



Resident-led Autopsy Teaching and Autopsy Quality Improvement at The Ottawa Hospital



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Background

Autopsy is the gold standard by which accuracy of a diagnosis is measured and is an invaluable tool for medical education.

ISSUE IDENTIFICATION

- Rates of autopsy in North America and at The Ottawa Hospital (TOH) have decreased
- Improperly filled out consents
- Autopsy service inappropriately utilized at times

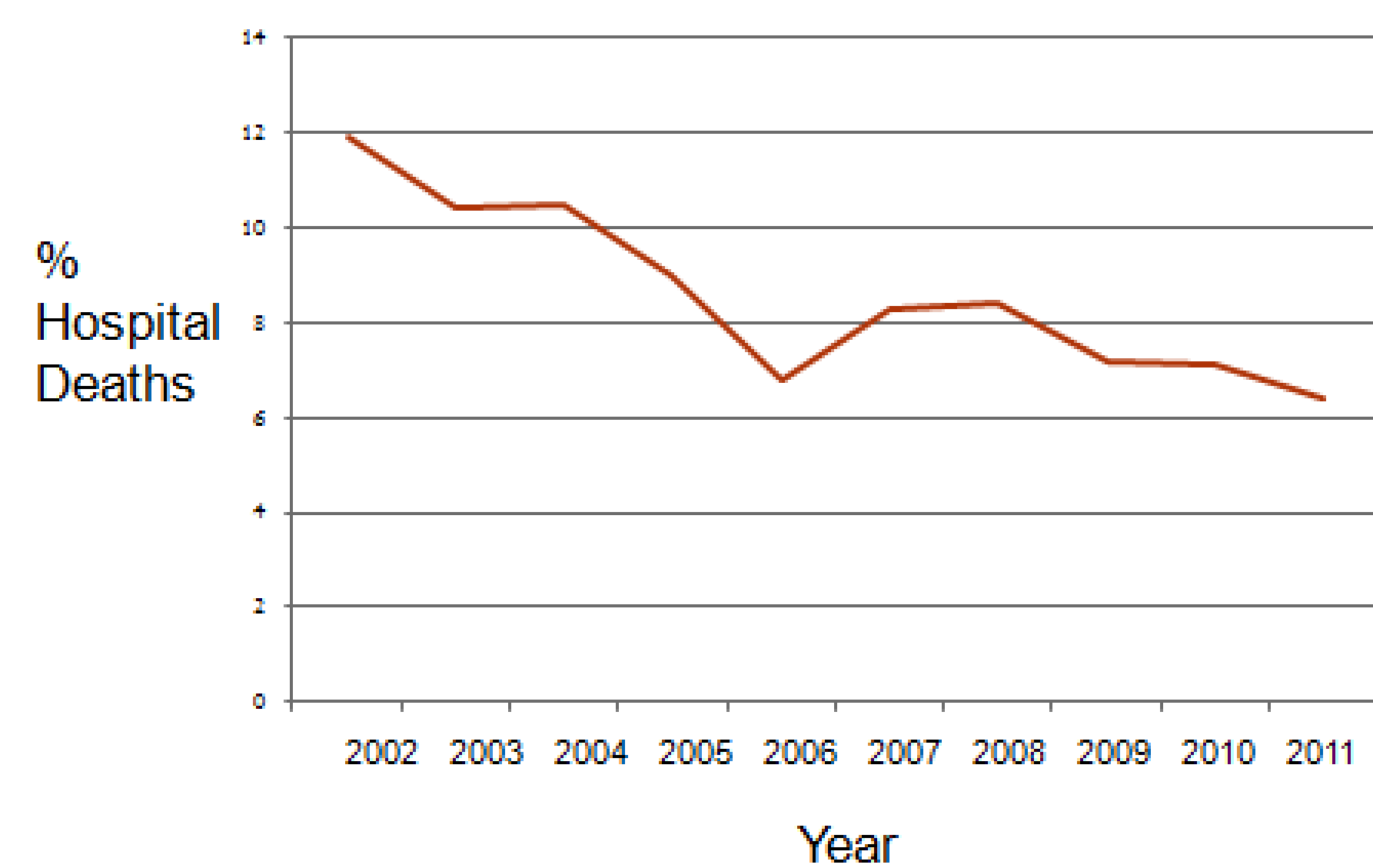


Image 1: Rate of autopsy for in hospital deaths at TOH

ROOT CAUSE

- Consent is obtained by someone who will not be performing the autopsy procedure
- Perception of decreased procedural value
- Poor communication
- Lack of formal education during residency
- Lack of emphasis in modern medical training

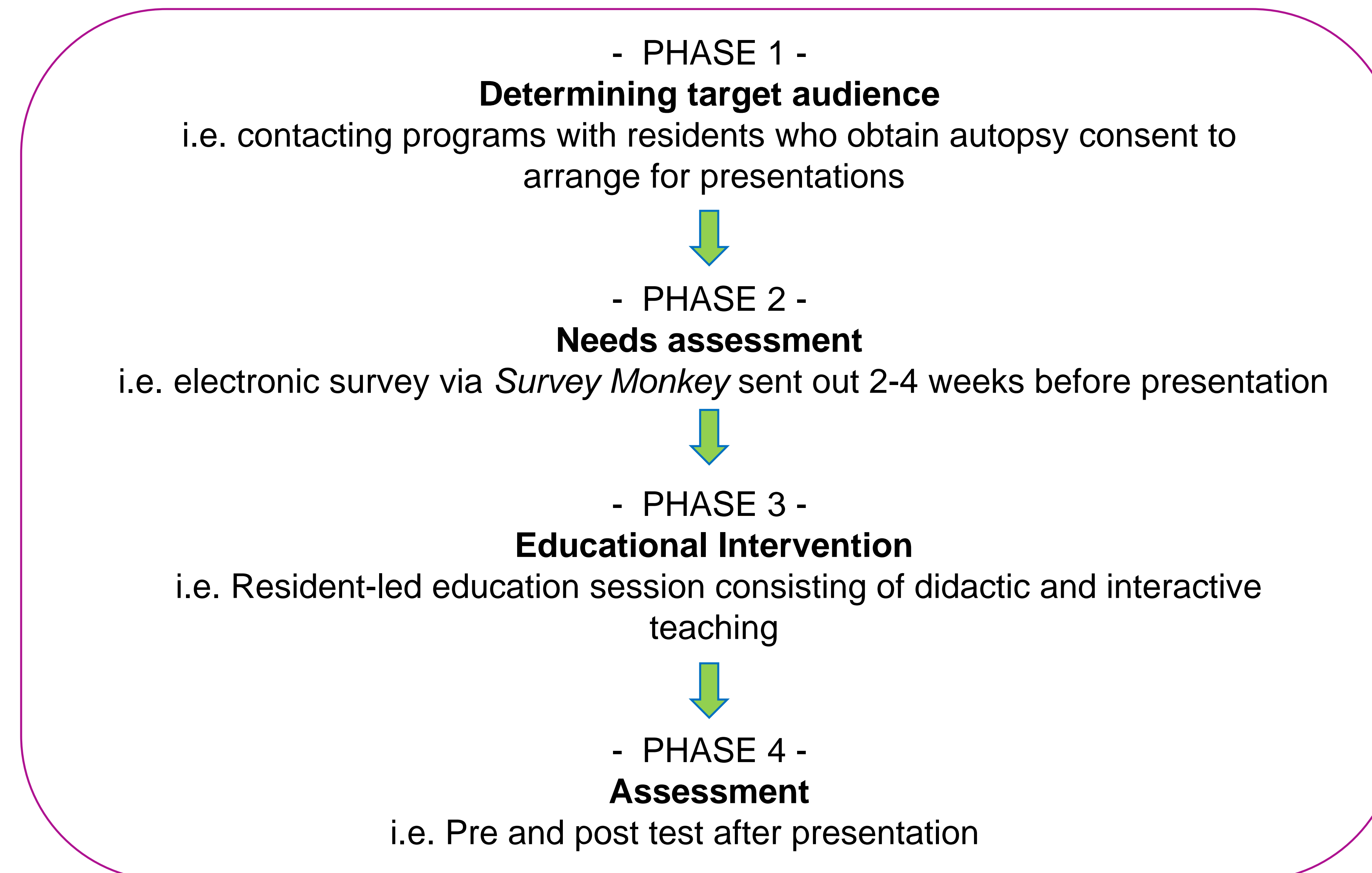
Methods

EDUCATIONAL INTERVENTION

We propose to institute an educational research project which will involve resident-led teaching and quality improvement initiatives at the Ottawa Hospital.

AUTOPSY STUDY END POINTS

- ✓ **Primary** - Increase resident knowledge and perceived utility of the hospital autopsy
- ✓ **Secondary** - Increase the rate of hospital autopsy at TOH
- ✓ **Third** - Increase the number of properly filled out autopsy consents
- ✓ **Fourth** - Improve collegiality and communication between clinicians, pathologists and supporting staff at TOH



9. How would you rate your knowledge about the following aspects of the autopsy service at TOH?

	No knowledge	Minimal knowledge	Workable knowledge	Can confidently answer questions
Where in the hospital the autopsies are performed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How long an autopsy takes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When the body will be released back to the family or the funeral home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If all the organs are kept with the body	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How long it takes to issue a report	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What exceptions can be made for religious reasons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When partial autopsies are appropriate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The appropriate hierarchy of who can sign for consent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Funeral considerations after autopsy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

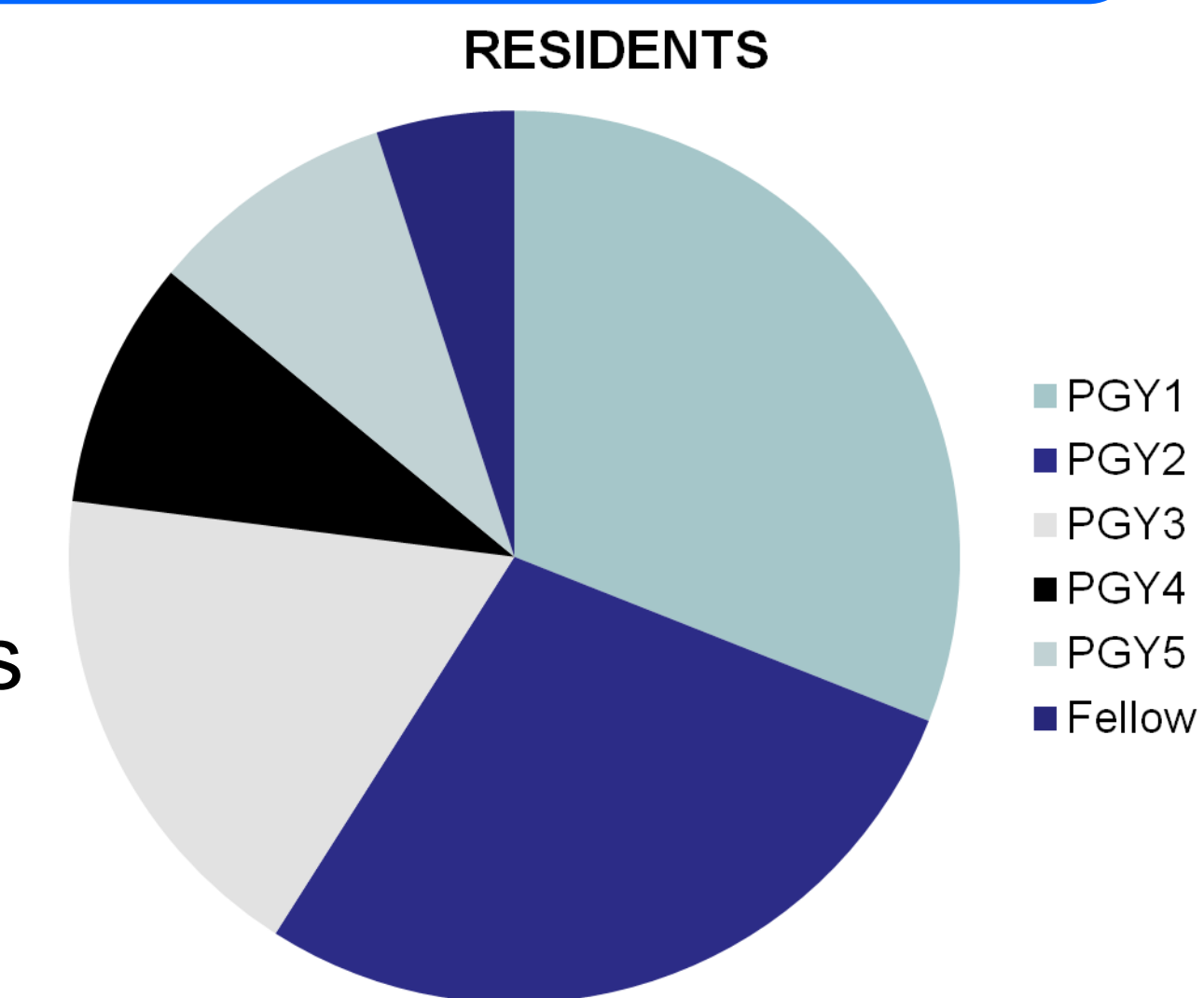
Image 2: Sample Needs assessment questions

1. You are on call on a Saturday night when one of the patients on your team dies. The patient was a 59 year old male who died of metastatic colon cancer but he had also been undergoing a rapid neurological decline. Imaging of his brain did not reveal any evidence of metastatic lesions. The family would like an autopsy to determine the cause of his neurological decline. You tell them:
- That a full autopsy should be performed, and it will likely be performed Sunday (the day after his death)
 - That a full autopsy should be performed, and it will likely be performed Monday
 - That a brain only autopsy is appropriate and will likely be performed Sunday
 - That a brain only autopsy is appropriate and will likely be performed Monday
2. You are obtaining autopsy consent for a deceased 78 year old male. While you are discussing the autopsy procedure the patient's wife, the patient's son (who is also power of attorney for medical decisions) and the patient's daughter are present. All agree to the autopsy, except the daughter who has hesitations. Who should sign the consent?
- The patient's wife
 - The patient's son (and power of attorney)
 - The patient's daughter
 - No one, as there is a family member with hesitations

Image 3: Sample Questions in Pre and Post Test

Results

To date, educational sessions have been performed for the following residency programs: internal medicine, general surgery, neurology, intensive care, and cardiac surgery, with a total of 77 residents participating



ISSUE; # OF RESIDENTS WHO... (Self Reported in Needs Assessment)	RESULTS
... have previously filled out a death package	77/77 (100%)
... have approached a family regarding an autopsy	67/77 (87%)
... have previously called a coroner	54/77 (70.13%)
... have previously received training regarding the autopsy service at TOH on how to obtain autopsy consent.	2/77 (2.6%)
... reported being "not comfortable" or "moderately comfortable" when requesting autopsy consent	70/77 (90.9%)
... answered that they were not comfortable answering questions regarding the autopsy service	64/77 (83.12%)
... had no knowledge of when partial autopsies were appropriate	47/77 (61%)
... had no knowledge of what exceptions could be made for religious reasons	51/77 (66%)
... stated they had no knowledge of where in the hospital autopsies were performed, how long an autopsy takes, how long it takes a report to be issued and the appropriate hierarchy of who can sign autopsy consent	>50%

Average Pre-test score: 52% → Average Post-test score: 88% Intervention (Presentation)

Conclusions

- Clinical residents at TOH have minimal knowledge about the autopsy service and had never received any formal training about obtaining autopsy consent
- Pre and post tests demonstrated resident acquisition of knowledge
- Future directions include further presentations and development of online learning modules