

INTRODUCTION

In 2021, the Quebec Ministry of Health launched the Lung Cancer Screening Demonstration Project using the PLCOm2012 risk prediction model to identify eligible participants. Through a collaboration between the clinical coordinating office and the research arm of this initiative (SynergiQc), the AIRS Biobank established a unique cohort derived from this demonstration project. This resource provides the scientific community with access to rich clinical data and biological samples from a large, well-characterized population of individuals at high risk of developing lung cancer, offering exceptional opportunities for scientific collaboration and the discovery of novel biomarkers for early lung cancer detection.

METHODS

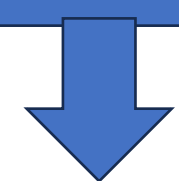


6 participating centers



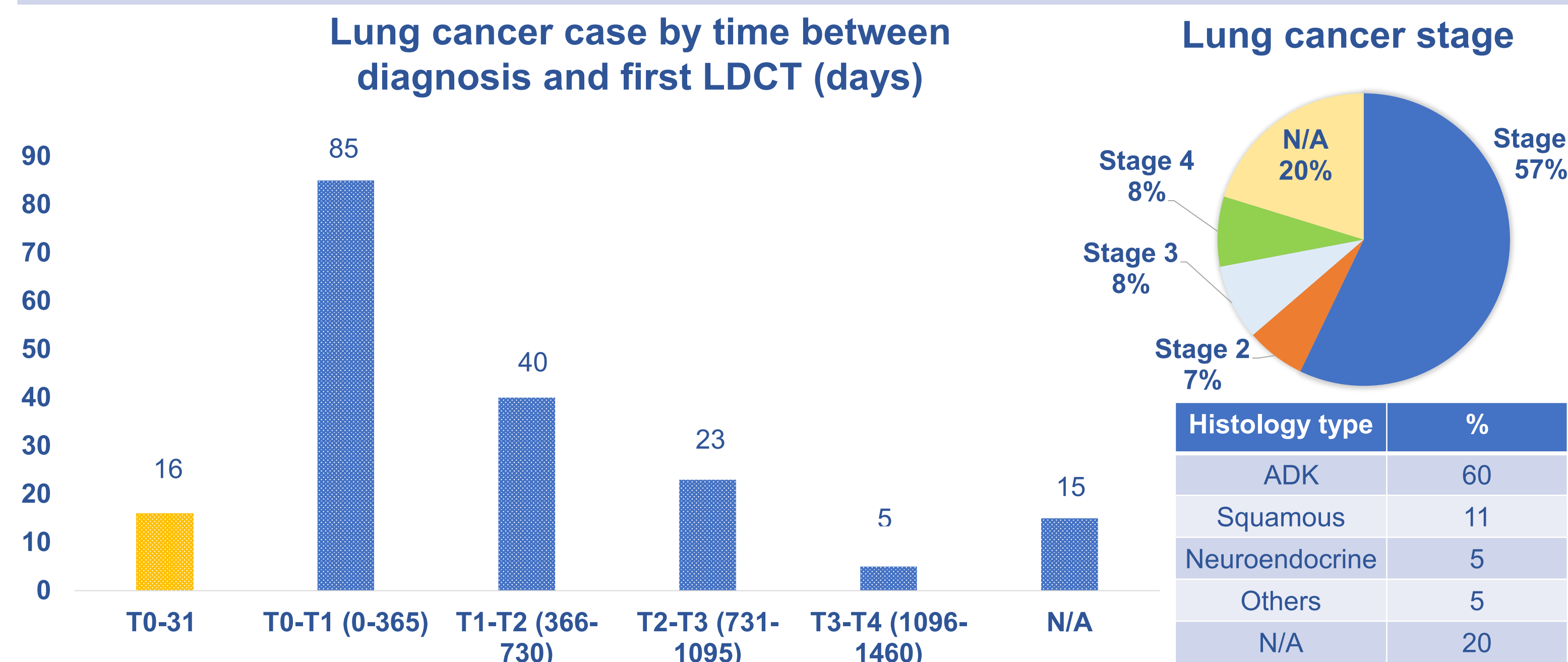
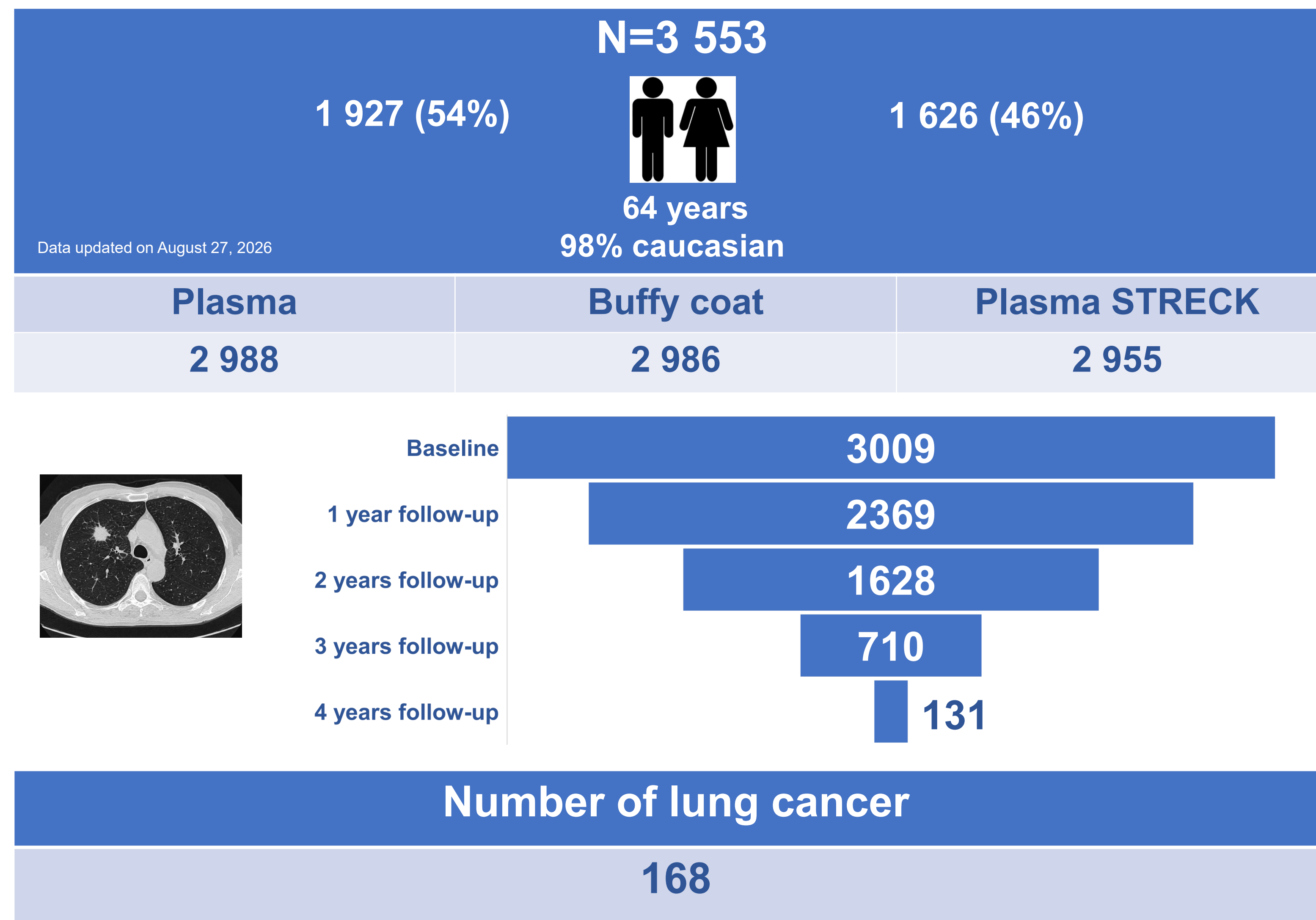
Biobank consent form

- Clinical and low-dose computed tomography (LDCT) imaging data from the demonstration project
- Blood samples
- Opportunity for stool sample collection
- Genetic studies
- Permission to recontact participants for future research



Lung Cancer Screening Biobank cohort

RESULTS



RESULTS

Baseline Clinical Characteristics

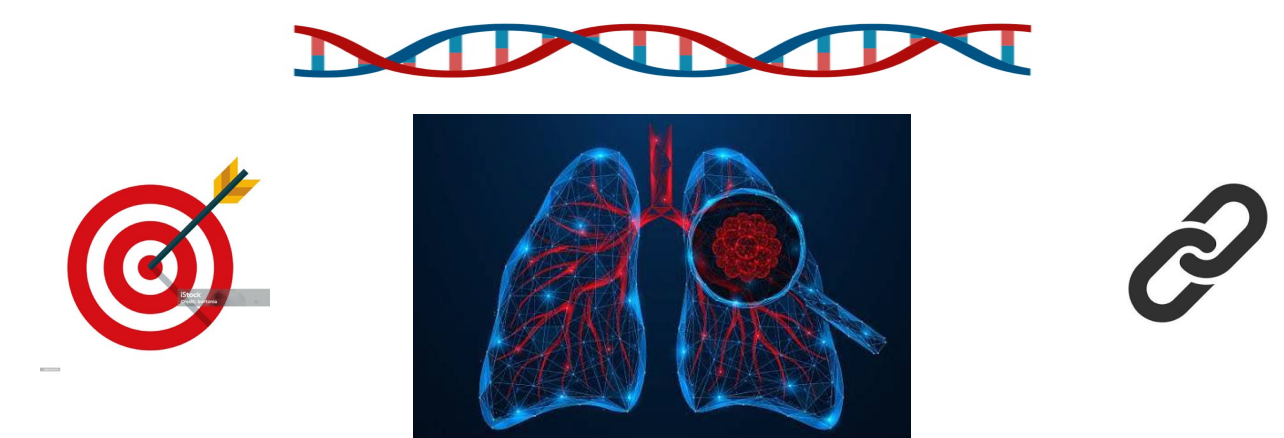
Smoking history

Current smokers	2 513 (71%)
Former smokers	1 040 (29%)
Years since smoking cessation	1.91±3.8 [0-20]
Smoking exposure (p/y)	49±19
Duration of smoking (y)	45±7

Family history of lung cancer	1 161 (33%)
COPD (self reported)	879 (25%)
PLCOm2012)	4.5 ±3.7 [2-31]

DISCUSSION AND CONCLUSION

High-risk screened population



Advanced analytics & AI

Biological pathways

Early detection

Prognosis

Risk prediction

iStock images

ACKNOWLEDGEMENTS

This work was supported by coordinating center of Quebec Lung Cancer Screening Demonstration Project and funded by AIRS network and SynergiQC project (CQDM/Pfizer/AstraZeneca/Biomark/IUCPQ foundation). Special thanks to all participants