

INTRODUCTION

Incidental pulmonary nodules (IPNs) identified on routine, non-screening CT scans represent a high-risk population with a greater incidence of lung cancer (LC) than conventional screening cohorts, yet many patients experience delayed or missed follow-up.

Artificial intelligence (AI)-enabled detection and automated care pathways for IPNs have the potential to systematically identify and manage patients independent of traditional referral processes.

However, unsolicited patient contact from unfamiliar healthcare providers may increase anxiety and reduce adherence, creating a barrier to implementation that requires evaluation.

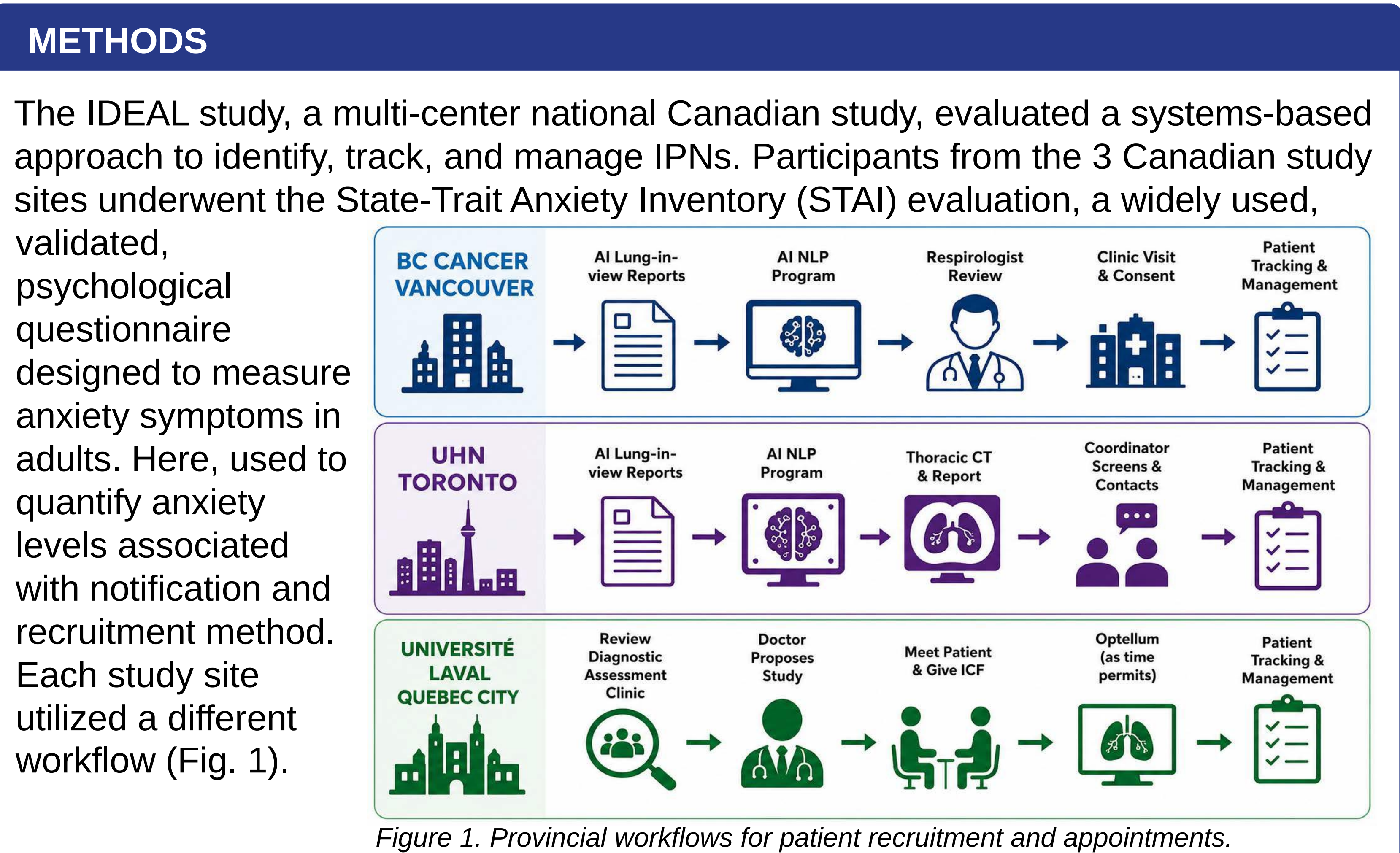


Figure 1. Provincial workflows for patient recruitment and appointments.

RESULTS

- 66.1 ± 8.1 Mean Age (SD)**
- 54% PNSH**
- 54% Female Sex**
- 62% Caucasian**
- 43% Born Outside Canada**
- 84% >High School Education**
- 18% History of Cancer**

388 participants completed the STAI evaluations at their study visit.

Table 1. Comparison of STAI-S (State) anxiety scores across three provincial cohorts.

Site	N	Mean	Median	Min	Max	SD	Cronbach's α
BC	296	30.88	29.0	20	68	9.73	0.92
UHN	67	34.42	32.0	20	70	12.11	0.93
Laval	25	33.32	31.0	20	54	9.93	0.91

Mean STAI-S scores were consistent across the AI-automated site (BC) and traditional sites (UHN and Laval).

Table 2. Comparison of STAI-T (Trait) anxiety scores across three provincial cohorts.

Site	N	Mean	Median	Min	Max	SD	Cronbach's α
BC	296	36.10	35.0	25	62	6.70	0.81
UHN	68	36.69	34.5	25	60	8.61	0.85
Laval	25	38.16	38.0	26	51	5.96	0.74

All but one of the mean values fell within the "low or no anxiety" range (20-37) (Laval STAI-T = 38.16).

Internal consistency was excellent across all centers for both STAI-S (0.91-0.93) and STAI-T (0.74-0.81) scales, as evaluated by Cronbach's α. High α values (≥ 0.70) provide evidence that the STAI-S and STAI-T scales are reliable and internally coherent within the study population.

Low or No Anxiety

Mild to Moderate Anxiety

Significant Anxiety

20-37

38-44

45-80

DISCUSSION AND CONCLUSION

Actionable Take Away Message: AI-driven automated IPN programs do not appear to increase patient anxiety compared to traditional referral pathways. These findings suggest that systematic, automated approaches can be implemented effectively without compromising the patient experience, potentially overcoming a significant barrier to the broader adoption of early detection programs.

SCAN TO LEARN MORE ABOUT THE IDEAL STUDY