

# Changing Patterns of Physician Practice in British Columbia, Canada

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## Purpose

This paper presents some preliminary evidence from a program of research exploring the transformation in perception from a “surplus” of doctors in the early 1990s to a “shortage” only a few years later. This is an initial exploration of the “physiology” of physician supply, looking at number of days of work and full-time equivalents by age and sex of physicians over time.

## Methods

We linked anonymised, individual-level payment data for all fee-for-service physicians in British Columbia with physician demographic information including age group, sex and specialty for the years 1992 to 2006. Payments were adjusted to a single base-year fee schedule, to eliminate any effects of fee change, yielding a measure of “real” output by physician and year. Number of days with a minimal level of ‘real’ payments were counted for each physician and year. “Full time equivalent” is a measure of activity of physicians. We counted physicians who billed between the 40th and 60th percentiles within their specialty as 1 FTE, those below the 40th percentile as a ratio of their billings to the 40th percentile, and those above the 60th percentile as 1 plus the log of the ratio of their billings to the 60th percentile.

## Data Sources

Supply, Migration and Distribution of Physicians, Canadian Institute for Health Information; British Columbia Linked Health Database; College of Physicians and Surgeons of British Columbia.

## Results

- The supply of physicians in Canada has remained relatively stable for the past two decades, at about 19 physicians per 10,000 population. There are about equal numbers of general practitioners and specialist physicians, and this has also remained stable over the period.
- Between 1992/93 and 2005/06 the average age of physician increased across specialties, with the greatest increase in age among general practitioners.
- Between 1992/93 and 2005/06 the average age of patients also increased across specialties.
- The average number of unique patients seen by general practitioners increased between 1992/93 and 2005/06 while the average number of unique patients seen by medical and surgical specialists declined.
- Female general practitioners, on average, billed on fewer days than their male counterparts. Between 1992/93 and 2005/06, the average number of days billed declined for both male and female general practitioners.
- As females increase their representation in the physician workforce, it was hypothesized that total physician FTEs would decline. This does not seem to be the case. Female representation has increased in most specialties, but growth in proportion of FTEs who are female has, for the most part, been at least as fast as growth in female proportion of discrete physicians.
- Between 1992/93 and 2005/06 the ratio of FTEs to head counts for older age groups of general practitioners increased while for younger GPs these ratios declined. The same effect was not found for medical specialists.

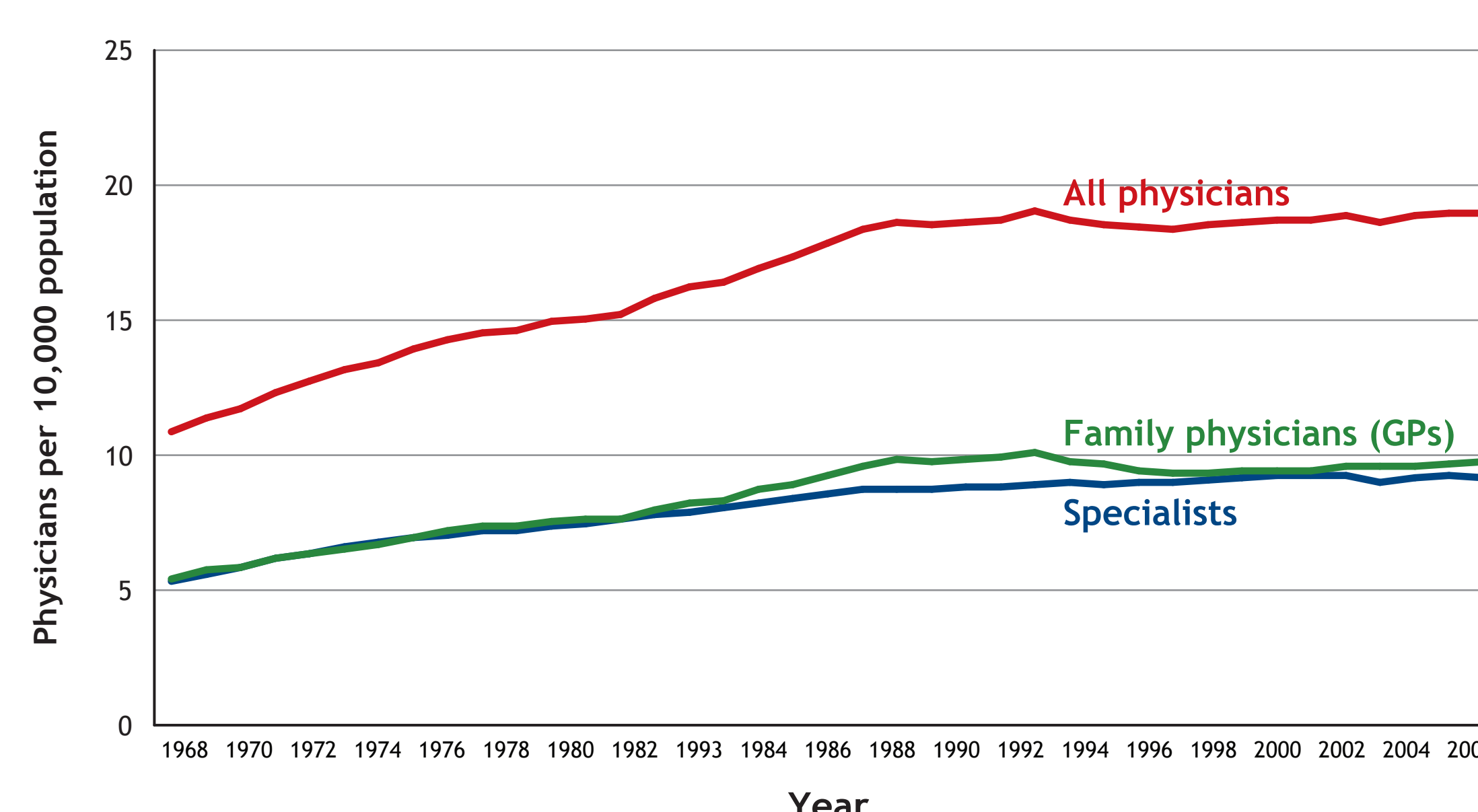
## Conclusions

There have been large changes in patterns of practice over time. Measuring and understanding changes in physician supply requires much more than simply counting registered physicians. A better understanding of the physiology of physician supply will help in untangling the surface inconsistency between stable aggregate supply per capita, and the public perception of increasing difficulties in accessing physician services, at least for some specialties and locations.

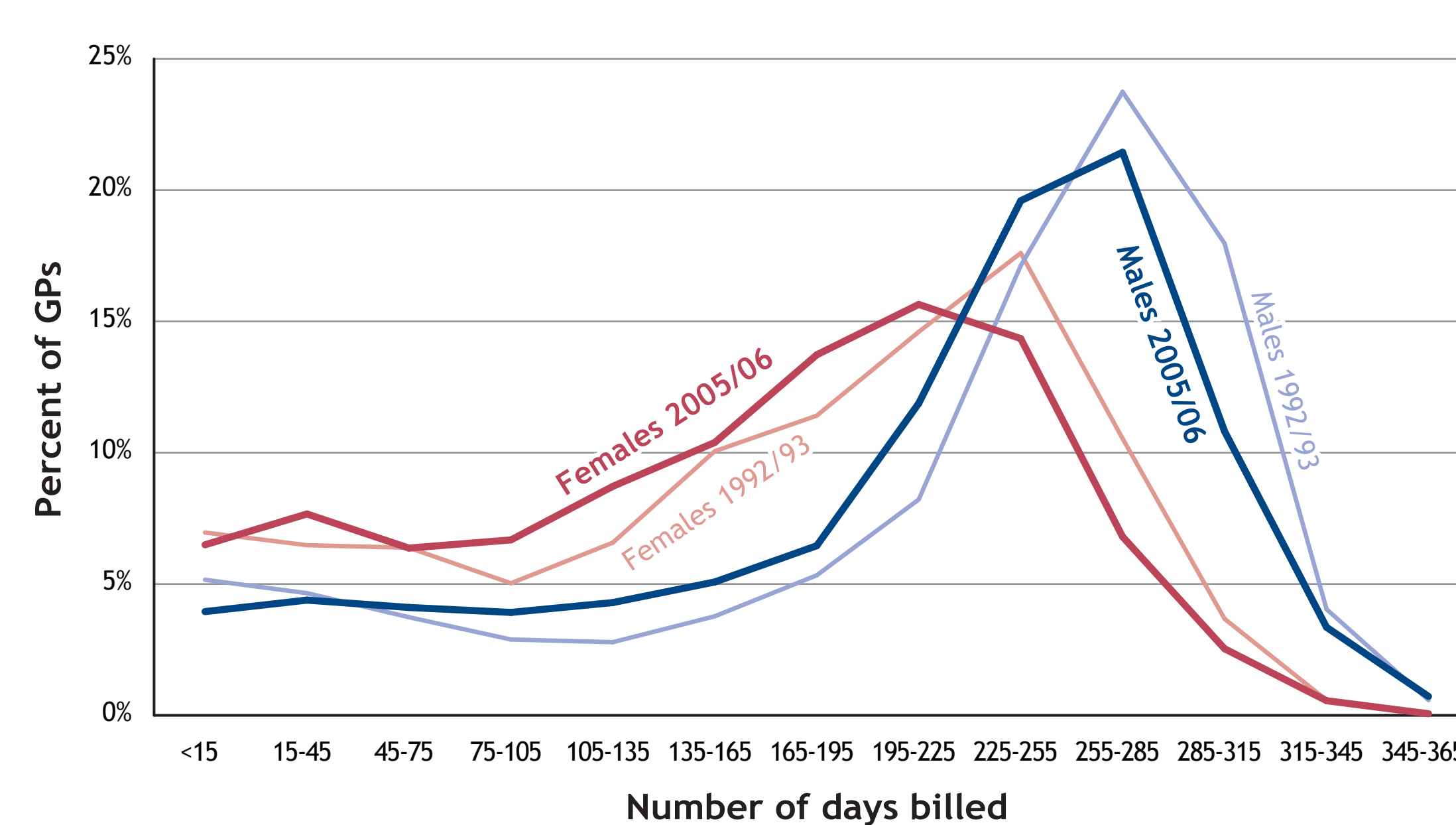
## Acknowledgements

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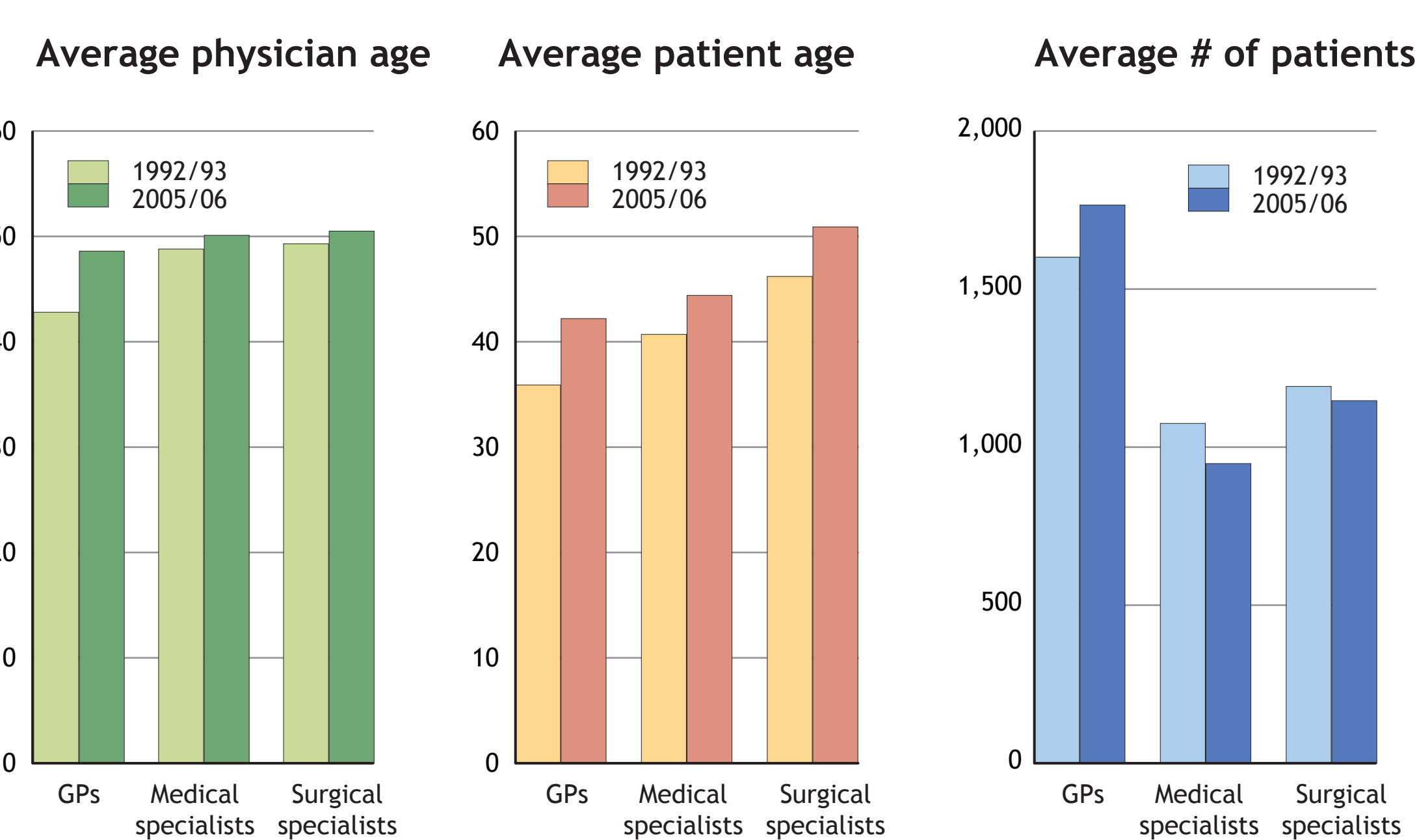
Physicians per 10,000 population, Canada, 1968-2005



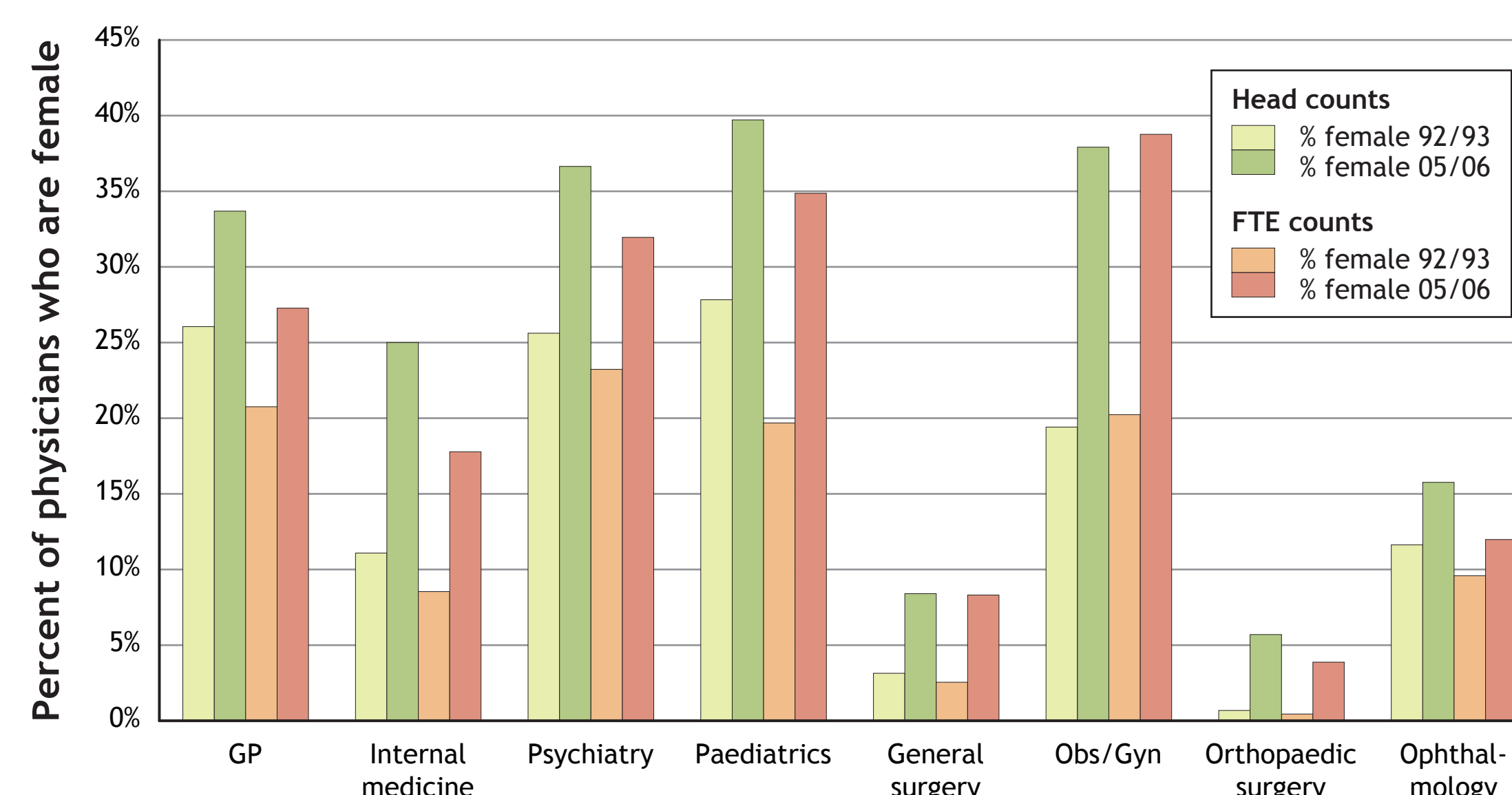
Days billed by GPs, by sex, British Columbia, 1992/93 and 2005/06



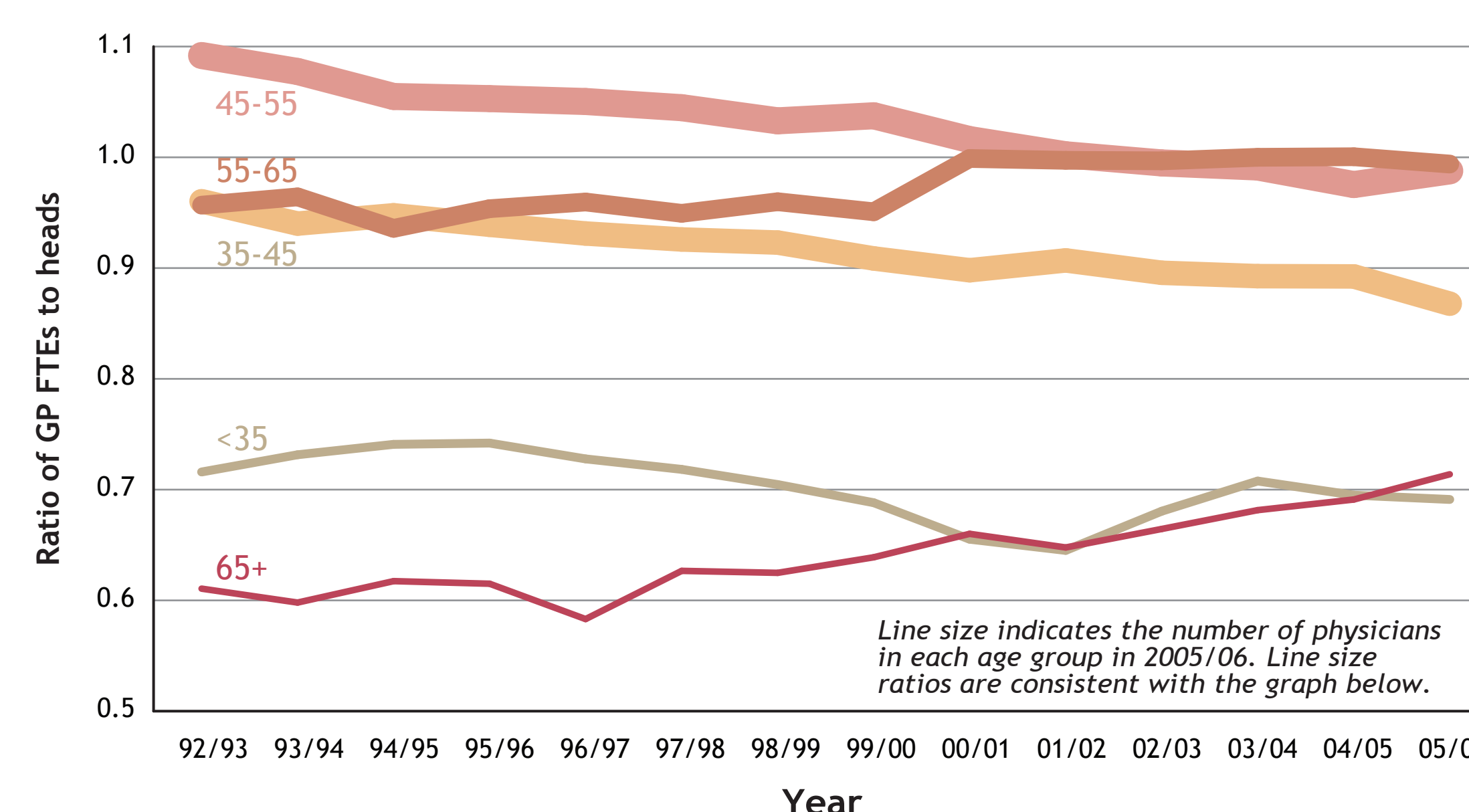
Physician and practice descriptors, by specialty group, British Columbia, 1992/93 and 2005/06



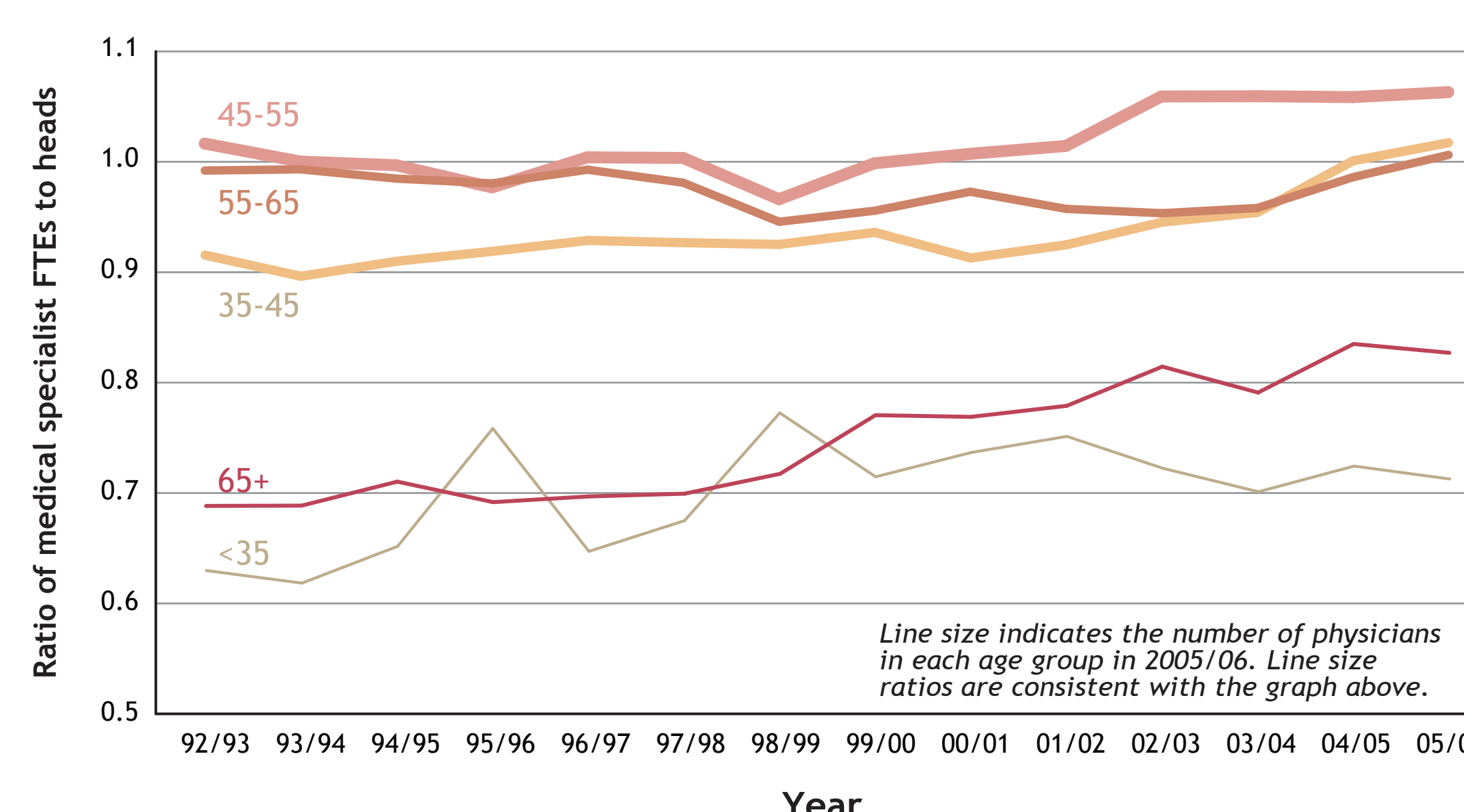
Percent of physicians who are female, for head counts and FTEs, by specialty, British Columbia, 1992/93 and 2005/06



Ratio of GP FTEs to head counts by age group, British Columbia, 1992/93-2005/06



Ratio of medical specialist FTEs to head counts by age group, British Columbia, 1992/93-2005/06



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