INQUIRY INTO HEALTH OUTCOMES AND ACCESS TO HEALTH AND HOSPITAL SERVICES IN RURAL, REGIONAL AND REMOTE NEW SOUTH WALES

Organisation: The Australasian College of Dermatologists
Date Received: 11 December 2020
Inquiry into health outcomes and access to health and hospital services in rural, regional and remote NSW

- All patients in NSW should be able to access the specialist dermatology care they need.
- In NSW there are almost 50,000 public hospital admissions where a skin disorder is the main diagnosis each year and more than 5,000 new diagnoses of melanoma.
- Despite the burden of skin disease and skin cancer in NSW, workforce shortages and maldistribution mean access to specialist dermatology services remains poor for people in remote, rural, regional and even outer metropolitan areas.
- There is clear evidence of poorer outcomes for patients with dermatological conditions living in regional, rural and remote areas with limited access to specialist dermatology services a key contributing factor.
- Insufficient investment in public dermatology services is a key barrier to access and to providing the training opportunities needed to support workforce growth.
- A joint commitment from the State Government to provide funding for the consultant dermatologist and registrar positions required in NSW public hospitals, and to address other barriers to workforce growth is urgently needed.

ABOUT THE ACD

The Australasian College of Dermatologists (ACD) is the sole medical college accredited by the Australian Medical Council for the training and continuing professional development of medical practitioners in the speciality of dermatology. As the national peak membership organisation, we represent over 550 dermatologist Fellows (FACD) and 100 trainees.

Dermatologists specialise in the diagnosis, treatment and management of all skin diseases and conditions, including skin cancer. Through the College’s specialty training program, they are extensively trained over a minimum of four years. With skills and expertise spanning medical, surgical and procedural dermatology, specialist dermatologists are at the forefront of diagnosis, treatment, research and innovation in skin health.

INTRODUCTION

Over 1 million people in Australia – over 4% of the population – suffer from a long term condition of the skin. Melanoma and non-melanoma skin cancer rates continue to rise, as does the corresponding demand for surveillance, management and follow up. In 2017, the annual health system expenditure for melanoma alone was estimated at AU$272 million.

In NSW there are almost 50,000 public hospital admissions where a skin disorder is the main diagnosis each year and more than 5,000 new diagnoses of melanoma. Access to specialist dermatology services leads to improved patient outcomes and drives efficiencies within the health system.

However, the specialist dermatologist workforce is in shortage and maldistributed. This means that many people in NSW face significant difficulties in accessing appropriate, timely, ongoing and geographically convenient care for dermatological conditions impeding on their health, wellbeing and productivity.
The impact of rurality and Indigenous status on patient outcomes for skin disorders is evident in many clinical and health economic measures, including higher admitted patient expenditure⁶ and hospital admissions,⁷ and higher melanoma mortality rates in regional areas⁸. Preventable skin infections such as crusted scabies⁹ and impetigo, the latter of which has a prevalence of up to 44.5% in children living in remote Indigenous communities, are a significant public health burden and may have lifetime consequences if left untreated.¹⁰ All of these have significant impacts on individuals, their families and their communities.

Urgent action is needed to address the unmet healthcare needs of the state’s regional, rural and remote communities. Ensuring NSW has enough dermatologists in the years ahead will be vital to addressing the significant access issues, improving health outcomes and making optimal use of limited health budgets.

This submission provides an overview of the Dermatology workforce in NSW; service demand and the concerning levels of unmet need in regional communities; and the challenges and opportunities to ensure the current and future needs of NSW’s regional communities are met.

The Australasian College of Dermatologists is committed to strengthening regional and rural dermatology services to ensure that all people of NSW are able to access the dermatological care they need.

To achieve this, we are working to:
- expand the training program
- create opportunities for registrars to undertake training in regional areas
- expand our base of rurally located consultants
- advocate for dedicated and expanded funding for outreach and telehealth enabled models to address the unmet healthcare needs of the state’s regional rural and remote communities.

However if we are to succeed, a joint commitment from the State Government to provide funding for the consultant and registrar positions required in the state’s public hospitals is urgently needed.
THE DERMATOLOGY WORKFORCE: A SNAPSHOT

The national picture

Dermatologists are medical professionals who have undergone postgraduate specialist training qualifications in the diagnosis, treatment and prevention of skin diseases and cancers. According to the Department of Health, the Australian dermatology workforce is predicted to be in shortage of 90 FTE dermatologists by 2030. This would be almost 15% fewer than required to meet the dermatological health care needs of the Australian population.

Workforce maldistribution further reduces dermatology capacity in regional, rural and remote areas, with over 90% of dermatologists in Australia living and practising in major metropolitan centres. This results in inequitable access to services in regional and rural areas and this is reflected in poor patient outcomes across several key health measures.

There are approximately 100 registrars in the ACD national training program and while 70% of training occurs in public hospitals, the majority of Fellows FTE work (93%) occurs in the private sector. At a national level, an expansion of the training program of 8.7 FTE training positions annually is needed to meet the projected demand for dermatology services over the next 12 years.

NSW dermatology workforce is in shortage

This picture differs little in NSW, particularly when it comes to distribution of the workforce.

In June 2020 the current NSW faculty, which provides specialist dermatology services across both NSW and the ACT, was comprised of 208 actively practicing fellows and 37 registrars and IMGs enrolled in the training program. These Fellows and trainees provide dermatology services.

The Dermatology workforce in NSW is expected to grow by just over 0.1% per annum through to 2030. The Estimated Demand Growth is expected to be 2.0% to 2030. There were just 9 new Fellows in 2019, the limiting factor being the number of funded training places available.

Maldistribution of the NSW dermatology workforce

The NSW workforce is extremely maldistributed with 80% of Fellows (166 Fellows) providing services in metropolitan Sydney local health districts and a further 10% (22 Fellows) in the metropolitan local health districts adjacent to the greater Sydney area, Nepean Blue Mountains, Central Coast and Illawarra Shoalhaven. These regions are home to only 66% of the NSW/ACT residential population.

The remaining 10% (35 Fellows) of the dermatology workforce, based in practices outside of these metropolitan areas – in the 8 regional and rural local health districts of NSW and in the ACT – are the main providers of specialised dermatology services to the 2,276,000 residents of regional, rural and remote NSW and the 418,000 residents of the ACT.

This maldistribution may further increase by 2030 as 40% of the regional workforce are aged 60 or older and can be reasonably expected to reduce their workload or retire over the next decade.

This significant maldistribution of the workforce is shown in the Figures One and Two below. The graphs depict the location of dermatologists’ primary place of practice (either private or public) according to local health district.

Of note, there are many LHDs without the opportunity for dermatologists to provide a public service (Table One below) show public dermatology services according to LHD and clearly highlight the gaps between metro and regional/rural locations. Even in those areas where dermatologists live and work privately, opportunities and support in local hospitals is lacking, preventing the establishment of public outpatient clinics across many regions.

The NSW Medical Workforce Modelling by Specialty 2015-2030 Summary identified Dermatology as a specialty with substantial career opportunities needing between 25% to 150% increase over total number of 2015 trainees required to meet projected service demand by 2030.
Figure One: Number of dermatologists by NSW Local Health District

Figure Two: FTE/100,000 by NSW Local Health District

* Full Time Equivalent (FTE) = 40.0h/week. FTE/100,000 calculated using average total specialist hours for NSW (39.0h/week) and ACT (40.2h), from Department of Health (2017) *Australia’s Future Health Workforce – Dermatology*. 

The Australasian College of Dermatologists, December 2020

[www.dermcoll.edu.au](http://www.dermcoll.edu.au)
### Table One: NSW/ACT Public Dermatology Services

<table>
<thead>
<tr>
<th>LHD</th>
<th>Public Dermatology Department</th>
<th>Outreach and Visiting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REGIONAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Far West</td>
<td>No</td>
<td>Annual outreach dermatology services Broken Hill HS (Federally funded) Ivanhoe HS, Menindee HS, Tibooburra HS, White Cliffs HS, Wilcannia MPS (RFDS funded)</td>
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<tr>
<td>Hunter New England</td>
<td>Yes.</td>
<td>Monthly outreach/visiting – Armidale (Federally funded)</td>
</tr>
<tr>
<td>Mid North Coast</td>
<td>No</td>
<td>Monthly outreach dermatology service (Coffs Harbour (Federally funded))</td>
</tr>
<tr>
<td>Murrumbidgee</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Northern NSW</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Southern NSW</td>
<td>No</td>
<td>Cooma, Merimbula (Federally funded)</td>
</tr>
<tr>
<td>Western NSW</td>
<td>No</td>
<td>Walgett AMC and Coonamble AHS (Federally funded) Brewarrina Hospital, Bourke Hospital</td>
</tr>
<tr>
<td>ACT</td>
<td>Yes (Canberra Hospital)</td>
<td>Monthly outreach/visiting services to Winnunga (Federally funded)</td>
</tr>
<tr>
<td><strong>METROPOLITAN</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Coast</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Illawarra Shoalhaven</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Nepean Blue Mountains</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Northern Sydney LHD</td>
<td>Yes</td>
<td>Public Dermatology Department (Royal North Shore Hospital)</td>
</tr>
<tr>
<td>South Eastern Sydney</td>
<td>Yes</td>
<td>Dermatology Departments (Prince of Wales Hospital Randwick). Inpatient/outpatient dermatology (St George Hospital Kogarah)</td>
</tr>
<tr>
<td>South Western Sydney</td>
<td>Yes</td>
<td>Dermatology Department (Liverpool), Dermatology Service (Campbelltown Hospital). Inpatient dermatology provided from Liverpool Hospital (Fairfield Hospital; Bankstown-Lidcombe Hospital).</td>
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<td>Sydney</td>
<td>Yes</td>
<td>Dermatology Department (Concord Repatriation General Hospital, Royal Prince Alfred Hospital).</td>
</tr>
<tr>
<td>Western Sydney</td>
<td>Yes</td>
<td>Dermatology Department (Westmead Hospital)</td>
</tr>
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<td><strong>HEALTH NETWORKS</strong></td>
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<td></td>
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<tr>
<td>St Vincent’s Health</td>
<td>Yes</td>
<td>Dermatology service (St Vincent’s Public Hospital)</td>
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<tr>
<td>Network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sydney Children’s Hospital Network</td>
<td>Yes</td>
<td>Dermatology Department (The Children’s Hospital at Westmead, Sydney Children’s Hospital Randwick)</td>
</tr>
</tbody>
</table>
SIGNIFICANT UNMET NEED, PARTICULARLY IN REGIONAL (& OUTER METRO) NSW

Service demand and complexity is growing

Dermatology service demand is growing at a higher rate due primarily to population increases, the ageing population, medical technology changes and complexity of care. There are increasing numbers of infectious disease, cutaneous oncology, rheumatology, gynaecology, immunology and paediatric services that require ongoing interaction with dermatology to maintain patient outcomes. And yet a significant proportion of public hospitals in both metropolitan and regional areas do not have dermatology departments (see Table One above).

Rates of hospitalisations for skin disorders are higher in rural and regional areas

In NSW there are almost 50,000 public hospital admissions where a skin disorder is the main diagnosis each year and more than 5,000 new diagnoses of melanoma.

Of these hospitalisations 15,891 admissions were to hospitals in rural and regional NSW, 7,225 to metropolitan hospitals outside of Sydney and 28,066 to metropolitan hospitals within Sydney.

With the exception of the Nepean Blue Mountains LHD region, the rate of hospitalisation for skin disorders tends to be higher in rural and regional areas (see Figure Three). This seems particularly the case for males in rural areas such as Far West NSW and Murrumbidgee LHDs.

Figure Three: ASR / 100,000 for skin disorder hospitalisation by gender and LHD 2018-19

Skin disorder hospitalisation rates over the period 2001-02 to 2018-2019 (Figure Four) shows an increasing trend across all LHDs.
In 2018-19 there were 23,308 potentially preventable public hospitalisations for cellulitis in NSW. The incidence rate of potentially preventable hospitalisations (PPH) for cellulitis (one of the few non-melanoma skin conditions on which data is collected) can be seen to increase with remoteness (Figure Five).

Figure Four: Hospitalisations by cause: skin diseases Comparison by LHD 2001-02 to 2018-19

Figure Five: Potentially Preventable Hospitalisations: Cellulitis, NSW 2018-19
Living in regional or remote locations leads to higher rates of skin cancer

Australia has the second-highest rate of melanoma in the world. Ten per cent of cancers diagnosed among New South Wales residents are melanoma of the skin, making it the third most common cancer diagnosed. However, melanoma is the most common cancer in young people aged between 15 and 30 years in NSW.

In 2020 over 5500 people are expected to be diagnosed with melanoma in NSW, and that figure is projected to increase to approximately 6,000 in 2021.

The lifetime cost of the 150,000 incident cases of skin cancer (melanoma and non-melanoma) diagnosed in NSW in 2010 is estimated to be around $536 million. Direct costs account for 72 per cent of costs and indirect costs accounting for 28 per cent of costs.

Cancer is more likely to be diagnosed at a later stage in remote and very remote areas of Australia. (Cancer Australia cancer control continuum April 2018).

Melanoma incidence rates in regional and remote areas are higher than in major cities. Melanoma standardised incidence ratio (2013-17) by LHD (Figure Six): Northern NSW (1.6) has the highest incidence in NSW, followed by (in descending order) Mid North Coast (1.38), Central Coast (1.30), Hunter New England (1.26), Illawarra Shoalhaven (1.12), Northern Sydney (1.07), Southern NSW (1.06), Western NSW (1.05), Murrumbidgee (1.03), South Eastern Sydney (1.0), Nepean Blue Mountains (0.92), Far West NSW (0.88), South Western Sydney (0.63) and Western Sydney (0.6) and Sydney (0.58).

Figure Six: Incidence of melanoma of skin, persons, by local health district

Melanoma of skin, persons, by local health district
Standardised incidence ratio, NSW, 2013 - 2017

Mortality rates are also higher in some regional areas. Melanoma standardised mortality ratio (2013-17) by LHD (Figure Seven): Central Coast (1.33) has the highest mortality in NSW, followed by (in descending order) Southern NSW (1.31), Hunter New England (1.25), Illawarra Shoalhaven (1.18), Mid North Coast (1.11), Murrumbidgee (1.08), South Eastern Sydney (1.04), Northern NSW (1.03), Western NSW, Western Sydney (0.88), Nepean Blue Mountains (0.83), South Western Sydney (0.8), Northern Sydney (0.79), Far West (0.75) and Sydney (0.64)

Figure Seven: Mortality ratio for melanoma of skin, persons, by local health district

All patients should be able to access a regular skin check with a GP or dermatologist. People who are at high risk of skin cancer, or who have a suspicious mole or spot which may require more complex care, should be referred to a dermatologist by their GP. Dermatologists are specialists in detection, diagnosis and treatment of skin cancer. They are trained to recognise and differentiate between changes in the skin that may indicate cancer and have specialist knowledge and experience of the broad range of therapeutic approaches used to treat specific tumour types.

There are a large number of skin cancer removal procedures annually in NSW. MBS item usage data shows us that, for the period 1 July 2018 to 30 June 2019, there were 1,332,285 claims for skin cancer procedure items in NSW and 36,888 in the ACT. During that period NSW was second only to Queensland (1,418,457) in the number of claims for skin cancer procedures. NSW residents accounted for 33% of all skin cancer items claimed in 2018-19.

Regions of particular concern

There are significant unmet needs in many regions beyond inner metropolitan Sydney. As shown in Table One above, there is no public dermatology service in the following LHDs: Far West, Mid North Coast, Murrumbidgee, Northern NSW, Southern NSW, Western NSW, Central Coast, Illawarra Shoalhaven and Nepean Blue Mountains. In particular, the lack of dermatology services in Northern, Southern and Western NSW is leading to poorer outcomes as highlighted in the data above. Expanding NSW State Government funding support for existing regional base hospitals and infrastructure such as those in Wagga, Orange, Dubbo and Tamworth, for example, is an immediate priority to begin addressing the lack of services and training in regional areas.

Improved cooperation between state and federal governments to expand and support programs to attract, retain and train dermatologists and support private/public models of dermatology training in regional areas is required.
THE CHALLENGES AND OPPORTUNITIES

Invest to expand the training program and ensure the ongoing growth and sustainability of dermatology services, particularly in outer metro and regional areas

An expansion of the training program of 8.7 FTE training positions annually is needed to produce the next generation of doctors to meet the projected demand for dermatology services nationally over the next 12 years.

Currently, dermatology registrar training is delivered in over 60 sites across Australia, of which approximately 30 percent are private hospitals or practices. There are 32 training positions across 15 sites in NSW.

Optimally, a considerable portion of training rotations should be rostered within a public hospital setting to gain clinical exposure to diverse and complex cases within a multidisciplinary model of care.

While increasing training in the private practice setting also represents a possible solution to expand capacity of the program – and is actively being investigated by the College – it cannot be considered as directly substitutable for public hospital settings but rather as an adjunct. This is because even in the largest practices, some cases will be referred to hospital clinics as their complexities are optimally managed in the public setting.

However, there are challenges in establishing new training positions within public hospitals often due to financial and logistical constraints at the state and local health service level. Challenges to training and supervising trainees are exacerbated in outer metro, regional and rural areas as there are fewer supervisors to call upon, and those who do supervise must balance this role with delivering on an increasing demand for clinical services 11.

The system is extremely fragile particularly in outer metro, regional, rural and remote areas. Even larger regional centres outside of metropolitan areas face possible future workforce depletion unless they too can be eligible for new streams of funding and support.

Recommendation 1: Jurisdictional support is urgently required to expand public hospital services, incorporating both dermatologists and trainees, into new teaching hospital units in outer metropolitan and regional/rural areas where there are associated medical school clinical teaching units.

Invest in support for trainees, supervisors and Fellows to boost workforce growth and retention in outer metro and regional areas

The sustainability of the specialist workforce relies not only on adequate funding for training placements but on sufficient numbers of clinical supervisors being available and willing to train and support the next generation of doctors 12.

There are limited dermatology trainee positions in regional and rural areas as there are fewer dermatologists in these locations. In addition, exposure to rural and regional training is not always sufficient to motivate future rural practice. Evidence shows that there needs to be a parallel effort to ensure that the opportunity itself is viewed by the trainee as a positive, high quality experience13. It is recognised that positive rural experiences are critical at all stages of the training continuum, as evidence suggests that this has the potential to positively influence individual considerations on practising in rural and remote regions in the longer-term14.

The ACD has recently undertaken a project with support from Zest Health Strategies to assess and better understand the needs of the regional, rural and remote dermatologist trainee and specialist supervisor workforce to inform a strategic approach to improve recruitment and retention to regional, remote and rural practice 15, 16. Insights from this project are informing how training programs can be as effective and sustainable as possible.

Ensuring the longevity and sustainability of training in regional settings may require additional resource allocation, not only to ensure that the quality of training matches that of major centres and that trainees are exposed to a diversity of clinical cases, but also to improve consultant retention and productivity. The case mix, workload, responsibility, on call, continuing medical education and unpaid work-related time in some provincial consultant positions can provide challenges to recruitment and retention. Due to the lack of administrative and
clinical support in regional centres, there may be considerable differences in the consultant job description which can negatively impact productivity and retention in the long term.

**Recommendation 2:** Investment is needed in strategies and infrastructure to better support trainees and Fellows in regional, rural and remote Australia. Jurisdictions have a key role to play in working with ACD and others working to improve the quality of trainee and supervisor experiences so that the benefits of the state’s investment in increasing the capacity and productivity of our regional and rural workforce can be realised.

**Optimise use of teledermatology to enable rapid triage for specialist care, GP-led management and improve access to ongoing care**

Due to the chronic nature of many dermatological conditions, patient management often requires long term treatment approaches and follow up to ensure optimal outcomes and prevent disease recurrence. For delivery of specialist care, patients in non-metropolitan areas must travel to urban centres or attend outreach clinics serviced by fly-in fly-out specialists. Both options are costly and impractical for ongoing care, driving the likelihood of treatment lapses and emergency department admissions.

Before the COVID-19 pandemic, telehealth was already well recognised as a valuable model of care in dermatology, particularly for patients in regional, rural and remote locations. COVID-19 has only served to highlight the considerable benefits of telehealth consultations and other digitally enabled models of care in dermatology, which if supported longer term, offer significant value to patients and the health system.

These benefits include broader health workforce capability and capacity, addressing access barriers, driving down waitlists and wait times, offering a valuable and innovative teaching tool, the potential for remote supervision of trainees and greater workforce flexibility.

As a visual speciality, “teledermatology” often involves the use of still digital images to guide diagnosis and assessment. In addition to in-person, telephone or video consultation models, dermatologists can also leverage what is known as Store and Forward Teledermatology.

Store and Forward Teledermatology is a highly collaborative service delivery model that enables a patient’s local GP or medical specialist to capture high quality images and securely forward these images and clinical data to a dermatologist for assessment, diagnosis and therapeutic recommendation. Because it does not require the managing clinician and dermatologist to be online at the same time, it is a very efficient and flexible form of communication.

The Store and Forward model of care is of particular value as a triage tool to identify those patients that require specialist care, considerably reducing waitlists, and to assist GP/local clinician-led patient management.

It has been trialled longitudinally in Australia in several settings, demonstrating clinical effectiveness, safety, acceptability, reduced waiting times and out-of-pocket costs, and high patient reported satisfaction. In a study undertaken at The Dermatology Research Centre at The University of Queensland, 62% of dermatology referrals were responded to within 3 hours and a further 20% received a response within 3-6 hours. Only 3% of patients waited over 24 hours for a final response.

Store and Forward is also a highly effective triaging tool, reducing face-to-face referrals by 31-88%, surgery waiting times and the number of no shows.

More recent data from Qld public hospital sites (to be published) is showing strong results, indicating a high proportion of Category 2 and 3 patients can be initially managed through recommendations back to the GP and without the need for a hospital appointment, considerably reducing outpatient clinic wait lists and building skills and capacity of the local workforce enabling many more patients to be managed close to home.

**Recommendation 3:** Investment in public teledermatology services in NSW would help overhaul the way dermatology care is delivered with considerable benefits for those living in regional, rural and remote areas. A corresponding investment in communications infrastructure is needed.
Invest in teledermatology registrar training positions in regional public hospitals to improve service accessibility and address inequity of access

Teledermatology has also been shown to be a valuable training tool\textsuperscript{20,21} that allows for remote clinical supervision and continuing professional development for practitioners, providing them with exposure to clinical cases they may not otherwise get the opportunity to encounter.

The model of teledermatology registrars optimises use of limited consultant supervisory capacity with the added benefit of enabling a component of remote supervision. COVID-19 has led to a significant increase in teledermatology use by registrars, providing them with valuable exposure to this mode of healthcare delivery and supervisors with on the ground experience of how it can be utilised most effectively as part of registrar training.

**Recommendation 4:** Dedicated teledermatology registrar training positions at both metro and regional public hospitals would improve service accessibility, promote a decentralised dermatology workforce, expand the pipeline of regional dermatologists and better meet the skin health needs of the populations of NSW's regional, rural and remote communities. These services can also be used to complement and support the sustainability of outreach services.

Address the cost-based decision-making frameworks constraining workforce growth

A number of public hospitals in both metropolitan and the majority in regional areas do not have dermatology departments (see Appendix A) and in certain cases dermatology is not always appreciated as essential in the acute setting, with existing dermatology services introduced late in the patient care journey. In this regard, dermatology departments may struggle to show evidence of efficiency and effectiveness in key performance indicators relative to other departments. As dermatology is predominantly an outpatient service, inpatient data records may at best record a dermatologic condition as a comorbidity.

Activity-based funding disadvantages outpatient services like dermatology. The public hospitals charter is to provide health care to the community. Part of this care is to provide training of specialists who then proceed to provide that care. Cost-based decision making by public hospitals in all states places constraints on both consultant dermatologists and trainee positions.

These challenges need to be addressed to ensure the future sustainability of the workforce and that people with dermatological conditions can access the care they need to live healthy and productive lives no matter where they live in NSW.

**Recommendation 5:** Address the cost-based decision-making frameworks used by public hospitals that are constraining the ability to grow the public dermatology workforce to meet the needs of the people of NSW.

Invest in structured approaches to build primary care capacity and ensure standards of care

In general practice, dermatological presentations represent approximately 16% of patient encounters. Given the significant burden of dermatological disease, it is vitally important that GPs, including those working in skin cancer clinics, are supported to undertake the required level of upskilling and continuous medical education in skin disease and skin cancer, and in appropriate triage and referral pathways when specialist care is needed. This is a key complement to, but does not mitigate the need to, increase the numbers of regional dermatologists.

For example, when it comes to skin cancer, studies show dermatologists have greater skin cancer diagnostic accuracy than non-dermatologists.\textsuperscript{22,23} Their specialist training and clinical experience means dermatologists are able to better recognise and differentiate between changes in the skin which may indicate cancer. This translates to a greater efficiency in skin cancer diagnosis and a reduction in the number of unnecessary biopsies and excisions, and as a result fewer adverse effects associated with excision and wound repair.\textsuperscript{24}

Both GP upskilling and increasing the numbers of dermatologists are needed to ensure that people with more serious, chronic or hard to treat skin conditions that require specialist care, or a high risk of skin cancer are referred to and can access a dermatologist.
There is an opportunity to expand access to structured dermatological teaching programs, such as that offered by the ACD, in targeting GPs in areas of need. Alongside structured education, highly collaborative service delivery and assessment and advice models like store and forward services will enable both GPs and dermatologists to practice at their full scope of practice.

**Recommendation 6:** Investment in collaborative service delivery models like store-and-forward teledermatology and telehealth services will optimise use of both the specialist dermatology and primary care workforce capacity and capability and enable patients to be managed closer to home.

**CONCLUSION**

All patients in New South Wales should be able to access the specialist dermatology care they need. Despite 2015 NSW Medical Workforce Modelling identifying Dermatology as a specialty needing between 25% to 150% increase over total number of 2015 trainees required to meet projected service demand by 2030, progress in increasing training capacity in public hospitals has been extremely limited often due to financial and logistical constraints at the state and local health service level.

This means patients in regional, rural and remote NSW must either travel extensive distances, at great personal cost, to access a dermatologist, or wait for a rural outreach visit. For patients with chronic skin conditions, this is not a one-off event, particularly where monitoring and ongoing follow-ups are required for PBS eligibility. Urgent solutions – funding for training positions in public hospitals; investment in establishing multidisciplinary regional training hubs; and investment in teledermatology models and associated communications infrastructure and services – are needed if we are to go forwards rather than backwards in meeting the skin health needs of the people of NSW.

**APPENDICES**

Appendix A: Terms of Reference of the Inquiry

References
Appendix A: TERMS OF REFERENCE OF THE NSW PARLIAMENTARY INQUIRY

That Portfolio Committee No. 2 - Health inquire into and report on health outcomes and access to health and hospital services in rural, regional and remote NSW, and in particular:

(a) health outcomes for people living in rural, regional and remote NSW;

(b) a comparison of outcomes for patients living in rural, regional and remote NSW compared to other local health districts across metropolitan NSW;

(c) access to health and hospital services in rural, regional and remote NSW including service availability, barriers to access and quality of services;

(d) patient experience, wait-times and quality of care in rural, regional and remote NSW and how it compares to metropolitan NSW;

(e) an analysis of the planning systems and projections that are used by NSW Health in determining the provision of health services that are to be made available to meet the needs of residents living in rural, regional and remote NSW;

(f) an analysis of the capital and recurrent health expenditure in rural, regional and remote NSW in comparison to population growth and relative to metropolitan NSW;

(g) an examination of the staffing challenges and allocations that exist in rural, regional and remote NSW hospitals and the current strategies and initiatives that NSW Health is undertaking to address them;

(h) the current and future provision of ambulance services in rural, regional and remote NSW;

(i) the access and availability of oncology treatment in rural, regional and remote NSW;

(j) the access and availability of palliative care and palliative care services in rural, regional and remote NSW;

(k) an examination of the impact of health and hospital services in rural, regional and remote NSW on indigenous and culturally and linguistically diverse (CALD) communities; and (l) any other related matters.
References

13. Rural Health Workforce Australia. Training for the future: How are rural placements perceived and how do we give our students what they are looking for?; November 2015.
15. ACD and Zest Health Strategies, Support for rural outreach project – Rapid desktop review and environmental scan (in-house report), July 2019.