

J.D. Allingham C.J. Heaton B. Henning Mark Longhurst Jacqueline Wakefield

## Differences In Work Plans of Graduating Family Medicine Residents By Sex

### SUMMARY

Much subjective evidence has compared productivity of male and female physicians. Given that enrollment of female students is now much higher, manpower planners have to look carefully at the implications, ensuring that they have accurate information. This study surveyed 1984 graduates of one Ontario and four western residency training programs in family practice. Although many men had no fulltime plans and intended to take at least three months off, women were more likely not to have any work plans, to be intending to practice in an urban area, and to be intending to limit their practices (e.g. no obstetrics, no emergency room, no surgical assisting). While traditional role conflicts may account for these differences, there may also be different confidence levels by sex for certain aspects of family medicine. (*Can Fam Physician* 1985; 31:1745-47)

**Key words:** Residents, work plans, patterns of practice

### SOMMAIRE

Les éléments qui ont servi à comparer la productivité des hommes et des femmes médecins sont empreints de subjectivité. Considérant l'augmentation importante des femmes immatriculées comme étudiantes, les planificateurs de main-d'oeuvre se doivent d'en analyser attentivement les implications, tout en s'assurant qu'ils ont en main des informations précises. Cette étude a analysé, au cours de leur première année post-graduation, les étudiants gradués en 1984 et provenant de cinq programmes de formation en médecine familiale dont l'un de l'Ontario et quatre des provinces de l'Ouest. Malgré le fait que de nombreux hommes n'avaient pas de projets de travail à plein temps et qu'ils désiraient prendre au moins trois mois de congé, les femmes avaient encore moins planifié leur travail, désiraient pratiquer dans des régions urbaines et avaient l'intention de limiter leur pratique (eg. pas d'obstétrique, pas de salle d'urgence, pas d'assistance opératoire). Bien qu'il soit possible d'expliquer ces différences par les rôles traditionnels et conflictuels entre les hommes et les femmes, il pourrait aussi exister différents niveaux de confiance selon les sexes pour certains aspects de la pratique de la médecine familiale.

Dr. Allingham is an associate professor in the Departments of Family Medicine and Community Health Sciences at the University of Calgary. Dr. Heaton is a clinical assistant professor in the Department of Family Medicine at the University of Calgary. Dr. Henning was chief resident in the Department of Family Medicine at the University of Calgary. Dr. Longhurst is director of the residency training program in the Department of Family Medicine at the University of British Columbia. Dr. Wakefield is director of the residency training program and an associate professor in the Department of Family Medicine at McMaster University. Reprint requests to: Dr. J.D. Allingham, UCMC, 3350 Hospital Dr. N.W., Calgary, AB. T2N 4N1.

**S**UBJECTIVE EVIDENCE suggests that female physicians are

not as productive at work as their male counterparts. Depending on the parameters considered, work output of female physicians has been estimated at 45-85% that of male physicians.<sup>1,2</sup> Although Canadian data are rare, a major Quebec report indicates that female doctors work approximately 78% of the hours per week that male doctors work, and work substantially fewer weeks per year.<sup>3</sup> Other investigators indicate that women take more extended periods of time off work and that their earnings are less than those of their male counterparts.<sup>4,5</sup>

Given the dramatic increase in the proportion of women in medical schools in recent years, any differential in work activity is bound to have a substantial impact on projected numbers of physicians required. The 1981 Canada census showed that only 17% of physicians were women, but medical school enrollment of female

students is now up to 42%.<sup>6,7</sup> Some major medical manpower studies have attempted to predict a reduction in work force activity.<sup>8,9</sup> Moore<sup>10</sup> has examined the potential impact on family medicine; Lomas, Stoddardt and Barer<sup>11</sup> have provided the definitive methodological discussion.

Cohort studies have demonstrated generational differences in labor force activity of female physicians.<sup>12,13</sup> This study focuses on intended work activity of a recent cohort of graduating family medicine residents. Intentions of work acquisition, location, and specific activity profile may provide a baseline of information on actual work behavior differences by sex, once they unfold in the marketplace.

### Methods

This descriptive epidemiological study used an extensive questionnaire to define anticipated work profiles of family practice residents. The ques-

tionnaire asked for demographic details, residents' work plans and attitudes, and their confidence level in undertaking selected clinical activities. The population consisted of 1984 graduating residents from four western Canadian programs and one Ontario program.

## Results

The intent of the study was to have 100% response, to create a statistical 'universe' rather than a sample. The response rate from the western programs was 99.5%, but from the Ontario program, only 75%. The 66 residents who responded were neither a complete population nor a random sample, but observations were the same in direction with or without the Ontario data, and most often were true for individual western programs as well.

Figure 1 demonstrates the employment plans of the residents one month before graduation. Less than one third had actually contracted for a fulltime 'permanent' job, but males were twice as likely to have done so than were females—40% versus 22%. One quarter of all respondents had no specific plans to take up employment upon graduation; the male: female percentages in this category were 21%:35%. The highest percentage of residents—41%—had plans for some temporary work such as locum tenens. Males and females were similar in this category: 44% and 40% respectively.

Figure 2 shows the distribution of

intended practice locations. Fewer than half of the 41 residents who responded to this question planned to work in a metropolitan setting, while 17% stated intent to work in moderate size communities and 39% in smaller and more isolated areas. Women were substantially more likely to opt for work in less remote settings.

Figure 3 outlines stated expectations about number of months of work planned after graduation. Respondents were instructed to state "12 months" if holidays of one month or less were planned. Proportions of men were higher in both the group expecting to work six months or less and the group intending to work the entire year. Another way of looking at this issue is to consider that 52% of women and 37% of men planned to take at least three months off over the next year. Residents were asked to rate their confidence in several aspects of clinical medicine (See Fig. 4). Figure 5 summarizes aspects of practice that residents planned to avoid.

## Discussion

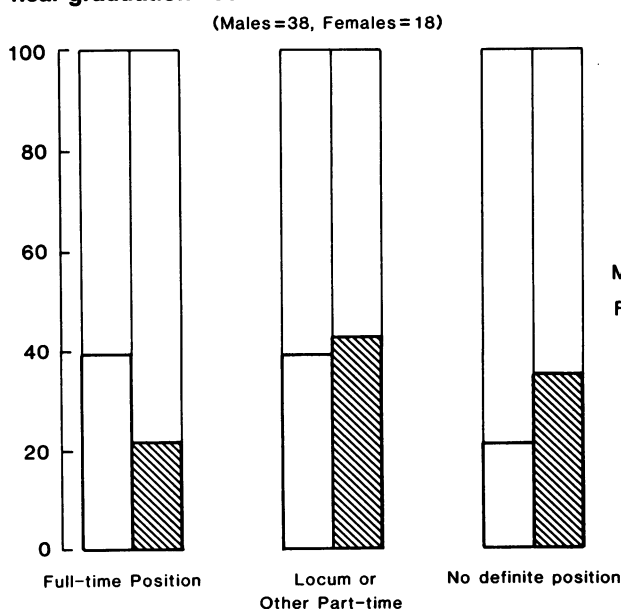
A picture emerges of a cohort of new physicians who are rather uncommitted in the job market. Women appear even less committed to early fulltime employment in the traditional sense of the term than do men. In addition, women who had contracted work were more likely than men to be planning to stay in the

metropolitan areas, and to work less time over the prospective year. The analysis of intended work profiles showed women less likely to be planning to do 'procedural' medicine. A surprising portion of both sexes did not plan to do obstetrics, nursing home work, or house calls—a disturbing omen for the future of comprehensive care.

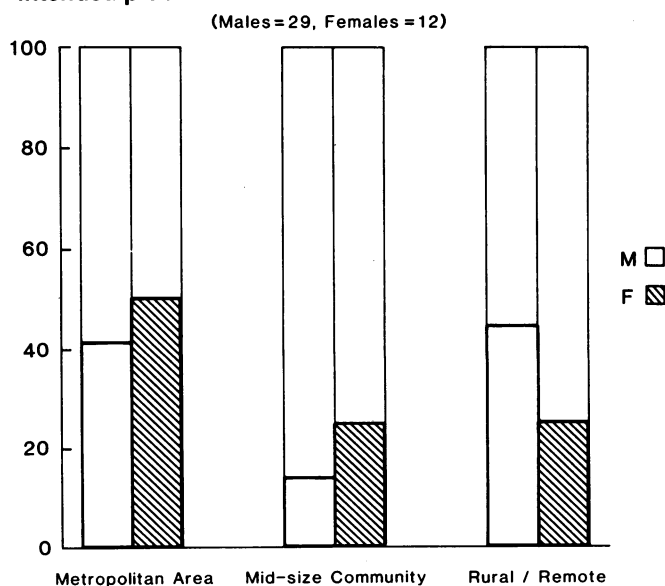
Much of the sex difference described here may be the result of traditional role conflicts experienced by women, particularly the restraints imposed by personal relationships, and the stresses inherent in attempts to reconcile roles of physician, wife and mother. However, a suggestion emerges from this study that there are different confidence levels in performing various aspects of clinical medicine. Such 'profile predilections' may be the result of biased selection into family medicine programs, and may be reinforced by teaching and experience biases within such programs. Finally, they may be partially based on true sex differences, if indeed they exist.

We do not suggest that work pattern differences described are inherently good or bad. Indeed, a case can be made in favor of the more conservative view of clinical confidence shown by the female physicians. Also, intended work hours and profiles shown by women intending city work may be inherently more compatible with and reflective of job realities in many urban areas.

**Fig. 1. Percentage of residents by job status and sex, near graduation 1984.**



**Fig. 2. Percentage of graduating residents by sex and intended practice location.**



The external validity of results presented here is limited by the extent to which these results held across the country in the summer of 1984, as well as the degree to which findings would hold in the same areas over time, and for graduates of rotating internship programs. Marital status, parity, age, and other social and demographic factors would also qualify results presented. Because of the considerable interrelations among these variables, they would require a

very large study indeed. Perhaps a yearly national survey can be organized to monitor both practice intent and practice performance, to facilitate intelligent medical manpower planning. We conclude that the 'sex factor' is more complicated than previously demonstrated, involving differences of potential work profile as well as time commitment. ●

### References

1. Bobula JD. Work patterns, practice characteristics and incomes of male and

female physicians. *J Med Educ* 1980;55:826-33.

2. Korcok M, Geekie DA. Special report issued on requirements of the subcommittee on physician manpower. *Can Med Assoc J* 1976;115:265-73.

3. Contandriopoulos AP, Fournier MA. *Les effectifs médicaux au Québec situation de 1972 à 1982 et projection pour 1986. Corporation professionnelle des médecins du Québec. Montréal, PQ, 1983.*

4. Ferrier BM, Woodward CA. Career choices and perceptions of undergraduate education of McMaster medical graduates: comparison between men and women. *Can Med Assoc J* 1982;126:1411-4.

5. Rowe IL, Carson NE. Female doctors in Victoria. *Med J Aust* 1979;2:680-2.

6. Census of Canada 1981; Population and Labour Force - Occupational Trends. Statistics Canada, Ottawa.

7. Ryten E. Enrolment in Canadian faculties of medicine. Ottawa: The Association of Canadian Medical Colleges Forum. 1984/85;17:5.

8. Report of the Graduate Medical Education National Advisory Committee. Health Resources Administration. Hyattsville, MD. Vol. 1-7, DHSS No (HRA) 81-651-7, 1980.

9. Physician Manpower in Canada: A report of the Federal-Provincial Advisory Committee on Health Manpower. Ottawa: 1984 (unpublished)

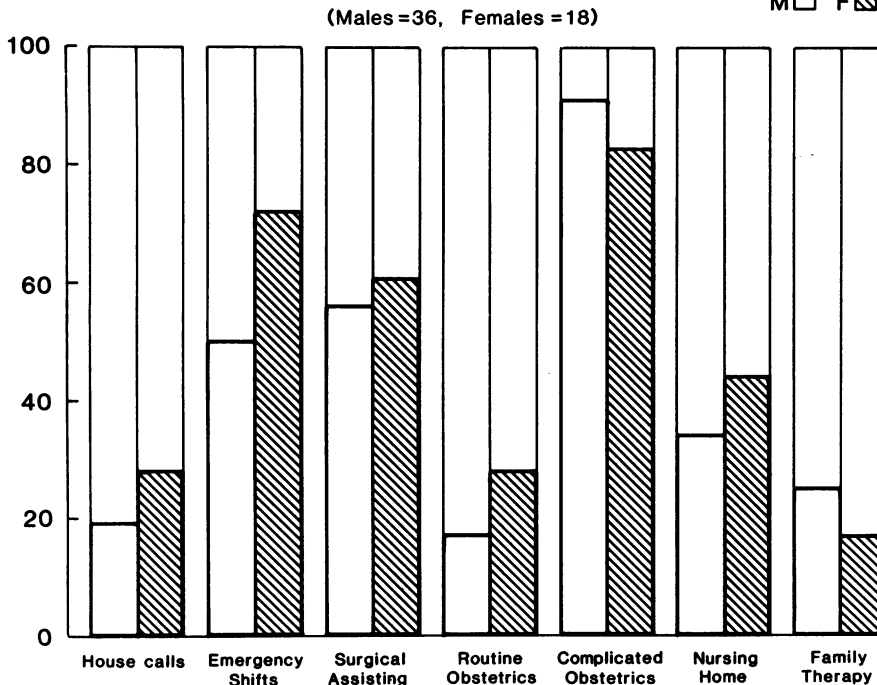
10. Moore CA. Family physician manpower. Poor planning with inaccurate data. *Can Med Assoc J* 1982;127:1180-2.

11. Lomas J, Stoddardt GL, Barer ML. Supply projections as planning. A critical review of forecasting net physician requirements in Canada. *Soc Sci Med* 1985;20:411-24.

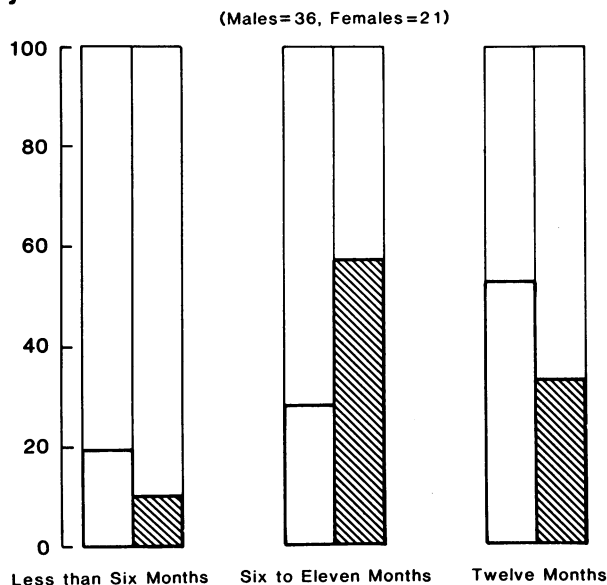
12. Ward AW. Careers of medical women. *Br Med J* 1982;284:31-3.

13. Watson JH. A survey of two cohorts of women who graduated from Canadian medical schools. *Can Med Assoc J* 1977;117:892-4.

**Fig. 4. Percentage of residents by sex who do not intend to handle selected clinical situations.**



**Fig. 3. Percentage of graduating residents by sex and intended number of work months in the prospective year.**



**Fig. 5. Percentage of graduating residents by sex and intention not to practice selected aspects of medicine.**

