

de Souza Institute
Educational Activities
Final Report

April 2016 - March 2017

Executive Summary

Cancer is the leading cause of premature death in Ontario and the province's number one health problem. Cancer incidence is increasing, particularly with an aging population (Canadian Cancer Society, 2016). At the same time, cancer care has become increasingly complex with advances in diagnostics, treatments and survivorship care, as well as the need to incorporate new models of palliative care.

Most health care providers, other than physicians, received generalist training during their preparatory years in higher education. In order to provide optimal care to a population with complex health care needs such as cancer, many of them require ongoing training through continuing professional development (CPD). Before the establishment of de Souza Institute, the CPD training was offered by each health care organization with varying intensity and quality. A standardized training program that is disease specific, interprofessional focused, accessible and transportable across organizations can greatly increase the overall capacity of the health care system to deliver safe, high-quality patient-centered care across geographic areas.

In 2008, to address this need, the Ministry of Health and Long Term Care (MOHLTC) provided University Health Network (UHN) and Cancer Care Ontario (CCO) funding to create the de Souza Institute. With this funding, UHN in partnership with CCO established a state-of-the-art, innovative Centre to develop and deliver on-site and on-line, high quality, standardized oncology and palliative care courses to front line oncology nurses from across Ontario, at no cost to them or their hospital as required by the MOHLTC. Courses such as the chemotherapy and biotherapy are now mandated by Cancer Care Ontario for all nurses working in chemotherapy clinics.

In April 2013, a new funding agreement was signed with the MOHLTC. The purpose of this agreement was to improve and expand on the existing program to a broader workforce in primary care, home care and long-term care, and to other healthcare professionals beyond nursing. This required the development of a new business model to increase non-MOHLTC funding. Effort towards the new funding model includes contracts with healthcare centres, UHN Foundation fundraising, and shifting the cost of oncology nurse education and certification from the de Souza Institute to the hospitals and individuals, for course delivery fees. To reflect this new business model and movement toward self-sustainability, the funding from the MOHLTC was reduced from \$3 M in 2012/13 to \$1 M in 2015/16.

In fiscal 2016/17, a third funding agreement was achieved between MOHLTC and UHN to support the institute to continue its goal of 100% self-sustainability by March 2018. The funding totals \$750,000 for the fiscal year. The institute responded to the challenge and achieved the following outcomes:

- Continued its evidence-based, cost-effective, timely and clinically relevant oncology and palliative care education to more than 9,000 health care providers. Enrollment increased by 38% with learners from cancer centers, community hospitals, primary care and home care participating in de Souza training. New courses, such as *Cancer Care Basics* and *Interprofessional Education in Palliative and End of Life care for Oncology (iEPECO)* were launched to augment the existing de Souza curriculum and support interprofessional providers across the cancer care continuum.
- Developed partnerships with National organizations such as the Canadian Nurses Association, the Canadian Association of Psychosocial Oncology, the Canadian Association of Nurses in Oncology; as well as provincial agencies, including the BC Cancer Agency, Alberta Health Services, Saskatchewan Cancer Agency, Cancer Care Manitoba, and Rossy Cancer Network in McGill.
- A total of 1.1 million was generated through course fees, contracts and donations.

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Introduction

de Souza Institute was established with funding from the Ministry of Health and Long Term Care (MOHLTC) in 2008 to develop and deliver on-site and on-line, high quality, standardized oncology and palliative care courses to front line clinicians from across Ontario.

This progress report highlights the completed work for the fiscal year 2016/17. The funding for this fiscal year is \$750,000.

In keeping with the funding letter and reporting requirements, we summarized our achievements from April 1st, 2016 to March 31st, 2017 as the following:

Results

1. Participants by setting and by professional training

- a) The Number of learners in each of the following categories is described in Table 1: Primary care, Home care, Long-term care.

Table 1 Participants by Setting*

	Number	Percent of Total
Hospital	2070	81.59%
Home Care	282	11.12%
Long Term Care	121	4.77%
Primary Care	42	1.66%
Other	22	0.87%
Grand Total	2537	100.00%

Note: Some clinicians work in multiple agencies and settings. Therefore, they are counted in more than one setting. As a result, the total count is higher than the number of unique learners.

A few participants left the setting field blank.

b) The number of learners by professional training is described in Table 2:

Table 2 Participants by Professional Training *

	Sum of Number of Learners	% of Number of Learners
RN (Diploma, degree)	1694	86.43%
RPN / LPN	136	6.94%
APN	62	3.16%
Other (students, PSWs)	33	1.68%
Other allied providers	31	1.58%
Physicians	4	0.20%
Grand Total	1960	100.00%

*Note: This variable represents unique count

A few participants left the education field blank

2. Progress, status, and planned completion date on the development of the top five income generating oncology and palliative courses

The top five income-generating courses are listed below. A total of \$440,576 course fee revenues were generated from these five courses in fiscal year 2016/17:

1. Chemotherapy and biotherapy courses
 - 1a: Provincial Standardized Chemotherapy and Biotherapy: \$168,736
 - 1b: Chemotherapy and Biotherapy Competency Maintenance: \$113,149
2. Foundations in Oncology Nursing practice: \$105,086
3. Oncology Specialty CNA certification exam study group: \$19,954
4. Interprofessional Education in Palliative and End-of-Life Care - Oncology: \$18,684
5. Study Group: Hospice Palliative Care Certification Exam: \$14,968

3. Progress, status and planned completion date on tailored packages with multi-course bundles for health care organizations

As part of a marketing strategy and to better support front line care needs, tailored packages have been developed to help support clinicians and are outlined on our website, as well as included in our course calendar. These packages facilitate clinicians' ability to search for courses most relevant to their practice settings and populations. Such course bundles also help guide novice clinicians on potential areas they might consider in relation to planning their professional development. Examples of the tailored packages include:

- Nursing package <https://portfolio.desouzainstitute.com/courses/calendar/type:1>
- Interprofessional practice package <https://portfolio.desouzainstitute.com/courses/calendar/type:2>
- Oncology package <https://portfolio.desouzainstitute.com/courses/calendar/type:3>
- Palliative care package <https://portfolio.desouzainstitute.com/courses/calendar/type:4>

4. Number and description of group memberships and joint-marketing partnerships

We offer special pricing/membership offerings with our partners who carry out joint marketing with the de Souza Institute. <https://support.desouzainstitute.com/kb/article/59-special-pricing-for-cna-or-cano-acio-members-and-students>

The partnerships include:

- Members of the Canadian Association of Nurses in Oncology (CANO/ACIO):
- Members of the Canadian Nurses Association (CNA)
- Students and Trainees enrolled in a college, undergraduate/graduate programs at accredited educational institutions (i.e., Lambton College, University of Windsor).
- In 2016, clinicians in Alberta joined the de Souza Institute community of learning and received support via the Alberta Health Services and de Souza Institute partnership. <https://oprep.desouzainstitute.com/>

5. Progress, status and planned implementation dates of each revenue-generating contract:

Four contracts were signed, with a total value of \$601,500 in 2016/17. These contracts are with the following partners:

- Alberta Health Services: A three- year contract was signed with the Alberta Health in 2016, to support a total of 600 clinicians in Alberta Health Services over three years. The contract includes funding of \$250,000 per year or a total amount of \$750,000, with the option of an additional three- year renewal.

- **Cancer Care Ontario:** A contract of \$151,000 was signed with CCO this year to develop a “Chemotherapy in the Community course”, an “Oral Chemotherapy Course” for clinicians, and an “Oral Chemotherapy Course for Patients and Caregivers”
- **Canadian Partnership Against Cancer:** Two projects were funded by CPAC since 2015. One to host Cancer Chat Canada- a patient online support group forum offering multiple support groups across Canada and the second to launch the Return to work website for patients (e.g. www.cancerandwork.ca), providers and employers. The total amount of funding for fiscal 2016/17 is \$187,500.
- **Ontario Renal Network:** A contract was signed with Ontario Renal Network to provide clinicians in the Chronic Kidney Disease (CKD) program with Vascular Access Education Program (VAEP) training. The contract was valued at \$13,000 and provides education to 1000 learners per year.

6. Other Revenue Generating Methods

In 2017, we implemented an online donation page. By partnering with both the Toronto General and Western Hospital Foundation, we are able to receive online donations. The money raised through donations will go towards supporting Cancer Chat, supporting new innovative projects and programs, help translate the latest research into cutting-edge curriculum, and create scholarship funds.

7. Number and description of On-demand courses delivered

de Souza Institute has increasingly moved towards “on-demand” courses (wherever possible in relation to the nature of a course). On-demand courses are defined as courses that are entirely self-directed, and are initiated as soon as a participant completes the online enrollment. These courses are available to the participants for a learning period (in weeks) specified in the course syllabus, based on course content and the depth of training. Six on- demand courses generated \$157,953 in course revenue.

Table 3 course revenue (on-demand courses)

Course Name	Revenue
Chemotherapy Competency Maintenance Course	\$113,149
Interprofessional Education in Palliative and End-of-Life Care - Oncology	\$18,684
Foundations of Cancer Disease Sites Part A	\$5,790
Foundations of Cancer Disease Sites Part B	\$2,069
Foundations of Cancer Disease Sites Part C	\$2,785
Management of Depression and Anxiety in Cancer	\$12,302
Management of Dyspnea	\$3,174
Total	\$157,953

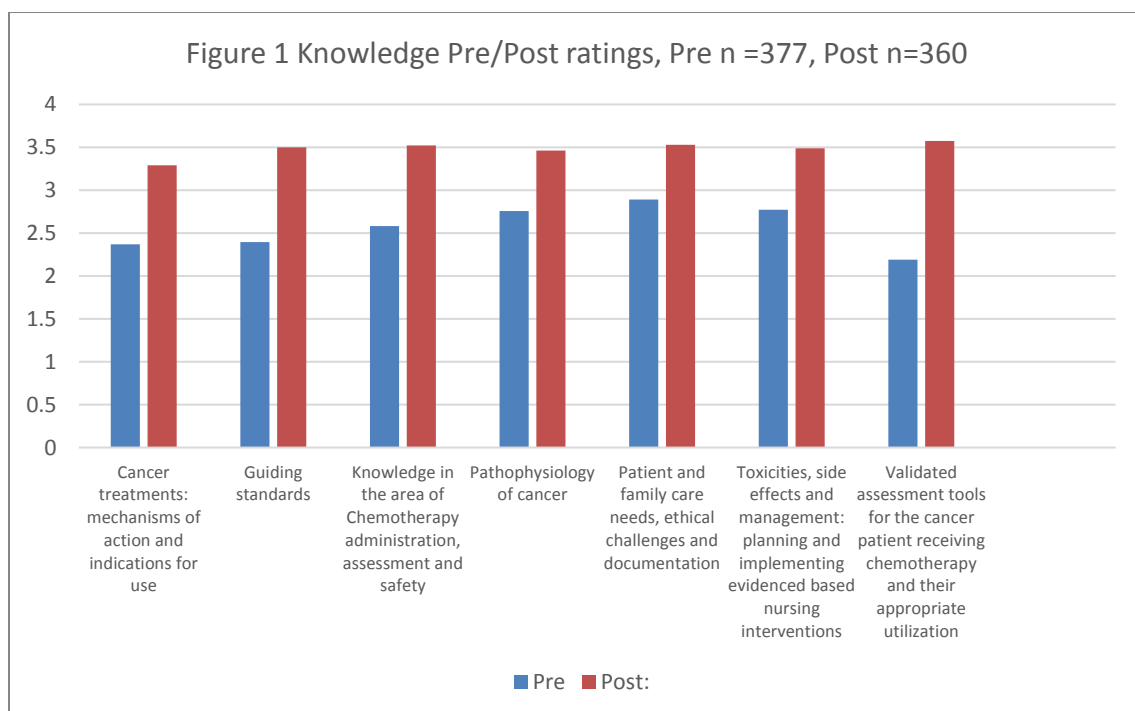
8. Regional facilitators trained

A total of 30 regional Facilitators have been trained as de Souza champions across Ontario. They receive standardized training to offer local support to clinicians in their region, to contextualize the online training materials and tailor them to support their practice and geographic setting. With their support, for example, in the Standardized Chemotherapy and Biotherapy course, clinicians are able to learn the latest knowledge from the de Souza online course and apply such knowledge in their local practice, with the guidance of the regional facilitators.

In order to maintain excellence, de Souza Facilitators receive updated information and training in the standardized approach to ensure safe and quality education. The institute hosts a facilitator's retreat once a year, with de Souza educators and leaders from Cancer Care Ontario. These retreats provide opportunity to review the latest evidence that has been incorporated into the de Souza online course and to plan for the roll out of the updated curriculum for the following year.

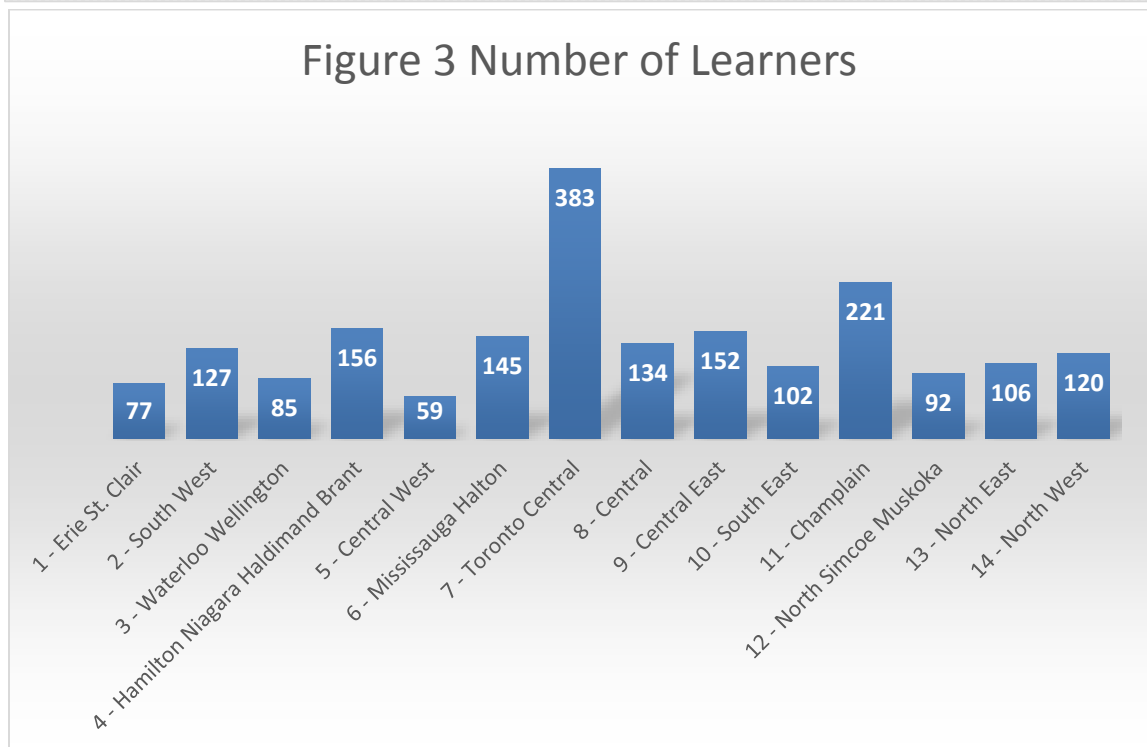
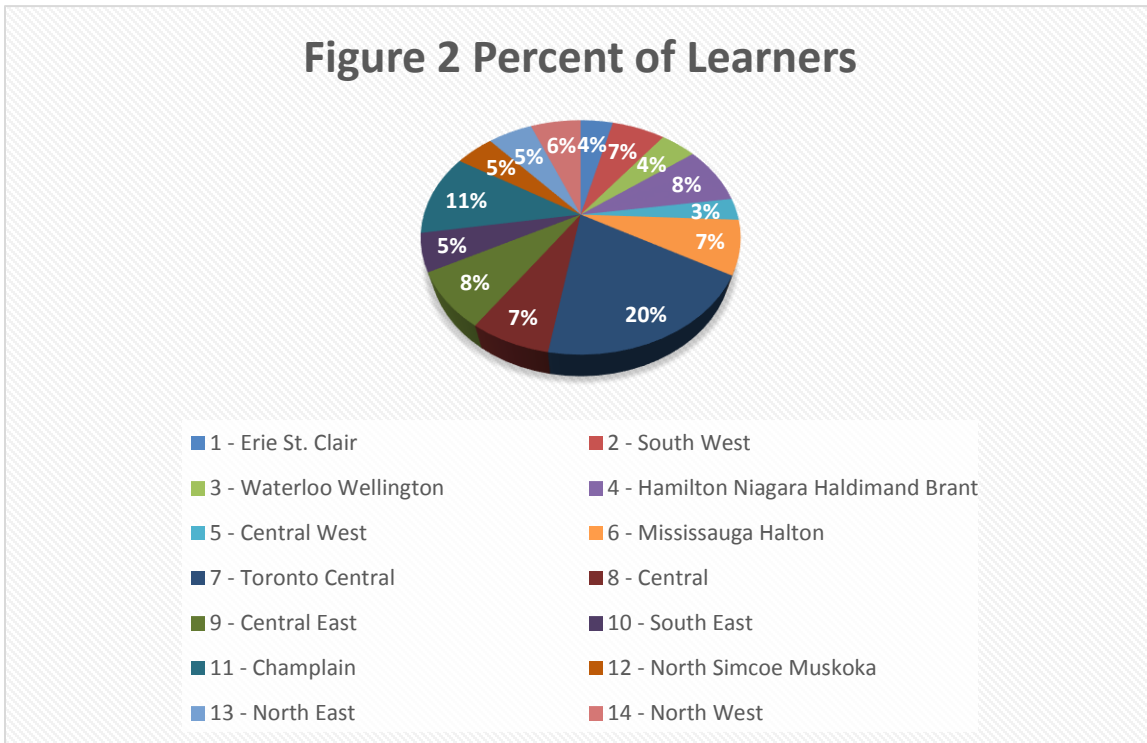
9. Knowledge improvement across course topics

Knowledge and confidence levels are measured in each de Souza course, by self-report and through the use of an exit exam. On average, knowledge and confidence levels improved by more than 40% post course compared with baseline across all offerings. The changes are statistically significant across content areas covered by the courses. For example, data for the Standardized Chemotherapy and Biotherapy course, with 377 participants since April 2016, is provided below (Figure 1)



10. Clinicians who received de Souza offerings from each LHIN

As indicated in Figures 2 and 3, the participants in de Souza courses come from all LHINs



11. Enrollment and uptake of e-Portfolio

The ePortfolio application tracks participants' registration and their completion status. Data includes time of registration, course selection, course start time, course completion time, grades, as well as participant demographics, such as described in Table 1 (work setting) and Table 2 (professional training).

A total of 2,715 enrollments were recorded in de Souza Institute's ePortfolio between April 1st, 2016 and March 31st, 2017. A screen shot of ePortfolio reporting is provided in figure 4

Figure 4 ePortfolio <https://portfolio.desouzainstitute.com>

de Souza
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All Courses ▾ Requests ▾ People ▾ Payments ▾ Reports ▾ Statistics ▾ Emails

My Account / Enrollments By Course

Enrollments By Course

This page shows enrollment numbers by course code and will contain non-unique enrollments. Enrollments twice within the dates you search for will be counted twice.

In addition to your own search criteria, the query is restricted to the following criteria:

- published courses only
- Student and Educator roles only
- confirmed enrollments only
- regardless of course completion outcome (Pass, Fail, Incomplete, Audited)

Course Start Date (from)

Course Start Date (to)

LHIN

Province/State

Country

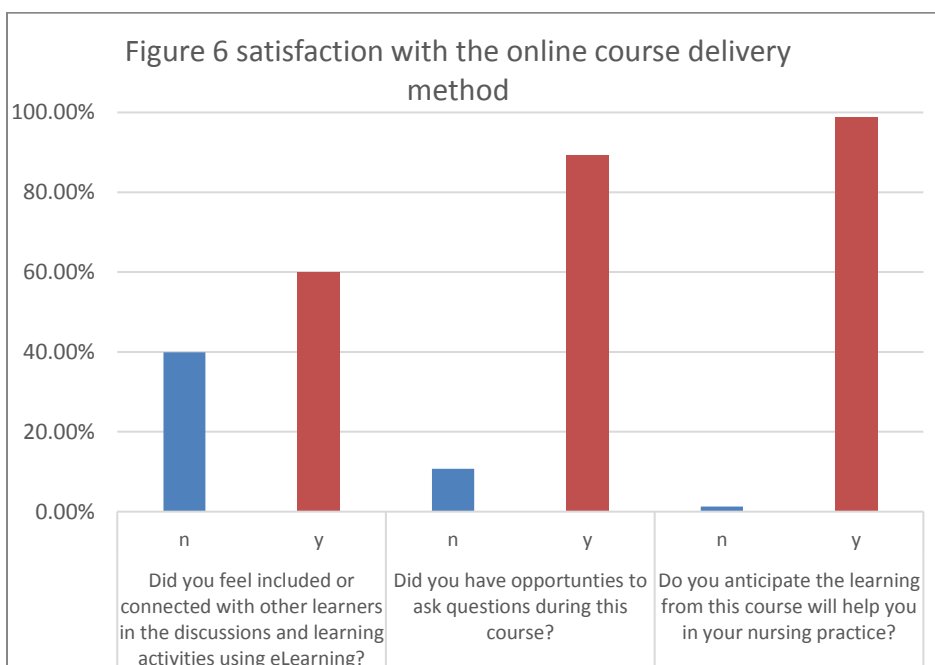
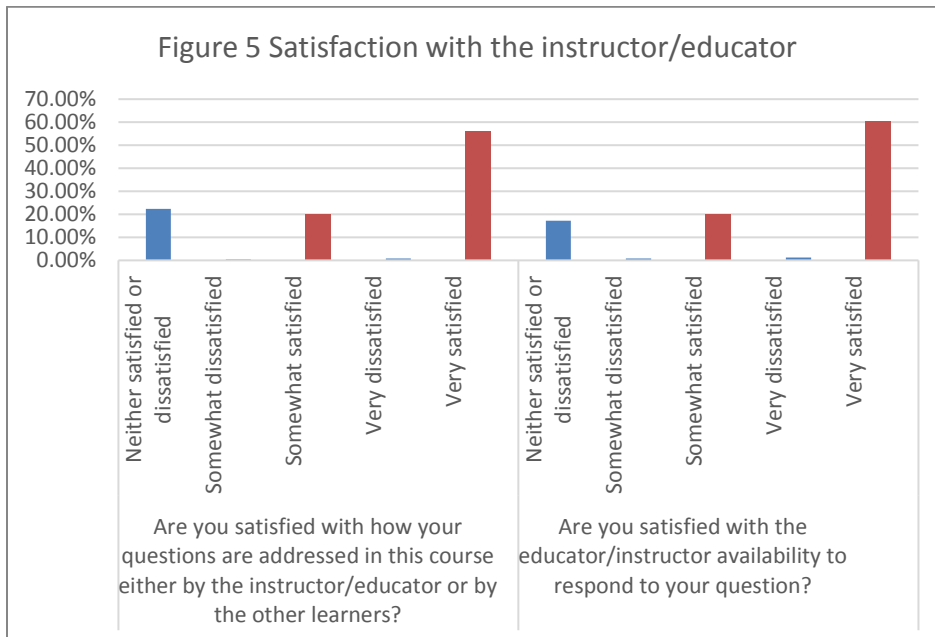
Course Short Name

List companies separated by comma

To search for UHN, type: UHN, uhn.ca, University Health Network, TGH, Toronto General Hospital, PMH, Princess Margaret Hospital, Toronto Western or any other keyword that applies to the organization you are looking for.

12. Satisfaction level of learning experience and outcomes using e-Portfolio;

Satisfaction levels are high across courses, with three quarters of participants reporting a level of satisfaction as “somewhat satisfied” or “very satisfied”. Figures 5 and 6 provide examples of typical patterns of satisfaction reports for a course offering.



13. Website users and social media postings

In this fiscal year, a total of 107,449 visits were recorded to the website, representing 52,279 users/visitors. The de Souza Institute Facebook page had 593 likes and the Twitter account had 1,568 followers and 3,758 likes.

14. Progress, status and planned completion date of website and eLearning platform improvements

We have made the following improvements to our website and eLearning platform in 2016:

- A new website was launched in July 2016
- eLearning platform went through a major system upgrade in July 2016
- Improvements were made to the ePortfolio system throughout the entire period, including:
 - Automated partner special pricing (i.e., CNA member integration),
 - Continuous account creation and enrollment flow for new users
 - Integration and automation of administrative tasks such as group creation and grading between ePortfolio and elearning platform
 - Early bird pricing mechanism
 - Improvements to course calendar search
 - Conversion tracking and review account mechanisms to help guide marketing and sales efforts
- Platform security enhancements, auditing and encryption standards – January 2017

15. Progress, status and planned completion dates for the development of two interdisciplinary courses

Two new courses were developed in this fiscal year.

- **Interprofessional Education in Palliative and End of life Care – Oncology (iEPEC-O)** was completed and launched on January 23, 2017. This online course was led by an oncologist, a certified palliative care nurse and a social worker, who are leaders in the field of palliative care. Development for the course was based upon the established and internationally known curriculum in palliative and end-of-life care topics, and included core competencies in symptom management, ethical issues, communication skills, and psychosocial care in palliative care. The modules are adapted from EPEC™-O Canada materials and the original EPEC™-O course funded by the National Cancer Institute in USA. In addition, content from “The Way Forward” report¹ on person centred approaches was incorporated throughout the course. The course enhances learning outcomes by leveraging powerful online graphic illustrations, interactive activities and audio-visual demonstrations of core palliative care competencies. A total of 34 health care

¹ CHPCA, The Way Forward – A Road Map for an Integrated Palliative Approach to Care, 2015
<http://www.hpcintegration.ca/>

providers have been enrolled in the course since February 2017. Being entirely delivered online, iEPEC-O will provide a cost-effective method for any health professional who requires palliative care education. We are currently meeting with a variety of stakeholders and providing workshops at conferences to showcase the course and its content. We will continue to implement strategies to encourage broad uptake and dissemination of this course at provincial and national levels.

- The second interdisciplinary course, **Cancer Care Basics (CANB)**, has completed its development and the pilot offering involved 24 participants in spring 2017. Cancer Care Basics provides a comprehensive review of cancer and cancer care. It includes cancer etiology, signs and symptoms, treatment options and follow-up care. The content is tailored to the needs of interdisciplinary clinicians who look after cancer patients (e.g. any health professional) in general hospitals and in the community. The course will also be useful for allied health professionals providing cancer care in cancer centres or to family doctors to enhance their knowledge of oncology, treatments and impacts. The CANB course is now open for registration of “early bird” learners.

16. Progress, status and planned completion date of patient portal

de Souza Institute provides patient and family support through the Cancer Chat Canada (Cancer Chat) program. Cancer Chat provides professional-led online support groups at no cost for Canadians affected by cancer, including patients, survivors and family members. Cancer Chat online support groups are suitable for those who are unable to attend a professionally led face-to-face support group because they live in a rural area or due to a busy schedule of medical appointments or caregiving duties. The benefit of an online format is that participants (e.g. patients or their caregivers) can feel receive support and information within the comfort of their own home.

Cancer Chat online support groups are led by health care professionals with expertise in cancer care and group therapy and are structured to provide emotional support and a place to safely discuss personal topics. All sessions are typed (text-based; no voice/audio) and take place in real time, with all participants logging in at the same time to take part in the discussion. Groups meet once a week for 90 minutes, for about 10 weeks, in a live "chat" room on the Internet. Each participant is screened for psychological distress and monitored during their participation. Various types of groups are offered, ranging from coping-related groups (e.g. those in active treatment), to groups focused on managing a survivorship issue (e.g. fatigue) or those supporting caregivers who must navigate the health system while providing support to a loved one.

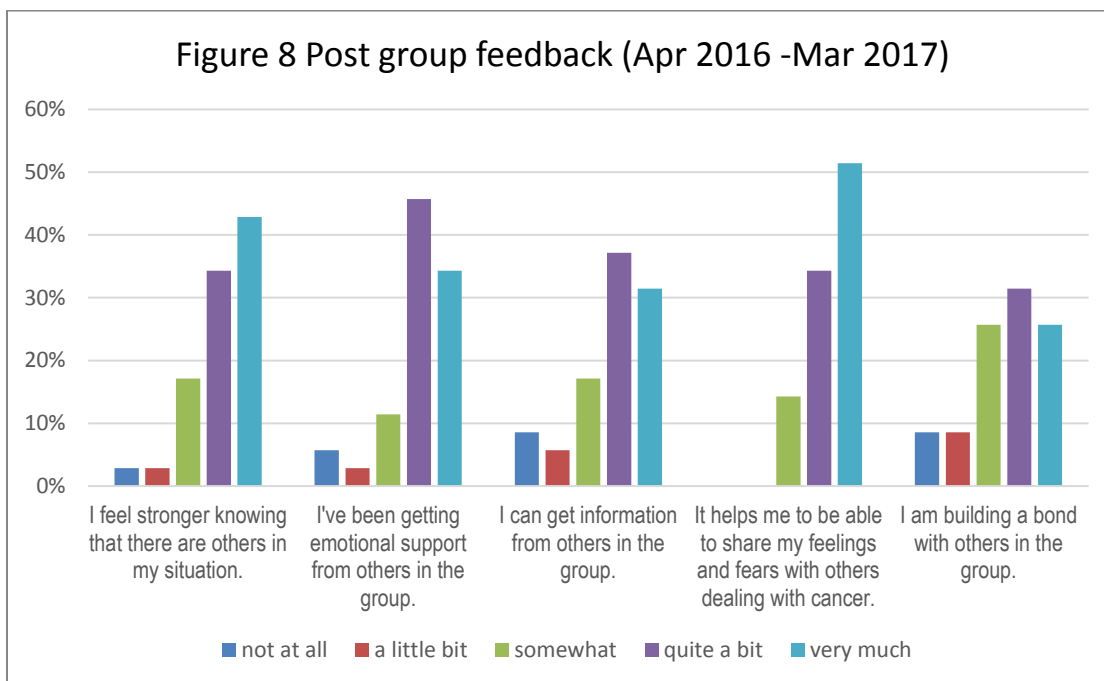
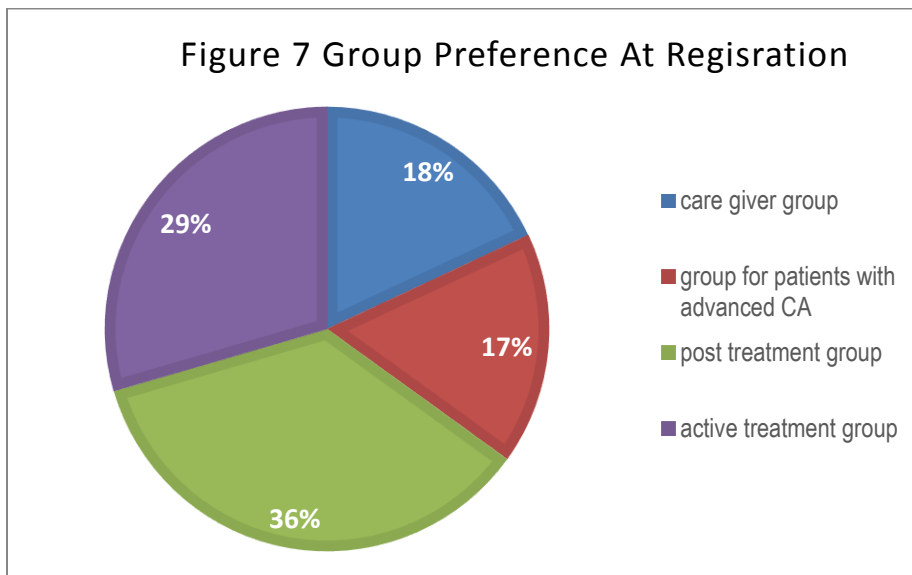
The program was originally developed and hosted by BC Cancer Agency (BCCA) and funded by CPAC. The program was transitioned to de Souza Institute at University Health Network in 2016, with transition funding through support provided by the Canadian Partnership against Cancer (CPAC). de Souza Institute’s mission includes the goal to improve cancer care. Cancer Chat Canada addresses a gap in current health care services, particularly with the reduction of psychosocial services across Cancer Centres, and with the lack of opportunities for patients living in remote or isolated areas outside large urban centres to secure follow up psychological care following their cancer treatments.

17. Online support groups via the patient portal and number and description of users on the patient portal

Since March 2016, de Souza Institute has offered an additional 20 support groups to patients and families who have benefited from Cancer Chat. The statistics include:

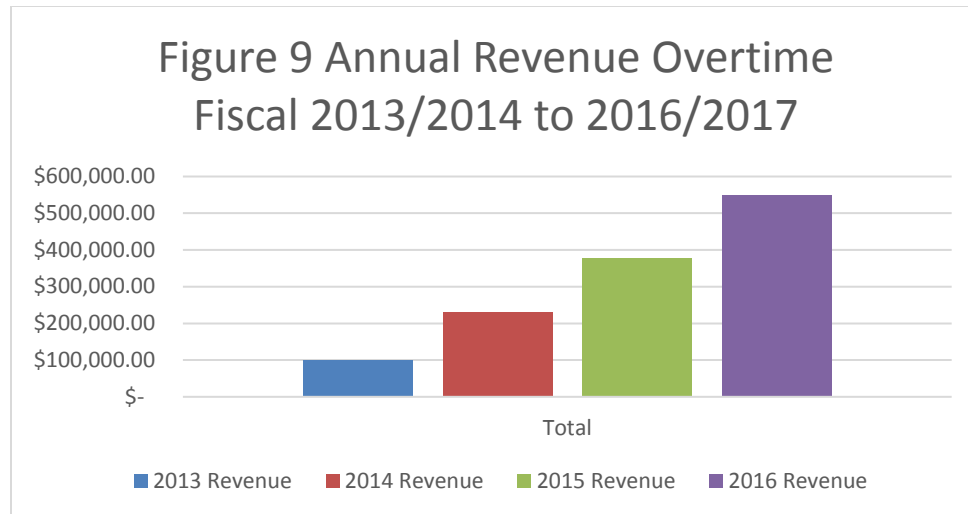
- 653 Patients/family members registered on CCC site
- 263 Patients/family members requested enrollment in groups

Feedback from patients and families on the effectiveness of Cancer Chat support groups (Figure 7, 8)



18. Revenue generated per student; and revenue generated for each course

A total of \$538,879.50 was generated from course fees in the fiscal year, with 73 course offerings, averaging \$7,381 per course, or \$198 per enrollment. This represents a 46% increase in course revenue when compared to the same time-period in fiscal 2015/16 (figure 9).



Conclusion

This annual report highlights de Souza's achievements in fiscal 2016/17. Despite funding reduction, the institute achieved all of its deliverables as listed in the ministry's funding letter. *In fact, the de Souza Institute surpassed its revenue generation targets despite a reduction in its team composition and an environment of increased hospital funding constraints.* Success strategies likely contributing to the outcomes achieved include:

- the fostering of strong relationships with the institute's existing partners and stakeholders;
- the development of new partners with other provinces;
- exploration of new business opportunities from disease associations and grants;
- the continued and urgent need for safe quality control in cancer and palliative care
- de Souza Institute's brand recognition for up to date curriculum with high quality and efficiency in delivery.

The institute is well- on target to become a 100% self-sustaining innovative educational program by 2018/19. It is clear that de Souza Institute has become a credible, widely known, dependable training centre for clinically relevant, easily accessible, and interprofessional professional development for oncology or palliative care.

We will continue to collect information on the needs for educational support from frontline providers, patients and families and from decision makers, in order to inform continued development of the de Souza Institute curriculum. We anticipate only future growth, as standardized approaches to professional development are imperative in order to support a standardized, high performing cancer care system in Ontario and across Canada.