eCE Supports: A Summary of Saegis Shield Cybersecurity Training for Ontario Health Teams (OHTs)

Cybersecurity is a priority for **OHT**s. Facilitating the enrollment and completion of a high-quality cybersecurity education program such as the Saegis Shield helps protect organizations against cyberattacks and security breaches. The eHealth Centre of Excellence (eCE) can help connect healthcare professionals with the needed training to protect organizations' private information.

DOCUMENT PURPOSE & BACKGROUND

Saegis Shield is an accredited cybersecurity and privacy awareness program developed by Saegis, a member of the Canadian Medical Protective Association. OHT access to this program is made possible with funding from Transform, the Ontario Health-West Regional Security Operations Centre. The program was provided in web-based learning modules that provide information and strategies to reduce the risk of organizations experiencing a successful cybersecurity attack or privacy breach. Key learning objectives of the program include cybersecurity terminology, types of cyber criminals and attacks, securing networks, the risks of online communications, password protection, and other cybersecurity best practices.

In FY2022-2023, Transform partnered with the eCE to deploy the Saegis Shield cybersecurity training modules to primary care physicians, community specialists, and their team members and office support staff. eCE was tasked to distribute 1,500 training licenses across the OH-West Region. The cybersecurity training program included five modules and took an estimated two hours to complete per individual. The purpose of this document is to highlight the interim outcomes of the cybersecurity training modules for learners and to showcase the impact eCE has had on the distribution and uptake of the training program. This document includes data collected from the program dashboards, a before-after post-training assessment (n=512), a and follow-up survey given to all participants (n=379).

PROGRAM UPTAKE

The eCE has facilitated the uptake and enrollment of the Saegis cybersecurity program by identifying potential users across multiple OHTs, resulting in 1,160 users completing training **(Figure 1)**. When compared to another non-mandated medical association initiative deploying the program, eCE shows a higher percentage of registered and completed users and has a higher completion rate than that of a mandated initiative **(Table 1).**
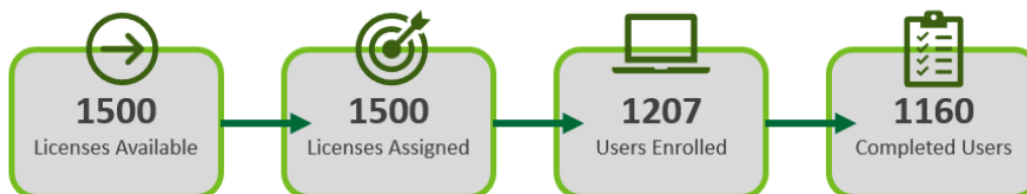

| 1500 | 1500 | 1207 | 1160 |
| Licenses Available | Licenses Assigned | Users Enrolled | Completed Users |

Figure 1: *Summary of eCE License Use*

Initiative	n	Registered	Completed	In-Progress	Not Started
Training Led by eCE	1,500	81%	96%	11%	8%
Other Medical Initiatives	1,133	32%	35%	10%	55%
Mandated Initiatives	790	83%	81%	8%	11%

Table 1: *eCE Program Enrollment and Completion Compared to Other Initiatives*

The Saegis Shield Dashboard data was used to stratify users by characteristics of interest such as Occupation and associated OHT. Of those enrolled in the training program, 41% were administrative support/services staff, 51% were other healthcare professionals, and 8% were physicians **(Figure 2).**

The eCE was able to connect with 15/15 (100%) OHTs in the OH-West Region to facilitate the distribution of training licenses, to date, 87% of those OHTs have at least one enrolled user **(Figure 3).** Upon consultation, it was identified that OHTs without an enrolled user were involved with other cybersecurity training programs.
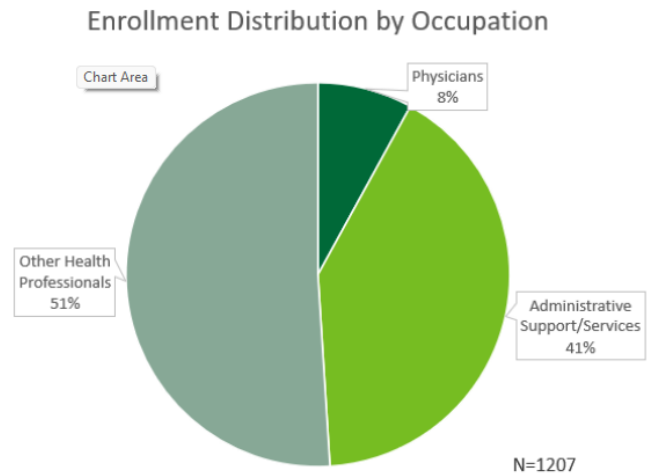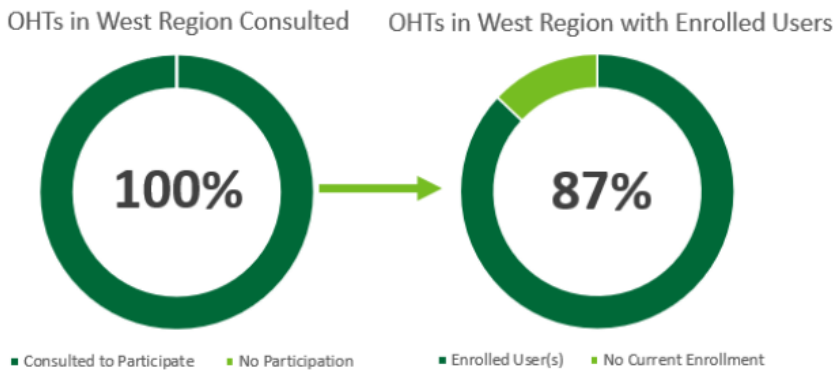

Enrollment Distribution by Occupation

Chart Area
Physicians 8%
Other Health Professionals 51%
Administrative Support/Services 41%
N=1207

Figure 2: Enrollment Distribution by Occupation for eEC Learners

OHTs in West Region Consulted — 100%
Consulted to Participate · No Participation

OHTs in West Region with Enrolled Users — 87%
Enrolled User(s) · No Current Enrollment

"The eCE's involvement is crucial in helping teams prioritize training, address cyber risk and increase engagement with the OHTs."

- Key Saegis Stakeholder

Figure 3: OH West OHT Contact and Enrollment for eCE Learners
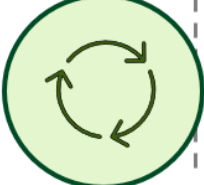
eCE CONTRIBUTIONS

The eCE had a project team working towards the successful uptake of the cybersecurity training, including integrated care managers and a project coordinator, in addition to team leadership overseeing the project. The key supporting activities are listed below.

Facilitating Program Awareness
✓ Identified key stakeholders to notify about the program (For example, primary care leads, transformation leads, digital health working group)
✓ Sent out mass communication in the form of emails and program information in newsletters to targeted groups
✓ Provided presentations to organization leads to increase understanding and brainstorm enrollment strategies.

Enrollment & Uptake Management
✓ Integrated care managers confirmed the list of potential users from each OHT, and facilitate enrollment through eCE project coordinator
✓ Created and modified documents such as sign-up sheets that can be shared across organizations within the OHT for easy user identification and messaging regarding the training

Continuing Support
✓ Project Coordinator was available to answer user and OHT questions and mitigate concerns
✓ Mindful email reminders to increase enrollment of assigned licenses, and encourage completion of program modules
✓ Provided reports of completed training and program scores to organizations
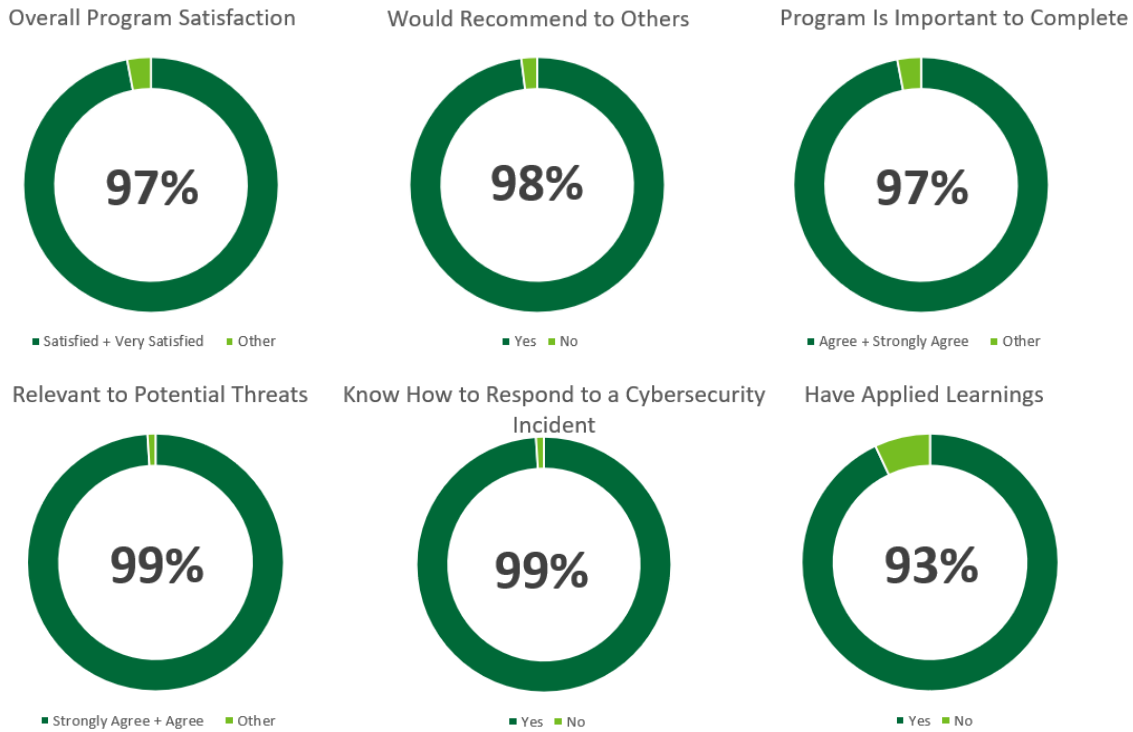
KEY SURVEY RESULTS

Figure 4: Key Results from the Saegis Shield Follow-up Assessment (n=379)

Question	Response	Pre	Post	Improvement
I was/am confident in my ability to recognize a cyber security breach.	Agree	68%	98%	30%
Did/do you access your personal email on your corporate devices/network (e.g., Yahoo, Gmail)?	No	63%	87%	24%
Did/do you know how to report a cybersecurity incident?	Yes	79%	94%	15%
I was/am aware of my responsibilities and role in preventing cyberattacks and privacy breaches.	Yes	88%	99%	11%
Did/does your organization have a designated privacy officer?	Yes	82%	87%	5%

Table 2: Key Results from the Saegis Shield Before and After Post Training Assessment (n=512)

CONCLUSION

The results of the follow-up assessments indicate that the Saegis cybersecurity program is well received by users with high satisfaction and users perceive the program as important and relevant to their jobs. Additionally, the program was effective in improving learners' knowledge and responses to cyber threats. The eCE helped support the uptake and completion of training by providing program information, distributing licenses, facilitating enrollment support, and completion reminders, playing a key role in improving cybersecurity across participating organizations and OHTs.

If you have any questions or would like further information on this report, please contact: info@ehealthce.ca

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