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# Examining the strategic role of education and training

How Mackenzie Health standardized and optimized education services to support staff training for diagnostic imaging

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Lorrie Turpin, Manager Clinical Education Imaging Systems, Philips Healthcare, Canada

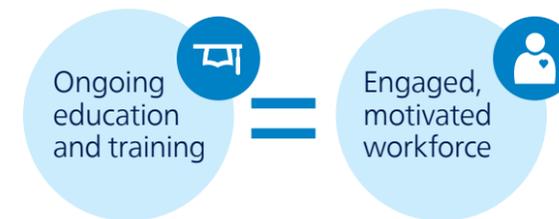


## How Mackenzie Health Canada standardized and optimized education services to support staff training for diagnostic imaging

**The acceleration of digital transformation in healthcare has unleashed rapid change on health providers and staff. New iterations of devices, equipment, platforms and services are an inescapable part of modern healthcare and the need to keep on top of technology is mandatory to ensure patient safety.**

**Technology is just one component of an operationally efficient organization. The other is a well-trained workforce that feels empowered to be responsible for operating equipment and delivering care to patients.**

“Ongoing education and training underpins the entire operational performance of a hospital: it keeps the workforce engaged and motivated, equips them with the knowledge, skills and technical ability and mindset to do their important work: providing better, safer care for patients,” explains Lorrie Turpin, Manager Clinical Education Imaging Systems, Philips Healthcare, Canada, who works with Mackenzie Health.



Ongoing education and training equips staff with knowledge, resulting in an engaged, motivated workforce

Education and training is increasingly viewed as a strategic tool in retaining key skills, keeping staff happy and providing opportunities for continuous learning.

Health providers know that as pressure grows to manage their operational costs and address chronic workforce shortages in healthcare, staff training starts to become strategically important.

Rolling out training/ education services across large health systems, with growing organisational and technological complexity, can be daunting and is often perceived as costly. How do you design and roll out an educational programme to train thousands of staff without disrupting key health services? Moreover, what education delivery methods best suit the training objectives you have in mind? And, of course, how can you make sure that your training is future-focused, upskilling the workforce of now and the future?

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# Changing perspectives on healthcare education and training

“How we view education is changing. It isn’t just about the training anymore. It’s about inspiring growth and unlocking satisfaction. We do need to think about other ways to support the learning experience.

Does training need to be in-person, or can it be delivered virtually, user groups-based or via a blended approach? Or perhaps a symposium that a particular technology vendor offers?

Training doesn’t stop when the onsite educators have completed training. Through a ‘train the trainer’ model, we ask ourselves if there is something else that can benefit the end user as a whole?” says Lorrie Turpin, who oversees Education services for the 18-year Managed Services Partnership between Philips and Mackenzie Health in Canada.



In-person training



Virtual training



Group based training



Blended approach

# Designing an integrated training programme at Mackenzie Health

**Large diagnostic imaging, monitoring, and third party systems need time, space and resources to deliver a training programme across a workforce of thousands.**

In a Managed Services Partnership, the Education Services provision ensures all staff are trained to safely use equipment, but also ensures that the culture and philosophy around training is determined in the foundation of the partnership.

The important first step to deliver an integrated, customized training programme is securing the leadership buy-in.

Lorrie Turpin explains: “Together with the Mackenzie Health team, we developed a plan that is collaborative and specifically tailored to the Mackenzie Health staff needs. Through a series of conversations, we understood where the education needs were, where the shortcomings were, and, how to support them to make their education programme run as smoothly as possible.”

Executing such a training programme across a large health system is a logistical and operational challenge, as education responsibilities cover not just Philips modalities but also equipment for multiple suppliers.

At Mackenzie Health there were over 30 third party technology suppliers and this challenge was exacerbated by the addition of a hospital site. During the set up of the new hospital site, the team needed to support the existing hospital, aligning to make sure the right people were being trained across both sites, and check where and how people were going to be using diagnostic equipment.



Workforce of thousands



30+ 3rd party technology suppliers



# What a hospital diagnostic training program can look like

**Case study: A Philips training program consisting of onsite training including super user and non super user training on the Philips Epiq Elite.**



### Time spent training on applications

Each staff member will complete a maximum of 32 hours on-site per week.



### Group size for super user training

A maximum of 2-3 people take part in training as "super users", taking responsibility for ongoing support of the Diagnostic Imaging Ultrasound staff. These individuals must be relieved from all other duties for their entire training period.



### Criteria for super users

- System background and understanding of image optimization.
- Eagerness to learn and accept optimized workflow suggestions.
- Ability to effectively train the remaining staff to proficiently operate the system

# Continuous learning: Creating a 12-week recurring training cycle

**Across both Mackenzie Health hospital sites there were challenges spanning resources, staffing, change management, communication and cultural difficulties. It required an extensive roadmap to get all parties aligned.**

**All training activities for all third party suppliers were logged into a master excel spreadsheet and broken down per vendor, per department.**

The training schedule covered dates for training, location (room) and vendor and brings all training materials together from all suppliers, to make sure materials are easy to follow and meet the program's standard. There are additional considerations. Where does the training take place, what equipment is needed: Philips monitors, scanners or pumps?

Mike Yrcha, Client Relationship Manager at Philips explains: "Mackenzie Health is a smart hospital so we had to think about what the interdependencies were to complete the training. For example, is the equipment integrated into the electronic medical record (EMR)? There were many things to consider, such as the number of users, their

availability, training time frames, and the operational and implementation schedules of Mackenzie Health. And we had to build this around the schedules of all vendors. We worked collaboratively with our 3rd party vendors to create all the resources the partnership would need, including quick user guides, safe operational training manuals and checklists."

Mike Yrcha adds that all of these elements were brought together to complete the integrated training programme: "We made sure all of these dependencies were aligned prior to the education starting. Mackenzie Health took this one step further and developed from their end user training based off the integrated 'super user' training schedule. A 12-week recurring training cycle was created per department and filtered all of their staff through this unit-based orientation every week. It was a bit of a challenge for vendors, but they appreciated the set schedule and knew what they needed to do and when."

The same training strategy used for diagnostic imaging was then implemented for ultrasound and, in part, for patient monitoring.



## Developing the role of 'super users'

**Training in diagnostic imaging equipment is modelled on the 'train the trainer' model, which trains 'super users' who continue to train current and incoming staff on the equipment. The super user makes sure staff are able to handle equipment and perform their daily tasks and as the person with the most knowledge of how the system works, they become a linchpin to the successful deployment of the training programme.**

But who is a super user? Are they volunteers or are they hand picked? What if no one puts their hand up for the role? At Mackenzie Health, the team sent out an expression of interest, inviting staff to volunteer to be a 'super user', taking into account Union regulations.

Mike Yrcha, Client Relationship Manager at Philips explains: "A super user is usually a high achieving staff member who is a leader within the unit. They could be a resource nurse, charge nurse, technologist or up and coming staff member invested in the successes of their unit. Super users take all of the high-level education from the technology partners and hold their own classes to train the rest of the staff. We spend extra time with these super users to give them extra information and support them with troubleshooting, because once we've left after 'go live', they are the main staff resource available on the ground, before escalating to us."

A super user is an individual willing to take on the key responsibilities associated with staff training and the ongoing development of expertise with knowledge transfer. It is therefore crucial the individual interfaces with the designated equipment on a daily basis. There are a few requirements when it comes to choosing the super user. They will likely have a strong clinically relevant background, are digitally literate, are team players invested in making a success of the equipment and are highly motivated to support their colleagues, the department and overall operations.



**Who is a super user?**

## Super 6: Key attributes of a 'super user'

**Lorrie Turpin and Mike Yrcha believe that there are six essential attributes of a 'super user'. These are:**



### Tech savvy, computer literate

Ideally a super user is adept at using platforms, data processing and has more than a passing interest in technology's role in healthcare



### Strong communicator with people skills

They will have to deal with a range of people, personalities and handle challenging questions with aplomb, so soft skills will help them.



### Is willing/ interesting in training

Super users don't necessarily need teaching experience, but a background in presenting, delivering educational materials is a bonus.



### Knowledge of operational issues

They will modify training materials to fit the unit/ department's needs, so a deep knowledge of how the department operates is necessary.



### Has the necessary bandwidth

Do they have the availability and capacity to deliver regular/ ongoing training and support a workforce?



### Takes ownership/ responsibility

The super user should be able to take on the training duties, troubleshoot problems and resolve issues on their own.

## Super 6: Key attributes of a 'super user'

**The ongoing responsibility for equipment training however should not rest on one set of 'super user' shoulders. Busy hospitals need a number of individuals to cover training.**

At Mackenzie Health, the role of the super user became important for the opening of its new hospital. Because of COVID-19 there were a number of devices that Mackenzie wanted up and running early. These were implemented at the existing site before the new site was live.

The super user also plays an important role in translating or modifying training content for their internal training purposes.

Mike Yrcha, Client Relationship Manager at Philips recollects: "The number of super users should be around five or six per unit, per device in order to cover illnesses, work promotions or a staff departure. The hospital should never be without a super user."

We trained a number of super users (this was around 20% of staff) before the hospital went live, in order to cover all shifts - days, evenings, nights, weekends. This meant that by the time the new hospital went live the super users were comfortable with the equipment and peer support had been established.

In addition to the formation of super users, the team also established the role of Site Orientation Champion (SOC), based on past experience of seeing the value of providing additional frontline leadership support for new and experienced staff when new units open.

Reporting to the unit manager, the SOC role combines excellent interpersonal communication skills with the operational readiness to ensure the safest best possible care is provided at all times. A professional caregiver responsible for the initial unit set up of all supplies, unit workflow, the SOC would work with the unit post go live and be focused on staff support. This would involve working with the clinical educator and manager on any required policies and procedures required for the successful operation of the unit as well as also being trained as a super user to have enhanced knowledge of the unit they were assigned to.

**20% of staff trained as super users**



## Lessons learned: Training pods in critical care

**A large integrated training programme of this scale, across two hospital sites, yields learning opportunities for customer hospitals and the technology partner around what is practically needed to deliver an optimal education experience for staff.**

"What do we need, where we are going to put the equipment and where is this education going to take place? These are the questions that regularly came up and then, during the COVID-19 pandemic, we had to plan how to deliver the training so everyone could social distance," explains Lorrie Turpin.

Each customer hospital is different and therefore each education programme will bring new learnings for that particular site. For example, one learning from the Mackenzie Health rollout in the critical care unit, was to create an education space within the department to enable staff training on live monitors.

Mike Yrcha, Client Relationship Manager at Philips explains: "The critical care unit has three separate pods for patient care. To train the staff efficiently, the patient care monitors were removed from the patient care rooms in one of the pods and relocated to the countertops around the unit. This made it possible to have safe spacing due in line with COVID-19 distancing yet also provide an open area where the staff could hear and ask questions of the trainers. This set up made it possible for technical integration to continue at the same time in the other pods."

Mike Yrcha continues: "For staff to have effective training they need to hear what the presenter is saying, the questions being asked by other people, if they're all in their own individual room they're not going to hear this. They need to be able to play with the equipment right in front of the trainer. So, we took installed equipment off the walls and put them on counters in the pods and the staff did their training there. When the super user and end user training was complete, we took the equipment and reinstalled it on the walls."

Lorrie Turpin summarizes that the lesson learned was to have monitors assigned as training pods before they go up on the wall, so trainers don't need to put them up and take them down again. "The process should have been creating a pod for end user training, then installing the equipment to go live."

**"...during the COVID-19 pandemic, we had to plan how to deliver the training so everyone could socially distance"**

**Lorrie Turpin, Manager Clinical Education Imaging Systems, Philips Healthcare, Canada**

## Operational gains of education

**Most challenges come down to understanding the role education and training plays in a long-term partnership, the specific training requirements of all equipment vendors, and how to 'bake in' education to all equipment contracts up front.**

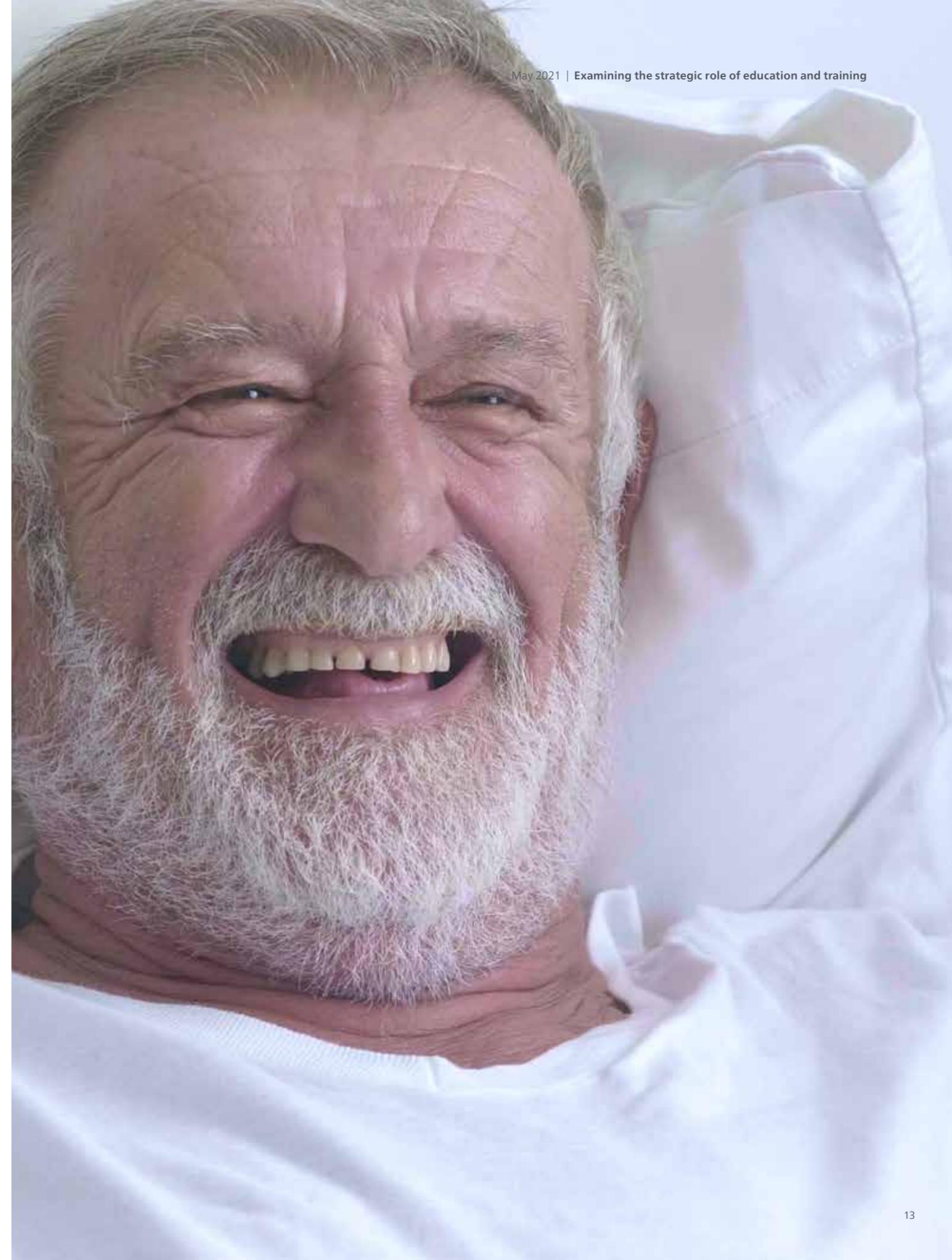
The integrated education programme at Mackenzie Health has standardized education, removing inconsistencies or variations between vendors and assimilating training content and delivery. A training document developed with Mackenzie is tailored to each diagnostic device and deployed throughout all suppliers. Although the programme is always being optimized to find better ways to deliver training to staff.

Lorrie Turpin believes that to ensure a programme of this scale works, education has to be a priority at the beginning of a partnership. She explains: "You need to have people on the education side of the business working on those vendor contracts at the earliest stage, ensuring that the clinical needs of that customer site are going to be met by that contract. If you're looking at training a hospital of 4,000 new employees, regular training should be provided for in the RFP process. This was something that became clear as we moved forward."

In an operational sense, the gains of deploying an integrated education programme are clear to see. Lorrie Turpin adds: "One of the biggest gains is that our partners get the best value out of their systems as quickly as possible. If they adopt the training to deliver care more efficiently and, as a result, will be able to care for even more patients in a shorter amount of time."

"One of the biggest gains is that our partners get the best value out of their systems as quickly as possible. If they adopt the training then they can get through patients quicker and are able to service more patients."

**Lorrie Turpin, Manager Clinical Education Imaging Systems, Philips Healthcare, Canada**



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