

Strategic planning in an academic radiation medicine program

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ABSTRACT

Background In this paper, we report on the process of strategic planning in the Radiation Medicine Program (RMP) at the Princess Margaret Cancer Centre. The RMP conducted a strategic planning exercise to ensure that program priorities reflect the current health care environment, enable nimble responses to the increasing burden of cancer, and guide program operations until 2020.

Methods Data collection was guided by a project charter that outlined the project goal and the roles and responsibilities of all participants. The process was managed by a multidisciplinary steering committee under the guidance of an external consultant and consisted of reviewing strategic planning documents from close collaborators and institutional partners, conducting interviews with key stakeholders, deploying a program-wide survey, facilitating an anonymous and confidential e-mail feedback box, and collecting information from group deliberations.

Results The process of strategic planning took place from December 2014 to December 2015. Mission and vision statements were developed, and core values were defined. A final document, *Strategic Roadmap to 2020*, was established to guide programmatic pursuits during the ensuing 5 years, and an implementation plan was developed to guide the first year of operations.

Conclusions The strategic planning process provided an opportunity to mobilize staff talents and identify environmental opportunities, and helped to enable more effective use of resources in a rapidly changing health care environment. The process was valuable in allowing staff to consider and discuss the future, and in identifying strategic issues of the greatest importance to the program. Academic programs with similar mandates might find our report useful in guiding similar processes in their own organizations.

Key Words Strategic planning, radiation medicine programs, radiation oncology, health care environment, fiscal constraints, vision, mission, strategic priorities

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INTRODUCTION

The increasing complexity and interdependent nature of the health care environment requires that health care providers consider optimizing methods for coordinating and integrating efforts^{1,2}. The need for optimization holds especially true for cancer treatment programs, which are likely to experience increasing service demands because of the projected increase in cancer incidence worldwide.

Cancer is among the leading causes of death worldwide, with 14 million new cases and 8.8 million cancer-related deaths recorded globally in 2015³. That trend is

anticipated to continue, with a 70% increase in the global incidence anticipated by 2030^{3,4}. The increasing cancer burden is expected to place significant demands on radiation therapy (RT) services, an essential component of cancer control currently used to cure disease or palliate symptoms in more than 50% of patients⁵. Estimates for our geographic area suggest that RT utilization rates are below benchmark and that a 10% increase in personnel and facilities are required to meet the current need^{6,7}. Those realities place radiation oncology medicine programs at an important turning point—underscoring the need to proactively manage environmental changes

efficiently, while responding to the increasing demand for cancer care.

Strategic planning (SP) processes enable health care programs to identify threats and performance drivers and to respond more intentionally to environmental changes and health care reform. In the absence of strategy, there is a definite risk of organizational failure^{2,8-11}. A formal SP process, including an implementation plan for year 1, was recently completed by the Radiation Medicine Program (RMP) at the Princess Margaret Cancer Centre.

The RMP is an academic tertiary referral centre, integral to a comprehensive cancer centre serving the needs of a network of urban hospitals and a population of 3.5 million people. The RMP provides clinical and scientific expertise in specialized areas, including head-and-neck oncology, sarcoma, pediatric oncology, brachytherapy, and hematopoietic stem-cell transplantation. Daily operations are complex, involving a team of more than 350 staff in clinical care, research, and education teams who collectively deliver treatment for approximately 400 cancer patients. The clinical program is organized into disease-specific inter-professional teams comprising the three core disciplines of radiation oncology, RT, and radiation physics, supported by clinical, administrative, research, and technical personnel. Patient care is delivered in a coordinated and collaborative manner from initial consultation and assessment to planning, treatment, and follow-up for all cancer diagnoses.

The aim of the SP project was to optimize the performance of the RMP. In embarking on the SP journey, the goal was to develop a plan that would not only guide operations, but also facilitate response to the changes associated with increasing financial constraints in the face of escalating demand for cancer care. The plan and implementation strategy are anticipated to streamline and coordinate efforts and resources, facilitating attainment of the mission to improve outcomes for cancer patients.

Although the benefits of a formal SP process have been described in the literature, information about the process or benefits of SP in radiation oncology is scarce, rendering reports that describe the process necessary for advancing understanding of this good practice. Furthermore, such reports should deepen insight with respect to best practices in radiation oncology. Leaders, trainees, researchers, and educators tasked with advancing mandates in radiation oncology should find the report of our experience to be useful in guiding similar tasks in their own organizations as they prepare to face a changing health care environment characterized by restricted and unpredictable budgets.

METHODS

General Approach

The SP process was divided into four phases and lasted from December 2014 until December 2015 (Figure 1). A team led by an external consultant experienced in SP in the health care sector designed and facilitated the process. Data collection was guided by the framework of the RMP's 2011–2015 strategic plan and five additional sources: a review of SP documents of close collaborators and institutional partners; interviews conducted with key stakeholders; a program-wide assessment using a survey; an anonymous

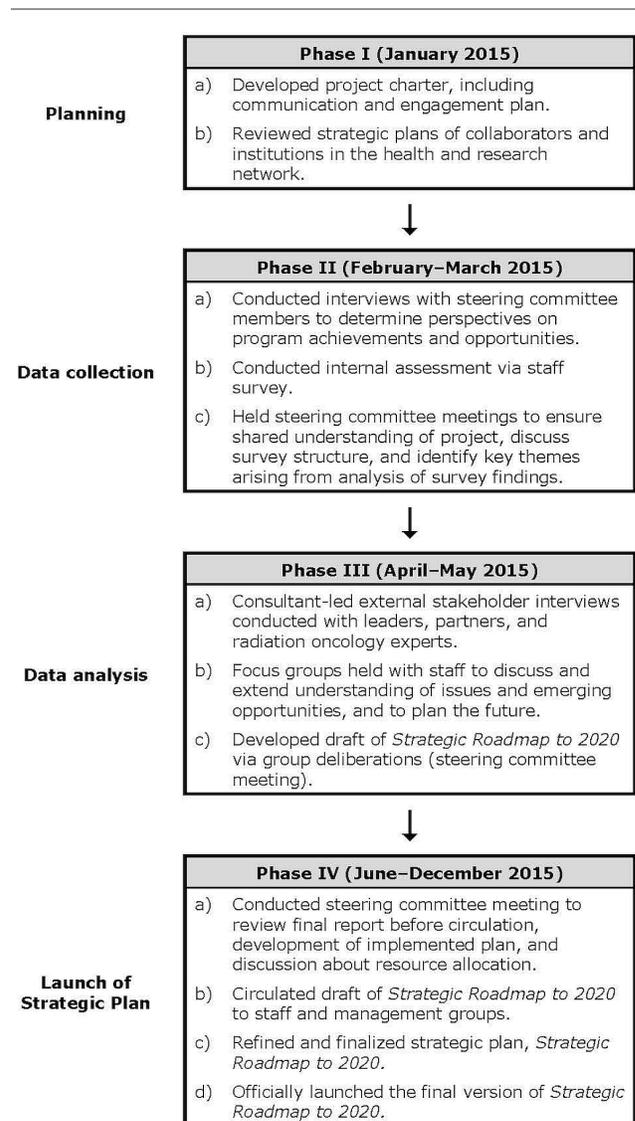


FIGURE 1 Flow chart outlining the processes and activities involved in strategic planning at the Radiation Medicine Program, Princess Margaret Cancer Centre.

and confidential e-mail address established to receive comments from staff; and information from group deliberations gathered from steering committee meetings, staff retreats, and focus groups.

The external consultant guided development of a project charter that clearly defined the responsibilities of leaders and all contributors to the planning process. Working in collaboration with the chief of the RMP and the steering committee, the external consultant guided all efforts aimed at developing the final strategic plan, including data collection, outreach activities, input-gathering from stakeholders and staff, and facilitation of staff retreats and focus groups. A scientific associate assisted with survey design, data collection and analysis, coordination and recording of meetings, and drafting of documents. The steering committee oversaw the process, served as liaison between the external consultant and staff, and took primary responsibility for

ensuring that all planning efforts were correctly targeted and that all opinions within the program were considered.

Environmental Assessment

The current performance of the RMP, its future possibilities, and variables that might influence its performance were assessed internally and externally. An internal assessment was conducted by anonymous staff survey consisting of 19 multiple-choice questions. Live surveys using personal response clickers were conducted at departmental meetings, and online surveys were administered through SurveyMonkey (<https://www.surveymonkey.com/>).

The internal assessment consisted of a survey targeting staff perceptions of the implementation of the 2011–2015 plan, which focused on leadership in all areas and on promoting advanced practice and new models of care, transforming quality and safety, guiding innovation, promoting operational excellence in program delivery, and generating system leadership through outreach and partnerships. Survey results were made available to all staff and helped to inform the development of the priorities outlined in the new *Strategic Roadmap to 2020*.

For the external assessment, the current sp documentation and the perspectives of major collaborators, partners, and stakeholders were reviewed, and district, national, and global partners were consulted to confirm strategic alignment. External stakeholders interviewed included the chief executive officers of the local district cancer agency, the RMP's health network, our affiliated philanthropic partner, and the medical director and the vice president of the comprehensive cancer program at the RMP's hospital.

Group Deliberations

Steering Committee Meetings

The steering committee provided input into the development of the project charter and the communication and engagement plan (ensuring a shared understanding of the process) and defined the most suitable methods for conducting environmental assessments. In addition, the steering committee discussed survey findings, confirmed themes identified by the external consultant, identified gaps and new opportunities since the last strategic plan, and developed strategies for the next 5 years. The steering committee also reviewed the final draft of the strategic plan, and discussed both resource allocation for implementation and communication strategies.

Focus Groups

Four focus groups were conducted over a 2-week period, including sessions specifically targeting radiation oncologists, radiation physicists, clinical researchers, radiation therapists, and support staff. Each focus group lasted 60–90 minutes and was facilitated by 2–3 steering committee members, one of whom was always a member of an outside professional group so as to promote staff participation and contribution. Strategic issues were presented and discussed, and participants voted for the priority of each issue.

Staff Retreats

Two staff retreats were held 2 weeks apart, each lasting 2–3 hours. The first retreat was attended by 30 program leaders,

including steering committee members, and the second retreat drew more than 50 multi-professional staff members, including the steering committee. Topics discussed included existing programmatic educational offerings, staff pride with respect to achievements at the program level, system leadership, and operational excellence.

Development of the Draft Document and Implementation Plan

After analysis of data from the group deliberations, the internal and external environmental assessments, and a consideration of current economic realities, the pace of technological innovation, the increasing burden of cancer locally, regionally, and beyond, and the research environment, the external consultant drafted a new strategic plan to guide operations in the areas of patient care, education, and research out to 2020. The initial draft of the plan was reviewed by the steering committee, stakeholders, and staff. Based on the strategic priorities outlined in the draft, an implementation plan was developed by the steering committee.

RESULTS

Survey Results—Internal Assessment

Survey responses were received from 175 staff members (approximately 50% of the entire staff) encompassing individuals from all core disciplines. More than 50% of responders had more than 10 years of service to the program. Most survey respondents strongly agreed that the RMP has made some or impressive progress in exploiting the advantages of new technologies, leading a culture of education and learning, engaging external stakeholders, increasing clinical research scope and activity, enhancing clinical expertise, and disseminating knowledge and resources. Areas identified for improvement included timeliness in sharing and disseminating information, addressing barriers to bringing professionals into nontraditional domains, ensuring best practices in program management, engaging patients in the safety agenda, and capitalizing on staff talents.

External Environmental Forces

The interviews with stakeholders and review of the sp documents of collaborators and partners suggested that the three most significant external forces to take into consideration at this time are anticipated changes to the funding model, increasing demand coupled with a focus on quality and accountability, and the expanding excellence of other international programs.

Development of the Draft Document

The 7 major considerations described here represent summaries of the major themes arising from the internal and external environmental assessment. They were used to guide the review of the draft document and the development of the implementation plan.

1. *Our history*
Could we evolve into a learning health system that collaborates effectively to identify the most fiscally responsible solutions while providing the highest

quality clinical care? And in achieving this, how best might we apply the expertise that exists within our program at the network, provincial, national, and international levels?

2. *Current opportunities (within our program)*
Have we considered sufficiently the opportunities for process improvement and the support systems required to ensure success in leveraging technology, reducing rework, and enhancing staff skills to optimize daily operations?
3. *Precision medicine*
Precision medicine, which involves considering individual patient variability throughout all aspects of care, is currently a major component of the RMP's operations¹². To continue development in this area, have we identified innovative ways to incorporate biomarkers, genetics, and radiomics into the practice of radiation oncology to improve patient outcomes and promote collaboration with colleagues across the health network?
4. *Integration between education, research, and clinical programs*
Given the importance of integrating education, research, and clinical care programs, have we addressed the need to
 - cultivate, attract, and retain education leadership?
 - engage staff in translating clinical practice into the classroom, having expert practitioners also serve as educators?
 - constantly seek patient interactions to inform practice?
 - engage all staff and patients in research—specifically offering all patients the opportunity to participate in clinical trials—and provide all staff the opportunity to engage in research?
 - consider best approaches toward accomplishing this objective, given the required resources and fiscal constraints?
5. *Environmental changes*
Rapid environmental changes, coupled with the utilization rate of RT in the geographic area, necessitate a re-evaluation of our approach to system engagement. Does the plan consider sufficiently the influence of specialized centres, patient referral patterns, and the importance of cooperation between cancer centres with respect to the delivery of RT to cancer patients in the region?
6. *Our most important resource*
Given that our program's success is a product of our people and organizational culture, the steering committee is committed to enhancing staff engagement and development. Have we developed appropriate approaches to developing and harnessing the skills and talents of staff so as to continue to deliver outstanding patient care while addressing the need for individual and team recognition?

7. *Alignment with collaborators and partners*

How might RMP best align with partner organizations to share best practices and ensure the optimal use of collective resources to enhance quality of care for all cancer patients within our community?

Strategic Roadmap to 2020

The new strategic plan built upon the accomplishments of the 2011–2015 strategic plan and included contributions from RMP staff and external stakeholders. The new plan, *Strategic Roadmap to 2020*, aims to redefine, modify, and position key aspects of the RMP in the context of the current health care and research environments in relation to our collaborators. In addition, the strategic priorities are updated based on external and internal influences. The strategic plan also contains our statements of mission, vision, and core values (Table 1).

DISCUSSION AND CONCLUSIONS

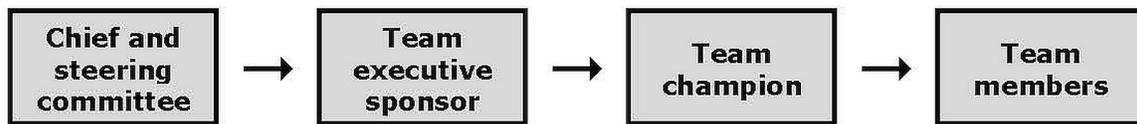
Strategic planning enables organizations to plan for the future and respond more effectively to unpredictable environmental changes^{2,8-10}. We recently embarked on a SP process that resulted in the development of a roadmap to 2020 that will guide decision-making and operations at the RMP for the next 5 years. The roadmap describes our vision, mission, and core values, and outlines our approach for responding strategically to environmental variables. Major emphasis will be placed on harnessing the talents of our staff to streamline efforts effectively and to achieve targets. It is anticipated that the implementation of the plan will enable us to bridge from our current state of operations to the future vision of our program.

The development of a project charter to guide our process proved useful for ensuring transparency. By specifying timelines, roles, and responsibilities, the project charter created a framework that helped to ensure a common understanding of the process, ultimately ensuring that data collection was effective and that the contributions of participants were maximized. The methods of data collection that were used reflected the complex nature of patient care delivery, involving contributions from many collaborators, stakeholders and staff, internal and external environmental assessments, and group deliberations. Focus groups were conducted so that staff could contribute to defining the major strategic issues and successes of the RMP. Staff retreats functioned to refine the perspectives developed at steering committee meetings, to create the proposed outcomes for the ensuing 5 years (up to 2020), and to develop an implementation plan.

Strategic implementation teams were formed to develop and implement action plans and to track progress (Figure 2). Each year 1 priority was designated to a staff member whose role is to serve as an executive sponsor, leading all efforts in that domain. A SP dashboard was created to track the progress of all implementation initiatives. The SP dashboard was developed based on the strategic priorities and is accessible to all members of the implementation teams. A scientific associate was selected to record and track the progress of all initiatives.

TABLE 1 The vision, mission, strategic priorities, and core values generated from the strategic planning process

Vision statement	Precision radiation medicine. Personalized care. Global impact.
Mission statement	Advance exemplary radiation medicine through patient care, research and education in partnership with our patients and our community.
Strategic priorities	Precision medicine; integrate research and education with clinical practice; strengthen community linkages; extend high reliability with systems thinking.
Core values	Innovation, excellence, collaboration, accountability, and integrity

**FIGURE 2** Overall structure of the implementation teams leading the execution of the year 1 strategic priorities at the Radiation Medicine Program, Princess Margaret Cancer Centre.

The communication strategy was developed to encourage ongoing staff and stakeholder engagement throughout year 1. It included the addition of a new standing item, the Strategic Column, in the RMP's quarterly electronic newsletter, which is distributed to all staff, collaborators, and stakeholders. The Strategic Column reports on upcoming activities, accomplishments, and challenges encountered in strategic plan implementation. In addition, a new e-mail address dedicated to collecting comments and suggestions from staff, collaborators, and stakeholders was created and published in departmental communications.

To ensure that implementation activities remain on track, quarterly reviews are conducted, and results are published on the SP dashboard for access by the steering committee. When progress is slower than initially anticipated, the steering committee either assigns additional resources or makes recommendations to assist in achieving that particular goal. The success of the implementation efforts will be tracked based on the percentage of deliverables completed, evaluated annually and at 5 years. Long-term success will be measured against a quantifiable set of metrics such as clinical trial accrual, number of peer-reviewed publications, value of grants received, and new patient referrals.

The environmental assessment confirmed trends that were previously identified during the SP process in 2011. The repeated observation of such trends likely indicates that they are inherent in our health care environment. Although it might not be possible for a single organization to address those systemic issues, our success as a program is greatly influenced by the activities of our hospital network and collaborators, who interact to ensure availability of the highest standard of care delivery at the system level. Alignment between partners and institutions is therefore essential.

The process provided several benefits beyond the development of the document *Strategic Roadmap to 2020*. Group deliberations were integral to the process and promoted dialogue between staff and leaders about strategic issues, including identifying opportunities for organizational growth. Because the occasion for such extensive dialogue

does not arise regularly during day-to-day operations, the inclusion of group deliberations in the SP process proved to be extremely valuable in building staff engagement by allowing staff members to express their views and contribute to the analysis of issues of strategic importance.

The lessons learned through this process are likely to be broadly applicable in health care as well as in other complex environments, given the multifaceted, adaptive nature of health care systems and the number and nature of the forces interacting with our organization and others like it^{1,8}. Although some elements of SP, such as goal-setting and the development of a mission statement could correlate positively with improved organizational performance, continued research and monitoring will be necessary to determine the direct impact of *Strategic Roadmap to 2020* on program outcomes^{13,14}. In addition, continuous monitoring of the program with suitable metrics will be necessary to determine the utility of the planning process for delivering mandates specific to radiation medicine.

CONFLICT OF INTEREST DISCLOSURES

We have read and understood *Current Oncology's* policy on disclosing conflicts of interest, and we declare that we have none.

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