

# Toward gender balance in the Australian medical workforce: some planning implications

## AUSTRALIAN MEDICAL WORKFORCE ADVISORY COMMITTEE (AMWAC)

AMWAC is the national medical workforce planning and advisory agency for the Australian Health Ministers' Advisory Council. This paper was prepared for AMWAC by Professor John Horvath, Chairman, Australian Medical Workforce Advisory Committee; Dr Mary Harris, Senior Policy Officer, Australian Medical Workforce Advisory Committee and Senior Lecturer, University of Sydney; Mr Paul Gavel, Executive Officer, Australian Medical Workforce Advisory Committee; Mr John Harding, Head, Labour Force Unit, Australian Institute of Health and Welfare; and Mr Graham Angus, Senior Project Officer, Labour Force Unit, Australian Institute of Health and Welfare

### Abstract

*Men and women doctors participate differently in the workforce. As the proportion of women in the workforce increases, gender-based differences in workforce participation are raising important planning questions. For example, how will differences in hours worked per week impact on the number of trainee doctors required to meet future demand, why do some disciplines attract more women, what will be the impact on the practice of medicine if these trends continue and how does the training environment impact on variation in career decision. In this paper we summarise and discuss the findings of recent research undertaken by the Australian Medical Workforce Advisory Committee and outline some public policy responses.*

### Introduction

Nationally and internationally, the past decade has seen change in the demographic profile of the medical workforce. Today, more women are entering medicine and the average age at which doctors enter the workforce is increasing. Male and female medical practitioners are known to participate differently in the workforce. These structural trends have important implications for workforce planners because of their potential impact on workforce supply. The focus of this paper is the impact of gender on participation in the Australian medical workforce and the results of some of the key research in this area over the past few years.

Data from the Australian Bureau of Statistics (ABS) for Australian workers in all industries shows that levels of participation vary by age for men and women. For example, women in the main child bearing years (25-34) have lower participation rates than women aged 20-24 years or women aged 35-44 years. On the other hand, the pattern of participation for men resembles an inverted U shape, with participation rising steeply from age 15-24 years, remaining relatively stable from ages 25 to 54 years and then declining sharply (ABS, 1999). Across all Australian industries, the average hours worked per week by men and women is 40.5 hours and 29.3 hours, respectively (a difference of 11.2 hours). However, this difference is reduced to 4.8 hours when full-time workers are considered. In total, part time work accounts for 24.1% of the aggregate hours worked by all employed Australian women, while for men it accounts for just 4.9% (ABS, 1999).

In Canada, associated with an increase in female participation in the medical workforce there is an increased demand by women patients to consult a female doctor, particularly when their problem is gender related. Women are said to prefer female doctors because they show greater empathy and are better communicators (Thorn, 1994). Women doctors are reported to spend more time per patient and provide more counselling services than is the norm (Birenbaum, 1995). Overall, women specialists work 4.4 hours per week less than men and this differential appears to be affected by marital status and number of children at home (Cohen, 1999). For example, as the number of children in the family increases the number of hours worked by male specialists increases, while for women specialists it decreases (Cohen, 1999). Women prefer specialties, such as paediatrics, medical genetics, endocrinology metabolism, dermatology, community medicine and psychiatry (Cohen, 1999). Specialties in Canada with low female doctor representation (ie less than 10%) include urology, plastic surgery, orthopaedic surgery, otolaryngology and cardio-thoracic surgery (Cohen, 1999). It is proposed that attitudinal and structural change may be required within many training programs to make them more attractive to women (Cohen 1999). Rural practice in Canada is said to pose particular challenges for young women doctors who need to balance multiple roles, ie doctor, wife, mother and individual (Rourke et al., 1996).

In the United States, special programs have been proposed to encourage more women to enter rural practice (Schmittiel and Grumbach, 1999). These researchers report a similar pattern of specialist choice among junior women doctors in the United States to that reported for Canada. Furthermore, they note that this situation has remained fairly constant during the past decade. However, within some specialist training programs there have been major shifts in the proportion of trainees who are women. For example, in obstetrics and gynaecology women trainees accounted for 46.9% in 1990 and 62.6% in 1997 (Schmittiel and Grumbach, 1999). Differences in the earnings of young male and female doctors in the United States have been explained by several factors, namely female doctors 'choose less lucrative specialties, work in less highly paid practice settings and work fewer hours' (Schmittiel and Grumbach, 1999, p 11). Female doctors are more likely to be married to another doctor, to be the primary or equal care giver for their children, to arrange their work schedules to care for children and to be less likely than men to report success in achieving their career goals (Sobecks et al., 1999). It is concluded that 'The growing presence of women in medicine may be changing the way in which medicine is practised in the United States. Female physicians appear to have a more prevention oriented, communicative approach to clinical practice. Female clinicians are in demand. However, female physicians may experience work stress from the collision of heightened patient expectations and the constraints of their practice settings. These stresses, combined with sexual inequities in family and household responsibilities and pervasive experiences of sexism in training and practice, may produce intolerable role strain and professional (and personal) "burn-out" among female physicians' (Schmittiel and Grumbach, 1999, p 15).

Specialties with relatively large representations of women in the United Kingdom include paediatrics (32%), obstetrics and gynaecology (46%), psychiatry (40%), clinical oncology (41%) and general medicine (33%) (Paice, 1999). Gender-related differences in career path mean that these specialties need to plan for lower rates of workforce participation, while those with a preponderance of men need to consider the shrinking size of their recruitment pool (Paice, 1999). A further workforce consideration in the United Kingdom is the implementation of the European Time Directive, which limits the working hours of trained doctors to 48 hours. One effect of the Time Directive could be a reduction in the differential between the hours worked by male and female doctors (Paice, 1999).

Twice as many women as men are seeking to enter general practice in the United Kingdom with women accounting for 60% of recruits into general practice (Brooks, 1998) and drop out rates are reported to be high (Paice, 1999). The stated reasons for women to choose general practice as a career include the desire to combine a family with a career, opportunity to practice a broad range of medical skills, opportunity to employ caring skills and develop a degree of personal involvement with patients (Brooks, 1998). The type of practice undertaken by female general practitioners (GPs) was found to be influenced by the organisation of work within general practice and the responses of individual female GPs to gender-related role pressures (Brooks, 1998).

Women GPs in New Zealand face similar pressures to doctors in other countries. For example, Tracey reported that 77% of GPs had children and that the most common reason for working part time was parenting responsibilities. Of partnered GPs, 37% were married to another doctor; a situation which frequently required choice for the female doctor involving limitations in personal income and professional life in favour of fulfilling family roles (Tracey, 1999).

Australian female GPs have been found to manage different patient problems to male GPs. For example, female GPs have been found to see more patients with psycho-social and female specific problems. Furthermore, female GPs reported more problems on average per encounter and consultations with them were almost twice as frequently billed as long consultations (Britt et al., 1996). These researchers conclude that male and female GPs manage very different types of morbidity, and that, in the future, female GPs and male GPs may become semi-specialised in respect of the sub-populations each serve (Britt et al., 1996). A survey of Australian anaesthetists found that 64% of women were married to other doctors, while 30% had no partner. Furthermore, while most were content with their professional work, their peers and their families, female anaesthetists had to contend with adverse stereotypical attitudes. For example, hostile attitudes to women working part-time, and in private practice (Khursandi, 1998).

## Methods

The data reported in this article are derived largely from two studies undertaken by the Australian Medical Workforce Advisory Committee in cooperation with the Australian Institute of Health and Welfare (AIHW) together with the work of the Medical Training Review Panel (MTRP), Department of Health and Aged Care (DHAC). The first of the AMWAC studies examined trends in the participation of women in the Australian medical workforce and estimated the likely impact of these trends on workforce supply. Impact was a judgement based on self-reported variation in average hours worked per week by male and female doctors (AMWAC & AIHW, 1996a). Using a qualitative approach (telephone interview), the second study asked 296 practising doctors to reflect on the factors that had influenced their important career choices and reported variation among male and female doctors. The sample was selected from graduates of all Australian medical schools between 1967 and 1997 and included equal numbers of male and female doctors both generalists and specialists (AMWAC, 1998). Finally, the article reports findings from a two-day workshop that was convened by AMWAC and the Department of Health and Aged Care (DHAC) to identify 'workable solutions' to issues raised by the Brennan/MTRP (1998) report 'Trainee Selection in Australian Medical Colleges' and the AMWAC (1998) report 'Influences on Participation in the Australian Medical Workforce'.

## Major findings

### Increased female participation

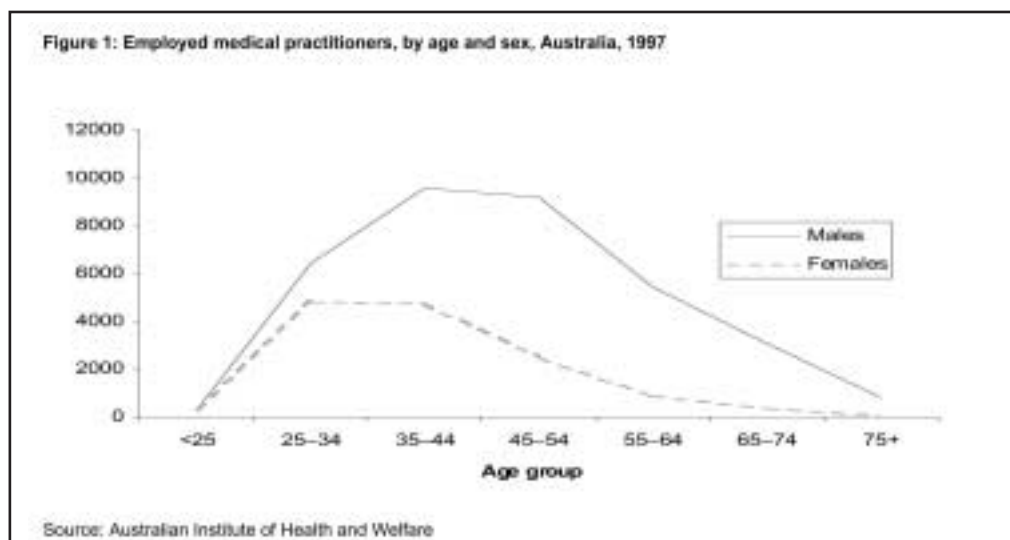
Over the past 15 years in Australia the percentage of women doctors has increased from 18.9% in 1981 to 30.3% in 1996 (Table 1). Data from the AIHW indicates that in 1998 there were 46,078 medical clinicians practicing in the workforce of whom 72.2% were male and 27.8% were female.

**Table 1: Medical workforce, by sex, Australia, 1981 to 1996**

Year	Males	Females	Persons	% female
1981	22,710	5,300	28,010	18.9
1986	25,330	7,450	32,790	22.7
1991	27,710	11,090	38,800	28.6
1996	30,780	13,370	44,150	30.3

Source: Australian Bureau of Statistics

There is an expectation that the trend toward increased female participation will continue as a predominantly male cohort of older doctors is replaced by a cohort of younger doctors that is at least 50% female in any one year (Figure 1). In 1998, the proportion of commencing Australian medical students who were women increased to just over 50% for the first time and in 1999 it was 53% (AIHW, 2000). It is estimated that by 2010, women will account for approximately 34% of the medical workforce and 38.9% of the workforce in 2025 (AMWAC & AIHW, 1996b).



## Consumer preferences

Females comprise 50.2% of Australia's population of 19 million, have a life expectancy at birth 6 years greater than males and consume medical services at a higher rate than males. In 1997-98, the female population averaged 12.81 Medicare services per capita, 46.2% higher than the male rate of 8.76 services. Consequently, 60% of all Medicare services were rendered to females (Health Insurance Commission 1998).

Data collected on patient attendances at general practices during 1998-99 suggest a strong demand by female patients for female GPs. For example, Medicare data indicate that 70% of the patient encounters of female GPs were with female patients. On the other hand, 52.8% of the patient encounters of male GPs were with female patients. Hypertension, acute upper respiratory tract infection and immunisation were the three leading problems managed by both male and female GPs. However, 16.9% of the patient encounters of female GPs involved management of the female uro-genital system, pregnancy and family planning. This compared with 7.5% for male GPs.

Similarly for a number of medical specialist services, notably surgery, psychiatry and dermatology, female specialists see a much higher proportion of female patients than male specialists (Table 2).

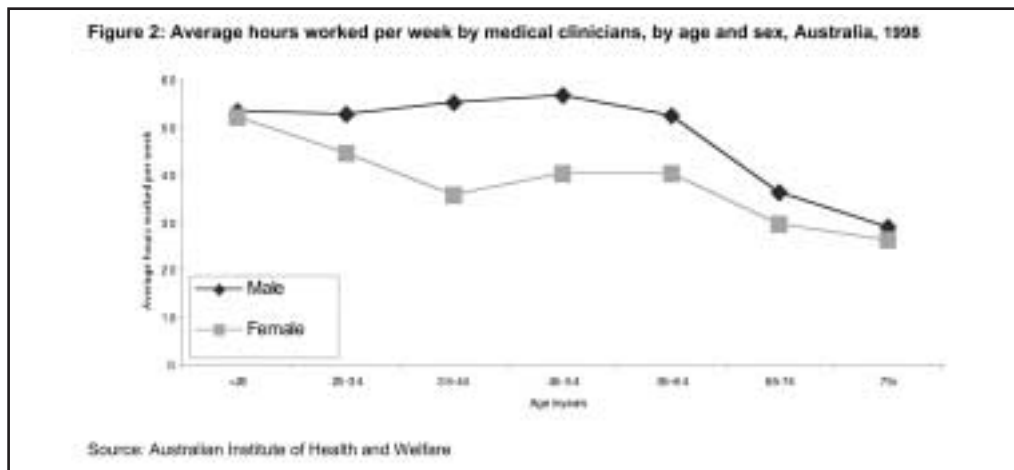
## Variation in hours worked

Male and female doctors participate in the workforce differently. In 1998, the 33,269 male clinicians worked an average of 52.6 hours per week, compared with 39.7 hours per week for the 12,809 female clinicians. Male practitioners are more likely to work excessively long hours than are female practitioners. For example, in 1998 17% of male doctors worked 65 hours per week or more, while 7% of female doctors worked similar hours. During their career female practitioners are likely to practise at lower activity levels for a period of time coinciding with child bearing and child rearing (Figure 2). They also retire permanently from the workforce, on average, at a younger age than males. It is estimated that the average lifetime workforce contribution of female practitioners is currently around 68% of the average male practitioner contribution (AMWAC & AIHW, 1996a).

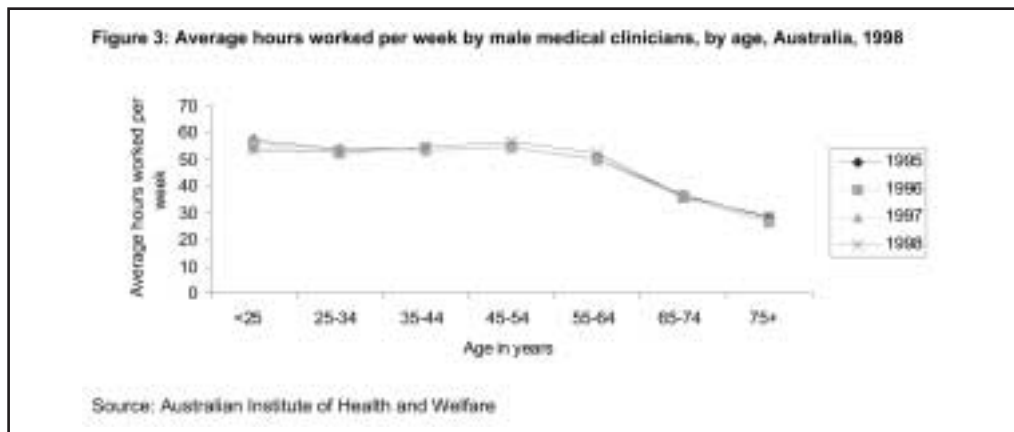
**Table 2: Selected medical specialties: female proportion of doctors and the female proportion of patients by sex of doctor, 1998-99**

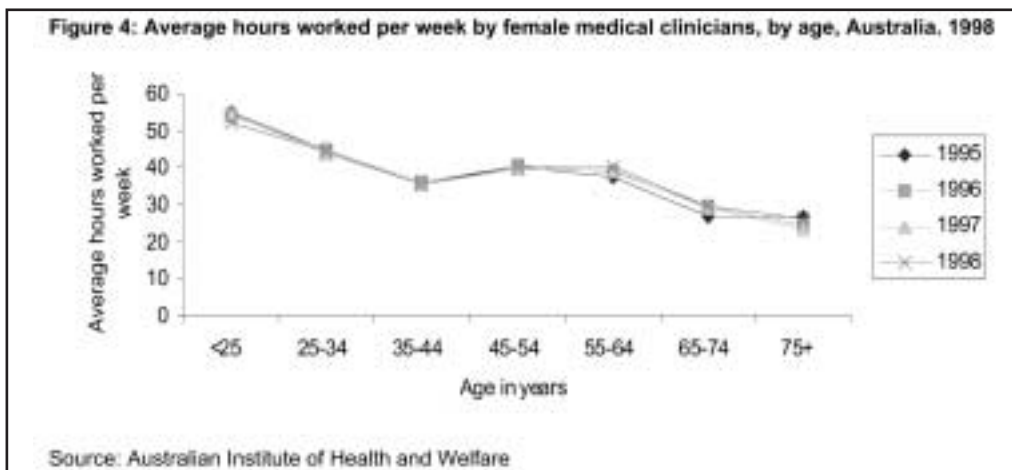
Medical specialty	Female % of specialists	Female % of patients	
		Male specialists	Female specialists
Obstetricians & gynaecologists	14.6	100.0	100.0
General surgeons	3.3	56.9	78.1
Other recognised surgeons	5.3	52.3	61.0
Psychiatrists	26.1	51.2	74.3
Dermatologists	29.9	55.1	67.5
Consultant physicians: internal medicine	15.1	53.3	59.1
Specialist physicians: internal medicine	15.5	61.6	61.0
Other specialists	25.5	56.8	62.4

Source: Department of Health and Aged Care.

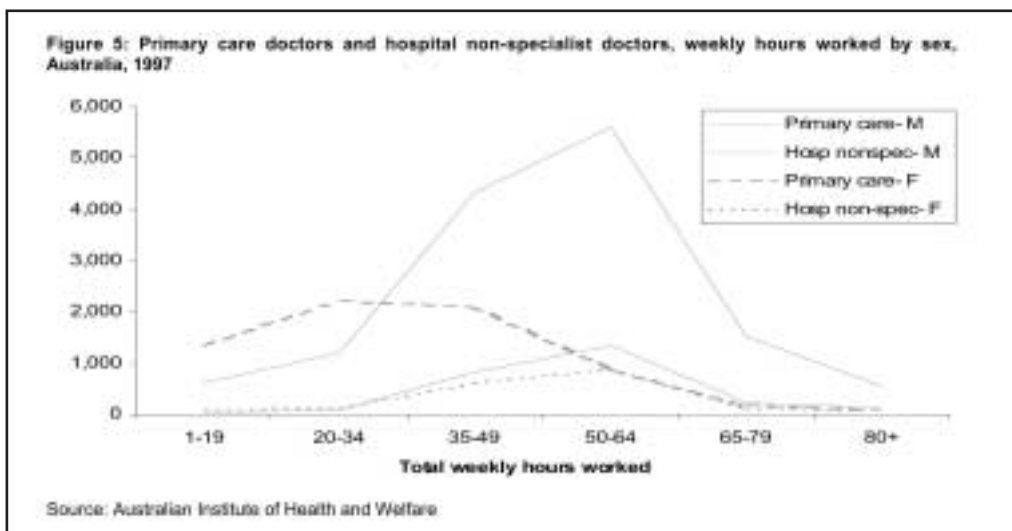


The pattern of workforce participation by male and female doctors has remained remarkably stable during the past four years as indicated in Figures 3 and 4.

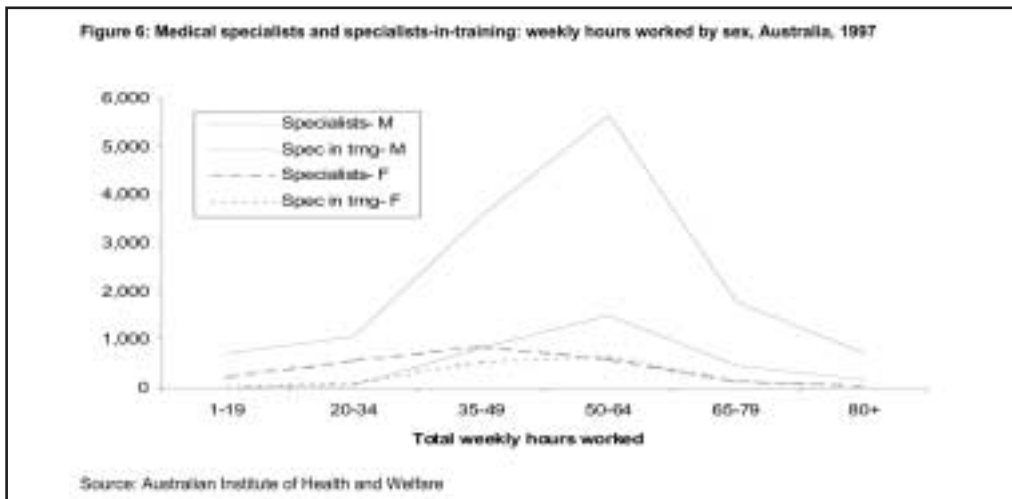




Variation in hours worked is also evident based on discipline (GP or specialist) and stage of career (ie junior doctor or fully qualified doctor). Among GPs, there is a difference of over 16 hours between the average hours worked per week by males and females. This variation is illustrated in Figure 5, which shows that among GPs, for males the mode for weekly hours worked is within the range 50-64 hours, while the comparative mode for females is in the range 20-34 hours. However, among hospital non-specialists there is little variation in average hours worked with most male and female doctors working 50-64 hours per week. In the main, hospital non-specialists comprise interns and resident medical officers in the first few years after graduation (Figure 5).



Among medical specialists, there is a difference of 10 hours in the average hours worked per week by men and women. As indicated in Figure 6, most male specialists work 50-64 hours per week, while most female specialists work 35-49 hours per week. However, as with hospital non-specialists, little variation is evident in the hours worked by male and female specialists-in-training, with most working 50-64 hours per week (Figure 6).



### Variation in choice of discipline

Women doctors are more likely to be working in general practice with three or more other GPs than to be working as a specialist. In 1998, women comprised 33.2% of all general practitioners, 15.6% of all specialists and 40.9% of all hospital non-specialists (Table 3).

**Table 3: Percentage of the medical workforce who are female, by category of practitioner, 1993 and 1998**

Category of medical practitioner	1993	1998
Clinicians	24.6	27.8
General practitioners	29.3	33.2
General practitioner trainees	n.a.	58.0
Hospital non-specialists	36.4	40.9
Specialists	13.2	15.6
Specialists-in-training	29.2	35.1
Non-clinicians	25.6	32.5
<b>Total</b>	<b>24.8</b>	<b>28.1</b>

Source: Australian Institute of Health and Welfare.

Furthermore, a few specialist disciplines are preferred by Australian women doctors. In 1998, 57% of all female specialists were in only six specialties-psychiatry, anaesthesia, paediatrics, diagnostic radiology, obstetrics and gynaecology and anatomical pathology (Appendix 1). At the same time, 80% of all female specialists-in-training were to be found in six specialist disciplines - paediatrics, psychiatry, anaesthesia, emergency medicine, adult medicine and obstetrics and gynaecology (Table 4).

In 2000, an estimated 43.3% of vocational trainees were female, ranging from 65.2% of paediatrics trainees to 12.8% of surgery trainees (Table 4). Training programs with high levels of female participation, in addition to paediatrics, were general practice (60.3%), obstetrics and gynaecology (49.5%), public health medicine (48.2%) psychiatry (46.0%) (Table 4). Moreover, this has been a consistent trend over the past four years for which data have been collected (AMWAC & MTRP, 2000). Training programs with comparatively low levels of female participation, in addition to surgery, were occupational medicine (19.6%), and ophthalmology (23.1%) (Table 4).

**Table 4: Female vocational trainees, by medical college/faculty and State/Territory, 2000**

College/faculty	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust	% female
Anaesthetists	61	35	33	18	12	3	1	4	167	36.8
Intensive care	9	3	5	3	2	1	0	2	25	24.5
Dermatologists	8	5	6	3	1	-	-	-	23	41.1
Emergency Medicine	88	80	41	23	23	5	*	*	260	37.8
General Practitioners	247	218	159	68	104	23	22	37 <sup>a</sup>	878	60.3
Medical Admin.	18	6	8	4	4	1	0	1	42	41.2
Obs. & Gynae.	46	50	26	13	10	1	0	2	148	49.5
Ophthalmologists	8	11	1	0	1	0	0	-	21	23.1
Pathologists	41	23	12	8	12	3	0	2	101	42.8
Physicians - Adult Medicine	55	72	29	16	15	1	1	2	191	39.2
Physicians - Paediatrics	32	24	18	6	8	2	2	0	92	65.2
Occupational Med.	5	2	1	0	1	-	-	-	9	19.6
Public Health Med.	4	6	4	4	4	0	2	3	27	48.2
Rehab. Medicine	9	5	2	2	2	0	0	1	21	42.9
Psychiatrists	98	70	47	32	47	6	4	3	307	46.0
Radiodiagnosis	15	14	3	14	2	2	*	0	50	26.7
Radiation Oncology	12	7	4	2	0	-	*	-	25	48.1
Surgeons	22	22	8	9	5	1	-	2	69	12.8
<b>Total</b>	<b>778</b>	<b>653</b>	<b>407</b>	<b>225</b>	<b>253</b>	<b>49</b>	<b>32</b>	<b>59</b>	<b>2,456</b>	<b>43.3</b>

- indicates no trainees at all

\* NT is included in the SA total and ACT is included in the NSW total

a - includes southern NSW

Source: medical colleges and AMWAC

### Variation in location of practice

Table 5 indicates that relatively few doctors, male or female, work outside of a capital city. In total, 16.9% of male doctors were located in a rural or remote area, while 13.3% of female doctors were similarly located. Table 5 also shows that this differential is largely associated with primary care practitioners and specialists, while there is little variation in the location of male and female hospital specialists, non-clinicians and specialists-in-training. (Table 5)

### Factors influencing choice of discipline

The AMWAC workforce participation study revealed important differences in the 'career drivers' of male and female doctors. For male doctors, the main drivers were the professional work ethic and achieving a high standing amongst their peers. On the other hand, the career ambitions of female doctors were generally modified by the priority they placed upon the development and maintenance of personal and family relationships, which required them to balance family responsibilities with their clinical work (AMWAC, 1998).

In total, 76% of female doctors were partnered compared with 86% of male doctors. Of non-partnered doctors, 47% of women were less than 40 years of age, while 70% of non-partnered male doctors were similarly aged. More than 50% of female specialists aged 40 years and over were non-partnered, whereas no male specialists 40 years and over were without a partner. Of doctors with partners, 87.9% of women were in a relationship with another professional compared with 69.3% of men (AMWAC, 1998).



**Table 5: Medical workforce, by sex, occupation and geographic area, Australia, 1998**

Occupation	Capital city	Other metro centre	Rural/remote area	Total
<b>Males (% for region)</b>				
Primary care	67.7	7.9	24.4	100.0
Hospital non-specialist	77.5	9.2	14.4	100.0
Specialists	79.1	7.3	12.9	100.0
Specialists-in-training	88.2	6.6	5.3	100.0
Non-clinicians	84.7	5.2	11.6	100.0
<b>Total</b>	<b>75.5</b>	<b>7.5</b>	<b>16.9</b>	<b>100.0</b>
<b>Females (% for region)</b>				
Primary care	75.5	6.2	18.3	100.0
Hospital non-specialist	80.2	7.6	12.2	100.0
Specialists	88.1	4.2	7.7	100.0
Specialists-in-training	90.9	5.8	3.3	100.0
Non-clinicians	85.1	4.6	10.3	100.0
<b>Total</b>	<b>80.9</b>	<b>5.8</b>	<b>13.3</b>	<b>100.0</b>

Source: Australian Institute of Health and Welfare

The AMWAC (1998) study found that the majority (95%) of female interviewees (general practitioners and specialists) reported that within their household, they carried the main responsibility for the care and rearing of children. Compared with female interviewees, male interviewees were less likely to mention that having a family had influenced their career decisions in any way; either positively or negatively. Interestingly, a higher proportion of younger male practitioners reported instances of part time work or changing their work pattern for family reasons than did older practitioners. The study concluded that because the care and maintenance of the family is a high priority for women, they seek career options within medicine that allow them the flexibility to accommodate both their professional and their family/social roles (AMWAC, 1998).

Career options within medicine favoured by women include general practice, dermatology, paediatrics, pathology and psychiatry. These disciplines were perceived by women to have more flexible training and work environments and little or no requirement for irregular working hours and time on call (AMWAC 1998). There was no evidence in the study to suggest that this pattern of participation is likely to change in the immediate future and recent training program data support this notion (Table 4). For example, in 1999 and 2000, the disciplines most favoured by female medical trainees were paediatrics, general practice, obstetrics and gynaecology, public health medicine and psychiatry (MTRP, 1999) and (Table 4).

## Discussion

Medical workforce participation trends in Australia are similar to those occurring in other developed countries. These trends indicate that, while there are many similarities in the way male and female doctors practise medicine and participate in the workforce, there are also some differences. As the proportion of women in the Australian medical workforce increases, it is important that these differences are examined in an objective and informed manner so that appropriate workforce policies and strategies can be developed.

## Consumer preferences

The data presented in this paper indicate that among female patients there is a growing demand to consult a female doctor, particularly when it comes to gender-related matters. This trend is also evident internationally where it is reported that women patients perceive women doctors to be better communicators and more empathetic with patient needs (Thorne, 1994; Birenbaum, 1995). The increased availability of women doctors is providing the community with an option that was not readily available in earlier years. However, the tendency for women doctors to prefer urban practice means that this option is more likely to be available to urban-based women than to women living in rural locations.

## Workforce distribution

The maldistribution of the medical workforce is a longstanding problem in Australia and in other countries with widely dispersed populations. The findings reported in this paper suggest that as the proportion of women in medicine increases the magnitude of the problem of maldistribution could increase. In Canada and the United States, it is proposed that there is a need for innovative strategies to make rural practice more attractive to women doctors. For example, strategies that support the use of two-doctor teams, that provide opportunity for more flexible work hours, payment reward systems that prevent doctors who work after hours from resenting those who do not and opportunity for women doctors to develop skills essential for rural practice (Rourke, et al 1996). These issues are considered important for several reasons in addition to the fact that, like urban women, many rural women patients prefer to see a women doctor. Women doctors are observed to act as powerful advocates for services for rural women (eg breast screening, sexual assault and counselling) and as role models for young rural women considering a career in medicine (Rourke, et al 1996).

## Practice patterns

The findings reported in this paper suggest that the practice patterns of male and female doctors differ. For example, Canadian women doctors are reported to spend more time (17 minutes) with their patients than men (13 minutes) and this difference is considered to reflect differing communication styles and patient expectations (Birenbaum, 1995; Cohen, 1999). In Australia, Britt et al (1999) found that the patients of female GPs are more likely to be women with gender-related problems than are the patients of male GPs. These differences in service mix have led some researchers and educators to speculate the emergence of two 'specialties' within general practice necessitating changes in educational emphases (Britt et al 1996). However, there is also some evidence from the United Kingdom to indicate that the mix of patients seen by GPs is not only related to patient preference. For example, Brooks (1998) found that the organisation of work (eg assignment of patients by receptionists etc) within general practice also influences the type of patient problems managed by female GPs. In Australia, more research is required to clarify the issues influencing differences in practice patterns and patient mix between male and female GPs.

## Hours worked

On average, doctors (male and female) work ten hours longer per week than is the average for all employed persons in Australia, while their pattern of workforce participation by age and sex is similar to that of all employed Australians (ABS, 1999). For example, ABS data for all employed Australians indicates a difference of 11.3 hours in the average weekly hours worked by men and women with men working the longer hours. Similarly, AIHW data shows a difference of 12.9 hours in the average weekly hours worked by male and female doctors in 1998 and this pattern of workforce participation has remained stable over the past four years. Factors influencing differences in level of workforce participation are associated with the roles (as defined by biology and stereotype) of men and women in Australian society.

Holding all other factors constant, the difference in hours worked by male and female doctors combined with an increase in the proportion of women in the workforce could have significant supply implications. As indicated above, on average, female doctors work 12.9 fewer hours per week than male doctors. It follows that as the proportion of women in the workforce increases from 27.8% in 1998 to around 35% in 2010 and 40% in 2020 (AMWAC & AIHW, 1996b), there will need to be an increase in overall numbers to maintain current weekly hours of service provision. However, this crude estimation does not take into account current areas of

oversupply or undersupply. Furthermore, there is a high level of uncertainty associated with this prediction because other factors have the potential to impact on both workforce requirements and workforce supply (eg the effects of new technology on medical practice, changes in population health status and demand for services, changes in funding arrangements).

This poses a conundrum for workforce planners and the Australian community. If we assume this estimation is correct and we increase medical school intakes and vocational training numbers accordingly and women start working longer hours, then we could be confronted with an oversupply of doctors and associated adverse consequences. For example, unnecessary training costs, poorer health outcomes for some patients due to supplier induced demand and over-servicing, under-employment of doctors and a decline in doctor-skills due to insufficient work to maintain competence (AMWAC & AIHW, 1998b). On the other hand, the country could be confronted with an undersupply of doctors if hours worked per week patterns remain unchanged and training numbers are not adjusted upwards to take account of gender-based differentials. Furthermore, this situation could be compounded if male doctors were to reduce the number of hours they work.

International trends suggest that in the future a higher proportion of the male medical workforce may in 10 years time be working part-time and that a lower proportion will be working excessive hours. A recent AMWAC survey of the psychiatry workforce found that 37% of male psychiatrists anticipated a reduction in their work hours over the next three years. Lifestyle preference and family considerations were the most frequently noted reasons for an anticipated reduction in work hours (AMWAC, 1999). However, there has been little change in the reported average hours worked per week for all medical clinicians (male and female) during the past four years (Figures 3 and 4). It could be that while male doctors would like to reduce the hours they work, in reality, few do.

In Australia, required adjustments to training numbers are calculated through the application of AMWAC's projection model. For each discipline under review, estimations are derived of future requirements based on evidence and judgements about the adequacy of current workforce supply and a range of carefully selected growth demand indicators (eg projected population growth, population ageing, projected relevant disease incidence/prevalence rates etc). On the supply side, the model takes into account expected entrants to the workforce and those leaving, converts the number of doctors to a full time equivalent figure using the average hours worked per week by male and female doctors in each major age cohort. Simulated projections are run for a range of growth scenarios and training numbers adjusted to bring the workforce into balance. For each medical workforce under review, a panel of informed judges advises AMWAC on data requirements to reach an informed decision.

### **Choice of discipline within medicine**

General practice is a popular career choice of many women doctors. Reasons for women to choose general practice include, the flexibility afforded by the training program, ability to combine a family with a career, opportunity to practice a broad range of medical and caring skills and to develop a degree of personal involvement with patients. Specialist disciplines favoured by women doctors in Australia include psychiatry, anaesthesia, paediatrics, diagnostic radiology, obstetrics and gynaecology and anatomical pathology. Factors influencing women to choose these career options include flexibility of the training and work environments and little or no requirement for irregular working hours and time on call. On the available evidence, the current pattern of participation is likely to continue unless those disciplines with low representation of women become more attractive to women. Specialist training programs with comparatively low level female participation include the surgical disciplines and ophthalmology.

Change may be required in the organisation and management of many of the specialist training programs so that female practitioners can have the opportunity to participate in the training programs, and then ultimately within the practice of the specialty. Change in specialist training should aim to create better access for women to more flexible training and work environments. If this is not done the gender imbalance between general practice and specialist practice and within the specialist disciplines can be expected to continue and possibly even increase. Furthermore, as the proportion of women increases among trainees applying for specialist training programs, those disciplines currently not favoured by women may have problems filling any training quotas. In turn, this would have implications for future workforce supply, both at the macro and micro level.

## Towards improved gender balance within the workforce

To resolve some of the training issues referred to above a workshop was held in April 1999, attended by 160 representatives of medical colleges, health departments, teaching hospitals (urban and rural), area/regional health services, professional bodies (including doctors in training) and consumers (AMWAC/MTRP, 2000). Part of the discussion at the workshop involved consideration of ways each of these bodies could facilitate female participation within their respective workforces.

There was broad support for medical colleges and employers to work together to develop more flexible work and training practices, including part-time positions, job sharing, and distance-based training. It was agreed that medical colleges should have clear, unambiguous and transparent criteria and guidelines for part-time training, including the minimum training requirements for part-time training necessary to maintain standards. This should not impose barriers or unreasonable conditions. Employer advertisements should signal a willingness to consider part time or interrupted training. It was agreed that medical colleges, health service authorities and opinion leaders in the profession and bureaucracy should take leadership roles in promoting culture change among consultants, managers, fellows and candidates. It was also recognised that many of the measures agreed to at the workshop were not gender specific and would be of benefit to men as well as women doctors. The workshop endorsed a set of general principles for trainee selection and a broad set of guidelines to inform medical colleges and employers in the management of trainee appeals.

Some discrepancies were identified between the policies of medical colleges and employers and what happens in reality. It was noted that while some training program policy documents referred to the provision of flexible hours, in many workplaces these policies had not been implemented.

A range of other issues were discussed at the workshop but not necessarily endorsed by all participants. As indicated in Table 6, these issues tended to be either specifically related to female junior doctors or more general issues associated with the training and employment environment. There was disagreement over whether formal affirmative action programs should be trialed.

**Table 6: Training program issues discussed, but not necessarily endorsed, at a workshop of key Australian medical workforce stakeholders, 1999**

Issues specifically related to improving conditions for female medical trainees
<ul style="list-style-type: none"><li>• Systems should be introduced to encourage women’s access to mentors/advocates, such as senior, high profile women in the organisation</li><li>• There should be an attempt to redress the gender imbalance on college and employer bodies, including appointing women as directors of hospital training, and ensuring there are formal selection procedures for committee membership</li></ul>
General issues related to improving conditions for both male and female medical trainees
<ul style="list-style-type: none"><li>• Continuity of training should be offered, so that once trainees are in a program, they can have time out without having to reapply</li><li>• Update packages should be developed to facilitate re-entry to training</li><li>• Colleges and employers should consider establishing job share registers as a matching system service;</li><li>• Training should be less time-based</li><li>• Meetings should be held in working hours at all levels of seniority</li><li>• Formal training should occur during normal working hours, recognising that this could pose implementation difficulties</li><li>• Rostering should be as regular and predictable as possible with as much notice given as possible</li><li>• Employers should assist with access to extended-hours child-care services</li><li>• Trainees’ parental leave rights should be clarified</li><li>• Contracts should be longer than one year but there was debate about what would be a practicable length, with some concerns expressed about the implications of longer contracts for rural health services</li><li>• A teamwork approach to patient care should be fostered, rather than the ‘heroic individualism’ of one doctor being solely responsible</li><li>• There should be investigation of cultural issues which might discourage specific groups</li></ul>

Source: Derived from data reported in Australian Medical Workforce Advisory Committee and Medical Training Review Panel 2000, *Moving Forward: Summary of the Medical Workforce Training and Employment Workshop*, 27 and 28 April, Commonwealth Department of Health and Aged Care.

## Conclusions

The expectation in Australia is for a continual increase in the proportion of female doctors in the workforce and consumer demand supports this trend. This is bringing some interesting changes to the practice of medicine and the workplace. Further research is required to address gaps in understanding of work place factors influencing variation in patient mix, modes of practice and job satisfaction among male and female doctors.

The workforce participation patterns of men and women in the medical workforce is similar to that of all employed Australians. Factors influencing variation in levels of workforce participation are influenced by the role expectations of men and women in Australian society. Like women employed in other industries, female doctors, on average, work fewer hours per week than do male doctors and this in combination with an increase in the number of female doctors has implications for future workforce supply. This demographic change may ultimately act as the key factor that necessitates an increase in workforce numbers.

Training and work environments do impact on choice of career within medicine and further strategies are required to increase the attractiveness of many specialist disciplines for women. Flexibility and predictability in hours worked are of importance to women because they allow them to more easily achieve a balance between work and home commitments.

A greater number of women in the medical workforce is also focusing attention on a range of other workforce issues, including, workforce distribution, the expectation that doctors will work long hours and the impact of current work and training environments on junior doctors. Strategies that are directed toward addressing these issues have implications for both female and male doctors.

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## Appendix 1: Female medical specialists: main specialty of practice, Australia, 1993 and 1998

Main specialty of practice	1993		1998	
	Number	Per cent	Number	Per cent
Haematology	15	19.1	31	50.1
Cytopathology	6	61.5	14	45.2
Clinical genetics	-	-	9	45.0
Anatomical pathology	86	26.6	106	30.0
Public health medicine	3	6.9	15	27.7
Dermatology	57	21.1	82	27.4
Psychiatry	377	23.3	519	25.8
Immunology	3	14.5	5	25.0
Paediatrics	125	17.2	193	24.4
Infectious diseases	8	16.6	25	24.3
Endocrinology	25	13.0	52	23.5
Clinical pharmacology	3	12.4	5	22.7
Rheumatology	24	13.1	47	22.6
Rehabilitation medicine	22	17.2	39	22.3
Geriatric medicine	27	18.7	45	22.0
Emergency medicine	15	8.6	62	20.9
Radiation oncology	32	24.8	31	20.4
Clinical haematology	27	16.2	26	19.3
Medical administration	15	9.6	11	18.6
Medical oncology	5	5.6	31	18.6
Anaesthesia	316	16.9	344	17.4
Microbiology	14	20.6	13	16.7
Renal medicine	16	11.4	28	16.5
Diagnostic radiology	131	13.4	161	15.2
General pathology	35	14.5	16	15.2
Obstetrics & gynaecology	94	10.0	158	15.0
Thoracic medicine	21	9.5	39	14.6
Forensic pathology	4	27.7	3	12.5
Intensive care	14	12.7	29	12.5
Paediatric surgery	6	9.4	9	11.7
Occupational medicine	35	16.1	9	10.6
General medicine	44	6.9	59	10.3
Clinical chemistry	5	9.9	5	10.2
Neurology	20	8.7	29	9.9
Ophthalmology	64	9.6	69	9.7
Clinical immunology	20	18.3	9	9.1
Cardiology	25	5.5	52	8.9
Gastroenterology	22	6.8	34	8.9
Neurosurgery	4	4.0	8	7.9
Nuclear medicine	7	5.5	11	7.9
Plastic surgery	13	5.7	15	5.9
Cardiothoracic surgery	2	2.3	5	5.2
Otolaryngology (ENT surgery)	7	13.1	13	4.3
General surgery	16	1.4	37	3.6
Vascular surgery	-	-	5	3.6
Urology	-	-	6	2.7
Orthopaedic surgery	7	0.9	8	1.1

Source: Australian Institute of Health and Welfare

Appendix 2: Female vocational trainees (%), by college/faculty and state/territory, 2000

College/faculty	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Anaesthetists	40.4	29.2	41.3	40.0	35.3	27.3	33.3	40.0	36.8
Intensive Care	21.4	21.4	25.0	30.0	33.3	50.0	0.0	28.6	24.5
Dermatologists	38.1	35.7	54.5	50.0	25.0	-	-	-	41.1
Emergency Medicine	40.2	40.0	33.0	36.5	34.3	33.3	*	*	37.8
General Practitioners	63.0	62.5	58.0	62.9	60.1	62.2	52.4	45.7 <sup>a</sup>	60.3
Medical Admin.	47.4	26.1	42.1	66.7	36.4	33.3	-	50.0	41.2
Obs. & Gynae.	43.0	66.7	48.1	43.3	50.0	20.0	0.0	40.0	49.5
Ophthalmologists	23.5	37.9	10.0	0.0	16.7	0.0	0.0	-	23.1
Pathologists	47.7	38.3	41.4	34.8	52.2	60.0	0.0	25.0	42.8
Physicians -									
Adult Medicine	32.3	41.1	42.0	39.0	34.1	66.7	20.0	50.0	39.2
Physicians									
Paediatrics	64.0	61.5	75.0	75.0	50.0	100.0	50.0	-	65.2
Occupational Med.	29.4	16.7	25.0	0.0	11.1	-	-	-	19.6
Public Health Med.	50.0	42.9	50.0	66.7	66.7	0.0	28.6	60.0	48.2
Rehab. Medicine	37.5	41.7	66.7	40.0	100.0	0.0	0.0	100.0	42.9
Psychiatrists	45.8	42.9	45.6	50.0	49.0	42.9	66.7	42.9	46.0
Radiodiagnosis	27.8	25.5	11.1	58.3	11.8	40.0	*	0.0	26.7
Radiation Oncology	41.4	63.6	66.1	50.0	0.0	-	*	-	48.1
Surgeons	11.7	14.4	8.8	19.6	10.2	14.3	-	33.3	12.8
<b>Totals</b>	<b>42.6</b>	<b>43.9</b>	<b>43.0</b>	<b>45.2</b>	<b>43.5</b>	<b>43.8</b>	<b>40.3</b>	<b>42.8</b>	<b>43.3</b>

- indicates no trainees at all

\* - NT is included in the SA total and ACT is included in the NSW total

<sup>a</sup> - includes southern NSW

Source: medical colleges and AMWAC