

### Context

When physicians retire and how they practice in the years preceding retirement have important impacts on effective supply and so are crucial intelligence for health human resource planning. Despite this, we currently know very little about retirement patterns among physicians, and what we do know is largely survey-based.

We (1) identify/describe patterns of retirement for the British Columbia (BC) physician population, and (2) determine key determinants of when/how physicians retire.

### Methods

We used a population-based retrospective cohort study to examining all payments to BC physicians age 55+.

**Data sources:** Administrative databases – physician registry and billing records 2005-2012 (all fee-for-service encounters and non-fee-for-service payments), accounting for 100% of payments to physicians in BC.

### Retirement definitions:

- Status change from “active” to “retired” in the College of Physicians and Surgeons of BC registry;
- No billings for 365 consecutive days; or
- Falling below/maintaining less than \$10,000 annual billings.

### Patterns of pre-retirement activity:

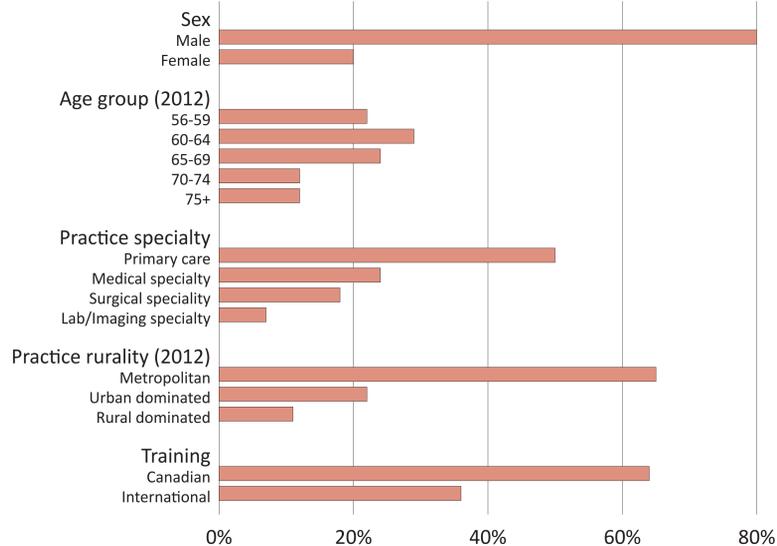
- Sudden drop-off: a change in practice activity of plus or minus 10%;
- Slow decline: a 10-<25% decline;
- Rapid decline: a 25-<90% decline;
- Increase: a 10% or greater increase in activity.

**Statistical approach:** We examined the impact of age, sex, specialty (primary care, surgical speciality, medical speciality, lab/imaging speciality), rurality of practice location, and training location (Canadian, international) on the patterns/timing of retirement using linear and logistic regression models.

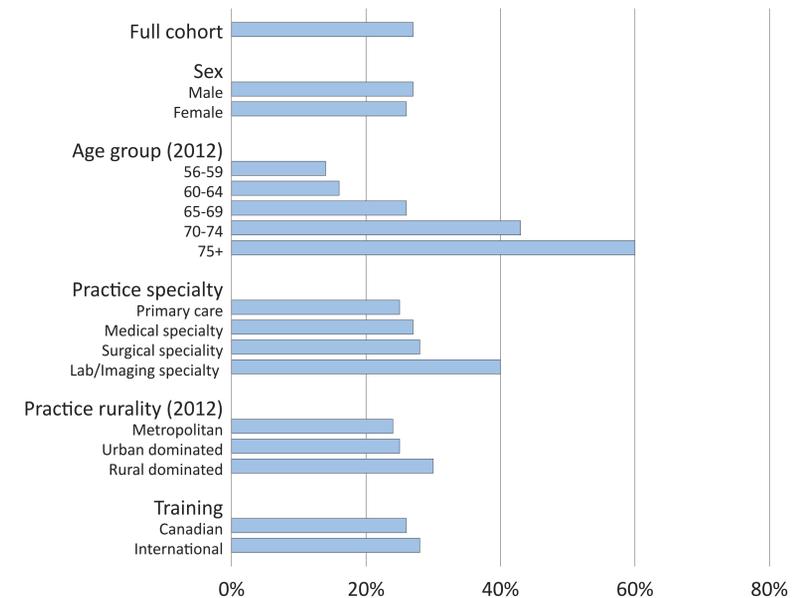
### Results

**Study cohort:** 4693 physicians who billed in at least one year (2005/06-2011/12).

Study Cohort Demographics  
All BC physicians age 50+, 2005-2012



Percentage of Cohort who Retired  
Retirement: Annual billings falling and remaining <\$10,000



### What is “retired” anyway? Problems with measuring retirement:

- Many physicians who “retired” return to active practice within a five-year period.
- Correlation between registration status and activity is poor: many inactive or minimally active physicians maintain their licences.

	<\$10,000 billed	365 days of no billing	College registry status
<\$10,000 billed	1	0.81	0.44
365 days of no billing		1	0.41
College registry status			1

### Retirement:

- 1394 (30%) physicians stopped billing for 365 consecutive days, 1260 (27%) fell below and maintained less than \$10,000 worth of billings, and 228 (5%) moved from “active” to “retired” in the College registry.
- Average age of retirement was 62-64, depending on the retirement definition used.

### Pre-retirement activity:

- 63% of physicians decline their practice activity >10% in the years preceding retirement.
- Rapid decline was most common pre-retirement activity pattern (43% of retirements).

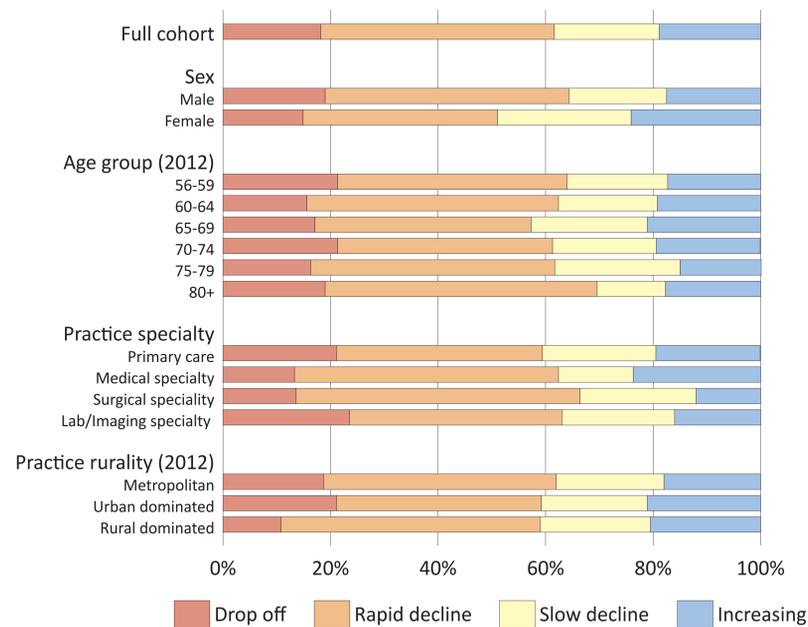
### Timing of retirement:

- Women retired earlier (4.8 years, p<0.0001).
- Internationally trained physicians and those practicing in metropolitan areas retired significantly later (2.3 years, p<0.0001 and 5.2 years, p<0.0001 respectively).
- No difference in age at retirement by specialty.

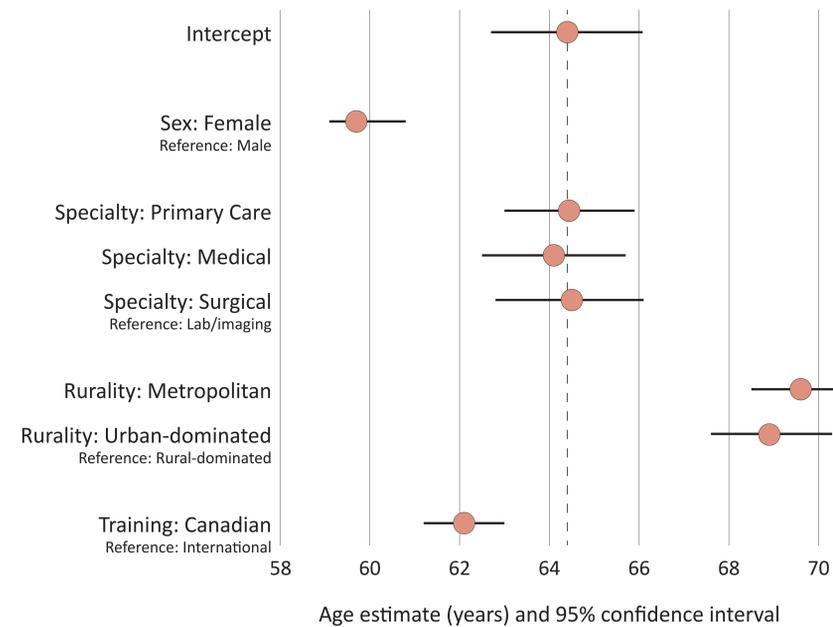
### Conclusions

Defining retirement based on licensure within the College registry underestimates the number of physicians no longer delivering care. The majority of BC’s physicians reduce practice activity in the years preceding retirement and are retiring earlier than once assumed. This may exacerbate existing primary care shortages across the province, and is important information for policy makers who are tasked with predicting primary care service supply.

Activity in the Three Years Before Retirement



Average Age at Retirement  
Linear regression results



### Acknowledgements

All inferences, opinions, and conclusions drawn in this poster are those of the authors, and do not reflect the opinions or policies of the Data Steward(s). This research is supported by the Canadian Institutes of Health Research.