CHICA-Canada Fall 2010 Membership Survey

Final Report

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Introduction

As part of its strategic plan, CHICA-Canada explored strategies for providing additional continuing education for infection control professionals (ICPs), as well as strategies whereby ICPs could share their educational tools and programs. In order to do so, an online CHICA-Canada Membership Education Survey was developed and distributed to all CHICA-Canada members in the fall of 2010.

The survey questionnaire was made up of twenty questions in total. Questions addressed members' demographics including practice settings, areas of expertise, training and experience. Respondents were also asked to identify their high-priority learning needs, preferences for learning, available resources and technological capabilities, and suggestions regarding sharing tools and programs. Participation was voluntary and anonymous.

This report summarizes the results of the survey.

Respondent Demographics

The survey results showed that 247 to 319 members responded to all or parts of the survey. Some respondents may have exited the survey and returned at a later time and restarted, causing possible duplication especially in the demographics section of the survey.

Figure 1 shows the distribution of respondents by provincial and territorial location. A total of 319 CHICA members responded to all or part of the survey, the majority of whom were from Ontario (57%). A total of 28% of respondents indicated residency in one of the western provinces (BC, AB, SK, MN), 11% selected one of the eastern provinces (NB, NS, PEI, NL), 3% were from Quebec and the remaining 1% indicated another location (NWT, US).
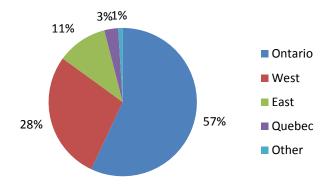

Figure 1: Province/Territory of residency for survey respondents
[West (BC, AB, SK, MN); East (NB, NS, PEI, NL); Other (NWT, US)]

Work Setting

The distribution of survey respondents by sector of employment is shown in Figure 2. Acute care (e.g., hospitals) and non-acute care (e.g., complex continuing care, rehab, mental health, and long term care) were the most common sectors of responsibility as indicated by 54% and 44% of the 318 respondents, respectively.
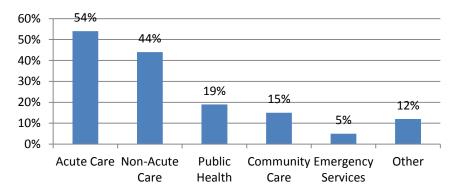

Figure 2: Sector that respondents are responsible for on a daily basis
[Non-acute care (e.g., complex continuing care, rehab, mental health, long term care); Community care (e.g. CCAC, home care); Emergency services (e.g., paramedic, police, fire)]

Background and Experience

Respondents were more likely to work full-time directly related to Infection Prevention and Control (IPAC), 60% of 317 respondents, versus part-time. Only 10% of respondents reported working fewer than 5 hours per week in IPAC.

The number of full-time Infection Control Professionals (ICPs) per organization ranged from 0 to 20 with the majority of respondents working for IPAC programs with between one and five full-time ICPs (68%) as shown in Table 1.

Table 1: Full-time staffing of respondents Infection Prevention and Control Program

Number of Full Time ICPs	Number of Responses (n=259)	Proportion (%)
0	36	14
1 to 5	171	68
6 to 10	26	10
>10	19	8

The majority (81% of 177) of respondents reported no current vacancies in their IPAC Program.

Figure 3 shows that the most common background was nursing, reported by 74% of 305 respondents. Ten percent reported a background as a medical lab technologist, while other types of therapists (respiratory, occupational and physio) accounted for an additional 10% of respondents.
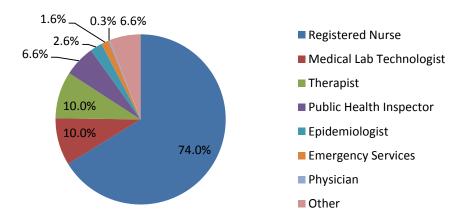

Figure 3: Background of Respondents

The majority (88% of 292 respondents) had additional training in IPAC, having completed or being currently enrolled in at least one training program. Only 40% (120 of 300) of respondents had attained their Certification in Infection Control (CIC) and maintained their certification where relevant.

Among 302 respondents, 45% reported working in the field of IPAC between 1 and 5 years. Forty seven percent of respondents had greater than 5 years experience, with 25% of the total having worked in IPAC for greater than 10 years and 22% with 5 to 10 years of experience. Only 8% of respondents reported less than 1 year of experience in IPAC.

Education Needs

The education needs identified by the 303 responding members were categorized and summarized in Table 2. Detailed topics in each category are available in appendix A. Development of communication skills was the most commonly identified education need (50%) and included communication with senior leadership, healthcare workers, colleagues and the media. More than a third of respondents identified the need for education on surveillance and epidemiology topics, with topics ranging from basic, e.g., selecting definitions and setting up databases, to advanced, e.g., statistical methods. Education, both meeting their own educational goals and developing educational programs for healthcare workers, was identified by 35% of respondents as important.

Table 2: Education Needs of Respondents

Category	Number of Respondents	Proportion (%)
Communication	150	50
Surveillance and Epidemiology	116	38
Education	106	35
Applying IPAC practices in unique settings	70	23
Environmental cleaning, sterilization and disinfection	56	18
Leadership	38	13
Research	33	11
Program Planning and Development	31	10
Construction and Renovation	31	10
Outbreak Management	20	6.6
Microbiology	16	5
Antibiotic Stewardship	2	0.7

Learning Preferences and Resources

Respondents were asked to rank their top three delivery methods; individual values were combined to calculate the overall ranking shown in Table 3. Respondents preferred to receive their own education through either 1-2 hour long webinars or 1-day workshops.

Table 3: Ranking of Respondents Preferred Delivery Method for Their Own Learning

Education Delivery Method	Ranking
Webinar (1-2 hrs)	1
1-day workshop	1
Self-learning module	2
Online short course (4-6 weeks; 3 hours/week)	3
Video conference (1-2 hrs)	4
Face-to-face short course (4-6 weeks; 3 hours/week)	5
2-day workshop	6
1/2 day workshop	7
Online standard course (12 weeks; 3 hours/week)	8
Train-the-trainer	9
Teleconference (1-2 hrs)	10
Face-to-face standard course (12 weeks; 3 hours/week)	11

A majority of respondents (59%) also indicated that they could dedicate 1-2 hours for a single education session intended for their own professional IPAC education. Some respondents indicated that the time available for individual professional development depended on when sessions were held (inside or outside of work hours), their workload and co-workers' schedules.

In pursuing professional and continuing education in IPAC, the majority of respondents received some support from their organization or program either through access to electronic or print resources, financial support or the provision of time off as shown in Table 4.

Table 4: Support and/or Access to Professional and Continuing Education Resources by Respondents Organization or IP&C program

Type of Support/Access	Number of Respondents (n=279)	Proportion (%)
Access to videoconferences/ teleconferences/webinars	203	73
Library/journal access	187	67
Time at work for continuing education	168	60
Financial support for continuing education	166	59
Time off for continuing education	165	59
Funding for conference attendance	163	58
Access to online courses	127	46
No support	9	3
Other	17	6

Although 89% of respondents reported access to a version of the APIC text, less than 50% indicated that a recognized textbook (e.g., *Hospital Epidemiology and Infection Control* by Mayhall) was available within their program (n=270). Access to technological capacities was common in IPAC programs with the most frequently available types being access to the internet (99%), teleconferences (92%) and webinars (88%)(n=277). A number of respondents indicated that funding for education was often limited, impacted by the constraints of the program's budget and dependant on an individual's status (e.g., full versus part time, number of years of employment). Only 3% of respondents indicated no support from their organization.

Outside of the IPAC Program or local CHICA chapter, 64% of respondents reported that their organization was a member of a formal infection control network such as PICNET or a RICN (n=281).

Sharing of Resources

Only 23% of respondents reported that their IPAC program had developed education/training tools and programming for their organization that they thought would be suitable for sharing with other CHICA-Canada members, although 43% indicated they were unsure (n=277). Among

those who indicated they had material suitable for sharing, 59% reported that they would be willing to share once a process had been established; the remainder of respondents was unsure. Table 5 summarizes the types of educational tools and programs that were suitable for sharing.

Table 5: Types of Education/Training Tools and Programming Suitable for Sharing by the Organizations of Respondents

Tool/Program	Number of Respondents (n=54)	Proportion (%)
Programs/Toolkits	17	32
PowerPoint Presentations	10	19
DVDs/CDs	5	9
Websites	5	9
E-learning	4	7
Algorithms	3	6
Brochures	3	6
Policies and Procedures	2	4
Audits	2	4
Databases	1	2

Before CHICA-Canada recognizes any tools and programs as useful educational material, respondents thought that the material should reflect evidence-based best practices (95%), be based on accurate and up-to-date information (95%) and undergo an evaluation process (89%).

CHICA-Canada as a Resource

The extent to which respondents are using CHICA-Canada as an education resource and the ways in which they are doing so are summarized in Tables 6 and 7. Regular use of CHICA-Canada was reported by 31% of respondents with the most frequent reason being access to resources and guidance materials.

Only 26% of respondents reported they would use translated versions of French resources if CHICA-Canada was to make them available (n=275).

Table 6: Extent to which Respondents Use CHICA-Canada as an Educational Resource

Frequency of Use	# of Respondents (n=85)	Proportion (%)
Regularly	26	31
Moderately	3	4
Occasionally	11	13
Infrequently	19	22
Daily	3	4
Weekly	3	4
Monthly	3	4
Annually	7	8
As Needed	9	11
Never	1	1

Table 7: Ways in which Respondents Use CHICA-Canada as an Educational Resource

Use of CHICA-Canada	# of Respondents (n=247)	Proportion (%)
Resources/guidance material	45	18
Conferences/webinars	40	16
Educational materials and opportunities	28	11
Audit tools	27	11
Access to links	24	10
Access to new and up-to-date materials	12	5
Go-To place for information	12	5
Infection Control Week information	8	3
CJIC	7	3
Chapter information	6	2
Interest groups	6	2
Evidence-based practice	6	2
Position Statements	6	2
Sector-specific materials	4	2
Homepage	2	1
Access to experts	2	1
Web board	2	1
Newsletters	2	1
Posters	2	1
Fact Sheets	2	1
PowerPoint Presentations	1	0.4
Surveys	1	0.4
Professional development	1	0.4
Job opportunities	1	0.4

Discussion and Conclusion

The CHICA-Canada Membership Education Survey offered a snapshot of IPAC programs describing educational needs, preference for learning and availability of resources. Respondents noted that development of communication skills, information on surveillance and epidemiology, and education were some of the important aspects of their learning needs. They identified both how to meet their own educational needs, such as preparing for certification, and how to develop an educational plan and teach others as aspects of education they would like to learn about further. Webinars and one day workshops were identified as the preferred methods of learning. Access to resources seemed to vary by individual setting.

While helpful in many ways, the survey was completed by about one fifth of CHICA members in late 2010 and so it may be difficult to generalize results to all members and their current learning needs. In addition, the breadth and variety of topics identified as learning needs does not help identify priorities at the national level.   Rather than repeat such a survey in future, CHICA-Canada will therefore explore other ways of identifying priority topics for its educational sessions, such as working through Chapter representatives.

These results have been shared with the Scientific Program Planning Committees for the 2013 and 2014 National Conferences as well as with different committees within CHICA-Canada with a mandate for education. The next step is to share the results with all members. Chapters may find the topics identified as learning needs useful as they plan their own local educational sessions or conferences

CHICA-Canada thanks the respondents; results will be considered in the development of its continuing education plan for all its members.

Appendix A: Detailed Topics Identified as Learning Needs

Surveillance
- Setting up and maintaining
- Choosing the right indicators
- Identification and analyzing trends
- Effective reporting
  - Analyzing trends and what to do about them; CIQ including response to trends
- Exact components of example provided in survey
- Building databases
- Refining databases
- Electronic surveillance pitfalls and strengths
- Risk assessment/ analysis
- Statistics – collecting, creating databases, analyzing data and preparing effective reports
  - Access, SPSS EpiInfo
- How to set up surveillance in the community

Outbreak Management
- Creating useful line listings
- Communication with media and staff
- Setting up case-control study to find cause of outbreak
- Education for staff – limiting the streak; staying home when sick

Antibiotic Stewardship
- Pharmacology
- Antibiotic resistance profile
- What steps can be taken to prevent the misuse of antibiotics

Program Planning and Development
- Building business plans and budgets
- Writing reports
- Analyzing trends

Communications
- Communication with staff
- Collaboration with other teams
- Convincing administrators
- Developing persuasive arguments to convince MDs to accept evidence based changes
- Writing reports
- Communicating with media and staff
- Communication between facilities – how to get information when we have a resident with a new bacteria

Microbiology
- Education

- Reading and understanding lab reports
- Identifying organisms
- Understanding antibiotic resistance profiles
- Increased understanding of emerging microorganisms
    - Unusual organisms that may not be in the manual
- How to get information when we have a resident with a new bacteria
- Reporting and dealing with multi-antibiotic resistant bacteria

Research
- Cost-benefit analysis
- Setting up a study
- Change theory
- Facilitating a research study
- Case control study set up

Education
- How to engage adult learners
- Positive Deviance / Human Factors (Lean) - more than just a brief overview
- Principles of adult education
- Learning styles
- Teaching tools
- Innovating teaching methods
- Basic IPC courses
- Run a CIC course then write exam at course completion
- How to study for and successfully pass the CIC
- Online short courses (4-6 wks; 3h/wk)
- Becoming a facilitator of IPAC courses
- Teaching online through webcasts
- Staff education – ie: HH, importance of limiting the effect of staying home when sick
- Designing education programs for variety of HCW
- Evidence informed decision making
- Keeping up with the volume of new IPC information

Construction and Renovation
- Setting up infection control permits
- Inspection of sites
- Looking at plans to make sure they are meeting CSA standards

Leadership
- Leadership skills
- How to approach RNs, MDs to get their cooperation with IP&C issues

Environmental Controls
- Assessing disinfectants – what product type is best to recommend in a given situation (eg: no outbreak, scabies)
- Environmental cleaning for community settings MD offices dental , day nurseries, personal services settings

Policy and Procedure writing

Infection Control in Various Settings:

Community
- IC Practice in the community, public health centres settings, home car
- Outbreaks in non-aggregate living sites

LTC
- More clear relevant guidelines
- More specific guidelines as they are usually less restrictive than in Acute
- Management of CDIFF

Residential Care

Ambulatory Care
- Environmental cleaning for community settings MD offices dental , day nurseries, personal services settings

EMS
- Liaising with other pre-hospital members to create training programs specific to EMS
- More cases and analysis of trends and training specific to EMS

Day Care

MD offices