

THE GAP ANALYSIS PROJECT

Building a Better Model to Support
Internationally Educated Health Professionals
to become Respiratory Therapists in Ontario



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COLLEGE OF RESPIRATORY THERAPISTS OF ONTARIO

ORDRE DES THÉRAPEUTES RESPIRATOIRES DE L'ONTARIO

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Contents

Contents	3
Executive Summary	5
Project Partnership	8
Purpose of the Gap Analysis Project	8
Methodology	9
Background	10
The Respiratory Therapy Profession in Ontario	10
The CRTO Prior Learning Assessment Process	13
Review of PLA Applicant Files and Assessments	14
An Overview of Applicants Eligible for PLA	16
Eligible Applicants Who Completed Some Prior Learning Assessment (PLA)	20
Analysis of PLA Assessments	24
Self-assessments	24
Stage 1: Interview and Feedback	28
Stage 2 Didactic Assessments	31
Stage 3: Clinical Assessment	34
Survey of CRTO PLA Clinical Assessors	35
Survey of CRTO PLA Candidates	39
Michener Institute Pilot RT Bridging Program	42
Interviews with Bridging Program Participants	44
RT Education Models for IEHPs in other Canadian Provinces	47
Collège Rosemont (Quebec) RT Bridging Program	47
Thompson Rivers University (British Columbia) Fast Track Program	49
Northern Alberta Institute of Technology (Alberta)	50
Some Context Issues	51
Recent CRTO Research	51
National Alliance of Respiratory Therapy Regulatory Bodies	51
The Colleges Integrating Immigrants to Employment (CIITE)	52
Developments and Issues in Respiratory Therapy Education in Ontario	53
Considerations Regarding an Appropriate Education Model	55
Appropriate Context for Bridging Programs	57
Model Options	60
Further Elaboration of a Supported Integration Model	63
Conclusions	68
Gap Analysis Project Recommendations	69
Next Steps	70

Appendices 71

1. Partners Group Members
2. Additional Education Completed by CRTO Applicants 1999 – 2008
3. PLA Self-assessment Form
4. Gap Assessment Charts
5. Survey of Clinical Assessors
6. Survey of PLA Candidates
7. Michener RT Bridging Program 2008-2009
8. CIITE Respiratory Therapy Competency Assessment Pilot Process
9. Guidelines for the Supported Integration of Internationally Educated Health Professionals to Ontario Respiratory Therapy Programs

Executive Summary

The Gap Analysis Project (GAP) was undertaken in order to better understand why internationally educated applicants to the College of Respiratory Therapists of Ontario (CRTO) were struggling with the College's prior learning assessment (PLA) process and so few were successfully becoming registered as respiratory therapists in Ontario.

The original assumption regarding the GAP was that the analysis of the CRTO PLA process and assessments would identify learning gaps that could then be filled through the development of a respiratory therapy bridging program. It was assumed that eligibility criteria for entry into such a program would be determined, that a respiratory therapy (RT) bridging program would likely use available curricula from Ontario RT programs, supplemented by additional curricula if required, and that an RT bridging program could be delivered by one or more schools in Ontario.

The research undertaken as part of the GAP included a detailed analysis of the profile of PLA candidates and the PLA process, assessment and outcomes over a 10-year period. Application data indicated that the CRTO received only about 20 applications from internationally educated health professionals per year. Approximately half of all CRTO applicants were not internationally educated respiratory therapists, but had originally been educated in other health professions, primarily as doctors. These applicants were therefore seeking to transition to a new profession in a new country through the PLA process.

While there were a number of useful findings regarding the CRTO PLA, the most significant was that only eight internationally educated applicants had become registered as RTs through this process during the period studied.

The PLA assessments revealed that majority of PLA candidates had gaps in core, foundation areas of respiratory theory and practice, including:

- Ventilation Management
- Airway Management
- General Therapeutics
- Cardiac Diagnostic Testing
- Pulmonary Diagnostic Testing
- Pharmacology
- Anaesthesia Assistance
- Hemodynamic Monitoring
- Blood Analysis
- Patient/Client Assessment

A great deal of additional information was also gathered from educators, clinical assessors, internationally educated CRTO applicants and bridging and respiratory education programs. There was little support for continuing the CRTO PLA process as it had been delivered. In addition to not providing a successful pathway for many applicants, it was felt that the process was lengthy, expensive and the outcomes were uncertain. Evidence from the CIITE¹ competency assessment project and the Michener Institute's pilot respiratory therapy bridging initiative, along with other feasibility considerations, strongly suggested that the development of a parallel RT bridging program was also not a suitable or viable option.

The Partners Group considered three potential educational model options and the appropriate context for each. The options were:

1. Separate Respiratory Therapy Bridging Program for IEHPs
2. Supported Integration into Full-time Respiratory Therapy Program
3. Regular Entry into Full-time Respiratory Therapy Program

It was concluded that the best educational model option for the majority of internationally educated CRTO applicants would be the development of a supported integration model (SIP) to assist eligible applicants to gain credit and advanced standing for previous academic study and to integrate into existing full-time respiratory therapy diploma programs.

It was felt that such a model could respond to the individual learning needs of applicants, which are significant. It could also be available at any participating school in Ontario and would allow learners to access Ontario financial aid support while completing their respiratory therapy education. This model is appropriate for the very small number and diverse educational backgrounds of internationally educated applicants to the CRTO each year. This model also provides a clear pathway and end date, with the outcome of an Ontario college diploma.

Given such a small applicant pool, it was felt that the CRTO and schools could work together to integrate eligible individuals into existing RT programs with a minimum of additional resources required.

However, in order to fully support internationally educated applicants to enter the respiratory therapy profession, a Supported Integration Process should ideally include the development of the following supports to “smooth the path” and enhance student success:

¹ Colleges Integrating Immigrants to Employment.

- Support 1:** Facilitated entry to an Ontario RT Program (through CRTO letter of direction²)
- Support 2:** A formal RT Program Orientation*
- Support 3:** Recognition of Prior Learning (through schools' existing academic policies)
- Support 4:** Mentorship*
- Support 5:** Group Support*

The final recommendations of the Gap Analysis Project are as indicated below.

GAP ANALYSIS PROJECT RECOMMENDATIONS:

- 1. Discontinue the CRTO Prior Learning Assessment process.**
- 2. Negotiate and sign Memoranda of Understanding with schools interested in partnering with the CRTO to provide a supported integration process (SIP) so that eligible IEHPs may integrate into full-time respiratory therapy programs.**
- 3. Revise and refine assessment processes as needed to enable CRTO Registration Committee to determine appropriate direction for IERT/IEHP applicants, as per the new model.**
- 4. Establish a multi-stakeholder IEHP Working Group, led by the CRTO, of educators, employers, CIITE and at least one internationally-educated CRTO member to provide advice and collaborate with the CRTO on the SIP model and the development of additional supports.**
- 5. Seek additional funding resources to develop supports as part of the supported integration process. These would include:**
 - The development of a Respiratory Therapy Program Orientation;
 - Additional tools to assist schools in assessing applicant's prior learning;
 - An IEHP mentorship program; and
 - Group supports for IEHPs.
- 6. Share GAP research findings with the National Alliance of Respiratory Therapy Regulatory Bodies (NARTRB) and continue collaboration in NARTRB initiatives in order to share resources and enhance harmonization of IEHP access processes across Canadian jurisdictions.**

² Rather than applying through the Ontario College Application Service (OCAS).

* The development of these supports would require a significant allocation of time and additional financial resources.

Project Partnership

In 2008 the CRTO felt that there was a need to evaluate the effectiveness of its prior learning assessment (PLA) process. In response to some difficulties that had been identified, CRTO determined that a research project was required to better identify the learning needs and challenges experienced by internationally educated health professions (IEHPs) and suggest an improved model to meet these needs. The Gap Analysis Project (GAP) research proposal was developed by the College in collaboration with a number of partners and submitted to the Labour Market Integration Unit (LMIU) of the Ontario Ministry of Citizenship and Immigration (MCI) for funding. The proposal received Ontario government funding and the GAP began in summer 2009.

The Gap Analysis Project was led by the College of Respiratory Therapists of Ontario (CRTO) and guided and informed through a partnership between a number of key organizations that have been involved in the CRTO prior learning assessment process, other competency assessment initiatives and/or the integration of internationally educated candidates into respiratory therapy education programs. These partners were: Algonquin College, La Cité Collégiale, Colleges Integrating Immigrants to Employment (CIITE), Fanshawe College and the Michener Institute for Applied Health Sciences. The contribution of the partners was essential to the successful completion of this project as they provided data, program and policy information, and the essential input and guidance needed to develop the new proposed model. The list of Partners Group members is included as Appendix 1.

Purpose of the Gap Analysis Project

The Gap Analysis Project (GAP) was undertaken in order to:

- Identify the learning needs of internationally educated Respiratory Therapists (IERTs) and other health professionals seeking registration as respiratory therapists in Ontario;
- Determine eligibility criteria for entry into a PLA and/or bridging program;
- Develop the framework of an appropriate respiratory therapy education program for IERTs/IEHPs which can be delivered in a fair, feasible, efficient and accessible manner.

Methodology

During the course of the Gap Analysis Project, the project manager acted as the principal researcher and collected relevant data and information for the analysis through a number of methods and sources. These included:

- Consultations with all project partners to guide the work;
- Review of the CROTO PLA policies and process 1999-2009;
- File review of all PLA candidate files 1999-2008;
- Review and analysis of all available PLA Self-, Stage 1 and Stage 2 assessments (1999-2008);
- Review of PLA outcomes;
- Interviews with staff of the Michener Institute for Applied Health Sciences;
- Electronic survey of PLA Stage 3 clinical assessors;
- Interviews with PLA Stage 3 clinical assessors;
- Electronic survey of PLA candidates;
- Interviews with Michener pilot RT bridging program participants;
- Review of the Colleges Integrating Immigrants to Employment (CIITE) Project Outcomes;
- Review of curriculum information from Ontario full-time respiratory therapy programs;
- Review of academic policies of Ontario full-time respiratory therapy programs; and
- Review of program information from selected respiratory therapy programs in other Canadian jurisdictions.

School	Location	Institution funded by:
Algonquin College	Ottawa	Ministry of Training, Colleges and Universities (MTCU)
Canadore College	North Bay	MTCU
La Cité Collégiale	Ottawa	MTCU
Conestoga College	Kitchener	MTCU
Fanshawe College	London	MTCU
Michener Institute for Applied Health Sciences	Toronto	Ministry of Health and Long-term Care (MoHLTC)

Respiratory Therapy is a profession that requires a great deal of clinical education and this is delivered both through simulation laboratory experiences at schools, but also through clinical practice placements of several months duration offered in conjunction with teaching and community hospitals and other health care organizations. Due to high demands on teaching hospitals and other factors such as funding models, schools have reported some difficulties in finding clinical placements for students in respiratory therapy programs.

While all accredited RT programs in Canada prepare students to develop the RT entry-to-practice competencies, a review of Ontario RT programs revealed that the program curricula are organized and delivered quite differently from school to school. Programs take between 6 – 8 semesters to complete, subjects are introduced during different semesters in the program and programs may differ slightly in their emphases and their use of clinical simulation.

An overview of academic policies was undertaken as part of the GAP research. This revealed that all schools delivering respiratory therapy education in Ontario have policies that allow them to recognize prior learning in some way, whether through credit transfer, course exemptions, advanced standing or college-specific PLA processes that may involve assessments such as a challenge examination. In addition, schools have requirements regarding how much of a program must be completed at their institution to enable students to graduate with their diploma. The requirements regarding this vary by school, with no school requiring more than 50% of a program⁴ be completed at their institution.

⁴There are a number of conditions regarding this, and learners would have to be eligible to transfer a sufficient proportion of the program to meet the school's requirements.

As can be seen from the table below, respiratory therapy is a health profession with a relatively small number of members in Ontario⁵. In 2009 the CRTO had just fewer than 2,500 active members and in the last few years the number of IEHP applicants has averaged about 20 per year.

CRTC Membership & Application Statistics 2004 – 2009			
Year	Total Active Membership	# of Canadian educated applicants	# of internationally educated applicants
2004	2,010	144	22
2005	2,113	150	19
2006	2,200	136	22
2007	2,295	151	17
2008	2,336	193	22
2009	2,425	190	18

The scale of the profession has particular relevance for how access initiatives for IEHP applicants to the profession may be developed. The number of IEHP applicants is quite few. The importance of clinical education and the limited number registered respiratory therapists in the province mean that finding clinical placements and staff to supervise students in these placements is already an on-going challenge for the full-time RT programs and has been especially difficult for PLA purposes.

In 2008-2009 the National Alliance of Respiratory Therapy Regulatory Bodies undertook a project, funded by the Government of Canada's Foreign Credential Recognition Program that resulted in an overview of the RT profession and the challenges faced by internationally educated applicants seeking to become respiratory therapists in regulated Canadian jurisdictions⁶. This research project revealed that RT regulators across Canada face similar challenges to the CRTC in assessing and registering IEHP applicants.

⁵ In contrast, the College of Nurses of Ontario had 145,853 members in 2009. In 2008, the College of Occupational Therapists of Ontario had 4,437 members, the College of Physiotherapists had 6,880 members and the College of Medical Radiation Therapists had 6,570 members. This information is available on their respective websites.

⁶ National Alliance of Respiratory Therapy Regulatory Bodies (NARTRB), 2008, *Access Issues Regarding Internationally Educated Health Professionals and the Respiratory Therapy Profession in Canada* can be found at: <http://www.nartrb.ca/eng/documents/NAReportEnglishFinalApril4.pdf>.

The CRTO Prior Learning Assessment Process

CRTO's experience with credential assessment of international RT programs revealed that most of the education programs completed by internationally-educated applicants were not equivalent to Ontario RT programs. This may be because the program completed is not at the same level (equivalent to a three-year community college diploma) or because the content of the program is not equivalent to an Ontario RT program. In addition, rather uniquely, about half of internationally educated applicants to the CRTO are not graduates of respiratory therapy programs at all, but hold degrees related to Medicine, some with an Anaesthesia specialty. These applicants are therefore attempting to move into a completely new profession as RTs, making credential assessment especially difficult.

The CRTO PLA process was developed and first made available to internationally educated applicants in July 1999. The PLA process was developed in response to the challenges experienced by CRTO staff and Registration Committee in assessing equivalency of programs "on paper" and an effort to assess and acknowledge the significance of applicant's skills and work experience.

The PLA was designed to measure applicants' qualifications, education and experience against the competencies required for entry into the RT profession. The PLA process has been offered in association with the Michener Institute for Applied Health Sciences in Toronto and Algonquin College in Ottawa. Almost all of the PLA assessments were completed at the Michener Institute, with a handful of assessments undertaken at Algonquin College.

The fees and the tools associated with the PLA have been modified since 1999, but the process has consistently included theoretical, didactic and clinical skills assessment components. In an effort to improve the process, the CRTO Registration Committee also approved some changes to the PLA policy in 2002, 2003, 2006 and 2007. These included significant changes in 2003 to add a required tour of an RT department (later discontinued) and add an interview and feedback stage.

The PLA process was as follows:

If the Registration Committee was not able to determine, through credential assessment and/or a review of the program, that the educational program was equivalent to an approved Canadian RT program the applicant would not be eligible for registration with CRTO. However he/she could be referred to undergo the PLA process or consider enrolling in one of the approved RT programs.

From 2003 until intake ceased in 2009 the PLA process has consisted of having the applicant complete the self-assessment and then proceed to the following stages:

- Stage 1: Interview and Feedback
- Stage 2: Didactic Assessment
- Stage 3: Clinical Assessment

Once the candidate had demonstrated equivalency through PLA (and met all other registration requirements) but prior to completing the approved examination⁷, the applicant could be granted a Graduate Certificate of Registration, until he/she had fulfilled the examination requirement and was granted full CRTO membership.

Over the years, a few issues became apparent. While the purpose of the PLA process was to assess competencies acquired through prior learning, many CRTO applicants were either educated to take on RT technician roles or not educated as RTs at all. Therefore, the learning needs then identified were usually great and could not be met by the few courses available through the partner educational institutions or through self-study. Applicants also had difficulty moving through all of the PLA stages within the 18-month time-frame typically requested more time to complete the process and were still ultimately unsuccessful.

The PLA process has proven to be a successful pathway for only a very small number of IERTs and IEHPs to achieve RT registration in Ontario. Only eight applicants during the 10-year period considered have successfully completed all stages of the process and become registered RTs; the large majority were unsuccessful or did not complete the process.

Review of PLA Applicant Files and Assessments

Throughout autumn 2009 the Project Manager reviewed the CRTO applicant files from 1999 – 2008 to identify all internationally educated applicants deemed eligible to attempt the CRTO prior learning assessment (PLA) process during that period. Applications received and assessments completed by the end of 2008 were included in the analysis. There were a number of PLA candidates in process in 2009-2010 as the Gap Analysis project was being undertaken, but as capturing these during the course of the project would have been a “moving target” it was determined that this data capture should include only the 1999-2008 time period.

⁷ Currently the Canadian Board for Respiratory Care (CBRC) national exam.

In all, as can be observed in the following section, 140 files of candidates deemed eligible for PLA were identified. Under the CRTO policy⁸ in place until very recently, virtually all internationally educated applicants, other than those who were U.S.-educated, were eligible and provided the option of attempting the PLA process.

Prior to June 2008, the CRTO considered U.S. RT programs equivalent to Canadian approved RT Programs if they were accredited by the U.S. Committee on Accreditation for Respiratory Care (CoARC) and were at the advanced or 200 level. Therefore, prior to this time, U.S. educated applicants were not normally directed to complete PLA unless their program did not meet these criteria. However, concerns related to inconsistencies in the content of some U.S. programs and their equivalency to approved RT programs in Canada, coupled with evidence of low exam pass rates on the CBRC exam, led CRTO Council to revise this policy.

Since June 2008 all U.S. RT programs have been reviewed for equivalency in the same manner as other international RT programs, through a program review tool developed by the CRTO. Applicants whose programs were not deemed equivalent were then referred to the PLA process. The issue of U.S. graduates is slightly complicated as there are many and a variety of U.S. respiratory therapy programs. Depending on the program they completed, the education completed by U.S. graduates may be equivalent or at least very similar to an Ontario program.

While the general consensus of the project partners is that graduates of U.S. respiratory therapy programs that are not equivalent may have only small, specific educational gaps, there have been insufficient numbers of U.S. programs assessed since 2008 to reach this conclusion. However, any model developed should include some consideration of how any IERT applicants with only such education gaps should be handled in future.

⁸ The most recent policy and procedure stated that applicants who had education and experience in respiratory therapy or a related field would be referred to the PLA process.

An Overview of Applicants Eligible for PLA

The review of the CRTO PLA files revealed that 140 applicants were deemed eligible to attempt PLA between 1999 and 2008. It is interesting to note that of the applicants to CRTO during this time, almost half were internationally educated health professionals (IEHPs) not educated as respiratory therapists. It is quite unusual for a health regulatory college to receive and process so many applications from health professions other than the one they regulate. This presents a uniquely challenging issue for CRTO, as these applicants are not seeking registration in the profession for which they were educated, but seeking to transition to a new and different health profession in a new country.

The educational profile of CRTO applicants and the countries where they completed their education are indicated in the following tables. As can be noted, almost half of all applicants were RTs, with the remainder predominantly physicians. While applicants were educated in many countries, over 65% were educated in the Philippines, India or China.

Education Background of all PLA-eligible Applicants: 1999 - 2008		
Education program completed	#	% of total
Respiratory Therapy	74	(53%)
<i>Non - Respiratory Therapy</i>	66	<i>(47%)</i>
Break-down of non-RT programs:		
<ul style="list-style-type: none"> Medicine (no respiratory therapy or anaesthesia speciality) 	34	
<ul style="list-style-type: none"> Medicine (Respiratory/anaesthesia specialty) 	24	
<ul style="list-style-type: none"> Other (Anaesthesia technician) 	4	
<ul style="list-style-type: none"> Other (Medical technician in anaesthesia) 	1	
<ul style="list-style-type: none"> Other (Medical technician) 	1	
<ul style="list-style-type: none"> Other 	2	
Total	140	100%

Country Where Education Completed all PLA-eligible Applicants: 1999 - 2008		
Country	#	% of total
Philippines	58	41.4
India	18	12.9
China	16	11.4
United States	9	6.4
Colombia	5	3.6
Bangladesh	5	3.6
Iran	4	2.9
Turkey	2	1.4
Albania	2	1.4
Pakistan	2	1.4
Russia	2	1.4
Ukraine	2	1.4
Yugoslavia	2	1.4
Taiwan	2	1.4
Belarus/Japan	1	0.7
Sri Lanka	1	0.7
Ecuador	1	0.7
Canada (Quebec)	1	0.7
Romania	1	0.7
Afghanistan	1	0.7
Syria	1	0.7
Lebanon	1	0.7
Brazil	1	0.7
Haiti	1	0.7
Egypt	1	0.7
Total	140	100.0

When the country and the types of education completed are grouped together, it becomes quite obvious that RT applicants are overwhelmingly educated in the Philippines, and that the few other RT applicants were educated in only a few countries: India, the United States, Colombia, Taiwan and Ecuador. The physician and other IEHP applicants were educated in a broad variety of countries, with a sizable grouping of these having completed education in India and China.

Country Where Education Completed, Grouped by Country all PLA-eligible Applicants: 1999 - 2008				
Country	RT	MD with RT or Anaesthesia specialty	MD with no RT or Anaesthesia specialty	Total
Philippines	55	1	2	58
India	4	9	5	18
China	0	2	14	16
United States	9	0	0	9
Bangladesh	0	1	4	5
Colombia	4	0	1	5
Iran	0	1	3	4
Yugoslavia	0	0	2	2
Pakistan	0	1	1	2
Russia	0	1	1	2
Taiwan	1	0	1	2
Turkey	0	1	1	2
Albania	0	2	0	2
Ukraine	0	2	0	2
Afghanistan	0	0	1	1
Brazil	0	0	1	1
Canada (Quebec)	0	0	1	1
Egypt	0	0	1	1
Lebanon	0	0	1	1
Romania	0	0	1	1
Syria	0	0	1	1
Belarus/Japan	0	1	0	1
Ecuador	1	0	0	1
Haiti	0	1	0	1
Sri Lanka	0	1	0	1
Total	74	24	42	140

It is significant to note that RT-educated applicants in the sample had completed their respiratory therapy education in only five countries. In all, IERT applicants completed their RT education in one of only 15 schools world-wide (6 schools in the Philippines; five schools in the U.S.; two schools in India and one school in each of Columbia and Ecuador).

Programs Completed by International Educated Respiratory Therapy (IERT) Applicants		
Country	Type of Program ⁹	School
Philippines	Diploma or Bachelor's Degree (RT)	Emilio Aguinaldo College
Philippines	Bachelor's Degree (RT)	University of Perpetual Help
Philippines	Associate or Bachelor's Degree (RT)	St. Jude College
Philippines	Bachelor's Degree (RT)	De La Salle University
Philippines	Bachelor's Degree (RT)	Pines City Educational Center
Philippines	Certificate or Diploma (RT)	Mary Chiles College
USA	Associate Degree (RT)	ATI Health Education Centers
USA	Associate Degree (RT)	San Joaquin Valley College
USA	Associate Degree (RT)	College of DuPage
USA	Associate Degree (RT)	Bergen Community College
USA	Associate Degree (RT)	California College
India	Bachelor's Degree (Allied Health Sciences – Respiratory Care Technology)	Sri Ramachandra Medical College
India	Bachelor of Respiratory Therapy	Manipal College of Allied Health Sciences
Columbia	Bachelor's Degree (RT)	University Foundation Andean Area
Ecuador	Bachelor of Science	University of Cuenca

⁹ Education programs differ between countries and a Bachelor's degree from another country may not be assessed as equivalent to an Ontario undergraduate degree. In the Philippines, for example, the entry requirement for university programs is the completion of a high school diploma (*Katibayan*) which consists of ten years of elementary and secondary education. In considering this entry level, credential evaluation may indicate that such a program is equivalent to completion of an Ontario secondary school education and a two-year college diploma.

Eligible Applicants Who Completed Some Prior Learning Assessment (PLA)

Of the 140 applicants deemed eligible for PLA, 80 of them (57%) began the process and completed at least the Self-assessment. As can be observed, at each stage fewer applicants progressed to the next stage. There may have been many reasons for this, such as lack of time to take courses and study, a realistic assessment of how challenging the process would be, family or work commitments, lack of financial resources, realizing that their likelihood of success was limited etc. While applicants may have been recommended by assessors to not continue on in PLA at Stage 1, the only conditions under which they could be ineligible to continue PLA would be if they failed the Didactic Assessment twice or were unsuccessful at the Stage 3 Clinical Assessment.

Review of CRTD PLA files 1996 ¹⁰ -2008	
	#
Applicants deemed eligible for PLA	140
Applicants who completed self-assessments ¹¹	80
Applicants who completed Stage 1	69
Applicants who attempted Stage 2	41
Applicants who attempted Stage 3	9
Applicants who are still completing PLA process and/or file still open ¹²	36
Applicants who became registered w/ CRTD	8

Of the 80 PLA candidates who completed at least some of the PLA process, over 40% were Philippine-educated, followed by those who completed their education in India, China, Bangladesh and a number of other countries.

¹⁰ Even though the PLA process began in 1999, some applicants who originally applied prior to 1999 undertook PLA.

¹¹As applicant files were incomplete, these numbers were derived from counting self-assessments in files and number of applicants who completed Stage 1, as these applicants would have been required to complete the self-assessment prior to going through the Stage 1 process.

¹² As of September 25, 2009.

Country where education was completed CRTO PLA Candidates ¹³ : 1999 - 2008		
Country	#	%
Philippines	33	41.3
India	14	17.5
China	8	10.0
Bangladesh	5	6.3
Colombia	4	5.0
United States	3	3.8
Iran	2	2.5
Albania	2	2.5
Ukraine	2	2.5
Belarus/Japan	1	1.3
Romania	1	1.3
Pakistan	1	1.3
Lebanon	1	1.3
Brazil	1	1.3
Turkey	1	1.3
Sri Lanka	1	1.3
Total	80	100.0

As can be seen in the following table, half of the applicants who completed some of the PLA process were RTs, the vast majority of them educated in the Philippines. There were also a handful of RT candidates from India, Colombia and the U.S. who completed some PLA.

The other half of the applicants who completed some PLA were IEHPs (mainly physicians) and had completed their education in one or more of 14 different countries. While 18 of these physicians had completed specialities in respiratory- or anaesthesia-related specialities, the others had not and were generalists, physicians with other specialities or other IEHPs.

¹³ This table refers only to eligible candidates who completed some or all of the PLA process. Many eligible candidates did not attempt PLA.

Education Completed by PLA Candidates – Grouped by Country				
Country	RT	MD with RT or Anaesthesia specialty	MD with no RT specialty + other IEHP	Total
Philippines	30	1	2	33
India	4	7	3	14
China	0	2	6	8
Bangladesh	0	1	4	5
Colombia	3	0	1	4
United States	3	0	0	3
Albania	0	2	0	2
Iran	0	0	2	2
Ukraine	0	2	0	2
Belarus/Japan	0	1	0	1
Brazil	0	0	1	1
Lebanon	0	0	1	1
Pakistan	0	0	1	1
Romania	0	0	1	1
Sri Lanka	0	1	0	1
Turkey	0	1	0	1
Total	40	18	22	80

When the number of successful PLA candidates is looked at, it reveals that only a very small number (eight) had successfully completed all stages of the PLA process and become registered RTs. Of these, the largest group of applicants, RTs from the Philippines, had very limited success.

While not all data was available, the principal researcher was able to collate the available data regarding the courses completed by six of the eight successful candidates (Appendix 2). What is interesting to note is that candidates completed a range of courses in different subject areas, which indicates that their learning needs were quite different.

Profile of 8 Successful PLA Candidates				
Education completed	Number		Country where education completed	Number
Respiratory Therapy (RT):	2		China	2
MD (resp./anaesthesia):	2		India	2
MD (non-RT):	3		Iran	1
Anaesthesia Technician:	1		Philippines	1
			Ukraine	1
			U.S.	1

The following table puts these numbers in the context of all PLA candidates.

PLA Process Result – all PLA Candidates					
Country	# Unsuccessful	% Unsuccessful	# Successful	% Successful	Total
Philippines	32	97.0	1	3.0	100.0
India	12	85.7	2	14.3	100.0
China	6	75.0	2	25.0	100.0
Bangladesh	5	100.0	0	0.0	100.0
Colombia	4	100.0	0	0.0	100.0
United States	2	66.7	1	33.3	100.0
Albania	2	100.0	0	0.0	100.0
Iran	1	50.0	1	50.0	100.0
Ukraine	1	50.0	1	50.0	100.0
Belarus/Japan	1	100.0	0	0.0	100.0
Brazil	1	100.0	0	0.0	100.0
Lebanon	1	100.0	0	0.0	100.0
Pakistan	1	100.0	0	0.0	100.0
Romania	1	100.0	0	0.0	100.0
Sri Lanka	1	100.0	0	0.0	100.0
Turkey	1	100.0	0	0.0	100.0
Total	72	90.0	8	10.0	100.0

Analysis of PLA Assessments

In order to gain a better understanding of the PLA process, the challenges experienced by PLA candidates and the learning gaps identified through the PLA process, the Project Manager gathered, looked at and analyzed all available assessments conducted through the PLA process from 1999 to the end of 2008. This included the Self-assessments and assessments from Stages 1, 2 and 3. These were gathered from the two educational partner organizations (the Michener Institute and Algonquin College) involved in conducting the PLA assessments and from the CRTO applicant files.

It is important to note that not all assessments could be located and that in some cases the total number of PLA applicant files captured in the assessment summaries below is small. The analysis that follows is descriptive in nature and should be interpreted with caution.

Self-assessments

All PLA candidates were required to complete a paper self-assessment prior to completing Stage 1 of the PLA process. This self-assessment was meant to assist candidates in identifying the experience they had had in practising respiratory care/therapy and the degree to which there was overlap in the theoretical and clinical performance elements identified in the CRTO Entry to Practice Competencies document and their experience. The self assessment also served to guide the assessors as they conducted the Stage 1 assessments. Assessors reported that some PLA candidates did not complete the self-assessment prior to attending the Stage 1 Interview and Feedback and therefore completed it with the guidance of the assessor.

Methodology

While the file review indicated that 80 PLA candidates had completed Self-assessments, only 64 completed forms were available for data entry and analysis.

The Self-assessment consists of an eight-page form divided into two sections (see Appendix 3). Section one consists of 60 Yes/No questions that ask about candidates' knowledge of health care and respiratory therapy. This section was analyzed in terms of the percentage of Yes responses.

Section two (i.e. Questions 61 – 127) asks candidates to indicate whether and how frequently (within the past five years) they had performed specific RT-related tasks with three client populations: Neonates, Children and Adults. Responses to these questions were summarized (for each client population) in terms of whether or not the activity had been performed in the past five years.

To examine self-assessment results among the candidates, results were grouped as follows:

- All PLA candidates;
- RT-educated candidates vs. MD-educated candidates with RT or Anaesthesia background;
- RT-educated candidates vs. MD-educated candidates without RT or Anaesthesia background; and,
- Successful vs. Unsuccessful/Incomplete PLA applicants.

Results:

Section One (Questions 1 – 60): Yes/No questions regarding health care and respiratory therapy knowledge:

- (Figure 1, Appendix 4) Overall, PLA candidates indicated knowledge in most areas, with the exception of questions specifically related to Ontario legislation/healthcare system and Anaesthesia.
- (Figure 2, Appendix 4) In general, international medical doctors (IMDs) w/ an RT or Anaesthesia background reported having knowledge more often than RT-educated candidates.
- (Figure 3, Appendix 4) In general, IMDs without an RT or Anaesthesia background also reported having knowledge more often than RT-educated candidates, except on questions directly related to RT knowledge (medical gas therapy, chest care techniques etc.).
- (Figure 4, Appendix 4) In many areas, Successful candidates reported having knowledge less often than Unsuccessful/Incomplete candidates. This may indicate a tendency among Unsuccessful/Incomplete candidates to report inflated levels of knowledge when self-assessing.