuity Scale. This is a tool that allows Emergency Departments to determine how quickly a patient needs to be seen by a doctor. CTAS Levels 4 and 5 patients need to be seen on a less urgent basis than patients assessed at CTAS Levels 1, 2 and 3.
medical patient populations into emergency departments and through to medical inpatient beds, and residential care:

- People with complex chronic illness or disability;
- People dealing with moderate to severe mental illness; and,
- Frail elderly.

This will require effective care coordination and treatment in the community. It will also require improved and proactive care planning to facilitate patient access to residential care and palliative care services when needed.

4. We must maintain a strong focus on delivering quality emergency response and hospital services.

Successfully supporting the kinds of directional changes set out in the previous section to better meet the current and emerging population and patient health needs requires an aligned strategy across different levels (practice, regional/organizational, and provincial), across the scope of service delivery (public health, community, diagnostics and pharmacy, and hospital), and across delivery settings (metro, urban, rural, remote). If health stakeholders are going to work together collectively, it is necessary for us to have a shared understanding of what we mean by health human resource management (HHRM). An aligned strategy in a complex sector like health requires a guiding framework through which to understand and then coordinate action. It also serves as a reminder of the breadth of factors that impact and are impacted by HHRM.

A Conceptual Framework for HHRM

A conceptual framework for HHRM can facilitate that understanding. The starting point for developing such a framework is to consider the end to which it will be used. Achieving target health outcomes and, in the process, enhancing the quality of the health care delivery experience is that end. While technology has significantly advanced and become a large part of the modern health care service experience, it is still very much people that deliver those services. To the patient, health service providers are the face of healthcare at the point of service delivery and underscore the very interpersonal nature of the endeavour. The following schematic depicts the health service delivery team interacting with the patient and his or her support system at the point of service delivery.

![Diagram of Health Service Delivery Team and Patient Support Network]

Five core characteristics are listed beneath the health service delivery team. These five core characteristics must be present for the team to provide quality patient care. Health service providers must be accessible to the patient. They must be engaged and motivated to achieve health service
delivery goals. They must possess the **skills and competencies** required to deliver patient-centred health services. They need a workplace environment that is **safe and healthy**. Finally, they must receive the **support and leadership** they need from the organization to deliver service effectively. The role of HHRM is to enable those five characteristics.

There are a large number of HHRM inputs (practices or infrastructure pieces) that go into enabling these five characteristics – so many, that it is difficult to discuss them all without placing them into some kind of organizing framework. Borrowing from the micro, meso and macro context descriptions commonly used in the social sciences, as well as Nelson et al.’s (2014) use of the model, we propose a conceptual framework for HHRM, illustrated by the diagram below and described in the pages following.

The diagram places the point of service delivery at the centre of the health system. Surrounding the centre are three layers: the micro layer (practice level), meso layer (regional/organization level), and macro layer (provincial/infrastructure level). The micro layer is the most immediate to service delivery. This practice level is where the health human resource deployment efforts of operational service planners take shape in the form of individual and team work design. It is also where professional and
interprofessional culture is experienced and reinforced as health service providers interact with coworkers within and outside their profession. Finally, it is where motivation and engagement are experienced and have a direct impact on service provision.

At the meso layer, service delivery is impacted by interventions that take place at organization level, often but not always through human resource departments. These include retention and recruitment practices, transition to practice programs, HHR management, change leadership, workplace health and safety interventions, the provision of corporate learning and development opportunities, and technology support.

At the macro layer, service delivery is impacted by the province’s health human resource infrastructure; such as health professional education, credentialing, and regulation. Also at this level we see how health providers are organized in the form of unions and associations, and how provincial structures govern the negotiation of terms and conditions of employment. We determine how the health system is funded and how health service providers are remunerated. Health human resource planning, including supply and demand forecasting, take place at this level. Finally, opportunities for provincial engagement and influence also take place at this higher level.

It is important to note that these inputs or levels of analysis are not isolated from one another. More frequently than not, they interact across the three levels. For example, change leadership practices have an impact on service provider motivation and engagement. As we review each of the HHRM inputs, the relationships between the levels will emerge.

**Practice (Micro) Level Inputs**

**HHR Deployment**

While most recent health innovations in Canada have focused on alternative models of providing care, and in particular team based approaches, very little analysis and planning have been done to identify optimal HHR deployment strategies for these models. In part, this is due to the scarcity and inconclusiveness of relevant research. Existing evidence on skill mix has several limitations, one of which is that it is difficult to tease out the effect of staffing models on patient outcomes from the effect of the care intervention itself. Another is the inconsistency with which the terms “staff-mix” and “skill-mix” have been conceptualized and measured.

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10 HHR deployment is the systematic placement of health service providers into service delivery teams. The goal of HHR deployment is to achieve an effective and balanced distribution of health human resources within the system to meet health service delivery goals.
12 Dubois & Singh (2009).
Dubois & Singh\textsuperscript{13} reviewed the main approaches to and limitations of traditional health human resource deployment in the published literature between 1995 and 2008. They note a “diversity of ways in which personnel deployment across teams and organisations is conceptualized.” For the purpose of this paper, we categorize HHR deployment approaches in terms of those that focus on staff mix and those that focus on skill management. We describe some of the most common approaches using this framework, as well as some of the evidence, drawn primarily through the above-mentioned systematic review.

**Staff Mix**

The most common approaches for optimizing staff mix are adjusting the number of personnel, mixing qualifications (i.e., basic versus advanced credentials), balancing junior and senior staff members (i.e., experience), and mixing disciplines (i.e., interprofessional care teams). In general, there is evidence that richer staff mix approaches may be associated with better outcomes and fewer adverse events, with some approaches emerging as more promising than others. Evidence for the effectiveness of interprofessional primary care (IPC) teams, especially in the context of chronic disease management, is particularly promising and is an area of focus identified in the *Primary and Community Care* paper.

Ultimately, there is no clear guidance from the literature on what the ideal mix of health professionals might be. Staff-mix within primary care teams typically includes nurses, physicians, specialists, pharmacists and (more rarely) social workers, non-clinical staff and volunteers\textsuperscript{14}. Primary care teams are also increasingly collaborating with mental health teams.

**Skill Management**

In addition to addressing staff mix, there are approaches for managing the skills of individual health service providers and distributing tasks between them. *Role enhancement* involves expanding an individual's skills *within* their scope of practice through new, non-traditional roles\textsuperscript{15}. Examples include nursing specialists and nurse managers of primary care clinics. In some jurisdictions, role enhancement for pharmacists has included patient education, health promotion, health monitoring and, in some cases, prescribing services. Evidence of the impact of role enhancement is limited and mainly focused on nursing. However, the research limitations are due, in part, to the difficulty in separating the effect of role enhancement from the interventions delivered to the patient.

*Role enlargement* involves expanding the scope (breadth) and diversity of the worker’s skills\textsuperscript{16}. Role enlargement is particularly important as chronic disease care and management becomes a priority focus for service delivery. Examples of expanded skills that support chronic disease care are “the ability to manage populations, to assess the health care needs of wider groups, and to plan and implement appropriate levels of health and social-care interventions”. The benefits of role enlargement include reducing service fragmentation, increasing job variety, enhancing task significance, increasing autonomy and improving motivation. However, balance is key as uncontrolled expansion can intensify workload.

\textsuperscript{13} ibid, p. 3.
\textsuperscript{14} ibid.
\textsuperscript{15} ibid.
\textsuperscript{16} Dubois & Singh (2009), p. 7.
Skill flexibility refers to the capacity of providers to switch from one role to another\(^\text{17}\). Two strategies are used to promote skill flexibility in healthcare: role substitution and role delegation. Role substitution involves substituting one health professional for another fully qualified health professional in order to provide a service. This is possible based on the overlapping scopes of practice between many health professionals, as well as the evolution and expansion of scopes of practice over time. Examples include the use of physician assistants (in the United States) or nurse practitioners to provide services traditionally performed by physicians, or using health care assistants to provide non-clinical services that have traditionally provided by registered nurses. Other examples include using respiratory therapists to perform electroencephalograms, medical technologists to perform certain radiological procedures, and midwives and general practitioners sharing roles with obstetricians and gynaecologists.

Provided the necessary training and quality checks are in place, role substitution can result in care that is equal in quality and efficacy to that which has traditionally been provided. As such, and to the benefit of both patients and health service providers, it might free up healthcare dollars to be reallocated to other priority areas. For example, in the United States, certified nurse anaesthetists (CRNAs) have been found to be interchangeable with anaesthesiologists in terms of providing high-quality anaesthesia care, with CRNAs being considerably less costly\(^\text{18}\).

Role delegation is the final component of skill management.\(^\text{19}\) Role delegation involves delegation of specific tasks, functions or responsibilities from one professional to another, typically under authority set out in legislation or regulation (such as the Health Professions Act in British Columbia). For example, a physician may delegate certain activities to a physician assistant or nurse, enabling the physician assistant or nurse to perform the activities on his/her behalf.

It has been estimated that between 25 and 70 per cent of physicians’ (usually generalists’) tasks could be delegated to other health service providers.\(^\text{20}\) In the UK, Wanless (2002) estimated that nurse practitioners could take on about 20 per cent of work currently undertaken by GPs, while roughly 12.5 per cent of nurses’ workload could be delegated to health care assistants.

**Barriers & Enablers to Optimizing Scopes of Practice**

HR deployment also raises the issue of optimizing scope of practice as a strategy to better utilize health professionals. This has been a key area of focus over the past decade or more. Recently, the Canadian Academy of Health Sciences - a network of scientists, professional leaders and health care professionals - partnered with the country’s top health human resource researchers from the Canadian Health Human Resources Network (CHHRN) to review the evidence regarding the optimization of health care professional scopes of practice\(^\text{21}\). They identified a range of challenges and insufficiencies embedded in

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\(^\text{17}\) ibid.

\(^\text{18}\) Hogan, Seifert, Moore & Simonson (2010).

\(^\text{19}\) Dubois & Singh (2009).

\(^\text{20}\) ibid.

\(^\text{21}\) Nelson, Turnbull, Bainbridge, Caulfield, Hudon, et al. (2014), pg. 9.
the current Canadian health care system as critical factors that “influence the optimization of health care professional scopes of practice and supportive models of care”. This is a good example of the point made earlier that inputs and directions at one level of analysis are not isolated from one another, interacting across the three levels, and therefore often requiring a suite of coordinated actions across all levels to effect change.

The following table reflects the barriers and enablers identified in the Nelson et al. review:

<table>
<thead>
<tr>
<th>BARRIERS</th>
<th>ENABLERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health care professional accountability/liability concerns</td>
<td>• Educating professionals and courts on changes to legislation that recognize the principles of shared care models</td>
</tr>
<tr>
<td>Educational needs/requirements that inhibit professionals</td>
<td>• Establishing practices and roadblocks that foster inter-professional competencies</td>
</tr>
<tr>
<td>Flexible requirements that inhibit professionals working to full or optimal scope</td>
<td>• Pre-licensure credentialing for continued competency development over the course of a career</td>
</tr>
<tr>
<td>Rigid legislation/regulations</td>
<td>• Expanding adoption of more flexible legislative frameworks that can be interpreted at the local setting</td>
</tr>
<tr>
<td>Payment models that do not support changes in scopes of practice</td>
<td>• Alternative funding (e.g., bundled or mixed payment schemes) to include all health care professionals and to be aligned with desired outcomes</td>
</tr>
<tr>
<td>Communication across multiple care settings</td>
<td>• Implementation and upkeep of electronic medical records essential for all respective health care professionals (and for patients themselves) to have timely access to the most up-to-date information on treatment and status</td>
</tr>
<tr>
<td>Professional protectionism</td>
<td>• Representation of the interests of professions in the context of collaborative care arrangements and inter-professional standards/overlapping scopes of practice</td>
</tr>
<tr>
<td>Accountability</td>
<td>• Broader application of collaborative performance measures and an overall quality assurance framework through involvement of accrediting bodies</td>
</tr>
<tr>
<td>Availability of evidence</td>
<td>• Systematic monitoring and evaluation (with specific focus on inputs and outputs) to estimate cost incurred for introducing change and the long-term return on investments</td>
</tr>
<tr>
<td>Professional hierarchies</td>
<td>• Change management teams: a designated role for managing changes in scopes of practice and models of care</td>
</tr>
<tr>
<td>Professional cultures (lack of trust and role clarity: job protectionism, turf wars, task escalation)</td>
<td>• Continuing professional development to cultivate team thinking and develop levels of trust around relative competencies</td>
</tr>
<tr>
<td>Team vision: to reinforce that the ultimate goal is the improved well-being of the patient who provides the care is secondary to the quality and accessibility of services provided</td>
<td></td>
</tr>
<tr>
<td>Communication among health care professionals</td>
<td>• Instilling group mentality: internalization of shared responsibility across health care professions</td>
</tr>
<tr>
<td>• Scheduling of regular meetings for health care team members to consult on appropriate care strategies and problem-solving strategies integrating information communication technologies</td>
<td></td>
</tr>
<tr>
<td>• Co-location to have different types of health care professionals and services functioning in a shared space</td>
<td></td>
</tr>
</tbody>
</table>

The authors report that over the course of the review, the group “identified an emerging consensus that optimizing scopes of practice paired with supporting evolving models of shared care can provide a multidimensional approach to shift the health care system from one that is characteristically [silo based] to one that is collaborative and patient-focused.” Rather than recommending specific changes to scopes of practice, the main recommendation of the report is to adopt an evidence-based approach to optimizing scopes of practice that has three key elements:

- The approach is supportive of innovative models of care;
- The approach is flexible in order to respond to the varying needs of patients and communities; and,
- The approach is accountable to the public and to funders.

22 ibid, p. 11.
23 Nelson, Turnbull, Bainbridge, Caulfield, Hudon, et al. (2014), pg. 11.
24 Nelson et al., 2014, pg. 12
Several recommendations are made that are relevant to the provincial health context including regulatory bodies, accrediting bodies, pre-licensure and continuing professional education providers, and professional associations and unions:

- Regulatory bodies are asked to align their regulations so that health service providers with overlapping or changing scopes of practice can work to full scope. They are asked to work with professional certification bodies to create national standards and competency frameworks that allow for training and recertification where scopes of practice overlap or change.
- Accrediting bodies are asked to partner with Quality Councils to take the lead in establishing accountability and performance management standards for collaborative care models across all levels of the health system (i.e. community, primary care, and institution levels).
- Pre-licensure and continuing professional education providers are asked to accelerate the work they are already doing to build inter-professional education and competencies into their programs. In particular, they are asked to make inter-professionalism a core competency, rather than an advanced or additional one.
- Finally, associations and unions are urged to support collaborative care practice models. They are asked to make the connection between how collaborative care models can meet the needs of both the population and their members’ professions. Finally, they are asked to contribute to evidence-informed guidelines for the collaborative care models their members will be participating in.

Enabling effective team work will require experimentation and a cross level approach. While there have been multiple experiments with team designs across the health system in BC, the structured consideration of the elements set out above and the cross level need for coordinated action has been lacking to date.

**Professional/Inter-professional Culture**

Linked to effective team work at the practice level is the issue of culture. Health professions such as nursing, medicine and pharmacy, have distinct cultures, including differing beliefs, language, values, customs and knowledge. It is important for health system stakeholders to be aware of how these distinct cultures might impact the direction and success of patient-centred health system change.

When different professions work together, a shared inter-professional culture can emerge at the practice level; but equally as each profession brings its own culture to the team this can equally be a cause of conflict. The human resource management challenge is to build on this common ground so different professions can work as a collaborative, effective health service delivery team.

As noted in the introduction to this paper, Rigoli & Dussault (2003) have referred to health professionals as “strategic actors” (pg. 1) who have the ability to facilitate or resist health system change. The commitment of health service providers to providing quality patient care cannot be doubted; however, we must consider how competing interests may act as barrier to change so that, collectively, we can make the changes required to ensure a patient-centred health system.
That said, health professionals do recognize collaborative (inter-professional) care as the new way going forward. In 2007, the Canadian Medical Association (CMA) published a discussion paper to better define and clarify the roles and responsibilities of physicians practising in collaborative care environments\textsuperscript{25}. The Canadian Nurses Association (CNA) has published its position supporting inter-professional collaborative models for health service delivery\textsuperscript{26}.

One of the most important interventions for promoting inter-professional culture has been to provide inter-professional training. Such programs are already producing results. With partners from the Western Canadian Inter-professional Health Collaborative, and funding from the Canadian Institutes of Health Research, Suter & Deutschlander (2010) conducted a knowledge synthesis of the impact of inter-professional training on several professional and patient outcomes. Overall, they found sufficient evidence that IP interventions create a collaborative culture and increase provider satisfaction, and strong evidence that IP interventions reduce the cost of patient care. There is also sufficient evidence that students are attracted to clinical placements in rural communities when there are inter-professional opportunities.

Suter & Deutschlander (2010) make the following recommendations for health human resource planners and managers with respect to inter-professional (IP) education:

1. Place high priority on achieving collaborative learning and practice cultures to improve workplace quality and provider satisfaction.
2. Explore opportunities to include IP education, practice and organization interventions as part of recruitment and retention strategies, in particular in rural communities or in less popular healthcare specialties.
3. Initiate discussions between educators, regulators and employers about collecting long-term outcomes data on new graduates and their employment and retention.
4. Develop cost effectiveness measures to assess the impact of IP interventions on recruitment, retention and staffing costs.
5. Establish intra- and inter-organizational IP structures and mechanisms to enable a coordinated approach to HHR planning and management.
6. Focus attention in academic settings on:
   - Developing explicit and mandatory IP education experiences for all students in health care and health services disciplines.
   - Including clinical placements as core component of IP education experiences.
7. Focus attention in practice settings on:
   - Promoting IP interventions in a range of settings that enhance staff satisfaction and quality of care, reduce patient care costs and provide IP learning opportunities for students and staff.

\textsuperscript{25} CMA (2007).
\textsuperscript{26} CNA (2011).
Explicitly charging key leaders and change agents with responsibility for facilitating and sustaining IP interventions. (pg. 2)

Although professional and inter-professional culture is most often experienced at the practice level, it impacts (and is impacted by) all levels of the health system. For example, the regulation of scopes of practice at the macro level dictates work jurisdiction, which directly impacts professional and inter-professional culture. While this is not a new issue in BC, there is still a significant distance to go in enabling this approach at a practice level supported by organizational and provincial actions. There is a need to enhance both intra-professional (e.g., RN/LPN practice) and inter-professional education (e.g., physician/Nurse Practitioner practice), training opportunities and collaborative practice especially related to the directions set out for developing Primary and Community Care teams.

Motivation/Engagement

Motivation is “an individual’s degree of willingness to exert and maintain an effort towards organizational goals”\(^{28}\). Motivation exists when there is alignment (a matching up) between the health service provider’s individual goals and the organization’s goals. This is an important point to understanding the impact of change on motivation. If the change is perceived to increase the alignment between health system goals and provider goals, providers will be motivated to support the change. If providers perceive the health system’s goals as being at odds with their own, they will resist the change. We know from health reforms in other jurisdictions that change decreases motivation if it creates value conflict, threatens provider self-efficacy, or is at odds with the expectations of patients\(^{29}\). Two important values are autonomy (independence) and the delivery of healthcare as a social good. Health service providers are wary of any change that dilutes their autonomy or removes it outright. Likewise, proposals to privatize services or introduce user fees have been seen as a means to a financial end, not a social one. Even initiatives designed to be positive for providers, such as flexible working arrangements and payment tied to performance, may be resisted if perceived to being conflict with the values of the individual or professional group\(^{30}\).

Self-efficacy is the belief that you can perform the task at hand. Self-efficacy impacts employee performance\(^{31}\). Change threatens providers’ self-efficacy if they are asked to do things in a new way that they have not tried before. When the organization’s goals change, providers evaluate their ability to perform tasks that are consistent with those goals\(^{32}\). They also evaluate if desired performance will yield any value to them — “If I do it this way now, how do I benefit (or lose out)?” In essence, changes in the health system’s goals potentially break the “psychological contract” between providers and the health system, in terms of the mutual fit (and related expectations) around goals, values and motives\(^{33}\).

\(^{28}\) Franco, Bennett, & Kanfer (2002), pg. 1255.
\(^{29}\) ibid.
\(^{30}\) Rigoli & Dussault (2003).
\(^{31}\) Cherian & Jacob (2013).
\(^{32}\) Franco et al. (2002).
\(^{33}\) Rigoli & Dussault (2003).
The way change is designed, communicated and introduced strongly influences a provider’s perception of how the change will affect them. Finally, the community impacts provider motivation through their expectations of how services should be delivered. Providers experience conflict if patient or client expectations of service are at odds with the new service mandate of the health organization.

Franco et al. (2002) propose the following HHRM best practices for preserving (or enhancing) provider motivation during times of change:

- Clarify organizational goals and roles through job definition and job descriptions.
- Ensure communication to employees is timely and sufficient in content to address concerns about what the change means to them.
- Make the alignment clear between the goals and values underlying the health system change and those of health service providers. These must be authentic as non-alignments are easily perceived.
- Place strong, transformational leaders in the role of communicating the vision behind the reform.
- Provide incentive packages that link performance to reward.
- Establish recruitment procedures that best ensure a fit between the required job tasks and the skills and knowledge of the workforce.
- Provide training and development opportunities that enhance provider knowledge and skill and that allow them to build a sense of self-efficacy with the new way expected of them.
- Establish effective supervision and performance assessment processes that provide corrective feedback.
- Provide channels for provider feedback.
- Plan for the resources that will be required for providers to accomplish the organization’s goals. Many well-planned transformations have failed because the required managerial or financial tools were not there to back them up, creating labour turmoil and opposition. An example comes from the United Kingdom’s experience with decentralizing the management function and the problems encountered when local managers found they lacked the resources and capacity to implement new pay systems.
- Keep in mind that even initiatives designed to positively impact providers can negatively impact motivation if the transition process is not managed well (e.g., if communication efforts are inadequately maintained and there are no opportunities for provider feedback).
- Buchan (2000) suggests an additional consideration: prepare for the overlap between the old way and new way. During the transition phase, both old and new issues will need to be

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34 Franco et al. (2000).
35 Franco et al. (2002).
36 Buchan (2002).
38 Buchan (2000).
contended with. This can be overwhelming to management and requires planning and integration.

Motivation and engagement are recognized as important to a well-functioning health system in BC. BC’s health authorities measure employee engagement using the Gallup Q12® survey. Gallup describes employee engagement as an emotional investment in and focus on creating value for your organization every day. Engagement is important to HHR management because it has an impact on productivity, turnover, employee safety incidents, absenteeism, patient safety incidents, and quality.

British Columbia’s health authorities last ran the Gallup Survey in 2013. The grand mean (average score on a scale of 1 to 5) for all health authorities combined was 3.49. By comparison, the 50th percentile score for Gallup’s broader healthcare grouping is 4.11 and the 75th percentile score is 4.44, showing that there is room for improvement among BC health authorities. The next Gallup Q12 survey will take place in June 2015.

Gallup recommends organizations improve employee engagement by focusing on:

1. **Strategy** – developing a systematic employee engagement strategy
2. **Accountability and Performance** – defining outcomes and rigorously measuring success at every level in the organization
3. **Communication** – making it clear how employees’ activities are linked to the company’s goals
4. **Development** – implementing comprehensive leadership and management development programs

BC’s health authorities have developed engagement strategies to address target areas for improvement within their organizations.

**Physician Engagement**

Engaging physicians is different from engaging other health service providers. Although some physicians are health authority employees, most are independent contractors operating their own businesses. Nonetheless, engaging physicians in health system decision-making is seen as critical to successfully executing on health system strategies. Physicians possess specialty (medical) information that is required to make strategic decisions about the health system. They are also in the best position to interpret and analyze medical information. One mechanism health authorities use to engage physicians is to formally integrate them into leadership roles throughout the organization.

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40Harter, Schmidt, Agrawal, & Plowman (2013).
41The score in Gallup’s Healthcare Database (2010-2012) above which 50% of all workgroups scored.
42The score in Gallup’s Healthcare Database (2010-2012) above which 75% of all workgroups scored.
Although there is no clear model of best practice for engaging physician leaders, some drivers of engagement are emerging. Some are structural, some are cultural and some are economic in nature. Structurally, shared leadership (between physicians and non-clinical managers) found at all decision-making levels of the organization is important. This arrangement makes it easier to collect local perspectives, obtain buy-in for quality improvement initiatives and disseminate change agendas.

Culturally, physician engagement relies on organizations that are committed to quality of care as the core strategy of the organization (Denis et al., 2013). Physicians sometimes struggle with identity conflict when they assume leadership roles. Moving from expert clinician to a role with which they are less familiar can be uncomfortable for physicians. This is made worse if their role as leader is not well defined in relation to other roles within the organization.

Strong economic integration is important for physician engagement. Economic integration refers broadly to compensating physicians for managing and improving clinical services and performing other responsibilities for the organization. However, once physicians reach a certain level of income security, they tend to shift their attention to patient care issues.

The issue of physician engagement has been a key area of focus in the recent Doctors of BC negotiations. Based on internal canvassing of this issue with their members this was seen as a significant issue, especially in hospital settings. The subsequent agreement has proposed action to take place across all three levels: local practice, regional/organizational, and provincial.

Motivation and engagement are seen as critical issues at the practice level and are influenced by action or inaction taken at both the organizational and provincial levels of the health system. The impact of health sector change on health service provider motivation and engagement will be mediated by activities that go on at the organizational and provincial levels as is addressed below under the need for change management.

**Organizational (Meso) Level Inputs**

**Recruitment & Retention Practices**

Recruiting and retaining health service providers is key to ensuring that British Columbians continue to have access to the health services they need. Despite some overlap, the drivers of recruitment and retention differ from those of engagement. For example, data collected from 35,000 employees in the U.S. found that salary and benefits were the predominant drivers for recruitment. Important non-monetary benefits included opportunity for career advancement and work challenge. When the objective was to retain employees, salary and benefits were less important, provided they were

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44 Denis et al. (2013).
45 Lawton & Muller (2008).
46 Denis et al. (2011).
competitive and perceived as adequate, and other factors such as opportunities for advancement, working with talented co-workers and the overall work environment mattered much more.

Despite the fact that the above data is over ten years old, Towers Perrin (2003) makes an important point that holds true today:

Knowing what counts to employees — and when — can make all the difference in structuring a total rewards program that brings in the right people, keeps them and secures their discretionary effort over time. No single reward element — or even single combination of reward elements — can effectively do all three. (pg. 22)

Even in a stable work environment, what motivates workers will change over time. This is particularly evident when we look at changes in worker expectations across multiple generations. The most significant difference in work values between the generations is the emphasis placed on leisure (i.e., work/life balance). Generation Xers (born 1965 to 1981) value leisure more than Baby Boomers (born 1946 to 1964) and Millennials (born 1982 to 1991) value leisure more than both Generation X and the Boomers. When compared with Boomers, almost twice as many Millennials rated having a job with more than two weeks’ vacation as “very important.” Millennials are also less likely to want to work overtime.

These different values have implications for how recruitment and retention initiatives should be designed. When the goal is to attract Gen Xers and Millennials, strategies should include enhancing leisure time in particular, work-life balance policies, often geared to accommodate parents and their families, should be designed to benefit young workers even before they have families. The authors suggest incorporating increased leisure time into reward systems for Millennials. Google, for example, has freed up employees’ non-work time for leisure by providing conveniences at work, such as on-site doctors and laundry facilities.

The Rural and Remote Challenge in BC
The recruitment and retention of health service providers in rural and remote parts of BC is crucial for ensuring adequate access to health services in these communities. The challenge of rural and remote recruitment and retention is shared by many countries with low population density and there has been a lot of research into the factors that attract or deter health professionals from rural practice. Much of this research comes from Australia, which has the third lowest population density in the world (Canada is eighth).

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48 Franco et al. (2002).
49 Twenge et al. (2014).
50 ibid.
51 Campbell, McAllister, & Eley (2012).
Research shows that poor professional development opportunities are a major disincentive to working in rural and remote communities.\textsuperscript{52} Roots & Li (2013) found professional development to be an important factor for occupational therapists and physiotherapists in deciding whether to locate, stay or leave rural practice. However, a Canadian study found access to professional development through tele-health and other distance technologies may have a positive effect on rural and remote retention and recruitment for occupational therapists.\textsuperscript{53}

Interestingly, financial incentives have a mixed effect on recruitment and retention.\textsuperscript{54} While these incentives may draw some health service providers to rural practice, they are not always enough to cause them to stay. This is consistent with the Towers Perrin observation that money is more important for recruitment than for retention. On the other hand, autonomy (independence) is a major incentive for working in rural and remote communities. In particular, decision-making autonomy is highly valued by all health professionals.

**Disability Management as a Retention Strategy**

Disability management is usually thought of in terms of workplace health and safety. However, supporting ill and injured providers through effective disability management also contributes to the retention of employees with valuable skills. Health service providers invest a significant amount of time, effort and money in their chosen occupation. When disability removes a health service provider from the workplace, it has negative impact on both the provider and the patient.

Disability can take a heavy toll on employees. The costs for an employee can be staggering and disabled workers experience a higher incidence of depression than the general population. Franché et al. (2009) found high depressive symptoms among disabled workers at one month (42.9 per cent) and six months (26.5 per cent) post-injury. Although the exact causes are not well understood, disability related pain and loss are suspected factors. Financial costs include lost income and benefits. The probability of a provider ever returning to work is less than 50 per cent for absences between three and six months and less than 20 per cent at 12 months\textsuperscript{55}. The sooner providers return to work, the better off they are financially and psychologically.

A supportive psychosocial work environment is an important predictor of successful return to work. This underscores the importance of the psychologically safe and healthy workplace that will be discussed in Part 3. Goodwill and respect from supervisors and co-workers is important\textsuperscript{56}, as is the need for a people and safety-oriented organizational culture\textsuperscript{57}. The interpersonal aspects of supervision during return to work are thought to be just as important as physical work accommodation\textsuperscript{58}.

\textsuperscript{52} ibid.
\textsuperscript{53} Wielandt & Taylor (2010).
\textsuperscript{54} Campbell et al. (2012)
\textsuperscript{55} NIDMAR (1995).
\textsuperscript{56} MacEachen et al. (2006).
\textsuperscript{57} Amick et al. (2000).
\textsuperscript{58} Shaw et al. (2003)
Systematic reviews of the literature have found that workplace-based return-to-work interventions significantly reduce the duration of disability\textsuperscript{59}. Much progress has been made in recent years with the establishment of a provincial, workplace-based, Enhanced Disability Management Program (EDMP) in partnership with British Columbia’s health sector unions. Key principles upon which this program has been developed include:

- Providing early, appropriate and on-going support for ill or injured employees to remain connected to the workplace and return to work in a safe and timely manner.
- Providing support to employees who are struggling to remain at work due to an illness or injury.
- Providing appropriate, caring, and professional case management of the ill or injured employee’s medical, personal, workplace and vocational issues to facilitate a timely return to work.
- Encouraging employee wellness.
- Jointly administering the disability management process with employee representatives (unions).
- Addressing the medical, personal, vocational and/or workplace barriers to returning to work.
- Ensuring prevention and disability management processes are evidence-based, continuous and integrated.
- Protecting employees’ confidential medical information
- A commitment to system-wide evaluation of the program.

An evaluation of the EDMP is currently underway.

**Transition from Education to Practice**

The transition from education to practice can be stressful for health service providers, but it is crucial for recruiting and retaining younger workers and ensuring safe and high-quality patient care. Professional education programs prepare students with the basics, but the academic setting is different from the workplace. Inevitably, there are gaps in knowledge and experience that can only be bridged by time on the job.

Two tools are used to close these gaps: pre-registration (student) placements and formal transition programs. Pre-registration placements give students the chance to apply knowledge and skills in a practical setting under the supervision of a licensed health professional. For example, BC has an Employed Student Nurse (ESN) program. The ESN program is a summer employment opportunity for third year undergraduate nursing students. The program was developed by the BCNU, RNABC, health authorities and nurse educators.

\textsuperscript{59} Franché et al. (2005); Pomaki et al. (2010).
Formal transition programs for new graduates who have been hired to work in the health system are like a long orientation that supports new graduates in the initial months in practice. The content of transition programs vary, but typically include classroom education, buddy shifts with a more senior health professional and access to supportive resources.

Since the late 2000s, BC’s health authorities have taken a leadership role in implementing formal transition programs for nurses. Recently, Interior Health Authority partnered with the University of BC to conduct an evaluation of BC’s nursing transition programs and to develop a toolkit of transition program best practices. Overall, the evaluation found that new graduates who participate in an orientation of four months or greater have a more positive transition experience. Key to a positive transition experience was the personality and continuity of a new graduate’s mentor. Also key was having consistent and continuous work hours (e.g., 49 hours or more of work in a two week period).

One concerning finding from the evaluation was that 39 per cent of new graduates who participated in formal transition programs claimed they experienced bullying or harassment. Understandably, this experience undermines the new graduate’s confidence. New graduates who do not participate in a transition program experience the same rate of bullying and harassment. However, the transition program offers its participants increased access to supports.

The evaluation confirmed that while basic academic preparation for nursing practice is satisfactory, there are gaps. Specific gaps identified included “uncertainty of the knowledge, lapses in time, recall of content (e.g., anatomy) or comfort with practice skills.” Furthermore, new graduates felt their academic programs should provide more than just entry level education. For instance, they want advanced practice knowledge in leadership and management skills and some want training to practice in a specialty area after graduation. This impulse is met with resistance from some faculty, who feel specialty education is not within their mandate. It also meets resistance from some managers and clinical educators who feel new graduates are not ready for a specialty as a first job.

Both students and unit leaders felt the ESN program provided new graduates with more extensive preparation than their academic program alone. Benefits from ESN participation included being able to fit in easier, having the chance to establish relationships with other staff members, building an understanding of what to expect in practice, and gaining confidence sooner. The study also found that nurse managers tend to hire past ESN participants because of their preparation.

Based on these findings, and a review of the literature, the authors of the nursing transition program evaluation recommend the following best practices:

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60 Rush, Adamack, & Gordon (2013).
61 ibid, pg. 21.
- Focus on hands-on, practical skills in transition program education such as bedside learning opportunities and in-services/workshops.
- Limit formal classroom type learning opportunities.
- Encourage undergraduate programs to increase the opportunities for practical skill focus.
- Provide formal supports for at least six to nine months post-hire.
- Provide mentors working with new graduates with required education.
- Provide new graduates with mentors to help provide support beyond the preceptored period of transition.
- Provide opportunities for new graduates to connect with other new graduates so they can provide each other with support.
- Encourage key stakeholders to provide orientation for a minimum of four weeks and longer if possible and on one unit.
- Provide new graduates with healthy work environments.
- Train and provide resources to experienced clinical staff nurses on how to be supportive to new graduates.
- Establish and enforce a zero-tolerance bullying policy.
- Ensure all new graduates, regardless of employment status (i.e., full time vs. casual), have the opportunity to participate in the formal transition program as this assists in skill consolidation.
- Strive to provide new graduates with at least 49 hours of work each two week period during their first year of transition as this too relates to skill consolidation.

At the conclusion of the project, they proposed the following next steps for BC:

- Share independent health authority program information.
- Move towards the development and/or utilization of standardized tools and methods for measuring aspects of new graduate transition.
- Ensure thorough evaluation of transition programs and the sharing of results with other health authorities.
- Increase the vigilance within health authorities regarding the health of their workplaces, including the implementation of clear policies and practices concerning bullying and ensuring new graduates are clear about the steps they should take if they encounter bullying in the workplace.

Residency programs might also be considered a formal transition program, although they are much more extensive and are part of the health professional’s academic program. Medicine and pharmacy both have residency programs.

Transition to practice is also a concern for health professionals that have been educated outside of Canada. Helping internationally-educated doctors transition to practice in Canada increases the number of family doctors available to BC citizens. In 2015, the Government of BC will launch a pilot program for internationally-educated doctors who have completed their residency program in another country. The
Practice Ready Assessment-British Columbia (PRA-BC) program will provide qualified family physicians with a pathway to being licensed in BC. The PRA-BC program will consist of four phases:

1. screening and selection;
2. orientation and examination (to determine skill, knowledge, and competency);
3. a 12-week clinical field assessment; and,
4. application for a provisional licence from the College of Physicians and Surgeons of BC.

Similarly, the province is working collaboratively with the province’s three nursing regulatory bodies to develop a “nursing community” assessment service for internationally educated nurses who may qualify to practice in BC as registered nurses, licensed practical nurses or care aides.

**HHR Management**

Throughout this review we have surveyed best practices (where available) for the various functional areas of health human resource management. It is also useful to consider best practices for managing and governing the human resource function (or department) itself. As an example of one perspective, Harris (2011) identifies ten evidence-based practices for “high-impact human resources.” These include:

1. Establishing a formal governance model and business case development process.
2. Building the organization’s capacity to collect, analyze and derive insights from workforce data to inform strategic decision-making.
3. Adopting HR philosophies that focus on fostering innovation and collaboration, and developing mission statements that resonate with employees.
4. Where HR business partner roles are implemented, ensuring these individuals act in an advisory capacity, not an administrative capacity, to managers. Otherwise, not bothering with them at all.
5. Building flexibility into the organization’s structure to respond to changing business needs (i.e. patient needs in our context of healthcare).
6. Implementing employee-facing HR systems that build community and allow for self-service. Such systems include “knowledge-sharing portals, web-based recruitment tools and management dashboards.” (pg. 17).
7. Implementing an HR measurement strategy that includes both operational and people measures. This allows connections to be made between human resource and operational performance.
8. Investing in the development of an organization’s HR staff members to build their capacity for change management, relationship management, business acumen, industry knowledge and HR best practices.
9. Outsourcing transactional HR services to allow HR teams to focus on functions that cannot be outsourced, such as internal relationship building and providing strategic services.
10. Building the HR capacity of front-line managers to increase overall HR effectiveness and facilitate HR-Management relationship building.
The latter point highlights that HHRM is not only the domain of HR professionals working in the health system. Effective HHRM requires the participation of operational managers and the support of senior executives within health service delivery organizations.

As will be discussed in the next section on change leadership, human resource departments have a critical role to play in supporting transformational health system change, as well coordinating many of the HHRM inputs described at the meso (organizational) level. Their input into HHR strategy and participation in HHR governance level at the macro level is likewise important for effective HHRM in the province.

As a key organizational building block of any health human resource management strategy, this area warrants further careful review and consideration with respect to the system’s current capacity both in the formal sense of the HHRM organizational units in health authorities (including physician health human resource management) as well as the distributed capacity and competencies of operational managers.

**Change Leadership and Management**

Strong leadership is critical to any successful change process – from local initiatives to wide-scale reform. Change does not happen on the basis of will. It must be systematically and strategically planned, executed and managed.

Change management has become a permanent business function and is no longer a periodic consideration that can be outsourced. Organizations must build capacity within their senior management, line managers and front-line workers to plan, implement and sustain change in a manner that meets their overall goals.

Three essential elements of change management have been found to require attention in health care: power dynamics, organizational capacity and process for change. Power dynamics arise from the hierarchy of influence within an organization. Managing power dynamics involves understanding who the key influencers are within the organization and achieving buy-in from those individuals (or units) prior to launching a change initiative. Organizational capacity refers to having the human, financial and other resources necessary for change. In other words, capacity means having not just the will, but the way. The process for change is the systematic, step-by-step approach required to implement change. For the process to be successful, it should be agreed upon by key stakeholders. The process should also include a plan to mitigate change resistance.

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62 Ullah (2012).
63 Antwi & Kale (2014)
The change process includes three phases: preparation, implementation and sustainment\textsuperscript{64}. Preparing for change requires a clear understanding of the reason for change and an assessment of the organization’s environmental context, including political forces, economic influences and financial capabilities. It also includes an analysis of social trends, technological innovations, ecological factors and legislative requirements (if applicable). The purpose of this analysis is to determine readiness for change.

In addition to this environmental scan, the interests of key stakeholders must be assessed, especially where they are different and might act as change barriers\textsuperscript{65}. This facilitates strategic communication of the need for change by aligning those needs with stakeholder interests. Commitment must be secured from healthcare professionals, senior managers and policy makers alike.

The key challenge during the implementation phase is altering well-established patterns of care\textsuperscript{66}. This requires a professional culture that is committed to providing quality patient-centred care. As implementation is a team, not an individual process implementation should be targeted towards groups – preferably those that include members with a vested interest in improving patient care outcomes.

Another challenge with implementing change is a lack of communication and coordination. The irony is that communication and coordination issues are inherent in many aspects of the health system that need to be changed and those same issues impede the change management process itself. For example:

...the Canadian healthcare system currently operates in silos at the structural level as well as the care delivery level, representing a key target for improving outcomes in patient care. Structurally, integration of care between health service providers is limited. For instance, care between acute care providers and community care providers is uncoordinated, leading to a build-up of alternative level of care patients. Alternative level of care (ALC) patients are those who occupy a bed in a hospital, but do not require the intensity of resources/services provided in this care setting\textsuperscript{67}.

Sustainment is the final phase of change management. Sustaining change requires the alignment of a different set of factors than are required to prepare an organization for change. The National Health Service in the United Kingdom identifies 10 such factors across three different contexts: the process, the staff and the organization\textsuperscript{68}:

1. Process
   a. Benefits beyond helping patients (e.g., reducing waste, increasing efficiencies)

\textsuperscript{64} Antwi & Kale (2014).
\textsuperscript{65} ibid.
\textsuperscript{66} ibid.
\textsuperscript{67} ibid, p. 26.
\textsuperscript{68} Maher et al. (n.d.).
b. Credibility of the evidence  
c. Adaptability of improved process  
d. Effectiveness of the system to monitor progress  

2. Staff  
a. Staff involvement and training to sustain the process  
b. Staff behaviors towards sustaining change  
c. Senior leadership engagement  
d. Clinical leadership engagement  

3. Organization  
a. Fit with organizational strategic aims and culture  
b. Infrastructure for sustainability  

Preparation and implementation of change initiatives without proper attention to sustainment inevitably lead to results that fail to live up to potential. Even innovations that meet with initial success may see positive outcomes diminish over time through what the UK’s National Health Service (NHS) Institute has deemed as the “improvement-evaporation effect” (pg. 191). This is especially true of smaller scale innovations that do not have a top-down, policy level monitoring and accountability structure.

*Setting Priorities* calls on health authorities to develop shared change management approaches and expertise across the sector. A change management framework must address the following elements:

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| Change Barrier & Enabler Analysis | • The framework must include processes for analyzing the barriers and enablers to change at the provincial, organizational and practice level.  
|                                 | • This also includes an environmental scan of relevant political, economic, social, technological, labour relations, and legislative environments. |
| Stakeholder Engagement         | • The framework must include processes for thoroughly assessing the key stakeholders who will be impacted by the change; including their interests, values, perceptions and expectations.  
|                                 | • This includes an assessment of the key influencers across the system and how buy-in will be achieved from those individuals or units during the change process.  
|                                 | • Stakeholder engagement planning must be based on this assessment.                                                                            |
| Communication                  | • The framework must include processes for ensuring timely, open communication and engagement with the health workforce and patients during the change management process.  
|                                 | • Communication should be sufficient to address concerns about what the change is, why it is needed, and how it will be implemented. |

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69 These core elements roughly align with those prescribed by the Pan Canadian Change Management Network in their National Change Management Framework with additions and specific instructions provided for this context.
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<td>means to the provider and the patient.</td>
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<td>• Change objectives and goals must be clearly articulated and their alignment with health provider and patient goals and values must be made salient.</td>
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<td>• Opportunities for provider and patient feedback must be incorporated.</td>
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<td>• Communication must be systematically planned, implemented, and monitored. The communication process and infrastructure must be adequately resourced.</td>
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<tr>
<td>Governance &amp; Leadership</td>
<td>• The framework must include processes for establishing and communicating the accountability mechanisms through which change will be led and overseen.</td>
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<td>• Change initiatives must be led by strong leaders who are able to clearly communicate the vision behind the change. Change leadership must be systematically and strategically planned.</td>
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<td>• Change leadership should be distributed throughout the system as much as possible (i.e. from the senior executive level to the operations level).</td>
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<td>Training &amp; Performance Support</td>
<td>• The framework must include provisions for ensuring that supportive training and development opportunities are available to providers such that they acquire any new knowledge and skills required to support the change.</td>
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<td>• Provisions must also be included for effective supervision and performance assessment processes that provide corrective feedback.</td>
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<td>Transition Planning</td>
<td>• The framework must include a process for identifying and managing the overlap that may occur during the transition phase between the old and new way of doing things.</td>
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<td>• This includes anticipating the transition impact on staff, management, and patients and developing mitigation strategies.</td>
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<tr>
<td>Workflow Analysis &amp; Integration</td>
<td>• The framework must include processes for analyzing and mapping the current state of how work is conducted and it will need to change to support service delivery objectives.</td>
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<td>• Workflow changes must be clearly communicated to the providers affected, who must likewise be supported with relevant training.</td>
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<tr>
<td>Measurement &amp; Reporting</td>
<td>• The framework must include a process for evaluating the organization’s change management performance and providing accurate, timely information on progress to the Ministry of Health and other stakeholders as required.</td>
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<td>• Evaluations of health authority change management performance must be shared with the other health authorities to facilitate learning and change management capacity building across the system.</td>
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<tr>
<td>Resource Planning</td>
<td>• The framework must include a process for planning the resources required to support all elements of the change management process.</td>
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The impact of poor change management on provider motivation was discussed earlier. We reiterate here the importance of building change leadership and management capacity within the health system’s leadership structure. Such capacity should extend across the micro, meso and macro levels of the system. There is a potential vehicle to drive this agenda using a provincial collaborative for health system leadership development - “Leadership Linx – A Provincial Pathway to Leadership Development.”
Leadership Linx consists of a comprehensive suite of leadership programs focussing on 5 key areas: coaching, mentoring, new managers (Core Linx), experienced leaders (Experience Linx) and senior leaders (Transforming Linx). Leadership Linx is based on the LEADS in a Caring Environment framework which has been adopted nationally for health system leadership development. The Linx curriculum ties in with the five domains of LEADS:

- Leads Self
- Engages Others
- Achieves Results
- Develops Coalitions
- Systems Transformation

Core Linx is designed for new managers who are in the first 18 months of their first formal management role. The program focusses on providing these new managers essential leadership skills to increase their confidence and establish a solid foundation for their future as a healthcare leader. Core LINX uses a variety of active learning methodologies and includes courses in leadership and management development, as well as coaching, electives, Hot Topic sessions and manager check-ins.

The executive track program – Transforming Linx- is structured around three days of residencies focussing on the health system transformation. The curriculum focuses largely on the Lead Self, Develop Coalitions and Systems Transformation elements of the LEADS framework. Transforming Linx utilizes action learning to impress upon learners the value of cross-system learning and supports learning and application of skills with executive coaching.

The BC Health Leadership Development Collaborative continues to evaluate and assess the effectiveness of the Leadership Linx programs.

Dr. Maura MacPhee (2014) argues that reliable, consistent, effective patient centred collaborative care is impacted by how the workforce is structured and designed. She makes the case for thoughtful workplace and workforce design across all three levels that include:

- Provincial Level: Systems level planning, institutional stakeholder engagement, knowledge management and data access framework
- Regional/Organizational Level: Organizational leadership
- Practice Level: Build on excellent practice leadership, adequate staffing, effective communications, collaborative work relationships, organizational supports (such as professional development opportunities and continuing education, data access and usage), control over practice linked to competent practice of scope or clinical autonomy (what a health professional is formally educated to do and can legally do upon entry to practice)

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This links back to HR deployment in experimenting how best to meet the complex care needs of certain patient populations based on properly assessing patient needs based on factors such as acuity, stability and complexity, and real time tools.

An example of an attempt of thoughtful redesign is Nova Scotia’s Model of Care Initiative (MOCINS), launched in 2008\(^{71}\). The evaluation is summarized here, not to prescribe this particular model for BC necessarily, but to stimulate thinking and discussion about how the health sector might move forward on change management related to models of delivery identified earlier from the policy papers.

The MOCINS mandate was “to design, implement, and evaluate a viable provincial model of care for acute care in-patient services that was to be patient centered, high quality, safe, and cost-effective” (pg. 347). Early in the initiative, a provincial inter-professional design team developed a Collaborative Care Model. The Model would serve as a guide for local implementation of a new care delivery model in acute care in-patient initiatives initially, and maternal-child care subsequently. The goal of the model is:

To ensure more efficient, high quality patient care in health care organizations, by making the best use of staff competencies (knowledge, skills, and judgment), improving processes, and better supporting access to information and modern technology. The model is designed to align the care delivery system with the health needs of the Nova Scotian, and orients providers to work to their optimal scope of practice collaboratively within interprofessional teams. (pg. 347)

MOCINS’ Collaborative Care Model consists of four key attributes intended to be used as change levers:

- **People** – having the right people to do the right work, collaboratively within interprofessional teams in which the roles of health care providers are optimized to meet the needs of patients and their families;
- **Process** – redesigning processes to eliminate waste, prevent duplication of effort by the health care team, and enable patient and family self-care;
- **Information** – ensuring timely access to information that supports care delivery, research, and academic mandates; and
- **Technology** – utilizing modern technology to provide safe and timely care.\(^{72}\)

The Model does not prescribe specific processes or practices. It is left up to the units to apply these four attributes locally, in a manner appropriate to their unique context. The phased implementation of MOCINS began with 14 “showcase” units. Implementation was over seen by “a Senior Advisory Committee, a Provincial Leadership Team made up of local DHA/IWK Leads and Provincial Project Leaders at the Department of Health & Wellness”\(^{73}\). Implementation activities were “aimed at

\(^{71}\) Tomblin Murphy, MacKenzie, Alder, & Cruickshank (2013).
\(^{72}\) Tomblin Murphy et al. (2013), p. 348.
\(^{73}\) ibid.
understanding patient care needs and aligning staffing and care processes accordingly". Overarching activities included:

- Developing a template that captured patient health needs
- Developing “provincially standardized role descriptions reflective of current education and legislation requirements to help guide staffing mix changes to meet those needs”.
- In many units, supporting licensed practical nurses to undertake education that enabled them to work at their full scope of practice
- Where necessary, reducing managers’ spans of control to enhance their ability to support MOCINS implementation
- In some cases, introducing assistive personnel to “perform basic supportive care within their scope of employment”.

The anticipated outcomes of the Collaborative Care Model were “an overall higher quality experience for the patient and families, with better resource utilization in a health care environment that is safe and satisfactory for both patients and providers”. The stabilization of acute care costs was viewed as a possible result of MOCINS, but not an explicit objective. Therefore a cost analysis was not performed.

Tomblin Murphy et al. (2013) worked with the MOCINS provincial implementation team to identify appropriate process and outcome indicators to be evaluated. The team included managers and staff (allied health, medicine, and nursing) from each of the showcase units. The indicators and evaluation methodology is described in detail in the original article. However, the ultimate findings were that “almost all patient and family, provider, and system outcomes were maintained or improved over the course of the MOCINS implementation” and “improved outcomes were associated with greater involvement of unit staff in specific MOCINS activities, which suggests that MOCINS has been at least partially responsible for these improved outcomes”.

Qualitative data from the evaluation found that MOCINS “contributed to improved understanding of different care team roles and improved planning (as envisioned by the Collaborative Care Model)”. Staff reported that these workplace improvements made for improved patient care. This perception was validated by outcome measurements for staff (e.g., job satisfaction), patients (e.g., satisfaction with care) and the system overall (e.g., overtime use).

**Workplace Health & Safety**

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74 ibid.
75 ibid.
76 ibid.
77 ibid.
78 Tomblin Murphy et al. (2013), p. 363.
79 ibid.
In BC, occupational health and safety (OH&S) standards are established at the macro (provincial) level through provincial legislation and WorkSafeBC regulations, guidelines and policies; however, health care workers experience workplace health and safety culture at the practice level. WorkSafeBC monitors employers to make sure they comply with these standards.

A safe and healthy workplace is a vital requirement for a healthy, engaged and productive healthcare workforce. Healthcare workers are one-and-a-half times more likely than the average Canadian to be off work due to illness or disability\(^80\). Between 2003 and 2012, healthcare workers experienced the highest proportion of back strain injuries in BC\(^81\). As such, joint union-management efforts to prevent workplace illness and injury remain a priority.

The concept of a psychologically healthy workplace is also receiving increased attention with bullying, harassment and workplace violence frequently raised as issues in the health sector. Health sector stakeholders must work collaboratively to create psychologically safe and healthy workplaces as a critical component of a well-functioning health system.

In June 2014, several BC health authorities presented at the Creating and Sustaining Psychologically Healthy Workplaces: Learning from Research and Practice conference held in Vancouver. This conference was a chance for academic researchers and health services managers to discuss how to promote psychological health in the workplace. Their presence at this conference confirms that BC’s health authorities have turned their minds to this important component of workplace health and safety. The presentations are available for viewing on the Canadian Institute for the Relief of Pain and Disability (CIRPD) website\(^82\). Psychological workplace health is also a focus at the national level. In 2013, the Canadian Healthcare Association (now HealthCareCAN) issued a policy statement urging health employers to adopt the 2013 Canadian Standards Association (CSA) standard\(^83\) on psychological health and safety in the workplace.

Although a psychologically healthy and safe workplace is a clear priority for enabling a healthy, engaged and productive healthcare workforce, efforts to address this issue have thus far been limited to the local/regional health authority level. British Columbia currently lacks a common approach to creating a psychologically healthy and safe workplace (e.g., collectively adopting the CSA standard).

**Corporate Learning & Development**

Currently each health authority is accountable for developing learning and development programs for their staff, while physicians independently pursue required continuing medical education. While continuous improvement is identified as critical to the health care agenda in in BC there is no

\(^80\) Canadian Healthcare Association (2013).
\(^81\) WorkSafeBC (2013).
\(^82\) cirpd.org.
\(^83\) CSA Group (2013).
overarching collaborative framework in place to drive this strategy. In 2012, the Government of BC implemented an evidence-based corporate learning strategy for the BC public service. While the public service differs from the health sector in many ways, the underlying evidence and research does apply. The four core components are: 1) creating a culture of learning; 2) embracing innovative technologies and tools to prepare for the future now; 3) responding flexibly to learning needs; and 4) valuing diversity and advancing inclusiveness through learning. Seven key factors are recognized as supporting the development of a culture of learning:

- Strong support from executive
- Supervisors who empower their staff and promote learning
- Recognition that some of our most significant learning comes from careful risk taking and failure
- Employees who are personally motivated to learn in all types of settings – formal and informal
- Ongoing and strategic investment in resources, training and tools
- Opportunities to take what you’ve learned and apply it
- A continuous feedback cycle/ongoing adjustment and coaching when needed.84

Large technological, demographic and social shifts are occurring in the workplace and this is especially true in health care. To help prepare for the future, six significant workforce trends are identified within the BC public service corporate learning strategy:

1. *The rise of the virtual workforce and continued growth of the knowledge economy will be major drivers and workplace shapers.* In health care, virtual technology is already being used by some clinicians as a means of seeing their patients online. In the section on recruitment and retention, we saw how access to telehealth and other distance technologies are linking rural providers with professional development opportunities they might not otherwise have.

2. *Lifelong learning will be a business requirement for career success.* Professional colleges require continued learning as a condition of licensing and most health professionals are intrinsically motivated to stay on top of emerging practices in their discipline. Transformation of the health system requires innovative thinking and the ability to update skills as we discover new, more effective and efficient ways of delivering health services.

3. *The use of interactive curriculum, online learning and traditional and blended formats will be common.* Online learning is frequently utilized within the health system through webinars and audio/video conferencing. Technology offers a potential bridge between rural practice and learning opportunities.

4. *Social media literacy will be a job requirement.* In health care, social media is increasingly being used to connect with patients and other health professionals. A community of clinicians and communications professionals interact weekly on Twitter through the Healthcare Social Media Canada (#hcsma) tweet chat where they discuss social media innovations in health care (Young,

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An emerging line of research is looking into how social media can be used as a tool for chronic disease management. For example, Kim & Lee (2014) recently found that patient blogging enhances coping with chronic illness.

5. **Diversity will be a business imperative rather than a human resource issue.** BC’s health care workforce and the citizens it serves both come from diverse cultural backgrounds. Cultural competencies need to be incorporated into the education we offer our health care workers and employee learning and development must take into account the diversity of health care workers themselves.

6. **Personalized learning models, “just in time” learning and coaching will be expected with the arrival of more employees from the Millennial generation.** Sites that allow users to personalize, choose content, interact and integrate with other platforms will be part of common business practice just as they are part of many employees’ everyday social interactions.

Corporate learning and development programs must respond quickly to learning needs that result from rapid technological, demographic and social change. Flexibility is achieved when learning opportunities are adapted to accommodate different learning styles and preferences. Such adaptations may require alternative delivery formats and modalities. They may also involve segmenting learners according to the information and skills they require to meet health system goals.

Accessibility and responsiveness enable responsive learning. Accessibility issues faced by employees in rural and remote areas of the province have already been discussed. Accessibility can also be an issue for employees in urban centres if scheduled learning opportunities conflict with their work schedules. E-learning and blended approaches are cost-effective options for increasing access to training and development. Responsiveness to learning needs can happen informally in real-time on a unit or in a department, but it also involves long-term curriculum planning that is aligned with expected trends and health system challenges.

Health organizations have long recognized the need to facilitate an inclusive culture that appreciates diversity within our workforce and BC’s population. Inclusiveness has a positive effect on business practices and thinking, attracting and retaining talent, and responding to citizens’ needs. Diversity and inclusiveness is enabled through corporate learning strategies that:

1. Meet the unique learning needs of all employees
2. Increase organizational awareness and understanding of cultural competency and inclusive practices
3. Recognize the value of a diverse workforce for responding to our diverse citizenry.

**Technology Support**

Technology’s role in the health system is to enable health service providers to provide quality patient-centred care. Technology is used in the context of medical, surgical and diagnostic procedures. It is also
used to manage information. Information technology is usually broken down into administrative data (e.g., human resource data, scheduling data, patient accounts) or clinical data (e.g., patient records, diagnostic tests, care plans, etc.)\(^85\). A policy paper on Information Management and Information Technology (IM/IT) is being released as part of the suite of papers described in the Introduction to this paper. The IM/IT paper will describe the province’s strategic direction with respect to information technology in detail.

At this juncture, we simply highlight technology as having a significant impact on how we manage HHR. Deployment-wise, advances in technology have implications for both staff mix (e.g., in terms of number and type of staff required to deliver a service) and skill management (e.g., in terms of its potential for enhancing or enlarging roles, or allowing for role delegation). Technological advances have clear implications for professional education and continued skill development. In fact, there are very few HHRM inputs that are not directly impacted by technological change. This underscores the need for a HHRM strategy that integrates all inputs across the micro, meso and macro levels.

**Provincial (Macro) Level Inputs**

**Professional Education**

Health professional education programs are offered through the province’s universities, colleges, and technical schools. The regulatory colleges have a legislated mandate, under the *Health Professions Act*, to ensure these academic programs meet the profession’s standards for building the competencies required to deliver safe patient care. The colleges also determine the continuing professional education requirements to ensure their members maintain their knowledge and skills as changes in practice occur over time.

There has been increased recognition of the interdependence between educational planning and access to consistent and appropriate healthcare across the province. The Ministry of Health is working with education and service delivery partners to ensure education programs and continuing professional development meet the needs of practitioners and health care system.

Undergraduate Medical Education and Post Graduate Programs have been expanding steadily over the past 10 years. The adoption of the distributed model of medical education was intended to not just increase the overall number of BC-trained physicians, but to embed increased medical resources in a variety of communities across the province.

Professional education is a clearly integral input into enabling a skilled health service delivery team. The ever-changing healthcare environment requires health professionals to be up to date with the latest clinical procedures, advanced techniques and new technologies. Education programs and ongoing

\(^{85}\) Blackwell (2008).
professional development must support skilled practitioners working at the top of their scope of practice across care settings.

**Professional Regulation & Legislation**

There are 26 regulated health professions in BC, of which 25 are self-regulating. The self-regulating professions are governed by 22 regulatory colleges under the *Health Professions Act*. One profession (emergency medical assisting) is regulated by a government-appointed licensing board under a separate statute. Social workers are a self-regulating profession governed by a regulatory college under the *Social Workers Act*. These two acts prescribe a specific process for proposing and approving amendments to the regulations and college bylaws.

Professional self-regulation is a model that allows government to have some control over the profession’s activities (e.g. services provided), without having to maintain in-depth knowledge of the profession’s practice\(^{86}\). Self-regulation is the preferred professional regulatory model in Canada across a number of sectors (e.g., education). The professional colleges have delegated authority under provincial legislation to govern the practice of their members in the public interest. Their mandate at all times is to serve and protect the public.

The primary functions of the professional colleges are to ensure their members are qualified, competent and following clearly defined standards of practice and ethics. All colleges administer processes for responding to complaints from patients and the public and for taking action when it appears one of their members is practising in a manner that is incompetent, unethical, illegal or impaired by alcohol, drugs or illness.

Health professional regulation is receiving increased attention as health system planners remove barriers to deploying inter-professional care teams. A recent comparison of professional boundary regulation across Canada, the US, the UK, and Australia found that there has been an overall decrease in the rigidity of professional boundaries between the occupational groups\(^{87}\). In other words, scopes of practice are more likely to overlap now as compared to the past. This means more flexibility in how patient-centred care is delivered.

Since 2001, the health professions regulatory framework has been undergoing significant reform. This initiative is being guided by the reports and recommendations of the former Health Professions Council, particularly the report *“Safe Choices: A New Model for Regulating Health Professions in British Columbia”*.\(^{88}\)

In early 2014, the regulatory colleges in BC joined together to form a society “to collaborate on the development of common approaches to core regulatory functions such as registration and licensing,

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\(^{86}\) Balthazard (2010).  
\(^{87}\) Bourgeault & Grignon (2013).
handling complaints from patients, quality assurance activities, and the development of professional standards."^88.

**Labour Organization & Bargaining**

With the exception of physicians, management and other non-contract employees; BC’s health service providers are unionized. The Physician Master Agreement outlines the relationship and economic arrangements between the Government of BC and Doctors of BC. Terms and conditions of employment for management and non-contract employees are under the mandate of by the Public Sector Employers Council (PSEC), part of the Ministry of Finance. Compensation for management and non-contract employees is governed by the Compensation Reference Plan for the health sector, which is likewise under the mandate of PSEC.

Unionized health service providers in BC are organized into bargaining units. A bargaining unit is a group of employees with common labour relations interests. The bargaining unit is recognized by the Labour Relations Board of BC as an appropriate unit for collective bargaining. Five provincial, multi-employer bargaining units are established under the *Health Authorities Act* (the “HAA”):

- Nurses
- Paramedical professionals
- Health services & support – facilities subsector
- Health services & support – communities’ subsector
- Residents

This structure is the result of consultation, legislative reform and the application of labour relations law and policy that took place in the 1990s.

A bargaining agent is a union, person or employers’ organization authorized to bargain collectively on behalf of its members. The HAA provides that the bargaining agent for employees in each of the five bargaining units above is a bargaining association comprised of all the unions certified under the *Labour Relations Code* to represent those employees. The Health Employers Association of BC (HEABC) is the official bargaining agent for most publicly funded health employers in BC.

The primary health employers in BC are the six health authorities, Providence Health Care and agencies under these organizations’ jurisdictions. There are also a significant number of not-for-profit and privately owned health service organizations that are contracted by the health authorities. These organizations are also members of HEABC by designation under the *Public Sector Employers Act*. The current bargaining unit structure and multi-union representational model sometimes places limitations on patient-centered care delivery. Even in circumstances where service design involves one profession falling within a single bargaining unit, union representation rights within that bargaining unit

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^88 BC Health Regulators (2014).
can act as a barrier to deployment. For example, one union might represent that professional at an acute care facility (e.g. hospital), while a different union would represent the same professional in a community program – even within the same health authority.

At a contract level, there are also challenges to be addressed within the five provincial collective agreements. Each of these agreements contains a complex system of classifying and compensating health service providers. These systems were largely developed to address the needs of yesterday’s health care system. To a varying degree, their rigidity could hamper the introduction of a health human resource strategy that will better meet BC’s patient and population health needs over the next two decades. Building more flexibility into our classification and compensation systems will require the active engagement of all interested parties and reconciliation of competing interests and viewpoints. This is a complex area but one which through a candid recognition of competing interests, combined with a willingness to work together to navigate those interests, we can leverage the significant skills and professional commitment of the health sector workforce to support the required health system change.

**Funding & Remuneration**

The majority of the health care budget is spent on compensation for HHR. Compensation for service delivery represents approximately 70 cents of every health care dollar spent in the public system. The total compensation cost for the public health sector is roughly $12.6B a year, which covers close to 170,000 individuals working in the health care system, including physicians, nurses, allied health workers, supporting staff, community workers, dentists, optometrists, midwives and management/excluded staff. Of the approximately $8.25 billion in expenditure on union and bargaining unit equivalent workers as well as management/excluded staff, approximately 81% goes to salaries and wages and approximately 19% goes to various statutory (e.g., CPP) and non-statutory (e.g., extended health and welfare plans) benefits.

Compensation for BC’s health professionals is competitive with other jurisdictions across Canada. For comparable jobs, wages for BC health professionals are ranked third to sixth across Canada depending on the profession. The number of vacation days that BC health professionals receive in a year is the highest in Canada. Furthermore, BC is the only province that covers health and welfare premium costs for the majority of the public health professionals. Recruitment and retention in the BC public health care system had been stable over the past two years. The majority of difficult to fill vacancies have decreased or stayed the same over the past two years.

Thirty per cent of the $12.6 billion annual compensation cost in BC’s public health system was paid to physicians. Of this, physicians represent the largest expenditure at over $3.8 billion per year. There are a number of different payment methods for physicians in BC, including fee for service, alternative

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90 Total Compensation is defined as all costs associated with employment, including wages, overtime, premiums, allowance, pension and statutory and non-statutory benefits.
payment arrangements (salaries, service contracts, time-based sessions), medical on call availability payments, rural incentives, and service based incentive payments created through joint collaborative committees established under the Physician Master Agreement. However, fee for service accounts for over 70 per cent of payments to physicians, amounting to an annual expenditure of approximately $2.7 billion (service contracts are next highest at $317 million).

Physician compensation is undoubtedly a complex area of public policy, but one which through a candid recognition of competing interests, combined with a willingness to work together to navigate those interests, we can leverage the significant skills and professional commitment of physicians to adopt changes in compensation policy to support health system change.

The annual compensation cost for nurses in the public health system is $3.1 billion, which accounts for 24.5 per cent of the total health compensation costs. The nurses group includes both registered nurses and licensed practical nurses. Both of these professions are covered by the provincial Nurses Bargaining Association collective agreement and are employees of the public health system. On average, a full-time registered nurse’s annual total compensation cost is $109,985 and a full-time license practical nurse’s annual total compensation cost is $74,316.

The other three health service provider groups with notable annual compensation costs in the public health system are the Facilities subsector ($1.9 billion) which includes the majority of support staff and paramedics, the Health Science Professionals subsector ($1.2 billion), and management/excluded employees ($970 million).

**HHR Planning**

Health human resource managers and policy makers must plan well ahead to ensure citizens have access to the health services they will need in the future. To accomplish this, planners and policy makers must be able to predict, as accurately as possible: a) what health services will be required; b) how many health professionals (and what type) will be needed to provide those services; and, c) how many health professionals (and what type) will be available to provide those services. Both a) and b) predict the demand for health professionals, while c) anticipates the supply. Once both supply and demand are known, strategies can be developed to fill any projected gaps, such as an anticipated shortage of certain health professionals.

Canada’s ability to accurately predict supply and demand has evolved over time. In the past, forecasts were largely based on historical service levels and political factors, and not population health needs. Things are much different today.

In 2009, British Columbia developed an innovative model for predicting future health service demand and HHR supply needs. Previous forecasting models had predicted future population health needs based

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solely on age distribution; however, age is not always the best predictor of health status. The Health System Matrix improved the province’s ability to predict population health status (and service demand) by analyzing trends in our population’s service utilization. Then, occupational groups are mapped to those services to identify potential staffing gaps.

The Ministry of Health and the Health Employers Association of BC (HEABC) are now developing a new Integrated Health Human Resource Planning (IHHRP) model that will further improve the province’s HHR planning ability. The IHHRP model will use information on the health of the population, utilization of health services from the Health System Matrix, and data from the Ministry of Health and HEABC to generate specific health service provider information geographically and by designation (i.e. metro, urban, rural and remote). The model will forecast the number, type and location of providers required to provide appropriate health care services on an annual basis over a five and 10 year projection. Authorized staff from the Ministry of Health, HEABC, and the health authorities will be able to adjust the forecasts according to real or hypothetical changes in service delivery approaches and trends.

Part of the IHHRP model project will involve assessing the availability of relevant data. The Health Sector Compensation Information System (HSCIS) is the source of health profession data used to generate BC’s occupational forecasts. HSCIS collects comprehensive demographic and compensation data for health professionals employed in the public sector. Data is available for health occupations falling within the nursing stream, laboratory, pharmacy, diagnostic imaging, the therapies (e.g., occupational therapists, physiotherapists) and the support staff subsector (see the companion Data Booklet for range of current information on health human resources in BC).

With respect to physicians, similar compensation and human resource data is collected by the Ministry of Health. The Medical Services Plan (MSP) and Health Authority Payment Registry (HAPR) collect data on services provided by physicians. Combined, this provides general information on the service locations, service types and demographics of physicians in BC.

Neither HEABC nor the Ministry of Health collect data of similar breadth for health professionals employed by the private sector. However, higher level demographic information for a few selected health professions is held by their specific regulatory bodies in BC. Access to this data would make an analysis of the distribution of public and private health sector employees possible, which would broaden the province’s capacity for HHR planning, for example, by enabling more accurate analysis of education and training requirements that can be discussed with the, the Ministry of Jobs, Tourism and Skills Training, the Ministry of Advanced Education and post-secondary institutions.

**HHR Governance**

Setting Priorities identifies the need for refreshed governance and standing committee structures to facilitate greater engagement and collaboration among the Ministry, health authorities and other health system partners in support of key strategic priorities, including health human resources.
The current committee infrastructure for health human resources, which includes the Physicians Services Strategic Advisory Committee, Chief Nursing Officers Council and the defunct Health Human Resources Strategy Council, lacks an overall health-system perspective and precludes effective, integrated health human resources planning and policy development.

A new Standing Committee on Health Human Resources (SCHHR) reporting to Leadership Council is required to drive the health human resources strategic agenda.

**Provincial Engagement & Influence Opportunities**

The opportunity for health service provider groups to provide feedback to senior decision makers at the provincial level has clear benefits in terms of engagement and addressing issues of concern to all parties at a policy level. As noted earlier, a provincial engagement framework has been established with the Doctors of BC in order to give effective voice for physicians on policy matters at the senior levels of government. This model will be proposed to other associations and unions to give their members the same opportunity.

**The Next Steps**

The recommendations put forward in these papers push the boundaries of what we have been doing so far and emphasize a need for timely, short and longer term action. I want to emphasize that we are putting forward a range of proposed actions that we think will improve our health services in a number of important areas and better position our health system to meet increasing demand from key patient populations. The actions proposed would be undertaken opportunistically building on initiatives and innovative service delivery already underway across B.C., but also will require a systematic approach to change that builds a truly patient-centred system of care (*The British Columbia Patient-Centered Care Framework* – hyperlink).

You may have different views on the proposed action, how to improve the system or how to implement these recommendations and that is precisely what we are testing out by posting these papers. Your feedback will be part of a healthy and thoughtful discussion of these recommendations. Over the coming three months my aim is for us to achieve a good level of consensus across key partner and stakeholder groups of what the final set of specific actions should be; and then, for us to move forward collaboratively to figure out the detail, the how and the timing of implementation linked to better meeting current and emerging needs in a timely way. Patients as Partners will be an important part of this process.

I want to assure you the implementation of the final set of recommendations will allow enough flexibility for a diversity of implementation approaches across communities but that I also intend to push us to create a truly integrated system of health care that works for patients and not just for us. Your input, creativity and innovation in shaping and implementing the final set of recommendations at the local, organizational and provincial levels will bring new solutions and enrich our B.C. health system.
The implementation of an HHRM strategy will be an ongoing multi-year process, and the directions set out here are intended as the more immediate actions to be undertaken over the next two fiscal years (2015/16 - 2016/17) to shape and enable implementation of the HHRM strategy over the longer term.

1. Establishing a Coherent Policy Framework

1.1 The Ministry of Health in collaboration with Health Authorities, Colleges, Associations and Unions, Educators, and other stakeholders, will establish a single provincial Health Human Resource Framework that will be used to plan, link and coordinate go-forward actions and initiatives. The starting point for consultation will be the framework used in this paper subject to modification and development but with an expectation that the consultation will be completed and the framework start to be used in the spring of 2015 for planning, coordinating action and quality assurance.

2. Enabling Effective Cross Sector Health Human Resource Management

Taking a series of coordinated HHRM actions across different levels (practice, regional/organizational, and provincial), across the scope of service delivery (public health, community, diagnostics and pharmacy, and hospital), and across delivery settings (metro, urban, rural, remote) to support continuous improvement linked to strategic priorities for the health system.

2.1 Leadership Council will establish a Standing Committee on Health Human Resources (SCHHR) as BC’s senior level HHR governance structure, reporting into Leadership Council. Setting Priorities identifies the need for a refreshed governance structure to facilitate greater engagement and collaboration between the Ministry, health authorities and other health system partners in support of key strategic priorities, such as health human resources. To facilitate health human resource planning and policy across all professional groups, Leadership Council will establish a Standing Committee on Health Human Resources as the province’s senior level governance structure.

The Committee will report to Leadership Council, and consist of core membership from the Ministry of Health, the health authorities, HEABC and the First Nations Health Authority. Health authority representatives will consist of Vice Presidents, Human Resources; Vice Presidents, Medicine; Chief Nursing Officers, and other representatives as determined. Ad hoc participants will include other government agencies, regulatory agencies, educational institutions, professional associations, unions, non-profit organizations and patient representatives.

Draft terms of reference for the Committee are currently out for consultation with the parties affected. The Standing Committee will be established by March 31, 2015.
2.2 Develop and implement an HR Deployment methodology linked to an effective, thoughtful workplace redesign methodology.
By September 30 2015, the Standing Committee, in collaboration with Health Professional Colleges, associations and unions and other relevant provincial stakeholder groups, will develop a provincial approach to managing HR deployment and thoughtful workplace redesign processes in support of the directions set out in the policy papers. As there is currently no evidence-based, prescriptive approach in BC, the methodology will be built on the elements set out in this paper, as well as examples from other jurisdictions, and through meaningful consultation, and will involve evaluation and action learning principles. This framework will guide specific change management initiatives going forward.

2.3 By September 30, 2015, Health Authorities will complete an organizational change management assessment of their organization’s current capacity, approaches and infrastructure. This assessment will form the basis for taking action to implement the HR Deployment methodology linked to an effective, thoughtful workplace redesign methodology set out above.

Each health authority will submit a report summarizing its self-assessment (a) change management capacity building plan, and (b) action taken to implement the HR deployment and workplace redesign methodology to the Ministry of Health as part of its year accountability reporting in March 31, 2016.

2.4 By September 30, 2015, Health Authorities will complete an HHRM (including physician human resource management) assessment of the organization’s current capacity, approaches and infrastructure. This assessment will form the basis for taking action to implement the HHRM framework set out above.

Each health authority will submit a report summarizing its self-assessment (a) health human resource management capacity building plan (b) and action taken to implement the HR management plan to the Ministry of Health as part of its year accountability reporting in March 31, 2016.

2.5 The Ministry of Health and the Health Employers Association of BC (HEABC) will complete the development of a new Integrated Health Human Resource Planning (IHHRP) tool to improve the province’s HHR planning ability.
The IHHRP model will use information on the health of the population, utilization of health services from the Health System Matrix, and data from the Ministry of Health and HEABC to generate specific health service provider information geographically and by designation (i.e., metro, urban, rural and remote). The model will forecast the number, type and location of providers required to provide appropriate health care services on an annual basis over a five and 10 year projection. Authorized staff from the Ministry of Health, HEABC, and the health authorities will be able to adjust the forecasts according to real or hypothetical changes in service delivery approaches and trends. The tool will be ready to use starting April 2016.
2.6 **Inventory of public and private post-secondary education and training programs, including clinical placement capacity.**

The Ministry, in partnership with Advanced Education and other health system partners will undertake an inventory and assessment of current education and training programs for health professionals and use the inventory in concert with workforce planning models to identify opportunities to re-align these programs with population health needs. The inventory will be completed by September 2015.

2.7 **Patient-centred, culturally sensitive and inter-professional learning opportunities.**

In conjunction with the inventory above, the Ministry will work with Advanced Education and other stakeholders to ensure curriculum for health care workers supports development of patient-centred, culturally sensitive and inter-professional professional and organizational cultures.

2.8 **Enable effective transition to practice in the BC health system**

Health authorities, in partnership with academic institutions, the colleges, and the associations and unions representing health professional staff; will form a task force on transition to practice and develop recommendations with respect to a) priority objectives for improving transition to practice, b) an action plan of strategies and tactics for achieving those objectives and c) methods, indicators and success criteria for measuring achievement of those objectives.

The task force will consist of representation from the health authorities, academic institutions, the colleges, and the associations and unions representing professional health staff. The task force will consider relevant research/evaluations or initiatives that have taken place (including Rush et al.’s 2013 evaluation of BC’s nursing transition programs), to develop recommendations with respect to:

a. Priority objectives for improving physician, nurses, and allied health professionals’ transition to practice. The objectives chosen must be:
   i. Measurable and achievable within three years, with reporting starting by March 31, 2017
   ii. Justified by existing evidence (i.e. best available research evidence, evaluations, experiential evidence)
   iii. Explicitly linked to the province’s target population health outcomes and service delivery goals
b. An action plan that includes strategies and tactics for achieving those objectives.

c. The methods, indicators and success criteria for evaluating the province’s achievement of those objectives.

The task force will report its recommendations to the Leadership Council by March 31, 2016.

2.9 **The SCHHR will lead the development and implementation of a leadership and management development framework for both the senior management and senior executive management of the BC health system.**

A key priority in the Setting Priorities document is the development of a leadership and management framework for the health system. The underlying principle for this framework is ensuring BC health care leaders have the right skills at the right time to achieve meaningful and sustained transformation of the
health system.

Using any required contracted resources, health authorities will conduct a current state inventory of health leadership and management operational capacity; programs being used to develop leadership and/or management skills; as well as a comprehensive literature review and analysis of best practice and emerging trends in health leadership and management development nationally and globally with a specific focus on health care transformation. An ad hoc Leadership and Management Development Working Group will be brought together with representation from health authorities, academia and key partner organizations to assess the current state of leadership and management development in the BC health system, review and validate best practices and emerging trends and make recommendations for continued or new actions. The Working Group through SCHHR will report its recommendations to the Leadership Council by January 2016 with action being implemented starting in the 2016/17 fiscal year.

2.10 The SCHHR in collaboration with the Doctors of BC and health unions will round out and ensure the implementation of an inter-professional multilevel engagement strategy that builds from existing agreements and processes to support the creation of inclusive, vibrant and healthy workplaces across the health sector.

As set out in Setting Priorities (pg. 37), there is a commitment to ensure the development and implementation of a provincial engagement, influence and accountability framework in collaboration with health authorities and unions to support the creation of inclusive, vibrant and healthy workplaces across the health sector. The framework will ensure rigorous discussion with physicians, nurses, allied health workers, and health support staff about healthcare practices and change. Clearly articulated, specific and measurable healthy workplace objectives linked to the engagement framework will be developed by each health authority. Achievement of these objectives will be monitored, measured and reported to Leadership Council on a quarterly basis. This approach is to be fully implemented by March 31, 2016. Linked to these objectives, Health Authorities will adopt the National Standard of Canada for Psychological Health and Safety in the Workplace as their own standard.

3. Enabling Strategic Policy Paper Directions

3.1 The SCHHR in collaboration with Health Professional Colleges, the Doctors of BC, health unions and other relevant provincial stakeholder groups, will undertake specific planning to take coordinated HR actions across different levels (practice, regional/organizational, and provincial), across the scope of service delivery (public health, community, diagnostics and pharmacy, and hospital), and across delivery settings (metro, urban, rural, remote) in support of the directions set out in the Primary and Community Care, Surgical Care and Rural Health policy papers. The enabling strategic action plans will be developed in tandem with the relevant consultation processes.
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