THE EFFECT OF PHYSICIAN GENDER ON PRACTICE SIZES, VOLUMES, AND PHYSICIAN REMUNERATION
A population-based longitudinal evaluation of male versus female rheumatologists in Ontario

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BACKGROUND

- Most rheumatology workforces are increasingly female. Subtle but important differences have been described in the way that male & female physicians work & how they care for their patients.
- Male physicians have been described as having a more consultative and less hands-on approach to patient care due to gender identity, work-life balance, and patient expectations.
- Canadian women also report higher levels of job satisfaction, role clarity, and stress levels compared to men.
- Inadequate training and support for junior female physicians.
- However, Canadian evidence supporting these assertions (that female rheumatologists have reduced clinical activity) is lacking.
- Yet, this information is crucial for workforce planning.

OBJECTIVES

- To compare differences in clinical activity & income between male & female rheumatologists & to evaluate the effects of physician gender on clinical activity (practice size & volume), accounting for rheumatologists’ age, & calendar year effects.

METHODS

STUDY DESIGN & SETTING:

- We conducted a population-based study analyzing provincial billing data from 2000 to 2015 in Ontario, Canada, where all 13 million residents are covered by a publicly funded healthcare system.

DATA SOURCES:

- Adult rheumatologists were identified using a validated physician registry (CPS Physician Database (CPDB)).
- Rheumatologists with a clinical practice volume of <10 full time equivalent (FTE) were excluded (e.g. academic researchers, administrators).
- Paediatric rheumatologists were excluded.
- Patients encounters with rheumatologists were identified from the Ontario Health Insurance Plan (OHIP) Claims Database.

ANALYSIS:

- We assessed practice sizes (number of unique patients), practice volumes (number of patient assessments), & income (derived from fee-for-service and alternative payments) in terms of annual median & interquartile ranges (IQR) & stratified by rheumatologists’ gender.
- Physicians genders were compared using the Mann Whitney test and median differences & 95% confidence intervals (CI) are reported.
- Two separate multivariate linear regressions assessed the effects of physician sex, age, & year on practice size & volume.

RESULTS

- Annual Number of Clinical FTEs
- Percentage of Rheumatologists with at least 3 patient contacts on at least 209 days of the year
- Annual PRACTICE SIZES
- Annual PRACTICE VOLUMES
- Percentage of rheumatologists by PRACTICE SIZE
- Percentage of rheumatologists by PRACTICE VOLUMES

SUMMARY OF FINDINGS

- The number of rheumatologists with a full-time clinical practice increased from 89 to 120 patients from 2000 to 2015. More male FTEs were in practice each year compared to females. The % of female FTEs increased significantly over time, from 27% (n=204) in 2000 to 42% (n=560) in 2015 (15% increase, 95% CI 2.27).
- The % of female rheumatologists with patient assessments on at least 209 days/year showed a downward trend over time for both genders. A higher % of males met this threshold each year.
- Practice sizes declined over time. In 2000, females saw a median (IQR) of 1,605 (1,276-2,228) patients vs. 2,242 (1,606-2,936) patients for males, for a median difference of 508 patients (95% CI 104-475). By 2015, females saw a median of 1,469 patients vs. 1,349 for males (median difference 405, 95% CI 144, 682).
- Patient volumes were significantly higher for males. In 2015, females provided a median of 4,253 assessments compared to 5,014 for males (median difference 759, 95% CI 193, 1,717).
- Approximately half of female rheumatologists have a practice size of <1,500 patients whereas more than half of male rheumatologists have a practice size of >2,000 patients.
- 50-60% of males have >5000 patient encounters annually whereas the majority of females have fewer patient encounters.
- Overall median (IQR) income for both genders increased over time from $251,596 ($199,367-833) in 2000 to $388,713 ($311,924-849) in 2015. Incomes were significantly higher for males (ranging from $505,000/year).
- Our multivariate adjusted analyses estimated that males saw a mean of 406% (95% CI 107-1,105) more patients annually than females, and provided 1,089 (95% CI 343-1,773) more assessments. Overall, there was a small but statistically significant increase in mean patient assessments and mid-sized (45-54) rheumatologists had greater practice sizes & volumes than their younger/cohort counterparts. A significant interaction between calendar year & gender was seen.

IMPLICATIONS

- On average, female rheumatologists provided fewer assessments & saw fewer patients annually relative to males, which resulted in lower earnings. This effect appears to be becoming more pronounced with time.
- Our findings provide novel perspectives for workforce planning with an ever-increasing number of females in the workforce.

Acknowledgments: This analysis was supported by a CIORA grant.
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