

Australian Medical Workforce Advisory Committee

THE SPECIALIST DERMATOLOGY WORKFORCE IN AUSTRALIA

SUPPLY, REQUIREMENTS AND PROJECTIONS

1997 - 2007

AMWAC Report 1998.1

February 1998

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACD	Australasian College of Dermatologists
ACT	Australian Capital Territory
AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute of Health and Welfare
AN-DRG	Australian National Diagnosis Related Groups
Aust	Australia
CME	Continuing medical education
Derm	Dermatologists
DGP	Divisions of General Practice
DHFS	Commonwealth Department of Health and Family Services
FRACP	Fellow of the Royal Australasian College of Physicians
FTE	Full Time Equivalent
GP	General Practitioner
HIC	Health Insurance Commission
MBS	Medicare Benefits Schedule
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
RRMA	Rural, Remote Metropolitan Areas classification
SA	South Australia
SPR	Specialist:Population ratio
Tas	Tasmania
Terr	Territory
TRD	Temporary Resident Doctor
Vic	Victoria
VMO	Visiting Medical Officer
WA	Western Australia
WEIS	Weighted Equivalent Inlier Separations

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TERMS OF REFERENCE OF AMWAC AND THE AMWAC DERMATOLOGY WORKFORCE WORKING PARTY

The Australian Health Ministers' Advisory Council (AHMAC) established the Australian Medical Workforce Advisory Committee (AMWAC) to advise on national medical workforce matters, including workforce supply, distribution and future requirements.

AMWAC Terms of Reference

1. To provide advice to AHMAC on a range of medical workforce matters, including:
 - the structure, balance and geographic distribution of the medical workforce in Australia;
 - the present and required education and training needs as suggested by population health status and practice developments;
 - medical workforce supply and demand;
 - medical workforce financing; and
 - models for describing and predicting future medical workforce requirements.
2. To develop tools for describing and managing medical workforce supply and demand which can be used by employing and workforce controlling bodies including Governments, Learned Colleges and Tertiary Institutions.
3. To oversee the establishment and development of data collections concerned with the medical workforce and analyse and report on those data to assist workforce planning.

AMWAC Dermatology Workforce Working Party Terms of Reference

As part of its 1997-98 work plan, AMWAC was asked by AHMAC to prepare a report on the specialist dermatology workforce. The AMWAC Dermatology Workforce Working Party was established as a sub-committee of AMWAC and was asked to provide a report to AMWAC on the optimal supply and appropriate distribution of dermatology specialists across Australia, including projections for future requirements.

The Working Party held its first meeting on 1 July 1997 and presented a final report to the 2 February 1998 AMWAC meeting. The report was then presented to the 19 March 1998 AHMAC meeting.

MEMBERSHIP OF AMWAC

Independent Chairman

Professor John Horvath Physician, Sydney

Members

Ms Meredith Carter Director, Health Issues Centre

Dr William Coote Secretary General, Australian Medical Association

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Dr Robert Stable Director General, Queensland Department of Health

Dr David Theile Surgeon, Brisbane (former President, Royal Australasian
College of Surgeons)

Dr Lloyd Toft President, Medical Board of Queensland

MEMBERSHIP OF THE DERMATOLOGY WORKFORCE WORKING PARTY

Chairman

Professor John Hamilton Dean, Faculty of Medicine and Health Sciences,
University of Newcastle
(and AMWAC member until January 1998)

Members

Mr Geoff Carse	Manager, Workforce Planning and Analysis Unit, Queensland Health
Dr Caroline Mercer	Dermatologist, Brisbane
Dr Alan Sandford	Acting Manager Health Care Evaluation, Victorian Department of Human Services
Dr John Sippe	Dermatologist, Newcastle (former President Australasian College of Dermatologists)
Professor David Tiller	Associate Dean and Head, Department of Renal Medicine, Royal Prince Alfred Hospital, Sydney
Dr Mary Harris	Policy Officer, AMWAC

The Working Party would also like to acknowledge the helpful comments provided by Professor John Horvath and Mr Paul Gavel (AMWAC); Mr Ross Saunders (DHFS), Mr John Harding, Mr Warwick Conn and Mr Graham Angus (AIHW) and the Australasian College of Dermatologists (ACD) for assistance with data collection.

INTRODUCTION, GUIDING PRINCIPLES AND METHODOLOGY

Introduction

The main objective of the Working Party has been to promote an optimal supply and appropriate distribution of dermatology specialists across Australia, including projections for future requirements to the year 2007.

The Working Party defined a specialist dermatologist as a registered medical practitioner with a recognition in the specialty of dermatology whose work in dermatology includes the practice of dermatology or work that is principally concerned with the discipline of dermatology. This includes medical research, administration, teaching in dermatology and medico legal consultations. The position can be either private practice or salaried. It does not include other practitioners who are not registered as a specialist dermatologist, but practice dermatology as part of their work. Nor does it include registrars in training or registrars who have completed their training but not successfully completed their final examination for specialty recognition.

Essentially dermatologists provide the following medical services:

- care of skin diseases and skin reactions
- management of skin cancer and skin tumours, including malignant melanoma
- management of skin diseases associated with systemic diseases.

Appendix C outlines the requirements of an optimum dermatology service, including requirements for an ideal rural service.

Guiding Principles

In compiling this report, the Working Party adopted the following guiding principles:

- the Australian community should have available an adequate number of trained dermatologists, appropriately distributed to provide the dermatology services it requires;
- the community is best served when dermatologists have high standards of qualification and work with a high level of ongoing experience matched by appropriate surgical facilities;
- the dermatology workforce must provide the entire spectrum of dermatologic services from sub specialties (surgery, laser, contact allergy testing etc.,) to general dermatology. Interaction with both general practice and other specialties is vital;
- all Australian citizens must have access to a good standard of dermatologic care irrespective of geography and economic status. In achieving this, convenience to the patient must be balanced against the quality of services that can be distributed to meet that convenience;
- both public and private sectors must provide an adequate amount and quality of service;
- that there be an ongoing commitment to provide instruction and education to medical students; and

- that there be an ongoing commitment to investigation in regard to causation, natural history and management of all skin diseases and associated disorders with support and encouragement for the development of academic posts, establishment of research facilities, ongoing research programmes relating to dermatological disorders and the raising of funds for research programs.

Methodology

The approach of the Working Party has been to analyse existing data sources and to undertake consultation with relevant persons and organisations, in order to make informed comments on the factors affecting the current and future market for dermatology services.

In estimating workforce numbers, establishing a profile of the workforce and assessing its adequacy, important sources of data were:

1. The Australasian College of Dermatologists

The ACD keeps a variety of data, principally on number, age, gender and location of Fellows, and data on training posts and trainees.

2. ACD/AMWAC 1997 Survey of Dermatologists

All Fellows of the Australasian College of Dermatologists were surveyed to obtain information about workforce participation, distribution and satisfaction and to gain a provider perspective of the adequacy of the current workforce. This survey achieved a 52% response rate. The results of the survey are summarised in Appendix B.

3. Australian Institute of Health and Welfare (AIHW)

The principal AIHW data source is the annual Medical Labour Force Survey which presents national labour force statistics for registered medical practitioners, principally through a survey collected as part of the annual renewal of registration. In the Labour Force Survey, a dermatologist was a specialist in active practice who reported being a specialist whose principal qualification was in dermatology. The numbers presented in this report are estimates produced from the National Medical Labour Force Survey of all medical practitioners registered in Australia in 1995. In producing these estimates, the AIHW has assumed that non-respondents to the survey had the same characteristics as respondents. Overall the 1995 survey had a 79.6% response rate.

4. Commonwealth Department of Health and Family Services Medicare provider database

Medicare provider statistics define medical practitioners according to the predominant services billed to Medicare. The Medicare statistics include all practitioners who have

billed Medicare for at least one service during a financial year.

The major deficiency with the use of Medicare data for workforce planning purposes is that it does not provide data on practitioners who are salaried Dermatologists in the public hospital system and who do not render services on a fee for service basis. Medicare data thus excludes services rendered free of charge to public hospital patients, to Veterans' Affairs patients and to compensation cases.

5. AHMAC and DHFS casemix report on hospital activity

Since August 1994, a national overview of hospital activity as measured by Australian National Diagnosis Related Groups (AN-DRGs) has been published. To date reports covering the years 1991-92, 1992-93, 1993-94, 1994-95 and 1995-96 have been issued. However, only the last three years provide AN-DRG codes relevant to examining trends in dermatology. Only the 1994-95 and 1995-96 reports provide details on activity in both public and private hospitals.

6. Family Medicine Research Unit, Department of General Practice, University of Sydney

The Family Medicine Research Unit electronically stores data from a quality assurance audit activity which requires general practitioners to record details of 100 consecutive office/surgery encounters and home visits. Aggregated, de-identified data from the audit were extracted with the permission of participating general practitioners and relevant data analysed by the Family Medicine Research Unit for the Working Party.

7. State/Territory Health Departments

AMWAC surveyed all State/Territory health departments in August 1997 to obtain information on the supply and adequacy of dermatology services. This survey had an 100% response rate.

8. AMWAC Survey of Divisions of General Practice

AMWAC surveyed all Divisions of General Practice throughout Australia to obtain information on the adequacy of supply of specialist dermatology services. This survey had an 60.3% response rate.

9. AMWAC Public Hospital Specialist Vacancy Survey

The AMWAC survey of State/Territory health departments also asked them to report on public hospital specialist vacancies for both consultants/visiting medical officers (VMOs) and salaried/staff specialists. A vacancy was defined as a position for which funding is available and for which active recruitment is being, or has been, undertaken. Information

was also sought on temporary resident doctors (TRDs) filling vacancies.

10. Rural, Remote and Metropolitan Areas classification

Wherever possible, distributional data has been interpreted using the rural, remote and metropolitan area (RRMA) classification developed by the Commonwealth Departments of Primary Industries and Energy and Health and Family Services (DPIE & DHFS 1994). A summary of the RRMA classification is provided in Appendix A.

11. Australian Bureau of Statistics (ABS)

The Australian Bureau of Statistics (ABS) population data and projections are used as the sole source on population data. In making its population projections ABS uses four different series. The population projections in this report are based on Series A/B, where constant fertility and low overseas migration are assumed (ABS, 1994 and ABS 1997).

Key Assumption

The Working Party would like to emphasise that the projections on dermatologist supply and requirements are based on the assumption that there will be no significant change in existing national health structures.

Overseas experience indicates that significant structural changes to the Australian health system, for example the introduction of formalised coordinated care arrangements and greater substitution of care by other health professionals, could change medical workforce requirements in Australia (AMWAC & AIHW 1996a).

SUMMARY OF FINDINGS AND RECOMMENDATIONS

This report describes the current specialist dermatology workforce, assesses the adequacy of that workforce, and projects workforce supply and requirements to the year 2007.

The report concludes that the overall supply of dermatologists is inadequate and that in particular shortages exist in rural areas and some non-capital city urban areas.

The report concludes that without prompt corrective action, the workforce will move towards a situation of escalating undersupply. The current projected level of graduate output will not be sufficient to meet expected future requirements. It is estimated that requirements will grow by a minimum of 2.6% per year. Future supply will be affected by the cohort of dermatologists aged 58 years and over proceeding through to retirement (23.6% of the workforce) and the comparatively large representation of female dermatologists (31%).

As a result, it is recommended that graduate output be increased from the current average of 11 graduates per year to 16 graduates per year.

To achieve this increase in graduate output it is recommended that Commonwealth, State and Territory health departments undertake negotiations with the Australasian College of Dermatologists (ACD) for the establishment of ten additional dermatology training positions with the increases to be staged over three years commencing in 1999. Furthermore, it is recommended that six of the new training positions involve the training of dermatologists in a manner similar to the networked approach outlined in Appendix E and currently being piloted in Queensland. This new approach to training addresses both the maldistribution problem and the change that has been occurring in public hospital dermatology services, which has seen declining support for the resourcing of traditional hospital-based dermatology training positions.

The Working Party understands that the training of dermatologists in private practice is under review by the ACD and that no firm consensus has been reached at present given some of the practical problems which the College feels need to be addressed. Proposals for accreditation of private and rural practice training are being prepared by the Board of Censors of the ACD for consideration by the College Council in May 1998.

In projecting future workforce requirements the Working Party assumed that population growth and the effects of an ageing population would increase requirements for this workforce at a per annum growth of 1.6% and that growth in the demand for dermatology services would add an extra 1% per annum. The Working Party also assumed that the length of the ACD advanced training program would continue to be four years and that the majority of candidates would complete the program within this time frame. In addition, the Working Party assumed that the pattern of workforce

participation of the current group of dermatology trainees and the current workforce provides a suitable basis on which to project future workforce requirements.

Description of the Current Dermatology Workforce

Number of Practising Dermatologists

- In 1997, there were 246 full-time members of the ACD. Medicare data for 1995-96 identified 275 practising dermatologists. A review by Medicare of their records revealed that 30 people practising under Medicare as dermatologists were not listed as Fellows of the ACD. A rationalisation process revealed that 18 of these providers were either deceased or had provided less than 100 services. This provides a total of 258 practising dermatologists.
- Dermatology is a small specialty, representing just 1.7% of all specialists.
- Between 1991-92 and 1996-97 the number of ACD full-time practising members increased by 18.2% with a per annum increase of 2.8%. Medicare data show that the total number of dermatologists billing Medicare increased by 34.8% from 204 in 1984-85 to 275 in 1995-96 (a per annum increase of 2.8%). Medicare data reveal that above average increases occurred in the Australian Capital Territory, Tasmania, and South Australia while Victoria experienced a below average increase.
- Population growth between 1984-85 and 1995-96 was 16.1%, a per annum increase of 1.2%.

Dermatologists to Population

- According to ACD membership records there are 1.4 Fellows per 100,000 people (1:74,017). Queensland, Victoria/Tasmania and Western Australia have below average ratios. Medicare data show that, per 100,000 people, there were 1.5 dermatologists for Australia (1:66,506 persons). States with specialist per 100,000 population ratios below that for Australia as a whole were Tasmania (0.8), Queensland (1.4), Western Australia (1.19), Victoria (1.4) and the Northern Territory with no dermatologists identified as MBS providers. AIHW survey data indicate that there were 1.6 dermatologists per 100,000 people (1:62,999 persons) for Australia in 1995. States/Territories with specialist per 100,000 population ratios below average were Tasmania, the Northern Territory, the Australian Capital Territory, Victoria, Western Australia and Queensland.

Geographic Distribution

- AIHW survey data shows that 92.6% of dermatologists were located in capital cities and other major urban centres, 4% were in large rural centres, and 3.3% were in other rural areas. Medicare data provide a similar distribution pattern, showing 8.7% of dermatologists are located in a rural area. Similarly, the

ACD/AMWAC 1997 survey of dermatologists found that only 7.8% of respondents lived and worked outside a major urban centre.

Age Profile

- According to the ACD records, the average age of Fellows of the College is 45.8 years. The largest ten year cohort is aged between 38 to 47 years (49%). 23.6% of the workforce is aged 58 years and over and New South Wales/Australian Capital Territory have an above average proportion of Fellows aged 58 years and over (30.6%).

Gender Profile

- According to ACD records, 31% of dermatologists are women, with substantial variation between States/Territories. States with a lower than average representation of women are Western Australia (18.2%) and Victoria/Tasmania (24%). This level of female representation is above the average for all clinicians (25.6%). The representation of women among older dermatologists is small compared with the proportion of women in the workforce aged under 45 years, suggesting a continued upward trend in female representation.

Hours Worked

- The AIHW survey estimated that in 1995, dermatologists worked on average 46.3 hours per week and spent 40.4 hours per week on direct patient care with substantial variation between States/Territories, with practitioners in Western Australia working, on average, 5.9 hours more per week than the average for all practitioners.
- Between the ages of 35 and 64 years, most dermatologists work 40 hours or more per week while dermatologists over the age of 65 years tend to work part-time.
- On average, female dermatologists work 7.3 hours less per week than do male dermatologists with women in the younger age group working, on average, 26.6 hours less per week than their male colleagues.

Work Setting

- The AIHW survey indicates that in 1995, 96% of dermatologists had their main job in private rooms, 1.4% had their main job in an acute care public hospital and the remaining 2.1% worked in some other setting. When asked about jobs other than their main jobs, 32% of dermatologists indicated they worked in an acute care public hospital, 21% indicated they worked in some other setting and 1.4% said they worked in an acute care private hospital.
- The ACD/AMWAC 1997 survey found that, on average, dermatologists spend 65.4% of their total work hours in private consulting rooms, 2.9% in private hospitals, 6.5% in public hospitals, 0.4% in other publicly funded facilities and 25%

on other professional activities with correspondence and administration accounting for 13.5% of total work hours.

Services Provided

- Data from the University of Sydney's Family Medicine Research Unit shows that skin conditions are among the most common problems managed by general practitioners (GPs) and the overall GP referral rate to dermatologists per 100 patient encounters is 0.74. However, there is wide variation in referral rates between States/Territories. New South Wales has the highest rate of GP referrals to a dermatologist while the Northern Territory, the Australian Capital Territory, Queensland and South Australia are well below the average for all States/Territories.
- The ACD/AMWAC survey of dermatologists indicates that, on average, six conditions account for 92.2% of practice time, namely, solar damage, skin malignancies, dermatitis (atopic, discoid, seborrhoeic and irritant), skin infections (viral, bacterial, fungal and scabetic), acne and psoriasis. Other conditions of importance include naevi for review, warts, rosacea and perioral dermatitis, drug eruptions and alopecia.
- 99.7% of the Medicare services provided by dermatologists were non-hospital based services while 0.3% were hospital based. Between 1991-92 and 1995-96, the total number of services provided by dermatologists attracting Medicare benefits increased by 17.2% (a compound annual increase of 4.2%). During this period, the number of providers increased by 14.8% (3.5% compound annual increase) and the number of services per provider increased by 2.6% (0.6% compound annual increase).
- The public hospital casemix data indicate that there has been a per annum decrease of 0.1% in the number of hospital separations for services provided by dermatologists between 1993-94 and 1994-95. For the AN-DRGs selected by the Working Party, 21.5% were associated with private acute care hospitals.

Training Arrangements

- As at June 1997, there were 43 approved dermatology training positions and 49 trainees, with four of these positions currently funded privately by the Skin and Cancer Foundation. Six trainees were in overseas or research positions which are one-off positions. Between 1992 and 1997, there was a 28.9% increase in the number of advanced dermatology trainees. The increases varied considerably between States/Territories with a 100% increase in Queensland (this includes four trainees in overseas/research), a 50% increase in Victoria/Tasmania, a 6.3% increase in New South Wales and no change in the remaining three States/Territories with training posts. The average age of trainees is 34.6 years and 33.3% of trainees are women.

- The AMWAC survey of State/Territory health departments found support for establishing new registrar training positions in the community. Reasons given by health departments for supporting community based training included the predominantly private nature of dermatology services and factors limiting the potential for additional training positions in public acute care hospitals. Among the limiting factors were a lack of funds to cover registrar wages and to upgrade the equipment and facilities required, insufficient workload for trainees and limited access to supervising dermatologists. One State noted that any new dermatology training positions need to be specifically and fully funded because dermatology services (being provided on an outpatient basis) do not attract resources under the current funding arrangements to hospitals.

Adequacy of the Current Dermatology Workforce

Specialist to Population Benchmarks

- Drawing on international comparisons, since 1973 the ACD has viewed an SPR of 1:80,000 as appropriate for Australia. However, some health authorities in Australia considered this SPR to be too low given the difficulties some groups (particularly some rural communities) experienced in accessing specialist dermatology services.
- Over the last 12 years Medicare data indicate that the number of dermatologists per head of population has increased from 1:87,228 to 1:66,506 and this trend is evident across all States/Territories except the Northern Territory. However, the data also indicate that existing discrepancies have been maintained. For example, Tasmania, Queensland, Western Australia and Victoria continue to have SPRs above that for Australia as a whole while New South Wales and the Australian Capital Territory remain better endowed.

General Practitioner and Health Service Assessment

- The AMWAC 1997 survey of Divisions of General Practice found that 82.3% of responding rural Divisions of General Practice considered that a shortage of dermatologists existed in their area for specialist dermatologists and that there are few general practitioners with qualifications in dermatology.
- The AMWAC 1997 survey of all State/Territory Health Departments found that shortages existed in four States/Territories, namely New South Wales (6.2 VMOs, 3.3 staff specialists and 4 registrars), Victoria (3 to 4 registrars), Northern Territory (one staff specialist) and Queensland (0.81 VMO). However, it was noted by one State that reported shortages did not mean that funding was always available to pay for additional positions.

Private Consultation Waiting Times

- The ACD/AMWAC survey of dermatologists found the average waiting time for a

standard first consultation with a dermatologist in his/her private rooms was 39 days, while public patients wait, on average, 31.6 days. The waiting time in Queensland for a standard first consultation is well above the average for both private and public patients.

Specialist Workload

- In the ACD/AMWAC survey, 67.5% of respondents indicated they were satisfied with the amount of work they did, 17% were dissatisfied and 11.6% were neither satisfied or dissatisfied. 61.3% of respondents were satisfied with their hours of work and 15.5% were dissatisfied, while 19.4% were neither satisfied or dissatisfied. 75% indicated that their workload was sufficient to maintain their income, 5.6% were dissatisfied with this aspect of their work and 19.4% were neither satisfied or dissatisfied.
- 15.5% of respondents to the survey perceived a need for more dermatologists in four States/Territories (New South Wales/Australian Capital Territory, Victoria and Queensland) with no differences observed based on location of primary practice (ie., capital city, other urban or rural).
- 50% of respondents to the ACD/AMWAC 1997 survey were dissatisfied with the availability of locums, with no differences observed in level of satisfaction between urban practitioners and rural practitioners. 70% of rural dermatologists perceived they would use a locum service (four weeks on average) if it were available.
- 42.7% of respondents to the ACD/AMWAC survey indicated that they expected their hours of work to decrease with the greatest planned reductions indicated by dermatologists in Western Australia, Victoria and New South Wales.

Conclusions on Adequacy of the Current Workforce

- The Working Party concluded that the overall supply of dermatologists was inadequate and that a serious shortage of dermatologists exists in rural areas and some urban areas. The Working Party concluded that it is not practical to consider the relocation of city-based dermatologists to rural areas and that alternative strategies are required including changes to the current training program to encourage greater rural participation.
- The Working Party also concluded that health care system changes have resulted in public hospitals becoming less willing to resource dermatology training positions and that additional and alternative approaches to training are urgently required. However, the Working Party considered that teaching hospitals are important to the provision of core specialist dermatology training in addition to the training of undergraduates, general practitioners and nursing staff.

Projections of Requirements and Supply

Requirement Trends

- Respondents to the ACD/AMWAC survey indicated that 40% of their time was spent with patients aged 65 years and over, implying that the ageing of the Australian population is likely to impact significantly on requirements for this workforce.

Supply Trends

- Over the past five years, an average of 11 new dermatologists have entered the workforce each year and this figure is expected to increase to 12 over the next four years.
- Based on the retirement intentions of respondents to the ACD/AMWAC survey, the Working Party considered that 66 years was an appropriate age to use for projection purposes.
- The representation of women in the workforce is approximately 30%. It is expected that the proportion of women in the workforce will increase, as the number of female trainees continues to increase (currently 33%) and the large, predominantly male, cohort of dermatologists aged 55 years and over proceeds through to retirement.
- The Working Party believes that the supply of dermatology services outside capital cities is inadequate and that action is required to address this situation. Medicare data indicate that in 1995-96 there were 6,877 patients per dermatologist in rural areas compared with 2,700 per dermatologist in capital city and other metropolitan areas. Furthermore, data from the ACD/AMWAC survey of dermatologists and the AMWAC 1997 survey of Divisions of General Practice revealed that shortages exist in other metropolitan areas and rural areas in all States/Territories except the Australian Capital Territory.

Substitution

- In 1995-96, 6% of dermatology services provided through Medicare were provided by other specialists and other providers.

Balancing Projected Supply with Projected Requirements

Estimating Future Growth

- It was estimated that future demand would be somewhere between 1.6% (as indicated by trends in population growth and ageing) and 4.2% as indicated by Medicare utilisation. A growth factor of 2.6% was considered to be reasonable and this indicator was used in the projection analysis.
- The Working Party considered that the 4.2% compound annual growth rate in

Medicare service provision over the last decade was unsustainable and overstated the likely need for future dermatology services.

- A balance in supply to match a continued growth rate in requirements of 2.6% per annum can be achieved by increasing the number of graduates from the year 2002 to 16 until the year 2007.
- The results of this projection work show that the output of the ACD dermatology training program should increase to 16 graduates per year from 2002. In previous years, 42 training positions have produced an average of 12.25 graduates per year. Hence, if the target of 16 graduates is desired an additional ten dermatology advanced training positions would be required.
- This is a reasonably large increase in training positions in a year and unlikely to be practical. The Working Party recommends a staged increase in training positions of three in 1999, four in 2000 and three in 2001. In terms of ability to effect increases in training positions, the staged scenario is preferable. It will also enable the projected trend in requirements to be monitored and the recommended increases in training positions adjusted if necessary.
- Ideally, training positions should be increased proportionately less in the comparatively well endowed State of South Australia and kept roughly in line with projected State/Territory population shares in 2006. In particular, emphasis needs to be given to improving the provision of services to other urban areas and rural areas in New South Wales, Victoria, Queensland and Western Australia and to providing services in the Northern Territory, possibly through linkage with the South Australian training program.
- The Working Party recognises that the changes that are occurring in dermatology practice are likely to continue and that as a result the trend away from public hospital practice will lead to a decline in support for the resourcing of traditional hospital-based dermatology training positions.
- Taking into account the above considerations, the Working Party proposes that at least six of the ten new training positions should involve the piloting of a networked approach to the training of dermatologists, similar to that currently being trialed in Queensland.
- A networked approach to training is proposed involving ambulatory settings, including the private sector, and teaching hospitals. Appendix E outlines a proposal for the piloting of public/private service provider networks for the training of dermatologists.
- The ACD has indicated to the Working Party that the training of dermatologists in

private practice is under review by the College and that no firm consensus has been reached at present given some of the practical issues which need to be addressed. Proposals for accreditation of private and rural practice training are being prepared by the Board of Censors of the ACD for consideration by the College Council in May 1998.

- The ACD has also raised concerns that the changes to the training program are likely to require a financial commitment from both the Commonwealth and State/Territory governments, including funding specifically designated to take into account the funding of registrar positions, VMO supervisors, travel and accommodation requirements associated with rural rotations and program monitoring to ensure that the training program achieves its objectives.

RECOMMENDATIONS

The Working Party recommends:

1. There be an increase in the number of specifically funded dermatology training positions and trainees to match an expected future growth in requirements of 2.6% per year.
2. That Commonwealth, State and Territory health departments undertake negotiations with the Australasian College of Dermatologists for the establishment of ten additional training positions; with the additional positions to be introduced gradually where suitable support and training programs are available as approved by the Board of Censors of the Australasian College of Dermatologists. The following Table outlines the location of the new positions subject to the negotiation process outlined in recommendation 5.

Total and additional dermatology training positions; by State/Territory, 1997 to 2001^a

State/Territory	Total 1997 (current)	Total 2001	Total increase	1999 increase	2000 increase	2001 increase
NSW/ACT	16	18	2	1	0	1
Vic/Tas	11	14	3	1	1	1
Queensland	8	11	3	1	1	1
SA/NT ^b	4	5	1	0	1	0
West. Aust.	3	4	1	0	1	0
Australia	42	52	10	3	4	3

a - This Table outlines where the needs are for additional dermatologists. The Working Party understands that the ACD training program in some States/Territories may have problems in accommodating new positions and that training may need to occur where there are sufficient training resources.

b - The new position in South Australia should take into consideration that there is no full-time dermatologist in the Northern Territory to provide services or supervise a trainee.

3. That the current registrar positions (as outlined in Table 30) be fully funded and maintained and that the ten new positions are additional to those currently in operation.
4. That six of the ten new training positions involve the training of dermatologists using a networked approach to training which will involve the use of teaching hospitals, private rooms and rural rotations with visiting dermatologists.

The Working Party understands that proposals for accreditation of private practice and rural practice training are being prepared by the Board of Censors of the Australasian College of Dermatologists for consideration by the College Council in May 1998.

5. State/Territory based dermatology services working groups, comprising the Australasian College of Dermatologists, Commonwealth/State/Territory department of health representatives, private dermatology practices and relevant rural health providers be organised to co-ordinate the establishment of the new training positions and to oversee the introduction of any short term measures they may feel are necessary to meet localised service shortfalls (recognising that the increased number of graduates will not make an effective contribution to the dermatology workforce until 2003).
6. The Working Party understands that the establishment of ten new training positions may pose some challenges for State/Territory health departments given the changes occurring in public hospitals with declining support for the resourcing

of traditional hospital-based dermatology training positions and visiting medical officer supervisors.

The Working Party therefore recommends that innovative funding arrangements be explored by Commonwealth and State/Territory health departments and the Australasian College of Dermatology for funding the six new training positions associated with the networked approach to training outlined above. Such funding arrangements should take into account the funding of registrar positions, VMO supervisors, travel and accommodation requirements associated with rural rotations and program monitoring to ensure that the training program achieves its objectives.

7. That dermatology workforce requirements and supply projections be monitored regularly so that they can be amended if new trends emerge with a formal review in five years.
8. That this monitoring and the evaluation of this further pilot training program be coordinated by the Australasian College of Dermatologists and AMWAC and the results incorporated into the AMWAC annual report to AHMAC. AMWAC will provide all necessary support.

DESCRIPTION OF THE CURRENT DERMATOLOGY WORKFORCE

As discussed in the Introduction, there is a variety of data sources on the numbers, attributes and distribution of dermatologists in Australia. While each of these data collections has some deficiency, it is possible to piece together a reasonably accurate and up-to-date profile of the workforce.

In establishing the profile of the current dermatology workforce the Working Party defined:

- the number of dermatologists;
- their distribution by State/Territory and geographic location using the RRMA classification;
- age and gender profiles of the workforce;
- the hours worked; and
- the services provided and performed.

The Number of Practising Specialist Dermatologists

The data sources used are the records of the ACD, the AIHW 1995 medical labour force survey and the DHFS Medicare data base.

The ACD records information about members, including age, gender, address and status of membership. In 1997, there were 246 full-time members of the ACD.

Medicare data for 1995-96 identified 275 practising dermatologists. This data refers to any specialist who bills Medicare at least once for a given item identified as provided by dermatologists. A review by Medicare of their records revealed that 30 people practising under Medicare as dermatologists were not listed as Fellows of the ACD. A rationalisation process revealed that 18 of these providers were either deceased or had provided less than 100 services and the remaining 12 providers were located in New South Wales or Victoria (eight were in Sydney or Melbourne). This provides a total of 258 practising dermatologists.

The AIHW Annual Medical Labour Force Survey reports numbers based on specialists who indicate that their main, second or third specialty of practice was in dermatology. It also identifies specialists qualified in dermatology. The 1995 survey identified 284 specialists whose main specialty of practice was dermatology and four specialists for whom dermatology was their second or third specialty of practice. In addition, the AIHW survey identified a total of 289 qualified dermatologists.

The data from these three sources are summarised in Table 1.

Table 1: Number of dermatologists (various sources), selected years

ACD (1997)	Medicare (1995-96)	AIHW (1995)
246	275	284

Sources: ACD, DHFS, AIHW

Data from the AIHW 1995 survey show that 94.8% of dermatologists gained their initial qualification in Australia and 3.7% gained their first qualification in the United Kingdom/Ireland (Table 2).

Table 2: Country of first qualification of dermatologists (AIHW), by State/Territory, 1995

State/Terr.	Derm. No.	% of total	Australia %	New Zealand %	UK/Ireland %	Asia %
NSW/ACT	112	39.4	97.3	0.0	1.8	0.9
Vic	62	21.8	96.8	0.0	0.0	1.6
Qld	52	17.3	94.2	3.8	3.8	0.0
SA/NT	32	11.3	93.8	0.0	6.3	0.0
WA	22	7.7	90.9	0.0	9.0	0.0
Tas	4	1.4	25.0	0.0	75.0	0.0
Australia	284	100.0	94.8	0.5	3.7	1.0

Source: AIHW

Growth in the Dermatology Workforce

Table 3 shows the changes occurring in the dermatology workforce since 1984-85. The picture is one of steady growth.

Between 1991-92 and 1996-97 the number of ACD full-time practising members has increased by 18.2% with a per annum increase of 2.8%. Medicare data shows that the total number of dermatologists billing Medicare increased by 34.8% from 204 in 1984-85 to 275 in 1995-96 (a per annum increase of 2.8%). Data from the AIHW survey indicates an increase of 2.5% between 1994 and 1995.

Population growth between 1984-85 and 1995-96 was 16.1%, a per annum increase of 1.2%.

Table 3: Dermatology specialists (various sources), 1984-85 to 1996-97

Dermatologists	1984-85	1991-92	1992-93	1994-95	1995-96	1996-97	% increase*
ACD	..	208	221	239	243	246	2.8
Medicare	204	242	245	267	275	-	2.8
AIHW	277	284	-	2.5

.. - data not collected in this year; * - compound annual increase.

Sources: ACD, DHFS, AIHW

Some idea of the growth in the dermatology workforce across States and Territories can be gained from Table 4 using Medicare data. Medicare data do not reveal the complete workforce but the inclusion criteria are constant and therefore provide an indication of the magnitude of change in the workforce. The data reveal that above average increases occurred in the Australian Capital Territory, Tasmania, and South Australia while Victoria experienced a below average increase.

Table 4: Dermatology specialists (Medicare), by State/Territory, 1991-92 and 1995-96

Year	NS W	Vic	Qld	SA	WA	Tas	ACT	NT	Aust
1991-92	106	59	34	19	16	4	4	-	242
1995-96	117	64	39	23	21	5	6	-	275
% change*	2.0	1.6	2.8	3.9	5.6	4.6	8.4	-	2.6
% pop. increase*	0.8	0.4	2.1	0.4	1.2	0.5	1.5	1.2	0.9

* - compound annual increase

Sources: DHFS and ABS

Distribution of the Dermatology Workforce

Table 5 uses Medicare 1995-96 data, ACD membership data and AIHW 1995 survey data to examine the distribution of dermatologists by State/Territory.

According to Medicare data, New South Wales with 33.9% of the Australian population has 42.5% of dermatologists while Victoria with 24.8% of the population has 23.3% of dermatologists. Comparative figures for the other States and Territories are Queensland, 14.2% of dermatologists (18.3% population), South Australia, 8.4% of dermatologists (8.1% population), Western Australia, 7.6% dermatologists (9.7% population), Tasmania, 1.5% dermatologists (2.4% population), the Northern Territory has no dermatologists (1.0% population) and the Australian Capital Territory has 2.2% of dermatologists (1.7% population) (Table 5).

ACD membership data indicates that 45.1% of Fellows of the College are in New South Wales and the Australian Capital Territory, 22% in Victoria and Tasmania, 15.4% in Queensland, 8.5% in South Australia and 8.9% in Western Australia. No ACD Fellows are listed for the Northern Territory (Table 5).

Data from the AIHW 1995 survey (based on specialists whose main practice is dermatology), provide a distribution profile more consistent with population distribution than the data from Medicare and the ACD. For example, according to this data, 1.4% of dermatologists are in Tasmania (2.4% of the population), 0.7% are in the Northern Territory (1% population) and 1.1% are in the Australian Capital Territory (1.7% population) (Table 5).

Table 5 also uses the 1995-96 Medicare data, the 1997 ACD data, the 1995 AIHW survey data and ABS (1994) projections for 1996 (series A/B) to examine the distribution of dermatologists per head of population.

According to ACD membership records, there are 1.4 Fellows per 100,000 people (1:74,017). Queensland, Victoria/Tasmania and Western Australia have below average ratios.

According to data from Medicare, per 100,000 people, there were 1.5 dermatologists for Australia (1:66,506 persons). States with specialist per 100,000 population ratios below that for Australia as a whole were Tasmania (0.8), Queensland (1.4), Western Australia (1.19), Victoria (1.4) and the Northern Territory with no Dermatologists identified as MBS providers.

The AIHW data indicates that there were 1.6 dermatologists per 100,000 people (1:62,999 persons) for Australia in 1995. States/Territories with specialist per 100,000 population ratios below average were Tasmania, the Northern Territory, the Australian Capital Territory, Victoria, Western Australia and Queensland.

Table 5: Dermatologist:population (Medicare, ACD and AIHW), by State/Territory, 1995-96

State/ Territory	Derm.	% of total Dermatologists	% of Australian population	Derm. SPR	Derm./100,000
<i>Medicare (1995-96)</i>					
NSW	117	42.5	33.9	1:52,641	1.9
Vic	64	23.3	24.8	1:70,778	1.4
Qld	39	14.2	18.3	1:85,041	1.2
SA	23	8.4	8.1	1:64,491	1.6
WA	21	7.6	9.7	1:83,186	1.2
Tas	4	1.5	2.4	1:120,325	0.8
NT	0	0	1.0	-	0.0
ACT	6	2.2	1.7	1:52,367	1.9
Australia	275	100.0	100.0	1:66,506	1.5
<i>ACD (1997)</i>					
NSW/ACT	111	45.1	35.6	1:58,317	1.7
Vic/Tas	54	22.0	27.5	1:92,798	1.1
Qld	38	15.4	18.3	1:87,279	1.1
SA	21	8.5	8.1	1:70,633	1.4
WA	22	8.9	9.7	1:79,405	1.3
NT	0	0.0	1.0	-	0.0
Australia	246	100.0	100	1:74,017	1.4
<i>(AIHW)*</i>					
NSW	109	38.4	33.9	1:56,505	1.8
Vic	62	21.8	24.8	1:73,061	1.4
Qld	52	18.3	18.3	1:63,781	1.6
SA	30	10.6	8.1	1:49,443	2.0
WA	22	7.7	9.7	1:79,405	1.3
Tas	4	1.4	2.4	1:120,325	0.8
NT	2	0.7	1.0	1:88,550	1.1
ACT	3	1.1	1.7	1:104,733	1.0
Australia	284	100.0	100.0	1:62,999	1.6

* Figures based on dermatologists whose main specialty of practice is dermatology.

Source: DHFS; ACD; AIHW; ABS

Table 6 uses AIHW 1995 Labour Force Survey data, Medicare data (1995-96) and the RRMA classification to show the distribution of dermatologists by geographic location. Of the 284 specialists whose main practice was dermatology, 92.6% were in capital cities and other major urban centres, 4% were in large rural centres, and 3.3% were in other rural areas. Medicare data provide a similar distribution pattern, namely that 8.7% of dermatologists are located in a rural area.

Similarly, the ACD/AMWAC 1997 survey of dermatologists found that 7.8% of respondents lived and worked outside a major urban centre.

Table 6: Distribution of dermatologists (AIHW and Medicare), by geographic location, 1995 and 1995-96

	Number	% of Australia	Major urban centre	Large rural centre	Other rural
Region of main job (AIHW 1995)	284	100.0	92.6	4.1	3.3
No. of providers (Medicare, 1995-96)	275	100.0	91.3	5.8	2.9

Sources: AIHW, DHFS.

Table 7 uses AIHW (1995) data and the RRMA classification to examine the geographic distribution of dermatologists within States/Territories. According to this data, Queensland has an above average representation of resident rural dermatologists (15.7%), while four States/Territories have no resident rural dermatologists, namely, South Australia, the Northern Territory, Tasmania and Western Australia.

Table 7: Distribution of dermatologists (AIHW data), by State/Territory and geographic location, 1995

State/Territory	Derm. No.	% of total Derm.	Major urban centre	% by State/Terr.	Large rural centre	% by State/Terr.	Rural other	% by State/Terr.
NSW/ACT	112	39.4	105	93.7	2	1.8	5	4.5
Vic	62	21.8	57	91.9	2	3.2	3	4.8
Qld	51	17.3	43	84.3	7	13.7	1	2.0
SA/NT	32	11.3	32	100.0	0	0.0	0	0.0
WA	22	7.7	22	100.0	0	0.0	0	0.0
Tas	4	1.4	4	100.0	0	0.0	0	0.0
Australia	283	100.00	263	92.9	11	3.9	9	3.1

Source: AIHW

Table 8 examines the geographic distribution of dermatologists by State/Territory using Medicare data. This provides a similar pattern to that shown in Table 7, namely, that Queensland has a higher than average number of specialists in non-metropolitan areas and that South Australia, the Northern Territory and Western Australia have no specialists in non-metropolitan locations.

Table 8: Distribution of dermatologists (Medicare), by State/Territory and geographic location, 1995-96

State/Territory	Derm. No.	% of total Derm.	Metropolitan	% by State/Terr.	Non-metropolitan	% by State/Terr.
NSW/ACT	123	44.7	112	91.1	11	8.9
Vic	64	23.3	59	92.2	5	7.8
Qld	39	14.2	32	82.1	7	17.9
SA/NT	23	8.4	23	100.0	0	0.0
WA	21	7.6	21	100.0	0	0.0
Tas	5	1.8	4	80.0	1	20.0
Australia	275	100.00	251	91.3	24	8.4

Source: DHFS

The ACD/AMWAC survey of dermatologists found that 41.2% of metropolitan respondents to the ACD/AMWAC survey indicated that they provided services to rural areas. On average, these dermatologists spend one day per month in a rural area. Table 9 shows wide variation across States/Territories in the percentage of respondents involved in the provision of rural outreach services. For example, 77% of metropolitan based dermatologists in Victoria and 66.6% in South Australia reported providing rural outreach services, while 20.7% of metropolitan providers in New South Wales/Australian Capital Territory and 19% from Queensland indicated they provided rural outreach services.

Table 9: Percentage of metropolitan dermatologists within each State/Territory providing rural outreach services, 1997

NSW/ACT	Vic	Qld	SA	WA	Tas
20.7	76.9	19.0	66.6	44.4	a

a - numbers too small to report

Age Profile

According to the ACD records, the average age of Fellows of the College is 45.8 years (Table 10). The largest ten year cohort is aged between 38 to 47 years (49%). 23.6% of the workforce is aged 58 years and over and New South Wales/Australian Capital Territory have an above average proportion of Fellows aged over 58 years (30.6%).

Table 10: Age profile of dermatologists (ACD), by age group and State/Territory, 1997

State/Territory	< 37 yrs %	38-47 yrs %	48-57 yrs %	58-67 yrs %	68+ yrs %	Average age (yrs)
NSW/ACT	2.7	44.1	22.5	22.5	8.1	47.0
Vic/Tas	0.0	53.7	33.3	7.4	5.6	44.5
Qld	2.6	44.7	31.6	15.8	5.3	45.7
SA	0.0	57.1	19.0	19.0	4.8	45.1
WA	0.0	63.6	18.2	18.2	0.0	43.8
Australia	1.6	49.2	25.6	17.5	6.1	45.8

Source: ACD

According to the AIHW (1995) survey, the average age of dermatologists is 50.1 years, with little variation between State/Territories. The largest age group is specialists aged 35 to 44 years (33.6%). 19% of dermatologists are aged 65 years and over. Two States have an above average percentage of dermatologists aged 65 years and over, namely New South Wales and Tasmania (Table 11).

Table 11: Age profile of dermatologists (AIHW), by age group and State/Territory, 1995

State/Terr.	< 35 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75+ yrs	Average age (yrs)	% aged 65 yrs & over
NSW/ACT	5	38	26	18	19	6	51.2	22.3
Vic	3	17	26	6	8	2	49.7	16.1
Qld	3	16	18	5	7	2	48.7	17.3
SA/NT	0	15	5	8	2	3	50.7	15.6
WA	4	8	4	2	4	0	47.4	18.2
Tas	0	2	1	0	1	0	50.3	25.0
Australia	15	95	80	38	41	13	50.1	19.0
% age group	5.4	33.6	28.3	13.5	14.5	4.7	-	-

Source: AIHW

Medicare data (Table 12) provide a similar age distribution pattern to that outlined in Table 10 using AIHW data. However, for 18 Medicare providers, their age status was not indicated. States/Territories with an above average number of dermatologists in the 60 years and over age group are Tasmania (40%) and New South Wales/Australian Capital Territory (31.7%).

Table 12: Age profile of dermatologists (Medicare), by age group and State/Territory, 1995-96

State/Terr.	under 45 yrs %	45-59 yrs %	60 yrs & over %	Unknown %	Total %
NSW/ACT	34.9	26.8	31.7	6.5	100.0
Vic	31.3	32.8	26.6	9.4	100.0
Qld	43.6	28.2	25.6	2.6	100.0
SA/NT	43.5	26.1	26.1	4.3	100.0
WA	47.6	28.6	14.3	9.5	100.0
Tas	40.0	20.0	40.0	-	100.0
Australia	37.1	28.4	28.0	6.5	100.0*

* Age status not available for 18 providers

Source: DHFS

Table 13 shows that the average age of dermatologists in large rural centres is 4.5 years above the average age for all dermatologists, while dermatologists in small rural centres are, on average, three years younger than their colleagues in other locations.

Table 13: Average age of dermatologists (AIHW), by geographic location, 1995

	Major urban centre	Large rural centre	Small rural centre	Other rural area	Total
Average age	50.0	54.6	46.8	53.0	50.1

Source: AIHW

Gender Profile

According to ACD records, 31% of dermatologists are women with substantial variation between States/Territories in the representation of women. States with a lower than average representation of women are Western Australia (18.2%) and Victoria/Tasmania (24%) (Table 14).

AIHW data indicate that in 1995, 61.4% of dermatologists were men and 38.6% were women. Data from the ACD show that in 1997, 31% of Fellows of the College were women. Medicare data indicate that in 1995-96, 27.6% of dermatologists were women.

This level of female representation is above the average for all clinicians (27.2%) and well above the level for all specialists (14.0%) (AIHW 1997).

Table 14: Percentage of dermatologists who are women (ACD), by State/Territory, 1997

NSW/ACT	Vic/Tas	Qld	SA/NT	WA	Total
34.2	24.1	34.2	38.1	18.2	31.0

Source: ACD

Table 15 uses data from the AIHW survey (1995) to examine the age and gender profile of the dermatology workforce. Of note is the small representation of women in the older age groups and the increasing number of women in the workforce aged under 45 years.

Table 15: Age and gender of dermatologists (AIHW data), 1995

Gender	<35 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Total
Male %	43.2	58	73.7	80.4	96.1	100.0	72.1
Female %	56.8	42.0	26.3	19.6	3.9	0.0	27.9
Total persons	15	95	80	38	41	13	284

Source: AIHW

Data from Medicare provide a similar picture to that obtained from the AIHW survey (Table 16).

Table 16: Age and gender of dermatologists (Medicare), 1995-96

Gender	<35 yrs	35-44 yrs	45-59 yrs	60-64 yrs	65-69 yrs	70 yrs & over	Total
Male %	35.7	61.0	73.8	81.8	89.3	94.7	72.4
Female %	64.3	39.0	26.2	18.2	10.7	5.3	27.6
Total persons	14	82	84	11	28	38	257*

* Data missing for 18 persons

Source: DHFS

Table 17 uses Medicare data (1995-96) to examine trends in the gender distribution and full-time/part-time working status of the workforce. These data reveal that since 1984-85, the number of women dermatologists has increased from 19% to 28% and that in 1995-96 13.1% of male and 9.2% of female providers were part-time.

Table 17: Dermatologists gender distribution, by full-time/part-time practice and year (Medicare), 1984-85 to 1995-96

Year	% male	% part-time	% female	% part-time	% workforce part-time
1984-85	80.9	9.1	19.0	20.5	11.3
1987-88	80.6	11.5	19.4	18.9	13.2
1990-91	77.0	12.0	23.0	21.8	14.2
1993-94	73.1	10.5	26.9	11.4	10.7
1995-96*	72.0	13.1	28.0	9.2	12.0

Source: DHFS.

The AIHW 1995 survey indicated that on average, female dermatologists work 7.3 hours less per week than do male dermatologists, with women in the younger age group working, on average, 26.6 hours less per week than their male colleagues.

The ACD/AMWAC 1997 survey of dermatologists found a significant difference in the hours worked by male and female dermatologists. On average, 50% of female dermatologists work less than 45 hours per week compared with 26% of male dermatologists and 11% of female dermatologists work more than 55 hours per week compared with 34.7% of male dermatologists.

The AMWAC/AIHW report *Female Participation in the Australian Medical Workforce*, reported that the proportion of female specialists to male specialists under the age of 40 years is much higher than for the workforce as a whole. It was estimated that these specialists will, on average, work shorter hours, contribute fewer FTE to the workforce and retire on average at least five years earlier than male specialists. In hours, the life time contribution of female specialists was estimated to be around 75% of a male specialist across all specialties. It was concluded that shortages in some specialties could be exacerbated in the future as specialist Colleges increase the number of female trainees and that increases in the number of training posts may be needed to offset the decreased lifetime workforce contribution by female specialists (AMWAC & AIHW 1996b).

Hours Worked

Dermatologists work on average 46.3 hours per week and spend 40.4 hours per week on direct patient care (AIHW 1997).

Similarly, the ACD/AMWAC 1997 survey found that, on average, dermatologists work 46.4 hours per week and spend 36.5 hours per week on direct patient care.

Table 18 outlines the average total hours and total patient care hours worked per week by dermatologists by age category and gender using the AIHW 1995 survey data. These data reveal that between the ages of 35 and 64 years, most dermatologists work 40 hours or more per week while dermatologists over the age of 65 years tend to work part-time, with some dermatologists working beyond the age of 75 years.

Table 18: Average hours worked per week by dermatologists (AIHW data), by gender and age, 1995

Gender	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Total
<i>Total hours worked</i>							
Male	59.0	51.3	54.0	53.2	34.0	29.0	48.5
Female	32.4	42.5	42.1	43.2	16.0	0.0	41.2
Total	44.2	47.6	50.9	51.3	33.4	29.0	46.3
<i>Direct patient care hours worked</i>							
Male	48.8	44.7	44.4	47.7	30.3	28.6	42.0
Female	28.8	38.3	38.0	41.2	16.0	0.0	36.9
Total	38.8	41.9	42.8	46.3	29.7	28.6	40.4

Source: AIHW

Data from the AIHW survey indicate that there is substantial variation between States/Territories in the hours worked by dermatologists, with practitioners in Western Australia working, on average, 5.9 hours more per week than the average for all practitioners (Table 19).

Table 19: Average hours worked per week by dermatologists (AIHW), by State/Territory, 1995

	NSW/ACT	Vic	Qld	SA/NT	WA	Tas	Total
Total hours worked	46.1	46.3	45.7	47.4	52.2	33.3	46.3
Direct patient care hours worked	42.2	35.5	41.7	39.3	44.8	30.0	40.4

Source: AIHW

Table 20 indicates that dermatologists in large rural centres and other rural areas work more hours per week on average than do specialists in major urban centres and small rural centres.

Table 20: Average hours worked per week by dermatologists (AIHW), by geographic location, 1995

	Major urban centre	Large rural centre	Small rural centre	Other rural area	Total
Total hours worked	46.3	54.8	42.3	53.0	46.3
Direct patient care hours worked	40.9	53.0	28.0	33.0	40.4

Source: AIHW

Table 21 indicates that the majority (71%) of the workforce works, on average, 35 to 64 hours per week. 19.7% work less than 35 hours per week and 9.4% work more than 65 hours per week.

With respect to direct patient care hours, 62% of dermatologists work between 35 to 64 hours per week, 5.3% work 65 hours or more and 32% work less than 35 hours per week.

Table 21: Average hours worked per week by dermatologists (AIHW), by percentage of the workforce, 1995

Hours	1-19	20-34	35-49	50-64	65-79	80+	Total
<i>Total hours worked</i>							
Total persons	18	38	103	98	13	14	284
% of workforce	6.4	13.3	36.4	34.6	4.4	5.0	100.0
<i>Direct patient care hours worked</i>							
Total persons	25	65	117	61	8	7	284
% of workforce	8.9	23.0	41.2	21.6	2.9	2.4	100.0

Source: AIHW

The AIHW 1995 survey reported that 8.9% of dermatologists worked on-call hours with all on-call practitioners located in a major urban centre.

The ACD/AMWAC 1997 survey found that 32% of respondents worked on-call hours out of work hours (ie., after 5.00pm and before 8.00am). The average time worked out of hours on-call was 4.23 hours per week.

Work Setting

The AIHW survey indicates that in 1995, 96% of dermatologists had their main job in private rooms, 1.4% had their main job in an acute care public hospital and the remaining 2.1% worked in some other setting. When asked about jobs other than their

main jobs, 32% of dermatologists indicated they worked in an acute care public hospital, 21% indicated they worked in some other setting and 1.4% said they worked in an acute care private hospital.

Table 22 shows that there is wide variation in the contribution made to public hospital work by dermatologists across States/Territories, with 46.8% of dermatologists in South Australia, 36.3% in Western Australia, 33.8% in Victoria, 28.8% in Queensland, 27.7% in New South Wales/Australian Capital Territory and 25% in Tasmania undertaking work in an acute care public hospital (AIHW 1997).

According to the AIHW 1995 survey, 21% of dermatologists provide services in work settings other than private rooms and acute care hospitals, with 36.4% of dermatologists in Western Australia, 33.8% in Victoria, 21.9% in South Australia, 28.8% in Queensland and 20.5% in New South Wales/Australian Capital Territory working in these other settings (Table 22).

Table 22: Work setting of dermatologists (AIHW), main job and all jobs by State/Territory, 1995

State/Territory	Private rooms	Acute care public hospital	Acute care private hospital	Other work settings	Total
<i>Work setting of main job</i>					
NSW/ACT	110	1	0	1	112
Vic	60	1	0	0	62
Qld	47	0	0	5	52
SA/NT	30	2	0	0	32
WA	22	0	0	0	22
Tas	4	0	0	0	4
Australia	273	4	0	6	284
<i>Work settings of any jobs</i>					
NSW/ACT	110	31	2	23	-
Vic	62	21	0	13	-
Qld	49	15	0	9	-
SA/NT	30	15	0	7	-
WA	22	8	2	8	-
Tas	4	1	0	0	-
Australia	276	91	4	60	-

Source: AIHW

The ACD/AMWAC 1997 survey found that, on average, dermatologists spend 65.4% of their total work hours in private consulting rooms, 2.9% in private hospitals, 6.5% in public hospitals, 0.4% in other publicly funded facilities and 25% on other professional activities with correspondence and administration accounting for 13.5% of total work hours (Table 23).

Table 23: Percentage of total hours per week spent on selected activities by dermatologists, 1997

Type of activity	Percentage of total hours worked in a typical week
Private	
- Consulting room work	65.4
- Private hospital work	2.9
Public	
- Public hospital work	6.5
- Other public sector health care work	0.4
Other professional activities	
- Medical legal matters	1.1
- Correspondence and administration	13.5
- Continuing medical education	3.5
- Teaching	2.9
- Research	1.8
- Other professional activities	1.8
Total time	100.0

Source: ACD/AMWAC 1997 survey of dermatologists

Services Provided

Among dermatologists there is wide variation in the amount of practice time spent on various conditions. Table 24 provides a summary of the percentage of practice time that respondents to the ACD/AMWAC survey of dermatologists reported spending on caring for people with selected conditions in private and public facilities. This aggregated data indicates that, on average, six conditions account for 92.2% of practice time, namely, solar damage, skin malignancies, dermatitis (atopic, discoid, seborrhoeic and irritant), skin infections (viral, bacterial, fungal and scabetic), acne and psoriasis. Other conditions of importance are also listed in Table 24 and include naevi for review, warts, rosacea and perioral dermatitis, drug eruptions and alopecia.

Table 24: Percentage of practice time (over a typical month), in private or public facilities, spent caring for people with selected conditions, 1997

Condition	% of practice time
Solar damage	29.1
Skin malignancies	23.7
Acne	11.1
Dermatitis	10.0
Infections	9.4
Psoriasis	8.9
Other conditions	7.8
- Alopecia	
- Contact dermatitis	
- Connective tissue disease	
- Congenital naevus	
- Drug eruptions	
- Granulomatous disease	
- Naevi for review	
- Photosensitivity	
- Rosacea & Perioral dermatitis	
- Urticaria	
- Vulval diseases	
- Warts	
- Miscellaneous conditions	

Source: ACD/AMWAC survey of dermatologists

General Practitioner Referrals

Doherty (1994) noted that AABS and other data demonstrate the high incidence and prevalence of skin disorders in the Australian community, the major contribution they make to general practice workloads and the relatively small proportion of them that are referred for specialist attention. In particular, the high and increasing incidence of melanoma, basal cell carcinoma and squamous cell carcinoma in parts of Australia is relevant to future workforce needs. The volume, especially of non-melanoma skin cancer, is such that specialist referral is not likely to be available for many, and GPs will play a key role (p x).

The AMWAC 1997 survey of Divisions of General Practice found that the important triggers for a general practitioner to refer to a dermatologist were (in order of importance): severity of the condition, condition unresponsive to treatment, rarity of the diagnosis, lack of experience within the practice regarding the condition and its treatment and request of the patient to be referred. Factors of little importance were age of the patient and the social circumstances of the patient.

Skin conditions are among the most common problems managed by general practitioners. Britt et al. (1993) found that 15.9% of problems managed by metropolitan general practitioners were skin conditions, while for rural general practitioners, 17% of problems managed were for skin conditions. The rate of referral by general practitioners to any specialist per 100 patient encounters was 6.3 for metropolitan practitioners and 6.0 per 100 patient encounters for rural practitioners. The GP referral rate to dermatologists was 0.37 per 100 patient encounters; 0.44 per 100 for metropolitan general practitioners and 0.35 per 100 for rural general practitioners.

A more recent survey (Family Medicine Research Unit, MTI Survey, 1995) found that the referral rate to dermatologists per 100 patient encounters was 0.74, with wide variation between States/Territories (Table 25). New South Wales had the highest rate of GP referrals to a dermatologist, while the Northern Territory, the Australian Capital Territory, Queensland and South Australia were well below the average for all States/Territories.

Table 25: General practitioner referrals to dermatologists, by State/Territory, 1995

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
Referrals to dermatologists	0.91	0.67	0.50	0.53	0.67	0.64	0.18	0.40	0.74
Total referrals to specialists	9.4	7.2	7.1	8.1	8.3	7.6	5.9	5.4	8.3

Source: Family Medicine Research Unit, University of Sydney, 1997

Medicare Services

Procedural and other medical services in Australia are provided through Medicare and through other insurance arrangements in fee for service practice, and through the public hospital system. Detailed service-specific data through Medicare have been available since 1984-85. Public hospital casemix data, relevant to dermatology, are available from 1993-94 to 1994-95. Private hospital casemix data are available for 1994-95.

Table 26 reveals that 99.7% of the Medicare services provided by dermatologists were non-hospital based services while 0.3% were hospital based. Between 1991-92 and 1995-96, the total number of services provided by dermatologists increased by 17.2%, with a compound annual increase of 4.2%. During this period, the number of providers increased by 14.8% (3.5% compound annual increase) and the number of services per provider increased by 2.6% (0.6% compound annual increase). It is interesting to note that between 1992-93 and 1995-96, there was a decrease of 3.4% in the total number of services per provider with all the decrease associated with out of hospital services.

Table 26: Dermatology Medicare item trends, 1991-92 to 1995-96

Location of service	1991-92	1992-93	1993-94	1994-95	1995-96	% change 1992-96	annual % incr.*
<i>In-hospital services</i>							
- Number of providers	185	183	196	185	187	1.1	0.3
- Services provided	3,835	3,758	4,276	5,056	5,990	56.2	11.8
- Services per provider	21	21	23	27	32	52.4	11.1
<i>Out of hospital services</i>							
- Number of providers	243	245	259	267	278	14.4	3.4
- Services provided	1,462,352	1,566,370	1,642,442	1,701,069	1,721,438	17.2	4.2
- Services per provider	6,018	6,393	6,341	6,371	6,192	2.3	0.7
Total services							
- Number of providers	243	245	260	268	279	14.8	3.5
- Services provided	1,466,187	1,570,128	1,646,718	1,706,125	1,727,428	17.8	4.2
- Services per provider	6,034	6,409	6,334	6,366	6,191	2.6	0.6

* - compound annual increase

Source: DHFS

Table 27 examines trends in the provision of Medicare services by geographic location. These data indicate that between 1990-91 and 1995-96, there was an overall increase in the number of providers of 16.3%, an increase in the number of services per provider of 8.6% and an increase in the number of patients per provider of 1.8%. Furthermore, it suggests that there has been some improvement in the distribution of dermatology specialists, with five more specialists in rural locations in 1995-96 than in 1990-91 and a decrease in the number of patients per rural provider (7,736 to 6,877) and in the number of services per provider (13,801 to 12,850). However, these data also reveal that, on average, in 1995-96 each rural dermatology specialist provided twice as many services as did each metropolitan based specialist and that he/she provided services to three times as many patients.

Table 27: Medicare services provided by dermatologists, by geographic location, 1995-96

Location of service	1990-91	1993-94	1995-96	% change since 1990-91
<i>Capital city</i>				
- Number of providers	202	214	232	14.9
- Services provided	1,036,230	1,270,100	1,317,410	27.1
- Services per provider	5,130	5,935	5,678	10.7
- Patients per provider	2,661	2,813	2,743	3.1
<i>Other metropolitan</i>				
- Number of providers	25	29	29	16.0
- Services provided	144,440	163,350	167,730	16.1
- Services per provider	5,778	5,633	5,784	0.1
- Patients per provider	2,866	2,634	2,744	4.6
<i>Rural</i>				
- Number of providers	13	17	18	38.5
- Services provided	179,420	220,800	231,300	28.9
- Services per provider	13,802	12,988	12,850	-6.9
- Patients per provider	7,736	6,725	6,877	4.7
Total				
- Number of providers	240	260	279	16.3
- Services provided	1,360,090	1,654,250	1,716,440	26.2
- Service per provider	5,667	6,363	6,152	8.6
- Patients per provider	2,957	3,049	3,010	6.7

Source: DHFS

Hospital Casemix Services

As is well known, Medicare does not cover the full spectrum of procedures for any diagnosis. It excludes non fee-for-service public hospital work and work completed under other insurance arrangements. As a result, hospital casemix data is used as another indicator of the services provided.

The Working Party selected four AN-DRG procedures predominantly performed by dermatologists to analyse service trends, namely items 508: Major skin disorders people aged over 44 years, 509: Major skin disorders people aged 10 to 44 years, 510: Major skin disorders people aged 10 years and under, and 514: Miscellaneous skin disorders.

The public hospital data indicates that there has been a per annum decrease of 0.1% in the number of hospital separations between 1993-94 and 1994-95 (Table 28). Table 29 shows that for the selected AN-DRGs, 21.5% of hospital separations were associated with private acute care hospitals.

Table 28: Dermatology public hospital separations, selected AN-DRGs, 1993-94 to 1994-95

1993-94	separations	bed-days	same day	ALOS
508 Major skin disorders >44	446	5112	2	11.5
509 Major skin disorders 10-44	1400	12611	7.1	9
510 Major skin disorders ,10	324	1299	6.5	4
514 Miscellaneous skin disorders	10928	37241	36.4	3.4
Total	13098	56263		
1994-95				
508 Major skin disorders >44	419	5252	1.4	12.5
509 Major skin disorders 10-44	1344	10179	13.1	7.6
510 Major skin disorders ,10	317	1109	8.2	3.5
514 Miscellaneous skin disorders	10100	33242	40.0	3.3
Total	12180	49782		
Average annual change 1993-94 to 1994-95	-7.0	-11.5		
Compound annual change	-0.1	-0.1		

Source: DHFS

Table 29: Dermatology private hospital separations, selected AN-DRGs, 1994-95

	Separations	Bed-days	Same day	ALOS
508 Major skin disorders >44	115	1651	0.9	14.4
509 Major skin disorders 10-44	299	2457	16.1	8.2
510 Major skin disorders ,10	8	14	12.5	1.8
514 Miscellaneous skin disorders	2914	8093	64.3	2.8
Total private hospital	3336	12215		
Total public/private hospital	15516	61997		
% of action private	21.5	19.7		

Source: DHFS

Training Arrangements

The ACD training program in advanced dermatology is a four year program.

As at June 1997, there were 43 approved training posts and 49 trainees (Table 30). Six trainees were in overseas or research positions which are one-off positions. Four positions are funded privately by the Skin and Cancer Foundation in New South Wales (4) and Victoria (1). All other positions are government funded. In 1997, four of the overseas positions were endorsed by the Queensland Faculty, one by the Victorian Faculty and one by the South Australian Faculty.

All training positions are full-time. Registrars can participate in shared training subject to meeting certain requirements. In 1997, no registrars were undertaking a shared training

program. There is no part-time training.

All training programs are urban based. One position in Queensland has a rural rotation. The majority of positions are based at public hospitals. The Skin and Cancer Foundation positions (four in New South Wales and one in Victoria) are in conjunction with public hospitals. No training occurs in private practice.

In 1997, one overseas trained specialist was undergoing additional clinics to allow them to sit the ACD examination. This is the second overseas trained specialist to undertake such training.

Because there are only a small number of institutions in Australia which provide all facilities for training dermatologists, many programs, while being based in one institution, need to use the facilities of a number of allied or regional institutions. Appendix D outlines the requirements for accreditation as a dermatology training position.

Analysis of the distribution of the dermatology advanced trainees by State/Territory (Table 31) indicates that 33.3% of trainees are from New South Wales/Australian Capital Territory (which account for 35.6% of the Australian population), 25% are from Victoria/Tasmania (with 27.5% of the population), 25% are from Queensland (18.2% of the population), 10.4% from South Australia (8.1% of the population) and 6.3% from Western Australia (9.6% of the population). There are no trainees from the Northern Territory, which accounts for 1% of the population. It should be noted that the number of trainees from any one State/Territory undertaking a one year overseas/research training experience has a substantial influence on the estimation of State/Territory percentages. For example in 1997, four overseas/research students were from Queensland and there were no research/overseas students in New South Wales/Australian Capital Territory or Western Australia.

Table 30: Dermatology training positions, by hospital and by State/Territory, 1997

State	Area/hospital	Accredited training posts
New South Wales		17
	Liverpool	2
	Prince of Wales	2
	Repatriation General, Concord	1
	Royal Newcastle	3
	Royal North Shore	1
	Royal Prince Alfred	2
	St Vincents (Skin Cancer Foundation) ^a	4
Westmead (Skin and Cancer Foundation) ^a	2	
Victoria		11
	Alfred	1
	Austin	1
	Monash Medical Centre	1
	Repatriation General, Heidelberg	1
	Royal Children's	1
	Royal Melbourne	2
	St Vincents	1
	St Vincents (Professorial)	1
	St Vincents (Skin and Cancer Foundation)	1
Western General	1	
Queensland		8
	Greenslopes Private	1
	Mater (including country visits)	1
	Princess Alexandra	2
	Royal Brisbane	3
Royal Brisbane/Princess Alexandra	1	
South Australia		4
	Adelaide Medical Centre for Women and Children/The Queen Elizabeth	1
	Flinders Medical Centre	1
	Royal Adelaide	2
Western Australia		3
	Royal Perth	3
Australia		43

a- four positions in New South Wales are funded by the Skin and Cancer Foundation

Source: ACD

Table 31 indicates that from 1992 to 1997, there was a 28.9% increase in the number of advanced dermatology trainees. The increases varied considerably between States/Territories, with a 100% increase in Queensland (with the four overseas/research students included), a 50% increase in Victoria/Tasmania, a marginal increase in new South Wales and no change in the remaining two States/Territories with training posts.

Table 31: Dermatology advanced trainees (ACD), by State/Territory, 1989 to 1997

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Year	NSW/ACT	Vic/Tas	Qld	SA	WA	NT	Aust
1992	16	8	6	5	3	0	38
1993	17	10	7	5	3	0	42
1994	16	8	7	6	3	0	40
1995	16	11	7	6	3	0	43
1996	17	12	11	5	3	0	49
1997	17	12	12	5	3	0	49
% increase	6.3	50.0	100.0	0.0	0.0	-	28.9
% 1997 trainees	34.7	24.5	24.5	10.2	6.1	0.0	100.0
% population ^a	35.6 ^b	27.5 ^c	18.2	8.1	9.6	1.0	100.0

a - population is an estimate for 1995-96

b - includes ACT

c - includes Tasmania

Source: ACD and ABS

Table 32 outlines the age, gender and training status of the 49 ACD 1997 trainees (this includes the four trainees in overseas/research positions) by State/Territory. The average age of trainees is 34.6 years, 33.3% of trainees are women and 13 trainees are in their final year of training, with an average of 11 graduates per year over the last six years. The average pass rate for the Part 2 examination over the last nine years has been 63% (ACD, 1997).

Table 32: Age, gender and training status of trainee dermatologists (ACD), by State/Territory, 1997

	NSW/ACT	Vic	Qld	SA	WA	O/Seas	Total
Average age	35.4	35.2	33.3	34.5	33.7	33.7	34.6
% Female	37.5	27.2	37.5	50.0	0.0	33.3	33.3
Year of training							
- 1st year	5	1	0	0	1	6	13
- 2nd year	3	2	3	1	0	0	9
- 3rd year	4	5	3	2	0	0	14
- 4th year	5	3	2	1	2	0	13

Source: ACD

The AIHW 1995 survey found that trainee dermatologists worked on average 42.6 hours per week (39.4 hours on direct patient care).

The average age of acquisition of full membership of the ACD is 34.2 years. There is

some expectation that this age may tend to rise, especially with the advent of graduate-entry medical courses; although it will be some ten years before this possibility would start to have any effect.

Table 33 shows that over the past six years, on average, 11 trainees have completed the training program each year; ranging from a high of 16 trainees in 1995 to a low of five trainees in 1992. Over the next three years it is expected that annual training program completions will average 12.

Table 33: Dermatology advanced trainees training program completions, by State/Territory, 1992 to 2000

Year	NSW	Vic	Qld	SA	WA	Total
1992	4	0	0	1	0	5
1993	6	3	1	0	3	13
1994	7	3	4	2	0	16
1995	1	2	1	3	0	7
1996	4	2	1	1	1	9
1997	8	3	1	1	1	14
1998 ^a	4	6	3	2	1	16
1999 ^a	3	2	3	1	0	9
2000 ^a	4	2	2	1	1	10

a - expected completions

Source: ACD

The Main Characteristics of the Specialist Dermatology Workforce

Dermatology is a small workforce, representing just 1.7% of all specialists. The Working Party estimates that currently there are 264 practising dermatology specialists in Australia. This represents 1.5 dermatologists per 100,000 population and an estimated SPR of 1:69,277.

Dermatologists practice mostly in capital cities and major metropolitan areas, with only approximately 8.0% of the workforce located in a rural area. The workforce is also unevenly spread between States/Territories, with New South Wales in particular having a greater proportion of dermatologists than their population share. The opposite situation exists in Queensland, Western Australia and Tasmania and there are no specialist dermatologists in the Northern Territory.

The age profile of the workforce is reasonably even, with an average age of 45.8 years. There is, however, a sizeable cohort of dermatologists aged over 55 years (34%) and over 58 years (24%). 50.8% of the workforce is aged under 48 years. The age profile

across States and Territories is relatively even, although New South Wales/Australian Capital Territory have an above average proportion of dermatologists aged over 58 years.

Nearly one third of the workforce is female (30%), with this proportion expected to increase. The large majority of female dermatologists is under 45 years of age.

It is estimated that dermatologists work on average 46.3 hours per week. Most of this work is conducted in private rooms, with only 1.4% of dermatologists working their main job in a public hospital and only 32% of dermatologists doing any work in public hospitals. Solar damage, skin malignancies and dermatitis account for most of a specialist dermatologist=s time.

ADEQUACY OF THE CURRENT DERMATOLOGY WORKFORCE

There are a number of indicators of the adequacy of a medical workforce. No single measure can provide a definitive assessment, however, by examining each of the following it is possible to gain an indication of whether the workforce is adequately meeting current demand or if there is a significant shortfall or oversupply. The indicators chosen by the Working Party were:

- specialist:population ratio;
- general practitioner assessment of requirements for dermatologists;
- public hospital and health service assessment;
- waiting times for consultations; and
- perceptions of dermatologists of the adequacy of the current workforce.

Dermatologist:Population Ratio

Doherty (1994) noted that the ACD in 1973 saw a SPR of 1:80,000 as appropriate for Australia, basing the decision on its perception of current work pattern in Australia and on international comparisons. A similar SPR has been maintained in Canada, with a health system similar to that of Australia, in some contrast to United States, with more dermatologists, and the United Kingdom, with fewer, in proportion to their populations (p ix). Furthermore, Doherty indicated that some health departments and consumer groups considered that the present (1993-94) SPR in Australia was too low, because of the difficulties experienced by people in some locations (particularly rural locations) in accessing dermatology services. However, these problems appeared to be restricted to some States and to some practices.

The Working Party concluded that international comparisons suffer because of variations in definitions of specialists and in style and scope of practice and health systems. The Working Party believes that the value of the dermatology specialist SPRs lies in their use as tools of comparison between States/Territories and for comparisons over time. Table 5 calculated SPRs using ACD, Medicare and AIHW data. The Medicare data are used in this section to provide some comparisons over time.

Table 34 indicates that over the last 12 years the number of dermatologists per head of population has increased from 1:87,228 to 1:66,506.

Table 34: Dermatology specialist:population ratio (Medicare), by year, 1984-85 to 1995-96

Year	Dermatology specialists	Population ('000)	Population per Dermatologist	Dermatologists per 100,000
1984-85	181	15,788.3	87,228	1.15
1985-86	191	16,018.4	83,866	1.19
1986-87	196	16,263.3	82,976	1.21
1987-88	197	16,538.2	83,950	1.19
1988-89	199	16,814.4	84,494	1.18
1989-90	201	17,065.1	84,901	1.18
1990-91	205	17,284.0	84,317	1.19
1991-92	214	17,489.1	72,269	1.38
1992-93	222	17,656.4	72,067	1.39
1993-94	232	17,661.5	68,609	1.46
1994-95	240	17,840.8	67,599	1.48
1995-96	242	18,023.0	66,506	1.50

Note: 1994 to 1996 population estimates; Source: DHFS and ABS

Table 35 also shows that the number of dermatologists per head of population has increased over the last four years (from 1:72,269 to 1:66,506) and that this trend is evident across all States/Territories except the Northern Territory. However, the data also indicate that existing discrepancies have been maintained. For example, Tasmania, Queensland, Western Australia and Victoria continue to have SPRs above that for Australia as a whole while New South Wales and the Australian Capital Territory remain better endowed and the Northern Territory continues to be without a dermatologist who bills Medicare. However, the AIHW data indicate that in 1995 there were two dermatologists in the Northern Territory. According to the Australasian College of Dermatologists there are no College members resident in the Northern Territory. However, a service is provided on a visiting basis from South Australia which is soon to be augmented by a visiting service from New South Wales.

Table 35: Dermatology specialist:population ratio (Medicare), by State/Territory, 1984-85 and 1995-96

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1991-92									
Dermatol.	106	59	34	19	16	4	-	4	242
Pop. (>000)	5,898.7	4,420.4	2,961.0	1,446.3	1,636.1	466.8	165.5	289.3	17,065.1
SPR 1:	56,214	75,441	89,200	76,716	103,588	117,425	-	73,625	72,269
No./100,000	1.78	1.33	1.12	1.30	0.97	0.85	-	1.36	1.38
1995-96									
Dermatol.	117	64	39	23	21	5	-	6	275
Pop. (>000)	6,190.2	4,541.0	3,354.7	1,479.2	1,762.7	473.7	177.1	307.5	18,023.0
SPR 1:	52,908	70,953	86,018	64,313	83,938	94,680	-	51,250	66,506
No./100,000	1.89	1.41	1.16	1.55	1.19	1.06	-	1.95	1.50

Note: 1995-96 population is an estimate

Source: DHFS and ABS

General Practitioner Assessment of the Need for Dermatologists

The AMWAC 1997 survey of Divisions of General Practice found that the majority of responding Divisions (82.3%) considered that a shortage of dermatologists existed and that access to services was inadequate. 30 Divisions indicated a definite shortage of resident dermatologists in their area and 23 required additional visiting dermatologists in their area. Shortages were identified throughout urban and rural Australia for both resident dermatologists and visiting dermatologists (Appendix F).

State/Territory Health Department Assessment of the Need for Dermatologists

The AMWAC 1997 survey of all State/Territory Health Departments (Appendix G) found that shortages existed in five States/Territories, namely New South Wales (6.2 VMOs, 3.3 staff specialists and four registrars), Victoria (three to four registrars), Northern Territory (one staff specialist), Queensland (0.81 VMO) and South Australia (0.5 registrar, 0.6 VMO, 0.1 GP). However, it was noted by one State that reported shortages did not mean that funding was always available to pay for additional positions.

Identified shortages were described as indicating that community need for dermatology services was placing pressure on existing staff in some areas. However, the relative community need for services in other disciplines was described as greater, resulting in the prioritisation of funding to other specialty positions. This was not the situation in the Northern Territory which had funding for one staff specialist.

Consultation Waiting Times

The ACD/AMWAC survey of Fellows of the College collected information on dermatology specialist consultation waiting times. The results are shown below in Table 36 and reveal that the average waiting time for a standard first consultation with a dermatologist in his/her private rooms is 39 days while public patients wait, on average, 31.6 days. The waiting time in Queensland for a standard first consultation is well above the average for both private and public patients.

Table 36: Average waiting time (days) for a standard first consultation and an urgent procedure, by private rooms/public outpatients department and State/Territory, 1997

State/Territory	Standard consultation	Urgent condition
<i>Private patients</i>		
NSW/ACT	17.0	3.2
Victoria	26.2	1.9
Queensland	63.7	2.7
South Australia	26.7	1.8
Western Australia	30.7	1.8
Tasmania	a	a
Total	39.0	2.7
<i>Public patients</i>		
NSW/ACT	35.0	8.4
Victoria	20.5	5.3
Queensland	42.0	6.4
South Australia	36.1	3.3
Western Australia	34.0	3.0
Tasmania	a	a
Total	31.6	6.5

a - insufficient numbers to report data

Source: ACD/AMWAC survey of dermatologists

Dermatology Specialists= Workload

As previously indicated, dermatologists work, on average, 46 hours per week with 22% working more than 54 hours per week (ACD/AMWAC 1997 survey).

In the ACD/AMWAC survey, 67.5% of respondents indicated they were satisfied with the amount of work they did, 17% were dissatisfied and 11.6% were neither satisfied nor dissatisfied. 61.3% of respondents were satisfied with their hours of work and 15.5%

were dissatisfied while 19.4% were neither satisfied or dissatisfied. 75% indicated that their workload was sufficient to maintain their income, 5.6% were dissatisfied with this aspect of their work and 19.4% were neither satisfied or dissatisfied.

Twenty (15.5%) respondents in four States/Territories (New South Wales/Australian Capital Territory, Victoria and Queensland) perceived a need for more dermatologists (Table D11) with no differences observed based on location of primary practice (ie., capital city, other urban or rural).

50% of respondents to the ACD/AMWAC 1997 survey were dissatisfied with the availability of locums with no differences observed in level of satisfaction between urban practitioners and rural practitioners.

42.7% of respondents to the ACD/AMWAC survey indicated that they expected their work hours to decrease with the greatest reductions in Western Australia, Victoria and New South Wales (Table D10). No associations were observed between intention to reduce hours worked and age, gender, lifestyle preferences, family considerations, study commitments, health considerations or retirement intentions.

Conclusions on Adequacy of the Current Specialist Dermatology Workforce

The Working Party concluded that the overall number of dermatologists is inadequate and that a serious shortage of dermatologists exists in rural areas and some non-capital city urban areas. This geographic maldistribution requires particular attention.

Factors leading the Working Party to this conclusion are the geographic distribution of specialists, with some States/Territories comparatively poorly supplied, the lower number of dermatology services rendered to rural patients, the considered views of dermatologists and general practitioners, and the comparatively high waiting times for a first consultation.

Further considerations include strong growth in demand for dermatology specialist services associated with an ageing population, with demand increasing at a faster rate than population growth as a whole, and the increasing number of dermatologists who are choosing to work part-time.

The Working Party concluded that it is not practical to consider the relocation of city-based dermatologists to rural areas and that alternative strategies are required, including the skilling of general practitioners in undersupplied areas and changes to the current training program to encourage a higher proportion of future specialists to consider rural practice.

The Working Party concluded that health care system changes had resulted in public hospitals becoming less willing to resource dermatology training positions and that additional and alternative approaches to training were urgently required. Options for overcoming this problem are outlined later in the report.

PROJECTIONS OF REQUIREMENTS

Population

Australia has a growing and an ageing population. The 1995-96 population was estimated at 18.29 million (ABS 1997). The ABS estimates that the population will reach 19.17 million by 2001 and 20.09 million by 2006 (ABS 1994) with a projected 1.2% growth per annum.

ABS estimates that the median age of the total population will rise from 33.1 years in 1993 to between 39.4 and 41.8 years in 2041. As a proportion of the total population, those aged 65 and over represented 11.7% (2.1 million) in 1993, and will increase to 12.78% (around 2.56 million) in 2006 (ABS 1994).

The effects of ageing on demand for health services is estimated at 0.4% with a combined effect of population growth and ageing on demand for services of 1.6%.

Respondents to the ACD/AMWAC survey indicated that 40% of their time was spent with patients aged 61 years and over, 32% with adults aged 35 to 64 years, 19% with young adults (15 to 34 years) and 10% with children 14 years and under (Table 37). This data indicate that the ageing of the Australian population is likely to impact significantly on requirements for the dermatology workforce.

Table 37: Age statistics of dermatologists= patients based on an average week, 1997

Age group of patients	% of time with age group
0-16 years	10.4
17-35 years	19.4
35-60 years	31.7
61-70 years	24.8
70 years and over	15.2

Source: ACD/AMWAC survey of dermatologists

State/Territory Health Department Views on Future Demand

The AMWAC 1997 survey of State/Territory health departments found that while departments recognised that community need for dermatology services was placing pressure on existing staff in some areas, these services were ascribed a lower priority than some other specialty services. No departments indicated that they were anticipating an expansion in dermatology services that would affect planning for the supply and requirements for dermatology specialists to the year 2008.

Trends in Dermatology Service Provision

The trends in the services provided by dermatologists are summarised in Table 38 using Medicare data. This data indicate that between 1990-91 and 1995-96 there has been a 4.2% compound annual increase in the provision of Medicare services provided by dermatologists (4.2% out of hospital MBS which accounted for 99.7% of all MBS services and 11.8% in-hospital MBS services).

Table 38: Trends in services provided by dermatologists, 1990-91 to 1995-96

Indicator	Compound annual increase %
Total MBS items	4.2
MBS out-of-hospital items (99.7% of all MBS items)	4.2
MBS in-hospital services	11.8

Source: DHFS

A significant factor contributing to increases in service utilisation across all medical specialities is the ageing of the population. According to the AIHW (1996), between 1988 and 1993, life expectancy increased from 73.1 to 75 years for males and from 79.5 to 80.9 years for females (p 20). At the same time Australia's total fertility rate per woman has been relatively stable at approximately 1.89 which is well below the acknowledged replacement level (2.1) (ABS, 1994).

These demographic trends imply a shift in service provision for all specialties from care of the young to care of the elderly. However, life expectancy and birth rates vary substantially between State/Territories implying demographic differences and differences in service provision needs (ABS 1994, ABS & AIHW 1997).

Respondents to the ACD/AMWAC 1997 survey were asked to indicate the likely effects of an ageing population on future workforce requirements. 77.3% of respondents indicated that this demographic trend would increase demand for services, 21% considered that it would have no effect on demand for services.

Dermatologists= Perceptions of Issues Affecting the Workforce

Respondents to the ACD/AMWAC survey were also asked to indicate whether they considered particular factors would increase workforce requirements, decrease workforce requirements or whether requirements would stay the same. The most important issues, apart from the ageing of the population, that respondents considered would increase dermatology workforce requirements were patients= expectations and knowledge and more defensive medicine. Factors perceived as most likely to decrease workforce requirements or influence requirements to remain the same were substitution of specialist services by other providers, cost containment strategies, lifestyle changes, coordinated care processes, reforms to efficiency, evidence based medicine, changing disease patterns and multi-disciplinary team provision (Appendix D).

Changes in Technology and Options for Service Provision

Doherty (1994) observed that scientific and technological developments in the diagnosis and treatment of skin disease, such as the use of lasers, are being incorporated into standard dermatology practice and modifying work patterns. Further developments are likely; photobiology and the use of retinoids and cytokines (p x).

However, the Working Party concluded that it was not possible to assess whether technological changes would dramatically increase or decrease workforce requirements.

PROJECTIONS OF SUPPLY

Entry Into the Workforce

Over the past five years, an average of 11 new dermatologists have entered the workforce each year. Over the next few years, the number of new dermatologists is likely to be a little higher than this average, given the greater number of advanced trainees (Table 33). The Working Party estimates that, on average, in each of the next four years 12 new dermatologists will enter the workforce.

Retirements

In the ACD/AMWAC survey of dermatologists, 98% of respondents (n=126) provided an indication of their retirement intentions; 44.9% of respondents indicated that they would retire at 65 years, 25.2% of respondents indicated they intended to retire before 65 years, 18.9% of respondents felt they would retire between 66 and 70 years and 11.1% of respondents indicated they intended to work beyond 70 years (Appendix D). On balance it would seem that the use of 66 years as a retirement age is appropriate for projection purposes.

AIHW and ACD data indicate that the average age of dermatologists is between 46 and 50 years and that 54 dermatologists are aged 65 years and over (19% of the workforce) (see Tables 9 and 10).

Female Participation in the Workforce

The representation of women in the workforce is approximately 30% (ACD 31%; AIHW 27.8%; Medicare 27.6%). It is expected that the proportion of women in the workforce will increase, as the number of female trainees continues to increase (currently 33%) and the predominantly male cohort of dermatologists (19% of the workforce) aged 65 years and over proceeds through to retirement.

The AIHW 1995 survey indicated that, on average, female dermatologists work 7.3 hours less per week than do male dermatologists with women aged between 25 to 34 years working, on average, 26.6 hours less per week than their male colleagues.

Overseas Trained Doctors

Dermatologists entering the Australian workforce through the Australian Medical Council specialist college pathway are expected to be small and to have a minimal effect on overall workforce supply. Between 1990 and 1997 only two specialists have entered via this avenue.

Provision of Services in Rural and Remote Areas

The Working Party believes that the provision of dermatology services outside capital cities is inadequate. Medicare data indicate that in 1995-96, there were 6,877 patients per dermatologist in rural areas compared with 2,700 per dermatologist in capital city and other metropolitan areas. Furthermore, data from the ACD/AMWAC survey of dermatologists and the AMWAC 1997 survey of Divisions of General Practice revealed

that shortages exist in other metropolitan areas and rural areas in all States/Territories except Tasmania and the Australian Capital Territory.

23.3% of respondents to the ACD/AMWAC survey of dermatologists commented on the inadequacy of the current workforce and many of their comments addressed issues of maldistribution. For example, one respondent wrote AWe still do not have an adequate workforce. The majority of graduates are easily absorbed into inner city practices, which they of course favour because of proximity to where they live. This leaves the country and the outer suburbs with an ongoing severe undersupply. Long waiting times for appointments, shorter times with individual patients and overstressed practitioners are the result. We require, not only, more dermatologists but a redistribution of where they work. I share the view of the majority of my profession that forcing doctors to work in certain areas by restricting provider numbers is less acceptable than an incentive based scheme. One of the ways to encourage people to work in these areas is to train them locally. Another way is to create a stimulating intellectual environment locally, again by having an active dermatology department associated with the local hospital and to encourage dermatologists to take part in the life of the hospital..... It would make sense to me to introduce an element of private sector training, since this is in reality where the work lies, provided this is shared with the hospitals.

Resident rural respondents to the ACD/AMWAC 1997 survey of dermatologists considered that a catchment population of 100,000 was required to sustain resident rural practice, while the views of metropolitan dermatologists providing rural services on a visiting basis ranged from a population of 20,000 to 100,000. Of importance to rural service providers were availability of other specialists, availability of local hospital facilities, the attributes (interest and support) and skills of referring general practitioners and the availability of skilled nursing/allied health and ancillary staff. Other specialists of importance were radiologists, pathologists and surgeons, particularly plastic surgeons.

The ACD considers that an ideal rural service would be for a dermatologist to be placed in a major country area with a population catchment of approximately 100,000. To allow adequate back up, two specialist dermatologists should be present, allowing for time away for study and recreational leave as well as after hours cover. There should be access to a local hospital with staff trained in dermatological nursing and access to other specialists and pathologists. The area serviced would need to have a catchment population sufficient to maintain an adequate level of dermatological skills, an adequate level of remuneration, and a sufficient variety of skin problems to maintain practitioner interest. Other specialists of importance are pathology services (histology and general pathology) and availability of specialist physician and specialist surgeon for cross referral and consultation.

To help gain an insight into why dermatologists undertake rural practice and rural outreach work, the ACD/AMWAC survey asked respondents providing rural services to indicate their main reasons for undertaking rural practice. The main reasons given by metropolitan based dermatologists for providing a rural outreach service were: committed to providing a rural service, adds variety to my work, teaching opportunity,

opportunity to expand practice. For resident rural dermatologists, their reasons for choosing this type of practice were: the rural lifestyle, variety of the work, a good place to raise children and I came from the country.

Seven of the ten rural dermatologists indicated that if a specialty locum scheme were established they would make use of it. On average, rural practitioners required four weeks of locum support.

The Working Party believes that in some situations it will not be possible for resident, or even regular visiting, specialist services, and as a result, basic dermatology services will need to be provided by a general practitioner. Essentially, this will be in the smaller rural and remote rural communities where there is insufficient workload and infrastructure to warrant recruitment of a dermatologist. Hence, it is important for general practitioners in these situations to obtain and maintain basic skills in the diagnosis and treatment of skin disease.

Doherty (1994) recommended that the AACD and the Royal Australian College of General Practitioners establish a Joint Consultative Committee to advise the Colleges, to put forward an educational plan and to oversee its implementation (p 47).

Substitution

A number of respondents to the ACD/AMWAC 1997 survey of dermatologists commented on the important role of general practitioners in the diagnosis and treatment of skin disease and perceived a need for improved training of GPs in this area. In addition, some respondents considered that the present referral system needed to be reviewed.

Medicare data indicate that 6% of dermatology services provided through Medicare in 1995-96 were provided by providers other than specialist dermatologists.

BALANCING SUPPLY AGAINST REQUIREMENTS

Requirement Trends

Over the next ten years, the Australian population is expected to increase at an annual rate of 1.2% per annum. The effect of ageing is expected to add a further 0.4% to population estimates with a total increase of 1.6%.

Between 1991-92 and 1995-96, there was a compound annual increase of 4.2% in the total number of Medicare services provided by dermatologists.

The Working Party considered that trends in services growth should be based on population growth, taking into account the effect of an ageing population on demand for services, with an additional 1% for estimated growth in demand for specialist dermatology services. The Working Party considered that the 4.2% compound annual growth rate in Medicare service provision over the last decade was unsustainable and overstated the likely need for future dermatology services. It was estimated that future demand would be somewhere between 1.6% (as indicated by trends in population growth and ageing) and 4.2% as indicated by Medicare utilisation. A growth factor of 2.6% was considered to be reasonable.

Table 39 shows workforce requirements under two different growth assumptions, starting from the 1997 requirement level which is based on the ACD data plus a further 12 dermatologists providing specialist services under Medicare who do not belong to the ACD; and ranging between growth in requirements of 1.6% per year (population growth and ageing) to 2.6% per year (estimated growth trends).

Table 39: Projected requirements for services provided by dermatologists, by hours worked per week, 1997, 2002 and 2007

Year	Population growth ageing (1.6% per year)	Estimated growth trends (2.6% per year)
1996	12,017	12,017
1997	12,210	12,330
2002	13,218	14,018
2007	14,310	15,938

Source: AMWAC and van Konkelenberg

The productivity of dermatologists as measured in hours worked will vary from time to time and by age group as not all specialists work a uniform full time working week, so it is appropriate to measure services provided in hours instead of by head count. In 1996, the 258 dermatologists (ACD/Medicare data) provided an estimated total of 12,017 hours of services per week.

Supply Trends

The three data sources used to describe the dermatology workforce provide different age profiles. The AIHW data indicates that 32.7% of the workforce aged over 55 years, Medicare data shows that 34.6% of the workforce is aged 60 years and over and the ACD data that 23.6% are aged 58 years and over. Because of these variations in the age profile of the workforce, supply projections were calculated based on ACD data with slight adjustment to allow for the addition of the 12 dermatologists practising under Medicare who are not members of the ACD.

The supply of dermatologists was projected by ageing the 1996 supply through each year of age, subtracting retirements (average of eight per year based on a retirement age of 66 years with some dermatologists working longer and some retiring earlier) and adding an average of 12 new graduates per year to 2001 and 16 graduates from 2002 to 2007.

The number of dermatologists was converted to hours per week by applying the average number of hours worked to head counts in each major age cohort. These projections show that, based on an estimated growth trend of 2.6%, supply will need to increase from the estimated 1996 level of 12,017 hours per week to an estimated 15,938 in 2007.

Projected Balance

A balance in supply to match a continued growth rate in requirements of 2.6% per annum can be achieved by increasing the number of graduates from the year 2002 to 16 until the year 2007. The results of this projection work show that the output of the ACD dermatology training program should increase to 16 graduates per year from 2002. In previous years, 42 training positions have produced an average of 12.25 graduates per year. Hence, if the target of 16 graduates is desired an additional ten dermatology advanced training positions would be required.

This is a reasonably large increase in training positions in a year and unlikely to be practical. The Working Party recommends a staged increase in training positions of three in 1999, four in 2000 and three in 2001. In terms of ability to effect increases in training positions, the staged scenario is preferable. It will also enable the projected trend in requirements to be monitored and the recommended increases in training positions adjusted if necessary. The staged increase will mean that in 2007 the projected shortfall in hours worked will be 2.8% not 0.9% as shown in Table 40.

Table 40: Dermatology graduate output needed to move projected supply into balance with projected requirements (2.6% growth per year), by hours worked per week, 1997 to 2007

Year	Number of graduates	Projected supply (FTEs)	Projected requirements (FTEs)	Balance (shortage)	% shortage
1996	9	12,017	12,017	-	-
1997	14	12,116	12,330	214	1.8
1998	12	12,510	12,650	140	1.1
1999	12	12,786	12,979	194	1.5
2000	12	13,077	13,317	240	1.8
2001	12	13,350	13,663	313	2.3
2002	16	13,624	14,018	395	2.9
2003	16	14,075	14,383	308	2.2
2004	16	14,521	14,757	236	1.6
2005	16	14,953	15,140	187	1.3
2006	16	15,379	15,534	155	1.0
2007	16	15,794	15,938	143	0.9

Source: AMWAC and van Konkelenberg

Ideally, training positions should be increased proportionately less in the comparatively well endowed State of South Australia and kept roughly in line with projected State/Territory population shares in 2006. In particular, emphasis needs to be given to improving the provision of services to other urban areas and rural areas in New South Wales, Victoria, Queensland and Western Australia and to providing services in the Northern Territory, possibly through linkage with the South Australian training program.

However, new training positions require an appropriate infrastructure (Appendix C) to ensure trainees gain adequate supervision, experience and support. The Working Party in collaboration with the ACD considers that new training positions should be provided where there are suitable trainers and that trainees should be enrolled and employed based on the understanding that at the end of their training they will be encouraged to consider rural practice. A suggested distribution of the ten new training positions is shown in Table 41. The final distribution of the ten new positions should be determined through negotiations between the ACD and State/Territory health departments.

Table 41: Suggested distribution of new dermatology training positions and comparison with projected population shares, by State/Territory, 1997, 2001 and 2006

State/Terr.	1997 positions	2001 positions	Projected 2006 pop. share (%)	1997 share of positions (%)	2001 share of positions (%)
NSW/ACT	16	18	35.2	38.1	34.6
Vic./Tas.	11	14	26.5	26.2	26.9
Queensland	8	11	19.5	19.0	21.2
SA/NT	4	5	8.8	9.5	9.6
West. Aust.	3	4	10.0	7.1	7.7
Australia	42	52	100.0	100.0	100.0

Source: ABS, AMWAC

The Working Party recognises that the changes that are occurring in dermatology practice are likely to continue and that as a result, the trend away from public hospital practice will lead to a decline in support for the resourcing of traditional hospital-based dermatology training positions.

Taking into account the above considerations, the Working Party proposes that at least six of the ten new training positions should involve the piloting of a networked approach to the training of dermatologists, similar to that currently being trialed in Queensland. A main objective of the program should be to address the maldistribution problem. A networked approach to training is proposed involving ambulatory settings, including the private sector, and teaching hospitals. Appendix E outlines a proposal for the piloting of public/private service provider networks for the training of dermatologists.

The ACD has indicated to the Working Party that the training of dermatologists in private practice is under review by the College and that no firm consensus has been reached at present given some of the practical issues which need to be addressed. Proposals for accreditation of private and rural practice training are being prepared by the Board of Censors of the ACD for consideration by the College Council in May 1998.

The ACD has also raised concerns that the changes to the training program are likely to require a financial commitment from both the Commonwealth and State/Territory governments, including funding specifically designated to take into account the funding of registrar positions, VMO supervisors, travel and accommodation requirements associated with rural rotations and program monitoring to ensure that the training program achieves its objectives.

RECOMMENDATIONS

The Working Party recommends:

1. There be an increase in the number of specifically funded dermatology training positions and trainees to match an expected future growth in requirements of 2.6% per year.
2. That Commonwealth, State and Territory health departments undertake negotiations with the Australasian College of Dermatologists for the establishment of ten additional training positions; with the additional positions to be introduced gradually where suitable support and training programs are available as approved by the Board of Censors of the Australasian College of Dermatologists. The following Table outlines the location of the new positions subject to the negotiation process outlined in recommendation 5.

Table 42: Total and additional dermatology training positions, by State/Territory, 1997 to 2001^a

State/Territory	Total 1997 (current)	Total 2001	Total increase	1999 increase	2000 increase	2001 increase
NSW/ACT	16	18	2	1	0	1
Vic/Tas	11	14	3	1	1	1
Queensland	8	11	3	1	1	1
SA/NT ^b	4	5	1	0	1	0
West. Aust.	3	4	1	0	1	0
Australia	42	52	10	3	4	3

a - This Table outlines where the needs are for additional dermatologists. The Working Party understands that the ACD training program in some States/Territories may have problems in accommodating new positions and that training may need to occur where there are sufficient training resources.

b - The new position in South Australia should take into consideration that there is no full-time dermatologist in the Northern Territory to provide services or supervise a trainee.

3. That the current registrar positions (as outlined in Table 30) be fully funded and maintained and that the ten new positions are additional to those currently in operation.
4. That six of the ten new training positions involve the training of dermatologists using a networked approach to training which will involve the use of teaching hospitals, private rooms and rural rotations with visiting dermatologists.

The Working Party understands that proposals for accreditation of private practice and rural practice training are being prepared by the Board of Censors of the Australasian College of Dermatologists for consideration by the College

Council in May 1998.

5. State/Territory based dermatology services working groups, comprising the Australasian College of Dermatologists, Commonwealth/State/Territory department of health representatives, private dermatology practices and relevant rural health providers be organised to co-ordinate the establishment of the new training positions and to oversee the introduction of any short term measures they may feel are necessary to meet localised service shortfalls (recognising that the increased number of graduates will not make an effective contribution to the dermatology workforce until 2003).
6. The Working Party understands that the establishment of ten new training positions may pose some challenges for State/Territory health departments given the changes occurring in public hospitals with declining support for the resourcing of traditional hospital-based dermatology training positions and visiting medical officer supervisors. The Working Party therefore recommends that innovative funding arrangements be explored by Commonwealth and State/Territory health departments and the Australasian College of Dermatology for funding the six new training positions associated with the networked approach to training outlined above. Such funding arrangements should take into account the funding of registrar positions, VMO supervisors, travel and accommodation requirements associated with rural rotations and program monitoring to ensure that the training program achieves its objectives.
7. That dermatology workforce requirements and supply projections be monitored regularly so that they can be amended if new trends emerge with a formal review in five years.
8. That this monitoring and the evaluation of this further pilot training program be coordinated by the Australasian College of Dermatologists and AMWAC and the results incorporated into the AMWAC annual report to AHMAC. AMWAC will provide all necessary support.

APPENDIX A: RURAL, REMOTE AND METROPOLITAN AREAS CLASSIFICATION

The Commonwealth Departments of Health and Family Services and Primary Industries and Energy, Rural, Remote and Metropolitan Areas classification, has been used to classify the geographic location of the job of responding medical practitioners in the following seven categories. The data used in determining these categories are based on the 1991 population census.

Metropolitan areas:

1. *Capital cities* consist of the State and Territory capital cities of Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart, Darwin and Canberra.
2. *Other metropolitan centres* consist of one or more statistical subdivisions which have an urban centre of population of 100,000 or more in size. These centres are: Newcastle, Wollongong, Queanbeyan (part of Canberra-Queanbeyan), Geelong, Gold Coast-Tweed Heads, Townsville-Thuringowa.

Rural zones:

3. *Large rural centres* are statistical local areas where most of the population reside in urban centres of population of 25,000 to 99,999. These centres are: Albury-Wodonga, Dubbo, Lismore, Orange, Port Macquarie, Tamworth, Wagga Wagga (NSW); Ballarat, Bendigo, Shepparton-Mooroopna (Vic); Bundaberg, Cairns, Mackay, Maroochydore-Mooloolaba, Rockhampton, Toowoomba (Qld), Whyalla (SA); and Launceston (Tas).
4. *Small rural centres* are statistical local areas in rural zones containing urban centres of population between 10,000 and 24,999. These centres are: Armidale, Ballina, Bathurst, Broken Hill, Casino, Coffs Harbour, Forster-Tuncurry, Goulburn, Grafton, Griffith, Lithgow, Moree Plains, Muswellbrook, Nowra-Bombaderry, Singleton, Taree (NSW); Bairnsdale, Colac, Echuca-Moama, Horsham, Mildura, Moe-Yallourn, Morwell, Ocean Grove-Barwon Heads, Portland, Sale, Traralgon, Wangaratta, Warrnambool (Vic); Caloundra, Gladstone, Gympie, Hervey Bay, Maryborough, Tewantin-Noosa, Warwick (Qld); Mount Gambier, Murray Bridge, Port Augusta, Port Lincoln, Port Pirie (SA); Albany, Bunbury, Geraldton, Mandurah (WA); Burnie-Somerset, Devonport (Tas).
5. *Other rural areas* are the remaining statistical areas within the rural zone. Examples are Cowra Shire, Temora Shire, Guyra Shire (NSW); Ararat Shire, Cobram Shire (Vic); Cardwell Shire, Whitsunday Shire (Qld); Barossa, Pinnaroo (SA); Moora Shire, York Shire (WA); George Town, Ross (Tas); Coomalie, Litchfield (NT).

Remote zones:

These are generally less densely populated than rural statistical local areas and hundreds of kilometres from a major urban centre.

6. *Remote centres* are statistical local areas in the remote zone containing urban centres of population of 5,000 or more. These centres are: Blackwater, Bowen, Emerald, Mareeba, Moranbah, Mount Isa, Roma (Qld); Broome, Carnarvon, East Pilbara, Esperance, Kalgoorlie/Boulder, Port Hedland, Karratha (WA); Alice Springs, Katherine (NT).
7. *Other remote areas* are the remaining areas within the remote zone. Examples are: Balranald, Bourke, Cobar, Lord Howe Island (NSW); French Island, Orbost, Walpeup (Vic); Aurukun, Longreach, Quilpie (Qld); Coober Pedy, Murat Bay, Roxby Downs (SA); Coolgardie, Exmouth, Laverton, Shark Bay (WA); King Island, Strahan (Tas); Daly, Jabiru, Nhulunbuy (NT).

APPENDIX B: ACD/AMWAC SURVEY OF FELLOWS OF THE AUSTRALASIAN COLLEGE OF DERMATOLOGISTS

METHODOLOGY

To assist with the establishment of a profile of the dermatology workforce in Australia, a mailed survey of all ACD members was conducted. The survey was administered by AMWAC in consultation with the ACD. 136 Fellows of the ACD responded to the questionnaire, which is a response rate of 55.3%.

RESULTS

Distribution of Respondents

Table B1 shows that the distribution of respondents to the ACD/AMWAC survey is similar to the overall State/Territory distribution of ACD members. Western Australia was the only State with a low representation as defined by the ACD membership.

Table B1: Distribution of dermatologists, ACD/AMWAC survey respondents and ACD members, by State/Territory, 1997

	NSW/ACT	Vic/Tas	Qld	SA	WA	NT	Aust
<i>ACD/AMWAC survey (n=129)</i>							
% respondents	45.7	21.3	16.5	9.4	7.1	0.0	100.0
<i>ACD members (n=246)</i>							
% of members	45.1	22.0	15.4	8.5	8.9	0.0	100.0

Source: ACD; and ACD/AMWAC survey of dermatologists

Table B2 indicates that the geographic distribution of respondents to the ACD/AMWAC survey is consistent with the distribution of the workforce as defined by the AIHW 1995 survey. However, of the ten respondents from rural areas, six were located in Queensland and three in New South Wales.

Table B2: Geographic distribution of dermatologists, ACD/AMWAC 1997 survey and AIHW 1995 survey

	Major urban centre	Rural area	Aust
<i>ACD/AMWAC survey (n=97)</i>			
% respondents	92.2	7.8	100.0
<i>AIHW 1995 survey (n=315)</i>			
% workforce	92.6	8.2	100.0

Source: AIHW and ACD/AMWAC survey of dermatologists

Age Profile

From the ACD/AMWAC survey, the age range of respondents was from 31 years to 78 years with an average age of 48.6 years. The largest group of respondents was the 65 to 74 year age group (34%), followed by the 55 to 64 year age group (32.6%); 66.7% of respondents were aged 55 years and over (Table B3).

Table B3: Age profile of dermatologists, ACD/AMWAC 1997 survey, ACD membership and AIHW 1995 survey

	<35 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over
<i>ACD/AMWAC survey (n=129)</i>						
% respondents	1.6	8.5	17.8	32.6	34.1	5.4
<i>AIHW (n=284)</i>						
% respondents	5.4	33.6	28.3	13.5	14.5	4.7

Source: AIHW and ACD/AMWAC survey of dermatologists

The Working Party concluded that a response rate of 55.3% was reasonable. Furthermore, it was concluded that, apart for a bias toward dermatologists aged 55 years and over, the profile of respondents was sufficiently consistent with the profile of the workforce to provide representative data.

Gender Profile

28% of respondents to the ACD/AMWAC survey were female dermatologists compared with 31% of ACD Fellows.

Qualifications

As indicated in Table B4, the majority of survey respondents obtained their Fellowship of the ACD between 1971 and 1990.

B4: Year of ACD qualifications, 1997

Year	Number	%
<1960	4	3.1
1961-1970	14	10.9
1971-1980	41	31.8
1981-1990	47	36.4
1991-1996	23	17.8
Total	129	100.0

Source: ACD/AMWAC survey of dermatologists

Other qualifications held by respondents and areas of subspecialty are outlined in Table B5.

Table B5: Other qualifications held by respondents and areas of subspecialty, 1997

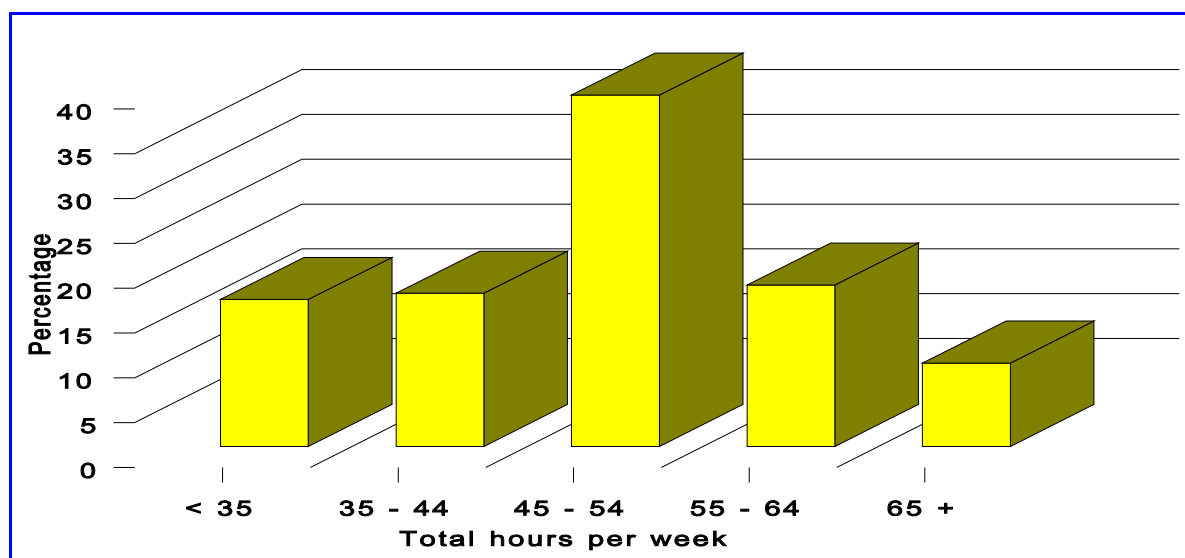
Other qualifications held by dermatologists	Areas of subspecialty
<ul style="list-style-type: none"> - DDM (10) - FRACP (17) - Master Public Health - RACGPs - FMGEMS (North America) - Master of Clinical Education - PhD (3) (Immuno-genetics; Immunology) 	<ul style="list-style-type: none"> - Dermatologic surgery (2) - MOHS surgery - MOHS Micrographic Surgery - Dermatological surgery/oncology - Cosmetic dermatology - Paediatrics (3) - Contact and Occupational - Contact Dermatitic-Patc... - Occupational dermatology (2) - Skin cancer - Hair disorders

Source: ACD/AMWAC survey of dermatologists

Hours Worked

On average, respondents worked a total of 46.4 hours per week (mode 50 hours; median 48 hours; standard deviation 14.25) (Figure 1). 28% of respondents worked less than 45 hours per week and 22% worked 55 hours or more.

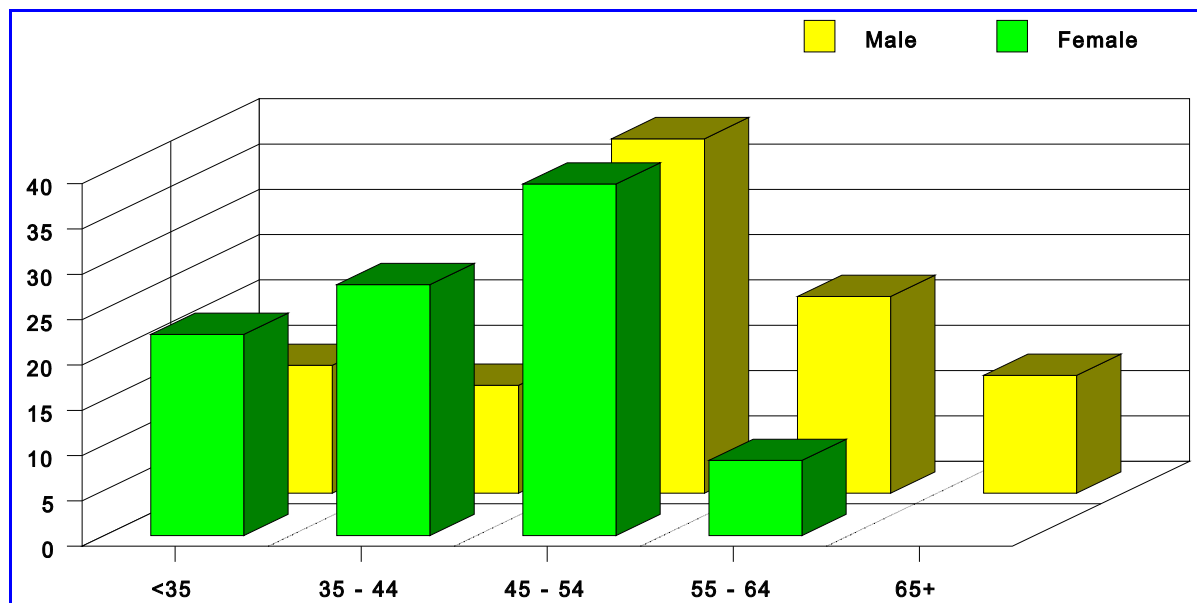
Figure 1: Total hours worked per week by dermatologists, 1997



Source: ACD/AMWAC survey of dermatologists

A significant difference was observed between the total hours worked by male and female dermatologists with 50% of women working less than 45 hours per week compared with 26% of men and 11% of women working 55 hours or more per week compared with 34.7% of men (Figure 2).

Figure 2: Total hours worked per week by dermatologists, by sex, 1997



Source: ACD/AMWAC survey of dermatologists

The average amount of time spent on direct patient care was 36.45 hours per week (range 0-60 hours; median 40.0; mode 40; standard deviation 12.10).

32% of respondents indicated they worked on-call hours out of work hours (ie., after 5.00pm and before 8.00am). The average time worked out of hours on-call was 4.23 hours per week.

Practice Activities

On average, the percentage of total hours worked per week in private consulting rooms was 65.4% and in private hospital work was 2.9% (Table B6).

The percentage of total work hours spent, on average, in public hospital work was 6.5% and in other public sector activities was 0.4% (Table B6).

Other professional activities accounted for 25% of total work hours with correspondence and administration accounting for 13.5% of total work hours Table B6).

Table B6: Percentage of total hours per week spent on selected activities, 1997

Type of activity	Percentage of total hours worked in a typical week
<i>Private</i>	
- Consulting room work	65.4
- Private hospital work	2.9
<i>Public</i>	
- Public hospital work	6.5
- Other public sector health care work	0.4
<i>Other professional activities</i>	
- Medical legal matters	1.1
- Correspondence and administration	13.5
- Continuing medical education	3.5
- Teaching	2.9
- Research	1.8
- Other professional activities	1.8
Total time	100.0

Source: ACD/AMWAC survey of dermatologists

Patient Conditions

Among dermatologists there is wide variation in the amount of practice time spent on various conditions. Table B7 provides a summary of the percentage of practice time that respondents to the ACD/AMWAC 1997 survey reported spending on caring for people with selected conditions in private and public facilities. This aggregated data indicates that, on average, six conditions account for 92.2% of practice time, namely, solar damage, skin malignancies, dermatitis (atopic, discoid, seborrhoeic and irritant), skin infections (viral, bacterial, fungal and scabetic), acne and psoriasis. Other conditions of importance are also listed in Table B7 and include naevi for review, warts, rosacea and perioral dermatitis, drug eruptions and alopecia.

Table B7: Percentage of practice time (over a typical month), in private or public facilities, spent caring for people with selected conditions, 1997

Condition	% of practice time
Solar damage	29.1
Skin malignancies	23.7
Acne	11.1
Dermatitis	10.0
Infections	9.4
Psoriasis	8.9
Other conditions	7.8
- Alopecia	
- Contact dermatitis	
- Connective tissue disease	
- Congenital naevus	
- Drug eruptions	
- Granulomatous disease	
- Naevi for review	
- Photosensitivity	
- Rosacea & Perioral dermatitis	
- Urticaria	
- Vulval diseases	
- Warts	
- Miscellaneous conditions	

Source: ACD/AMWAC survey of dermatologists

Age of Patients

On average, 40% of respondents direct patient care time was spent with patients aged 65 years and over, 32% with adults aged 35 to 64 years, 19% with young adults (15 to 34 years) and 10% with children 14 years and under (Table B8).

Given that solar skin damage tends to accumulate over time, the data presented in Tables B7 and B8 indicate that the ageing of the Australian population is likely to impact significantly on requirements for this workforce.

Table B8: Age profile of dermatologists' patients, 1997

Age range of patients	% of time with age group (mean score)*	Range	STD
0-14 years	10.4	0.0 - 95.0	9.9
15-34 years	19.4	1.0 - 40.0	7.6
35-64 years	31.7	3.0 - 95.0	13.2
65-74 years	24.8	1.00 - 60.0	11.1
75 years and over	15.2	0.0 - 100	13.7

* number does not add up to 100 due to variation in individual estimates

Source: ACD/AMWAC survey of Dermatologists

Consultation Waiting Times

Table B9 shows that the average waiting time for a standard first consultation with a dermatologist in his/her private rooms is 39 days (standard deviation 35.5) while public patients wait, on average, 31.6 days (standard deviation 23.1). The waiting time in Queensland for a standard first consultation is well above the average for both private and public patients (Table B 9).

For an urgent condition, private patients wait less time (2.7 days) than do patients in public outpatient departments (6.5 days) ($p < 0.01$) with public patients in New South Wales and Queensland waiting above average times for urgent conditions (Table B9).

Table B9: Average waiting time (days) for a standard first consultation and an urgent procedure, by private rooms/public outpatients department and State/Territory, 1997

State/Territory	Standard consultation	Urgent condition
	<i>Private patients</i>	
NSW/ACT	17.0	3.2
Victoria	26.2	1.9
Queensland	63.7	2.7
South Australia	26.7	1.8
Western Australia	30.7	1.8
Tasmania	a	a
Total	39.0	2.7
	<i>Public patients</i>	
NSW/ACT	35.0	8.4
Victoria	20.5	5.3
Queensland	42.0	6.4
South Australia	36.1	3.3
Western Australia	34.0	3.0
Tasmania	a	a
Total	31.6	6.5

a - insufficient numbers to report data

Source: ACD/AMWAC survey of dermatologists

Plans to Change Hours Worked

54% of respondents indicated that they planned to change the hours they work with 42.7% of respondents anticipating their work hours to decrease, 11.3% expecting their work hours to increase and 50% expecting their hours to remain the same.

75% of dermatologists from Western Australia, 48% of dermatologists from Victoria, and 45% from New South Wales anticipate a reduction in the hours they work. No association was observed between intention to reduce hours worked and age or gender or between intention to reduce hours worked and lifestyle preferences, family considerations, study commitments, health considerations or retirement.

A significant association was observed between intention to increase hours worked and an expected increase in demand for dermatology services ($p < 0.01$).

Table B10: Dermatologists' plans to change the hours they work, by State/Territory, 1997

Age (years)	Reduce hours	Increase hours	Remain the same	Total
NSW/ACT	43.9	8.8	47.4	100.0
Vic	48.0	4.0	48.0	100.0
Qld	33.3	14.3	52.4	100.0
SA	27.2	45.5	36.3	100.0
WA	75.0	0.0	25.0	100.0
Tas	0.0	0.0	a	100.0
Total	42.7	11.3	45.9	100.0

a - insufficient numbers to report data

Source: ACD/AMWAC survey of dermatologists

Provider Shortages

Respondents were asked to specify any providers in short supply in their primary practice location. Table B11 indicates that according to respondents there is a need for more dermatologists in New South Wales/Australian Capital City, Victoria and Queensland. Respondents from these three States/Territories also perceived a need for more plastic surgeons and a range of other specialists. Among the other specialties identified by respondents were allergists, general physicians, ear nose and throat surgeons, immunologists, orthopaedic surgeons, psychologists, psychiatrists and ophthalmologists.

No association was observed between perceived need for more dermatologists and metropolitan and rural respondents.

Table B11: Number of respondents who specified provider shortage, by State/Territory

State/ Territory	Dermatologists	Plastic surgeons	Other specialists
NSW/ACT	10	2	3
Victoria	6	1	2
Queensland	4	2	2
South Australia	-	-	1
Western Australia	-	-	1
Total	20	5	9

Source: ACD/AMWAC survey of dermatologists

Metropolitan Practitioners Providing Rural Outreach Services

49 (41.2%) of metropolitan dermatologists indicated that they provide services to rural areas. On average these dermatologists spend one day per month in rural areas with some dermatologists spending less than half a day and others up to ten days.

Table B12 shows wide variation across States/Territories in the percentage of respondents involved in the provision of rural outreach services. For example, 77% of metropolitan based dermatologists in Victoria and 66.6% in South Australia reported providing rural outreach services while 20.7% of metropolitan providers in New South Wales/Australian Capital Territory and 19% from Queensland indicated they provided rural outreach services.

Table B12: Percentage of metropolitan dermatologists within each State/Territory providing rural outreach services, 1997

NSW/ACT	Vic	Qld	SA	WA	Tas
20.7	76.9	19.0	66.6	44.4	a

a - numbers too small to report

Source: ACD/AMWAC survey of dermatologists

Respondents gave the main reasons for providing rural outreach services as:

- committed to providing a rural service
- adds variety to my work
- teaching
- opportunity to expand my practice

Answers to the question about the catchment population required to sustain a rural outreach dermatology service ranged from 20,000 to 100,000 people.

Table B13 summarises the requirements for providing a sustainable rural outreach dermatology service.

Table B13: Basic requirements for providing a rural outreach dermatology service

Local hospital facilities/equipment	<ul style="list-style-type: none"> - In-patient bed, casualty - Small surgical/limited equipment - Telelink to consultants - Appropriate consulting facilities - As for a metropolitan area
Allied health professionals and ancillary staff	<ul style="list-style-type: none"> - Support staff are most important - Nursing staff/receptionist - Secretarial service - Trained staff for follow-up - Registrar costs provided
General practitioners	<ul style="list-style-type: none"> - The interest and support of local GPs
Other specialist services	<ul style="list-style-type: none"> - Radiology - Pathology; Histopathology - Surgery - Surgical/plastics - Private Cryotherapy
Other	<ul style="list-style-type: none"> - Good transport to the area - Availability of drugs

Source: ACD/AMWAC survey of dermatologists

One respondent wrote Arural outreach services (for specialists) are dependent on the attitude of resident general practitioners. I withdrew my services because of an increasing reluctance of resident GPs to refer patients to visiting specialists. Referral numbers diminished by 60% over a ten year period.

Metropolitan dermatologists providing rural outreach services were asked to indicate their reasons for preferring to live in a capital city or urban centre. Main reasons given include:

- childrens schooling and other family considerations
- lifestyle, friends, cultural interests
- convenience, availability of family members
- always lived in an urban area
- academic and research interests
- dislike rural isolation
- financial considerations
- better work in the city

Resident Rural Dermatologists

Ten respondents (7.8%) indicated that they lived and worked outside a major urban centre.

The main reasons for living and working in a rural area were given as:

- rural lifestyle
- variety of work

- good place to raise children
- came from the country

The average number of years that dermatologists practising in a rural area intend remaining in the country was 14 years (minimum 3 years and maximum 30 years).

The majority of rural respondents considered that a catchment population of 100,000 was required to sustain a resident rural practice.

Table B14 provides a summary of the basic requirements for providing a good resident rural dermatology service. Respondents were asked to rank these variables in order of priority. Of highest priority was the availability of other specialists (ie., specialists other than dermatologists). Second priority was ascribed to the availability of local hospital facilities and equipment followed by the attributes and skills of referring general practitioners. Of moderate importance was the availability of skilled nursing staff. Level of remuneration was ranked highly by only a few rural respondents while the availability of sufficient similar specialists to provide 24 hour cover was ranked low by almost 90% of rural respondents.

Table D14: Basic requirements for providing a resident rural dermatology service

Basic requirements	Ranking ascribed							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Availability of other specialists	50.0	20.0	10.0	10.0	10.0	0.0	0.0	0.0
Availability of local hospital facilities	30.0	10.0	0.0	20.0	10.0	10.0	10.0	10.0
Attributes/skills of referring GPs	11.1	44.4	33.3	11.1	0.0	0.0	0.0	0.0
Level of remuneration	11.1	22.2	11.1	22.2	0.0	0.0	11.1	22.2
Availability of skilled nursing staff	11.1	11.1	22.2	11.1	11.1	22.2	0.0	11.1
Availability of allied health professionals	0.0	0.0	11.1	11.1	33.3	33.3	0.0	11.1
Public hospital appointment	10.0	0.0	0.0	0.0	0.0	40.0	20.0	30.0
Sufficient similar specialists to provide 24 hour cover	0.0	11.1	0.0	0.0	11.1	0.0	33.3	44.0

Source: ACD/AMWAC survey of dermatologists

Locum Service Requirements of Dermatologists

Seven of the ten rural dermatologists indicated that if a specialty locum scheme were established they would make use of it. The majority of those interested indicated a requirement for four weeks of locum support.

Retirement

98% of respondents provided details of their retirement intentions. The expected age of retirement ranged from 50 years to 90 years with an average age of retirement of 66 years. Table B15 indicates that 17 survey respondents intend retiring in the next five years and a further ten within ten years.

Table B15: Actual year of intended retirement of dermatologists, 1997

to 2002	2003-4	2005-7	2008-9	2010-11	2012-14	2015-17	2018-21	2022-26
17	4	6	10	12	19	13	17	19

Source: ACD/AMWAC survey of dermatologists

Dermatologists' Professional Satisfaction

Overall, 89.6% of respondents were satisfied with their work. Aspects of their work with which they were most satisfied were sufficient work to maintain competence, physical working conditions, opportunity to use your abilities and the availability of other specialists. Aspects of their work with which they were most dissatisfied (in order of percentage of people expressing dissatisfaction) were availability of locums, opportunity to do research, hours of work, and amount of work (Table B16).

50% of dermatologists were dissatisfied with the availability of locums with no difference observed in level of satisfaction between urban practitioners and rural practitioners. No differences were observed based on location of primary practice and satisfaction with hours of work and amount of work.

No differences were observed in level of satisfaction with hours worked and age or gender or with satisfaction with work hours and plans to reduce work hours.

Table B16: Dermatologists' professional satisfaction, 1997

Indicator	Satisfied	Uncommitted	Dissatisfied
Overall satisfaction	89.6	7.2	3.2
<i>Work environment</i>			
- physical working conditions	83.3	12.7	4.0
- industrial relations	58.9	24.8	14.5
- opportunity to do research	23.9	49.6	25.6
- access to CME	78.4	15.2	6.4
- opportunity to be involved in teaching	73.4	18.5	7.2
<i>The work itself</i>			
- opportunity to use your abilities	83.2	8.0	8.0
- workload sufficient to maintain competence	92.8	4.0	3.2
<i>Workload</i>			
- hours of work	61.3	19.4	18.5
- amount of work	67.5	11.6	17.1
- availability of locums	8.4	39.5	50.5
<i>Level of income</i>			
- workload sufficient to maintain income	75.0	19.4	5.6
<i>Support from other providers in your area</i>			
- availability of similar specialists	68.2	19.0	12.7
- availability of other specialists	83.0	14.5	2.4
- support from primary care practitioners	73.8	15.1	11.1
- availability of skilled nursing staff	49.6	39.0	10.6
- availability of skilled allied health personnel	48.0	43.9	8.1

Source: ACD/AMWAC survey of dermatologists

Dermatologists' Perceptions of Factors Affecting Workforce Requirements

Respondents were asked to indicate whether they believed particular factors would increase workforce requirements, decrease workforce requirements or whether requirements would stay the same (Table B17). Among the important issues that respondents considered would increase Dermatology workforce requirements were patient expectations and knowledge, more defensive medicine, and ageing of the population. Factors perceived as most likely to decrease workforce requirements were substitution of specialist services by other providers, cost containment strategies,

lifestyle changes that improve population health, and coordinated care processes.

Factors most likely to influence requirements to remain the same were reforms to efficiency, evidence-based medicine, changing disease patterns, lifestyle changes, and multi-disciplinary team provision (Table B17).

Table B17: Dermatologists' perceptions of the factors that could affect the size of the dermatology workforce over the next ten years, 1997

Factors affecting the size of the workforce	Increase %	Decrease %	Stay the same %
<i>Population trends</i>			
Ageing of the population	77.3	1.6	21.1
Changing disease patterns	33.9	3.2	62.9
Lifestyle changes that improve population health	19.6	23.4	57.0
Patients expectations/knowledge	82.4	0.8	16.8
<i>Clinical practice trends</i>			
Advances in medical technology	67.9	5.5	26.6
More defensive medicine	80.3	0.8	18.9
Requirements for safer procedural practice	65.9	4.8	28.6
Multi-disciplinary team provision	39.6	4.0	56.3
<i>Workforce trends</i>			
Need for improved geographic distribution of specialists	49.2	7.9	41.3
Increasing doctor specialisation	47.6	7.9	44.4
Substitution of specialist services by other providers	15.2	36.0	48.0
<i>Health care system trends</i>			
Cost containment strategies	21.4	27.0	49.6
Reforms to increase efficiency	22.6	9.7	67.7
The introduction of coordinated care processes	26.0	15.1	58.0
Evidence-based medicine	30.5	5.9	63.6

Source: ACD/AMWAC survey of dermatologists

General Comments

Thirty respondents wrote general comments about the adequacy of the current workforce and of particular concern were training and research, maldistribution, relationships with general practitioners and lack of adequate hospital infrastructure. Two dermatologists wrote letters to the Working Party and these letters are outlined in Table B18. They address most of the issues raised by other respondents.

Table B18: General comments regarding the adequacy of the current workforce

Letter 1:

In New South Wales we still do not have an adequate workforce. The majority of graduates are easily absorbed into inner city practices, which they of course favour because of proximity to where they live. This leaves the country and the outer suburbs with an ongoing severe undersupply. Long waiting times for appointments, shorter times with individual patients and overstressed practitioners are the result.

We require, not only, more dermatologists by a redistribution of where they work. I share the view of the majority of my profession that forcing doctors to work in certain areas by restricting provider numbers is less acceptable than an incentive based scheme. One of the ways to encourage people to work in these areas is to train them locally..... Another way is to create a stimulating intellectual environment locally, again by having an active dermatology department associated with the local hospital and to encourage dermatologists to take part in the life of the hospital. Of course they will be more able to do this if there is an adequate workforce, which would give them more time for such pursuits.

Dermatology is primarily an ambulatory specialty and the bulk of work is done in the private sector. However, it is essential for our specialty to retain a presence in the public hospitals. We still require some degree of inpatients beds, there are numerous consultations and multidisciplinary research opportunities and it is an essential part of the training of a dermatologist to experience this aspect of practice.

It would therefore make sense to me to introduce an element of private sector training, since this is in reality where the work lies, provided this is shared with the hospitals. I would not be in favour of a registrar being trained only in the private sector, and I think it is important that dermatologists as a group do not feel compelled to do this as not all are in a position to provide such training.

My own 'agenda' in holding this view stems from my position as a practitioner in an outer area where manpower is low, where we have an ongoing problem attracting graduates to work locally and we have a large local teaching hospital which generates considerable work and also many training and research opportunities which we do not utilise. This situation is why my satisfaction with practice is a four and not a five.

I could see a situation where a registrar worked between a private practice and the hospital, perhaps being funded equally by each. The registrar would gain the experience of ambulatory dermatology from the private practice, and also the necessary exposure. The hospital would not have to create a dermatology outpatient department usually required for accreditation. This would be within the hospital's limited means, and would enable local training which I feel would be of an excellent standard given the wide range of pathology in the area. The existence of a registrar training program would enrich the degree of involvement of local practitioners in the life of the hospital. Hopefully all of this would eventually lead to increased local manpower and a better dermatology service.

A similar situation already exists in New South Wales when one considers the training positions created by the Skin and Cancer Foundation, a private sector institution. These are the most highly sought jobs in the New South Wales training scheme. Proposals for this sort of training could be considered for accreditation by our College and specific funding could be provided by government for the public sector component. I think the best place to start with such a project is with outer suburban or country practices that have a connection to a local hospital. These are the areas that most need added manpower, and also where patient acceptance of such arrangements is likely to be high.

Letter 2:

There is an absolute workforce shortage within dermatology, as well as a maldistribution of dermatological resources. In New South Wales, inner Sydney and the North Shore appear to be very well supplied, while dermatologists are spread very thin on the ground in outer suburban Sydney, and in all other areas of New South Wales.

For reasons known only to themselves, most recent graduates of the Australasian College of Dermatologists prefer to live and work in the above mentioned areas where there seems to be a never ending supply of patients to occupy their professional time. I assume that a large part of their time is taken up carrying out routine skin examinations for pre malignant and malignant conditions on patients that may have relatively low risk.....

Clearly we need more training positions, as well as a method of directing both the absolute shortage, and the maldistribution of dermatological resources. I think that office based training could help to remedy the situation.

I presume the cost would be a major stumbling block in providing further federally funded training positions. It may be possible to offset this by the creation of additional training positions that involved half funding from the government, and half funding from selected private practices. This would involve trainees working part-time in nominated private practices and part-time in teaching hospitals. Such a set up would be suitable for some of the larger outer suburban Sydney hospitals and major regional hospitals.

It would avoid the costly proposition of setting up dermatology outpatient departments at those hospitals, while providing essential inpatient services. At the same time it would provide valuable exposure to office-based dermatology for the trainees involved. This should lead to better training, as the bulk of dermatological medicine is office-based. It would also expose the trainees to outer suburban and regional practices which might eventually help correct the present maldistribution. Participation in such a system would need to be on a voluntary basis for the private practices concerned. Teaching standards in those practices could be monitored by the Australasian College of Dermatologists, along the lines currently used for monitoring in teaching hospitals.

I think it very important that dermatology training not be completely office-based, as teaching hospital expertise for serious dermatological conditions, and the dermatological complications seen from the other disciplines of medicine are an essential part of training. A pilot study using the combined approach suggested above for 12 months, monitored by the Australasian College of Dermatologists, might help in part to provide the answer to the workforce problem.

APPENDIX C: DEFINITION OF AN OPTIMUM DERMATOLOGY SERVICE

This is a summary of information provided by the ACD.

Guiding Principles

- the Australian community should have available an adequate number of trained dermatologists, appropriately distributed to provide the dermatology services it requires;
- the community is best served when dermatologists have high standards of qualification and work with a high level of ongoing experience matched by appropriate surgical facilities;
- the dermatology workforce must provide the entire spectrum of dermatologic services from sub specialties (surgery, laser, contact allergy testing etc.) to general dermatology. Interaction with both general practice and other specialties is vital;
- all Australian citizens must have access to a good standard of dermatologic care irrespective of geography and economic status. In achieving this, convenience to the patient must be balanced against the quality of services that can be distributed to meet that convenience; and
- both public and private sectors must provide an adequate amount and quality of service.

A dermatologist should be able to provide the following services:

- Care of skin diseases and skin reactions;
- The management of skin cancer, skin tumours including malignant melanoma;
- The management of skin diseases associated with systemic diseases;
- Service proficiency across all age groups, paediatric to geriatric;
- Occupational dermatology;
- Cosmetic dermatology;
- Medico legal;
- Dermato venereology

Population catchment required

- approximately 100,000

Personnel Requirements

- A trained dermatologist with adequate back up and after hours services
- A trainee registrar
- A dermatology nurse and nursing sister
- Clerical services
- Cleaning services

Other specialist services required in close proximity

- Pathology services (histology and general pathology)

- Availability of specialist physician and specialist surgeon for cross referral and consultation

Infrastructure Required

- Offices with good, natural lighting;
- Adequate office area including, reception areas, triage areas, treatment areas (cubicles for curette, dressings etc.);
- Minor operations theatre and associated instruments for minor procedures;
- Minor lab facilities and microscope;
- An active outpatient department;
- Facilities for phototherapy (total body and hand foot);
- Facilities for laser and associated equipment;
- Facilities for superficial x-ray therapy;
- Computer facilities;
- Library with associated dermatology text and journals;
- Sterilisation equipment;
- Combined clinics with other specialties (eg., plastic, radiotherapy, oncology, paediatrics);
- Inpatient facilities

APPENDIX D: RESOURCES REQUIRED FOR THE TRAINING OF SPECIALIST DERMATOLOGISTS

Whether a program receives accreditation is determined by the nature and content of the program in regard to its adequacy in:

- clinical exposure and in-service training;
- teaching sessions and seminars;
- instruction in both superficial radiotherapy and physical therapy;
- instruction in pathology;
- instruction in medicine and surgery relevant to dermatology;
- library facilities. Dermatological textbooks listed in the College recommended reading list, together with dermatological journals, must be available. An adequate selection of general medical texts and journals should be readily available;
- time for reading and study during normal working hours;
- arrangements to allow trainees to attend lectures and seminars within the hospital itself and at other institutions.

For accreditation a program should have the following content:

- 1) Clinical dermatology (it is expected that the majority of training will be spent in clinical work with the trainee responsible, under supervision, for the care of patients in both the outpatients department and the wards;
- 2) Histopathology/microbiology/mycology/patch testing/immunology;
- 3) Superficial radiotherapy/physical therapy/dermatological surgery;
- 4) Medicine and surgery relevant to dermatology;
- 5) Library and general reading (journals, preparation for seminars and case presentations);
- 6) regular teaching sessions/seminars and group discussions

APPENDIX E: PROPOSAL FOR THE PILOTING OF SERVICE PROVIDER NETWORKS FOR THE TRAINING OF SPECIALIST DERMATOLOGISTS

Surveys of numbers of dermatologists in rural and remote Australia have confirmed that there is a shortfall of specialist dermatologists and delivery of dermatological services in many areas outside the major metropolitan centres.

Whilst an increase in the number of specialist dermatologists will address the total number of specialists it will not necessarily increase services away from these centres.

Most dermatology is office based but there is a significant although small number who will require in-patient care. Any process that attempts to address the delivery of services needs to take all these issues into account.

Proposal

A pilot program be commenced that establishes dermatological networks that provides:

- a) Clinical care
- b) Training and teaching of dermatologists
- c) Delivery of services to remote and rural areas
- d) In-patient services
- e) Research

Such a proposal would involve:

- a) Established teaching hospital departments of dermatology with in-patient services
- b) Dermatology services based in specialist rooms or outpatient departments
- c) Base and district hospitals that may or may not currently have dermatological services
- d) Remote clinics/Royal Flying Doctor Service etc.

Method

Applications should be sought from consortia that could consist of University or teaching hospital departments of dermatology, private dermatology practices, Base/District hospitals, health clinics/remote/rural, general practice in remote/rural areas and other agencies.

The applications should describe:

- a) Delivery of services
- b) Training and teaching of specialists in dermatology
- c) Extent of services. That is, how will services be extended to rural areas and how will trainees be rotated through rural centres/teaching hospital and provide clinics.

Programs

In the first instance three to five such programs would be established. Each program should run for four years.

The following information should be collected during the program=s activities:

Number and nature of services provided

- Diagnoses
- Procedures
- Drugs prescribed
- Pathology services

Cost of services

- In each consortium two or three new dermatological training positions should be established and funded.
- In using private clinics or private rooms costs/expenses should be budgeted based on an hourly rate for specialist dermatologists who would be responsible for training/teaching.
- Travelling and accommodation cost should be a part of any application

Data collection

It will be vital for data to be collected to measure the efficacy of the program. The following data would be collected in a prospective fashion and used to determine the efficiency and the efficacy of the program.

1. The number of services provided
2. The number of trainees involved in delivering the service
3. Procedures carried out
4. Diagnoses
5. Pathology services used
6. Costs

It is envisaged that a person would be fully employed in the data collection and analysis. Such an individual would also be expected to play a role in ensuring that appropriate rosters were established, appointments made and kept and rotations between institutions, rooms and clinics maintained.

Progress of Trainees

In principal trainees should spend approximately 50% of their training time in rural and remote areas. The Australasian College of dermatologists would be responsible for providing appropriate supervision of teaching and experience for each trainee. In rural and remote areas particularly the College and the university/teaching hospital would be responsible for ensuring that appropriate supervision occurred.

Conclusion

This proposal would:

1. Provide an increased number of specialist dermatologists
2. Increase services to rural and remote areas and enhance current services in these areas
3. Allow access to in-patient facilities where required
4. Provide prospective data regarding the use of specialist dermatological services
5. Establish the costs of training and the delivery of care away from the traditional areas of the university/teaching hospital

APPENDIX F: AMWAC SURVEY OF DIVISIONS OF GENERAL PRACTICE

METHODOLOGY

To obtain information about the adequacy of the supply of specialist dermatology services throughout Australia, AMWAC administered a mailed survey of all Divisions of General Practice. Of a possible 121 Divisions, 73 responded (60.3%) with 62 Divisions supplying completed questionnaires. The major reason Divisions gave for not being able to supply the information requested by AMWAC was resource constraints.

An analysis of completed and non-completed questionnaires revealed that 17.5% of responding urban based Divisions did not complete the protocol while 5.9% of responding rural Divisions did not complete the protocol.

RESULTS

Distribution of Respondents

Table F1 shows the distribution of responding Divisions to the AMWAC survey by State/Territory and by location. 40.3% of responding Divisions were located in a capital city, 13.8% in an other metropolitan area and 45.8% in a rural area.

Table F1: Distribution of responding Divisions of General Practice, by State/Territory and geographic location, 1997

State/Terr.	Total number	Capital City %	Other metropolitan %	Rural %	Total %
NSW	28	28.6	28.6	42.8	100.0
Vic	17	41.2	0.0	58.8	100.0
Qld	9	44.4	22.2	33.3	100.0
SA	4	25.0	0.0	75.0	100.0
WA	10	70.0	0.0	30.0	100.0
Tas	2	50.0	0.0	50.0	100.0
NT	1	0.0	0.0	100.0	100.0
ACT	1	100.0	0.0	0.0	100.0
Australia	72	40.3	13.8	45.8	100.0

Source: AMWAC survey of Divisions of General Practice

Triggers for General Practitioner Referral to a Specialist Dermatologist

General practitioners were asked to indicate the importance of eight triggers for referral to a dermatologist and to identify any further important triggers. Table F2 indicates that the most important triggers for referral by a general practitioner to a dermatologist are severity of the condition, condition unresponsive to treatment and lack of experience

within the practice regarding the condition and its treatment. The least important triggers for referral were the age and social circumstances of the patient. No differences were observed among responses to this question based on location (ie., metropolitan or rural).

Table F2: Rated importance of eight triggers for general practitioner referral to a dermatologist

Trigger	Not important			Very important	
	1	2	3	4	5
Severity of condition	1.6	1.6	1.6	26.7	68.3
Condition unresponsive to treatment	0.0	0.0	0.0	42.6	57.4
Age of patient	47.5	23.0	19.7	8.2	1.6
Social circumstances of patient	52.4	19.7	19.7	6.6	1.6
Rarity of diagnosis	6.6	8.2	18.0	44.3	22.9
Lack of experience within the practice re: condition/treatment	3.3	8.2	21.3	31.1	36.1
Request of patient to be referred	1.7	13.6	30.5	35.6	18.6

Source: AMWAC survey of Divisions of General Practice

Supply of Resident Dermatologists

Table F3 indicates that 68.9% of Divisions of General Practice reported that there was no resident dermatologist providing services in the area covered by their Division and 13.8% reported that there was one resident dermatologist in their area.

Table F3: Number of resident dermatologists providing services in divisional area (percentage of Divisions), by State/Territory, 1997

State/Terr.	Number of DGP*	Number of resident dermatologists						Total
		None	One	Two	Three	Five	Seven	
Percentage of Divisions								
NSW	24	75.0	8.3	8.3	0.0	4.2	4.2	100.0
Vic	15	60.0	2.7	0.0	13.3	0.0	0.0	100.0
Qld	6	50.0	16.7	33.3	0.0	0.0	0.0	100.0
SA	4	100.0	0.0	0.0	0.0	0.0	0.0	100.0
WA	6	66.6	16.7	0.0	0.0	16.7	0.0	100.0
Tas	2	50.0	0.0	0.0	0.0	0.0	0.0	100.0
NT	1	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Total	58	68.9	13.8	8.6	3.5	3.5	1.7	100.0

* Number of Divisions of General Practice; Source: AMWAC survey of Divisions of General Practice

Supply of Visiting Dermatologists

Table F4 shows that 42.1% of Divisions reported that there were no visiting dermatologists providing services in the area covered by their Division while a further 42.1% reported that they had one dermatologist visiting their area.

Table F4: Number of visiting dermatologists providing services in divisional area (percentage of Divisions), by State/Territory, 1997

State/Terr.	Number of DGP*	Number of visiting dermatologists						Total
		None	One	Two	Three	Four	Five	
Percentage of Divisions								
NSW	25	36.0	40.0	8.0	8.0	4.0	4.0	100.0
Vic	14	50.0	35.7	7.1	0.0	7.1	0.0	100.0
Qld	5	60.0	40.0	0.0	0.0	0.0	0.0	100.0
SA	4	75.0	0.0	25.0	0.0	0.0	0.0	100.0
WA	6	16.7	66.6	0.0	16.7	0.0	0.0	100.0
Tas	2	50.0	50.0	0.0	0.0	0.0	0.0	100.0
NT	1	0.0	100.0	0.0	0.0	0.0	0.0	100.0
Total	57	42.1	42.1	7.0	3.5	3.5	1.8	100.0

* Number of Divisions of General Practice

Source: AMWAC survey of Divisions of General Practice

Availability of General Practitioners with Qualifications in Dermatology

In addition to providing information about the supply of specialist dermatologists, Divisions of General Practice also indicated the availability of general practitioners with qualifications in dermatology. Only seven Divisions reported the presence of one to two general practitioners with qualifications in dermatology and these Divisions were located in New South Wales (three), Victoria (three) and Queensland (one).

Adequacy of the Supply of Dermatologists

82.3% of Divisions of General Practice considered that a shortage of specialist dermatologists existed in their area with the remaining 17.7% indicating that the supply was about right. Many respondents provided comment on ways that services could be improved (Table F9). No differences were observed in responses to this variable based on State/Territory or location (metropolitan or rural) suggesting that the provision of specialist dermatology services is inadequate throughout Australia.

Requirement for Additional Resident Dermatologists

62.3% of Divisions responded to the question 'If a shortage for dermatologists exists in your area, please indicate the number of specialists required (resident and visiting)≡.

Table F5 shows that Divisions of General Practice perceived a need for 46 additional resident dermatologists.

Table F5: Estimated number of resident dermatologists required in Divisional area, by State/Territory, 1997

NSW	Vic	Qld	SA	WA	Tas	NT	Total
20	14	4	0	4	2	2	46

Source: AMWAC survey of Divisions of General Practice

Table F6 indicates that 18 Divisions had a need for one additional resident dermatologist, 8 Divisions required an addition of two dermatologists and four Divisions had a need for three. Nine Divisions indicated that they did not require any additional resident dermatologists.

Table F6: Estimated number of resident dermatologists required in Divisional area (number of Divisions), by State/Territory, 1997

State/Terr.	Total number of Divisions of GP ^a	Number of resident dermatologists required			
		None	One	Two	Three
Number of Divisions of General Practice					
NSW	17	4	7	5	1
Vic	10		8		2
Qld	4	2	1		1
SA	3	3			
WA	1			2	
Tas	2		2		
NT	1			1	
Total	38	9	18	8	4

a - Number of Divisions of General Practice responding to this question

Source: AMWAC survey of Divisions of General Practice

Requirement for Additional Visiting Dermatologists

Divisions from all States/Territories, except Tasmania and the Australian Capital Territory, reported a requirement for additional visiting dermatologists with an overall requirement of 38.5 (Table F7) .

Table F7: Estimated number of visiting dermatologists required in Divisional area, by State/Territory, 1997

NSW	Vic	Qld	SA	WA	Tas	NT	Total
14	8	4.5	4	7	0	1	38.5

Source: AMWAC survey of Divisions of General Practice

Table F8 shows that 13 Divisions require one additional visiting dermatologist and 9 require two or more visiting dermatologists. Nine Divisions perceived no requirement for additional visiting dermatologists.

Table F8: Estimated number of visiting dermatologists required in Divisional area (number of Divisions), by State/Territory, 1997

State/Terr.	Total number of Div. of GP ^a	Number of visiting dermatologists required					
		None	0.5 time	One	Two	Three	Five
Number of Divisions of General Practice							
NSW	13	6		3	3		1
Vic	6	2		3			1
Qld	5	1	1	2	1		
SA	3			2	1		
WA	4			2	1	1	
Tas	0						
NT	1			1			
Total	38	9	1	13	6	1	2

a - Number of Divisions of General Practice responding to this question

Source: AMWAC survey of Divisions of General Practice

Summary

In brief, the findings arising from this survey of Divisions of General Practice indicate an acute workforce shortfall of specialist dermatologists and that there are few general practitioners with qualifications in dermatology. Furthermore, the findings suggest a lack of integration between Colleges with respect to the training of specialists and generalists in dermatology.

The comments written by respondents to the survey reinforce the quantitative data. For example, one Division commented that it conducts an annual survey of its members and of greatest concern to the membership is the inability to access dermatologists. This Division also noted that the shortage of dermatologists in the area was an issue for the area's most active dermatologist who had recently endorsed the appointment of a GP dermatologist to his rooms. Many Divisions advocated strongly for the provision of dermatology services in areas other than capital cities (Table F9).

Table F9: Selected comments by Divisions of General Practice on the adequacy of the supply of dermatologists and ways of improving access, by State/Territory, 1997

Adequacy of access	Ways of improving access
New South Wales	
Services inadequate/critical shortage/no laser therapy available (Rural area).	Train more dermatologists.
Poorly serviced local area with exhaustive waiting times. It is a major concern of GPs (Other urban area).	Train more dermatologists. Train one or two GPs in Diploma of Dermatology.
Present service needs to be doubled. A dermatologist attends one day each fortnight.	Need visiting dermatologist or a resident dermatologist in who travels.
Too long to wait for decent ones. Too poor/quick (short) consultations at the rest (Capital city area).	Allow dermatologists to charge in 5 minute intervals (some do not even see new patients for this long).
Insufficient access (Other urban area).	More dermatologists.
Waiting lists of 7-4 months mean that it is rarely appropriate to refer a patient for urgent conditions. It is not possible to get an opinion as a specialist only visits two days per fortnight (Rural area).	<p>Make all trainees/newly qualified dermatologists do a compulsory rural term, Send them where they are needed.</p> <p>Many referrals could be avoided if GPs were upskilled in this area; especially with regard to pigmented lesions, acne, menatoses.</p> <p>The issue of the enormous difference in rebate given to GPs or dermatologists for the provision of the same service (eg., cryotherapy for solar metatoses) must be addressed.</p>
Victoria	
Appointment times not available under 4-6 months (Capital city area).	More practising dermatologists required.
Totally inadequate, many patients travel 200-400 km to Melbourne to seek services (Rural area).	More resident and visiting dermatologists, better access for rural GPs to dermatology courses and/or PG diploma etc. (Currently only available from a university in Wales, UK).
Most areas of the Division are poorly serviced and require referral to regional centres for dermatological opinion (Rural area).	More dermatologists required.
Very poor- one resident dermatologist at Shepparton- none elsewhere (Rural area)	

Queensland

Inadequate but Division has a dermatology project in hand. Because of this our Division will have 2 visiting dermatologists, one of whom has telemedicine facilities (Rural/remote area).

Telemedicine- the new cameras are excellent and can focus down to small lesions (eg., 0.5cm).

Sufficient for certain conditions (solar keratoses, melanoma, BCC, SCC); inadequate for other complex conditions with long waits (Rural/remote area).

A dermatologist in Cairns who refers back to GPs all the simple conditions and takes care of the Abad≅ ones.

8-12 month wait in the private system (Capital city area).

Increase the number of dermatologists.

Grossly inadequate (Other urban and rural).

Appointment of a dermatologist to xxx and a dermatologist - half to full-time at xxx.

South Australia

Poor (Rural area)

A visiting dermatologist at least one day per month.

Western Australia

The nearest dermatologist is 50 km way and that is a visiting service only (Rural area).

A local visiting service is desperately required.

Northern Territory

The top end of the Northern Territory has a visiting service of one day per month for a population of 145,000. Current waits are around 6 months which makes acute referrals a joke. Most dermatology is managed by GPs, or excisions may go to specialist surgeons. Rural patients have even more limited access. Visiting dermatologists (from interstate) may not be familiar with tropical/indigenous skin problems.

Need at least one resident dermatologist and one to do outreach work, probably from Darwin.

APPENDIX G: AMWAC SURVEY OF STATE/TERRITORY HEALTH DEPARTMENTS

METHODOLOGY

AMWAC conducted a mailed survey of all State/Territory health departments in order to establish a reasonably up to date and accurate profile of the current provision of dermatology services in the public sector including availability of dermatologists, shortages and issues influencing the training of dermatologists.

RESULTS

Public Facilities Offering Dermatology Services

Table G1 shows that 90 public facilities offer dermatology services, 35 metropolitan teaching hospitals, 12 metropolitan district hospitals, 19 rural regional hospitals, 10 rural district hospitals and four other facilities. The latter includes four rural centres (three in Western Australia and one in Alice Springs).

Table G1: Public facilities offering dermatology services, by State/Territory and geographic location, 1997

State/ Territory	Metropolitan Teaching Hospital	Metropolitan District Hospital	Rural Base/Regional Hospital	Rural District Hospital	Other facility	Total
NSW	11	9	10	3	-	33
Vic	8	-	*	*		18
Qld	5	1	4	1	-	11
SA	5	-	-	3	-	8
WA	3	1	4	3	Specialist Centre (Rural); 2 Community Health centres (Rural)	14
Tas	2	-	1	-	-	3
ACT	-	1	-	-	-	1
NT	1	-	-	-	Remote Centre Hospital (Alice Springs)	2
Total	35	12	19*	10	4	90

* It was noted that in Victoria outreach services are provided at Sale, Portland Moe, Warrnambool, Bendigo, Geelong, Sorrento, Ballarat, Horsham, Hoppers Crossing, Rosebud, Kyneton and Mildura. Kyneton is provided with a weekly service while all other outreach services are on a monthly or two monthly basis.

Public Facilities With Medical Practitioners in Dermatology

Table G2 indicates that VMOs and registrars play a prominent role in the provision of dermatology services by public facilities. For example, the data provided by health departments shows that there are 69.59 visiting medical officers and 40.4 registrars providing services in public facilities compared with 1.5 staff specialists, 2.6 career medical officers and 0.6 general practitioners.

Table G2: Public facilities with medical practitioners in dermatology, by State/Territory and geographic location, 1997

State/Territory	Metropolitan Teaching Hospital	Metropolitan District Hospital	Rural Base/Regional Hospital	Rural District Hospital	Other facility	Total
NSW						
- CMO	-	-	-	-	-	-
- Registrar	13	1	-	-	-	14
- Staff specialist	0.2	-	-	-	-	0.2
- VMO	43	13	-	1	-	65
- Others	4	-	8	-	-	4
Vic						
- CMO	1	-	-	-	-	1
- Registrar	11	-	-	-	-	11
- Staff specialist	-	-	-	-	-	-
- VMO	-	-	-	-	-	-
- Others	-	-	-	-	-	-
Qld						
- CMO	0.2	-	-	-	-	0.2
- Registrar	6.95	-	0.05	-	-	7
- Staff specialist	-	-	-	-	-	-
- VMO	2.13	0.1	0.31	-	-	2.54
- Others	-	-	-	-	-	-
SA						
- CMO	1.0	-	-	-	-	-
- Registrar	4.0	-	-	-	-	-
- Staff specialist	-	-	-	-	-	-
- VMO	4.2	-	-	-	-	-
- Others	0.6	-	-	0.3	-	-
WA						
- CMO	0.4	-	-	-	-	0.4
- Registrar	4.4	-	-	-	-	4.4
- Staff specialist	1.3	-	-	-	-	1.3
- VMO	-	-	0.2	0.02	0.14	0.46
- Others	0.4	0.1	-	-	-	0.4
Tas						
- CMO	-	-	-	-	-	-
- Registrar	-	-	-	-	-	-
- Staff specialist	-	-	-	-	-	-
- VMO	2	-	-	-	-	-
- Others	-	-	-	-	-	2

Table G2 contd

ACT						
- CMO	-	-	-	-	-	-
- Registrar	-	-	-	-	-	-
- Staff specialist	-	-	-	-	-	-
- VMO	1	2	-	-	-	3
- Others	-	-	-	-	-	-
NT						
- CMO	-	-	-	-	-	-
- Registrar	-	-	-	-	-	-
- Staff specialist	-	-	-	-	-	-
- VMO	0.07	-	-	-	0.02	0.09
- Others	-	-	-	-	-	-
Total						
- CMO	2.6	-	-	-	-	2.6
- Registrar	39.35	1	0.05	-	-	40.4
- Staff specialist	1.5	-	-	-	-	1.5
- VMO	52.4	15.2	0.51	1.32	0.16	69.59
- Others	0.6	-	-	-	-	0.6

Source: AMWAC survey of State/Territory health departments

Public Sector Dermatology Service Shortages

Table G3 shows that State/Territory health departments identified 19.5 shortages for medical practitioners in dermatology (7.5 registrars, 7.01 VMOs, 4.3 staff specialists and 0.1 general practitioner). However, the New South Wales health department noted that identified shortages are not positions for which funding has currently been identified. At the time of the survey, the only vacancies reported where active recruitment was being undertaken were for VMOs. Problems identified were predominantly in rural areas where it was noted that the differences in income and conditions between rural and metropolitan areas and the public and private sectors make it difficult to attract and retain dermatologists in the public sector. The Department Family Services, Victoria, noted that hospitals will not take up dermatology positions at the normal training and development rate as dermatology services are provided on an outpatient basis only and do not attract WEIS funding. Therefore any dermatology training positions need to be fully funded (Table G4).

Table G4 provides a summary of the comments provided by each State/Territory concerning the adequacy of the supply of specialist dermatology services and factors influencing the training of dermatologists.

Table G3: Dermatology service shortages, by job and State/Territory, 1997

State/Terr.	CMOs	Registrars	Staff specialists	VMOs	GPs	Total
NSW	-	4.0	3.3	6.2	-	13.5
Vic	-	3-4	-	-	-	3-4
Qld	-	-	-	0.81	-	0.81
SA	-	0.5 ^a	-	0.6 ^b	0.1	1.2
WA	-	-	-	-	-	-
Tas	-	-	-	-	-	-
ACT	-	-	-	-	-	-
NT	-	-	1.0	-	-	1.0
Total	-	7.5	4.3	7.01	0.1	19.51

a - metropolitan hospitals; b - 0.4 metropolitan and 0.2 rural hospitals

Source: AMWAC survey of State/Territory health departments

Table G4: Comments provided by State/Territory health departments regarding the provision of public sector dermatology services, 1997

State/Terr.	Comments
NSW	<p>There are no full-time staff specialists in dermatology in NSW. In the response from NSW it was noted that it was difficult to provide accurate information about the number of specialists providing dermatology services in the public sector in NSW because VMO services are provided on a different basis in different hospitals/areas: some undertake regular or occasional sessions, others are contracted on hours per month, hours per week, or on a consultancy basis.</p> <p>Some NSW health services reported shortages for dermatologists, particularly staff specialists. However, it is clear that these reported shortages indicate that community need for dermatology services is placing pressure on existing staff in some areas. While practitioners reported difficulties in the timely provision of dermatology services, the relative community need for services in other disciplines is greater, resulting in the prioritisation of funding to other specialty positions.</p> <p>Most identified shortages are not positions for which funding has currently been identified. At the time of the survey, the only vacancies reported where active recruitment was being undertaken were for VMOs. Problems identified were predominantly in rural areas where it was noted that the differences in income and conditions between rural and metropolitan areas and the public and private sectors make it difficult to attract and retain dermatologists in the public sector.</p> <p>None of the NSW health services indicated plans for the reorganisation or expansion of dermatology services that would significantly affect planning for the supply and requirements for dermatology specialists to the year 2008.</p>

<p>NSW contd.</p>	<p>Training</p> <p>No additional positions were identified suitable for accreditation by the College in terms of supervision, training and work content and without significant additional cost. Factors limiting the potential for additional training positions included insufficient workload, the need for improved access to supervising dermatologists, additional funding to cover registrar wages and an upgrade of relevant equipment and resources.</p> <p>A number of health services noted that the number of dermatologists in Australia has been carefully controlled with some dermatology trainees unable to complete requirements for accreditation. A number of NSW practitioners recommended that the ACD training program be reviewed.</p> <p>Given the predominantly private nature of dermatology services, dermatology registrar training may appropriately occur in the community context. Strong links will need to be retained between the dermatology trainee and the teaching hospital so that the registrar will gain a wide breadth of experience in general medicine, ensure adequate supervision, conduct inpatient consultations and attend the hospital teaching programs. These issues should be carefully assessed before training with a significant component in private rooms is accredited by the College.</p>
<p>Vic</p>	<p>It was noted that in Victoria hospitals will not take up dermatology positions at the normal Training and Development rate as dermatology services are provided on an outpatient basis only and do not attract WEIS funding. Therefore any dermatology training positions need to be fully funded.</p>
<p>Qld</p>	<p>This response indicated that funding, expansion of infrastructure and expansion of VMO positions were barriers to accrediting further positions. In addition, this response included a paper presented by Dr Jenny Byth, Chairman, ACD (Queensland), to the Specialist Medical Workforce Summit, April 1997, which addressed training issues and problems in distribution:</p> <p>Training</p> <p>“We currently have 40 dermatologists in Queensland and this number does need to be increased. The ACD predicted the current workforce problem over a decade ago but our efforts to expand specialist training have repeatedly been frustrated. At both State and National levels, the major factor limiting specialist numbers has been a shortage of registrar positions. The contention that the College restricts numbers in an artificial way cannot be sustained. In the 10 years to 1995, only 3 of 93 candidates in Australia failed to pass their final examination and gain fellowship of the College. The examination sets standards which the College believes should be achieved. Sometimes a candidate will need to sit the examination on more than one occasion but a qualified candidate will pass. The number of trainees who can present for the exam is limited by the number of registrar positions.”</p> <p>.....we believe that a further 3 positions should be planned for over the next few years. These positions will require some expansion of infrastructure and expansion of VMO sessions. Over the period that the training positions in the Queensland public hospitals have increased from 4 to 7, the number of VMO sessions has increased from 2.5 to 2.6 full-time equivalents. This means that all dermatology admissions, all dermatology outpatient services, and all of the in-service training of the 7 dermatology registrars in the Queensland public hospital system are carried out by the equivalent of 2.6 full-time dermatologists. This does not constitute a significant workload. We believe that currently the amount of training supervision and clinical material available to registrars is being used maximally and it is difficult to envisage stretching this system further.</p>

<p>Qld contd.</p>	<p>“In the short term, consideration could be given to creating two extra VMO sessions at The Mater Public Hospital and two at The Mater Children’s Hospital every week. This would be sufficient to allow training of an additional registrar who would then be available to contribute to our country rotation service. In the longer term, thought will have to be given to creating 5 extra VMO sessions at each of the Royal Brisbane and Princess Alexandra Hospitals so an additional 2 registrars could be trained. Ideally, these sessions could be performed by a dermatologist working half to full-time in the public hospital system. This person could also have some administrative role and would be in a position to further improve the Dermatology Departments. Currently, the clinical workload is such that it is not possible to devote any significant time to organisation and administration.”</p> <p>Dr Byth quoted the following recommendation from the Diehard Report because of threatened reductions in Southern States which have placed a number of training positions in jeopardy and because she considered that Queensland could not afford to let this happen: “The importance of public hospital out-patient services in providing the training positions for dermatologists as well as trainees in general practice should be recognised. If decisions are taken for economic reasons to reduce hospital out-patient services, the State health authorities have the responsibility to ensure that satisfactory opportunities for training in dermatology are provided.”</p> <p>Distribution</p> <p>The ACD (Queensland) coordinated an application for a Commonwealth grant to conduct a pilot project to examine the cost-effectiveness of providing a rotating dermatology service to country centres. The Mater Hospital Registrar position forms part of the Commonwealth project to be reviewed at the end of 1997. Alf we can demonstrate that the cost of sending a dermatologist to Mackay and Rockhampton has been less than the cost of transporting patients to Brisbane, then it is possible that the State Health Department will continue funding of this position after 1997. We see this rotational program as a means of exposing our trainees to dermatology practice outside of South-East Queensland. One of our trainees from 1996 has now become a dermatologist and he is continuing rotational visits as a consultant.</p> <p>Dermatologists travelling to Mackay and Rockhampton have experienced some difficulties with country visits. The days in the country are long and busy. The dermatologist is required to see a large number of patients while at the same time providing supervision for a registrar, and educational opportunities for local general practitioners. If this program is to be expanded, then reasonable accommodation and transport will have to be provided.</p>
<p>SA</p>	<p>No specific policy changes have been made in this State. However, all hospitals in this State are seeking to increase their staffing. Some by way of employment of hospital medical officers to undertake such treatment as Candela laser treatment. They are also seeking to increase staff to supervise day hospital facilities for some patients and to extend their educational and service provision into rural areas. At least one teaching hospital is seeking to become more involved in the provision of dermatology services utilising telemedicine. It was noted that specialist dermatologists in private practice already provide visiting services to a number of rural areas. But not all rural areas with significant populations receive these visiting services.</p>
<p>WA</p>	<p>All accredited dermatology training in Western Australia is currently undertaken within public hospitals (3 registrars on rotation through our Teaching Hospitals) and there is a strong view that this should remain the case in order to provide a variety of experience to trainees, and to ensure appropriate supervision and quality of training.</p> <p>A concern is that training conducted solely outside of this environment would lead to a narrow focus, and potentially either exploitation of trainees in the management of workload, or</p>

	<p>allocation of work which has no relevance to their training. Private practitioners are busy, leaving little time for adequate supervision, and third party presence and observation is inappropriate for some treatments where psychological factors play a large part.</p> <p>The existence of dermatology departments in public hospitals provides a crucial recruitment tool for future specialists, as positive impressions on medical students can often translate into specialisation enquiries. It would be a pity to lose this opportunity, although it comprises only 12 hours of the undergraduate medical course. The low allocation of time is of concern to educators in this field.</p> <p>Work practices already in place on a voluntary basis (by both trainees and private practitioners) offer trainees the opportunities to observe in selected private practice settings, thus rounding out their learning sphere. Training in radio therapy for dermatology is conducted voluntarily by a private practitioner with the agreement of patients, or using mannequins, as current equipment is unavailable through the public facilities. In addition, educational sessions for other medical practitioners are run voluntarily on a regular basis.</p> <p>Work practices, funding arrangements and new technologies which have impact on the dermatology workforce include the rising use of laser and surgical dermatology. This is not a cheap option, with most machines costing in excess of \$40,000 and some greater than \$100,000. The expensive nature of the equipment influences the organisation of private practice in clusters, and these treatments are less likely to be available in remote areas. Telemedicine, while offering some advantages for delivering health service at a distance, is viewed by some as too impersonal for dermatology treatment, which requires personal interaction. This service is also costly, and unlikely to be widespread within the near future, although priority is being given to it at some levels.</p> <p>The lack of funding for chairs in dermatology other than in Melbourne and Sydney (in combination with time constraints on private practitioners) is seen to be a restricting factor on Australia and Western Australia specific research. Review of overseas practice and the benefits of local chairs may appropriate.</p> <p>The provision of dermatology services in Western Australia appears to be adequate for the current demand. Waiting lists are short, with the waiting time varying from approximately 2 days to 2 weeks. In addition, the tradition in this specialty of working 10 years in a public hospital, 10 years in rural service and 10 years in teaching others, gives rise to a relatively good availability of services in rural areas on at least a visiting basis. A positive attitude to, and/or experience in rural service has been a decisive point in the selection of trainees.</p>
ACT	<p>Most dermatology is now practised within specialist rooms, and the hospitals require a consultative service on most occasions of dermatology need.</p> <p>The public hospital sector in the ACT has not provided dermatology outpatient services for at least 15 years. The inpatient workload at the hospital is low. Currently, Calvary Hospital is serviced by 2 VMOs and the Canberra Hospital, by one VMO.</p> <p>There are currently no plans for the establishment of a Dermatology Department at either hospital.</p> <p>There are no accredited training positions at either the Canberra Hospital or Calvary Hospital. The inpatient load does not qualify them for approval of a training position.</p>

NT	<p>Territory Health Services has one designated full time specialist dermatologist position. The position is based in Darwin and has a responsibility to deliver on-site services throughout the Northern Territory. The position is currently unfilled following the retirement of the previous incumbent. The intention is to fill. Service delivery methods will be reviewed at this time.</p> <p>An interim service is being provided by visiting specialists - one at 1.5 days per month from Sydney to the Royal Darwin Hospital and one at 1.5 days every 3 months from Adelaide to Alice Springs Hospital. The waiting lists are increasing and both establishments are currently negotiating more hours. There is no on-site specialist service provided to other remote areas, all patients requiring specialist referral must travel to one of the major centres.</p>
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