



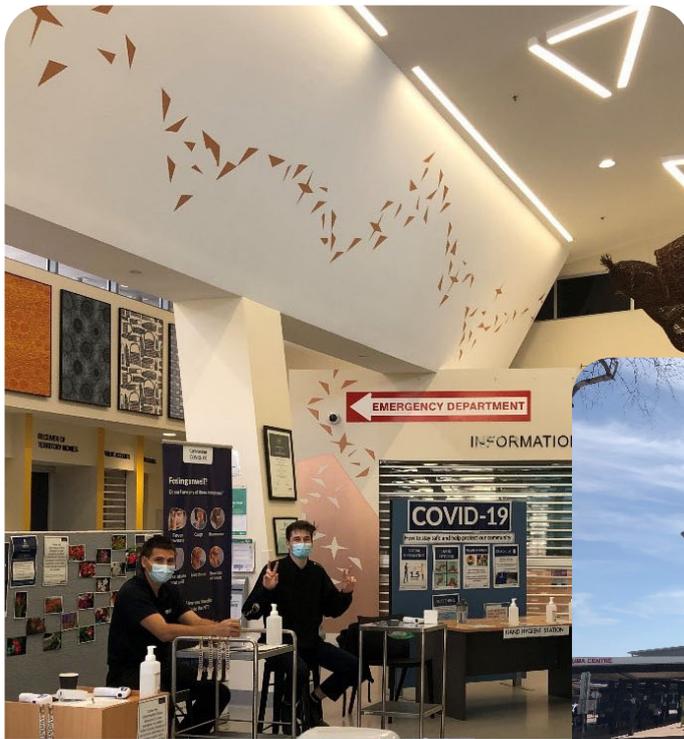
ASPS Darwin Workforce Project Impact Report





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Introduction

In order to provide Specialist Plastic Surgery services to the community of the Northern Territory the Australian Society of Plastic Surgeons has been undertaking a unique project to assist in the co-ordination and support of Australian trained Specialist Plastic Surgeons committing to working for Top End Health Service in Darwin. This project has now been running continuously since the end of August 2020 and is due to finish in its current form at the end of 2022. We have had 16 Specialist

Plastic Surgeons, from all over Australia, participating in the project so far. The purpose of this report is to tell interested parties how the project is going and what impact it has had. In this report we have endeavoured not only to report on the facts and figures of surgical activity but also to capture the voices of the people who have been on the receiving end of the care that we give. Full written consent has been obtained from patients who have contributed their stories to this report.



Acknowledgement of the Indigenous communities of the Top End

The ASPS Darwin Workforce Project fully acknowledges that the Indigenous people of the Top End are the custodians and traditional owners of the land and pays respect to the Larrakia elders, past, present and emerging, whose land the Royal Darwin Hospital is built on, but also the other First Peoples of the Top End.

The Royal Darwin Hospital is privileged to serve Yolgnu people from East Arnhem Land, people of the Larrakia nation and many others. The opportunity to interact with and serve the indigenous population is a very special one and the ASPS Darwin Workforce Project aims to do this with utmost respect to those people, whether they present as patients, family members of patients or colleagues.



Natasha Nungbakawuy Wunungmurra, teacher from East Arnhem Land with Dr Nicola Dean



Dr Nicola Dean, Hon Minister Natasha Fyles, Mr Keith Bryant



Dr Mahiban Thomas



Dr Brian Spain



Dr Manimaran Sinnathamby

Acknowledgement of Royal Darwin Hospital and Top End health leadership

This project is unusual and as such, the proposal for it represented a leap of faith for local leaders. The ASPS Darwin Workforce Project could not have worked without the engagement and support of those leaders. They include Dr Mahiban Thomas, Dr Brian Spain, Dr Manimaran Sinnathamby, Dr Sabu Thomas, Ms Allison Grierson, Dr Didier Palmer, Dr Charles Pain and the Hon. Natasha Fyles, NT Minister for Health. In addition, the support and partnership of the long-standing Visiting Medical Officer in Plastic Surgery, Dr Ravi Mahajani, has been intrinsic to the success of the project.



Dr Ravi Mahajani

Background and principles of the project

The Royal Darwin Hospital has, over many years, found it challenging to maintain enough Specialist Plastic Surgeons to deliver a consistent consultant-led plastic surgery service. This situation became worse with the advent of the COVID pandemic. There has been much written about the difficulty of attracting and retaining Specialists to rural and remote environments and acknowledged barriers include: concern about professional isolation, difficulty tackling hospital politics and overburdensome on call hours. This project was founded on the idea that even if there could be no “permanent” solution immediately visualised for the plastic surgery workforce shortage, there was still merit in delivering services over a medium-term period, for the benefit that it would bring to the individual patients treated, but also for the potential solutions that might be discovered along the way. The project tried to minimise each of the identified barriers previously.

With all of this in mind, the project was designed to run over a two year period, with Australian trained Specialist Plastic Surgeons committing to short term contracts of 4–16 weeks. The principles were that surgeons would be provided collegial support, minimization of logistic difficulties, the support of local leadership and excellent orientation.

A further principle was to support those at any level who had the potential to be interested in a Specialist Plastic Surgery position at the RDH long term.

Mechanisms of the Project

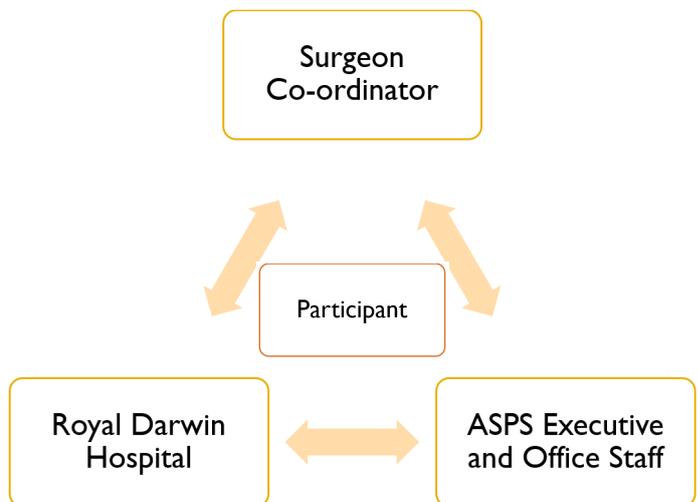
The element of continuity in the project has been maintained by a “surgeon co-ordinator” and the ASPS Executive and office staff. This has meant that individual specialists have had close external support in matters of service delivery, hospital administration and logistics, that would not be there if they were undertaking a stand-alone contract with the hospital.

Regarding recruitment of participants, the surgeon co-ordinator pro-actively recruited surgeons with personalised emails and telephone calls. The ASPS Office drew up newsletters asking for participants and made regular announcements. Surgeons were matched in pairs and where possible surgeons with complementary skill sets and interests were put together, for a broadly useful and consistent service.

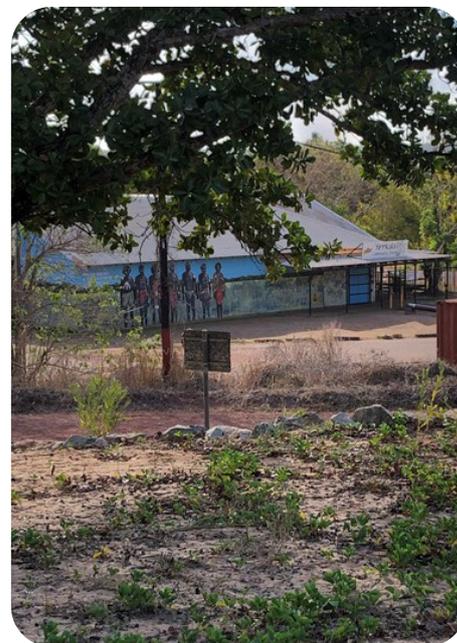
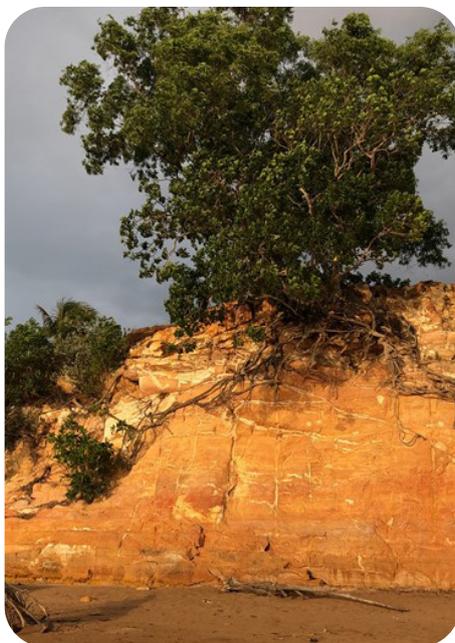
Both the surgeon co-ordinator and the ASPS Executive built rapport with local leaders in the Royal Darwin Hospital, so that if any logistic or service difficulties arose there could be prompt and friendly communication to resolve these. Issues such as quarantine arrangements for surgeons arriving from interstate have been smoothly managed thanks to these links and the excellent support of the Royal Darwin and Top End Health leaders.

In parallel to the commencement of the short-term contract participants in the project, arrangements were made to host a Top End funded Specialist International Medical Graduate surgeon at an Australian unit with an established high level of supervision and training in Plastic surgery. The purpose of this arrangement is to facilitate learning of content for the FRACS Examinations and exposure to a typical Australian unit mix of plastic surgery cases, with a vision of that surgeon taking up a substantive long term position at the RDH.

Additionally, connections have been made with the Darwin Medical School of Flinders University, and both anatomy work and teaching of medical students carried out.



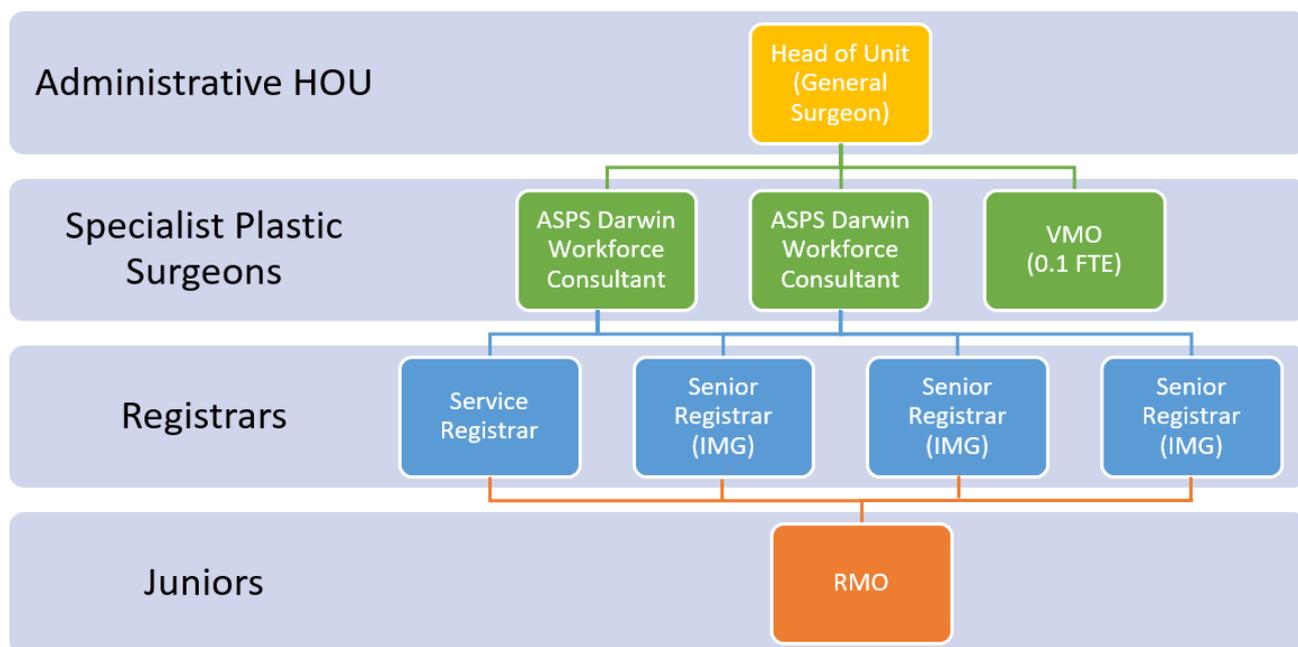
Kim Hanna ASPS CEO



Current unit structure

The two ASPS Darwin Workforce consultants share on call duties with the local VMO, Dr Mahajani, ensuring that each works one in three weekends on call. The registrar group consists of one Australian graduate service registrar and three international graduate registrars. Each are on call on a one in four basis. The resident medical officer looks after the day to day running of the ward, assists in admission and discharge of patients and sometimes assists in procedures.

The weekends off have allowed consultants to visit and appreciate the many sites the Top End has to offer.



Development of governance and systems

Developing a unified model of care between a very diverse group of doctors and ensuring consistency, despite the rotating consultant staff, was a high priority and one that evolved over a period of months. There are now established governance structures in place, such as a regular formal registrar evaluation session and maintenance of log books. Dr Anthony Barker, Dr Danielle Nizzero and Dr Will Blake were especially important in the development of these systems and processes within the unit.

In terms of physical facilities, the plastic surgery staff were well supported with dedicated desk and computer areas for consultants and registrars and the use of a conference room with excellent IT facilities for presentations and videoconferencing.

A six weekly clinical audit was instituted at the commencement of the program and was well supported by RDH Division of Surgery audit support staff. A weekly “grand round” meeting with review of X-rays, inpatients cases and upcoming theatre lists was instituted in early 2021. There are now twice weekly consultant ward rounds. In addition, members of the plastic surgery team attend the weekly Head and Neck Cancer Multidisciplinary meeting. There is a Division wide teaching session every week and plastics-specific teaching sessions are evolving.

The Plastics Team now has an official place within the Divisional photoboard.



What spectrum of services are currently being provided?

As a general overview, the service is currently dominated by emergency cases with around 70 per cent of the caseload relating to trauma or infection. There are a high number of patients with complex chronic illness, in particular diabetes, and many infections are complicated by unusual organisms or late presentations. Approximately 60–70 per cent of patients are indigenous with around half of these coming from remote communities where culture and language is often significantly different to those of healthcare workers and where Aboriginal liaison or interpreting services are required.

As well as single speciality patients, there are combined head and neck cancer cases with the ENT surgeons and some combined lower limb reconstruction cases with orthopaedics. Although many of the surgeons participating in the service would be comfortable performing post-mastectomy breast reconstruction, this has not yet been developed as a part of the service. Similarly, breast reduction and abdominoplasty for functional indications are not common in the service at this stage. There are a significant number of skin cancer cases, usually referred by GPs, along with some elective hand surgery.

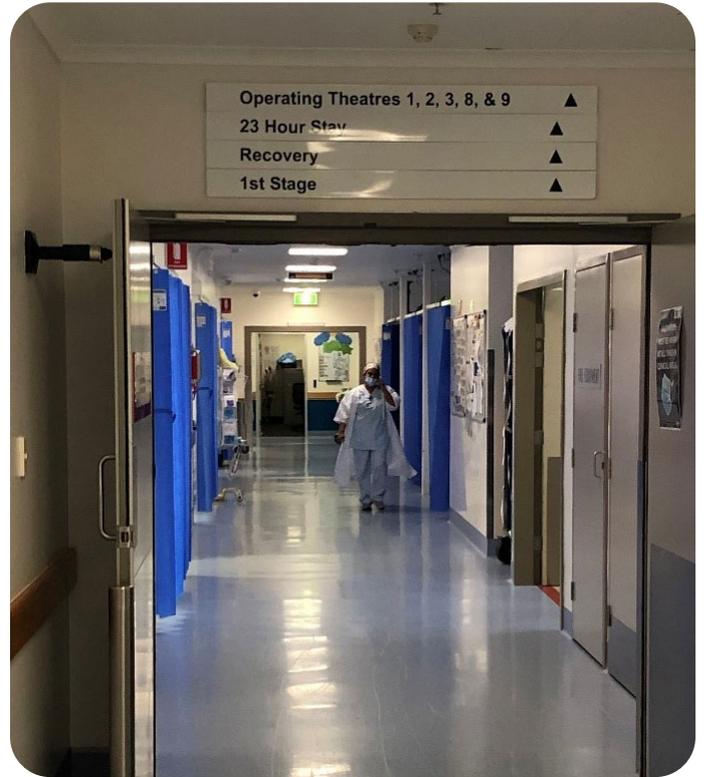
Theatre activity

Total Activity

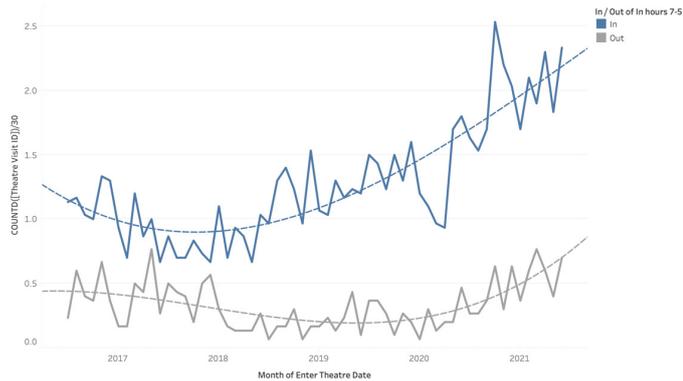
Distinct count of Hospital Registration Number	4,063
Distinct count of Episode Number	4,666
Distinct count of Theatre Visit ID	4,953
Distinct count of Procedure Sequence ID	9,610

Distinct count of Hospital Registration Number, distinct count of Episode Number, distinct count of Theatre Visit ID and distinct count of Procedure Sequence ID. The data is filtered on Surgical Speciality and Enter Theatre Date. The Surgical Speciality filter keeps Plastic and Reconstruction. The Enter Theatre Date filter ranges from 1/7/2016 to 30/6/2021.

- 1000 theatre visits per year
- About 20% are repeat visits for the same patient

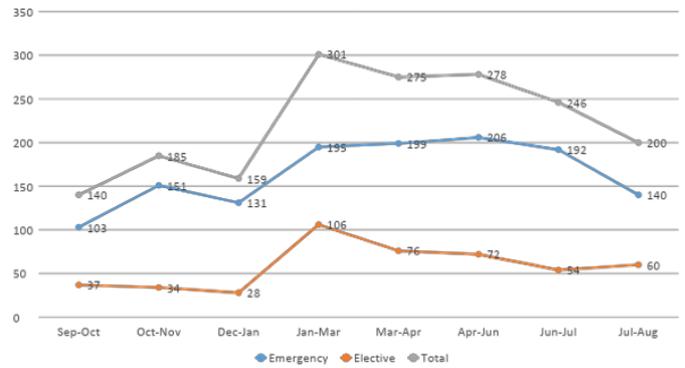


Average Daily Theatre Visits
Booking Urgency: Cat A, B, C, D, Inpatient
In hours (7am to 5pm) vs After Hours



The trend of COUNT([Theatre Visit ID])/30 for Enter Theatre Date Month. Color shows details about In/Out of In hours 7-5. The data is filtered on Surgical Speciality, Admission Urgency Description, Enter Theatre Date and Urgency Desc. The Surgical Speciality filter keeps Plastic And Reconstruction. The Admission Urgency Description filter keeps Elective, Emergency, No Data Entered and Not Assigned. The Enter Theatre Date filter ranges from 1/7/2016 to 30/6/2021. The Urgency Desc filter keeps Inpatient, Within 1 Hour, Within 24 Hours and Within 6 Hours.

Emergency versus Elective Surgeries



	Sep-Oct 2020	Oct-Nov 2020	Dec-Jan 2021	Jan-Mar 2021	Mar-Apr 2021	Apr-Jun 2021	Jun-Jul 2021	Jul-Aug 2021
Emergency Cases	103 (73.5%)	151 (81.6%)	131 (82.3%)	195 (64.7%)	199 (72.3%)	206 (74.1%)	192 (78.0%)	140 (70%)
Elective Cases	37 (26.5%)	34 (18.4%)	28 (17.6%)	106 (35.2%)	76 (27.6%)	72 (25.8%)	54 (22%)	60 (30%)
Total Cases	140	185	159	301	275	278	246	200

Outpatient services

The Plastic surgery service now has very busy outpatient clinics, with around 90 patients being seen per week. Many outpatient referrals are from the Emergency Department regarding urgent hand conditions but increasingly GP referrals for conditions such as skin cancer, Dupuytren's disease, breast problems and chronic wounds are being serviced. The outpatient clinics have been very well supported by an excellent cohort of nursing staff, who have adapted well to the changing service.

Hand therapy

Hand therapy in the Top End is second to none. The occupational therapists in this service have managed incredibly well with the increased workload associated with this project. Their level of expertise and engagement with patients with hand injuries and conditions complements any hand surgery that is performed. This valuable service is a well-established part of the service in the Royal Darwin Hospital.



Participant profile

Few participants have been as dedicated to and engaged with the ASPS Darwin Workforce Project as Dr Gillian Farrell. Gill wound up her successful Melbourne private practice in the early part of 2021 and instead of taking life easier, she committed to coming to Darwin for a 4 month stint. Her passion for providing high quality care to those who are most in need is evidenced not just by her work in Darwin but her drive to set up a service for women with burns in Malaysia and her two year period in Fiji many years ago. She retains an appointment in public at the Peter McCallum Cancer Centre in Melbourne and is hoping to go back to Darwin in 2022 to work at the RDH again and also to visit two of her daughters, who loved Darwin so much that they relocated there from Melbourne.



Feedback from the doctors of the Top End

The surgeon co-ordinator sought feedback from doctors who had interactions with the Plastic Surgery Service to gauge how the service was performing in the eyes of those directly relating to it. Below are some quotes from those doctors.

The role of ASPS in establishing a vibrant, consultant-based Plastic and Reconstructive Service in Darwin (which provides cover to all Territorians) has been an absolute success.

Territorians receive timely, high quality care and are well served.

Thank you ASPS and the many generous Plastic Surgeons from around the country—we are so grateful!

*Assoc Prof Mahiban E Thomas
MBBS, MS, DipNB, FRCSGlasg, FRACS
Executive Director of Integrated Surgical Services
Top End Health Service | Northern Territory
Government*

Having a consultant [plastic surgeon] lead service, which is available around the clock to service Darwin and Palmerston Hospitals, has addressed a significant need within our community. All of the other surgical specialties working here very much appreciate the ASPS Darwin Workforce Project, and we thoroughly enjoy working and getting to know all of the plastic surgeons who rotate through as a part of this project.

*Dr Tara Luck,
General Surgeon,
Royal Darwin Hospital*

Thanks for seeking feedback from the Primary Health Care team.

I am an RMP working in Adelaide River and have referred many clients to the public Plastic Surgery outpatient's department over the years.

In the Adelaide River region there is a significant burden of skin cancer amongst the population base. Large cancers and cancers in difficult to excise areas are the main reasons I think that I have referred people to the Plastics service.

I have noticed over the last year or so that the wait times for people to be seen have been shorter and I was unaware that there was a special project contributing to the increased services.

The Plastic surgery team is highly valued by me and the clients I service and I am very grateful for the accessibility, timely care and high quality care which is provided.

*Dr Michael Fonda
SRMP Mortality and Incident Review Portfolio
SRMP Adelaide River Community Health Centre
Medical Services
Population & Primary Health Care Branch
NT Health*

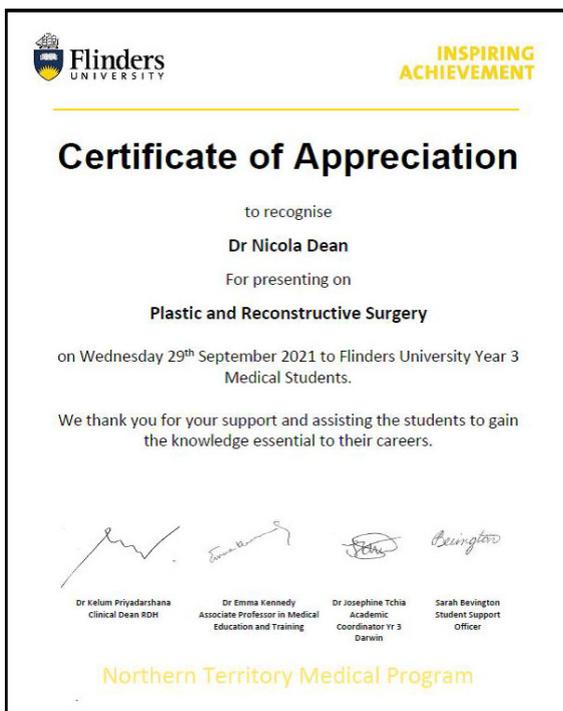
Working in the Northern Territory has given me a unique opportunity to learn about the thousands of First Nations peoples' languages and specific cultural needs. This has helped me to grow as a surgeon for the next generation, continually encourages my team to keep our minds focussed on patient-centred care and has trained us to thinking outside the box when immediate care may not be able to be achieved due to rural and remote locations. I am immensely thankful to be able to work with such a wide range of Plastic and Reconstructive Surgeons from around Australia that I would otherwise have never had the pleasure of meeting, let alone working alongside. By bringing a functional, cohesive and highly trained Plastic Surgery unit to the Top End I believe the community has benefitted immensely by providing a service they no longer have to fly out of the state to find.

*Dr Emma-Leigh Rudduck
Plastic Surgery Service Registrar*

Feedback from students

The service has had a fourth year student attached to the unit for clinical attachments since the end of 2020. The fourth year student participates in ward rounds, theatres and clinics and becomes an integral member of the team.

As well as this, in 2021 one of the ASPS Darwin Workforce Project participants gave a lecture on “What is Plastic Surgery” to the third year students, which seemed to be well received.



My time on the plastics unit at the RDH was a unique and memorable learning opportunity, during which I was fortunate to gain a wide variety of knowledge and skills. I learned about the clinical presentation and surgical management of several plastic and reconstructive surgery conditions, particularly those prevalent in tropical medicine. I was also fortunate to have several opportunities to assist in theatre, where I was able to learn and perform basic surgical procedures as well as advanced suturing techniques. I look forward to applying the experiences and insight I gained throughout this elective to my future medical career.

Grace Berwald

I had the absolute pleasure of having a rotation in the plastics department during medical school and I must say (without coercion and without any winks) it has been such a wonderful term.

For starters, I had always thought that plastic surgeons often were highly skilled practitioners that mainly cared about two things. Cosmesis and money. However, I could not be any more wrong. During my short time during the rotation, I felt that the plastic surgeons on the team, consultants, regs and rmos always valued the patient's input and took the time to ensure that their desires were met. In short, patient care was always paramount. They would be meticulous in their consultations, planning and in carrying out the surgeries. Often going overtime not because of their skill but rather due to an overload of patients within the system itself, all done with care and always a smile.

For us as students, it was an inspiring experience and only made me aspire to be as good as them one day. Despite being lowly ranked in the hierarchical chain of the medical field, as a student, I always felt included and was fortunate to be allowed to work as part of the team rather than a liability. I was always able to speak with the consultants and registrars for advice whether it be surgical techniques, clinical questions or even life lessons. I felt that the environment was only possible with the exemplary leadership of Dr MacGill and Dr Farrell, top down. In the plastic team, everyone played an important role and our focus on helping the patient was always clear.

Shaun Goh

The form includes session information (Date: 29/09/2021, Session Title: Plastic and Reconstructive Surgery - Presenter Dr Nicola Dean), student information (Medical Year 3), and a feedback table. The overall ranking is marked as 'Great (5)'. Handwritten feedback includes: 'Good introduction into the world of plastic surgery', 'Interesting cases! interactive', 'Scope of practice of plastic surgery in the NT and around Australia', 'Goals of practice of plastic surgery', and 'Importance of patient centered outcomes - satisfaction, experience'.

Question:	Great (5)	Good (4)	Average (3)	Poor (2)	Very poor (1)
Overall Ranking of the session	X				



Shaun Goh



Emily Marriott



Madeline Parker



Rhiannon Oakhill-Steel

My four-week Plastic and Reconstructive Surgery placement at the Royal Darwin Hospital was an invaluable experience. The entire team were supportive and engaged in student learning, offering opportunities to be involved directly in patient care in a variety of different settings, including theatres, wards, the outpatient, and emergency department. I also had the unique opportunity to be involved in an outreach program to Gove Hospital to gain a better understanding of Aboriginal and Torres Strait Islander Health and the challenges of delivering healthcare in rural and remote locations.

Emily Marriott

As a medical student on the plastic surgery team in Darwin I received many opportunities. The team allowed me to scrub into a range of surgeries such as hand trauma, carpal tunnel and cancer removals. The team gave me opportunities to develop my suturing skills in theatre and taught me in depth anatomy. They also shared their knowledge through PowerPoint tutorials in any down time. On ward rounds I learnt how to write notes and shadow the junior doctors on the team. I felt very welcomed into the plastic surgery team, loved working in the engaging team environment and thoroughly enjoyed my placement.

Madeline Parker

I am a current final year medical student and underwent a placement at Royal Darwin Hospital, Department of Plastic and Reconstructive Surgery for six weeks from the 20 September - 29 October 2021. I had a very positive experience on placement. I attribute my experience to all members of the team including the RMO, Registrar's and Consultants positive attitude in having students and their willingness in creating opportunities through teaching and allowing improving practical skills under supervision.

Nikki Burnett

Plastics at RDH was my first placement of my final year of medical school, and it was easily one of my favourites. I was present during a period of surgeon changeover and was very fortunate to be able to work with and be taught by a number of exceptional surgeons. The opportunities I had to see anatomy and pathology in clinic and in theatre was unrivalled. It was so valuable to be able to undertake a plastics placement in my home town and see the unique health issues of the Top End population from a plastic surgery perspective.

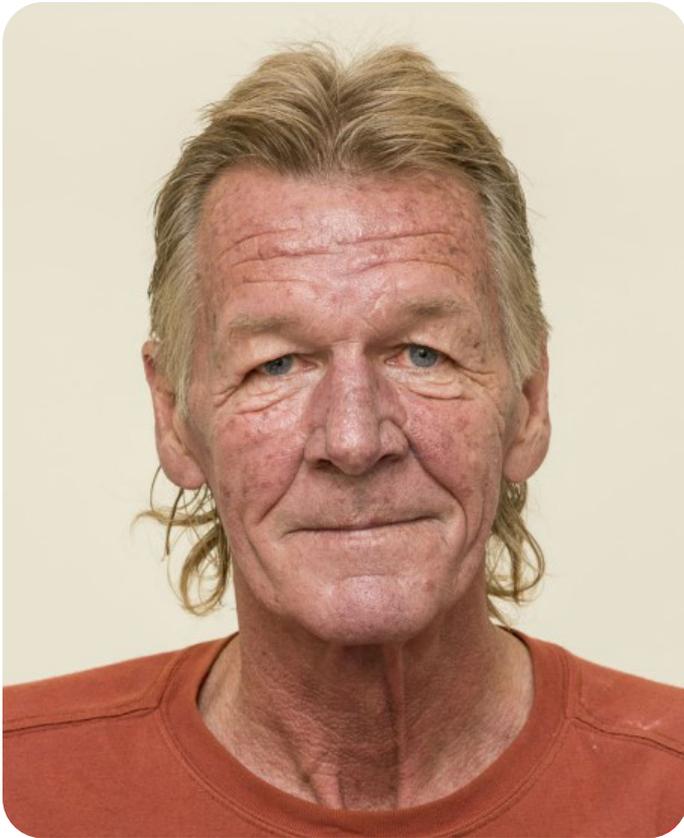
The entire team was exceptionally inviting and supportive. They were keen to teach and gave me ample opportunity to develop essential intern skills. Importantly, I felt part of the team and felt my albeit limited skills, were valued by the team.

The placement provided me with skills and knowledge that I will take into internship and beyond. It also ignited a passion for plastic surgery and it is high on the list of things I would consider in my future career!

Rhiannon Oakhill-Steel

Feedback from our patients

A number of patients have been kind enough to share their stories and their impression of the plastic surgery service. All gave written permission and allowed their information and photos to be shared.

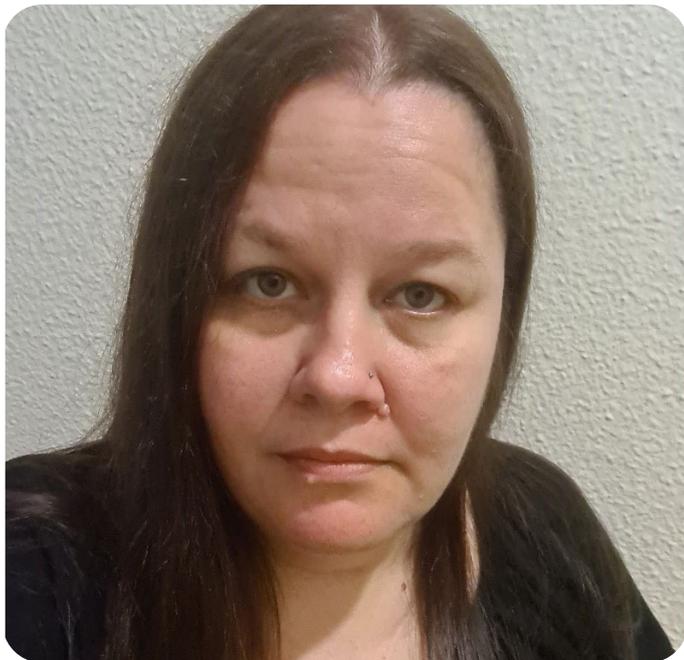


Cameron

I suffer from Parkinson's Disease and have a hernia at the same time. In a fit of sneezing, I was holding my hernia, I had a Parkinson's stumble and fell over, fracturing my thumb. I proceeded to Palmerston [Regional] Hospital on Thursday morning and was diagnosed with a fracture. I received a phone call from Emma-Leigh, one of the [Plastic Surgery] doctors on Friday and she advised me that I would need surgery on the following Tuesday. That surgery was completed 4 weeks ago and I couldn't be happier with the result. I have about 90% flexibility of my left thumb and from the surgery have recovered quite well.



Cameron's X-rays before and after the surgery



Sachiko

I have had continuous back, shoulder and neck pain for the past 10+ years which leads to headaches and migraines. I was having Panadol and Nurofen weekly to help with the pain. Within a week of having breast reduction surgery all pain and headaches were gone. The feeling of not being able to breathe while laying on my back has also disappeared since my surgery. It has now been four weeks since my surgery and I am happier than I have been in a long time and I haven't had to use any pain medication. I appreciate having the access to Specialised Surgeons in the Northern Territory.

Sachiko had debilitating neck and shoulder pain due to overly large breasts and had breast reduction surgery by the plastic surgery service.



James

It would be better for the future for the Northern Territory to have hand surgeons [available] for different damages done to the hand like at work, for victims [of crime] or just accidents that happen in day to day life. I'd like to have them on board in the Northern Territory and hope Australia can recognise the situation and fund them. I had injuries to my [right] hand from an invasion on my home. I was protecting my mother and siblings in the house and these guys [had] weapons. I used one of their weapons to defend myself. When I defended myself, he crushed my [right] hand – two fractured bones. Having them [plastic surgery service] helped very much.

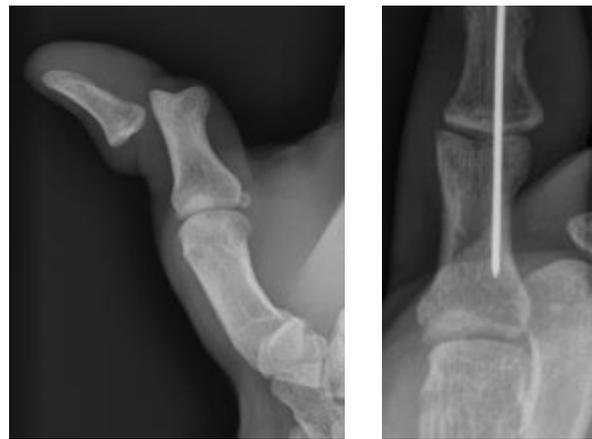
Eric

I was treated respectfully and professionally during my visit and treated with the utmost care



Eric (left) with Dr Rudduck and one of the other marines from the US base in Darwin.

Eric is a US Marine based in Darwin and had a complex dislocation of his thumb, requiring a trip to the operating theatres.



X-rays of Eric's thumb, before and after surgery



Sean is a tour boat operator who was unfortunately attacked by a crocodile. He sustained serious injuries to his forearm and required complex repairs to the tendons and muscles. All went well and he is now in the excellent care of the Hand therapists.

Sean

I'll be going through some rehabilitation [and] I'd just like to say that the treatment I received from the hospital was just absolutely amazing. From the day dot in the Emergency [Department] at Palmerston [and then] transported to Royal Darwin Hospital. Within half an hour, the surgeon came to me and said she'd be doing the procedure. Probably only about an hour or so after that, I was in the surgery - the last thing I remember was taking deep breaths. To my surprise at about one o'clock in the morning after the operation, I was a bit groggy, but someone came and saw me and told me the operation went well so that was a relief. I spent the next 8 days in the ward. Disease control [Infectious Diseases] were monitoring the infection [as it was] a bite from a crocodile. My arm did inflame quite a lot - I was on heavy doses of antibiotics - four different types. So all I can say is the treatment I've had - it's my first time ever in a hospital - was phenomenal. I think everyone in these medical environments are working their [hardest] and need to be highly respected for what they do. I was very lucky to have the surgeon I had and the Professor of Infectious Diseases monitoring me. I was lucky my injuries weren't as bad as they could have been. Overall, the treatment and outpatients were fantastic.

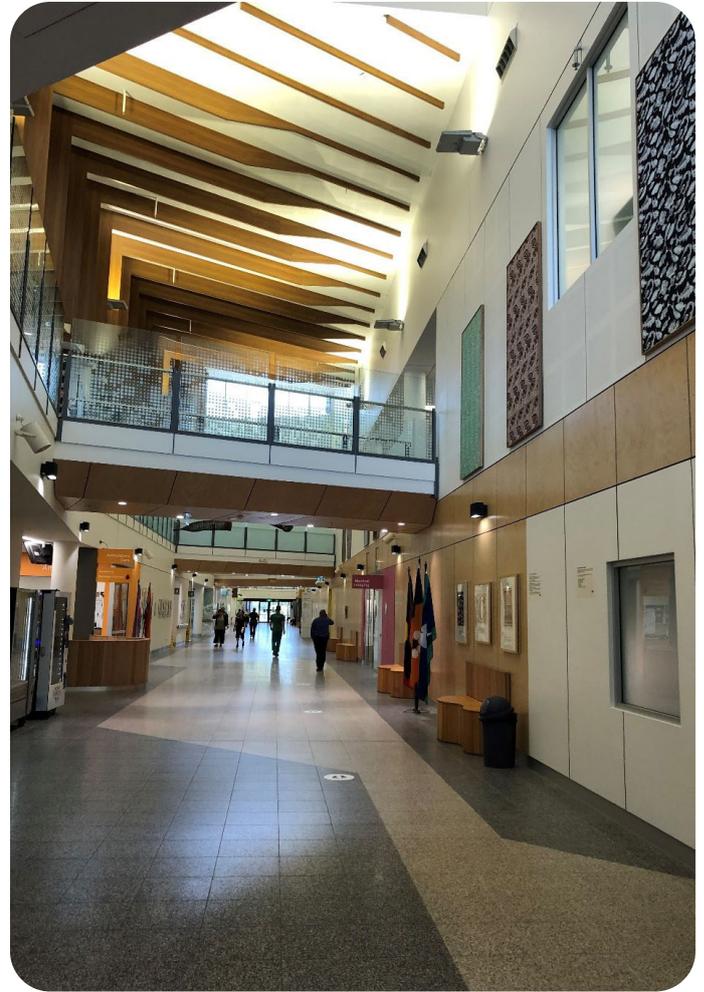


How could the service develop?

If the Specialist International Medical Graduate on the Specialist Pathway completes RACS requirements there could be a full-time ongoing consultant from early or mid 2022. We would like to continue the two ASPS Darwin Workforce Consultants for the whole of 2022 to enable good support during that time. There have been negotiations with the hospital administration and director of nursing about commencement of a Plastic Surgery Nurse Co-ordinator. This position would support case management of complex patients, development of patient flow pathways such as a “Minor Plastics Trauma Pathway” have oversight of wound management and dressings practices as well as development of protocols with medical staff.

The service would benefit from having an intern and in 2022 we will work on meeting the NT criteria for development of an intern position. If a stable consultant group can be established, analysis of the service for hosting a Royal Australasian College of Surgeons SET Training position will commence in 2023.

Palmerston Regional Hospital is a beautiful new hospital with excellent facilities for plastic surgery procedures and outpatients. There are currently fortnightly elective operating lists but there is a potential for the plastic surgery service to do much more at that site – both for elective and emergency patients. A proposal for this has been drawn up and is currently being considered.



Palmerston Regional Hospital



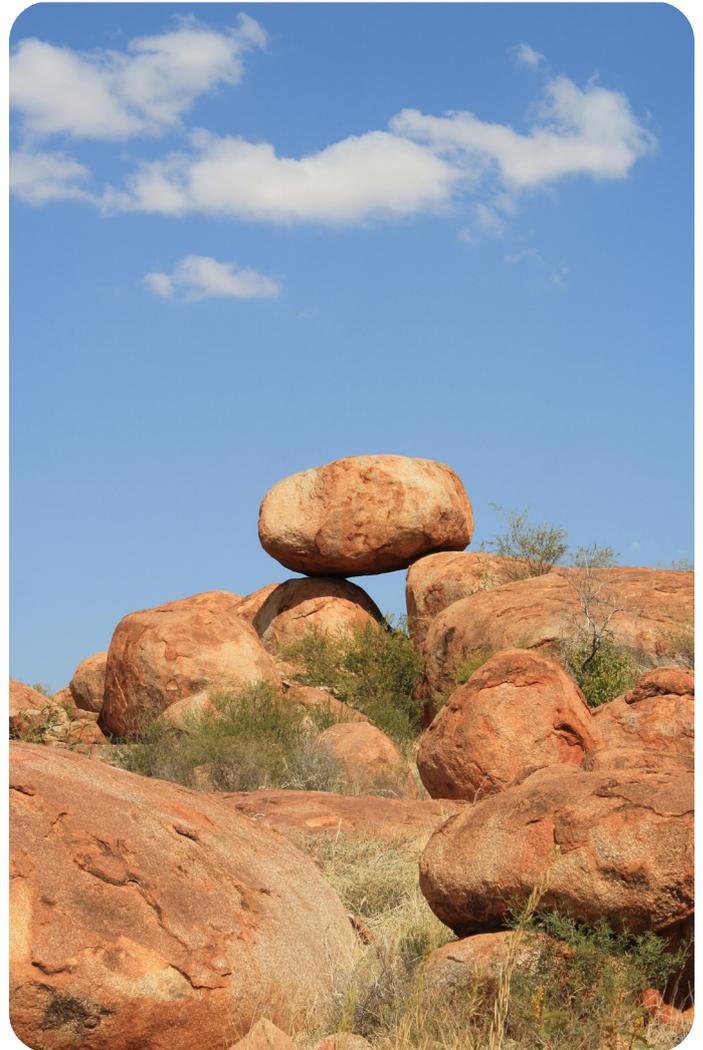
Palmerston Regional Hospital

Conclusion

The ASPS Darwin Workforce Project seems to be having a positive impact on the community in the Top End and has been well received by colleagues in other specialties and the hospital administration. The project will continue as planned until the end of August 2022 and will continue to nurture possible models for the long-term. We would like to thank all involved in the project, especially those participating surgeons, many of whom have come from busy private practices and other commitments in their home states to contribute to this unique service.

Acknowledgments in the preparation of this report

This report has been primarily authored by Nicola Dean. We would like to also acknowledge the assistance of Dr Emma-Leigh Rudduck, for the collection and in some instances transcription of patient feedback, and the photographer of Mr Regis Martin, Clinical Photographer for the Royal Darwin Hospital.



Participants in the project to November 2021



Will Alexander



Anthony Barker



Will Blake



Alex Cameron



Felicity Connon



Nicola Dean



Gill Farrell



Damien Grinsell



Kirstie MacGill



Wayne Morrison



Danielle Nizzero



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Peter Riddell



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